

Suer**Nutzfahrzeugtechnik**

Catalogue vehicle construction

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English

- I. General
- All deliveries, services and offers effected by SUER Nutzfahrzeugtechnik GmbH & Co. KG - hereinafter referred to as "SUER" - are exclusively subject to these Terms and Conditions, as a result of which all future business relationships will also be subject to them, even if they are not expressly agreed upon again. These Terms and Conditions will be regarded as having been accepted at latest on receipt of the goods or service(s) in question. Counterconfirmation on the part of the Customer in which attention is drawn to the Customer's own terms and conditions is herewith opposed.
 - Any exceptions to these Terms and Conditions require SUER's written acknowledgement in order to be legally valid.
- II. Submission of offers, Conclusion of contract
- Offers submitted by SUER are non-binding and subject to alteration, and are understood as being on ex warehouse basis. Orders and declarations of acceptance require acknowledgement in written form or by fax in order to be legally binding. This also applies to supplements, amendments or ancillary agreements to the same.
 - Details of dimensions and weights are subject to tolerances that are customary in the trade. Weights are calculated on the basis of the values given in the catalogue. These are regarded as being known. Aluminium profiles are subject to the following standards:
 - DIN 17615 Section 3 (dimension) tolerances of profiles of AlMgSi 0.5
 - DIN 1748 Section 2 Technical terms and conditions of delivery
 - DIN 1748 Section 4 Admissible deviations
- III. Prices
- Agreed prices are understood as net without any deduction and applicable to the manufacture and handing over of the goods in question. These prices do not include the respective statutory value added tax, nor carriage, dispatch and packaging costs nor any other attendant costs. The prices quoted in the order acknowledgement shall in all cases be decisive.
- IV. Time of delivery, Time of performance
- The agreement of delivery periods or deadlines that can be agreed on a binding or non-binding basis must be effected in writing in order to be legally valid. Delivery periods or deadlines that are merely agreed as "approximate" or which are not agreed in writing as "fixed" or "binding" shall be regarded as being merely approximate. Delivery periods commence as from the day on which the respective order has been definitively acknowledged, however not until all relevant details have been fully clarified in respect of design and not until the receipt of all documentation that is necessary to enable fulfilment of the order.
 - The delivery period will be deemed to have been adhered to on issue of notice of readiness for dispatch.
 - Even in the case of binding periods and deadlines, the Supplier shall not be liable for delays in delivery and/or provision of performance due to force majeure or to occurrences (such as, in particular, strikes, lockouts, official measures, etc., even if it is SUER's suppliers or their sub-suppliers that are subject to these occurrences) that essentially hamper or render delivery impossible. Moreover, such occurrences shall entitle SUER to postpone the delivery or service for the duration of the hindrance plus a reasonable re-start period. Should the hindrance last for more than three months (this period to be adjusted according to requirement) SUER may then partially or completely withdraw from the contract in respect of the unfulfilled part thereof.
 - If no binding date for delivery has been agreed in writing then any right to withdraw from the contract on the basis of non-provision of performance or performance that is not in accordance with the contract shall be excluded for a period of three months as from the non-binding delivery date. Such withdrawal will only be admissible following the fixing of a reasonable period of grace of no less than three weeks. Should the delivery period be extended or should SUER be released from its obligation, the Customer may not derive any claims for damages therefrom. The Company shall without delay notify the Customer in the event of any occurrences or circumstances which might cause any delay of performance.
 - Partial deliveries and partial performance of services on the part of SUER shall be admissible at any time. In particular finished goods are to be accepted by the Customer regardless of the agreed time of delivery. Additional delivery going back to deviations that are customary in the trade shall be admissible.
- V. Transfer of risk
- Risk shall pass to the Customer as soon as the consignment in question has been handed over to the person responsible for its shipment or has left SUER's warehouse or plant for the purposes of dispatch. This also applies to carriage-paid deliveries. Should the dispatch of goods in question be impossible for reasons for which SUER is not responsible then the risk already passes to the Customer on notification of readiness to deliver.
 - Insurance against damage and loss in transit will only be taken out at the specific request and at the expense of the Customer. Goods in respect of which notice of readiness to deliver has been issued at the agreed time are to be called off without delay. If this is not done, SUER shall at its own discretion be entitled to store such goods and invoice them as having been delivered ex works or ex warehouse; the Customer shall assume the costs and risks involved in such instance. In the event of any call-off delay on the part of the Customer SUER may then fix a period of grace; the Customer's failure to meet this final deadline shall entitle SUER to withdraw from the contract or demand compensation for non-performance. In the event that the Customer expressly refuses to take delivery SUER shall not need to fix a grace period.
- VI. Guarantee and liability
- Technical data, analysis details, pictures, drawings, dimensions, weights or other performance data contained in brochures, advertising material or similar documents merely serve general descriptive purposes. They do not constitute quality descriptions or guarantees unless specifically described as such, and shall only be regarded as binding if this has been specifically agreed in writing.
 - Product characteristics or features shall only be deemed to have been agreed upon if specifically referred to as "agreed characteristics" on the order form or on the order acknowledgement. SUER's sales personnel are not authorised to conclude verbal ancillary agreements or give verbal guarantees which go over and beyond the content of written contracts.
 - SUER guarantees the faultlessness of the supplied goods in line with the corresponding state of the art. The duration of this guarantee shall be one year as from delivery of the goods in question. The stipulation contained in Article 479 Paragraph 2 of the German Civil Code (BGB) shall apply notwithstanding the above. Reduction of the limitation period shall not apply in those cases in which SUER has unrestricted liability in accordance with these Terms and Conditions.
 - If the Customer fails to comply with operating or maintenance instructions, or carries out alterations to the products, or replaces parts or uses materials that do not correspond to the original specifications then the guarantee will no longer apply unless the Customer is able to successfully disprove the correspondingly substantiated allegation that the fault resulted from any of the above circumstances.
 - The Customer shall notify SUER in writing of any obvious defect within 24 hours, or immediately on discovery in the case of other defects, however no later than one week after receipt of the delivery item. Defects that do not come to light within this period despite thorough inspection shall be notified in writing to SUER immediately on discovery. Complaints relating to defects that first come to light during processing can only be taken account of provided that the processing of the defective object is terminated immediately and SUER is given the opportunity to view said object at its request.
 - Should it delivery defective goods, SUER will be entitled to use its discretion as to whether it will meet its guarantee commitment by way of remedying the fault involved, replacing the defective goods with orderly ones, reimbursing the shortfall in value, or via cancellation of the relevant contract of sale. The pursuance of guarantee commitments at any locations other than those places of fulfilment contractually specified will entitle SUER to demand reimbursement by the Customer for the additional work involved and for any additional travel expenses that might be incurred.
- VII. Limitation of liability
- Irrespective of their legal basis, claims for damages asserted by the Customer shall be excluded. This exclusion of liability shall not apply if the damage sustained has arisen from intent or gross negligence on the part of SUER or people acting for or on behalf of SUER. In the case of negligent violation of essential contractual obligations SUER shall only be liable for typically foreseeable damage or loss. Nor shall exclusion of liability and limitation of liability apply in the case of damage or loss incurred through death, physical injury or harm to health as a result of negligent violation of obligations on the part of SUER or of wilful or negligent violation of obligations on the part of any legal representative of SUER or persons acting for or on behalf of SUER. Nor shall exclusion of liability apply if the damage or loss involved has arisen from a lack of warranted characteristics or features or if SUER has fraudulently concealed any defect or nonconformity in the goods concerned. Claims in accordance with product liability law shall apply notwithstanding the above.
- VIII. Reservation of ownership
- SUER reserves the ownership of any and all delivered goods until all its claims vis-à-vis the Customer have been settled, including claims arising in the future even from contracts concluded simultaneously to or later than the contract in question. This shall similarly apply in the event that individual or all claims on the part of SUER have been included in a current account and the account has been made up and acknowledged.
 - The Customer shall only then be entitled to resell reserved goods within the framework of regular business activities provided that it herewith and now assigns all rights and receivables vis-à-vis the arising to it vis-à-vis the purchaser or third party as a result of the resale. If reserved goods are resold in unprocessed or processed state or in conjunction with items that are the exclusive property of the Customer, the Customer herewith and now assigns to SUER any and all receivables to their full extent arising from the resale. If reserved goods are resold in processed state or in conjunction with items that are not the property of the Customer, the Customer herewith and now assigns to SUER any and all receivables arising from the resale to the amount of the value of the reserved goods with all ancillary rights and priority over the rest. SUER herewith accepts said assignment. Even after such assignment the Customer shall remain entitled to collect the respective receivables. SUER's entitlement to collect such receivables itself shall remain unaffected; however, SUER undertakes to refrain from collecting such receivables provided that the Customer fulfils its payment obligations and other commitments in due form. If necessary, SUER may demand that the Customer discloses to it the assigned claims and the related debtors, provides all details required to enable collection, and hands over the relevant documentation and notifies the debtors of this assignment.
 - Any processing of reserved goods by the Customer for SUER shall not make the latter subject to any obligations. If reserved goods are processed, combined, mixed or mingled with other goods that are not the property of SUER then SUER shall be entitled to co-ownership of the new item according to the proportion of the invoice value of the reserved goods to that of the other processed goods at the time of said processing, combination, mixing or mingling. In the event that the Customer acquires sole ownership of the new item, the parties agree that the Customer will grant SUER co-ownership of the new item according to the proportion of the processed, combined, mixed or mingled reserved goods contained in the new item, and will store the new item for SUER free of charge.
 - If the payment of the purchase price by the Customer is effected by way of a bill of exchange then the reservation of ownership and the claim relating to the supply of goods on which said reservation of ownership is based will not expire until the bill of exchange has been honoured by the Customer as drawee.
 - In the event of seizure of reserved goods by third parties the Customer shall draw attention the fact that it is the property SUER, and the third parties are to be informed accordingly without delay. The Customer shall bear all costs incurred in reversing the seizure and recovering the contractual item.
 - Should the Customer act in breach of contract - in particular by falling into arrears with payments - SUER shall be entitled to repossess the reserved goods or demand assignment of the rights to the recovery thereof vis-à-vis third parties. Unless subject to the regulations on financial assistance between entrepreneurs and consumers (Articles 499 ff., German Civil Code/BGB), the taking back or seizure of reserved goods shall not constitute withdrawal from the contract. In the event of repossession SUER shall, having given due warning and fixed a final deadline which the Customer has failed to meet, be entitled to sell the goods in question for the best possible price and charge up the proceeds to the purchase price.
 - If the value of the existing collateral exceeds the collateralized claims by more than 20 per cent, SUER shall then be obliged to release the corresponding proportion of collateral if the Customer so demands.
- IX. Payment
- Unless otherwise agreed, amounts invoiced by SUER fall due without discount on receipt of the respective invoice. The Customer shall be deemed to have fallen into arrears if the payment in question has not been received within 14 days, and prior reminder is not necessary to this end. Despite the Customer's provisions to the contrary, SUER shall be entitled to charge up the payments in question to the Customer's older debts, and will inform the Customer accordingly. In the event that expenses and interest have already arisen, SUER shall be entitled to charge up the defaulted payment in question to the expenses and then to the interest and finally to the primary obligations.
 - Should the Customer fall into arrears, SUER shall be entitled to charge interest at the statutory rate - or at a higher rate at which SUER itself has been charged and for which substantiation must be provided - as from the date on which the Customer has fallen into arrears.
 - Should circumstances come to SUER's notice which cast doubt on the creditworthiness of the Customer, SUER shall be entitled to make the entire remaining debt due and payable. In such instance SUER may demand the Customer to make advance payments or furnish security.
 - The Customer shall not be entitled to offsetting, retention or reduction - even in the case of complaints or counterclaims being asserted - unless such counterclaims have become legally effective or are beyond dispute.
- X. Observance of secrecy
- Unless specifically otherwise agreed in writing, information passed on to SUER in connection with the Customer's orders will not be regarded as being confidential.
- XI. Concluding provisions
- These Terms and Conditions are governed by the law of the Federal Republic of Germany, and the application of standard international law on sales is excluded.
 - Insofar as the Customer is a merchant within the meaning of the German Commercial Code (HGB), a legal entity under public law or a special public asset, the exclusive place of jurisdiction for all disputes arising from and in connection with the contractual relationship between SUER and Customer shall be Remscheid/Germany to the extent that this can be permissibly agreed.
 - Should one of the above provisions be or become invalid or unenforceable, the validity of the remaining clauses hereto shall in no way be affected. In such instance the parties hereto shall endeavour to replace the invalid or unenforceable clause with one that comes as close as possible to the sense and purpose of this agreement.

Dear customers,

we are very glad to present our new catalogue to you.

We would like to introduce ourselves as one of the leading wholesale and manufacturing companies for truck and trailer equipment in Europe and indeed the world.

Our company has been in existence for more than 100 years and during this time has developed as a specialist in this field.

We would like to take this opportunity to invite you to visit us on our internet site www.suer.de. We are sure it will be of great interest to you.

Please consult our sales department with any catalogue queries. All rights reserved. Improper use, in particular reproduction and dissemination to third parties whether in whole or in parts, is expressly forbidden without our written permission.

Our current catalogues can be viewed and downloaded in PDF format on our homepage <http://www.suer.de>.

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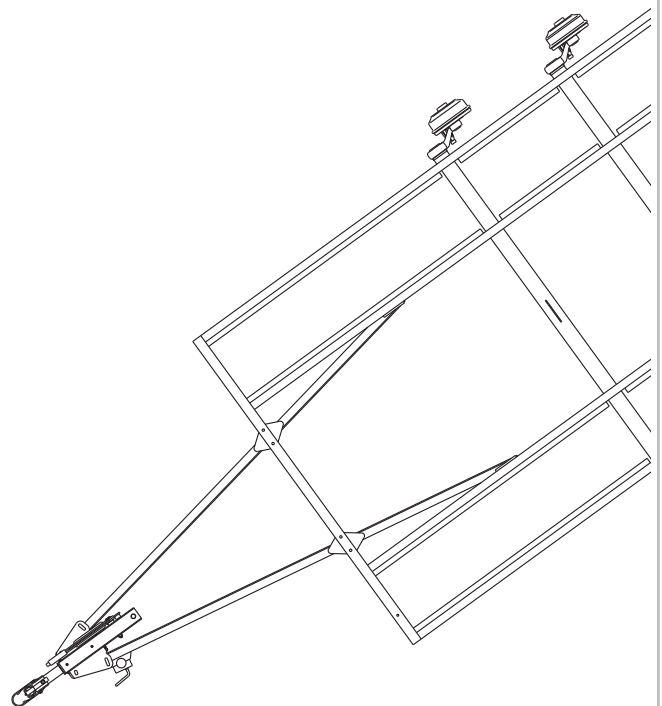
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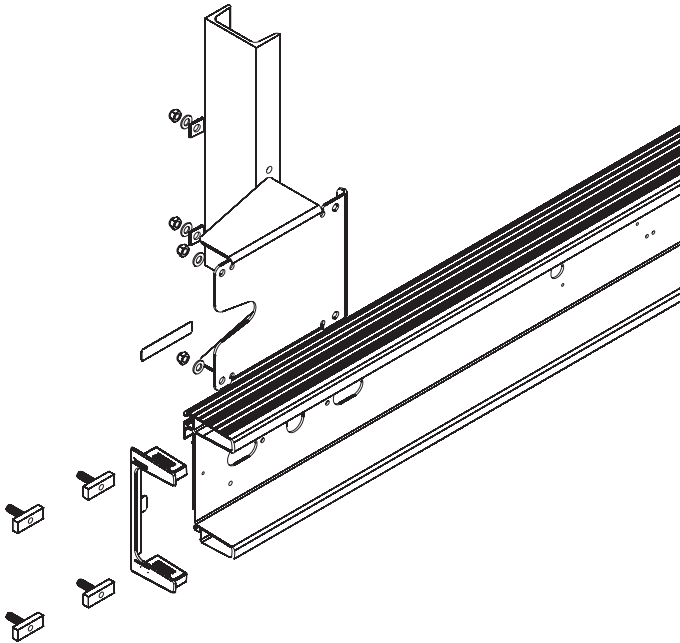
e-Mail: armelino.probo@suer.de

Trailer axle units for cars • Trailer axle units for light trucks • Towing couplings • Drawbar tubes • Mounting brackets • Tube clamps • Bowden cable • Axle connections • A frame drawbars for car and light truck trailers • Ball couplings • Over-run units • Turntable chassis • Spare parts for car and light truck trailer axle units • Brake shoe sets • Expanders • Adjuster wedge • Spring sets • Pull-off springs • Retaining springs • Brake drums • Flange nuts • Wheel nuts • Wheel studs • Wheel bearing sets • Wheel bearings • Wheel bearing caps • Grease retaining caps • Castellated nuts • Brake cables • Clevis heads • Cable guide • Ball couplings • Lurch damper for over-run unit • Breakaway cable • Anti theft devices for ball couplings • Trailer axles for agriculture and forestry • Idle axles • Braked axles with cam brakes • Braked axles with expanding lever brakes • Over-run units • Brake operating mechanisms • Agricultural axles • Spring components • Wheels • Tyres • Turntables • Towing equipment • Towing poles and holders • Kingpins • Components for air brake systems • Pneumatic push-in fittings • Pneumatic threaded fittings • Hose clips • Compressed air receivers • Parking brakes



Chassis

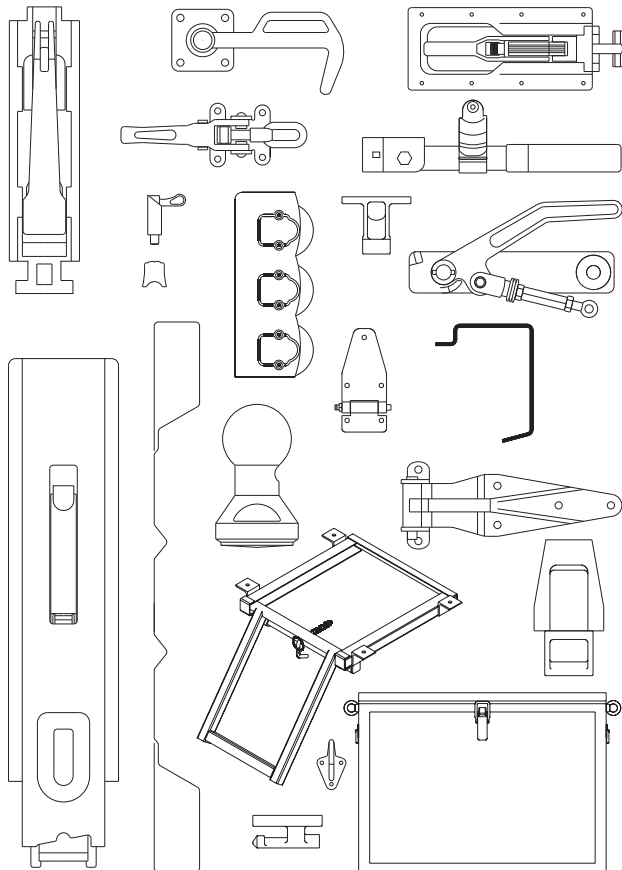
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Rubber mudguards • Plastic mudguards • Sheet steel mudguards • Aluminium mudguards • Mudguard bracketry • Tube stays • Support plates • Mud flaps • Side collision protection • Individual parts for side collision protection • Rear underrun protection • Jockey wheels • Stabilizer • Corner steadys • Prop stands • Telescopic landing legs • Spare wheel carriers • Spare wheel cable winches • Wheel chocks • Wheel chock holders • Breakdown couplings • Farm trailer couplings • Trailer couplings • Fully automatic trailer couplings • Car transporter trailer couplings • Fifth wheel couplings • Towing brackets • Tipper cylinder • Hydraulic tanks • Hydraulic units • Hydraulic fittings

Bodywork

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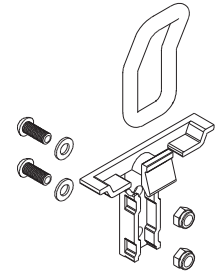


Side board fasteners • Box fasteners • Elbow lever fasteners • Toggle lever fasteners • Over-centre fasteners • Flat bolt fasteners • Tension fasteners • Quadrant fasteners • Automatic bolt fasteners • Box lid fasteners • Swing bearings • Tipper fasteners • External door locking gears • Internal door locking gears • Slam locks • Budget locks • Built-in door fasteners • Surface mounted door fasteners • Long travel bolt fasteners • Bonnet fasteners • Spade keeper • Spring bolts • Central locking devices • Safety chains • Safety lanyards • Side board hinges • Threaded plates/Anchor bolts • Door hinges • Continuous hinges • Rigid/soft profile door seal • Door retainer • Gas struts • Strap hinge eye plates • Sliding pin carriers for tipper hinges • Retaining pins • Pillar holder • Pillar wedges • Pillar sockets • Pillar fasteners • Pillars • Ventilation grille • Ram buffers • Ram guards • hand grips • Tipper ball joints • Tipper rotating ball joints • Tipper arm bearing • Pads for tipper bodies • Polyp catcher • Steel side board profiles • Grain slide gate • Tailboard closing and tension springs • Tarpaulin/cover frame accessories • Hamburger cover frame • Side plank pockets • C-rails • Steel track rails • Aluminium side planks • Tarpaulin tube • Tarpaulin fixings • Steel profiles • Flatbed floor frame profiles • Tipper floor frame profiles • Corner pillar profiles • Centre pillar profiles • Miscellaneous steel profiles • U-section steel • Subframe • Crossmembers • Expanded metal grating • Aluminium channel ramps • Steps • Mounting brackets • U-bolts • Finger clamps for box bodies • Phenolic plywood boards • Studded rubber matting • Chemical products • Toolboxes • Transport chests • Documentation cases • Documentation tubes • Fire extinguisher chests • Fuel canister • Canister holder • Boat trailer accessories

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Load restraint

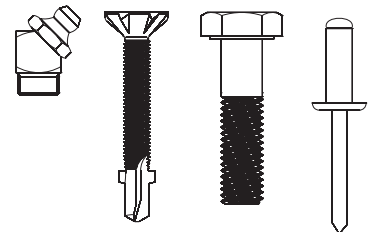
Anchor tracks • Telescopic shoring poles • Clamping bars • Roll container safety shoring poles • Garment rail • Shoring plank fasteners • Second deck loading • Tie-down straps • Cargo nets • Round slings • Belt slings • Lashing rings • Recess plates • Pockets • Lashing point signs • Miscellaneous lashing rings/anchorings • Cable winches • Belt winches • Electric cable winches • Steel wire ropes • Tipper cables • Cable accessories • Chains • Chain quick-repair links • Chain tensioners



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Components in accordance to DIN

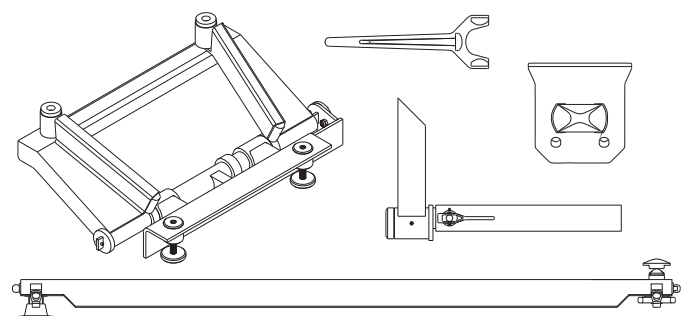
Turnbuckles • Simplex hooks • Carbine hooks • Spring cotters • Linchpins • Eye bolts • Screws • Mushroom head square neck bolts • Hexagon head bolts • Hexagon head screws • Threaded rods • Self drilling fastener • Washers • Mudguard washers • Spring lock washers • Nuts • Blind rivets • Grease nipple



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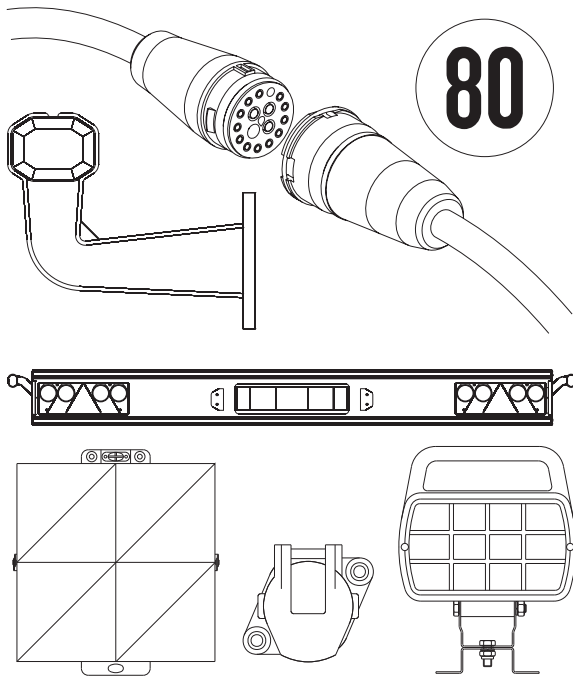
Container

Container twist locks • Crossmembers • Guide rollers • Guide rockers • Lifting frames • Control equipment for lifting frames • Corner castings • Gripping edges • Support legs for swap bodies • Support bearings • Counter bearings



Electric

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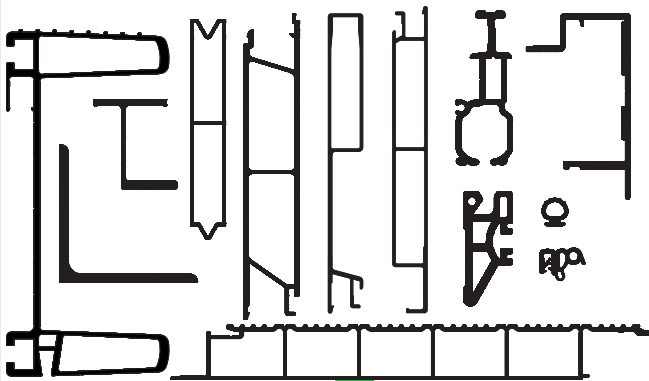


80

Lighting systems 12 V and 24 V • Underrun guards with lighting equipment • Wired distribution boxes • Distribution boxes for lighting systems • Socket distribution boxes • Main cable 24 V • Supply cable 24 V in accordance to DIN • Flat cable 24 V • Mesh guards • Lighting repair boxes • Feed cables • Bulb holders • Socket and pin housings • Ramp distance control 24 V • Rear lights • Rear lights • Position lights • Side position lights • Side marker lights • Outline marker lights • Number plate lights • Rear fog lights • Stop lights • Inside lights • Warning flasher lights • Amber rotary flashing beacons • Working and hand held flood lamps • Spare parts for lights • Lenses • Light brackets • Plug connectors in accordance to DIN • Connection and extension cables • Short adapters • Cable adapters • Voltage reduction equipment • Cable connectors and junction boxes • Electric cables • Reverse driving alerter • Reflectors • Warning signs • Reflective safety vest • Warning marks • Signs

Aluminium

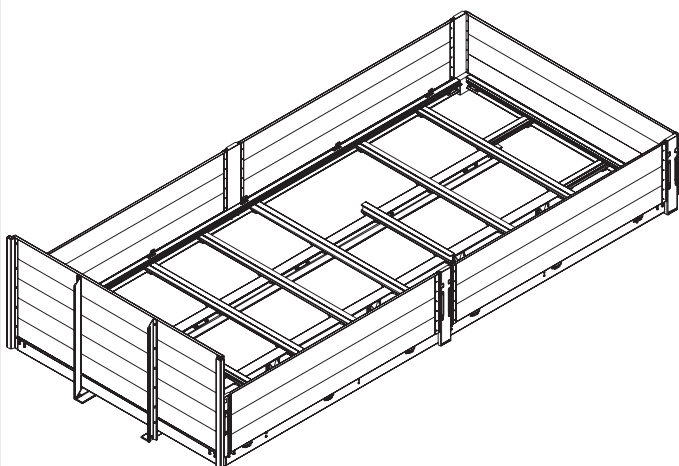
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Side board profiles 20 mm/25 mm/30 mm/40 mm • Push-in systems • Snap-lock systems • Floor and subframe profiles • Crossmember profiles • Rubbing strakes • Apron guard profiles • Curtainsider profiles • Curtain hooked tensioning pole • Curtain tensioning pole • Ram guards • Side planks • Planks for shoring pole fasteners • Side planks for combi ram guards • Flat profile • U-profile • Angle profiles/edge surrounds • Rectangular tubes • Headboard supports/centre supports • Side collision protection • Rear underrun protection • Roof profiles • Lid profile • PWP aluminium trailer kit • Corner pillar profiles • Crossbar profiles • Roof spars • Anchor bolt cappings • Hinge housings • C-Profil for glass transporters • Checker plate • Seals and edge protection

Kits

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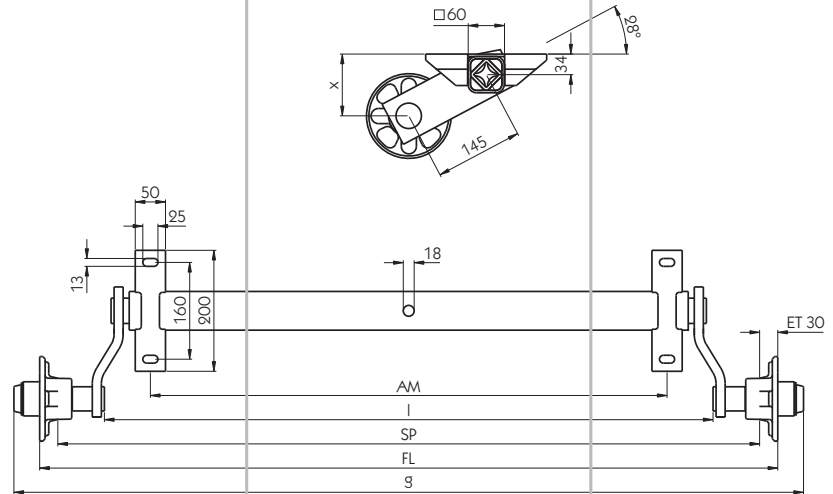


Cargotrail aluminium flatbed kits • Flatbed with locking system 720 • Flatbed with centre pillar 710 • Flatbed with pillar system K 20 • Universal floor frame • Floor frame for box bodies • Flatbed curtainsider, light • Floor frame for PWP aluminium trailer kit • **Cargotrail** Steel flatbed kit • PWP Slider • PWP aluminium trailer kit • Curtainsider pillar kits • Curtain tensioners • Curtain quick-tensioning system • Hooked curtain tensioning poles • Curtain tensioning poles • Curtain rollers • CS centre pillars • Pillar trolleys • Roof tilt drives • PWP doors • PWP double jointed and centre hinges • Aluminium fixed or tarpaulin roof • Tops • Cant rails • Dropside bodies • Under-roof linkages NPV3 • Under-roof cable SUD • Over-roof cable UED

Axle body completely galvanised, independent suspension.

Car and light truck trailer axle units Swing, UFT, ATT

Rubber suspension axle units, unbraked Swing

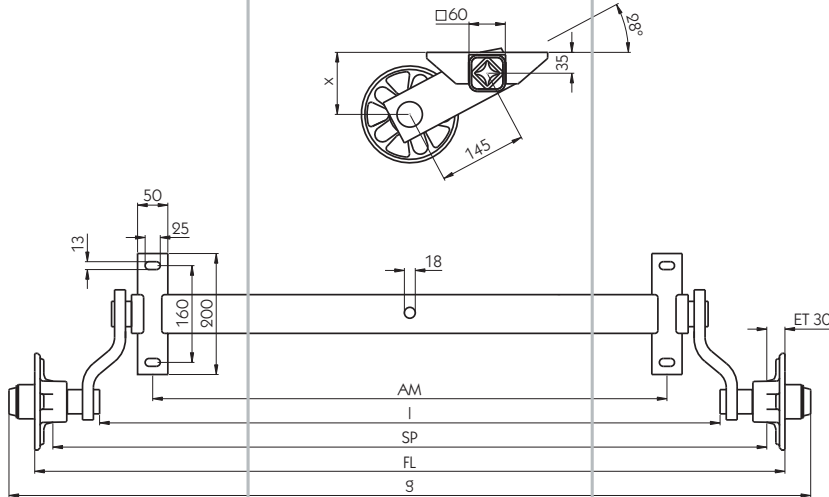


Swing CB 554 Eco

Axle load 550 kg, wheel fixing 4/100/R12 mm, sprung dimension at wheel (X) = zero load: 102 mm, nominal load: 72 mm, 100% shock: 54 mm, tyres: 135 R 12, wheels: 4J x 12 H2, speed up to 140 km/h.

Dim. FL [mm]	Track SP [mm]	Mounting bracket centres AM [mm]	Dim. I [mm]	Dim. g [mm]	Weight [kg]	
1220	1170	850	1005	1305	21.6	117311000
1270	1220	900	1055	1355	21.9	117311001
1320	1270	950	1105	1405	22.2	117311002
1370	1320	1000	1155	1455	22.5	117311003
1420	1370	1050	1205	1505	22.9	117311004
1470	1420	1100	1255	1555	23.2	117311005
1520	1470	1150	1305	1605	23.5	117311006
1570	1520	1200	1355	1655	23.8	117311007
1620	1570	1250	1405	1705	24.1	117311008
1670	1620	1300	1455	1755	24.5	117311009
1720	1670	1350	1505	1805	24.8	117311010
1770	1720	1400	1555	1855	25.1	117311011
1820	1770	1450	1605	1905	25.4	117311012
1870	1820	1500	1655	1955	25.7	117311013
1920	1870	1550	1705	2005	26.1	117311014
1970	1920	1600	1755	2055	26.4	117311015
2020	1970	1650	1805	2105	26.7	117311016
2070	2020	1700	1855	2155	27.0	117311017
2120	2070	1750	1905	2205	27.3	117311018
2170	2120	1800	1955	2255	27.7	117311019

Axle body completely galvanised, independent suspension.



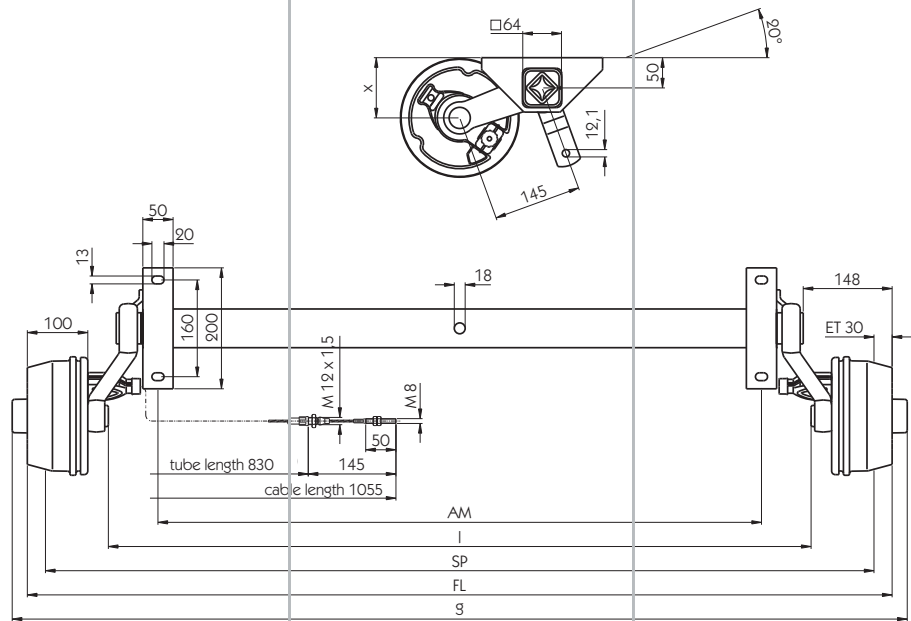
Swing CB 754 and 755 Eco

Axle load 750 kg, sprung dimension at wheel (X) = zero load: 103 mm, nominal load: 50 mm, 100% shock: 39 mm, tyres: 155 R 12, wheels: 4J x 12 H2, max. speed 140 km/h.

Dim. FL [mm]	Track SP [mm]	Mounting bracket centres AM [mm]	Dim. I [mm]	Dim. g [mm]	Weight [kg]	Wheel connection 4/100/60°	Wheel connection 5/112/R12
1240	1190	850	1025	1325	22.4	117311020	117311040
1290	1240	900	1075	1375	22.7	117311021	117311041
1340	1290	950	1125	1425	23.0	117311022	117311042
1390	1340	1000	1175	1475	23.3	117311023	117311043
1440	1390	1050	1225	1525	23.6	117311024	117311044
1490	1440	1100	1275	1575	24.0	117311025	117311045
1540	1490	1150	1325	1625	24.3	117311026	117311046
1590	1540	1200	1375	1675	24.6	117311027	117311047
1640	1590	1250	1425	1725	24.9	117311028	117311048
1690	1640	1300	1475	1775	25.2	117311029	117311049
1740	1690	1350	1525	1825	25.6	117311030	117311050
1790	1740	1400	1575	1875	25.9	117311031	117311051
1840	1790	1450	1625	1925	26.2	117311032	117311052
1890	1840	1500	1675	1975	26.5	117311033	117311053
1940	1890	1550	1725	2025	26.8	117311034	117311054
1990	1940	1600	1775	2075	27.2	117311035	117311055
2040	1990	1650	1825	2125	27.5	117311036	117311056
2090	2040	1700	1875	2175	27.8	117311037	117311057
2140	2090	1750	1925	2225	28.1	117311038	117311058
2190	2140	1800	1975	2275	28.4	117311039	117311059

Axle including brake cables (loose), axle body completely galvanised, independent suspension, expanding lever brakes with auto reverse, wheel shock absorber mounts.

Rubber suspension axle units, braked

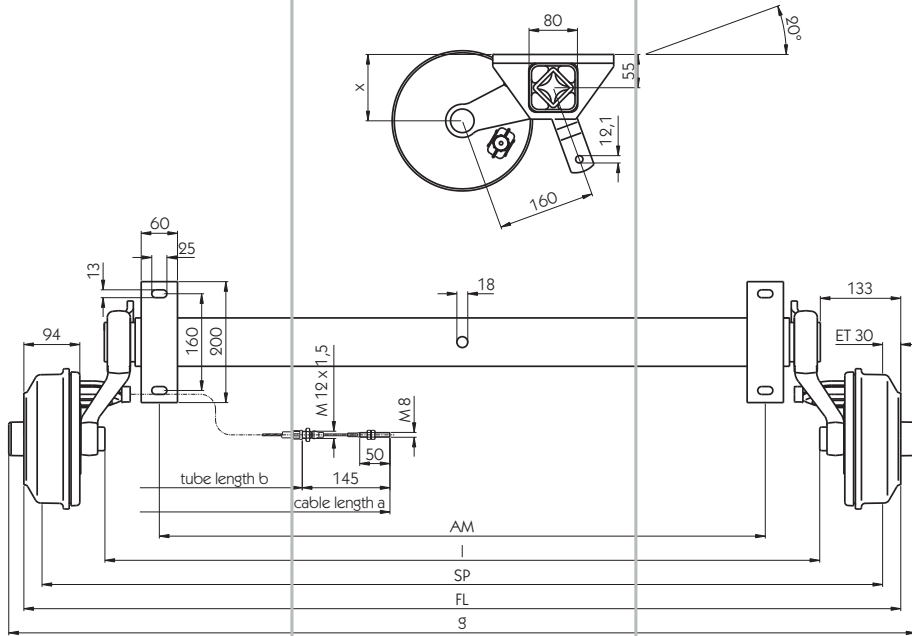


Swing CB 854 and 855

Axle load 850 kg, wheel brakes S 1704-7 RASK, sprung dimension at wheel (X) = zero load: 102 mm, nominal load: 42 mm, 100% shock: 29 mm, tyres: 145 R 13, wheels: 4J x 13 H2, max. speed 140 km/h.

Dim. FL [mm]	Track SP [mm]	Mounting bracket centres AM [mm]	Dim. l [mm]	Dim. g [mm]	Weight [kg]	Wheel connection 4/100/60°	Wheel connection 5/112/R12
1430	1370	1000	1162	1480	39.0	117311060	117311079
1480	1420	1050	1212	1530	39.3	117311061	117311080
1530	1470	1100	1262	1580	39.6	117311062	117311081
1580	1520	1150	1312	1630	40.0	117311063	117311082
1630	1570	1200	1362	1680	40.3	117311064	117311083
1680	1620	1250	1412	1730	40.6	117311065	117311084
1730	1670	1300	1462	1780	40.9	117311066	117311085
1780	1720	1350	1512	1830	41.2	117311067	117311086
1830	1770	1400	1562	1880	41.6	117311068	117311087
1880	1820	1450	1612	1930	41.9	117311069	117311088
1930	1870	1500	1662	1980	42.2	117311070	117311089
1980	1920	1550	1712	2030	42.5	117311071	117311090
2030	1970	1600	1762	2080	42.8	117311072	117311091
2080	2020	1650	1812	2130	43.2	117311073	117311092
2130	2070	1700	1862	2180	43.5	117311074	117311093
2180	2120	1750	1912	2230	43.8	117311075	117311094
2230	2170	1800	1962	2280	44.1	117311076	117311095
2280	2220	1850	2012	2330	44.4	117311077	117311096
2330	2270	1900	2062	2380	44.8	117311078	117311097

Axle including brake cables (loose), axle body completely galvanised, independent suspension, expanding lever brakes with auto reverse, wheel shock absorber mounts.

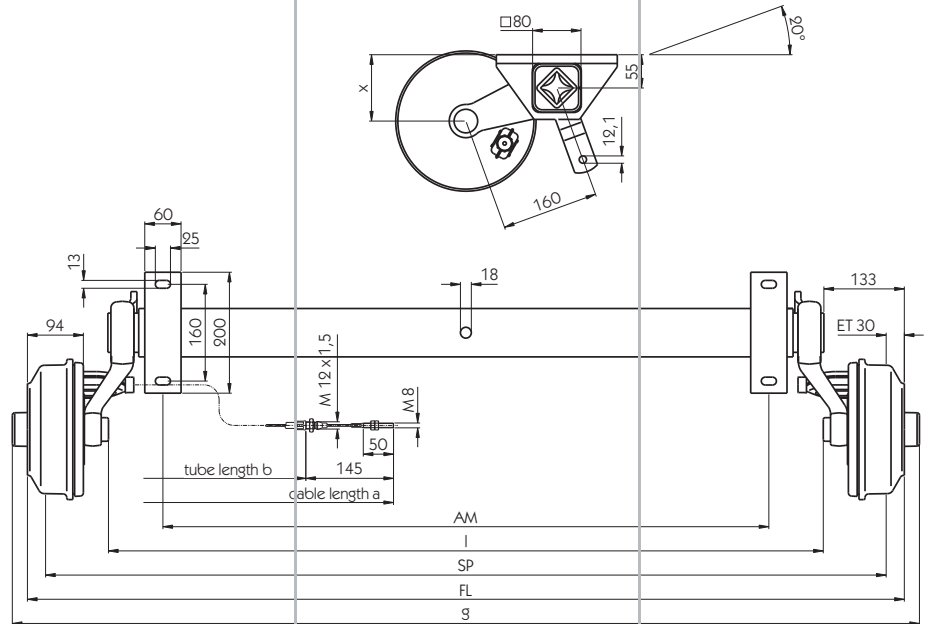


Swing CB 1054 and 1055

Axle load 1050 kg, wheel brakes S 2005-7 RASK, sprung dimension at wheel (X) = zero load: 110 mm, nominal load: 65 mm, 100% shock: 50 mm, tyres: 155 R 13, wheels: 4 1/2 J x 13 H2, max. speed 140 km/h.

Dim. FL [mm]	Track SP [mm]	Mounting bracket centres AM [mm]	Dim. I [mm]	Dim. g [mm]	Weight [kg]	Wheel connection 4/100/60°	Wheel connection 5/112/R12	Wheel connection 5/112/60°
1450	1390	1000	1182	1500	50.8	117311098	117311117	117311136
1500	1440	1050	1232	1550	51.3	117311099	117311118	117311137
1550	1490	1100	1282	1600	51.7	117311100	117311119	117311138
1600	1540	1150	1332	1650	52.2	117311101	117311120	117311139
1650	1590	1200	1382	1700	52.6	117311102	117311121	117311140
1700	1640	1250	1432	1750	53.1	117311103	117311122	117311141
1750	1690	1300	1482	1800	53.5	117311104	117311123	117311142
1800	1740	1350	1532	1850	54.0	117311105	117311124	117311143
1850	1790	1400	1582	1900	54.4	117311106	117311125	117311144
1900	1840	1450	1632	1950	54.9	117311107	117311126	117311145
1950	1890	1500	1682	2000	55.3	117311108	117311127	117311146
2000	1940	1550	1732	2050	55.8	117311109	117311128	117311147
2050	1990	1600	1782	2100	56.2	117311110	117311129	117311148
2100	2040	1650	1832	2150	56.7	117311111	117311130	117311149
2150	2090	1700	1882	2200	57.1	117311112	117311131	117311150
2200	2140	1750	1932	2250	57.6	117311113	117311132	117311151
2250	2190	1800	1982	2300	58.0	117311114	117311133	117311152
2300	2240	1850	2032	2350	58.5	117311115	117311134	117311153
2350	2290	1900	2082	2400	58.9	117311116	117311135	117311154

Axle including brake cables (loose), axle body completely galvanised, independent suspension, expanding lever brakes with auto reverse, wheel shock absorber mounts.

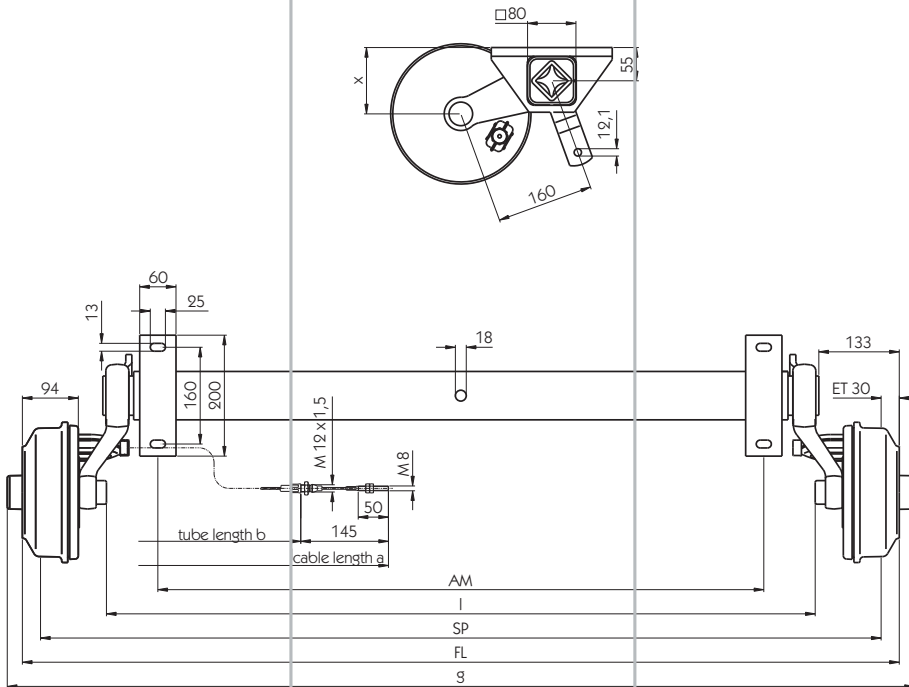


Swing CB 1354 and 1355

Axle load 1350 kg, wheel brakes S 2005-7 RASK, sprung dimension at wheel (X) = zero load: 110 mm, nominal load: 65 mm, 100% shock: 50 mm, tyres: 185/70 R 14, wheels: 5½J x 14 H2, max. speed 140 km/h.

Dim. FL [mm]	Track SP [mm]	Mounting bracket centres AM [mm]	Dim. I [mm]	Dim. g [mm]	Weight [kg]	Wheel connection 4/100/60°	Wheel connection 5/112/R12	Wheel connection 5/112/60°
1450	1390	1000	1182	1500	56.6	117311155	117311175	117311194
1500	1440	1050	1232	1550	57.1	117311156	117311176	117311195
1550	1490	1100	1282	1600	57.5	117311157	117311177	117311196
1600	1540	1150	1332	1650	58.0	117311158	117311178	117311197
1650	1590	1200	1382	1700	58.4	117311159	117311179	117311198
1700	1640	1250	1432	1750	58.9	117311160	117311180	117311199
1750	1690	1300	1482	1800	59.3	117311161	117311181	117311200
1800	1740	1350	1532	1850	59.8	117311162	117311182	117311201
1850	1790	1400	1582	1900	60.2	117311163	117311183	117311202
1900	1840	1450	1632	1950	60.7	117311164	117311184	117311203
1950	1890	1500	1682	2000	61.1	117311166	117311185	117311204
2000	1940	1550	1732	2050	61.6	117311167	117311186	117311205
2050	1990	1600	1782	2100	62.0	117311168	117311187	117311206
2100	2040	1650	1832	2150	62.5	117311169	117311188	117311207
2150	2090	1700	1882	2200	62.9	117311170	117311189	117311208
2200	2140	1750	1932	2250	63.4	117311171	117311190	117311209
2250	2190	1800	1982	2300	63.8	117311172	117311191	117311210
2300	2240	1850	2032	2350	64.3	117311173	117311192	117311211
2350	2290	1900	2082	2400	64.7	117311174	117311193	117311212

Axle including brake cables (loose), axle body completely galvanised, independent suspension, expanding lever brakes with auto reverse, wheel shock absorber mounts.

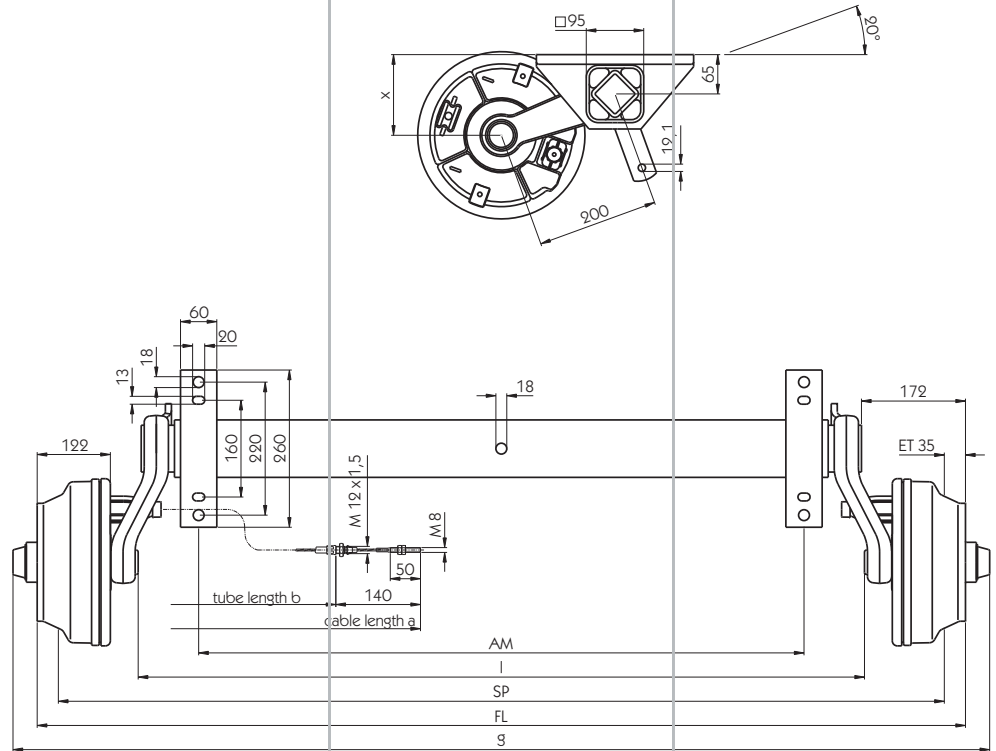


Swing CB 1505

Axle load 1500 kg, wheel brakes S 2005-7 RASK, sprung dimension at wheel (X) = zero load: 110 mm, nominal load: 65 mm, 100% shock: 50 mm, tyres: 205 R 14 C, wheels: 6J x 14 H2, max. speed 140 km/h.

Dim. FL [mm]	Track SP [mm]	Mounting bracket centres AM [mm]	Dim. l [mm]	Dim. g [mm]	Weight [kg]	Wheel connection 5/112/R12	Wheel connection 5/112/60°
1450	1390	1000	1172	1500	57.0	117311213	117311232
1500	1440	1050	1222	1550	57.5	117311214	117311233
1550	1490	1100	1272	1600	58.0	117311215	117311234
1600	1540	1150	1322	1650	58.5	117311216	117311235
1650	1590	1200	1372	1700	59.0	117311217	117311236
1700	1640	1250	1422	1750	59.5	117311218	117311237
1750	1690	1300	1472	1800	60.0	117311219	117311238
1800	1740	1350	1522	1850	60.5	117311220	117311239
1850	1790	1400	1572	1900	61.0	117311221	117311240
1900	1840	1450	1622	1950	61.5	117311222	117311241
1950	1890	1500	1672	2000	62.0	117311223	117311242
2000	1940	1550	1722	2050	62.5	117311224	117311243
2050	1990	1600	1772	2100	63.0	117311225	117311244
2100	2040	1650	1822	2150	63.5	117311226	117311245
2150	2090	1700	1872	2200	64.0	117311227	117311246
2200	2140	1750	1922	2250	64.5	117311228	117311247
2250	2190	1800	1972	2300	65.0	117311229	117311248
2300	2240	1850	2022	2350	65.5	117311230	117311249
2350	2290	1900	2072	2400	66.0	117311231	117311250

Axle including brake cables (loose), axle body completely galvanised, independent suspension, expanding lever brakes with auto reverse, wheel shock absorber mounts.

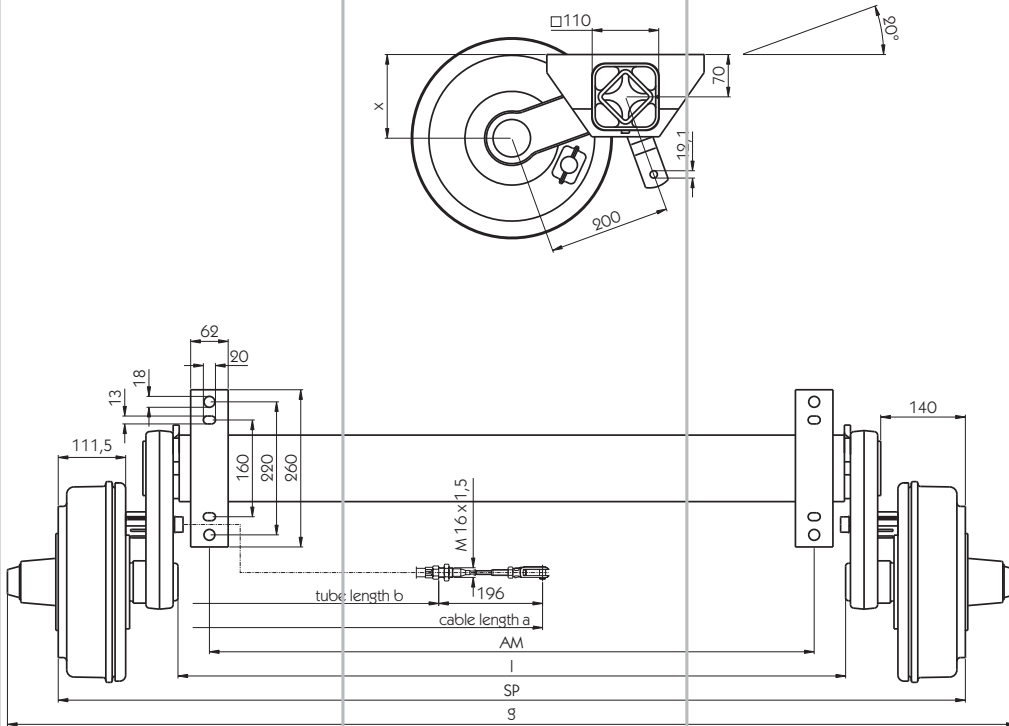


Swing CB 1805

Axle load 1800 kg, wheel brakes S 2504-7 RASK, sprung dimension at wheel (X) = zero load: 133 mm, nominal load: 0 mm, 100% shock: 35 mm, tyres: 205 R 14 C, wheels: 6J x 14 H2, max. speed 140 km/h.

Dim. FL [mm]	Track SP [mm]	Mounting bracket centres AM [mm]	Dim. l [mm]	Dim. g [mm]	Weight [kg]	Wheel connection 5/112/R12
1535	1465	1000	1200	1620	78.0	117311251
1585	1515	1050	1250	1670	78.5	117311252
1635	1565	1100	1300	1720	79.0	117311253
1685	1615	1150	1350	1770	79.5	117311254
1735	1665	1200	1400	1820	80.0	117311255
1785	1715	1250	1450	1870	80.5	117311256
1835	1765	1300	1500	1920	81.0	117311257
1885	1815	1350	1550	1970	81.5	117311258
1935	1865	1400	1600	2020	82.0	117311259
1985	1915	1450	1650	2070	82.5	117311260
2035	1965	1500	1700	2120	83.0	117311261
2085	2015	1550	1750	2170	83.5	117311262
2135	2065	1600	1800	2220	84.0	117311263
2185	2115	1650	1850	2270	84.5	117311264
2235	2165	1700	1900	2320	85.0	117311265
2285	2215	1750	1950	2370	85.5	117311266
2315	2265	1800	2000	2420	86.0	117311267
2385	2315	1850	2050	2470	86.5	117311268

Axle including brake cables (loose), axle body completely galvanised, independent suspension, expanding lever brakes with auto reverse, wheel shock absorber mounts.

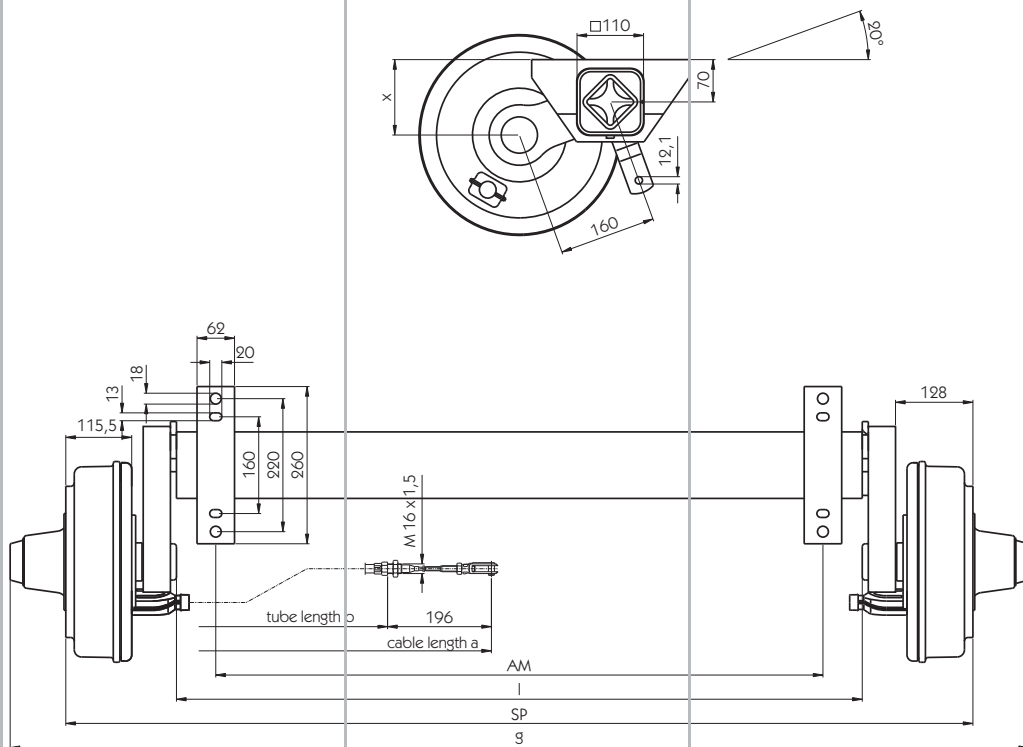


Swing CS 2106

Axle load 2100 kg, wheel brakes S 3006-7 RASK, sprung dimension at wheel (X) = zero load: 138 mm, nominal load: 50 mm, 100% shock: 13 mm, tyres: 205 R 14 C, wheels: 6J x 14 H2, max. speed 140 km/h.

Track SP [mm]	Mounting bracket centres AM [mm]	Dim. l [mm]	Dim. g [mm]	Weight [kg]	Wheel connection 6/205
1500	1000	1104	1668	101.0	117311269
1600	1100	1204	1768	103.0	117311270
1700	1200	1304	1868	105.0	117311271
1800	1300	1404	1968	107.0	117311272
1900	1400	1504	2068	109.0	117311273
2000	1500	1604	2168	111.0	117311274
2100	1600	1704	2268	113.0	117311275
2200	1700	1804	2368	115.0	117311276
2300	1800	1904	2468	117.0	117311277

Axle including brake cables (loose), axle body completely galvanised, independent suspension, expanding lever brakes with auto reverse, wheel shock absorber mounts.

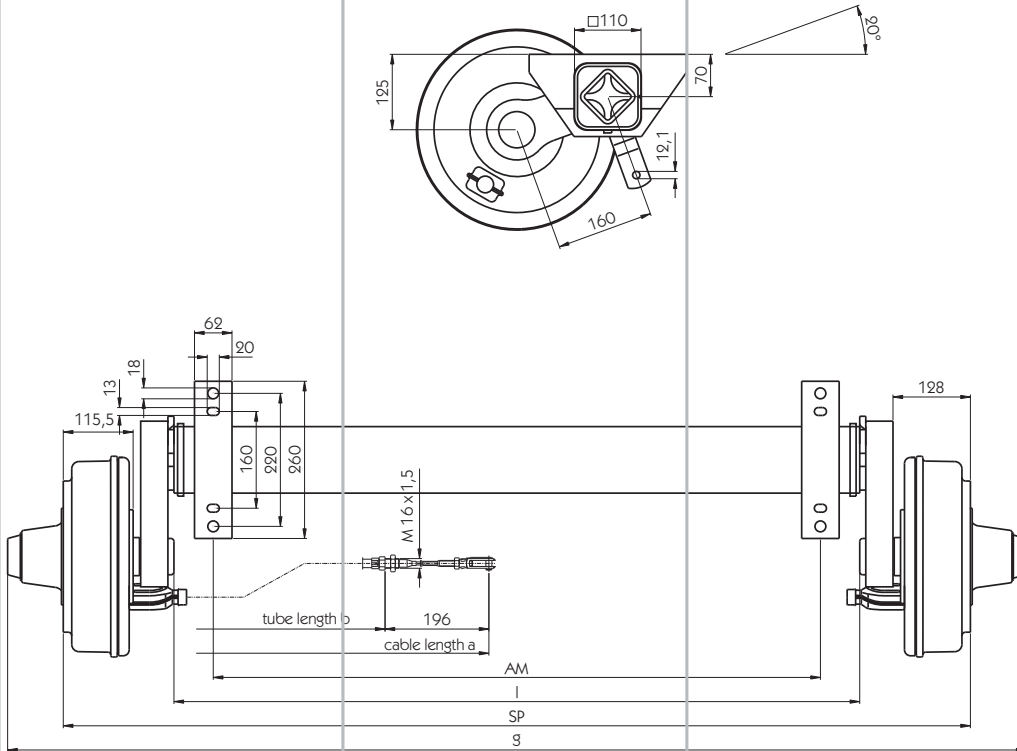


Swing CS 2506

Axle load 2500 kg, wheel brakes S 3006-7 RASK, sprung dimension at wheel (X) = zero load: 125 mm, nominal load: 100 mm, 100% shock: 85 mm, tyres: 225 x 70 R 15 C, wheels: 6½J x 15 H2, max. speed 140 km/h.

Track SP [mm]	Mounting bracket centres AM [mm]	Dim. I [mm]	Dim. g [mm]	Weight [kg]	Wheel connection 6/205
1500	1000	1130	1684	118.0	117311278
1600	1100	1230	1784	120.0	117311280
1700	1200	1330	1884	122.0	117311281
1800	1300	1430	1984	124.0	117311282
1900	1400	1530	2084	126.0	117311283
2000	1500	1630	2184	128.0	117311284
2100	1600	1730	2284	130.0	117311285
2200	1700	1830	2384	132.0	117311286
2300	1800	1930	2484	134.0	117311287

Axle including brake cables (loose), axle body completely galvanised, independent suspension, expanding lever brakes with auto reverse, wheel shock absorber mounts.

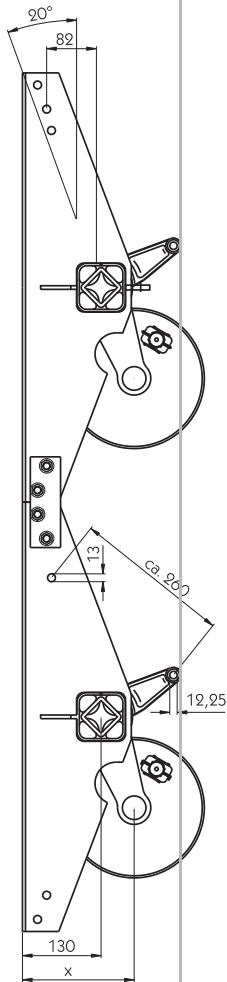


Swing CS 3006

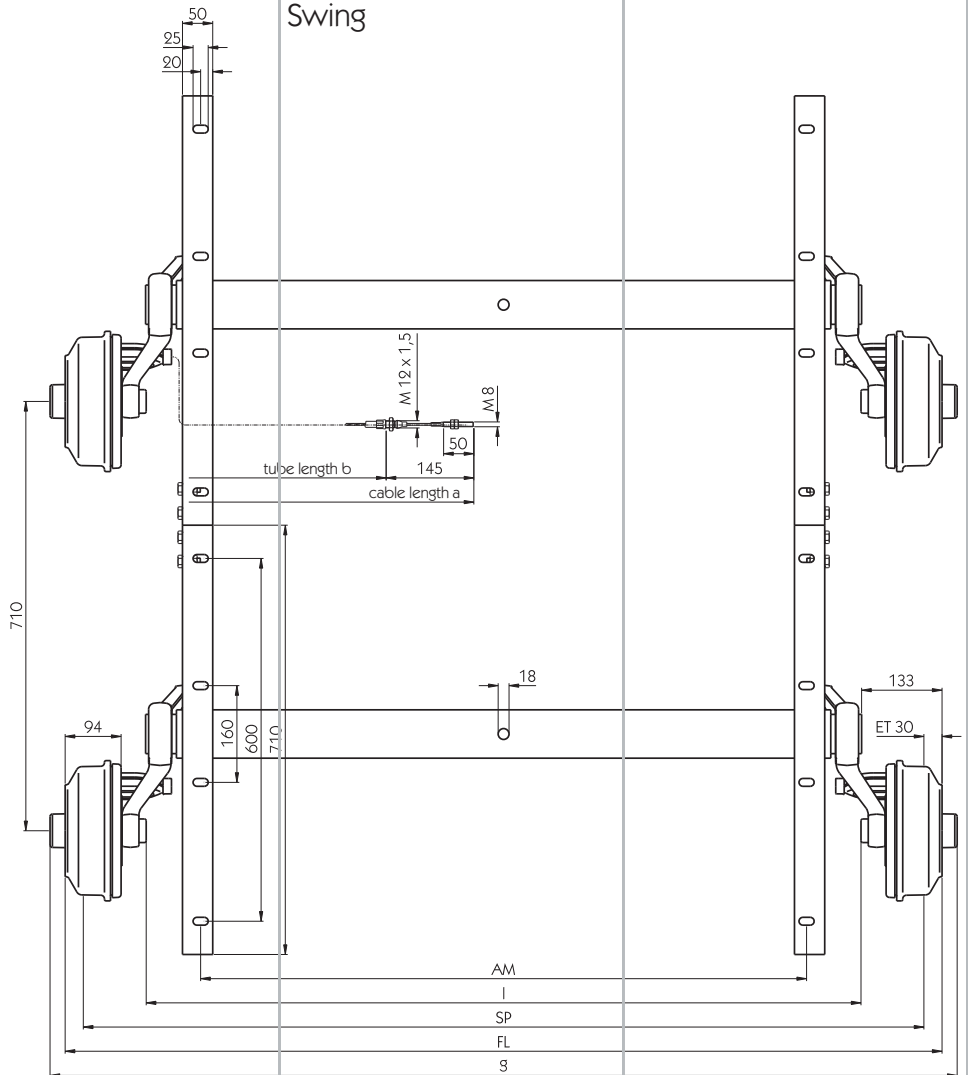
Axle load 3000 kg, wheel brakes S 3006-7 RASK, sprung dimension at wheel (X) = zero load: 125 mm, nominal load: 95 mm, 100% shock: 75 mm, tyres: 225 x 75 R 16 C, wheels: 6J x 16 H2, max. speed 140 km/h.

Track SP [mm]	Mounting bracket centres AM [mm]	Dim. l [mm]	Dim. g [mm]	Weight [kg]	Wheel connection 6/205
1500	1000	1130	1684	120.0	117311288
1600	1100	1230	1784	122.0	117311289
1700	1200	1330	1884	124.0	117311290
1800	1300	1430	1984	126.0	117311291
1900	1400	1530	2084	128.0	117311292
2000	1500	1630	2184	130.0	117311293
2100	1600	1730	2284	132.0	117311294
2200	1700	1830	2384	134.0	117311295
2300	1800	1930	2484	136.0	117311296

Axles incl. brake cables only for the first axle, axle bodies compl. galvanised, independent suspension, expanding lever brakes with auto-reverse, compact bearings, wheel shock absorber mounts.



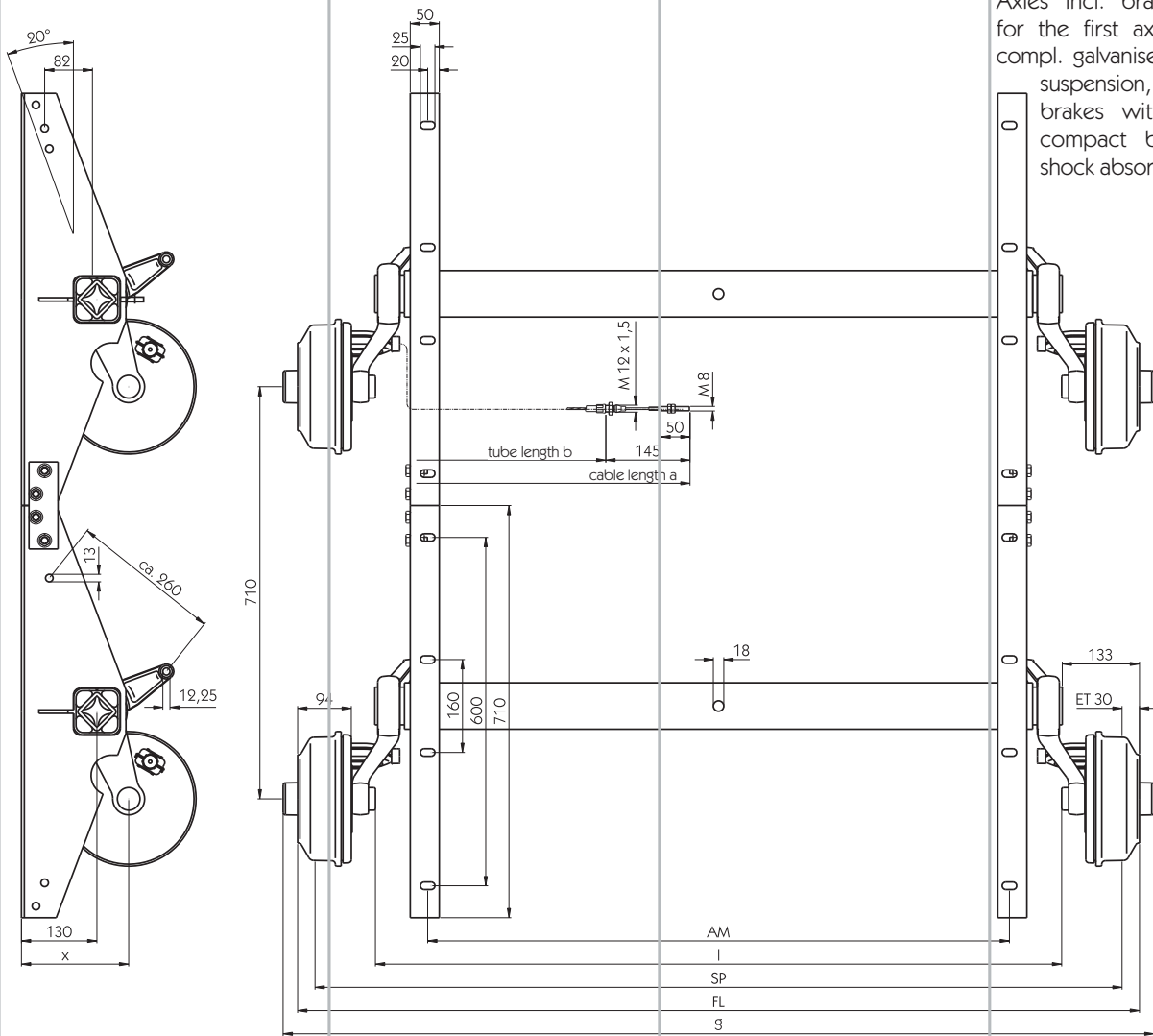
Braked tandem axle units
Swing



Swing CB 2/1054 and
2/1055

Tandem axle unit, permissible gross weight up to 2100 kg, braked S 2005-7 RASK, Axle load 2/1050 kg, sprung dimension at wheel (X) = zero load: 185, nominal load: 140, 100% shock: 125, tyres: 155 R 13, wheels: 4 1/2 J x 13 H2.

Dim. FL [mm]	Track SP [mm]	Mounting bracket centres AM [mm]	Dim. l [mm]	Dim. g [mm]	Weight [kg]	Wheel connection 4/100/60°	Wheel connection 5/112/R12	Wheel connection 5/112/60
1450	1390	1000	1172	1500	120.0	117311297	117311318	117311337
1500	1440	1050	1222	1550	121.0	117311298	117311319	117311338
1550	1490	1100	1272	1600	122.0	117311299	117311320	117311339
1600	1540	1150	1322	1650	123.0	117311300	117311321	117311340
1650	1590	1200	1372	1700	124.0	117311301	117311322	117311341
1700	1640	1250	1422	1750	125.0	117311302	117311323	117311342
1750	1690	1300	1472	1800	126.0	117311303	117311324	117311343
1800	1740	1350	1522	1850	127.0	117311305	117311325	117311344
1850	1790	1400	1572	1900	128.0	117311306	117311326	117311345
1900	1840	1450	1622	1950	129.0	117311307	117311327	117311346
1950	1890	1500	1672	2000	130.0	117311308	117311328	117311347
2000	1940	1550	1722	2050	131.0	117311309	117311329	117311348
2050	1990	1600	1772	2100	132.0	117311311	117311330	117311349
2100	2040	1650	1822	2150	133.0	117311312	117311331	117311350
2150	2090	1700	1872	2200	134.0	117311313	117311332	117311351
2200	2140	1750	1922	2250	135.0	117311314	117311333	117311352
2250	2190	1800	1972	2300	136.0	117311315	117311334	117311353
2300	2240	1850	2022	2350	137.0	117311316	117311335	117311354
2350	2290	1900	2072	2400	138.0	117311317	117311336	117311355



Axles incl. brake cables only for the first axle, axle bodies compl. galvanised, independent suspension, expanding lever brakes with auto-reverse, compact bearings, wheel shock absorber mounts.

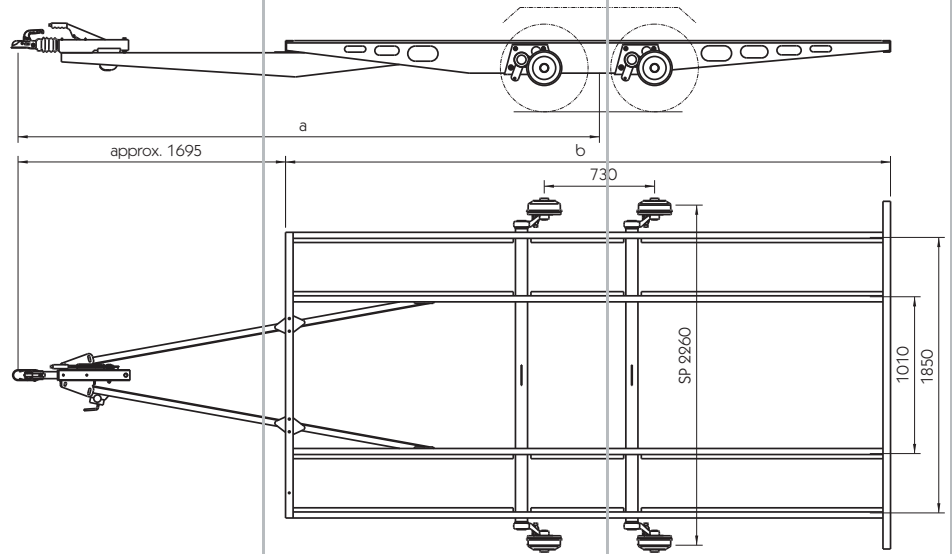
Swing CB 2/1354 and 2/1355

Tandem axle unit, permissible gross weight up to 2700 kg, braked S 2005-7 RASK, Axle load 2/1350 kg, sprung dimension at wheel (X) = zero load: 185. nominal load: 140, 100% shock: 125, tyres: 185/70 R 14, wheels: 5½J x 14 H2.

Dim. FL [mm]	Track SP [mm]	Mounting bracket centres AM [mm]	Dim. l [mm]	Dim. g [mm]	Weight [kg]	Wheel connection 4/100/60°	Wheel connection 5/112/R12	Wheel connection 5/112/60°
1450	1390	1000	1172	1500	120.0	117311356	117311375	117311394
1500	1440	1050	1222	1550	121.0	117311357	117311376	117311395
1550	1490	1100	1272	1600	122.0	117311358	117311377	117311396
1600	1540	1150	1322	1650	123.0	117311359	117311378	117311397
1650	1590	1200	1372	1700	124.0	117311360	117311379	117311398
1700	1640	1250	1422	1750	125.0	117311361	117311380	117311399
1750	1690	1300	1472	1800	126.0	117311362	117311381	117311400
1800	1740	1350	1522	1850	127.0	117311363	117311382	117311401
1850	1790	1400	1572	1900	128.0	117311364	117311383	117311402
1900	1840	1450	1622	1950	129.0	117311365	117311384	117311403
1950	1890	1500	1672	2000	130.0	117311366	117311385	117311404
2000	1940	1550	1722	2050	131.0	117311367	117311386	117311405
2050	1990	1600	1772	2100	132.0	117311368	117311387	117311406
2100	2040	1650	1822	2150	133.0	117311369	117311388	117311407
2150	2090	1700	1872	2200	134.0	117311370	117311389	117311408
2200	2140	1750	1922	2250	135.0	117311371	117311390	117311409
2250	2190	1800	1972	2300	136.0	117311372	117311391	117311410
2300	2240	1850	2022	2350	137.0	117311373	117311392	117311411
2350	2290	1900	2072	2400	138.0	117311374	117311393	117311412

Axle including brake cables (loose), axle body completely galvanised, independent suspension, expanding lever brakes with auto reverse, wheel shock absorber mounts.

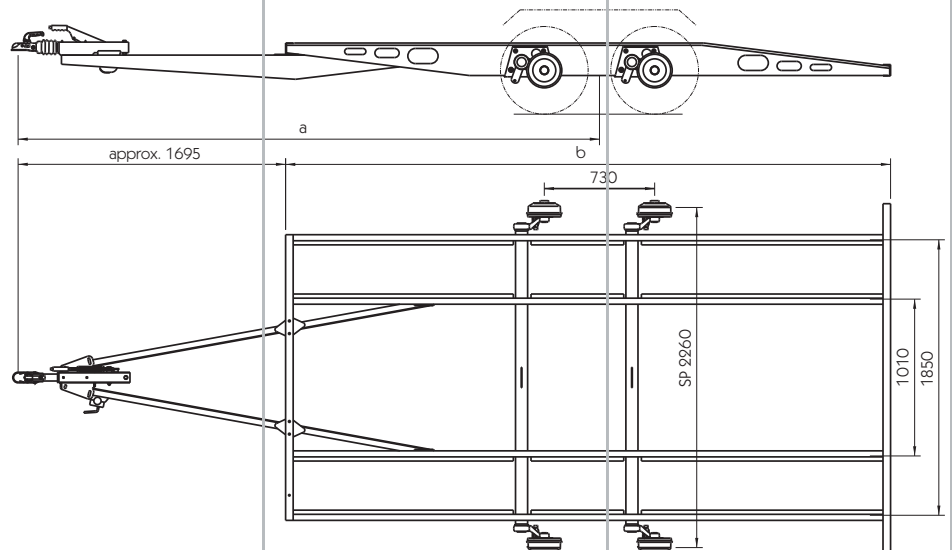
Tandem chassis UFT, ATT



UFT 401/402/501/502

Universal tandem chassis, wheel brake S 2005-7 RASK, wheel fixing LK 112 x 5 mm, wheel bolts M 12 x 1.5 orb R 12, wheels 5½J x 14 H2, tyres 175 R 14.

Type	Perm. GWV [kg]	Over-run unit	Dim. a [mm]	Dim. b [mm]	Axle	Weight [kg]	
UFT 401	2000	ZAF 2.0-1	3780	4000	CB 2/1055	295	117311413
UFT 402	2700	ZAF 2.8-1	3780	4000	CB 2/1355	305	117311414
UFT 501	2000	ZAF 2.0-1	4280	5000	CB 2/1055	320	117311415
UFT 502	2700	ZAF 2.8-1	4280	5000	CB 2/1355	330	117311416



ATT 401/402/501/502

Tandem chassis car transporter, wheel brake S 2005-7 RASK, wheel fixing LK 112 x 5 mm, wheel bolts M 12 x 1.5 orb R 12, wheels 5½J x 14 H2, tyres 175 R 14.

Type	Perm. GWV [kg]	Over-run unit	Dim. a [mm]	Dim. b [mm]	Axle	Weight [kg]	
ATT 401	2000	ZAF 2.0-1	3780	4000	CB 2/1055	295	117311417
ATT 402	2700	ZAF 2.8-1	3780	4000	CB 2/1355	305	117311418
ATT 501	2000	ZAF 2.0-1	4280	5000	CB 2/1055	320	117311419
ATT 502	2700	ZAF 2.8-1	4280	5000	CB 2/1355	330	117311420



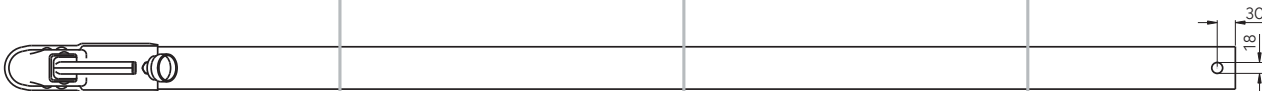
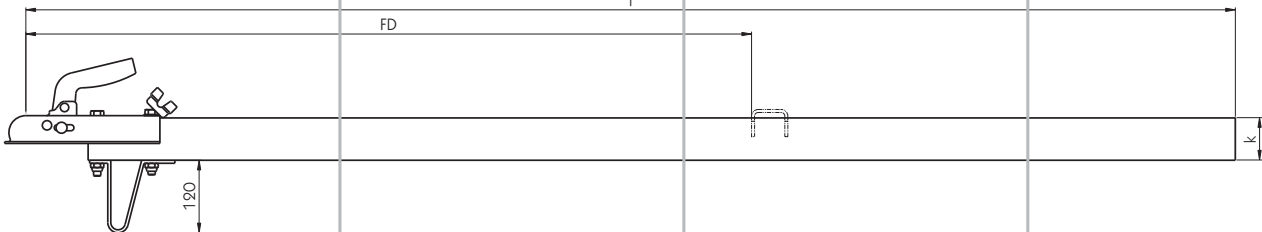
Spare parts

Shock absorber
Loose, for GFA 1050 - 1800 kg.
120318206

Towing couplings

Drawbar tubes ZOR

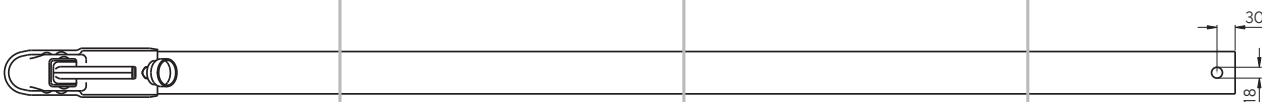
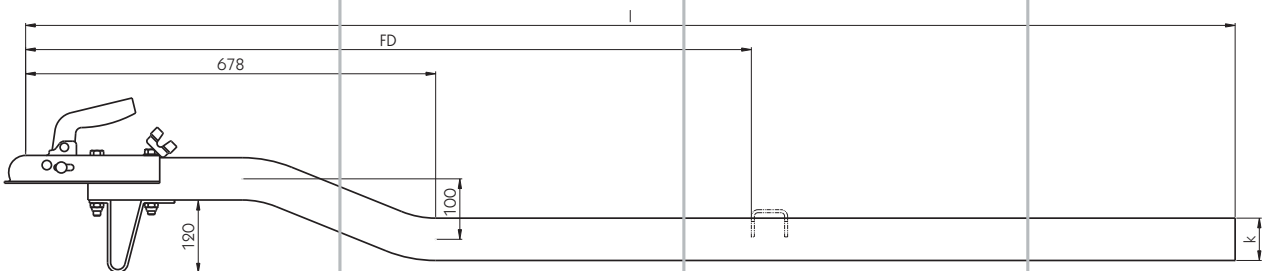
For free drawbar lengths (dim. FD)
see page 27.



ZOR

Drawbar tubes without over-run unit, straight, EC cert. mark ©*0871*94/20.

Type	Perm. GVW up to [kg]	Perm. vert. static load [kg]	Dim. k Ø [mm]	Dim. l [mm]	Weight [kg]	
ZOR 0.75-1 A	750	75	70 x 4	2000	14.5	117311421
ZOR 0.75-1 A	750	75	70 x 4	2200	15.8	117311422
ZOR 0.75-1 A	750	75	70 x 4	2400	17.1	117311423
ZOR 0.75-1 A	750	75	70 x 4	2600	18.4	117311424



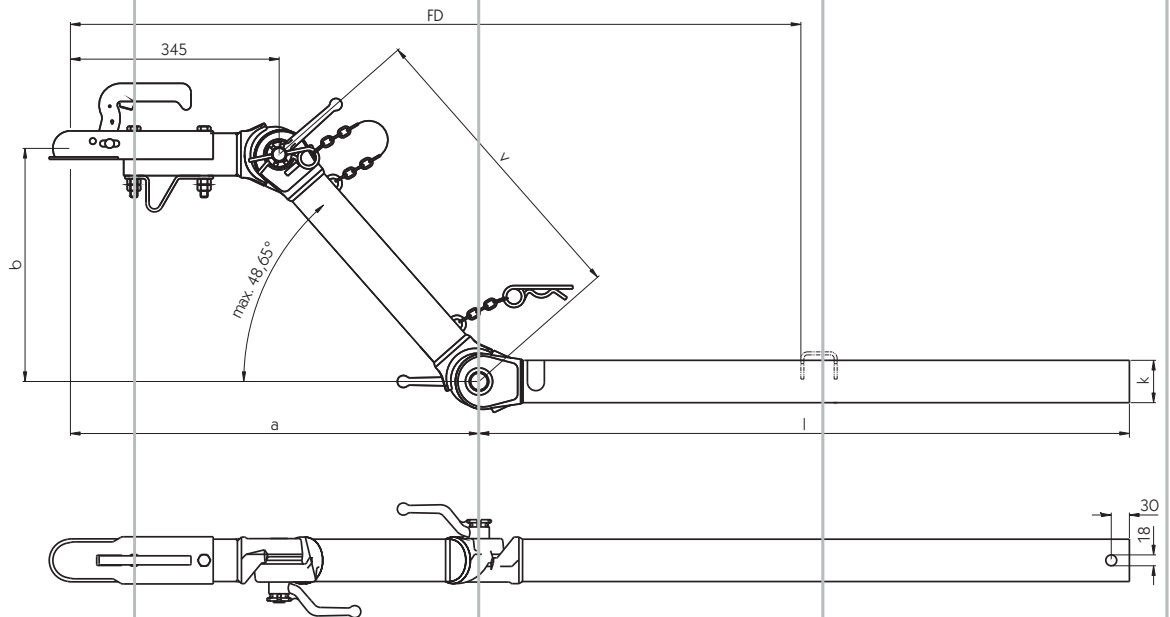
ZOR

Drawbar tube without over-run unit, offset, EC cert. mark ©*0871*94/20.

Type	Perm. GVW up to [kg]	Perm. vert. static load [kg]	Dim. k Ø [mm]	Dim. l [mm]	Weight [kg]	
ZOR 0.75-1 A	750	75	70 x 4	2000	14.9	117311425
ZOR 0.75-1 A	750	75	70 x 4	2200	16.2	117311426
ZOR 0.75-1 A	750	75	70 x 4	2400	17.5	117311427
ZOR 0.75-1 A	750	75	70 x 4	2600	18.8	117311428

For free drawbar lengths (dim. FD) see page 27.
 Conversion kits to DIN drawbar eyes can be found on page 18.

Drawbar tubes ZOV



ZOV 0.75-1 B with ball coupling

Permissible gross weight up to 750 kg, height adjustable drawbar, without over-run unit, permissible vertical static load on coupling point 75 kg, EC cert. mark ©*0841*94/20.

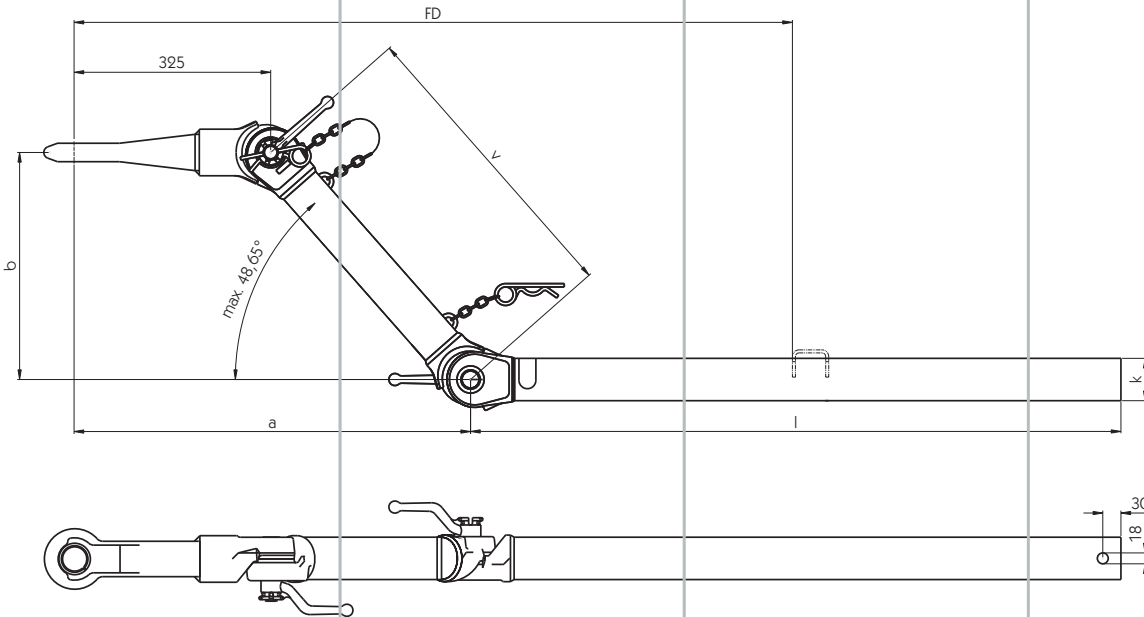
Type	Dim. k [mm]	Dim. a [mm]	Dim. l [mm]	Dim. b [mm]	Dim. v [mm]	Weight [kg]	
ZOV 0.75-1 B	Ø70	675	1075	0 - 375	500	31.0	117310451
ZOV 0.75-1 B	Ø70	675	1575	0 - 375	500	34.0	117310452
ZOV 0.75-1 B	Ø70	675	2075	0 - 375	500	37.0	117310453

ZOV 1.2-1 B with ball coupling

Permissible gross weight up to 1200 kg, height adjustable drawbar, without over-run unit, permissible vertical static load on coupling point 100 kg, EC cert. mark ©*1132*94/20.

Type	Dim. k [mm]	Dim. a [mm]	Dim. l [mm]	Dim. b [mm]	Dim. v [mm]	Weight [kg]	
ZOV 1.2-1 B	Ø82.5	543	1070	0 - 225	300	31.0	117311430
ZOV 1.2-1 B	Ø82.5	576	1070	0 - 263	350	32.0	117311431
ZOV 1.2-1 B	Ø82.5	609	1070	0 - 300	400	33.0	117311432
ZOV 1.2-1 B	Ø82.5	642	1070	0 - 338	450	34.0	117311433
ZOV 1.2-1 B	Ø82.5	675	1070	0 - 375	500	35.0	117311434
ZOV 1.2-1 B	Ø82.5	543	1570	0 - 225	300	37.0	117311435
ZOV 1.2-1 B	Ø82.5	576	1570	0 - 263	350	38.0	117311436
ZOV 1.2-1 B	Ø82.5	609	1570	0 - 300	400	39.0	117311437
ZOV 1.2-1 B	Ø82.5	642	1570	0 - 338	450	40.0	117311438
ZOV 1.2-1 B	Ø82.5	675	1570	0 - 375	500	41.0	117311439
ZOV 1.2-1 B	Ø82.5	543	2070	0 - 225	300	43.0	117311440
ZOV 1.2-1 B	Ø82.5	576	2070	0 - 263	350	44.0	117311441
ZOV 1.2-1 B	Ø82.5	609	2070	0 - 300	400	45.0	117311442
ZOV 1.2-1 B	Ø82.5	642	2070	0 - 338	450	46.0	117311443
ZOV 1.2-1 B	Ø82.5	675	2070	0 - 375	500	47.0	117311444

For free drawbar lengths (dim. FD) see page 27.
Conversion kits to ball coupling can be found on page 18.



ZOV 0.75-1 B with DIN drawbar eye

Permissible gross weight up to 750 kg, height adjustable drawbar, without over-run unit, permissible vertical static load on coupling 75 kg, EC cert. mark ©*0841*94/20.

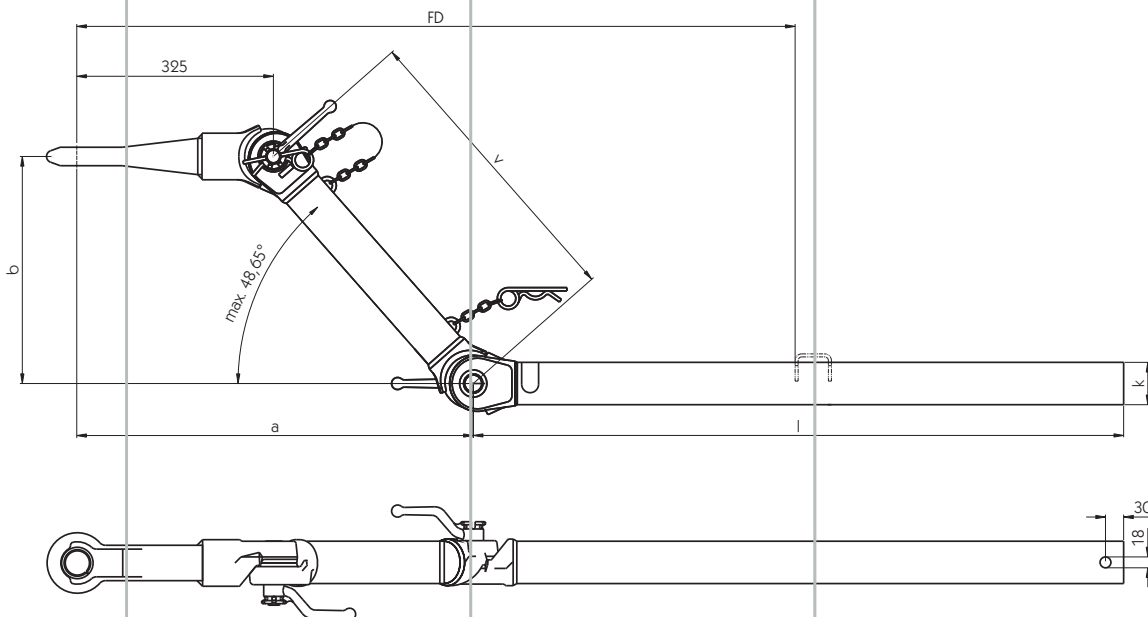
Type	Dim. k [mm]	Dim. a [mm]	Dim. l [mm]	Dim. b [mm]	Dim. v [mm]	Weight [kg]	
ZOV 0.75-1 B	Ø70	655	1075	0 - 375	500	32.0	117310448
ZOV 0.75-1 B	Ø70	655	1575	0 - 375	500	35.0	117310449
ZOV 0.75-1 B	Ø70	655	2075	0 - 375	500	38.0	117310450

ZOV 1.2-1 B with DIN drawbar eye

Permissible gross weight up to 1200 kg, height adjustable drawbar, without over-run unit, permissible vertical static load on coupling point 100 kg, EC cert. mark ©*1132*94/20.

Type	Dim. k [mm]	Dim. a [mm]	Dim. l [mm]	Dim. b [mm]	Dim. v [mm]	Weight [kg]	
ZOV 1.2-1 B	Ø82.5	523	1070	0 - 225	300	32.0	117311445
ZOV 1.2-1 B	Ø82.5	556	1070	0 - 263	350	33.0	117311446
ZOV 1.2-1 B	Ø82.5	589	1070	0 - 300	400	34.0	117311447
ZOV 1.2-1 B	Ø82.5	622	1070	0 - 338	450	35.0	117311448
ZOV 1.2-1 B	Ø82.5	655	1070	0 - 375	500	36.0	117311449
ZOV 1.2-1 B	Ø82.5	523	1570	0 - 225	300	38.0	117311450
ZOV 1.2-1 B	Ø82.5	556	1570	0 - 263	350	39.0	117311451
ZOV 1.2-1 B	Ø82.5	589	1570	0 - 300	400	40.0	117311452
ZOV 1.2-1 B	Ø82.5	622	1570	0 - 338	450	41.0	117311453
ZOV 1.2-1 B	Ø82.5	655	1570	0 - 375	500	42.0	117311454
ZOV 1.2-1 B	Ø82.5	523	2070	0 - 225	300	44.0	117311455
ZOV 1.2-1 B	Ø82.5	556	2070	0 - 263	350	45.0	117311456
ZOV 1.2-1 B	Ø82.5	589	2070	0 - 300	400	46.0	117311457
ZOV 1.2-1 B	Ø82.5	622	2070	0 - 338	450	47.0	117311458
ZOV 1.2-1 B	Ø82.5	655	2070	0 - 375	500	48.0	117311459

For free drawbar lengths (dim. FD) see page 27.
Conversion kits to ball coupling can be found on page 18.



ZOV 2.5-1 with DIN drawbar eye

Permissible gross weight up to 2500 kg, height adjustable drawbar, without over-run unit, permissible vertical static load on coupling point 150 kg, EC cert. mark ©*1334*94/20.

Type	Dim. k [mm]	Dim. a [mm]	Dim. l [mm]	Dim. b [mm]	Dim. v [mm]	Weight [kg]	
ZOV 2.5-1	Ø108/90	501	1090	0 - 225	300	63.0	117311460
ZOV 2.5-1	Ø108/90	534	1090	0 - 263	350	64.0	117311461
ZOV 2.5-1	Ø108/90	568	1090	0 - 300	400	65.0	117311462
ZOV 2.5-1	Ø108/90	601	1090	0 - 338	450	66.0	117311463
ZOV 2.5-1	Ø108/90	635	1090	0 - 375	500	67.0	117311464
ZOV 2.5-1	Ø108/90	501	1590	0 - 225	300	76.0	117311465
ZOV 2.5-1	Ø108/90	534	1590	0 - 263	350	77.0	117311466
ZOV 2.5-1	Ø108/90	568	1590	0 - 300	400	78.0	117311467
ZOV 2.5-1	Ø108/90	601	1590	0 - 338	450	79.0	117311468
ZOV 2.5-1	Ø108/90	635	1590	0 - 375	500	80.0	117311469
ZOV 2.5-1	Ø108/90	501	2090	0 - 225	300	89.0	117311470
ZOV 2.5-1	Ø108/90	534	2090	0 - 263	350	90.0	117311471
ZOV 2.5-1	Ø108/90	568	2090	0 - 300	400	91.0	117311472
ZOV 2.5-1	Ø108/90	601	2090	0 - 338	450	92.0	117311473
ZOV 2.5-1	Ø108/90	635	2090	0 - 375	500	93.0	117311474

ZOV 5.0-1 with DIN drawbar eye

Permissible gross weight up to 5000 kg, height adjustable drawbar, without over-run unit, permissible vertical static load on coupling point 400 kg, EC cert. mark ©*1345*94/20.

Type	Dim. k [mm]	Dim. a [mm]	Dim. l [mm]	Dim. b [mm]	Dim. v [mm]	Weight [kg]	
ZOV 5.0-1	Ø127	716	2300	0 - 413	550	160.0	117311475
ZOV 5.0-1	Ø127	716	2500	0 - 413	550	168.0	117311476
ZOV 5.0-1	Ø127	716	3000	0 - 413	550	188.0	117311477

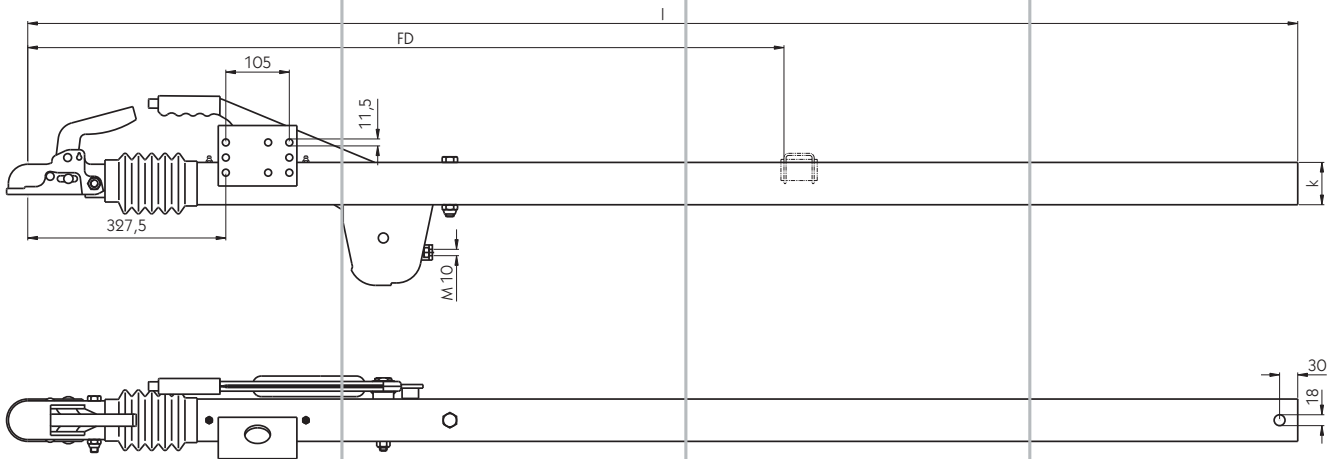
Other drawbar tube conversion kits available on request.

Conversion kit for drawbar tube ZOV

Perm. GVW [kg]	Ball coupling article number	DIN drawbar eye article number
Up to 750	117311481	117311484
Up to 1200	117311482	117311485
Up to 2500	117311483	---

Drawbar tubes with over-run unit ZAR

For free drawbar lengths (dim. FD) see page 27.

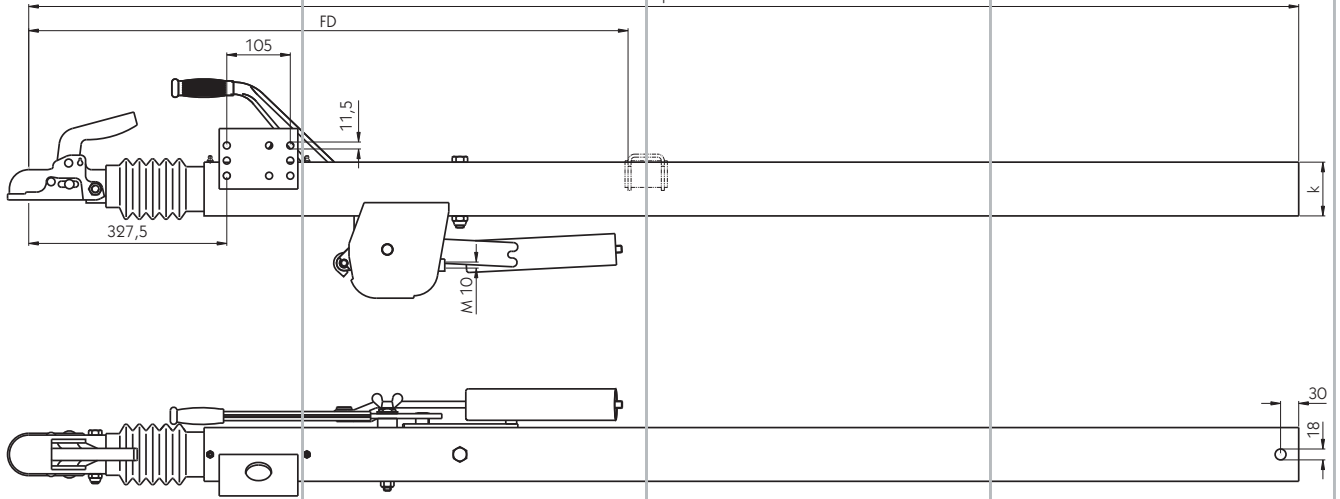


ZAR 1.35-1 A, straight

Permissible gross weight 700 - 1350 kg, permissible vertical static load at the coupling point 100 kg, EC cert. mark ©*0595*94/20, round section drawbar tube, straight, ball coupling, zinc galvanised.

Type	Dim. k [mm]	Dim. ha [mm]	Dim. l [mm]	Weight [kg]	
ZAR 1.35-1 A	Ø70 x 4	50	2100	29.8	117310415
ZAR 1.35-1 A	Ø70 x 4	50	2300	31.1	117310416
ZAR 1.35-1 A	Ø70 x 4	50	2500	32.4	117310417
ZAR 1.35-1 A	Ø70 x 4	50	3000	35.7	117310418
ZAR 1.35-1 A	Ø70 x 4	50	3500	38.9	117310419

For free drawbar lengths (dim. FD) see page 27.



ZAR 2.0-1 A, straight

Permissible gross weight 1089 - 2000 kg, permissible vertical static load at the coupling point 100 kg, EC cert. mark $\text{\textcircled{C}}^*$ 0582*94/20, round section drawbar tube, straight, ball coupling, zinc galvanised.

Type	Dim. k [mm]	Dim. ha [mm]	Dim. l [mm]	Weight [kg]	
ZAR 2.0-1 A	$\text{\textcircled{O}}88.9 \times 6.3$	58	2100	40.0	117310420
ZAR 2.0-1 A	$\text{\textcircled{O}}88.9 \times 6.3$	58	2300	42.6	117310421
ZAR 2.0-1 A	$\text{\textcircled{O}}88.9 \times 6.3$	58	2500	45.1	117310422
ZAR 2.0-1 A	$\text{\textcircled{O}}88.9 \times 6.3$	58	3000	51.6	117310423
ZAR 2.0-1 A	$\text{\textcircled{O}}88.9 \times 6.3$	58	3500	58.0	117310424

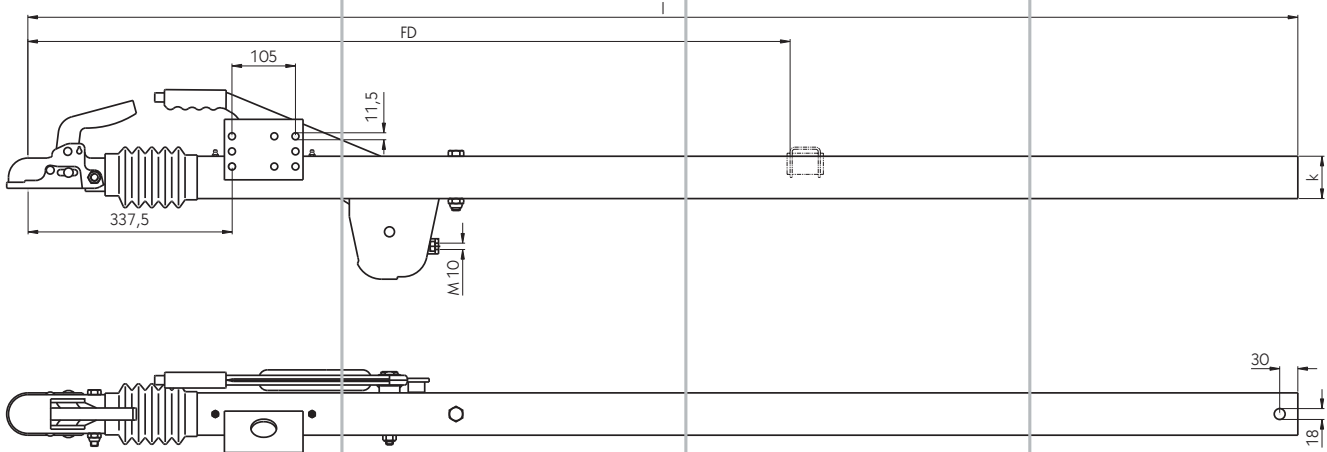
ZAR 2.8-1, straight

Permissible gross weight 1785 - 2800 kg, permissible vertical static load at the coupling point 150 kg, EC cert. mark $\text{\textcircled{C}}^*$ 0574*94/20, round section drawbar tube, straight, ball coupling, zinc galvanised.

Type	Dim. k [mm]	Dim. ha [mm]	Dim. l [mm]	Weight [kg]	
ZAR 2.8-1	$\text{\textcircled{O}}88.9 \times 8.8$	58	2100	48.2	117310425
ZAR 2.8-1	$\text{\textcircled{O}}88.9 \times 8.8$	58	2300	51.7	117310426
ZAR 2.8-1	$\text{\textcircled{O}}88.9 \times 8.8$	58	2500	55.2	117310427
ZAR 2.8-1	$\text{\textcircled{O}}88.9 \times 8.8$	58	3000	63.9	117310428
ZAR 2.8-1	$\text{\textcircled{O}}88.9 \times 8.8$	58	3500	72.6	117310429

Drawbar tubes with over-run unit ZARV

For free drawbar lengths (dim. FD) see page 27.



ZARV 1.35-1

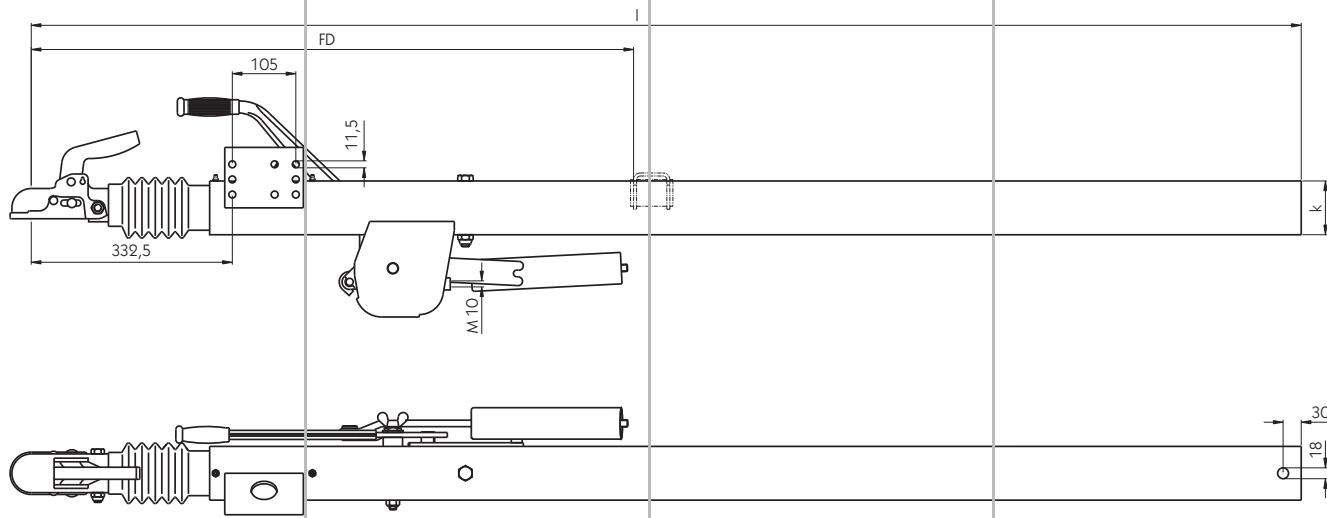
Permissible gross weight 700 - 1350 kg, permissible vertical static load at the coupling point 100 kg, EC cert. mark $\text{\textcircled{e}}$ *0594*94/20, rectangular section drawbar tube, straight, ball coupling, zinc galvanised.

Type	Dim. k [mm]	Dim. ha [mm]	Dim. l [mm]	Weight [kg]	
ZARV 1.35-1	70 x 3.2	50	2100	22.5	117317369
ZARV 1.35-1	70 x 3.2	50	2300	24.5	117317370
ZARV 1.35-1	70 x 3.2	50	2500	25.2	117317371
ZARV 1.35-1	70 x 3.2	50	3000	28.5	117317372
ZARV 1.35-1	70 x 3.2	50	3500	31.8	117317373

ZARV 1.6-1

Permissible gross weight 850 - 1600 kg, permissible vertical static load at the coupling point 100 kg, EC cert. mark $\text{\textcircled{e}}$ *0886*94/20, rectangular section drawbar tube, straight, ball coupling, zinc galvanised.

Type	Dim. k [mm]	Dim. ha [mm]	Dim. l [mm]	Weight [kg]	
ZARV 1.6-1	70 x 4.5	50	2100	26.9	117311494
ZARV 1.6-1	70 x 4.5	50	2300	28.7	117311495
ZARV 1.6-1	70 x 4.5	50	2500	30.4	117311496
ZARV 1.6-1	70 x 4.5	50	3000	34.9	117311497
ZARV 1.6-1	70 x 4.5	50	3500	39.3	117311498



ZARV 2.0-1

Permissible gross weight 1089 - 2000 kg, permissible vertical static load at the coupling point 100 kg, EC cert. mark ©*0583*94/20, rectangular section drawbar tube, straight, ball coupling, zinc galvanised.

Type	Dim. k [mm]	Dim. ha [mm]	Dim. l [mm]	Weight [kg]	
ZARV 2.0-1	80 x 5	55	2100	35.0	117311499
ZARV 2.0-1	80 x 5	55	2300	37.3	117311500
ZARV 2.0-1	80 x 5	55	2500	39.6	117311501
ZARV 2.0-1	80 x 5	55	3000	45.4	117311502

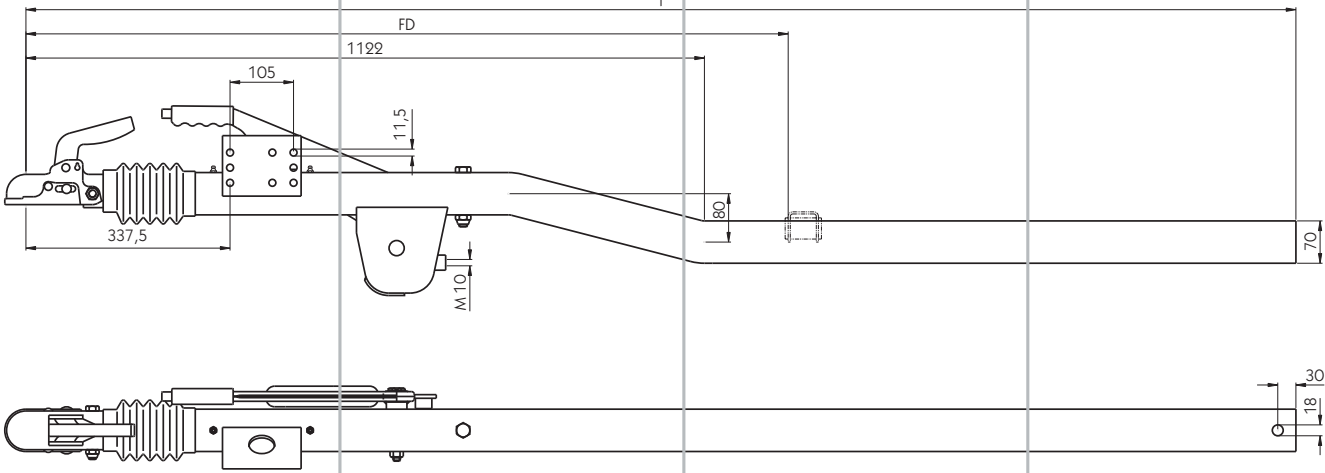
ZARV 2.8-1

Permissible gross weight 1785 - 2800 kg, permissible vertical static load at the coupling point 100 kg, EC cert. mark ©*0576*94/20, rectangular section drawbar tube, straight, zinc galvanised.

Type	Dim. k [mm]	Dim. ha [mm]	Dim. l [mm]	Weight [kg]	
ZARV 2.8-1	100 x 6.3	65	2100	49.6	117311503
ZARV 2.8-1	100 x 6.3	65	2300	53.2	117311504
ZARV 2.8-1	100 x 6.3	65	2500	56.9	117311505
ZARV 2.8-1	100 x 6.3	65	3000	66.0	117311506
ZARV 2.8-1	100 x 6.3	65	3500	75.1	117311507

Drawbar tubes with over-run unit ZAR offset

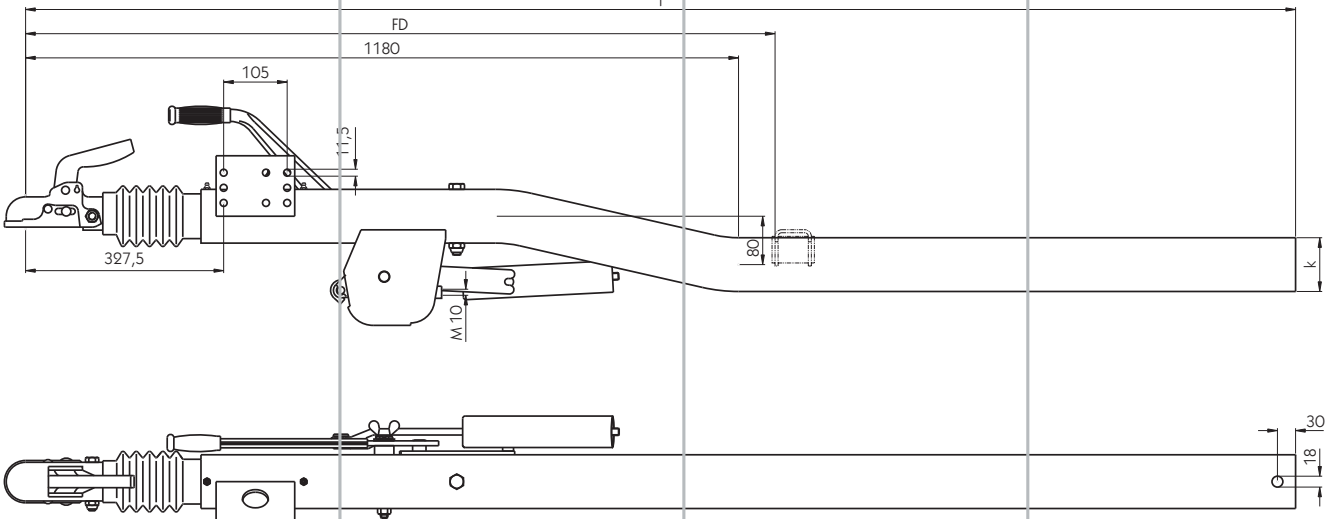
For free drawbar lengths (dim. FD) see page 27.



ZAR 1.35-1B, offset

Permissible gross weight 700 - 1350 kg, permissible vertical static load at the coupling point 100 kg, EC cert. mark ©*0595*94/20, round section drawbar tube, offset, ball coupling, zinc galvanised.

Type	Dim. k [mm]	Dim. ha [mm]	Dim. l [mm]	Weight [kg]	
ZAR 1.35-1	Ø70 x 6.3	50	2100	28.0	117311508
ZAR 1.35-1	Ø70 x 6.3	50	2300	30.0	117311509
ZAR 1.35-1	Ø70 x 6.3	50	2500	32.0	117311510
ZAR 1.35-1	Ø70 x 6.3	50	3000	37.0	117311511
ZAR 1.35-1	Ø70 x 6.3	50	3500	41.9	117311512

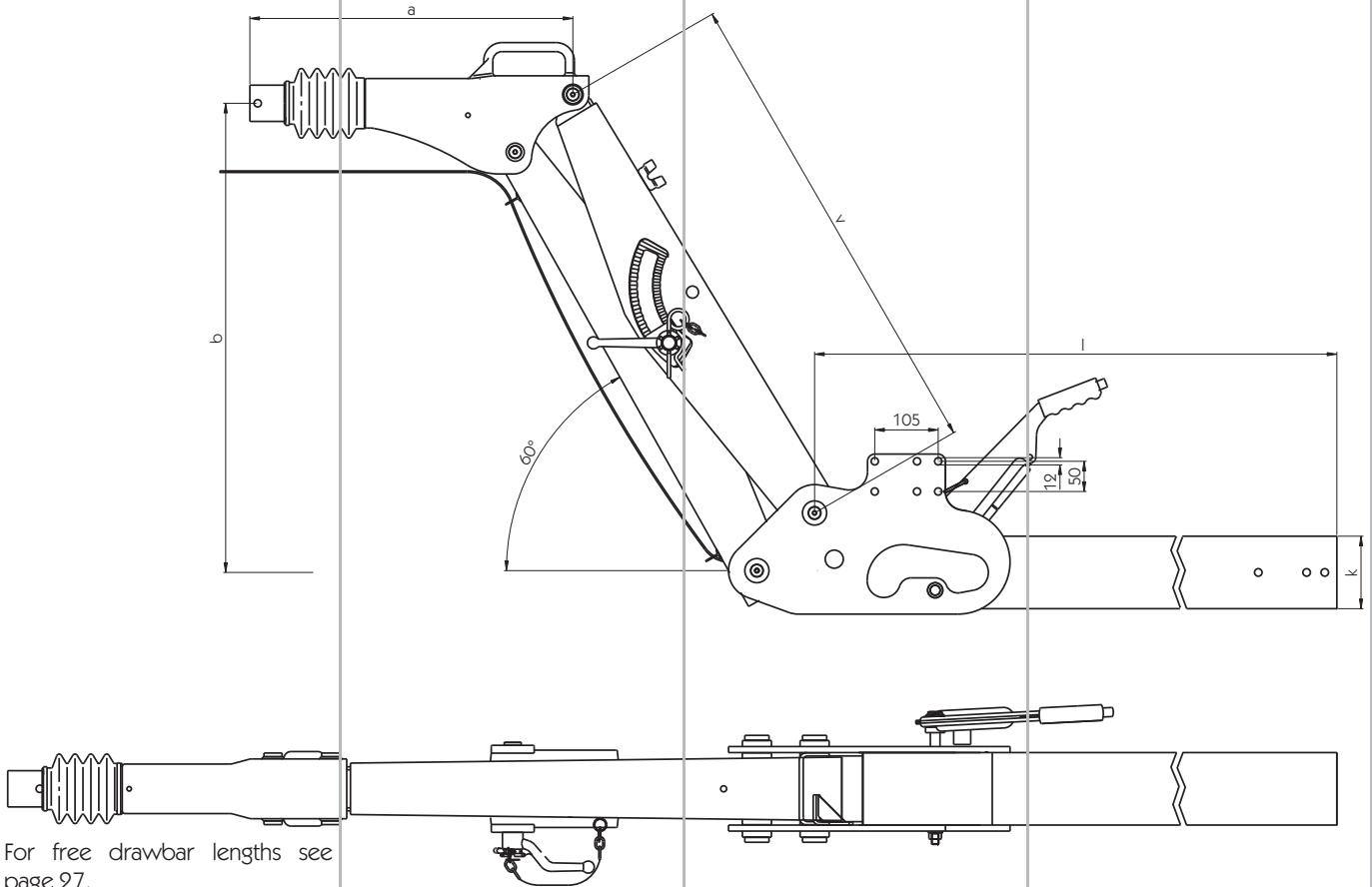


ZAR 2.0-1B, offset

Permissible gross weight 1089 - 2000 kg, permissible vertical static load at the coupling point 100 kg, EC cert. mark ©*0582*94/20, round section drawbar tube, offset, ball coupling, zinc galvanised.

Type	Dim. k [mm]	Dim. ha [mm]	Dim. l [mm]	Weight [kg]	
ZAR 2.0-1	Ø88.9 x 8.8	58	2100	54.1	117311513
ZAR 2.0-1	Ø88.9 x 8.8	58	2300	56.1	117311514
ZAR 2.0-1	Ø88.9 x 8.8	58	2500	58.0	117311515
ZAR 2.0-1	Ø88.9 x 8.8	58	3000	63.0	117311516
ZAR 2.0-1	Ø88.9 x 8.8	58	3500	68.0	117311517

Drawbar tubes with over-run unit ZAV height adjustable



For free drawbar lengths see page 27.

Please order the ball coupling or DIN drawbar eye separately.

ZAV 1.6-5 height adjustable

Permissible gross weight 1200 - 1600 kg, permissible vertical static load at the coupling point 150 kg, EC cert. mark ©*1284*94/20, rectangular section drawbar tube, zinc galvanised.

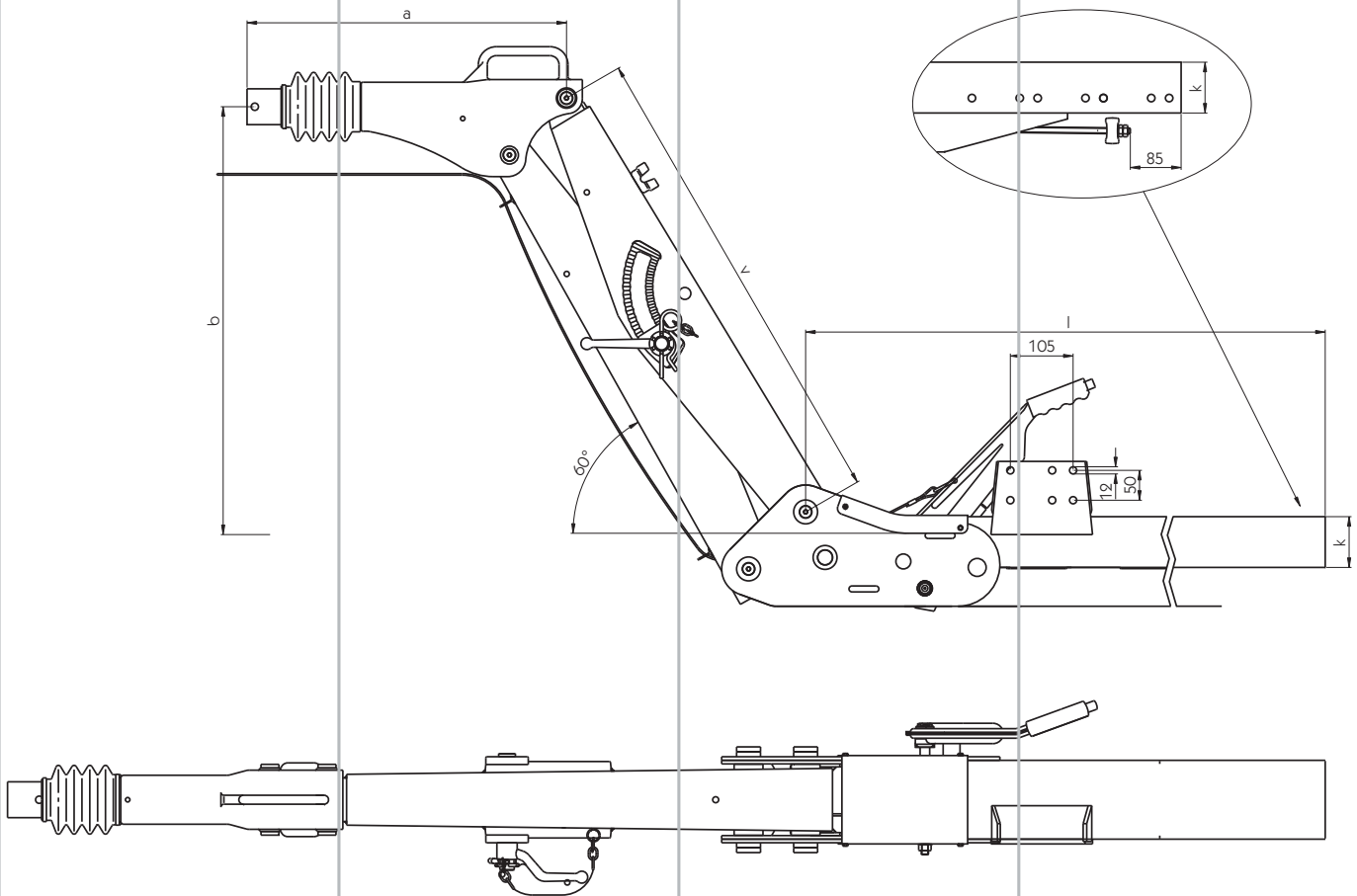
Type	Dim. k [mm]	Dim. a [mm]	Dim. l [mm]	Dim. b [mm]	Dim. v [mm]	Weight [kg]	
ZAV 1.6-5	∅120	535	1900	0 - 693	800	95.0	117311518
ZAV 1.6-5	∅120	535	2300	0 - 693	800	103.0	117311519
ZAV 1.6-5	∅120	535	2500	0 - 693	800	106.0	117311520
ZAV 1.6-5	∅120	535	2800	0 - 693	800	113.0	117311521
ZAV 1.6-5	∅120	535	1900	0 - 520	600	88.0	117311530
ZAV 1.6-5	∅120	535	2300	0 - 520	600	96.0	117311531
ZAV 1.6-5	∅120	535	2500	0 - 520	600	99.0	117311532
ZAV 1.6-5	∅120	535	2800	0 - 520	600	106.0	117311533

ZAV 2.0-5 height adjustable

Permissible gross weight 1500 - 2000 kg, permissible vertical static load at the coupling point 150 kg, EC cert. mark ©*1284*94/20, rectangular section drawbar tube, zinc galvanised.

Type	Dim. k [mm]	Dim. a [mm]	Dim. l [mm]	Dim. b [mm]	Dim. v [mm]	Weight [kg]	
ZAV 2.0-5	∅120	535	1900	0 - 693	800	95.0	117311522
ZAV 2.0-5	∅120	535	2300	0 - 693	800	103.0	117311523
ZAV 2.0-5	∅120	535	2500	0 - 693	800	106.0	117311524
ZAV 2.0-5	∅120	535	2800	0 - 693	800	113.0	117311525
ZAV 2.0-5	∅120	535	1900	0 - 520	600	88.0	117311534
ZAV 2.0-5	∅120	535	2300	0 - 520	600	96.0	117311535
ZAV 2.0-5	∅120	535	2500	0 - 520	600	99.0	117311536
ZAV 2.0-5	∅120	535	2800	0 - 520	600	106.0	117311537

For free drawbar lengths see page 27.
Please order the ball coupling or DIN drawbar eye separately.

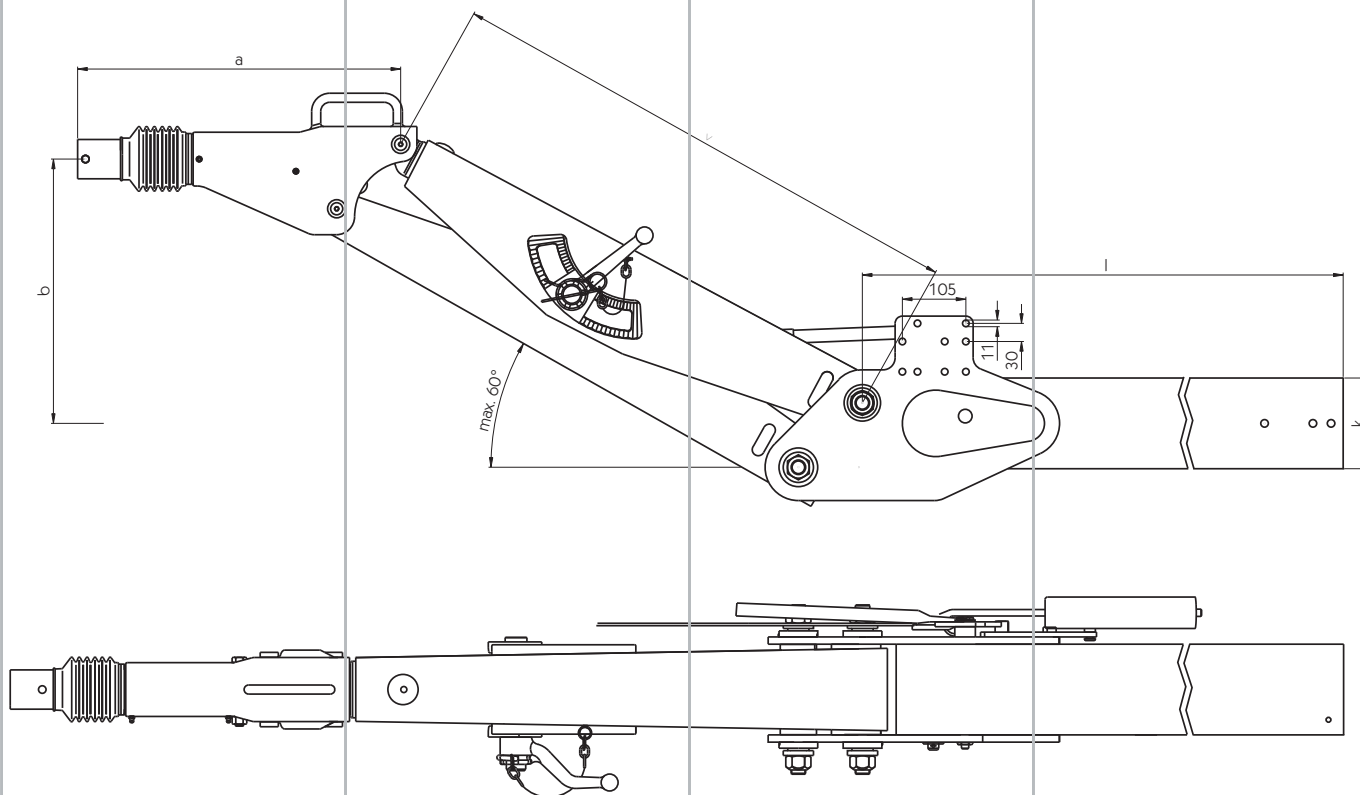


ZAV 2.7-4 height adjustable

Permissible gross weight 1860 - 2700 kg, permissible vertical static load at the coupling point 150 kg, EC cert. mark ©*1171*94/20, rectangular section drawbar tube, zinc galvanised.

Type	Dim. k [mm]	Dim. a [mm]	Dim. l [mm]	Dim. b [mm]	Dim. v [mm]	Weight [kg]	
ZAV 2.7-4	150 x 132	535	1900	0 - 693	800	103.0	117311526
ZAV 2.7-4	150 x 132	535	2280	0 - 693	800	111.0	117311527
ZAV 2.7-4	150 x 132	535	2500	0 - 693	800	117.0	117311528
ZAV 2.7-4	150 x 132	535	2800	0 - 693	800	125.0	117311529
ZAV 2.7-4	150 x 132	535	1900	0 - 520	600	96.0	117311538
ZAV 2.7-4	150 x 132	535	2280	0 - 520	600	104.0	117311539
ZAV 2.7-4	150 x 132	535	2500	0 - 520	600	110.0	117311540
ZAV 2.7-4	150 x 132	535	2800	0 - 520	600	118.0	117311541

For free drawbar lengths see page 27.
Please order the ball coupling or DIN drawbar eye separately.



ZAV 3.5-1 height adjustable

Permissible gross weight 2500 - 3500 kg, permissible vertical static load at the coupling point 150 kg, EC cert. mark ©*0798*94/20, rectangular section drawbar tube, zinc galvanised.

Type	Dim. k [mm]	Dim. a [mm]	Dim. l [mm]	Dim. b [mm]	Dim. v [mm]	Weight [kg]	
ZAV 3.5-1	∅150	535	1900	0 - 767	875	137.0	117310620
ZAV 3.5-1	∅150	535	2300	0 - 767	875	148.0	117310621
ZAV 3.5-1	∅150	535	2500	0 - 767	875	153.0	117310622
ZAV 3.5-1	∅150	535	2800	0 - 767	875	162.0	117310623

Accessories

For draw tubes height adjustable ZAV.

Ball coupling

Type

For ZAV 1.6-5; 2.0-5; 2.7-4

117311542

For ZAV 3.5-1

117310624

DIN drawbar eye

Type

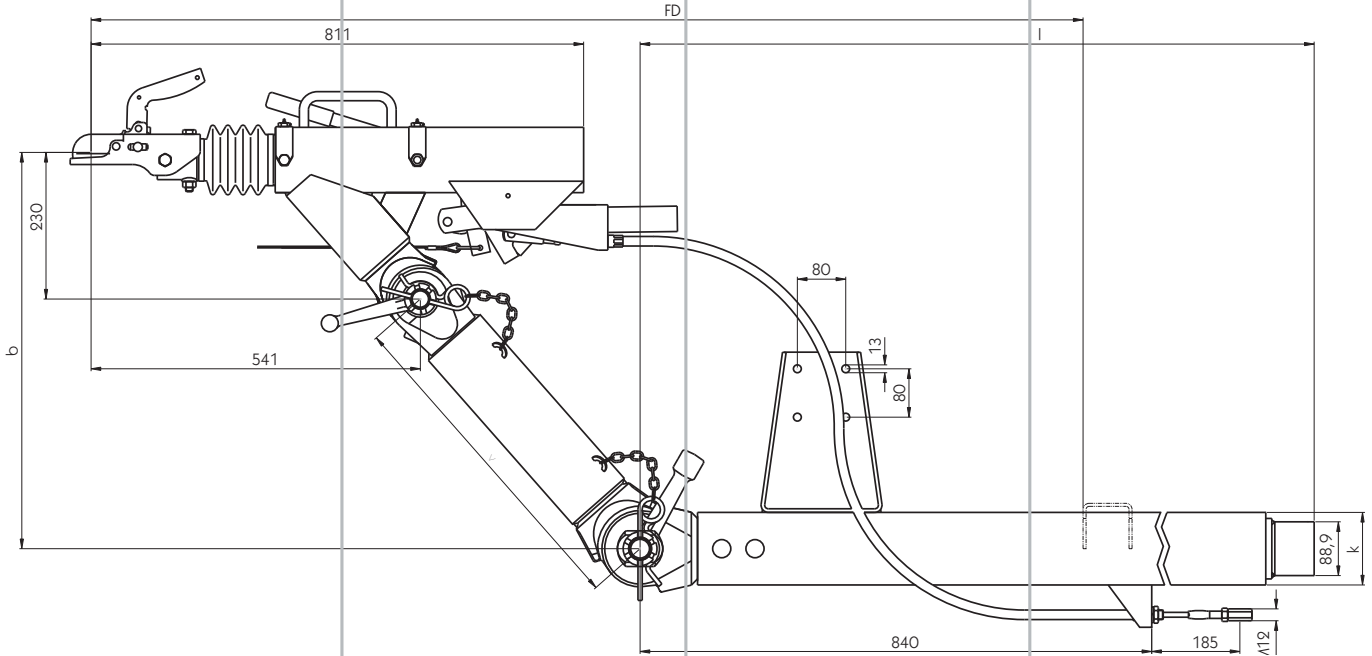
For ZAV 1.6-5; 2.0-5; 2.7-4

117311543

For ZAV 3.5-1

117310625

For free drawbar lengths see page 27.



ZKV 20-A/B height adjustable

Permissible gross weight 1300 - 2000 kg, permissible vert. static load at the coupling point 100 kg, EC cert. mark \oplus *0256*94/20, round section drawbar tube, ball coupling, zinc galvanised.

Type	Dim. k [mm]	Dim. l [mm]	Dim. b [mm]	Dim. v [mm]	Weight [kg]	
ZKV 20 A	$\varnothing 101.6 \times 8.8$	1900	210 - 521	415	88.0	117310547
ZKV 20 A	$\varnothing 101.6 \times 8.8$	2500	210 - 521	415	100.0	117310548
ZKV 20 A	$\varnothing 101.6 \times 8.8$	2800	210 - 521	415	106.0	117310549
ZKV 20 B	$\varnothing 101.6 \times 10$	1900	500 - 811	415	96.0	117310550
ZKV 20 B	$\varnothing 101.6 \times 10$	2500	500 - 811	415	109.0	117310551
ZKV 20 B	$\varnothing 101.6 \times 10$	2800	500 - 811	415	116.0	117310552

ZKV 25-B/D height adjustable

Permissible gross weight 1910 - 2700 kg, permissible vertical static load at the coupling point 150 kg, EC cert. mark \oplus *0307*94/20, rectangular section drawbar tube, ball coupling, zinc galvanised.

Type	Dim. k [mm]	Dim. l [mm]	Dim. b [mm]	Dim. v [mm]	Weight [kg]	
ZKV 25 B	$\square 120 \times 6.3$	1900	225 - 600	500	124.0	117310553
ZKV 25 B	$\square 120 \times 6.3$	2500	225 - 600	500	137.0	117310554
ZKV 25 B	$\square 120 \times 6.3$	2800	225 - 600	500	144.0	117310555
ZKV 25 D	$\square 120 \times 6.3$	2500	225 - 735	680	141.0	117310557

ZKV 35-B height adjustable

Permissible gross weight 2500 - 3500 kg, permissible vertical static load at the coupling point 150 kg, EC cert. mark \oplus *0527*94/20, rectangular section drawbar tube, ball coupling, zinc galvanised.

Type	Dim. k [mm]	Dim. l [mm]	Dim. b [mm]	Dim. v [mm]	Weight [kg]	
ZKV 35 B	$\square 120 \times 10$	1900	230 - 643	550	141.0	117310559
ZKV 35 B	$\square 120 \times 10$	2500	230 - 643	550	155.0	117310560
ZKV 35 B	$\square 120 \times 10$	2800	230 - 643	550	163.0	117310561

Free drawbar lengths
on towing and overrun
equipment pages 14 -
26

Free drawbar lengths
Length dimensions.

Perm. GVW [kg]	ZOR 0.75-1A [mm]	ZAR 1.35-1A [mm]	ZAR 1.35-1B [mm]	ZAR 2.8-1 [mm]	ZARV 1.35-1 [mm]	ZOV 0.75-B [mm]	ZOV 1.2-B [mm]
300	3210					3210	
350	3030					3030	
400	2870					2807	
450	2720					2620	
500	2590					2346	
550	2470					2170	
600	2360					1930	2770
650	2260					1740	2630
700	2170	1790		2170	1840	1570	2490
750	2090	1710		2070	1760	1410	2380
800		1635		1980	1680		2270
850		1570		1900	1610		2170
900		1510	1940	1830	1550		2070
950		1450	1860	1760	1490		1990
1000		1400	1790	1690	1430		1900
1050		1350	1730	1630	1380		1845
1100		1350	1670	1580	1340		1770
1150		1250	1600	1510	1280		1690
1200		1195	1540	1450	1230		1610
1250		1150	1470	1390	1180		
1300		1105	1420	1340	1135		
1350		1065	1365	1290	1095		
1400			1320				
1450			1275				
1500			1230				
1550			1190				
1600			1155				

Free drawbar lengths
Length dimensions.

Perm. GVW [kg]	ZAR 2.0-1A [mm]	ZARV 1.6-1 [mm]	ZARV 2.0-1 [mm]	ZAV 1.6-5 [mm]	ZAV 2.0-5 [mm]	ZKV 20-A [mm]	ZKV 20-B [mm]
1200				4200			
1250				4200			
1300				4200		3250	3400
1350	2055	1870	2400	4200		3130	3220
1400	1980	1805	2320	4200		3010	3050
1450	1910	1745	2240	4200		2900	2890
1500	1845	1685	2160	4200	4200	2800	2740
1550	1785	1630	2090	4100	4100	2700	2560
1600	1730	1580	2030	4000	4000	2620	2410
1650	1680	1535	1960		3900	2530	2290
1700	1630	1490	1910		3800	2420	2175
1750	1585	1445	1850		3700	2325	2065
1800	1540	1405	1800		3600	2230	1960
1850	1495	1365	1750		3400	2140	1865
1900	1460	1330	1700		3300	2055	1775
1950	1420	1295	1660		3200	1975	1685
2000	1385	1265	1620		3100	1900	1605

Free drawbar lengths
 Length dimensions.

Perm. GVW [kg]	ZAR 2.0-1B [mm]	ZARV 2.8-1 [mm]	ZAV 2.7-4 [mm]	ZAV 3.5-1 [mm]	ZKV 25-B [mm]	ZKV 25-D [mm]	ZKV 35-B [mm]
1600					4840	4770	
1650					4680	4620	
1700					4540	4480	
1750					4410	4350	
1800	3020	1800			4280	4220	
1850	2940	1750	3500		4160	4100	
1900	2860	1700	3500		4050	3980	
1950	2790	1660	3500		3940	3880	
2000	2720	1624	3500		3830	3770	
2050	2650	1580	3500		3740	3680	
2100	2590	1540	3500		3640	3580	
2150	2530	1510	3500		3550	3490	
2200	2470	1470	3500		3470	3390	
2250	2420	1440	3500		3390	3280	
2300	2370	1410	3500		3310	3180	
2350	2320	1380	3500		3240	3080	
2400	2270	1350	3500		3170	2990	
2450	2225	1325	3500		3100	2900	
2500	2180	1295	3500	3500	3030	2810	4340
2550	2135	1270	3500	3500	2970	2730	4260
2600	2095	1245	3500	3500	2910	2650	4170
2650	2055	1225	3500	3500	2850	2570	4090
2700	2015	1200	3500	3500	2820	2520	4010
2750	1980	1180		3500			3930
2800	1945	1160		3500			3860
2850				3500			3790
2900				3500			3720
2950				3500			3650
3000				3500			3590
3050				3500			3530
3100				3500			3470
3150				3500			3410
3200				3500			3350
3250				3500			3300
3300				3500			3240
3350				3500			3190
3400				3500			3140
3450				3500			3100
3500				3500			3050

Accessories
For drawbars tubes.
Mounting brackets and
tube clamps

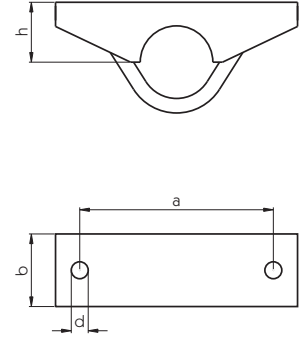
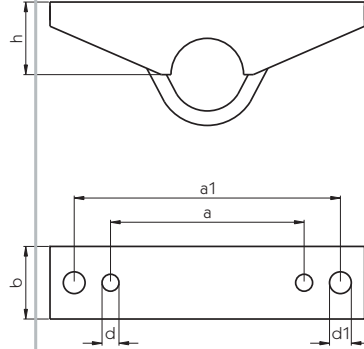


Illustration left: 117311546

Mounting brackets
Clamped fixture, 2 part, for
round section tube, without
screw materials.

For tube [mm]	Dim. h [mm]	Dim. d/d1 [mm]	Dim. a/a1 [mm]	Dim. b [mm]	
Ø70	49.5	14	160	60	117311544
Ø82.5	50	14.5	160	60	117311545
Ø88.9	60	14/18	160/220	60	117311546
Ø101.6	75	15	160	60	117311547

No longer available

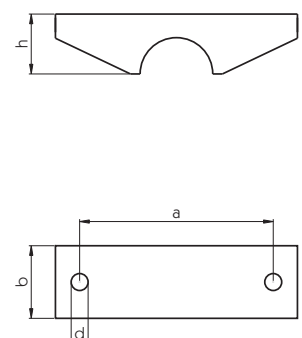
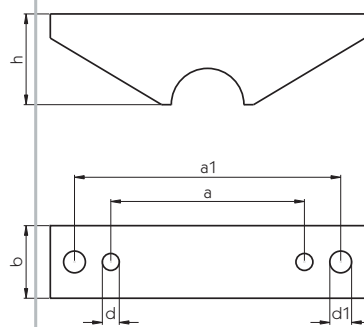


Illustration left: 117316291

Mounting brackets
Welded fixture, 1 part, for round
section tube.

For tube [mm]	Dim. h [mm]	Dim. d/d1 [mm]	Dim. a/a1 [mm]	Dim. b [mm]	
Ø70	49.5	14	160	60	117316387
Ø82.5	50	14.5	160	60	117311548
Ø88.9	60	14/18	160/220	60	117316291
Ø101.6	75	15	160	60	117311549
Ø108	60	14/18	160/220	60	117316397
Ø127	60	18	220	70	117316455
Ø140	---	18	220	---	117311550

No longer available

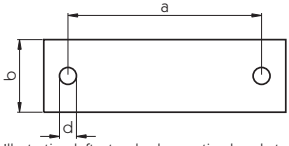
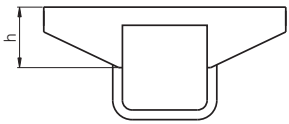
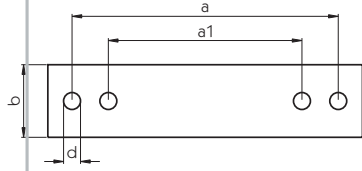
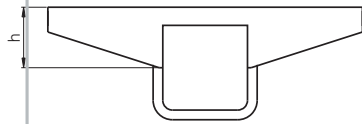
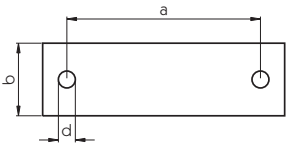
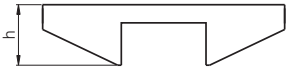


Illustration left: standard mounting brackets
Illustration right: 117311553



Mounting brackets
Clamped fixture, 2 part, for rectangular section tube.

For tube [mm]	Dim. h [mm]	Dim. d [mm]	Dim. a [mm]	Dim. b [mm]	
∅70	50	13	160	50	117311551
∅80	55	13	160	58	117311552
∅100	65	13	160/200	60	117311553
∅120	80	18	220	82	117310654
∅150 x 132	95	18	200	82	117311555
∅150	95	18	220	82	117310626



Mounting bracket
Welded fixture, for rectangular section tube, (not suitable for ZAV drawbars).

For tube [mm]	Dim. h [mm]	Dim. d [mm]	Dim. a [mm]	Dim. b [mm]	
∅120	75	18	250	81	117311554

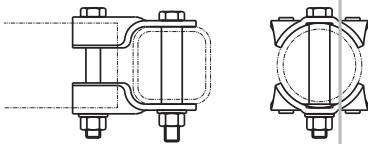
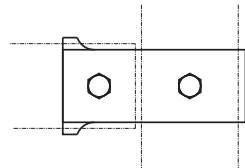
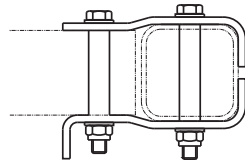


Illustration above: standard tube clamp/clamped fixture.

Illustration right: 117311593



**Tube clamps/
clamp fixture**

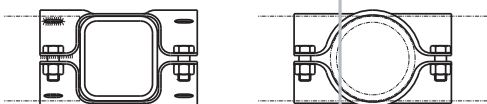
Drawbar [mm]	Axle tube [mm]	Single axle article number	Tandem article number
∅ 70	∅ 60	117311556	---
∅ 70	∅ 64	117316257	117316272
∅ 70	∅ 80	117316263	---
∅ 90	∅ 64	---	117316274
∅ 90	∅ 80	117316265	117311557
∅ 90	∅ 95	117316271	117311558
∅ 70	∅ 80	117311593	---

**Tube clamps/clamped
and welded fixture**

Drawbar [mm]	Axle tube [mm]	Single axle article number	Tandem article number
∅ 70	∅ 70	117311559	---
∅ 90	∅ 110	117310598	---
∅ 90	∅ 70	---	117311560
∅ 90	∅ 82	117311561	117311564
∅ 90	∅ 92	117311562	117311565
∅ 90	∅ 114	117311563	---
∅ 70	∅ 64	117311566	117311569
∅ 70	∅ 70	117311567	---
∅ 70	∅ 82	117311568	---
∅ 80	∅ 64	---	117311570

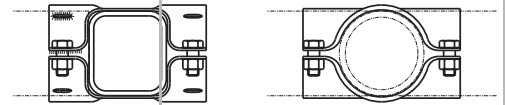
No longer available

On these 2 part tube clamps with clamp/weld fixing, only the top tube clamp may be welded. Please note the manufacturer's specification for this.



Tube clamps/clamped and welded fixtures

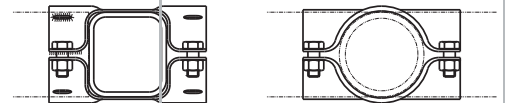
Drawbar [mm]	Axle tube [mm]	Single axle article number	Tandem article number
☐ 80	☐ 80	117311571	117311579
☐ 80	☐ 95	117311572	---
☐ 80	☐ 110	117311573	---
☐ 80	∅ 70	---	117311580
☐ 80	∅ 82	117311574	---
☐ 80	∅ 92	117311575	---
☐ 100	☐ 80	---	117311581
☐ 100	☐ 95	---	117311582
☐ 100	☐ 110	117311576	---
☐ 100	∅ 70	---	117311583
☐ 100	∅ 82	---	117311584
☐ 100	∅ 92	117311577	117311585
☐ 100	∅ 114	117311578	---



On these 2 part tube clamps with clamp/weld fixing, only the top tube clamp may be welded. Please note the manufacturer's specification for this.

Tube clamps/clamped and welded fixtures
For height adjustable fixtures.

Drawbar [mm]	Axle tube [mm]	Single axle article number	Tandem article number
∅ 82.5	☐ 80	117311586	---
∅ 70	☐ 80	117311587	---
∅ 90	☐ 80	117311588	117310600
∅ 90	☐ 95	117311589	117310601
∅ 90	☐ 110	117310598	---



Bowden cable

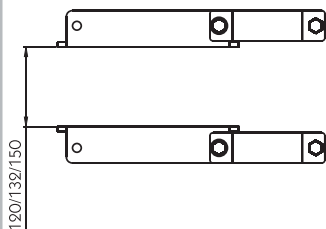
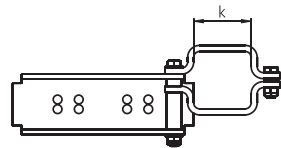
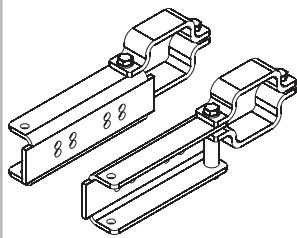
Bowden cable anchor plate, single axle

Type	For drawbar	Weight [kg]	
☐ 120	ZAV 1.6-5; 2.0-5	12.5	117311590
150 x 132	ZAV 2.7-4	17.0	117311591
☐ 150	ZAV 3.5-1	17.0	117311592

Bowden cable anchor plate, tandem

Type	Weight [kg]	
☐ 80	12.5	117316282
☐ 95	12.5	117316283

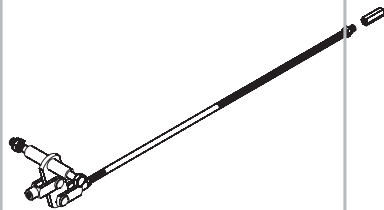
Axle connections



Axle connections
For mounting the ZAV over-run unit.

Dim. k [mm]	
☑ 80	117310683
☑ 95	117310684
☑ 110	117310685

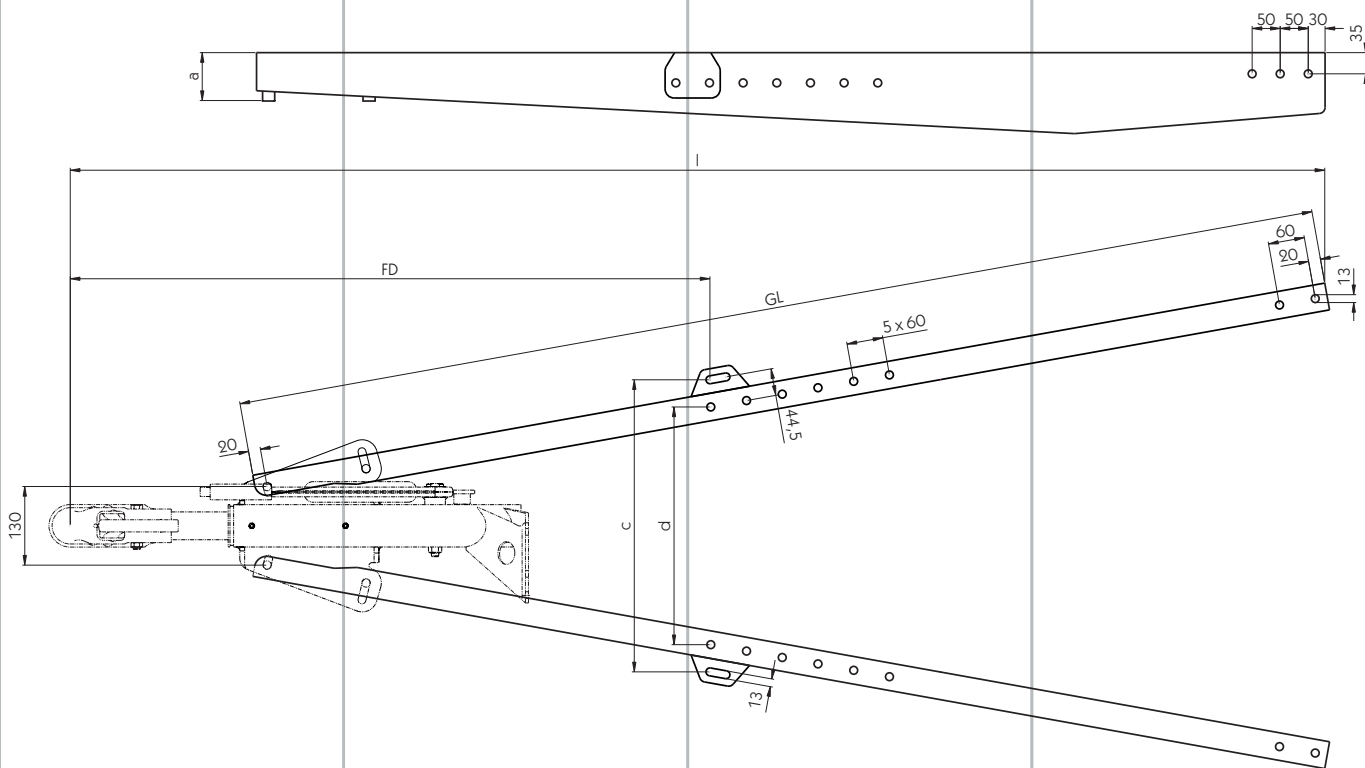
Tandem diagonal compensation



Tandem diagonal compensation
For ZAV over-run unit.

Thread	Weight [kg]	
M 10 - for ZAV 1.6-5; 2.0-5; 2.7-4	1.17	117310656
M 12 - for ZAV 3.5-1	1.58	117310628

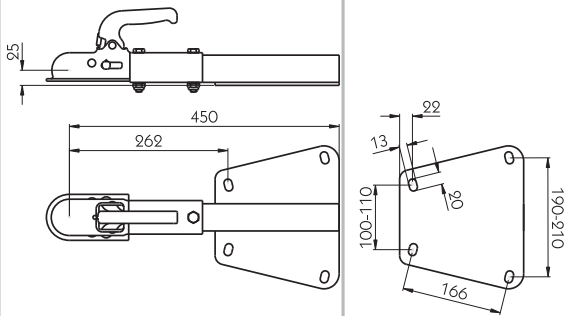
A-frame drawbars for car and light truck trailers ZEA



ZEA
Zinc plated, permissible vertical static load 150 kg.

Type	Perm. GVW up to [kg]	Dim. a [mm]	Dim. c [mm]	Dim. d [mm]	Dim. fd [mm]	Dim. gl [mm]	Dim. l [mm]	EC cert. mark	Weight [kg]	
ZEA 2.0-1	2000	80	605	516	1045	1800	2025	Ⓢ*0986*94/20	16.4	117310657
ZEA 2.0-1	2000	80	605	516	1045	2150	2364	Ⓢ*0986*94/20	20.7	117310658
ZEA 2.0-1	2000	80	772	653	1301	2500	2702	Ⓢ*0986*94/20	25.0	117310659
ZEA 2.8-1	2800	98	605	516	1045	1800	2025	Ⓢ*0891*94/20	20.1	117310660
ZEA 2.8-1	2800	98	605	516	1045	2150	2364	Ⓢ*0891*94/20	23.4	117310661
ZEA 2.8-1	2800	98	772	653	1301	2500	2702	Ⓢ*0891*94/20	26.6	117310662
ZEA 3.5-1	3500	104	605	516	1039	1800	2050	Ⓢ*0975*94/20	27.2	117310663
ZEA 3.5-1	3500	104	605	516	1039	2150	2388	Ⓢ*0975*94/20	31.5	117310664
ZEA 3.5-1	3500	104	772	653	1326	2500	2726	Ⓢ*0975*94/20	38.6	117310665

Ball coupling for A-frame drawbars ZOF

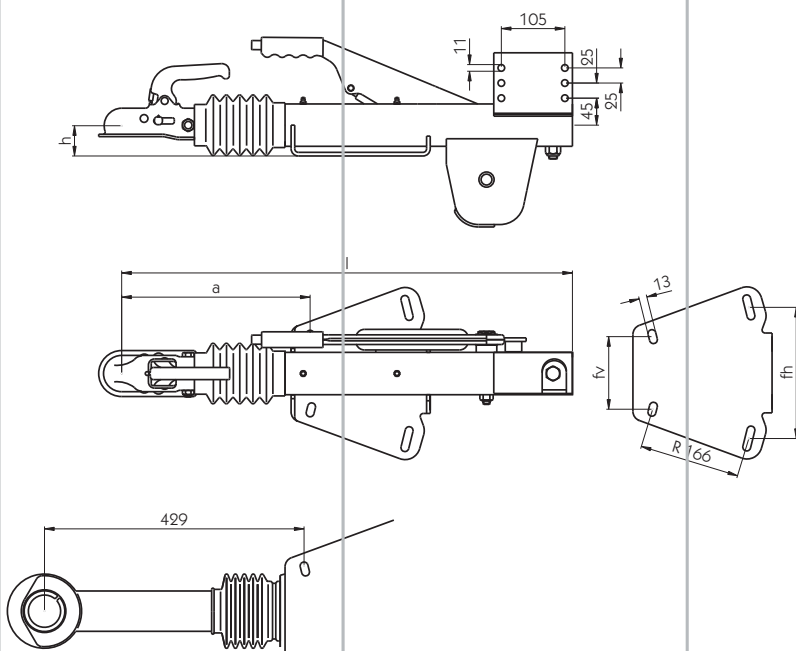


ZOF 0.75-1

Ball coupling, permissible GVW 750 kg, permissible vertical static load 75 kg, EC cert. mark ©*1023*94/20, weight 4.9 kg.

117311429

Over-run units for A-frame drawbars ZAF

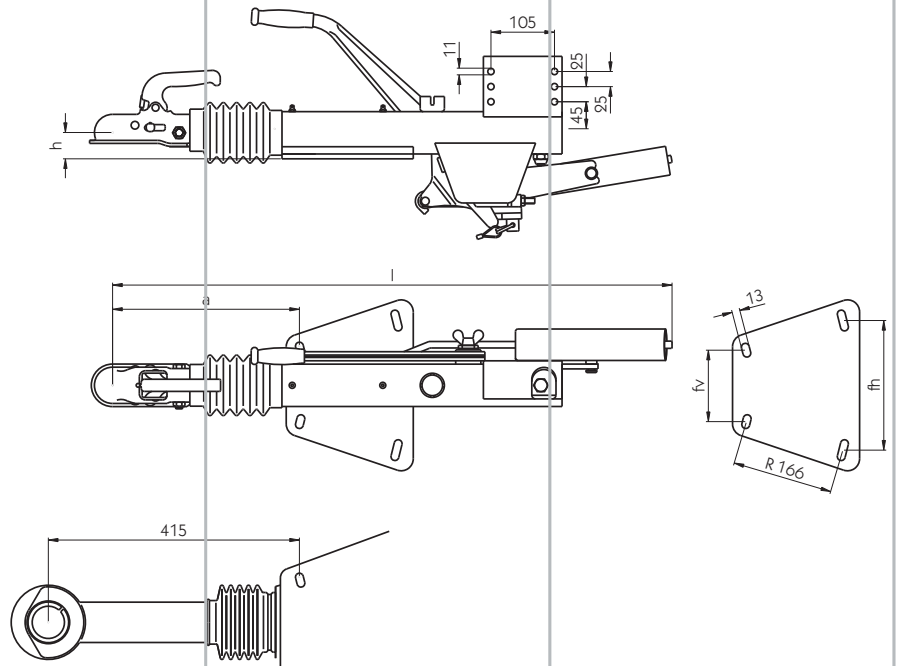


ZAF with gas strut assisted parking brake lever
Over-run unit for A-frame drawbar, ball coupling, zinc galvanised.

No longer available

Type	Perm. GVW [kg]	Perm. vert. static load [kg]	Dim. a [mm]	Dim. h [mm]	Dim. l [mm]	Dim. fh [mm]	Dim. fv [mm]	Weight [kg]	EC cert. mark
ZAF 1.0-1	560-1000	75	286	30	625	162-211	110	10.8	©*1031*94/20 117311486
ZAF 2.0-1*	1089-2000	100	429	51	861	190-245	110-130	17.2	©*0604*94/20 117311487

* With DIN drawbar eye

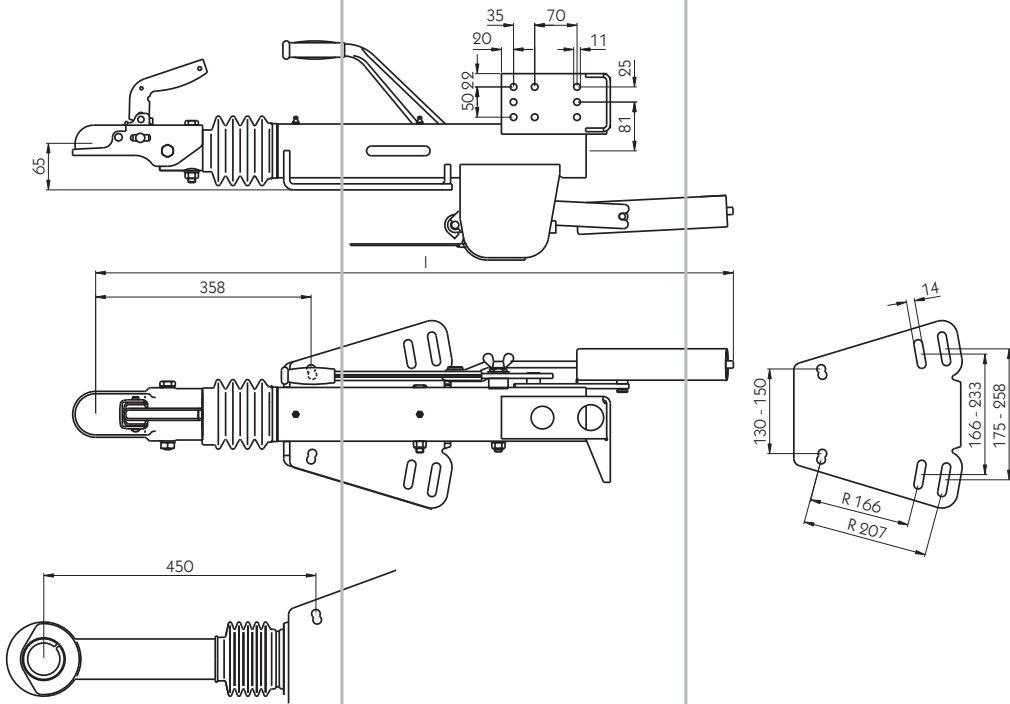


ZAF 1.6-1 to 2.8-1 with
toggle action parking
brake lever
Over-run unit for A-frame draw-
bar, ball coupling, zinc galvanised.

No longer
available

Type	Perm. GVW [kg]	Perm. vert. static load [kg]	Dim. a [mm]	Dim. h [mm]	Dim. l [mm]	Dim. fh [mm]	Dim. fv [mm]	Weight [kg]	EG cert. mark	
ZAF 1.6-1	850-1600	100	310	35	922	195-235	110-130	17.7	©*0603*94/20	117310390
ZAF 2.0-1	1089-2000	100	310	35	922	195-235	110-130	18.5	©*0604*94/20	117310391
ZAF 2.0-1*	1089-2000	100	415	35	850	195-235	110-130	18.7	©*0604*94/20	117311489
ZAF 2.8-1	1785-2800	100	310	35	922	166-223	130	23.5	©*0575*94/20	117310392

* With DIN drawbar eye.



ZAF 3.5 with toggle action parking brake lever

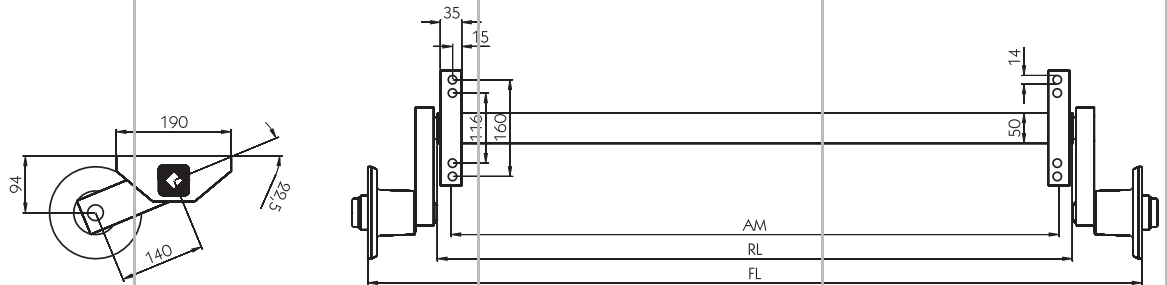
Over-run unit for A-frame drawbar, ball coupling, zinc galvanised.

Type	Perm. GVW [kg]	Perm. vert. static load [kg]	Dim. a [mm]	Dim. l [mm]	Weight [kg]	EC cert. mark	
ZAF 3.5-1	2500-3500	150	358	1044	29.5	©*0976*94/20	117310678
ZAF 3.5-1*	2500-3500	150	450	1138	31.2	©*0976*94/20	117310682

* With DIN drawbar eye

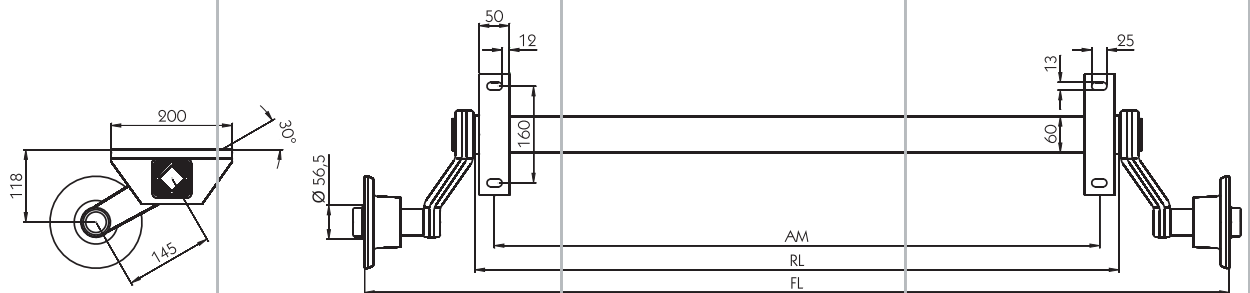
Car and light truck trailer axle units GFA, GF

Unbraked rubber suspension axles GFA



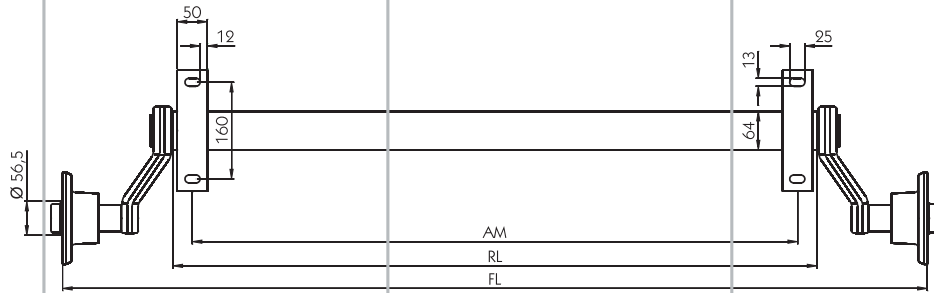
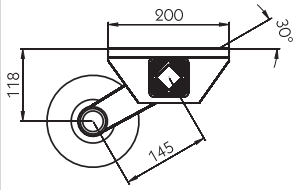
GFA 500
Axle load 500 kg.

Wheel fixing [mm]	Dim. AM [mm]	Dim. RL [mm]	Dim. FL [mm]	Wheel offset [mm]	Wheel hub	Weight [kg]	
4/60/100	1000	1050	1280	-10 - 10	KS 700 S	17.8	120318001
4/60/100	1100	1150	1380	-10 - 10	KS 700 S	18.2	120318002
4/60/100	1200	1250	1480	-10 - 10	KS 700 S	18.6	120318003
4/57/100	1000	1100	1400	26 - 40	GA 1.5	18.0	120318004
4/57/100	1100	1200	1500	26 - 40	GA 1.5	18.4	120318005
4/57/100	1200	1300	1600	26 - 40	GA 1.5	18.8	120318006



GFA 750K
Axle load 750 kg, wheel hub GA 1.5, wheel offset 0 - 40.

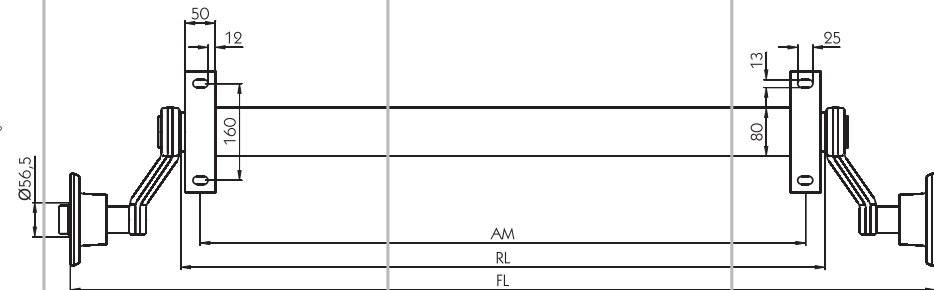
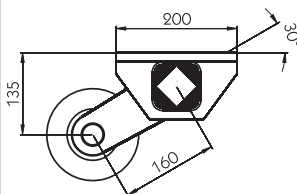
Wheel fixing [mm]	Dim. AM [mm]	Dim. RL [mm]	Dim. FL [mm]	Bolts	Weight [kg]	
4/57/100	1000	1065	1430	cone	23.0	120318402
4/57/100	1100	1165	1530	cone	23.5	120318403
4/57/100	1200	1265	1630	cone	24.0	120318404
4/57/100	1300	1365	1730	cone	24.5	120318405
4/57/100	1400	1465	1830	cone	25.0	120318406
4/57/100	1500	1565	1930	cone	25.5	120318407
5/67/112	1000	1065	1430	orb collar	23.0	120318408
5/67/112	1100	1165	1530	orb collar	23.5	120318409
5/67/112	1200	1265	1630	orb collar	24.0	120318410
5/67/112	1300	1365	1730	orb collar	24.5	120318411
5/67/112	1400	1465	1830	orb collar	25.0	120318412
5/67/112	1500	1565	1930	orb collar	25.5	120318413



GFA 850K

Axle load 850 kg, wheel hub GA 1.5, wheel offset 0 - 40.

Wheel fixing [mm]	Dim. AM [mm]	Dim. RL [mm]	Dim. FL [mm]	Bolts	Weight [kg]	
4/57/100	1000	1065	1430	cone	24.0	120318414
4/57/100	1100	1165	1530	cone	24.7	120318415
4/57/100	1200	1265	1630	cone	25.4	120318416
4/57/100	1300	1365	1730	cone	26.1	120318417
4/57/100	1400	1465	1830	cone	26.8	120318418
4/57/100	1500	1565	1930	cone	27.5	120318419
5/67/112	1000	1065	1430	orb collar	24.0	120318420
5/67/112	1100	1165	1530	orb collar	24.7	120318421
5/67/112	1200	1265	1630	orb collar	25.4	120318422
5/67/112	1300	1365	1730	orb collar	26.1	120318423
5/67/112	1400	1465	1830	orb collar	26.8	120318424
5/67/112	1500	1565	1930	orb collar	27.5	120318425

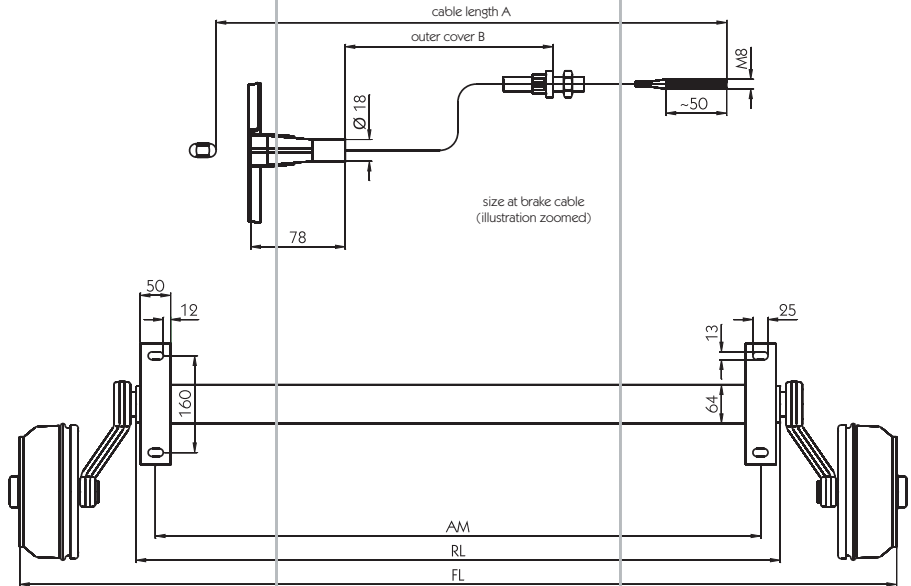
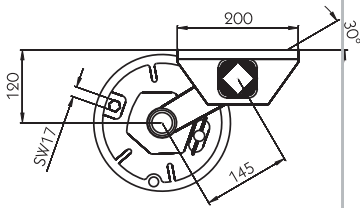


GFA 1350K

Axle load 1350 kg, wheel hub GA 1.5, wheel offset 26 - 40, storage maintenance-free.

Wheel fixing [mm]	Dim. AM [mm]	Dim. RL [mm]	Dim. FL [mm]	Bolts	Weight [kg]	
5/67/112	1000	1065	1430	orb collar	31.7	120318426
5/67/112	1100	1165	1530	orb collar	32.6	120318427
5/67/112	1200	1265	1630	orb collar	33.5	120318428
5/67/112	1300	1365	1730	orb collar	34.4	120318429
5/67/112	1400	1465	1830	orb collar	35.3	120318430
5/67/112	1500	1565	1930	orb collar	36.2	120318431

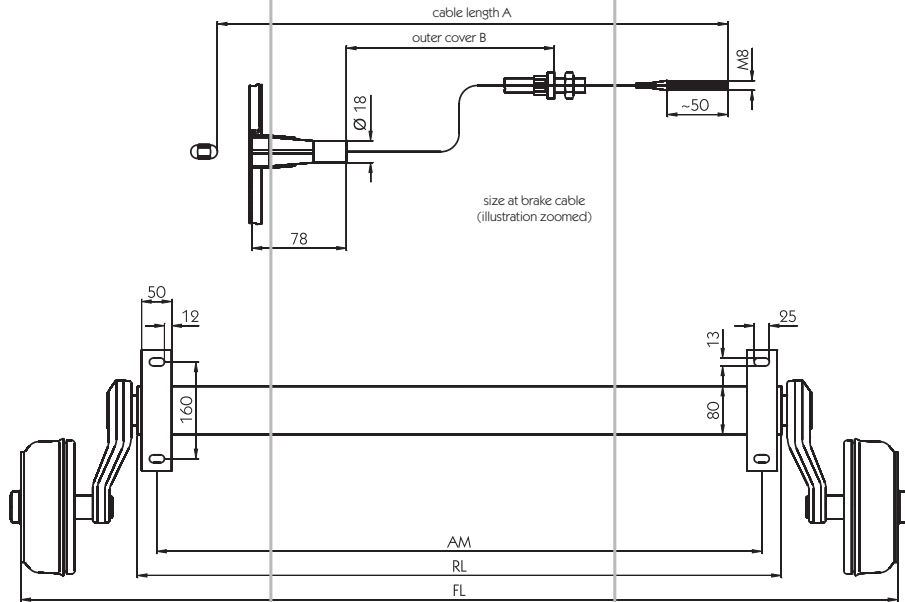
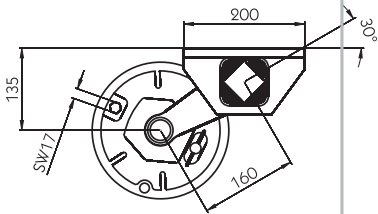
Braked rubber suspension axle units GFA



GFA 850

Wheel brakes 200x50 RA (20-2425/1), axle load 850 kg, wheel offset 26 - 40.

Wheel fixing [mm]	Dim. AM [mm]	Dim. RL [mm]	Dim. FL [mm]	Dim. A [mm]	Dim. B [mm]	Weight [kg]	
5/67/112	1000	1065	1450	940	730	46.6	120318048
5/67/112	1200	1265	1650	1040	830	48.0	120318049
5/67/112	1800	1865	2250	1440	1230	52.2	120318321

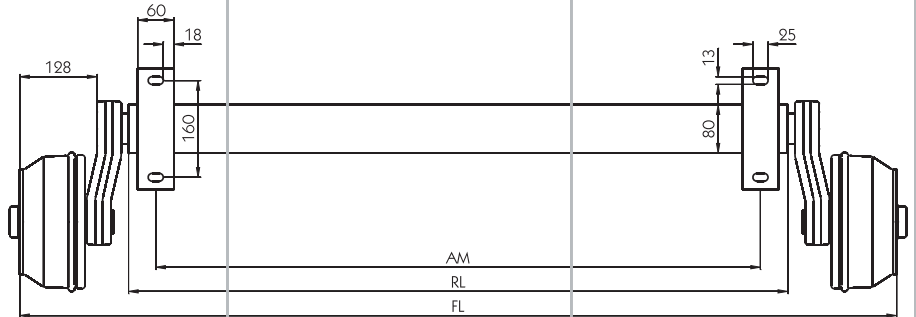
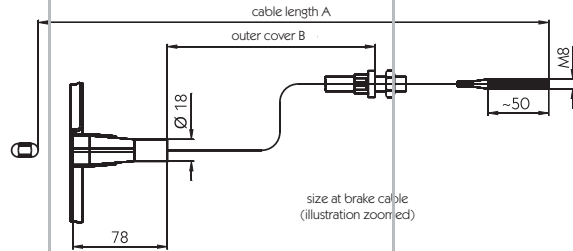
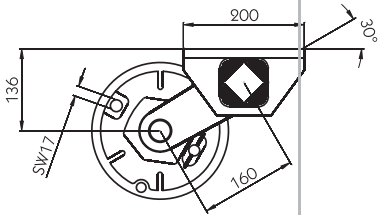


GFA 1350

Wheel brakes 200x50 RA (20-2425/1), axle load 1350 kg, wheel offset 26 - 40.

Wheel fixing [mm]	Dim. AM [mm]	Dim. RL [mm]	Dim. FL [mm]	Dim. A [mm]	Dim. B [mm]	Weight [kg]	
5/67/112	1000	1065	1450	940	730	50.1	120318055
5/67/112	1100	1165	1550	940	730	51.1	120318056
5/67/112	1200	1265	1650	1040	830	52.1	120318057
5/67/112	1300	1365	1750	1040	830	53.1	120318058
5/67/112	1400	1465	1850	1240	1030	54.1	120318059
5/67/112	1500	1565	1950	1240	1030	55.1	120318060
5/67/112	1600	1665	2050	1340	1130	56.1	120318061
5/67/112	1800	1865	2250	1440	1230	58.1	120318062

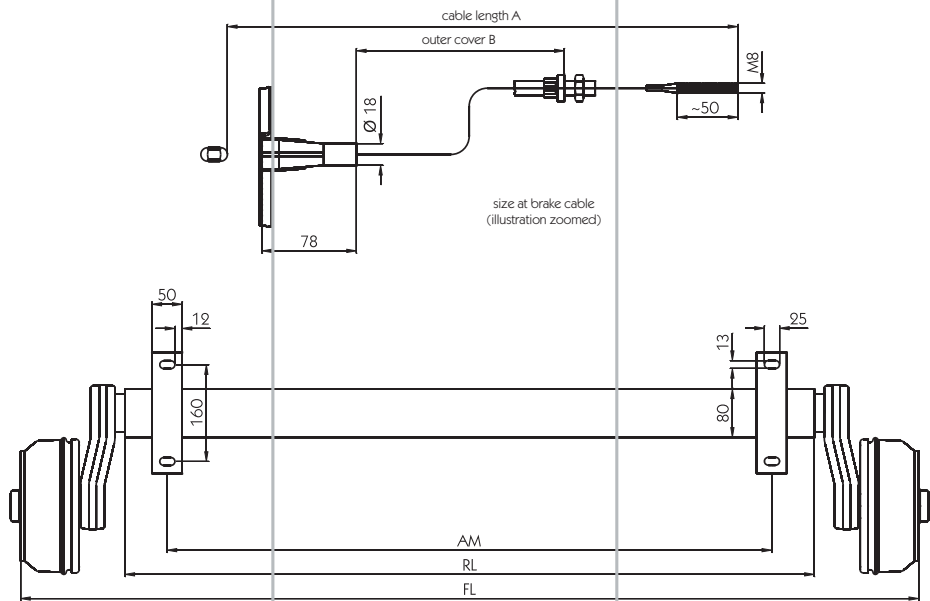
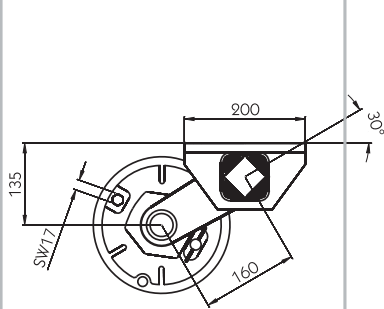
Only 10" wheels can be fitted to these axles.



GFA 1350

Wheel brakes 200x50 RA (20-2425/1), axle load 1350 kg, wheel offset 0.

Wheel fixing [mm]	Dim. AM [mm]	Dim. RL [mm]	Dim. FL [mm]	Bolts	Dim. A [mm]	Dim. B [mm]	Weight [kg]	
5/67/112	1000	1090	1450	orb collar	940	730	60	120318280
5/67/112	1100	1190	1550	orb collar	940	730	61	120318281
5/67/112	1200	1290	1650	orb collar	1040	830	62	120318282
5/67/112	1300	1390	1750	orb collar	1040	830	63	120318283
5/67/112	1400	1490	1850	orb collar	1240	1030	64	120318284
5/67/112	1500	1590	1950	orb collar	1240	1030	65	120318285
5/67/112	1600	1690	2050	orb collar	1340	1130	66	120318286
5/67/112	1700	1790	2150	orb collar	1340	1130	67	120318287
5/67/112	1800	1890	2250	orb collar	1440	1230	68	120318288

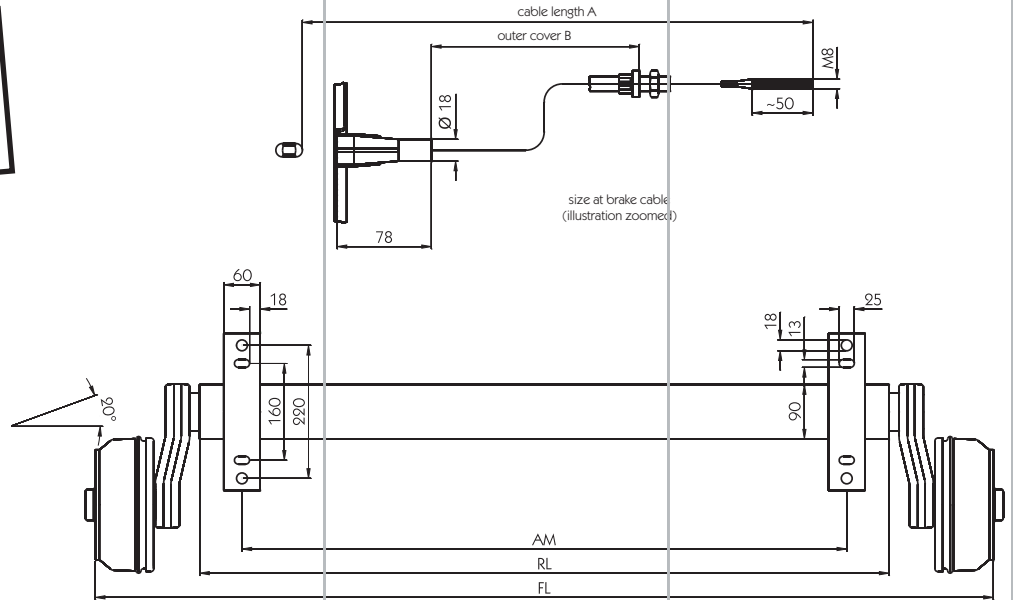
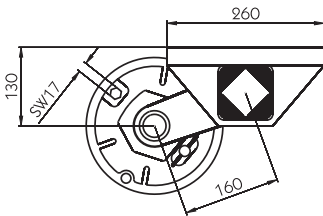


GFA 1580

Wheel brakes 200x50 RA (20-2425/1), axle load 1500 kg, wheel offset 26 - 40, permissible gross weight 1500 kg.

Wheel fixing [mm]	Dim. AM [mm]	Dim. RL [mm]	Dim. FL [mm]	Bolts	Dim. A [mm]	Dim. B [mm]	Weight [kg]	
5/67/112	1000	1140	1485	orb collar	940	730	60	120318260
5/67/112	1100	1240	1585	orb collar	940	730	61	120318261
5/67/112	1200	1340	1685	orb collar	1040	830	62	120318262
5/67/112	1300	1440	1785	orb collar	1040	830	63	120318263
5/67/112	1400	1540	1885	orb collar	1240	1030	64	120318264
5/67/112	1500	1640	1985	orb collar	1240	1030	65	120318265
5/67/112	1600	1740	2085	orb collar	1340	1130	66	120318266
5/67/112	1700	1840	2185	orb collar	1340	1130	67	120318267
5/67/112	1800	1940	2285	orb collar	1440	1230	68	120318268
5/67/112	1900	2040	2385	orb collar	1440	1230	69	120318269

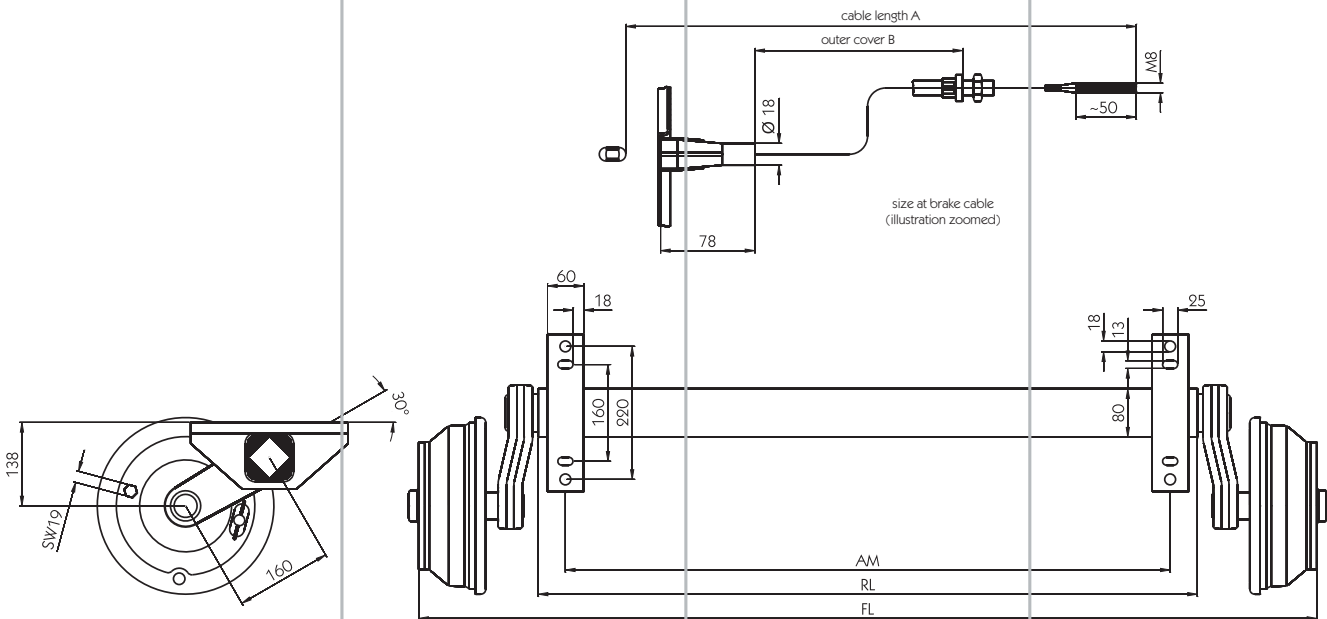
Only 10" wheels can be fitted to these axles.



GFA 1500

Wheel brakes 200x50 RA (20-2425/1), axle load 1500 kg, wheel offset 0.

Wheel fixing [mm]	Dim. AM [mm]	Dim. RL [mm]	Dim. FL [mm]	Bolts	Dim. A [mm]	Dim. B [mm]	Weight [kg]	
5/67/112	1000	1090	1450	orb collar	940	730	77.2	120318289
5/67/112	1100	1190	1550	orb collar	940	730	78.5	120318290
5/67/112	1200	1290	1650	orb collar	1040	830	79.8	120318291
5/67/112	1300	1390	1750	orb collar	1040	830	81.1	120318292
5/67/112	1400	1490	1850	orb collar	1240	1030	82.4	120318293
5/67/112	1500	1590	1950	orb collar	1240	1030	83.7	120318294
5/67/112	1600	1690	2050	orb collar	1340	1130	85.0	120318295
5/67/112	1700	1790	2150	orb collar	1340	1130	86.3	120318296
5/67/112	1800	1890	2250	orb collar	1440	1230	87.6	120318297

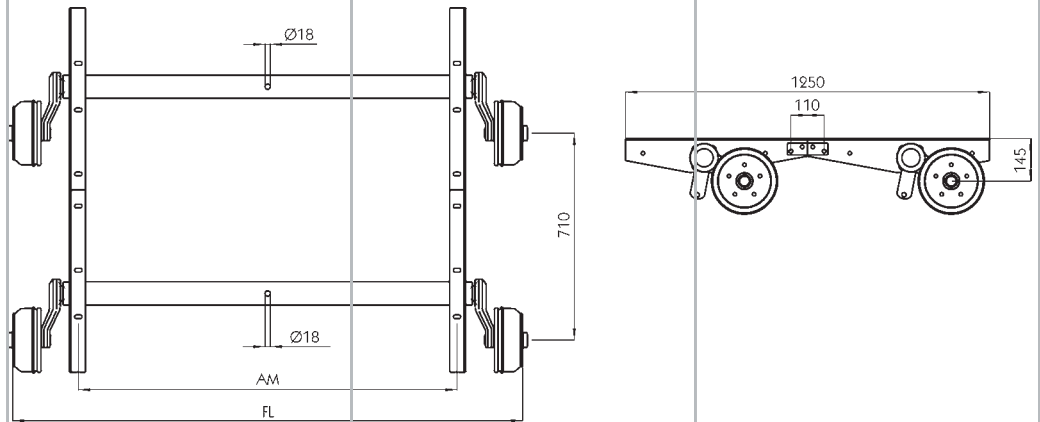


GFA 1880

Wheel brakes 250x40 RA (25-2025), permissible gross weight 1800 kg, wheel offset 26 - 40.

Wheel fixing [mm]	Dim. AM [mm]	Dim. RL [mm]	Dim. FL [mm]	Dim. A [mm]	Dim. B [mm]	Weight [kg]	
5/67/112	1000	1090	1485	940	730	72	120318270
5/67/112	1100	1190	1585	940	730	73	120318271
5/67/112	1200	1290	1685	1040	830	74	120318272
5/67/112	1300	1390	1785	1040	830	75	120318273
5/67/112	1400	1490	1885	1240	1030	76	120318274
5/67/112	1500	1590	1985	1240	1030	77	120318275
5/67/112	1600	1690	2085	1340	1130	78	120318276
5/67/112	1700	1790	2185	1340	1130	79	120318277
5/67/112	1800	1890	2285	1440	1230	80	120318278
5/67/112	1900	1990	2385	1440	1230	81	120318279

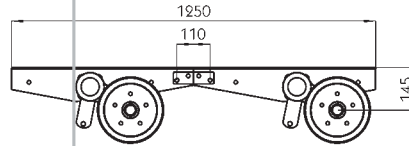
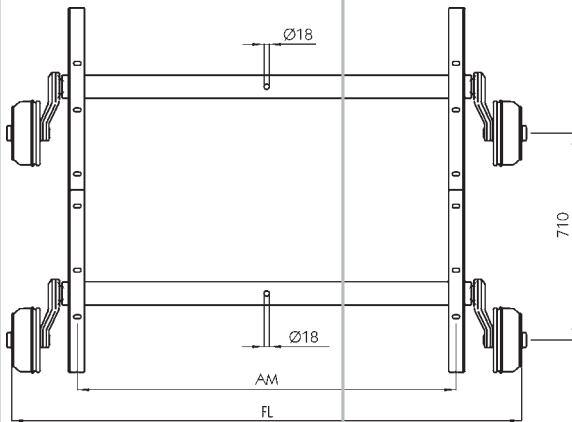
Braked tandem axle units
GF



GF 2100

Pre-assembled tandem axle units, Ø 18 mm holes bored in both axle bodies, wheel offset ET 26 - 40, permissible gross weight 2100 kg.

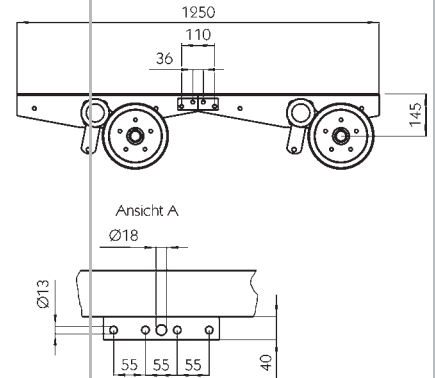
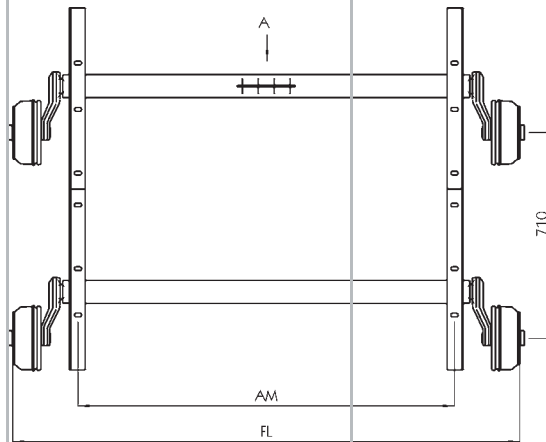
Wheel fixing [mm]	Dim. AM [mm]	Dim. FL [mm]	Bolts	Brake cable front [mm]	Brake cable rear [mm]	Weight [kg]	
5/67/112	1000	1470	orb collar	940	940	110	120318119
5/67/112	1100	1570	orb collar	940	940	112	120318120
5/67/112	1200	1670	orb collar	1040	1040	114	120318072
5/67/112	1300	1770	orb collar	1040	1040	116	120318121
5/67/112	1400	1870	orb collar	1240	1240	118	120318073
5/67/112	1500	1970	orb collar	1240	1240	120	120318074
5/67/112	1600	2070	orb collar	1340	1340	122	120318075
5/67/112	1700	2170	orb collar	1340	1340	124	120318122
5/67/112	1800	2270	orb collar	1440	1440	126	120318076
5/67/112	1900	2370	orb collar	1440	1440	128	120318123



GF 2700

Pre-assembled tandem axle units, Ø 18 mm holes bored in both axle bodies, wheel offset ET 26 - 40, permissible gross weight 2700 kg.

Wheel fixing [mm]	Dim. AM [mm]	Dim. FL [mm]	Bolts	Brake cable front [mm]	Brake cable rear [mm]	Weight [kg]	
5/67/112	1000	1470	orb collar	940	940	110	120318124
5/67/112	1100	1570	orb collar	940	940	112	120318125
5/67/112	1200	1670	orb collar	1040	1040	114	120318126
5/67/112	1300	1770	orb collar	1040	1040	116	120318127
5/67/112	1400	1870	orb collar	1240	1240	118	120318128
5/67/112	1500	1970	orb collar	1240	1240	120	120318129
5/67/112	1600	2070	orb collar	1340	1340	122	120318130
5/67/112	1700	2170	orb collar	1340	1340	124	120318131
5/67/112	1800	2270	orb collar	1440	1440	126	120318132
5/67/112	1900	2370	orb collar	1440	1440	128	120318133



GF 2100

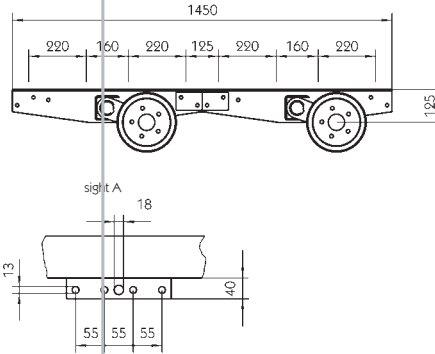
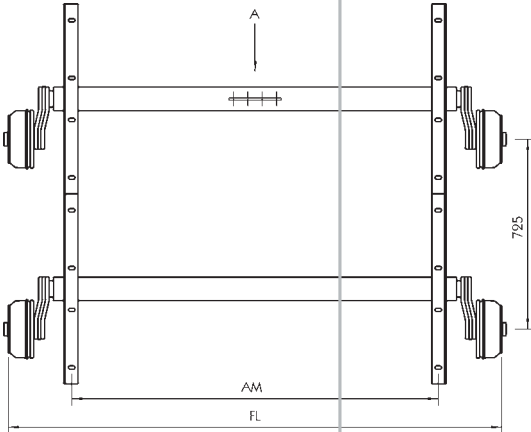
Pre-assembled tandem axle unit with brake cable anchor plate on the front axle, wheel offset ET 26 - 40, permissible gross weight 2100 kg.

Wheel fixing [mm]	Dim. AM [mm]	Dim. FL [mm]	Bolts	Brake cable front [mm]	Brake cable rear [mm]	Weight [kg]	
5/67/112	1400	1870	orb collar	1240	1540	118	120318241
5/67/112	1600	2070	orb collar	1340	1540	122	120318243

GF 2700

Pre-assembled tandem axle unit with brake cable anchor plate on the front axle, wheel offset ET 26 - 40, permissible gross weight 2700 kg.

Wheel fixing [mm]	Dim. AM [mm]	Dim. FL [mm]	Bolts	Brake cable front [mm]	Brake cable rear [mm]	Weight [kg]	
5/67/112	1000	1470	orb collar	940	1440	110	120318247
5/67/112	1100	1570	orb collar	940	1440	112	120318248
5/67/112	1200	1670	orb collar	1040	1440	114	120318249
5/67/112	1300	1770	orb collar	1040	1540	116	120318250
5/67/112	1400	1870	orb collar	1240	1540	118	120318251
5/67/112	1500	1970	orb collar	1240	1540	120	120318252
5/67/112	1600	2070	orb collar	1340	1540	122	120318253
5/67/112	1700	2170	orb collar	1340	1740	124	120318254
5/67/112	1800	2270	orb collar	1440	1740	126	120318255
5/67/112	1900	2370	orb collar	1440	1740	128	120318256



GF 3500

Pre-assembled tandem axle unit, wheel offset ET 26 - 40, permissible gross weight 3500 kg.

Wheel fixing [mm]	Dim. AM [mm]	Dim. FL [mm]	Bolts	Brake cable front [mm]	Brake cable rear [mm]	Weight [kg]	
5/67/112	1000	1485	orb collar	940	1440	195.4	120318228
5/67/112	1100	1585	orb collar	940	1440	198.0	120318229
5/67/112	1200	1685	orb collar	1040	1440	200.6	120318230
5/67/112	1300	1785	orb collar	1040	1540	203.2	120318231
5/67/112	1400	1885	orb collar	1240	1540	205.8	120318232
5/67/112	1500	1985	orb collar	1240	1540	208.4	120318233
5/67/112	1600	2085	orb collar	1340	1540	211.0	120318234
5/67/112	1700	2185	orb collar	1340	1740	213.6	120318235
5/67/112	1800	2285	orb collar	1440	1740	216.2	120318236
5/67/112	1900	2385	orb collar	1440	1740	218.8	120318298

Spare parts

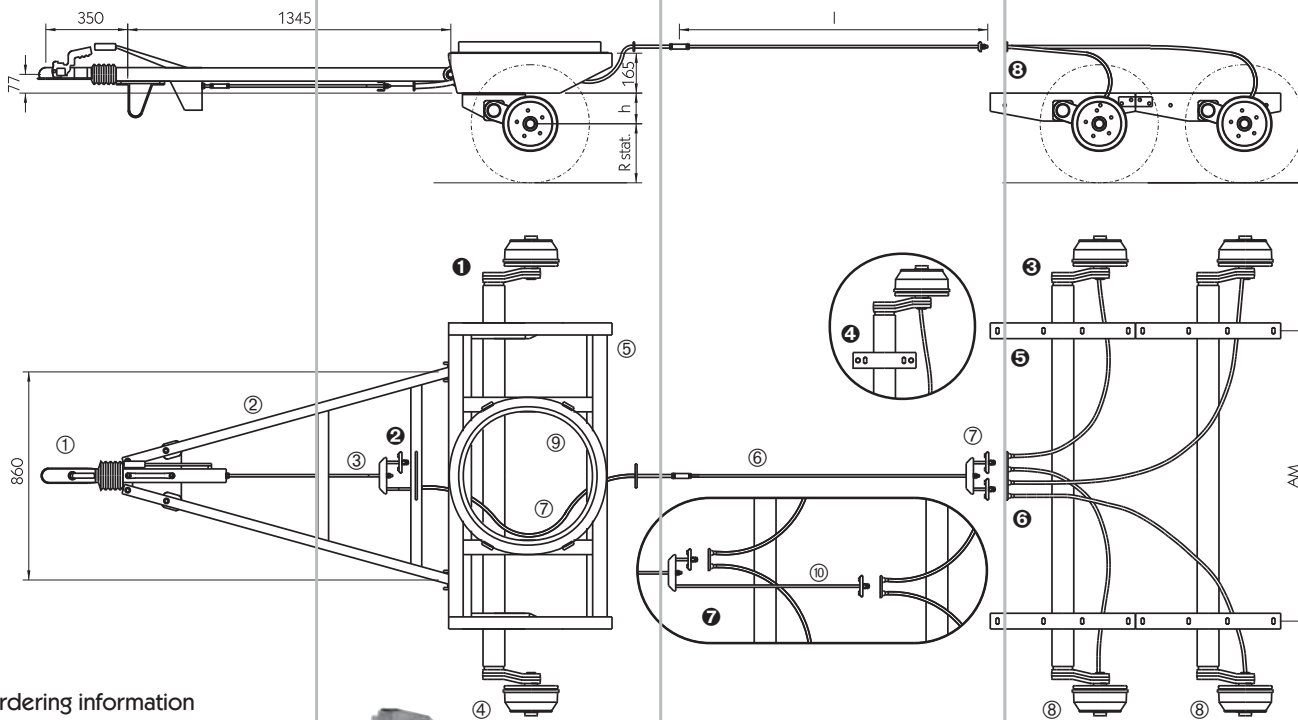


Shock absorber

Loose, for rubber suspension axles 1050 - 1800 kg.

120318206

Turntable chassis



Ordering information

Front axle ①: any rubber suspension axle unit with brakes GFA, GF and mounting centres (dim. AM) 1200, 1400 or 1600 mm may be selected. Please order this axle with brake cables lengthened by 300 mm to ensure sufficient length to reach the connection ② on the brake operating mechanism in front of the turntable.

Rear axle ③: any (④ single) rubber suspension axle unit with brakes GFA, GF and mounting centres (dim. AM) 1200, 1400 or 1600 mm, for 3-axle trailers, or if required a ⑤ tandem axle unit, may be selected.

For 3 axle trailers with tandem axle units there is the additional option of having the all brake cables terminating together before the first axle ⑥, or installing them separately up to each axle ⑦. In the case of ⑦, which is the same as fitting two single axles to create a double axle unit, an additional single axle brake rod ⑩ must be ordered.

Attention: The tandem axle unit with the brake cables terminating together is a different variant to that shown in the catalogue. The difference is in the loose brake cable anchor which is welded higher on the turntable/chassis ③ than on conventional car trailers, if possible under the chassis frame.

Installed height of turntable [mm]	
Tyre radius, static	R static _____
Axle spring height	h _____
Turntable	165
Ball bearing turntable collar_650 N	52
Height to top edge of turntable	_____

Turntable chassis

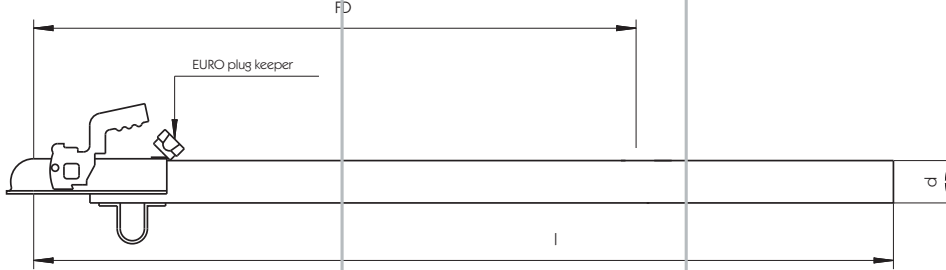
Permissible gross weight max. 3500 kg.

Consisting of individual parts:

Item	Weight [kg]	
① KFZ 35, over-run unit for A-frame drawbars, zinc plated	24.3	120318362
② DR 35, A-frame drawbar 1345/ 860/ 60/ 24, with propstand, zinc plated	19.0	120318363
③ Brake operating mech. front, zinc plated		120318364
④ GFA with brakes, dim. AM = 1200, 1400 or 1600, see from page 39 for selection		
⑤ Turntable, dim. AM = 1200, primer	45.2	120318365
Turntable, dim. AM = 1400, primer	48.7	120318366
Turntable, dim. AM = 1600, primer	52.0	120318367
⑥ Threaded rod M 10, dim. l = 2000, zinc plated		120318368
Threaded rod M 10, dim. l = 2500, zinc plated		120318369
Threaded rod M 10, dim. l = 3000, zinc plated		120318371
⑦ Brake operating mech. rear, for single axle, with brake cable (bowden cable 1700/2070) for turntable, steel parts zinc plated		120318370
Brake operating mech. rear, for 2-axle /tandem units, with brake cable (bowden cable 2600/2900) for turntable chassis, steel parts zinc plated		120318371
Bowden cable 1700/2070mm loose		120318372
Bowden cable 2600/2900mm loose		120318373
⑧ GFA single axle or tandem unit with brakes, dim. AM = 1200, 1400 or 1600, see from page 39 for selection		
⑨ 650 N, undrilled ball bearing turntable collar, see also page 96	23.0	107291009
⑩ Brake rods, single axle		120318148
Conversion kit to DIN drawbar eye, not illustrated		120318374

No longer available

Towing couplings for car
and light truck trailer axle
units GFA, GF
Drawbar tubes without
over-run unit ZR, GZR



Maximum self-supporting drawbar lengths (dim. FD) in mm:

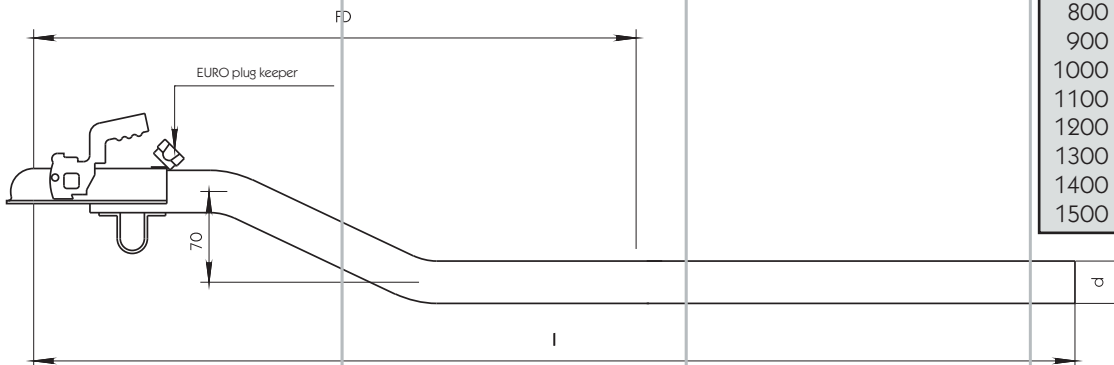
Perm. GVW [kg]	Type ZR 0.8	Type ZR 1.2
400	1646	---
500	1487	---
600	1356	2408
700	1246	2213
750	1198	2128
800	1123	1995
900	---	1773
1000	---	1596
1100	---	1451
1200	---	1330

ZR

Drawbar without over-run unit, straight.

Type	Perm. GVW up to [kg]	Vert. static load [kg]	Cert. mark	Dim. d \varnothing [mm]	Dim. I [mm]	Weight [kg]	
ZR 0.8	800	75	F 435	60 x 3	2000	9.6	120318031
ZR 0.8	800	75	F 435	60 x 3	2500	11.7	120318032
ZR 0.8	800	75	F 435	60 x 3	3000	13.8	120318033
ZR 1.2	1200	75	F 436	70 x 4	2000	14.2	120318037
ZR 1.2	1200	75	F 436	70 x 4	2500	17.5	120318038
ZR 1.2	1200	75	F 436	70 x 4	3000	20.8	120318039

No longer available



Maximum self-supporting drawbar lengths (dim. FD) in mm:

Perm. GVW [kg]	Type GZR 0.6	Type GZR 1.5
300	1843	---
400	1646	---
500	1487	2693
600	1321	2409
700	---	2214
750	---	2128
800	---	1995
900	---	1773
1000	---	1545
1100	---	1353
1200	---	1194
1300	---	1059
1400	---	944
1500	---	844

GZR

Drawbar without over-run unit, offset.

Type	Perm. GVW up to [kg]	Vert. static load [kg]	Cert. mark	Dim. d \varnothing [mm]	Dim. I [mm]	Weight [kg]	
GZR 0.6*	600	75	F 2016	60 x 3	2000	9.8	120318034
GZR 0.6	600	75	F 2016	60 x 3	2500	11.9	120318035
GZR 0.6	600	75	F 2016	60 x 3	3000	14.0	120318036
GZR 1.5*	1500	75	F 2017	70 x 4	2000	14.4	120318040
GZR 1.5*	1500	75	F 2017	70 x 4	2500	17.7	120318041
GZR 1.5*	1500	75	F 2017	70 x 4	3000	21.0	120318042

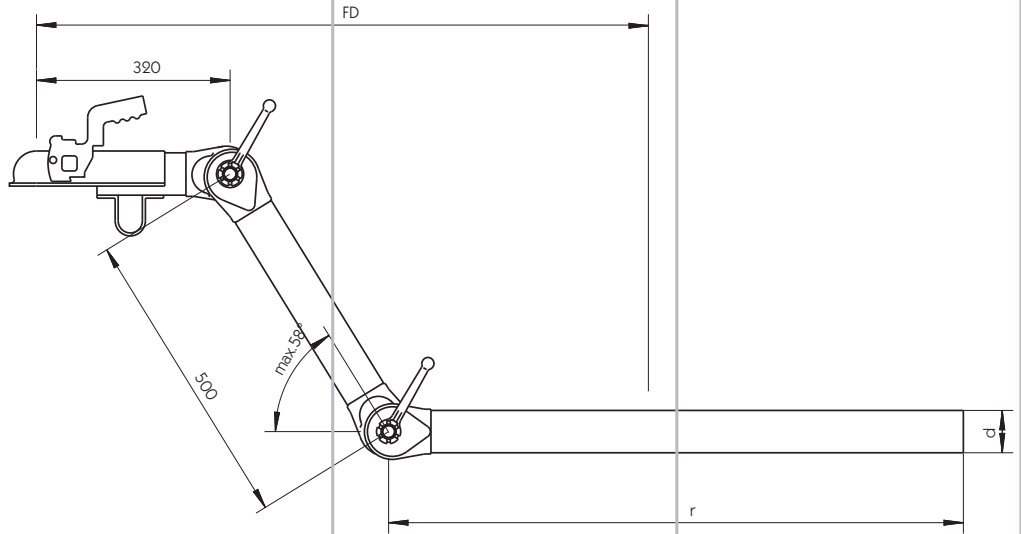
No longer available

* Also available with jockey wheel mounting brackets if required.



Maximum self-supporting drawbar lengths (dim. FD) in mm:

Perm. GVW [kg]	Type	Type
700	ZR 120-4/A1-A2	TZR 120-1/C1-B2
750	2732	1139
800	2621	1027
850	2511	921
850	2428	821
900	2345	715
1000	2092	---
1100	1863	---
1200	1656	---

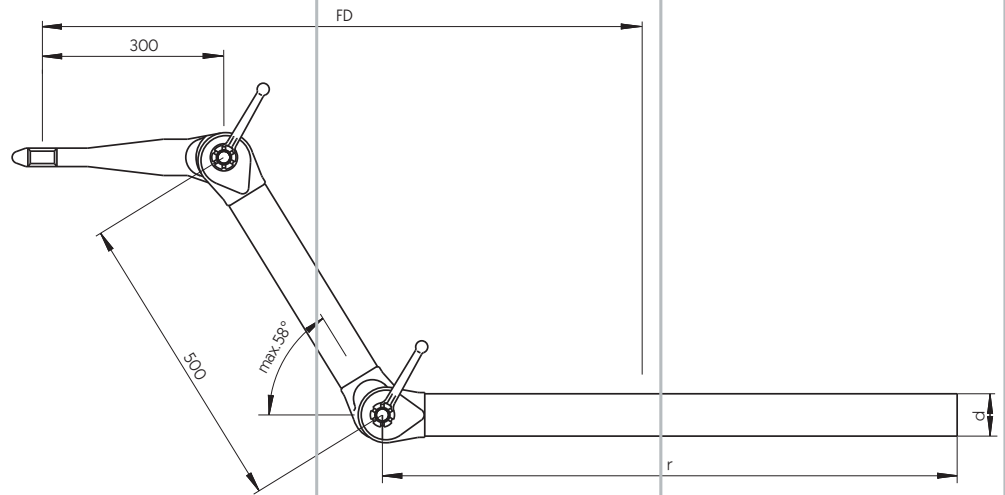


ZR 120

Drawbar without over-run unit, height adjustable, permissible vertical static load 150 kg, with ball coupling.

Type	Perm. GVW up to [kg]	Cert. mark	Dim. d Ø [mm]	Dim. r [mm]	Weight [kg]	
ZR 120-4/A1	1200	F 465	76.1 x 7.1	1500	37.5	120318346
ZR 120-4/A1	1200	F 465	76.1 x 7.1	2000	43.5	120318347
ZR 120-4/A1	1200	F 465	76.1 x 7.1	2500	49.5	120318348
ZR 120-1/C1	800	F 464	70 x 4	1500	29.1	120318343
ZR 120-1/C1	800	F 464	70 x 4	2000	32.4	120318344
ZR 120-1/C1	800	F 464	70 x 4	2500	35.7	120318345

No longer available



ZR 120

Drawbar without over-run unit, height adjustable, permissible vertical static load 150 kg, DIN drawbar eye.

Type	Perm. GVW up to [kg]	Cert. mark	Dim. d Ø [mm]	Dim. r [mm]	Weight [kg]	
ZR 120-4/A2	1200	F 465	76.1 x 7.1	1500	37.4	120318341
ZR 120-4/A2	1200	F 465	76.1 x 7.1	2000	43.4	120318342
ZR 120-4/A2	1200	F 465	76.1 x 7.1	2500	49.4	120318312
ZR 120-1/B2	800	F 464	70 x 4	1500	29.0	120318338
ZR 120-1/B2	800	F 464	70 x 4	2000	32.3	120318339
ZR 120-1/B2	800	F 464	70 x 4	2500	35.6	120318340

Accessories/spare parts
For height adjustable drawbar
without over-run unit

Ball coupling
Interchangeable front part.
120318349

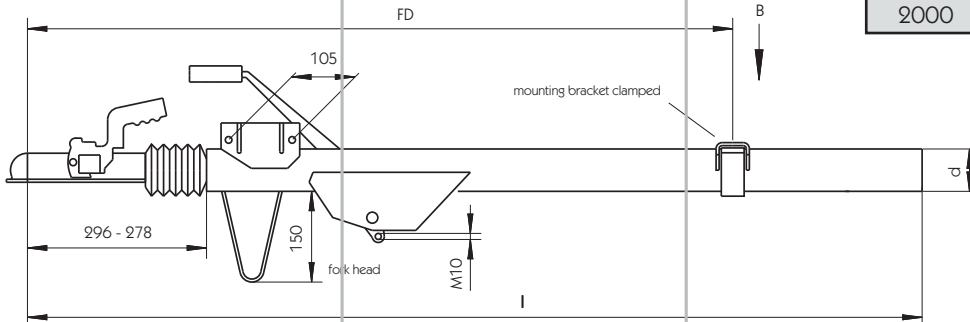
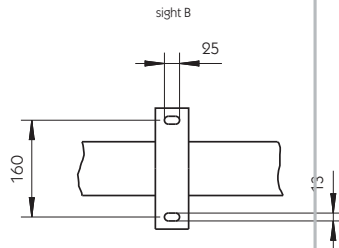
DIN drawbar eye
Interchangeable front part.
120318350

Drawbar tubes with over-
run unit



Maximum self-supporting drawbar lengths (dim. F) in mm:

Perm. gross weight [kg]	Type KR 13/7	Type KR 13/82	Type KR 20
750	1495	---	---
800	1435	2065	---
850	1370	1925	---
900	1325	1900	---
1000	1220	1760	---
1100	1125	1630	---
1200	1040	1505	---
1300	977	1402	1955
1350	---	---	1890
1400	---	---	1825
1500	---	---	1715
1600	---	---	1610
1700	---	---	1520
1800	---	---	1430
2000	---	---	1295



KR

Over-run unit for wheel brakes with auto-reverse.

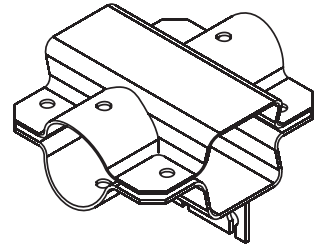
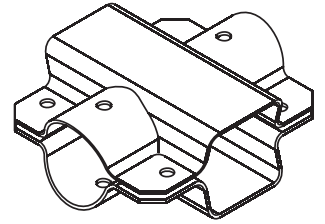
Type	Perm. GVW up to [kg]	Vert. static load [kg]	EC cert. mark	Dim. d [mm]	Dim. l [mm]	Weight [kg]	
KR 13/7	750-1300	100	361-108-81	70	2100	29.0	120318077
KR 13/7	750-1300	100	361-108-81	70	2300	30.5	120318078
KR 13/7	750-1300	100	361-108-81	70	2500	32.0	120318079
KR 13/7	750-1300	100	361-108-81	70	3000	44.0	120318144
KR 13/82	800-1300	100	361-151-81	82.5	2100	32.0	120318145
KR 13/82	800-1300	100	361-151-81	82.5	2100	32.0	120318146
KR 13/82	800-1300	100	361-151-81	82.5	2500	35.5	120318080
KR 13/82	800-1300	100	361-151-81	82.5	3000	44.0	120318081
KR 20	1300-2000	100	361-190-81	88.9	2100	43.5	120318088
KR 20	1300-2000	100	361-190-81	88.9	2300	46.0	120318147
KR 20	1300-2000	100	361-190-81	88.9	2500	48.5	120318089
KR 20	1300-2000	100	361-190-81	88.9	3000	62.0	120318090

All over-run units are also available with DIN drawbar eyes.

Tube clamps

Tube clamps
 Without screw materials, galva-
 nised.

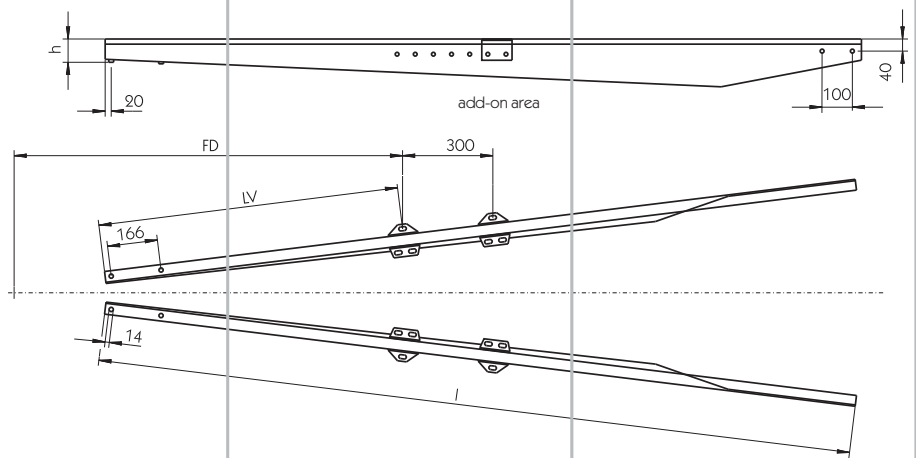
Axle tube [mm]	Drawbar tube [mm]	
∅ 50	∅ 60	120318045
∅ 60	∅ 60/70	120318046
∅ 64	∅ 60/70	120318047
∅ 80	∅ 82.5	120318085
∅ 80	∅ 70/90	120318152
∅ 90	∅ 90	120318086



Tube clamps
 One-sided with brake cable keeper (5 holes), for axle tube ∅ 80 and drawbar tube ∅ 70/90, not including supply of screw fasteners, galvanised.

120318389

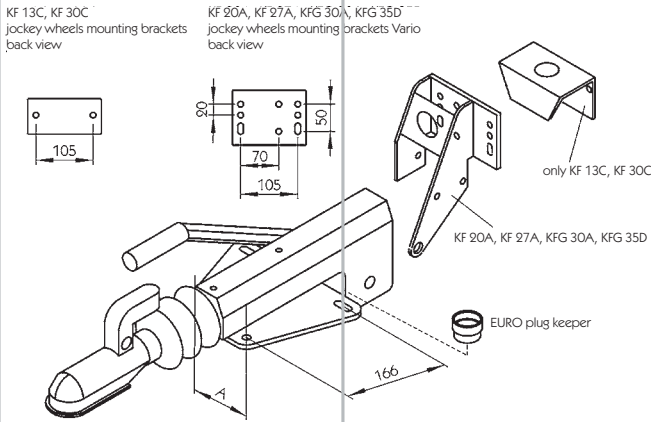
A-frame drawbar legs for car and light truck trailers



ZG

Type	Perm. GVW up to [kg]	Max. vert. static load [kg]	Dim. l [mm]	Dim. LV [mm]	Dim. FD [mm]	Dim. h [mm]	Weight [kg]	
ZG 2100	2100	100	2100	995	1250 - 1550	80	21.3	120318138
ZG 2100	2100	100	2500	995	1250 - 1550	80	25.7	120318139
ZG 3500	3500	150	2115	995	1250 - 1550	100	37.7	120318143
ZG 3500	3500	150	2600	1110	1390 - 1690	100	46.4	120318202

Over-run units for A-frame drawbars KF

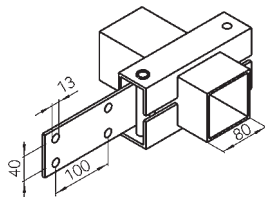


KF

Over-run unit for A-frame drawbars and wheel brakes with auto-reverse.

Type	Perm. GVW [kg]	Max. vert. static load [kg]	Dim. a [mm]	Weight [kg]	
KF 13C, without jockey wheel clamp bracket	750-1300	100	110	16.4	120318313
KF 20A, without jockey wheel clamp bracket	1300-2000	100	110	17.0	120318314
KF 27A, without jockey wheel clamp bracket	1600-2700	150	110	21.8	120318315
KFG 35, without jockey wheel clamp bracket	3000-3500	150	140	26.8	120318203
KF 13C, with jockey wheel clamp bracket	750-1300	100	110	17.1	120318134
KF 20A, with jockey wheel clamp bracket	1300-2000	100	110	19.0	120318082
KF 27A, with jockey wheel clamp bracket	1600-2700	150	110	23.8	120318087
KFG 30A, with jockey wheel clamp bracket	1600-3000	100	120	24.9	120318303
KF 30C, with jockey wheel clamp bracket	2500-3000	100	110	26.0	120318083
KFG 35D, with jockey wheel clamp bracket	3000-3500	150	140	28.9	120318302

Accessories



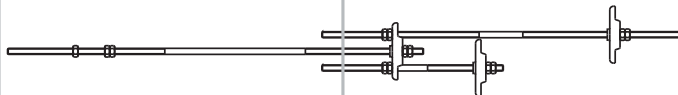
Bolt-on A-frame fork leg connecting element

For directly connecting the drawbar fork to the axle body with large adjustment range, zinc galvanized, supplied in pairs.

120318299



Illustrations: above: single axle brake rod; below: tandem brake rods



Brake rods and accessories

Brake rods for

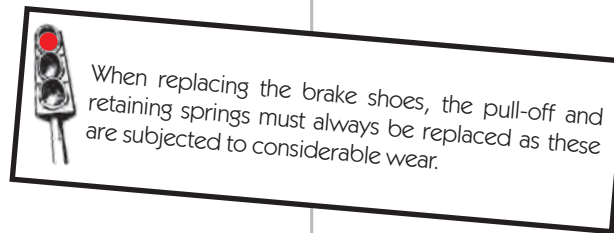
Tube length
[mm]

Single axle	up to 3000	120318148
Single axle	over 3000	120318149
Tandem	up to 3000	120318150
Tandem	over 3000	120318151
Tandem compensator		120318225
Adapter from M12 to M10		120318399

Spare parts for car and light truck axles

Table designations are as follows:

- ① = Brake shoe,
- ② = Pull-off spring,
- ③ = Retaining spring,
- ④ = Retainer plate,
- ⑤ = Retainer bracket,
- ⑥ = Steady pin,
- ⑦ = Tension spring.



Brake shoe sets

For axles	Supply consists of	Brake type	
Alko	4 x ① (160 x 35), 2 x ②, 4 x ③, 4 x ④	1635, 1636 (up to 12/88), 1637 (Euro)	129319229
Alko	4 x ① (200 x 50), 2 x ②, 4 x ③, 4 x ④	2050, 2051	129319228
Alko	2 x ① (200 x 50)	2050, 2051	No longer available 129319150
BPW	2 x ① (200 x 50), 2 x ②, 1 x ⑥, 1 x ⑦	S2005-7RASK	119319219
BPW	4 x ① (200 x 50), 4 x ②, 4 x ⑥, 4 x ⑦	S2005-7RASK	129319220
BPW, Knott	4 x ① (200 x 30), 4 x ②, 2 x ③, 2 x ⑤	S2003-5 RASK, Knott 200 x 30	129319257
BPW, Knott, Nieper, Schlegl	2 x ① (200 x 50)	20-2425/1, S2005-5RASK, Knott 200 x 50, SKB 9/10/14/15	129319152
BPW, Knott, Nieper, Schlegl	4 x ① (200 x 50), 4 x ②, 2 x ③	20-2425/1, S2005-5RASK, Knott 200 x 50, SKB 9/10/14/15	119319272
BPW, Knott, Nieper, Schlegl	4 x ① (250 x 40), 4 x ②, 2 x ③	S2504-5RASK, Knott 250 x 40, 25-2025, SKB18	No longer available 129319256
Nieper, Knott	2 x ① (250 x 40 RA)	25-2025	No longer available 119319087
Peitz	1 x ① (160 x 35 primary)	R160-76	119319025
Peitz	1 x ① (160 x 35 secondary)	R160-76	119319026
Peitz, WAP	2 x ① (230 x 40)	R234-76, W-234-RS	129319151
Peitz, WAP	4 x ① (230 x 40), 2 x ②, 4 x ③	R234-76, W-234-RS	129319230

Expanders

For axles	Brake type	
BPW	S2003-5RASK, S2005-5RASK, S2504-5RASK	119319038
Knott, Nieper	Knott 200 x 50RA, 250 x 40RA	129319234

No longer available

Adjuster wedge

For axles	Brake type	
BPW	S1635-6RASK, S2003-5RASK, S2005-5RASK	119319076
BPW	Adjuster wedge, left R234-76	119319181
BPW	Adjuster wedge, right R234-76	119319182
BPW	S2004SK	190319226



Illustration: 119319076



Illustration: 129319153

Spring sets

Table designations are as follows:
 ① = Pull-off spring,
 ② = Retaining spring,
 ③ = Retainer plate

For axles	Supply consists of	Brake type	
Alko	1 x ①, 2 x ②, 2 x ③	2035, 2050, 2051	129319153
Peitz, WAP	1 x ①, 2 x ②	R234-76, W-234-RS	129319154
Knott, Nieper, Schlegl	2 x ①, 1 x ②	20-2425/1, Knott 200 x 50, SKB9/10/14/15	129319155



Illustration: 119319040

Pull-off springs

No longer available

For axles	Brake type	
Peitz	pull-off spring, long S234R, S234-76	119319023
Peitz	pull-off spring, large S234R	119319024
BPW (in brake shoe)	S2003-5RASK, S2005-5RASK, S2504-5RASK	119319040
BPW (for adjusting side)	S2003-5RASK, S2005-5RASK	119319041
BPW (for expander side)	S2003-5RASK, S2005-5RASK	119319042
Peitz, WAP	R234-76, W-234-RS, W-234-RS	119319049


Retaining spring

For axles	Brake type	
Knott, Nieper, Schlegl	Knott 200 x 30/200 x 50/250 x 40, SKB9/10/14/15, Nieper 200 x 50RA/200 x 50RAK/250 x 40RA	119319043

No longer available



Illustration: 129319134

 When replacing brake drums, with inner and outer bearings (standard wheel bearing type), the bearings should also be renewed as these are subject to considerable wear and in most cases will have deteriorated. When replacing brake drums with compact bearings (compact wheel bearing type), a new flange nut must always be used as this functions as a locking nut and may only be fitted once.

Brake drums

For Axles	Wheel fixing [mm]	Wheel bearing type	Brake type	
Alko	4/100/R12	standard	2035, 2050, 2051	129319125
Alko	5/112/R12	standard	2035, 2050, 2051	129319126
BPW	4/100/R12	standard	S 2005-5 RASK	129319231
BPW	5/112/R12	standard	S 2005-5 RASK	129319232
BPW (ECO)	4/100/R12	compact	S 2005-5, S 2005-7	119319260
BPW (ECO)	5/112/R12	compact	S 2005-5, S 2005-7	119319266
BPW (ECO)	5/112/R12	compact	S2005-5 RASK	129319259
Nieper, Knott	4/100/R12	standard	20-963/1, 20-964/1, 20-2425/1	129319131
Nieper, Knott	5/112/R12	standard	20-963/1, 20-964/1, 20-2425/1	129319132
Nieper, Knott	5/112/R12	standard	25-2025	129319254
Nieper, Knott (ECO)	4/100/R12	compact	20-2425/1	129319133
Nieper, Knott (ECO)	5/112/R12	compact	20-2425/1	129319134
Nieper, Knott (ECO)	5/112/R12	compact	25-2025	129319255
Peitz (with wheel studs)	4/100/R12	standard	R234-76	129319130
Peitz (with wheel studs)	5/112/R12	standard	R234-76	129319129

Further spare and wear parts are available on request.



Flange nuts

For axles

Type

For brake drum

Alko

M24

129319125, 129319126

129319148

Nieper, Knott (ECO)

M24 x 1.5

129319133, 129319134, 129319255

129319149



Illustrations: left 119319013,
right 119319014

Wheel nuts

Cone nut 60°

M12 x 1.5 - Ford

119319014

Orb collar nut R12

M12 x 1.5 - Mercedes

119319013

Orb collar nut R12

M12 x 1.5 - Peitz

129319142

Orb collar nut R14

M12 x 1.5 - Mercedes

119319178



Illustration: 119319106

Wheel studs

For axles

Type

BPW, ESPE

serrated stud M12 x 1.5, length 36mm

119319115

BPW, ESPE

serrated stud M12 x 1.5, length 41mm

119319116

BPW

serrated stud M12 x 1.5, length 41mm, incl. cone nut 60°

119319106

BPW

serrated stud M14 x 1.5, length 43mm, incl. orb collar nut R12

119319089

BPW

serrated stud M14 x 1.5, length 43mm

119319090

Peitz

for brake drums 129319129, 129312130

129319141

Wheel bearing sets

For standard wheel bearings, each consisting of one outer and inner bearing plus one shaft/bearing seal.



Illustration: 129319136

For axles

DIN

 Dimensions
 i/d x o/d x width
 [mm]

For brake drum

Alko

11749/10

17.5/40 x 10.7 (outer bearing)

--

45449/10

29/50.3 x 10.6 (inner bearing)

129319251

Alko

11949/10

19/45.3 x 12 (outer bearing)

129319125, 129319126

67048/10

31.6/59.2 x 11.9 (inner bearing)

129319135

BPW, Peitz

30204

20/47 x 12 (outer bearing)

129319129, 129319130,

30206

30/62 x 14 (inner bearing)

129319231, 129319232

129319136



Illustration: 129319215

Further spare and wear parts are available on request.

Wheel bearings

For axles	DIN	Dimensions i/d x o/d x width [mm]	For brake drum	
Alko	11949/10	19/45.3 x 12 (outer bearing)	129319125, 129319126	129319249
Alko	67048/10	31.6/59.2 x 11.9 (inner bearing)	129319125, 129319126	129319250
BPW, Knott,	540466B	34/64 x 37 (compact bearing)	--	
Nieper, Schlegl, WAP				129319215
Nieper, Knott	30203	17/40 x 11	129319131, 129319132	129319137
Nieper, Knott	30204	20/47 x 12 (outer bearing)	129319129, 129319130, 129319231, 129319232	129319138
Nieper, Knott	30205	25/52 x 13 (outer bearing)	129319131, 129319132, 129319254	129319139
Nieper, Knott	30206	30/62 x 14 (inner bearing)	129319129, 129319130, 129319131, 129319132, 129319231, 129319232	129319140
Nieper, Knott	30207	35/72 x 16 (inner bearing)	129319254	129319248

No longer available









Retaining ring for compact bearing

For axles	For brake drums	
Nieper, Knott, Schlegl	129319133, 129319134	129319233



Wheel bearing caps/ grease retaining caps

For axles	Type	
Alko	Ø48 mm, knock-in	129319144
Alko	Ø56 mm, knock-in	129319145
BPW	Ø50 mm, knock-in	119319103
BPW	Ø51 mm, knock-in	129319147
BPW	Ø62.2 mm, knock-in	119319201
BPW	Ø64.5 mm, for axles with ECO bearings, knock-in	119319225
BPW	Ø72.1 mm, knock-in	119319202
BPW	M 76 x 2	119319098
BPW	M 95 x 2	119319099
BPW	M 115 x 2	119319100
BPW	M 125 x 2	119319101
BPW	M 125 x 2, for axles with ECO bearings	119319268
BPW	M 155 x 3	119319102
FAD	Ø80 mm, knock-in	119303085
FAD	Ø90 mm, knock-in	119303086
Nieper	Ø52 mm, knock-in	119319119
Nieper	Ø52.5 mm, knock-in	129319146
Nieper	Ø64.2 mm, for axles with compact bearings, knock-in	119319218

For axles	Castellated nuts	Brake type		
Alko		2035, 2050, 2051		129319242
Peitz		R234-76	No longer available	129319243
Knott		Knott 200 x 50, 250 x 40RA		129319244
<p>Brake cables for Alko New type with thread.</p>				
Cladding length [mm]				
530		129319261		Connection left: thread M 8, Connection above: socket 26 mm.
770		129319262		
1020		129319263		
1320		129319264		
1620		129319265		
<p>Brake cables for BPW For braketype S2005-7, S2035-7, S2304-7 and S2504-7.</p>				
Cladding length [mm]				
830		119319185		Connection left: fork head, Connection above: socket 26 mm.
930		119319186		
1030		119319187		
1130		119319188		
1230		119319216		
1330		119319269		
1525		119319203		
1530		119319270		
<p>Brake cables for Knott and Nieper For brake type 160 x 35 bis 250 x 40.</p>				
Cladding length [mm]				
730		119319258		Connection left: thread M 8, Connection above: socket 26 mm.
830		119319001		
930		119319002		
1030		119319003		
1130		119319004		
1230		119319005		
1330		119319066		
1530		119319074		
<p>Brake cables for Peitz</p>				
Cladding length [mm]				
800		119319006		Connection left: thread M 8, Connection above: connecting eye.
900		119319007		
1000		119319008		
1100		119319009		
1175		119319010		



Clevis heads
For brake cable, with safety retaining pin.

M8				119319063
M10				119319064
M12				119319065



Cable guide

For axles	Brake type			
BPW	S1635-6RASK, S2003-5RASK, S2005-5RASK, S2504-5RASK			119319061
BPW	S2035-7RASK, S2005-7RASK, S2005-7RASK, S2304-7RASK, S2504-7RASK			119319110
Nieper	200 x 50/-RA/-RAK, 250 x 40/-RA/-RAK			119319204

Ball couplings



Illustration: 280451064

Ball couplings
For towing balls Ø 50 mm, type tested.

Type	D /Dc value [kN]	Perm. axle load [kg]	Perm. vert. static load [kg]	Drawbar Ø/□ [mm]	Weight [kg]	
EM 80R F	7.7	800	75	Ø 60	1.4	280451060
EM 80R E	7.7	800	75	Ø 50	1.3	280451061
EM 80V F	7.7	800	75	□ 60	1.5	280451062
EM 80V E	7.7	800	75	□ 50	1.5	280451063
EM 80R G	7.7	800	75	Ø 70	1.5	280451064
EM 80R GK	7.7	800	75	Ø 70	1.5	280451065
EM 80V G	7.7	800	75	□ 70	1.5	280451066
EM 150R A	14.1	1500	100	Ø 45/46	1.4	280451067
EM 150R G	14.1	1500	100	Ø 70	1.7	280451068
EM 150R GK	14.1	1500	100	Ø 70	1.6	280451069
EM 150R B	14.1	1500	100	Ø 50/51	1.4	280451070
EM 220R A	20.2	2200	100	Ø 45/46	1.6	280451071
EM 220R B	20.2	2200	100	Ø 50/51	1.6	280451072
EM 300R G	26.9	3000	150	Ø 70	2.7	280451075
EM 300R B	26.9	3000	150	Ø 50/51	2.2	280451076
EM 300R A	26.9	3000	150	Ø 45/46	2.2	280451077
EM 350R B	31.0	3500	200	Ø 50/51	3.0	280451078
EM 350R D	31.0	3500	200	Ø 65	3.0	280451079
EM 350R CH	31.0	3500	200	Ø 60	3.0	280451122



Ball coupling EM 300 R
Universal type BH with reduction piece.

Type	D /Dc value [kN]	Perm. axle load [kg]	Perm. vert. static load [kg]	Drawbar Ø [mm]	Weight [kg]	
EM 300 R	26.9	3000	150	45/46, 50/51, 50	2.7	280451121

Accessories
For EM ball couplings.



Illustration: 280451080

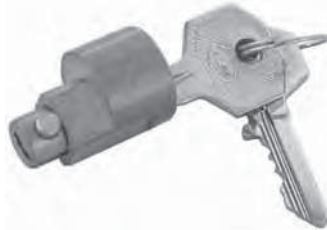


Illustration: 280451081



Illustration: 280451082 (from below)



Illustration: 280451084 (from below)

Anti-theft devices

Description

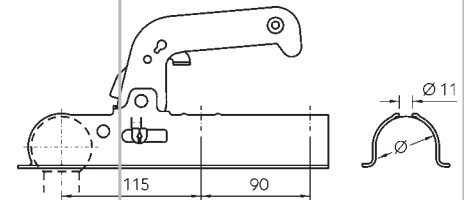
O2121 for EM 80R, EM 80V, EM 150R, EM 150V and EM 220R	280451080
O2122 for EM 300R, EM 350R and Westfalia SSK	280451081
O3201 BDS 1 for EM 60, EM 80, EM 130, EM 180, EM 200, EMR 75, EMV 75, EMR 140 and EMV 140	280451082
O3202 BDS 2 for EM 220, EM 300, EM 350	280451083
O3203 BDS 3 for AK 7, AK 10/2, AK 13/1 and AK 26	280451084
O3204 BDS 4 for Westfalia SSK from year 1986	280451085
O3205 BDS 5 for securing the fixing screw	280451086

No longer available

WW 8

For towing ball Ø 50 mm, sheet steel, weight 1.3 kg.

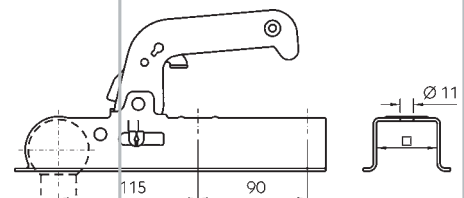
	Trailer load [kg]	Vert. static load [kg]	D3/DC value [kN]	Drawbar Ø [mm]	
WW 8-A	800	75	0	50	285451001
WW 8-B	800	75	0	60	285451002



WW 8

For towing ball Ø 50 mm, sheet steel, weight 1.3 kg.

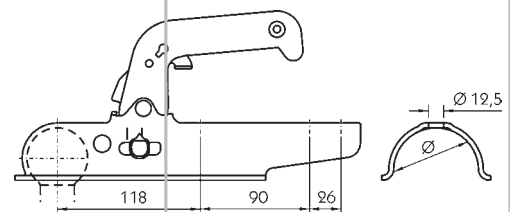
	Trailer load [kg]	Vert. static load [kg]	D3/DC value [kN]	Drawbar □ [mm]	
WW 8-E	800	75	0	50	285451029
WW 8-G	800	75	0	60	285451030



WW 150-RG

For towing ball Ø 50 mm, sheet steel, weight 1.5 kg.

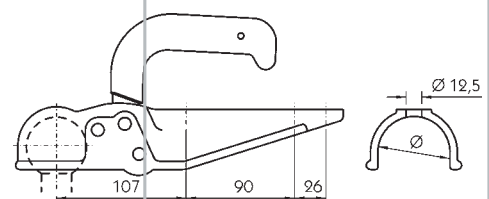
	Trailer load [kg]	Vert. static load [kg]	D3/DC value [kN]	Drawbar □ [mm]	
WW 150-RG	1500	100	0	70	285451003

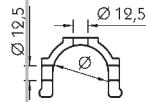
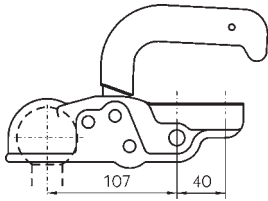


WW 20

For towing ball Ø 50 mm, malleable cast iron, weight 2.4 kg.

	Trailer load [kg]	Vert. static load [kg]	D3/DC value [kN]	Drawbar □ [mm]	
WW 20-F1	2000	100	0	60	285451091
WW 20-F2	2000	100	0	70	285451092



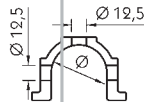
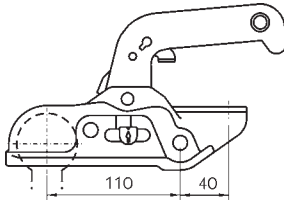


WW 30-D2

For towing ball \varnothing 50 mm, malleable cast iron, weight 2.2 kg.

Trailer load [kg]	Vert. static load [kg]	D3/DC value [kN]	Drawbar \varnothing [mm]
3000	150	0	45/ 46

285451094



WW 30-D3

For towing ball \varnothing 50 mm, malleable cast iron, weight 2.5 kg.

Trailer load [kg]	Vert. static load [kg]	D3/DC value [kN]	Drawbar \varnothing [mm]
3000	150	0	50

285451095



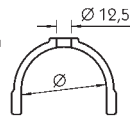
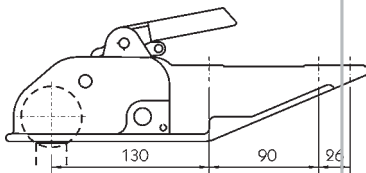
WW 30-K

For towing ball \varnothing 50 mm, malleable cast iron, weight 3.4 kg.

Trailer load [kg]	Vert. static load [kg]	D3/DC value [kN]	Drawbar \varnothing [mm]
3000	150	0	50*

285451140

*More connections for drawbar tubes with Adapter enclosed:
 \varnothing 46 mm, \varnothing 45 mm, \varnothing 40 mm, \varnothing 35 mm.



WW 200

For towing ball \varnothing 50 mm, malleable cast iron.

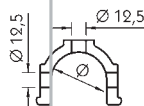
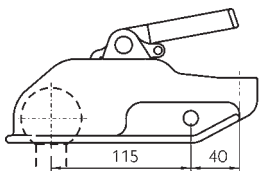
Trailer load [kg]	Vert. static load [kg]	D3/DC value [kN]	Drawbar \varnothing [mm]	Weight [kg]
3000	150	0	70	3.2
3000	150	0	80	3.5

WW 200-C7

285451093

WW 200-C4

285451033



WW 200

For towing ball \varnothing 50 mm, malleable cast iron.

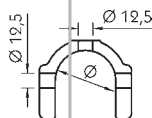
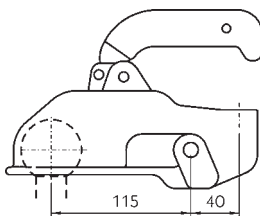
Trailer load [kg]	Vert. static load [kg]	D3/DC value [kN]	Drawbar \varnothing [mm]	Weight [kg]
3000	150	0	45/ 46	2.8
3000	150	0	50/ 51	2.9

WW 200-B3

285451047

WW 200-B5

285451037



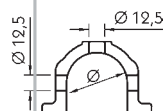
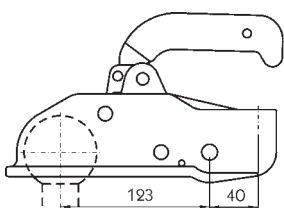
WW 350-B5

For towing ball \varnothing 50 mm, malleable cast iron, weight 3.0 kg.

Trailer load [kg]	Vert. static load [kg]	D3/DC value [kN]	Drawbar \varnothing [mm]
3500	150	0	50

WW 350-B5 1212

285451097



WW 300-H

For towing ball \varnothing 60 mm, malleable cast iron, weight 3.4 kg.

Trailer load [kg]	Vert. static load [kg]	D3/DC value [kN]	Drawbar \varnothing [mm]
3000	150	0	50

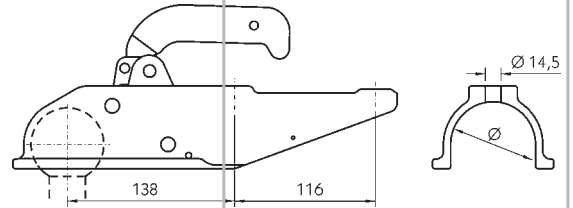
WW 300-H

285451098

WW 300-W
For towing ball Ø 60 mm, malleable cast iron, weight 3.5 kg.

Trailer load [kg]	Vert. static load [kg]	D3/ DC value [kN]	Drawbar Ø [mm]
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WW 300-W	3000	150	0	70
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285451034

Lurch damper for over-run unit

Description

Safety coupling WS 3000 with lurch damper, all established types up to perm. GVW 2700 kg

285451113

Breakaway cable

Breakaway cable

Designation

Cable length [mm]

Weight [kg]

Breakaway cable with snap hook and ring	960	0.10	119316372
Breakaway cable with snap hook, without ring	1550	0.09	119319086
Breakaway cable with snap hook, without ring	2020	0.11	119319217



Illustration: 119316372

Anti-theft devices for ball couplings

Anti-theft device DBS for ball couplings

Description

Weight [kg]

DBS 8	0.02	285451118
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Anti-theft device DBS for ball couplings







Description

Weight [kg]

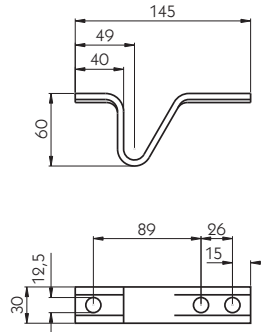
DBS 20	0.025	285451100
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No longer available

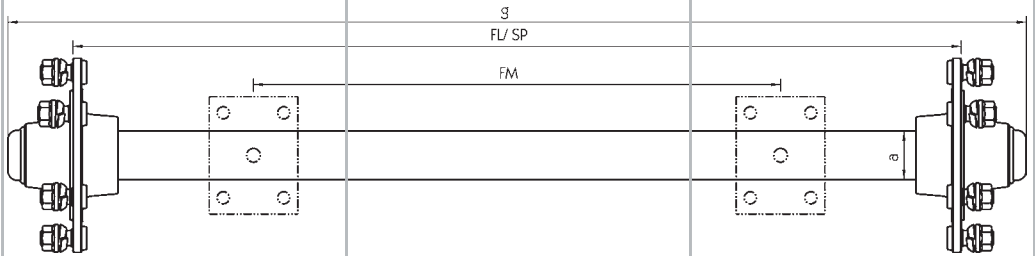
	<p>Description</p> <p>DBS 200 + 350</p>	<p>Anti-theft device DBS for ball couplings</p> <p>Weight [kg]</p> <p>0.16</p>	<p>285451132</p>	<p>No longer available</p>
	<p>Description</p> <p>DBS 3000</p>	<p>Anti-theft device DBS for safety coupling</p> <p>Weight [kg]</p> <p>0.03</p>	<p>285451133</p>	<p>No longer available</p>
	<p>Miscellaneous accessories</p>	<p>Anti-theft device Without key, width 110 mm, length 210 mm, top cut-out: width 42 mm, length 142 mm, weight 1.77 kg.</p> <p>215451087</p>		
	<p>Miscellaneous accessories</p>	<p>Anti-theft device Without key, weight 3.0 kg.</p> <p>215451124</p>		
	<p>Miscellaneous accessories</p>	<p>Padlock For 215451087 and 215451124, weight 0.5 kg.</p> <p>215451089</p>		
	<p>Miscellaneous accessories</p>	<p>Tow ball \varnothing 50 mm In accordance with DIN 74058 and ISO, \oplus *94/20*0599*00, permissible trailer load 3500 kg, turned tow ball with stud M 22 x 1.5 mm and lock nut, weight 1.13 kg.</p> <p>848665000</p>		

Flat iron rest
Zinc coated steel, weight 0.23 kg.
215451010



Trailer axles for agriculture
and forestry

Idle axles

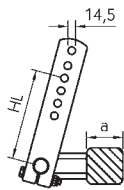


Idle axles

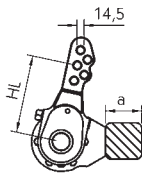
Type	Track SP [mm]	Spring centres FM [mm]	Dim. g [mm]	Axle cross section a [mm]	Wheel bearings outer/inner [mm]	Wheel fixing [mm]	Thread	Weight [kg]	
GB 2305*	1500	1000	1589	50	30205/32007x	5/62/112	M 14 x 1.5	43	200301198
GS 2306	1500	1000	1650	50	30205/32007x	6/160/205	M 18 x 1.5	44	200301118
GS 3606	1500	1000	1661	55	30206/30209	6/160/205	M 18 x 1.5	45	200301120
GS 4006	1500	1000	1694	60	32207/30210	6/160/205	M 18 x 1.5	63	200301121
GS 5506	1700	1200	1896	70	32207/32013x	6/160/205	M 18 x 1.5	78	200301178

* Only for wheels with offset 26 - 50 mm.

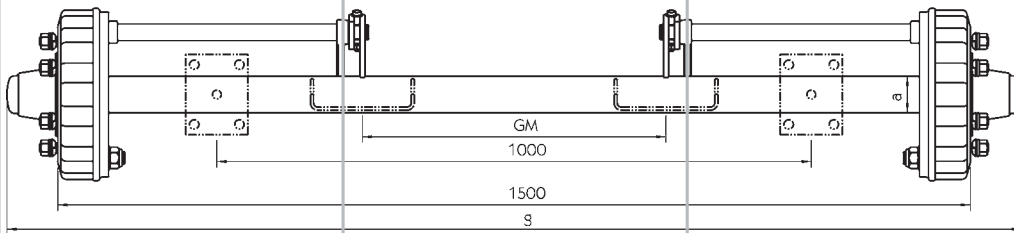
Braked axles with cam brakes



Brake lever
HL: 100/125/150/175/200/230



Brake slack adjuster
HL: 120/135/150/165/180



Values for the axle loads can be found on page 69.

GS

Cam brakes with drum hubs, track SP 1500 mm, spring centres FM 1000 mm, with brake lever up to 25 km/h/40 km/h.

Type	Dim. g [mm]	Base plate centres GM [mm]	Axle cross section a [mm]	Wheel bearings outer/inner [mm]	Wheel fixing [mm]	Thread	Wheel brakes	Weight [kg]
GS 2305*	1580	430	50	30205/32007x	5/62/112	M14 x 1,5	N 2504-3	78
GS 2306	1650	365	50	30205/32007x	6/160/205	M18 x 1.5	N 3006-3	80
GS 3606	1670	360	55	30206/30209	6/160/205	M18 x 1.5	N 3006-3	95
GS 4006	1700	365	60	32207/30210	6/160/205	M18 x 1.5	N 3006-3	105
GS 4006	1700	340	60	32207/30210	6/160/205	M18 x 1.5	N 3108-3	139

~~200301200~~
~~200301201~~
~~200301202~~
~~200301203~~
~~200301204~~

No longer available

* Only for wheels with offset 26 - 50 mm.

GS

Cam brakes with drum hubs, track width SP 1500 mm, spring centres FM 1000 mm, for axle type with brake balancer for central brake compensation.

Type	Dim. g [mm]	Axle cross section a [mm]	Wheel bearings outer/inner [mm]	Wheel fixing [mm]	Thread	Wheel brakes	Weight [kg]
GS 2305*	1580	50	30205/32007x	5/62/112	M14 x 1,5	N 2504-3	78
GS 2306	1650	50	30205/32007x	6/160/205	M18 x 1.5	N 3006-3	80
GS 3606	1670	55	30206/30209	6/160/205	M18 x 1.5	N 3006-3	95
GS 4006	1700	60	32207/30210	6/160/205	M18 x 1.5	N 3006-3	105
GS 4006	1700	60	32207/30210	6/160/205	M18 x 1.5	N 3108-3	139

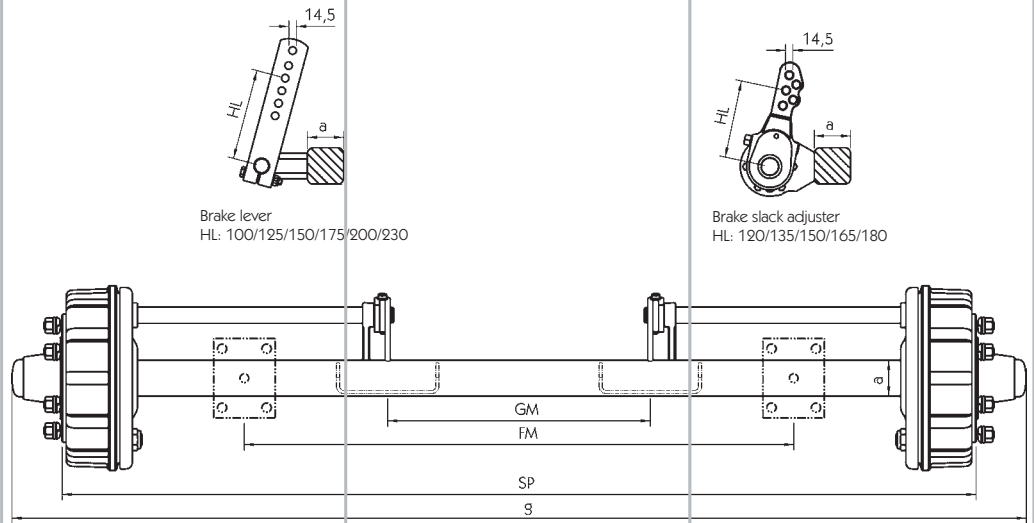
~~200301173~~
~~200301131~~
~~200301135~~
~~200301137~~
~~200301196~~

No longer available

* Only for wheels with offset 26 - 50 mm.



Values for the axle loads can be found on page 69.




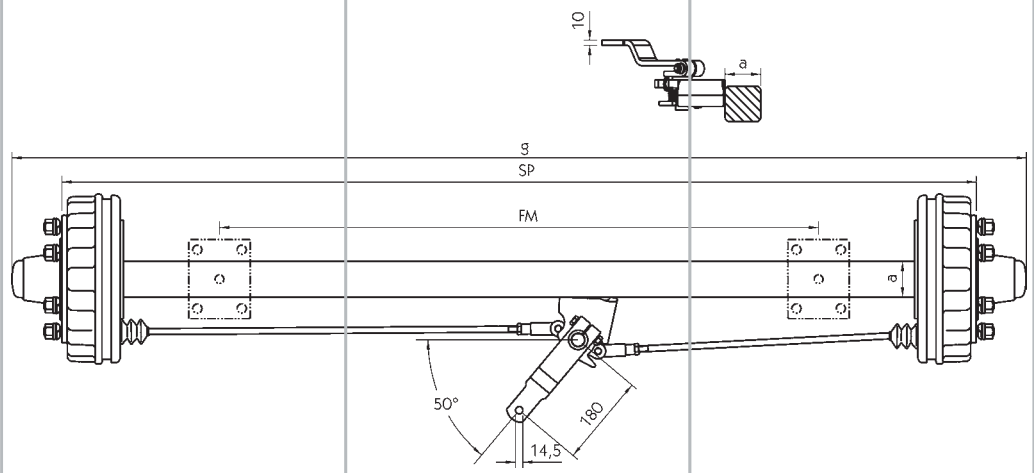
GS

Cam brakes, flanged brake drums, wheel offset ET 0 mm.

Type	Track width SP [mm]	Spring centres FM [mm]	Length g [mm]	Base plate centres GM [mm]	Axle cross section a [mm]	Wheel bearings outer/inner [mm]	Wheel fixing [mm]	Thread	Wheel brakes	Weight [kg]	
GS 5506	1700	1200	1900	560	70	32207/32013x	6/160/205	M 18 x 1.5	N 3006-3	130	200301205
GS 5506	1700	1200	1900	535	70	32207/32013x	6/160/205	M 18 x 1.5	N 3108-3	160	200301206
GS 7006	1700	1100	1950	515	80	30210/32014x	6/160/205	M 18 x 1.5	N 3108-3	190	200301207
GS 7008	1700	1100	1950	470	80	30210/32014x	8/220/275	M 20 x 1.5	N 4008-3	222	200301208
GS 8008-1	1700	1100	1936	470	90	32213/32215	8/220/275	M 20 x 1.5	N 4012-3	278	200301209
GS 11010-1	1800	1100	2107	550	□120x15	32310/33116	10/280/335	M 22 x 1.5	N 4012-3	300	200301210

Braked axles with expanding lever brakes

 These axles can only be used on over-run braked trailers in combination with over-run units, see page 71.



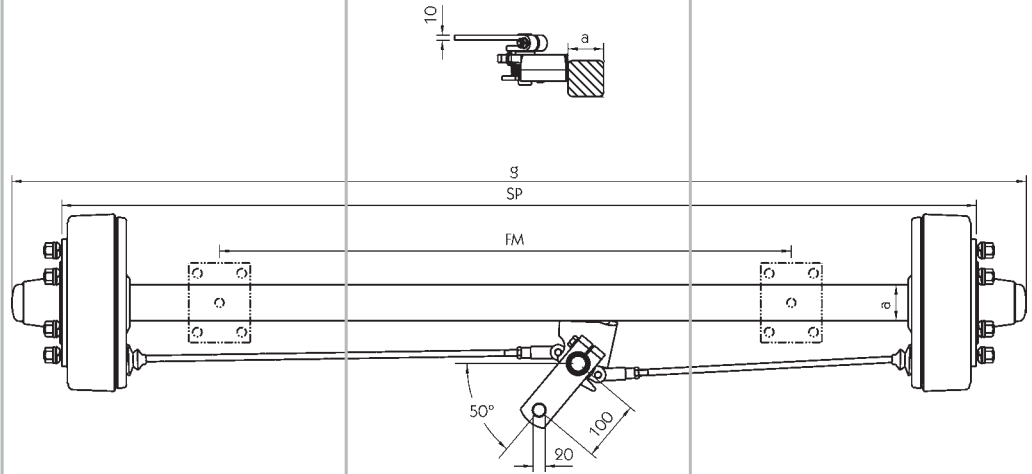
GS

Expanding lever brakes 300 x 60, auto-reverse, central brake lever.

Type	Track width SP [mm]	Spring centres FM [mm]	Length g [mm]	Axle cross section a [mm]	Wheel bearings outer/inner [mm]	Wheel fixing [mm]	Thread	Weight [kg]	
GS 4006	1500	1000	1700	60	32207/30210	6/160/205	M 18 x 1.5	107	200302030
GS 5506	1700	1200	1900	70	32207/32013x	6/160/205	M 18 x 1.5	107	200302031



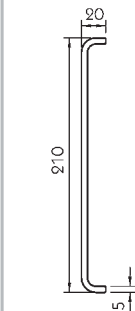
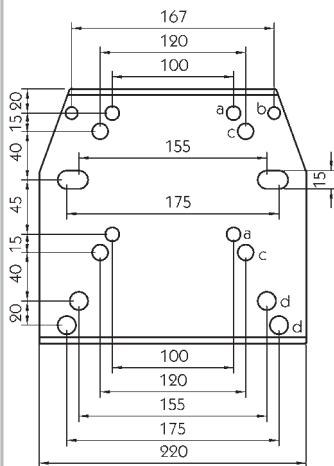
Values for the axle loads can be found on page 69.



GS
Spread lever brakes 300 x 80, auto-reverse, central brake lever.

Type	Track width SP [mm]	Spring centres FM [mm]	Dim. g [mm]	Axle cross section a [mm]	Wheel bearings outer/inner [mm]	Wheel fixing [mm]	Thread	Weight [kg]	
GS 4006	1500	1000	1696	60	32207/30210	6/160/205	M 18 x 1.5	134	200302001
GS 5506	1700	1200	1910	70	32207/32013x	6/160/205	M 18 x 1.5	156	200301179
GS 5508	1700	1200	1910	70	32207/32013x	8/220/275	M 20 x 1.5	156	200302032
GS 7006	1700	1100	1974	80	30210/32014x	6/160/205	M 18 x 1.5	185	200302033
GS 7008	1700	1100	1974	80	30210/32014x	8/220/275	M 20 x 1.5	188	200302034
GS 8008-1	1700	1100	1930	90	32213/32215	8/220/275	M 20 x 1.5	222	200302035

Accessories



a = 10
b = 11,5
c = 13
d = 15

No longer available

Base plate for piston cylinder
200301197

Static axle loads, load capacity of bearings and axle body in kg/axle e.g. stub axle pair

Idle axles

Axle type	Track width SP [mm]	Spring centres FM [mm]	Axle cross section □ A [mm]	2-axle trailer		1-axle trailer				Tandem		
				25 [km/h]	40* [km/h]	60 [km/h]	25 [km/h]	40* [km/h]	60 [km/h]	25 [km/h]	40* [km/h]	60 [km/h]
GB 2305**	1500	1000	50	2200	2000	1800	2600	2400	2100	---	---	---
GS 2306	1500	1000	50	2200	2000	1800	2600	2400	2100	---	---	---
GS 3606	1500	1000	55	2900	2700	2400	3500	3200	2900	---	---	---
GS 4006	1500	1000	60	3800	3500	3200	4500	4100	3800	---	---	---
GS 5506	1700	1200	70	6000	5500	5000	7000	6500	6000	5500	5000	4500
GS 7006	1700	1100	80	7500	7000	6500	9000	8000	7500	7000	6500	6000
GS 7008	1700	1100	80	7500	7000	6500	9000	8000	7500	7000	6500	6000

Braked axles with drum hub

Axle type	Track width SP [mm]	Spring centres FM [mm]	Axle cross section □ A [mm]	2-axle trailer		1-axle trailer				Tandem		
				25 [km/h]	40* [km/h]	60 [km/h]	25 [km/h]	40* [km/h]	60 [km/h]	25 [km/h]	40* [km/h]	60 [km/h]
GB 2305**	1500	1000	50	2200	2000	1800	2600	2400	2100	---	---	---
GS 2306	1500	1000	50	2200	2000	1800	2600	2400	2100	---	---	---
GS 3606	1500	1000	55	2900	2700	2500	3500	3200	2900	---	---	---
GS 4006	1500	1000	60	3800	3500	3200	4500	4100	3800	---	---	---

Braked axles with flanged brake drums

Axle type	Track width SP [mm]	Spring centres FM [mm]	Axle cross section □ A [mm]	2-axle trailer		1-axle trailer				Tandem		
				25 [km/h]	40* [km/h]	60 [km/h]	25 [km/h]	40* [km/h]	60 [km/h]	25 [km/h]	40* [km/h]	60 [km/h]
GS 5506	1700	1200	70	6000	5500	5000	7000	6500	6000	5500	5000	4500
GS 5508	1700	1200	70	6000	5500	5000	7000	6500	6000	5500	5000	4500
GS 7006	1700	1100	80	7500	7000	6500	9000	8000	7500	7000	6500	6000
GS 7008	1700	1100	80	7500	7000	6500	9000	8000	7500	7000	6500	6000
GS 8008-1	1700	1100	90	9500	8500	8000	11000	10000	9000	8500	8000	7500
GS 8010-1	1700	1100	90	9500	8500	8000	11000	10000	9000	8500	8000	7500
GS 11008-1	1800	1100	120x10	12500	11500	10500	14000	13000	11500	11000	10000	9000
GS 11010-1	1800	1100	120x10	12500	11500	10500	14000	13000	11500	11000	10000	9000
GS 11010-1	2050	1100	120x15	12500	11500	10500	14000	12500	11500	11000	10000	9000
GS 12010	2050	1100	150x10	16000	15000	13500	17500	15500	14500	14000	13000	12000

* Valid only outside the EC

** Only for wheels with offset 26 - 50 mm.

Note: In EC countries, in accordance with the requirements of EC directive 71/320, automatic brake slack adjusters (AGS) are required on trailers above 3.5t gross weight. In Germany, in accordance with StVZO (German road traffic law), no automatic brake slack adjusters are required up to 60 km/h.

Over-run units AVE

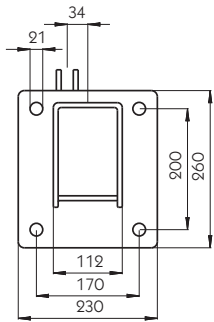


Illustration: type AP/BHP

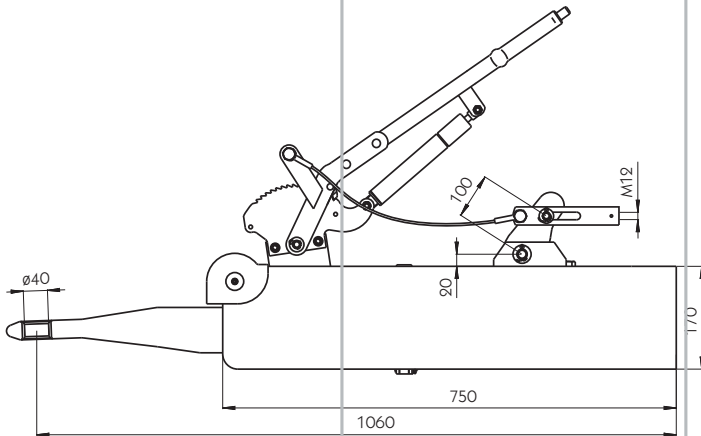
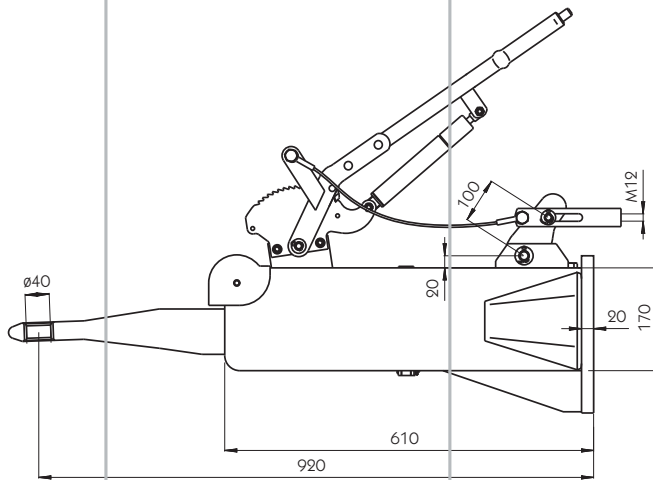


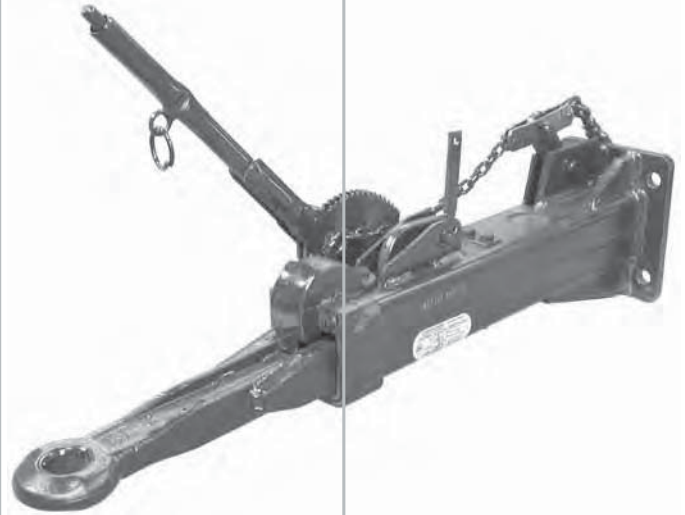
Illustration: type AV/BHV

Other types
are available
on request.

AVE 2000

For single axle and tandem trailers,
for wheel brakes S 3006-7 RA,
pivot lever above left, hydraulic
damper, ABG (type approval)
no.: ~ F 1302.

Type	Speed		Perm. gross weight min. - max.	Perm. vert. static load [kg]	Over-run travel [kg]	Pivot lever [mm]	Weight [kg]	
	up to 25 km/h	over 25 km/h						
AP/BHP	x	x	5557 - 8000	1600/1000	120	120:100	60	202392017
AV/BHV	x	x	5557 - 8000	1600/1000	120	120:100	55	202392097

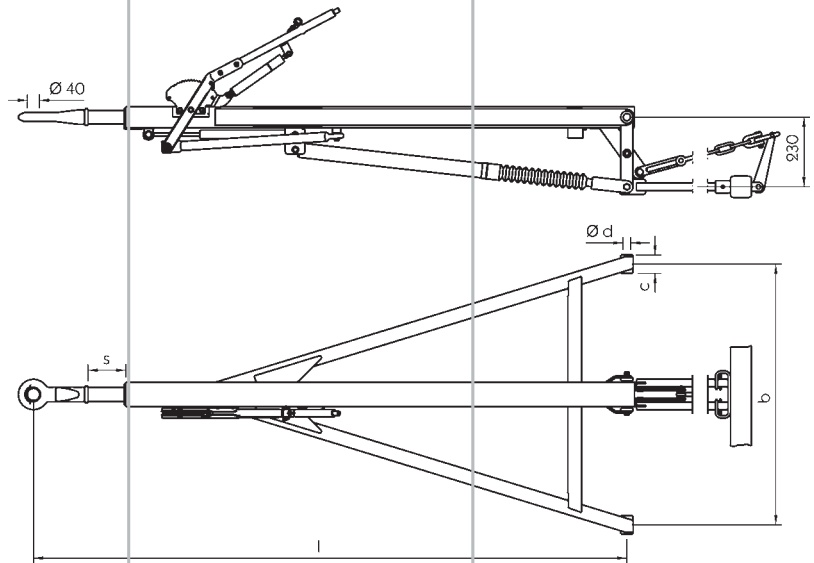


AVE
Single axle over-run units.

Type	Perm. gross weight min. - max. up to 25 km/h [kg]	Vert. static load [kg]	Length [mm]	Fitting method	Weight [kg]	
AVE 57, B = above right	2670 - 5700	1000	9050	welding	37.5	202391135
AVE 57, B = above right	2670 - 5700	1000	9050	bolting	37.5	202392080
AVE 80, B = above left	4670 - 8000	1000	9050	welding	42.0	202391062
AVE 80, B = above right	4670 - 8000	1000	9050	bolting	42.0	202392081

No longer available

Other types are available on request.



AM 2000

For 2-axle trailers, ABG (German type approval) no.: ~ F 1314, hydraulic damper, with height adjusting device type Klemmfix 2000 ABG no.: ~ F 820, terrain independent (neutral pivot lever bearing), for 2-wheel and 4-wheel braking.

Type	Perm. gross weight up to 25 km/h [kg]	Perm. gross weight over 25 km/h [kg]	Over-run travel s [mm]	Dim. l [mm]	Dim. b [mm]	Dim. c [mm]	Dim. d Ø [mm]	Weight [kg]	Article number for wheel brakes S 3006-7 RA [120/100]	Article number for wheel brakes S 3008 RA [120/75]
AK 12/BK 12	3264 - 8000	5175 - 8000	120	1960	860	60	24	62.0	202392057	202392056
AK 12/BK 12	3264 - 8000	5175 - 8000	120	1960	1000	60	24	64.0	202392088	202392090
AK 12/BK 12	3264 - 8000	5175 - 8000	120	1960	1000	70	26	64.5	202392043	202392059
AK 12/BK 12	3264 - 8000	5175 - 8000	120	1960	1100	70	26	66.5	202392045	202392091
AK 12/BK 12	3264 - 8000	5175 - 8000	120	1960	1200	70	26	68.1	202392089	202392092
AK 12/BK 12	3264 - 8000	5632 - 8000	120	1960	860	60	24	62.0		202392093
AK 12/BK 12	3264 - 8000	5632 - 8000	120	1960	1000	60	24	64.0		202392094
AK 12/BK 12	3264 - 8000	5632 - 8000	120	1960	1000	70	26	64.5		202392083
AK 12/BK 12	3264 - 8000	5632 - 8000	120	1960	1100	70	26	66.5		202392095
AK 12/BK 12	3264 - 8000	5632 - 8000	120	1960	1200	70	26	68.1		202392096

No longer available

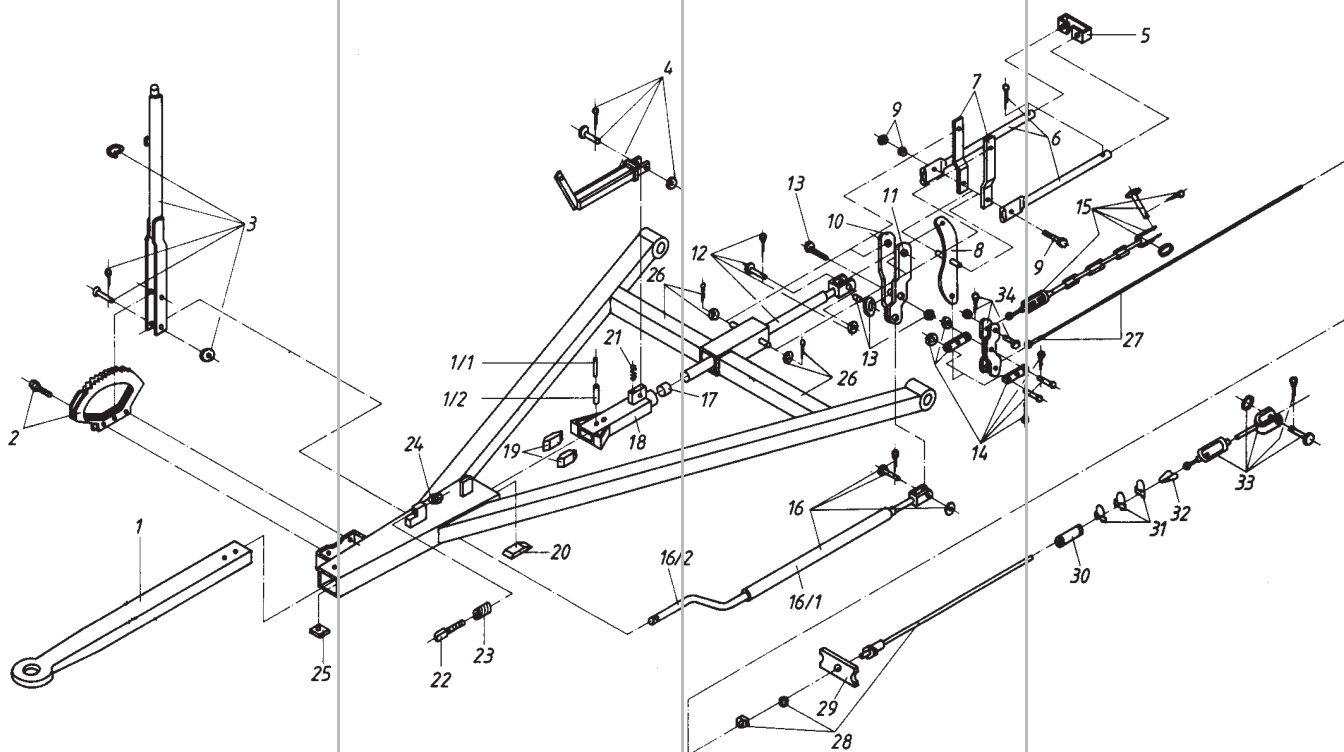


AVME

Type	Perm. gross weight min. - max. up to 25 km/h [kg]	Ratio range	Length [mm]	Fork leg centres [mm]	Fork bearing length [mm]	Bore [mm]	Weight [kg]	
AVME 44	2667 - 4400	1.5 - 2.8	1660	750	60	24	43	202391085
AVME 44	2667 - 4400	1.5 - 2.8	1660	860	60	24	43	202391086
AVME 44	2667 - 4400	1.5 - 2.8	1660	1000	60	24	43	202391087
AVME 80	3833 - 8000	1.5 - 2.8	1810	750	70	26	50	202391088
AVME 80	3833 - 8000	1.5 - 2.8	1810	860	70	26	50	202391089
AVME 80	3833 - 8000	1.5 - 2.8	1810	860	60	24	50	202391101
AVME 80	3833 - 8000	1.5 - 2.8	1810	910	70	26	50	202391138
AVME 80	3833 - 8000	1.5 - 2.8	1810	940	70	24	50	202391139
AVME 80	3833 - 8000	1.5 - 2.8	1810	1000	70	26	50	202391090
AVME 80	3833 - 8000	1.5 - 2.8	1810	1000	80	28	50	202391140
AVME 80	3833 - 8000	1.5 - 2.8	1810	1000	60	24	50	202391142
AVME 80	3833 - 8000	1.5 - 2.8	1810	1100	70	26	50	202391091
AVME 80	3833 - 8000	1.5 - 2.8	1810	1100	80	28	50	202391092

No longer available

Spare parts



All spare parts not itemised are available on request.

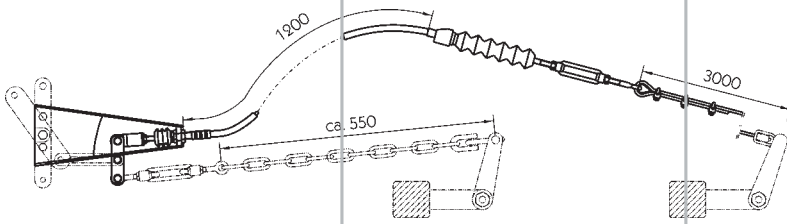
Spare parts for AVM 44

Item	Type	
1	Drawbar with 2 spring pins	119393001
3	Hand brake lever complete	119393002
4	Reverse stop	119393003
12	Push rod	119393004
16	Fall arrester linkage complete	119393005
19	Pull-away damper	119393006
20	Pressure piece	119393007
25	Slider plate	119393012

Spare part for AVM 80

Item	Type	
1	Drawbar with 2 spring pins	119393018
3	Hand brake lever complete	119393019
4	Reverse stop	119393020
12	Push rod	119393021
16	Fall arrester linkage complete	119393022
19	Pull-away damper	119393023
20	Pressure piece	119393024
25	Slider plate	119393017

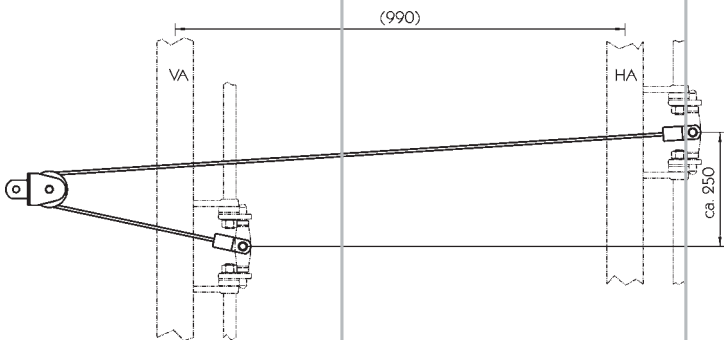
Brake operating mechanisms



Standard 4-wheel mechanism

For 2-axle trailers with over-run unit AM 2000.

202392084



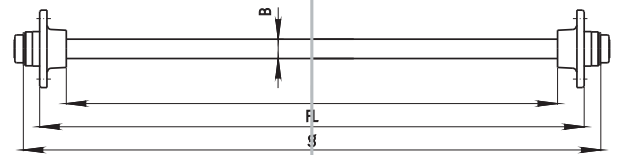
Standard 4-wheel cable mechanism

For tandem trailers.

202392085

Agricultural axles

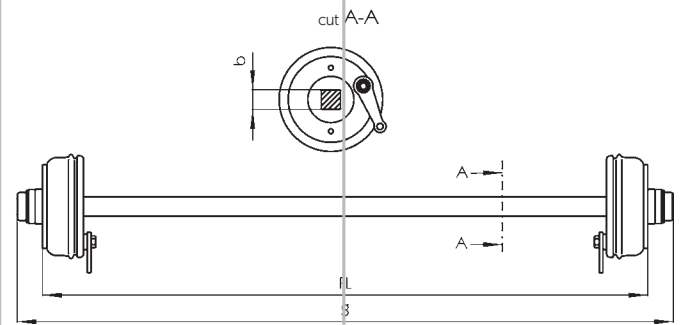
Cart axles



Cart axles

Unbraked, permissible top speed up to 25 km/h, axle body rectangular section steel.

Type	Perm. axle load [kg]	Dim. FL [mm]	Dim. l [mm]	Dim. g [mm]	Dim. B □ [mm]	Wheel fixing [mm]	Wheel bolts	Wheel offset [mm]	Weight [kg]	
K 700	700	1000	910	1060	35	4/60/100	orb collar	0	22	200301058
K 700	700	1100	1010	1060	35	4/60/100	orb collar	0	22	200301059
K 700	700	1250	1160	1310	35	4/60/100	orb collar	0	24	200301060
R 950	950	1000	910	1060	40	4/60/100	orb collar	0	25	200301300
R 950	950	1100	1010	1160	40	4/60/100	orb collar	0	26	200301301
R 950	950	1250	1160	1310	40	4/60/100	orb collar	0	27	200301302



Cart axles

Cam brakes 150 x 25, permissible top speed up to 25 km/h, axle body rectangular section steel, brakes with side levers.

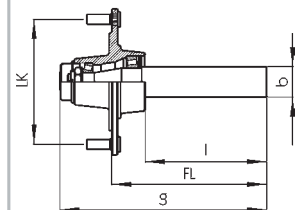
Type	Perm. axle load [kg]	Dim. FL [mm]	Dim. g [mm]	Dim. b [mm]	Wheel fixing LK [mm]	Wheel bolts	Wheel offset [mm]	Weight [kg]	
K 700	700	1000	1060	35	4/57/100	cone	0	24	200301064
K 700	700	1250	1310	35	4/57/100	cone	0	28	200301066
K 700	700	1000	1060	35	4/60/100	orb collar	0	24	200301061
K 700	700	1100	1160	35	4/60/100	orb collar	0	27	200301062
K 700	700	1250	1310	35	4/60/100	orb collar	0	28	200301063
R 950	950	1000	1060	40	4/60/100	orb collar	0	25	200301303
R 950	950	1100	1160	40	4/60/100	orb collar	0	27	200301304
R 950	950	1250	1310	40	4/60/100	orb collar	0	29	200301305

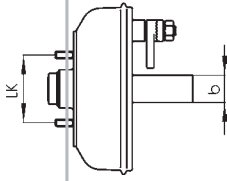
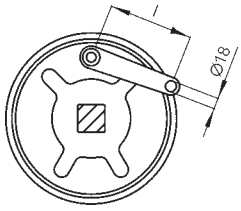
No longer available

Hubs with stub axle

Unbraked.

Type	Perm. axle load per pair [kg]	Dim. l [mm]	Dim. FL [mm]	Dim. g [mm]	Dim. b □ [mm]	Wheel fixing LK [mm]	Wheel bolts	
GS 1,5	1000	100	178	200	40	5/67/112	orb collar bolts	200301320
GS 2	1400	100	170	195	40	5/67/112	orb collar nuts	200301321
GS 2,5	1850	100	170	195	45	5/67/112	orb collar nuts	200301322
GS 6	4000	200	355	26	60	6/160/205	orb collar nuts	200301323

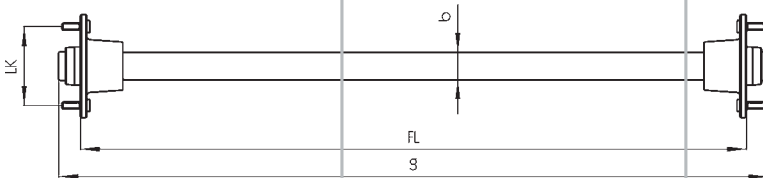




Hubs with stub axle With cam brakes.

Type	Wheel brakes per pair [kg]	Perm. axle load [mm]	Dim. b [mm]	Dim. l [mm]	Wheel fixing LK [mm]	Wheel fasteners	
KS 700	150x25	700	∅ 32	72	4/60/100	orb collar bolts	200301324
GS 2	GU 250x40 N	1400	□ 40	140	5/67/112	orb collar bolts	200301325
GS 2,5	GU 250x40 N	1850	□ 45	140	5/67/112	orb collar bolts	200301326
GS 6	GU 300x60 N2	4000	□ 60	180	6/160/205	orb collar nuts	200301327

Idle axles

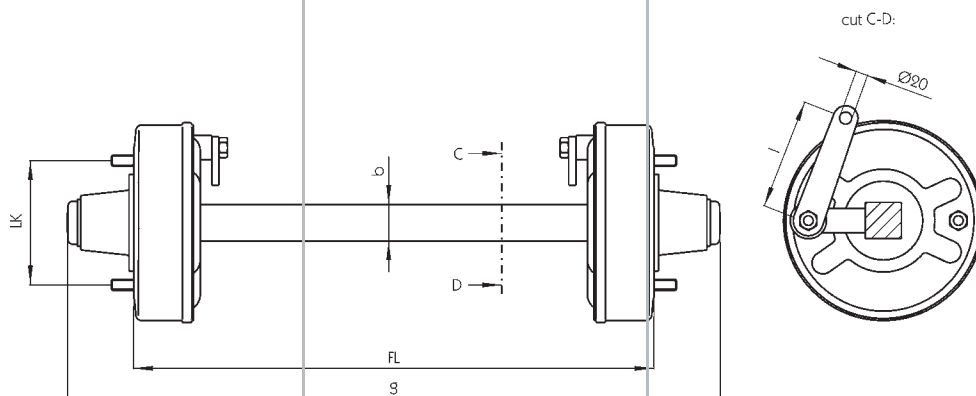


Idle axles

Permissible top speed up to 25 km/h, axle body rectangular section steel.

Type	Perm. axle load [kg]	Dim. FL [mm]	Dim. s [mm]	Dim. b [mm]	Wheel fixing LK [mm]	Wheel fasteners	Wheel offset [mm]	
GA 1,5	1000	1330	1370	40	5/67/112	orb collar bolts	40	200301001
GA 1,5	1000	1440	1480	40	5/67/112	orb collar bolts	40	200301002
GA 1,5	1000	1580	1620	40	5/67/112	orb collar bolts	40	200301003
GA 2	1400	1330	1390	40	5/67/112	orb collar nuts	40	200301306
GA 2	1400	1440	1500	40	5/67/112	orb collar nuts	40	200301307
GA 2	1400	1580	1640	40	5/67/112	orb collar nuts	40	200301308
GA 2,5	1850	1330	1390	45	5/67/112	orb collar nuts	40	200301004
GA 2,5	1850	1440	1500	45	5/67/112	orb collar nuts	40	200301005
GA 2,5	1850	1580	1640	45	5/67/112	orb collar nuts	40	200301006
GA 3	2200	1250	1390	50	6/160/205	orb collar nuts	0	200301309
GA 3	2200	1360	1500	50	6/160/205	orb collar nuts	0	200301310
GA 3	2200	1500	1640	50	6/160/205	orb collar nuts	0	200301311
GA 4	2850	1250	1390	55	6/160/205	orb collar nuts	0	200301007
GA 4	2850	1360	1500	55	6/160/205	orb collar nuts	0	200301008
GA 4	2850	1500	1640	55	6/160/205	orb collar nuts	0	200301009
GA 6	4000	1250	1440	60	6/160/205	orb collar nuts	0	200301312
GA 6	4000	1360	1550	60	6/160/205	orb collar nuts	0	200301012
GA 6	4000	1500	1690	60	6/160/205	orb collar nuts	0	200301013

Braked axles

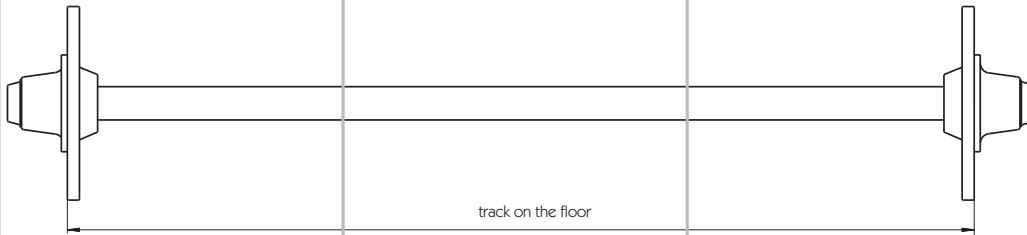


Braked axles

With cam brakes and brake compensator, permissible top speed up to 25 km/h, axle body rectangular section steel.

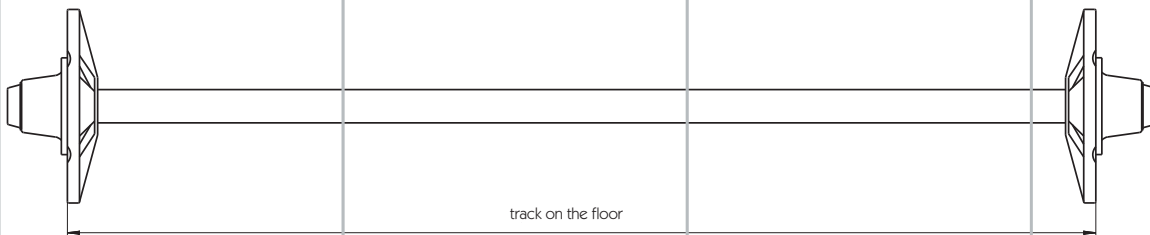
Type	Wheel brakes	Perm. axle load [kg]	Dim. FL [mm]	Dim. g [mm]	Dim. b [mm]	Dim. l [mm]	Wheel fixing LK [mm]	Wheel bolts	Wheel offset [mm]	
GA 2	GU 250x40 N	1400	1330	1390	40	140	5/67/112	orb collar bolts	40	200301313
GA 2	GU 250x40 N	1400	1440	1500	40	140	5/67/112	orb collar bolts	40	200301314
GA 2	GU 250x40 N	1400	1580	1640	40	140	5/67/112	orb collar bolts	40	200301315
GA 2,5	GU 250x40 N	1850	1330	1390	45	140	5/67/112	orb collar bolts	40	200301017
GA 2,5	GU 250x40 N	1850	1440	1500	45	140	5/67/112	orb collar bolts	40	200301018
GA 2,5	GU 250x40 N	1850	1580	1640	45	140	5/67/112	orb collar bolts	40	200301019
GA 3	GU 250x40 N	2200	1250	1390	50	140	6/160/205	orb collar nuts	0	200301316
GA 3	GU 250x40 N	2200	1360	1500	50	140	6/160/205	orb collar nuts	0	200301317
GA 3	GU 250x40 N	2200	1500	1640	50	140	6/160/205	orb collar nuts	0	200301318
GA 4	GU 300x60 N2	2850	1250	1390	55	180	6/160/205	orb collar nuts	0	200301023
GA 4	GU 300x60 N2	2850	1360	1500	55	180	6/160/205	orb collar nuts	0	200301024
GA 4	GU 300x60 N2	2850	1500	1640	55	180	6/160/205	orb collar nuts	0	200301025
GA 6	GU 300x60 N2	4000	1250	1440	60	180	6/160/205	orb collar nuts	0	200301319
GA 6	GU 300x60 N2	4000	1360	1550	60	180	6/160/205	orb collar nuts	0	200301035
GA 6	GU 300x60 N2	4000	1500	1690	60	180	6/160/205	orb collar nuts	0	200301036

Idle and braked axles



Type: 200303030

A table of permissible axle loads can be found on page 81.

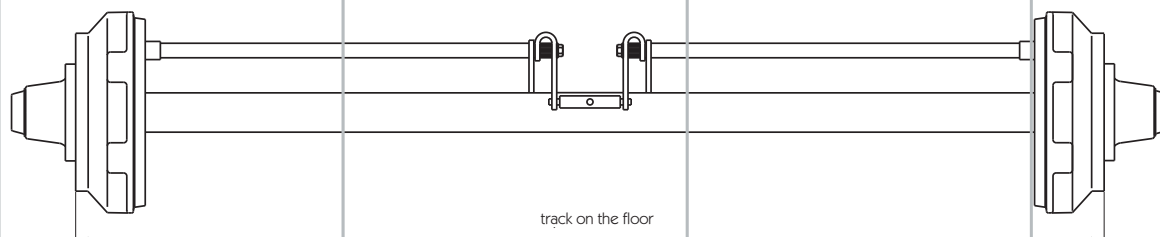


Type: 200303032/33/34

Idle axles Up to 40 km/h.

Type	Axle square sect. [mm]	SB/H track [mm]	Wheel fixing [mm]	Wheel offset [mm]	Weight [kg]	
4000	50	1500	6/161/205	0	45	200303030
6000	60	1500	6/161/205	0	70	200303032
6000 B	65	1700	6/161/205	0	75	200303033
7000	70	1700	6/161/205	0	84	200303034

No longer available



Braked axles

Wheel brakes BA 350 x 80 SB/F, without auto-reverse, up to 40 km/h.

Type	Axle square sect. [mm]	SB/H track [mm]	Wheel fixing [mm]	Wheel offset [mm]	Weight [kg]	
7000/358/8 S	70	1700	8/220/275	0	107	200303054

No longer available

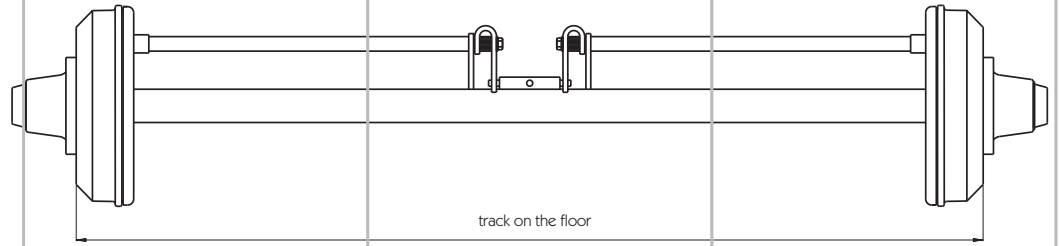
Braked axles

Wheel brakes BA 350 x 80 SB/G, without auto-reverse, up to 40 km/h.

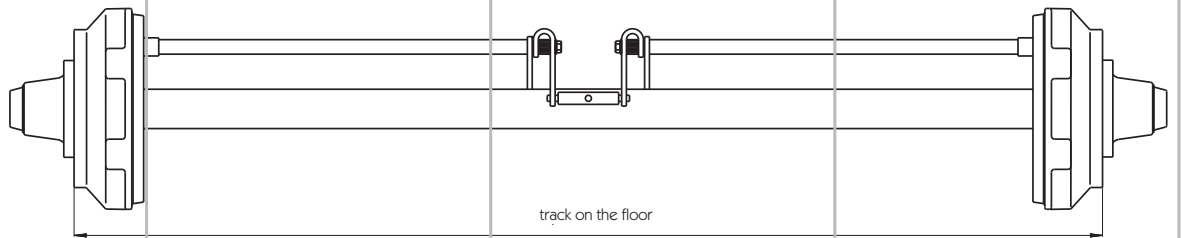
Type	Axle square sect. [mm]	SB/H track [mm]	Wheel fixing [mm]	Wheel offset [mm]	Weight [kg]	
9000/358/6 S	90	1700	6/161/205	0	138	200303063

No longer available

A table of permissible axle loads can be found on page 81.



Type: 200303037/38



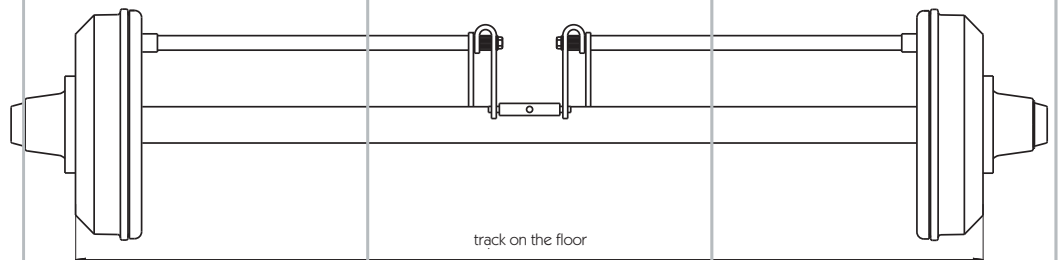
Type: 200303039/40

Braked axles

Wheel brakes BA 300 x 60 SB/F, without auto-reverse, up to 40 km/h.

Type	Axle square sect. [mm]	SB/H track [mm]	Wheel fixing [mm]	Wheel offset [mm]	Weight [kg]	
5000	55	1500	6/161/205	0	102	200303037
6000	60	1500	6/161/205	0	107	200303038
6000 S	60	1700	6/161/205	0	117	200303039
7000 S	70	1700	6/161/205	0	123	200303040

No longer available



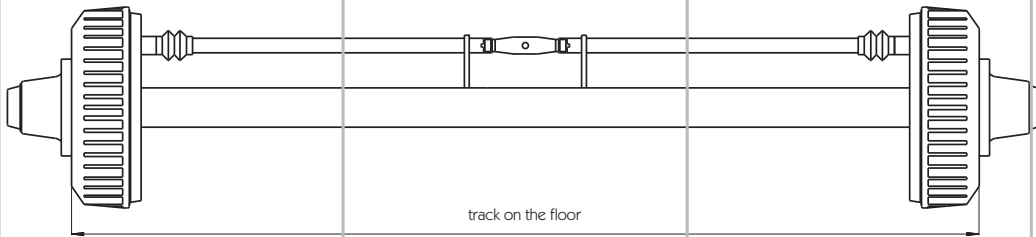
Type: 200303041/42

Braked axles

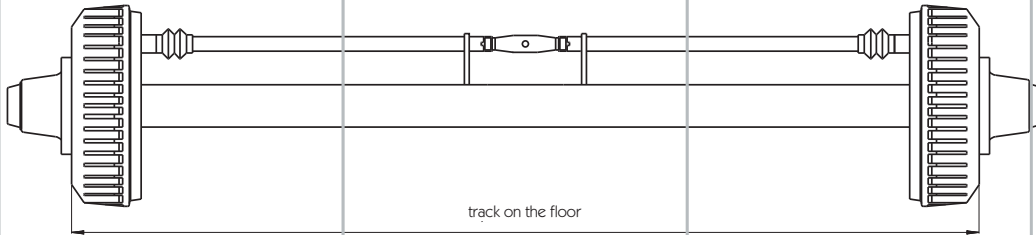
Wheel brakes BA 350 x 60 SB/F, without auto-reverse, up to 40 km/h.

Type	Axle square sect. [mm]	SB/H track [mm]	Wheel fixing [mm]	Wheel offset [mm]	Weight [kg]	
6000/350/6 H	60	1500	6/161/205	0	102	200303041
7000/350/6 H	70	1700	6/161/205	0	105	200303042

No longer available



Type: 200303087/88



Type: 200303089

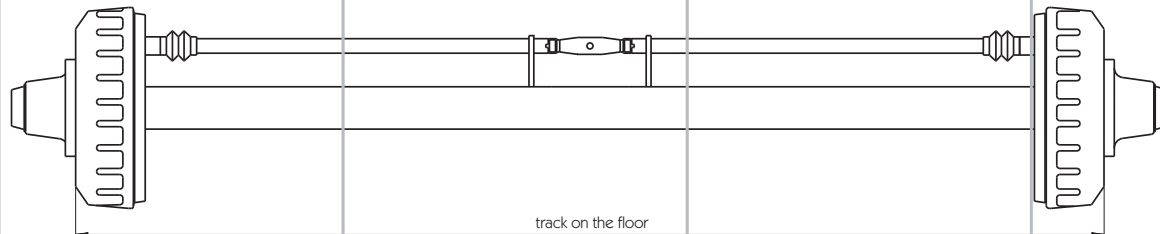
A table of permissible axle loads can be found on page 81.

Braked axles

Wheel brakes BA 300 x 80 SB/H, without auto-reverse, up to 40 km/h.

Type	Perm. gross weight [t]	Axle square sect. [mm]	SB/H track [mm]	Wheel fixing [mm]	Wheel offset	Weight [kg]	
6000/80 S	3	65	1500	6/161/205	0	102	200303087
7000/80 S	4	70	1500	6/161/205	0	103	200303088
7506/80 S	4.2	70	1500	6/161/205	0	103	200303089

No longer available



Type: 200303089

Braked axles

Wheel brakes BA 350 x 80 SB/G, without auto-reverse, up to 40 km/h.

Type	Perm. gross weight [t]	Axle square sect. [mm]	SB/H track [mm]	Wheel fixing [mm]	Wheel offset	Weight [kg]	
7000/358/6 S	4.5	70	1700	6/161/205	0	102	200303090
7000/358/8 S	4.5	70	1700	8/220/275	0	102	200303091
8000/358/6 S	4.5	80	1700	6/161/205	0	108	200303092
8000/358/8 S	5.0	80	1700	8/220/275	0	108	200303093
9000/358/6 S	5.0	90	1700	6/161/205	0	108	200303094
9000/358/8 S	5.5	90	1700	8/220/275	0	112	200303095

No longer available

Accessories

Accessories

Description	Weight [kg]	
Mechanical slack adjuster	1.0	200303096
Automatic slack adjuster	1.0	200303097
ABS sensing	1.0	200303098
Base plate for membrane cylinder	1.0	200303099

No longer available

Permissible axle loads for
idle and braked axles

Idle axles

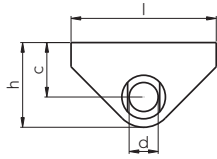
Axle type	Track width SP [mm]	Axle cross section A [mm]	2-axle trailer		1-axle trailer		Tandem	
			25 km/h [kg]	40 km/h [kg]	25 km/h [kg]	40 km/h [kg]	25 km/h [kg]	40 km/h [kg]
4000	1500	50	3000	2000	3200	2500	1800	1500
6000	1500	60	4000	3500	5000	4200	3600	3000
6000 B	1700	65	4500	3800	5500	4500	4000	3200
7000	1700	70	6000	4300	6500	5000	5000	4200

Braked axles

Axle type	Track width SP [mm]	Axle cross section A [mm]	2-axle trailer		1-axle trailer		Tandem	
			25 km/h [kg]	40 km/h [kg]	25 km/h [kg]	40 km/h [kg]	25 km/h [kg]	40 km/h [kg]
7000/358/8 S	1700	70	7000	6000	7500	6500	6000	5000
5000	1500	55	3500	2800	4000	3200	3000	2500
6000	1500	60	4000	3500	5000	4200	3600	3000
6000 S	1700	65	4500	3800	5500	4500	4000	3200
7000 S	1700	70	6000	4300	6500	5000	5000	4200
6000/350/6 H	1500	60	4200	3500	5200	4200	3800	3000
7000/350/6 H	1500	70	6000	5000	6500	6000	5000	4200
6000/80 S	1500	65	5000	4500	5500	5000	4000	3600
7000/80 S	1500	70	6000	5000	6500	6000	5000	4500
7506/80 S	1500	70	7000	6000	7500	6500	6000	5000

All other axles only on enquiry.

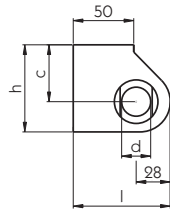
Spring components Spring hangers



Front spring hangers up to 25 km/h
With bushing for spring hanger pin.

For spring width [mm]	Inside width [mm]	Dim. l [mm]	Dim. h [mm]	Dim. c [mm]	Wall thickness of bushes [mm]	Dim. d [mm]	Weight [kg]	
60*	62	120	70	42	6	24/20	0.85	260181088
70*	72	130	73	45	6	26/22	0.98	260181089
70	72	130	90	60	8	26/22	1.90	260181024

* Cold formed.

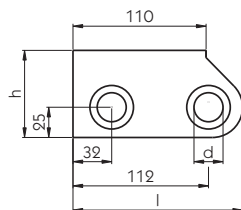


A-frame drawbar hangers
For pre-welding to spring hanger, with bushing for spring hanger pin.

Handing	For eye width [mm]	Inside width [mm]	Dim. l [mm]	Dim. h [mm]	Wall thickness of bushes [mm]	Dim. c [mm]	Dim. d [mm]	Weight [kg]	
Left	60*	62	80	73	6	45	24/20	0.60	260181092
Right	60*	62	80	73	6	45	24/20	0.60	260182092
Left	60	62	120	73	6	45	24/20	1.10	260181028
Right	60	62	120	73	6	45	24/20	1.10	260182028
Left	70*	72	80	73	6	45	26/22	0.66	260181094
Right	70*	72	80	73	6	45	26/22	0.66	260182094
Left	70	72	122	90	8	60	26/22	1.75	260181029
Right	70	72	122	90	8	60	26/22	1.75	260182029

* Cold formed.

No longer available



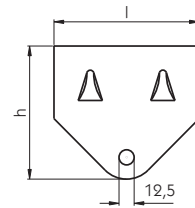
A-frame drawbar spring hangers up to 25 km/h
With bushing for spring hanger pin.

Handing	For spring width [mm]	Inside width [mm]	Dim. l [mm]	Dim. h [mm]	Material thk. [mm]	Dim. d [mm]	Weight [kg]	
Left	60*	62	140	73	6	24/20	1.1	260181084
Right	60*	62	140	73	6	24/20	1.1	260181085
Left	70*	72	140	73	6	26/22	1.3	260181086
Right	70*	72	140	73	6	26/22	1.3	260181087
Left	70	72	145	90	8	26/22	2.2	260181021
Right	70	72	145	90	8	26/22	2.2	260181022

* Cold formed.

No longer available

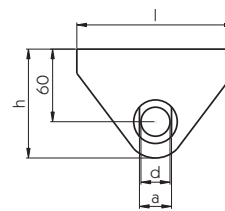
Rear spring hangers up to 25 km/h
With welded-in web for slipper spring.



For spring width [mm]	Inside width [mm]	Dim. l [mm]	Dim. h [mm]	Material thk. [mm]	Dim. from top edge to underside of web. [mm]	Weight [kg]	
60*	62	120	105	6	47	1.65	260181090
70*	72	130	105	6	47	1.70	260181091
70	72	130	150	8	80	3.30	260181026

* Cold formed.

Front spring hangers over 25 km/h
With bushing for spring hanger pin.



Type [mm]	For spring width [mm]	Dim. l [mm]	Dim. h [mm]	Material thk. [mm]	Dim. d [mm]	Dim. a [mm]	Weight [kg]	
E 2	60	130	90	8	24/20	26.5	1.4	260181009
E 3	70	150	90	10	26/22	28.5	2.25	260181010
E 5/8	80	150	100	10	28/24	30.5	3.0	260181011
E 11	100	150	100	12	30/26	32.5	3.5	260181012

Front spring hanger over 25 km/h

Both sides without groove, for steel screws M30 - only for parabolic springs with rubber supported bushings.

260181147

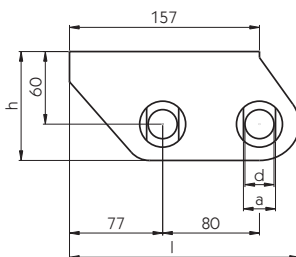
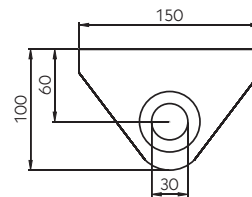


Illustration: 260181001 - 04, left hand

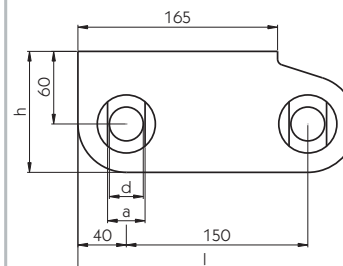
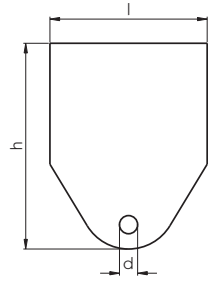


Illustration: 260181005 - 08, left hand

A-frame drawbar spring hangers over 25 km/h
With bushing for spring hanger pins.

Type /handing	For spring width [mm]	Dim. l [mm]	Dim. h [mm]	Material thk. [mm]	Dim. d [mm]	Dim. a [mm]	Weight [kg]	
E 2 left	60	190	90	8	24/20	26.5	2.4	260181001
E 2 right	60	190	90	8	24/20	26.5	2.4	260181002
E 3 left	70	190	90	10	26/22	28.5	3.0	260181003
E 3 right	70	190	90	10	26/22	28.5	3.0	260181004
E 5/E 8 left	80	230	100	10	28/24	30.5	5.0	260181005
E 5/E 8 right	80	230	100	10	28/24	30.5	5.0	260181006
E 11 left	100	230	100	12	30/26	32.5	6.25	260181007
E 11 right	100	230	100	12	30/26	32.5	6.25	260181008



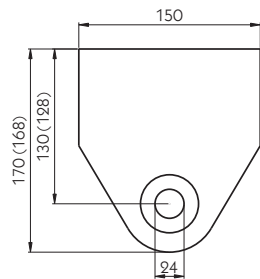
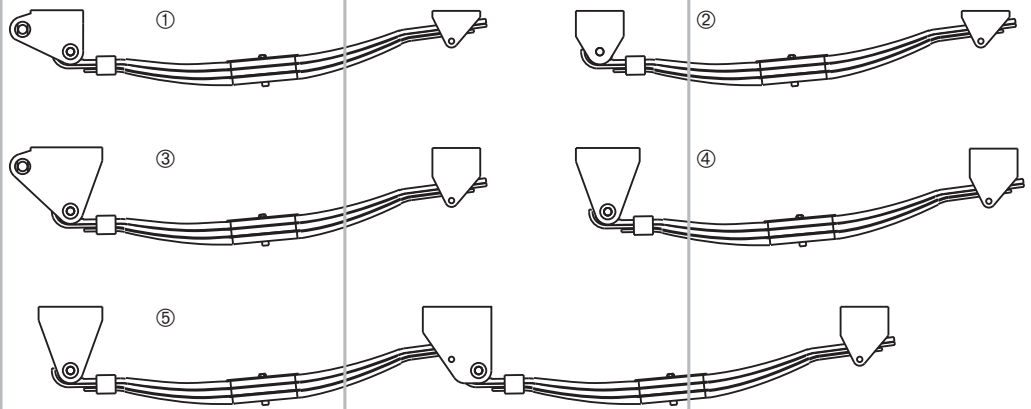
Rear spring hangers over 25 km/h
With welded-in spring slipper plate.

Type	For spring width [mm]	Dim. l [mm]	Dim. h [mm]	Material thk. [mm]	Height from top edge to underside of slipper plate [mm]	Height from slipper plate to hole centre [mm]	Dim. d [mm]	Weight [kg]	
E 2	60	130	170	8	104	46	15	3.8	260181013
E 3	70	150	170	10	110	40	17	5.5	260181014
E 5/8	80	150	190	10	120	50	17	6.5	260181015
E 5/8 H	80	150	215	10	120	69	17	7.7	260181016
E 11	100	150	195	12	131	44	17	8.5	260181017
E 11 H	100	150	220	12	131	69	17	9.3	260181018

Spring hangers for parabolic springs

Assembly examples for spring units with parabolic springs:

- ① Front axle with A-frame draw-bar mounting point, installed height 130 mm.
- ② Single axle, installed height 130 mm.
- ③ Front axle with A-frame draw-bar mounting point, installed height 200 mm.
- ④ Single axle, installed height 200 mm.
- ⑤ Double axle, installed height 200 mm.



Front spring hanger, hanger height 130 mm
With bushing for spring hanger pin. For single or series mounted axles with 6 - 11 t per single axle load.

For spring width [mm]	Weight [kg]	
80	4.9	260181099
100	6.8	260181100

A-frame drawbar spring hanger, hanger height 130 mm

With bushing for spring hanger pin. For single or series mounted axles with 6 - 11 t per single axle load.

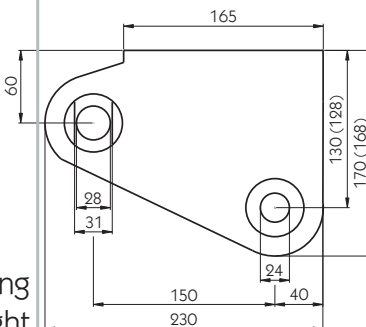
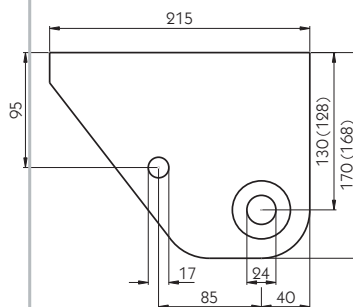


Illustration: left hand

Handing	For spring width [mm]	Weight [kg]	
Left	80	6.3	260181095
Right	80	6.3	260181096
Left	100	9.5	260181097
Right	100	9.5	260181098

Combination spring hanger, hanger height 130 mm

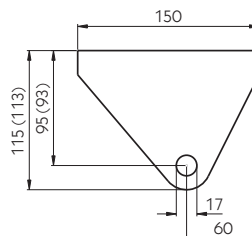
With bushing for spring hanger pin and welded-in spring slipper plate. For series mounted axles, without equaliser, with 6 - 11 t per single axle load and 1300 mm axle centres.



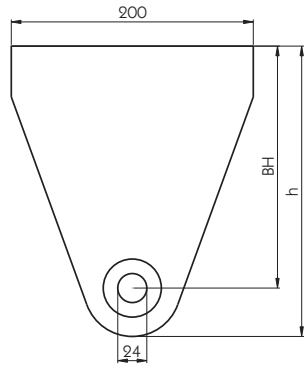
For spring width [mm]	Weight [kg]	
100	10.5	260181101

Slipper spring hanger, hanger height 130 mm

With welded-in spring slipper plate. For single or series mounted axles with 6 - 11 t per single axle load.



For spring width [mm]	Weight [kg]	
80	4.1	260181102
100	5.5	260181103

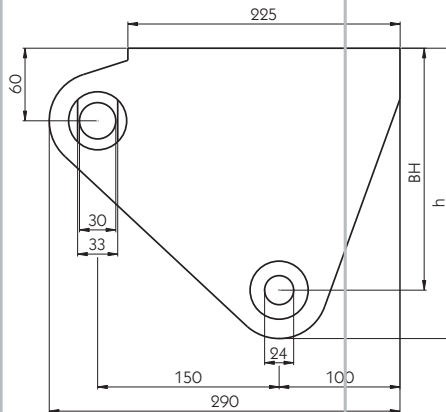


Front spring hanger,
hanger height
200 + 230 mm
With bushing for spring hanger
pins. For single or series moun-
ted axles with 6 - 11 t per single
axle load.

For spring width [mm]	Dim. BH [mm]	Dim. h [mm]	Weight [kg]	
100	200	240	9.5	260181109
100	230	270	10.0	260181136

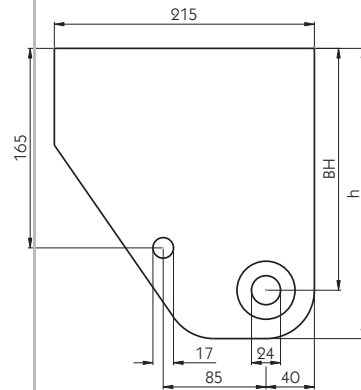


Illustration: right hand



A-frame drawbar
hanger, hanger height
200 + 230 mm
With bushing for spring hanger
pin. For single or series mounted
axles with 6 - 11 t per single axle
load.

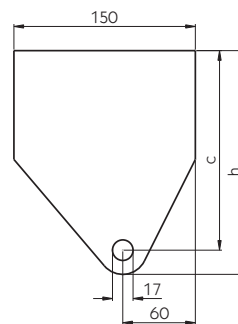
Handing	For spring width [mm]	Dim. BH [mm]	Dim. h [mm]	Weight [kg]	
Left	100	200	240	12.0	260181106
Right	100	200	240	12.0	260181107
Left	100	230	270	14.0	260181134
Right	100	230	270	14.0	260181135



Combination spring hanger, hanger height 200 + 230 mm

With bushing for spring hanger pin and welded-in spring slipper plate. For single or series mounted axles with 6 - 11 t per single axle load and 1300 mm axle centres.

For spring width [mm]	Hanger height [mm]	Dim. h [mm]	Dim. c [mm]	Weight [kg]	
100	200	240	165	15.0	260181110
100	230	270	195	16.0	260181138



Slipper spring hanger, hanger height 200 + 230 mm

With welded-in spring slipper plate. For single or series mounted axles with 6 - 11 t per single axle load.

For spring width [mm]	Hanger height [mm]	Dim. h [mm]	Dim. c [mm]	Weight [kg]	
100	200	185	165	9.0	260181112
100	230	215	195	9.5	260181137

Accessories

For parabolic spring hangers.

Fitting kit I

Suitable for the following spring hangers:
260181095/96/97/98/99,
260181100/06/07/09/34/35/36.
260181122

Included in the supply are:
 1 hex. head screw similar to DIN 931 - M24 x 175 - 8.8, 1 hex. nut DIN 985 - M 24.

Fitting kit II

Suitable for the following spring hanger:
260181102.
260181123

Included in the supply are:
 1 rubber roller 80 mm long, 40 mm Ø x 17 mm bore, 1 machine screw to DIN 601/M 16 x 120 mm with nut and spring washer to DIN 127/A 16.

Fitting kit III

Suitable for the following spring hangers:
260181103/12/37.
260181124

Included in the supply are:
 1 rubber roller 100 mm long, 40 mm Ø x 17 mm bore, 1 machine screw to DIN 601/M 16 x 150 mm with nut and spring washer to DIN 127/A 16.

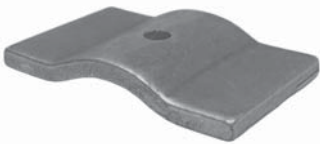
Fitting kit IV

Suitable for the following spring hangers:
260181101/10/38.
260181125

Included in the supply are:
 1 hex. head screw similar to DIN 931 - M24 x 175 - 8.8, 1 hex. nut to DIN 985 - M 24, 1 rubber roller 100 mm long, 40 mm Ø x 17 mm bore, 1 machine screw to DIN 601/M 16 x 150 mm with nut and spring washer to DIN 127/A 16.

Spring slipper plates

For slipper spring hangers.



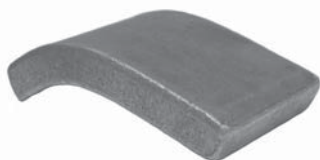
Type	For spring width [mm]	Length [mm]	Thickness [mm]	Weight [kg]	
Standard	70	130	10	0.80	260181036
Standard	80	130	10	1.00	260181037
Standard	100	130	12	1.20	260181038
Extended	70	170	10	1.00	260181040
Extended	80	170	10	1.20	260181041
Extended	100	170	12	1.60	260181042



Spring slipper plates

For rear high mounted spring hangers: **260181014/15/16/17/18,** both ends flanged.

For spring width [mm]	Length [mm]	Thickness [mm]	Weight [kg]	
70	170	10	1.00	260181044
80	170	10	1.20	260181045
100	170	12	1.40	260181046



Spring slipper plates

For parabolic spring hangers.

For spring width [mm]	Length [mm]	Thickness [mm]	Weight [kg]	
80	134	20	1.60	260181128
100	134	20	2.00	260181129

Rubber rollers

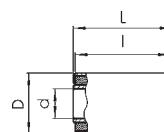
For use in slipper spring hangers.

Length [mm]	∅ [mm]	Bore [mm]	Weight [kg]	
60	40	13	0.17	260181031
60	60	17	0.24	260181080
70	60	17	0.30	260181032
80	40	17	0.14	*260181081
80	60	17	0.35	260181033
100	40	17	0.15	*260181082
100	60	17	0.43	260181034

*Suitable for parabolic spring hangers.

Silentbloccs

Steel/rubber cored bushes, as replacement for 80 and 100 mm wide parabolic springs.



For spring width [mm]	Dim. d ∅ [mm]	Dim. D ∅ [mm]	Dim. l [mm]	Dim. L [mm]	Weight [kg]	
80	24.3	50	78	81	1.5	260181131
100	24.3	50	98	101	1.5	260181130

Weld-in bushes

With and without slots.

Designation	Outside ∅ [mm]	Bore [mm]	Length [mm]	Neck ∅ [mm]	Slot width [mm]	Weight [kg]	
E2	38	20	16	36	without slot	0.08	260181047
E2	38	24	20	36	26.5	0.09	260181048
E3	42	22	21	38	without slot	0.14	260181049
E3	42	26	25	38	28.5	0.13	260181050
E5	48	24	26	44	without slot	0.27	260181051
E5	48	28	30	44	30.5	0.24	260181052
E11	50	26	30	44	without slot	0.29	260181053
E11	50	30	34	44	32.5	0.27	260181054
---	50	30	26	44	without slot	0.28	260181055
---	50	35	30	44	38.0	0.28	260181056

Special bushes

Type	Outside ∅ [mm]	Bore [mm]	Length [mm]	Neck length [mm]	Neck ∅ [mm]	Weight [kg]	
Without slot	42	26	21	8	38	0.14	260181057
Without slot	48	28	26	10	44	0.15	260181058
Without slot	50	30	30	12	44	0.14	260181059
Without slot	50	32	30	12	44	0.22	260181140

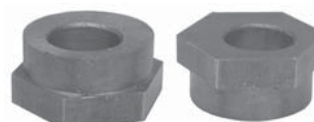
Bushes for parabolic spring hangers

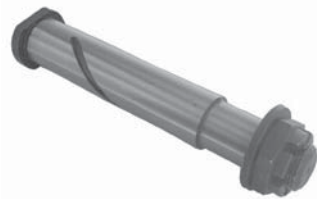
Type	Outside ∅ [mm]	Bore [mm]	Length [mm]	Neck length [mm]	Neck ∅ [mm]	For spring hanger width [mm]	Weight [kg]	
Without slot	48	24	30	10	44	80	0.25	260181127
Without slot	48	24	22	12	44	100	0.25	260181126

Tracking bushes for parabolic spring hangers

Eccentric bores for aligning the axles.

Outer hexagon [mm]	Bore ∅ [mm]	Length [mm]	Neck length [mm]	Neck ∅ [mm]	For spring hanger width [mm]	Weight [kg]	
46 SW	24	30	10	44	80	0.2	260181144
46 SW	24	22	12	44	100	0.2	260181145

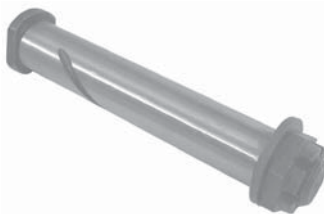




Spring hanger pins

Shouldered, complete with grease nipple, washer and castellated nut.

Designation	Shaft \varnothing x Length		Weight [kg]	
	Major shank [mm]	Minor shank [mm]		
E1	20 x 14.5	24 x 77.5	0.385	261191001
E3	22 x 19.5	26 x 92.5	0.570	261191002
E5	24 x 24.5	28 x 107.5	0.760	261191003
E5 extended	24 x 24.5	28 x 127.5	0.860	261191004
E11	26 x 29	30 x 131.5	1.000	261191005
E11 extended	26 x 29	30 x 151.5	1.100	261191006
E12	30 x 28.5	35 x 131.5	1.300	261191007
E24	36 x 28.5	40 x 131.5	1.900	261191008

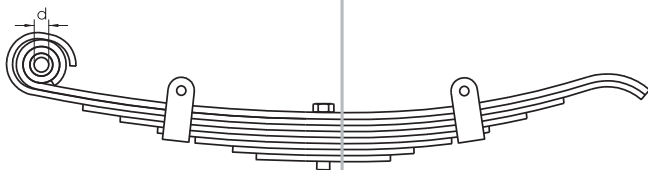


Spring hanger pins

Smooth shank, complete with grease nipple, washer and castellated nut.

Shank dimensions: \varnothing x Length [mm]	Weight [kg]	
25 x 125	0.59	261191009
26 x 105	0.58	261191075
26 x 110	0.59	261191076
26 x 130	0.65	261191012
28 x 130	0.79	261191013
28 x 140	0.86	261191014
28 x 150	0.89	261191015
28 x 160	0.94	261191016
30 x 130	0.91	261191017
30 x 150	1.03	261191018
30 x 160	1.08	261191019
35 x 160	1.50	261191020

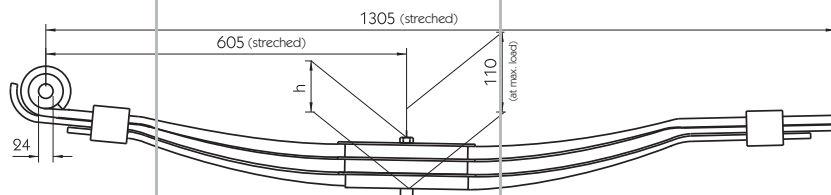
Leaf springs



Leaf springs

Spring steel to DIN 1570, 65 Si 7, DIN 17221, from manganese silicon rib steel, up to 25 km/h.

Axle load [kg]	Perm. static load per spring [kg]	No. of leaves [mm]	Leaf width [mm]	Leaf thk. [mm]	Hanger centres [mm]	Sprung depth [mm]	Bushes \varnothing [mm]	Spring deflection [mm]	Weight [kg]	
2850	1450	8	60	8	750	110	24	40	15.8	255251410
4000	1950	8	70	10	970	130	26	51	29.5	255251417
4250	2200	9	70	10	970	130	26	52	33.2	255251418



Parabolic springs
For single axles with maintenance free steel/rubber cored bushing and vibration damping.

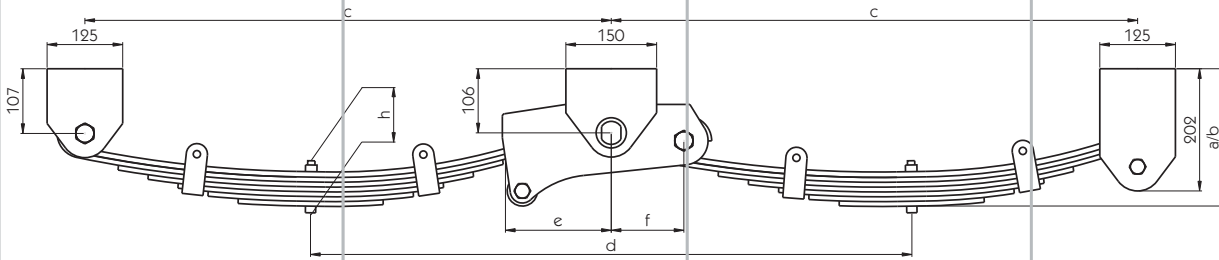
Designation	Perm. axle load [t]	Spring width [mm]	Bundle thickness at spring centre h [mm]	Head Ø hanger pin dh13 [mm]	Spring load capacity [kg]	Spring deflection at full load [mm]	Weight [kg]	
790601	6	80	69	20	2700	56	41	255251444
790602	8	100	69	24	3600	59	51	255251445
790603	9	100	75	24	4000	55	54	255251446
790604	10	100	78	24	4500	53	55	255251447
790605	11	100	81	24	5000	53	57	255251448

Spring bushes, solid brass

Bush inside Ø [mm]	Bush outside Ø [mm]	Length [mm]	Weight [kg]	
24	30	60	0.135	405191021
25	30	70	0.130	405191022
25	30	80	0.150	405191023
25	32	70	0.185	405191024
25	32	80	0.200	405191025
26	32	70	0.180	405191026
26	34	70	0.225	405191027
28	34	80	0.200	405191028
28	34	100	0.250	405191029
28	36	80	0.270	405191030
28	36	100	0.350	405191031
30	36	100	0.270	405191032
30	38	100	0.365	405191033
35	42	100	0.360	405191034
40	48	100	0.470	405191035



Complete spring assemblies

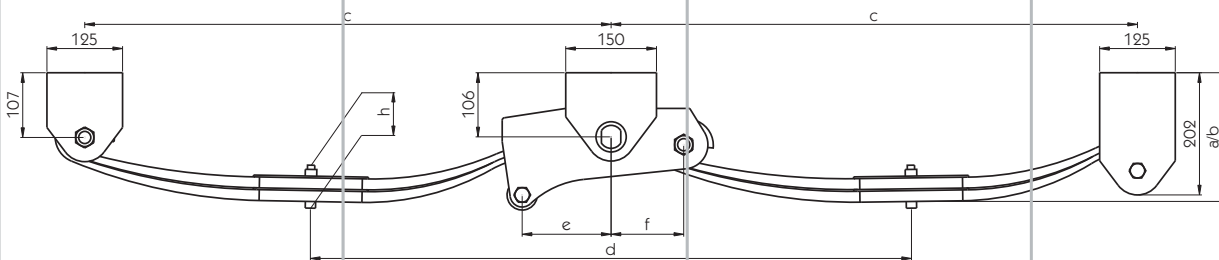


GK - W With leaf springs.

Designation	Perm. axle load [kg]	Total load capacity [kg]	Axle centres d [mm]	Installed height* a ± 5 [mm]	b ± 5 [mm]	Spring width [mm]	Dim. c [mm]	Bundle depth at spring centre h [mm]	Dim. e [mm]	Dim. f [mm]	Weight [kg]	
GK 90/70 W	4500	9000	990	238	217	70	870	65	180	120	131	116251472
GK 80/80 W	4000	8000	990	230	207	80	870	57	180	120	132	116251475
GK 90/80 W	4500	9000	990	229	---	80	870	56	180	120	139	116251478
GK 100/80 W	5000	10000	990	233	214	80	870	60	180	120	146	116251479
GK 120/80 W	6000	12000	990	244	225	80	870	71	180	120	160	116251480
GK 120/80/1040 W	6000	12000	1040	244	225	80	895	71	210	143	162	116251481
GK 120/80/L W	6000	12000	1140	255	224	80	1020	82	180	120	186	116251482

* a ± 5 = height in unloaded state, b ± 5 = height in fully loaded state.

No longer available



GK - P - W With parabolic springs.

Designation	Perm. axle load [kg]	Total load capacity [kg]	Axle centres d [mm]	Installed height* a ± 5 [mm]	b ± 5 [mm]	Spring width [mm]	Dim. c [mm]	Bundle depth at spring centre h [mm]	Dim. e [mm]	Dim. f [mm]	Weight [kg]	
GK 42/70 P-W	2100	4200	990	202	178	70	870	32	180	120	86	116251487
GK 80/80 P-W	4000	8000	990	208	186	80	870	38	180	120	103	116251492
GK 80/80/1040 P-W	4000	8000	1040	208	186	80	895	38	210	143	105	116251493
GK 80/80L P-W	4000	8000	1140	212	181	80	1020	42	180	120	117	116251494
GK 100/80 P-W	5000	10000	990	212	191	80	870	42	180	120	110	116251495
GK 100/80/1040 P-W	5000	10000	1040	212	191	80	895	42	210	143	112	116251496
GK 120/80 P-W	6000	12000	990	216	196	80	870	46	180	120	117	116251497
GK 120/80L P-W	6000	12000	1140	220	193	80	1020	50	180	120	133	116251498
GK 160/80/1270 P-W	8000	16000	1270	228	198	80	1140	52	180	120	146	116251502

* a ± 5 = height in unloaded state, b ± 5 = height in fully loaded state.

No longer available

Accessories

Spring clamp plates

Designation	Type	Spring width [mm]	Plate size [mm]	Hole pattern [mm]	Fixing hole size [mm]	Centre hole size [mm]	Material thk. [mm]	Weight [kg]	
E3	not forged	70	170 x 130	130 x 87	17	30	15	1.80	260181083
E8	not forged	80	200 x 155	150 x 105	25	38	16	3.20	260181077
E8	not forged	80	200 x 150	155 x 101	21	38	16	3.00	260181119
E11	drop forged	100	200 x 175	150 x 125	25	44	22/9	4.90	260181078
E11	not forged	100	230 x 175	180 x 125	25	44	18	5.00	260181079
E11	not forged	100	210 x 175	160 x 125	25	44	18	4.40	260181120
E11	not forged	100	205 x 175	155 x 125	25	44	18	4.40	260181121



No longer available

Spring clamp bolts

For mounting the springs, steel screws to DIN 931 8.8, without nuts.

Thread x Shank length [mm]	Weight [kg]	
M 16 x 130	0.235	960975307
M 16 x 140	0.250	960975308
M 16 x 150	0.265	960975309
M 16 x 160	0.280	960975310
M 16 x 180	0.310	960975311
M 16 x 200	0.340	960975312
M 16 x 220	0.375	960975313
M 16 x 240	0.400	960975314
M 20 x 180	0.500	960975365
M 20 x 200	0.550	960975366
M 20 x 220	0.600	960975367
M 20 x 240	0.620	960975368
M 20 x 260	0.680	960975369
M 20 x 280	0.710	960975370
M 20 x 300	0.760	960975530
M 20 x 320	0.850	960975531
M 20 x 340	0.910	960975532
M 20 x 350	0.940	960975533
M 20 x 360	0.965	960975534
M 20 x 380	1.000	960975535
M 24 x 200	0.800	960975418
M 24 x 220	0.870	960975419
M 24 x 240	0.950	960975420
M 24 x 260	1.020	960975550
M 24 x 280	1.080	960975551
M 24 x 300	1.150	960975552
M 24 x 320	1.200	960975538
M 24 x 340	1.300	960975540
M 24 x 350	1.310	960975541
M 24 x 360	1.360	960975542
M 24 x 370	1.400	960975543
M 24 x 380	1.410	960975544
M 24 x 400	1.500	960975545
M 24 x 420	1.580	960975546
M 24 x 440	1.650	960975547
M 24 x 460	1.720	960975548
M 24 x 480	1.770	960975549



No longer available

No longer available



Fitting hexagon bolts see page 505.

Spring U-bolts, material quality C 35

Heavy duty type with round legs, without nuts.

Inside width [mm]	Leg length [mm]	Thread	Weight [kg]	
60	80	M 14	0.36	260231005
60	90	M 14	0.38	260231006
60	100	M 14	0.41	260231007
60	110	M 14	0.43	260231008
70	90	M 16	0.52	260231009
70	100	M 16	0.54	260231010
70	110	M 16	0.55	260231011
70	120	M 16	0.59	260231012
70	130	M 16	0.61	260231013
70	140	M 16	0.63	260231014
80	120	M 20	1.07	260231015
80	140	M 20	1.09	260231016
80	160	M 20	1.11	260231017
80	180	M 20	1.13	260231050

Spring U-bolts, material quality C 45

Heavy duty type with round legs and flat bridge, without nuts.

Inside width [mm]	Leg length [mm]	Thread	Weight [kg]	
100	300	M 24	2.97	260231018
100	320	M 24	3.06	260231019
100	340	M 24	3.30	260231020
100	360	M 24	3.40	260231021
100	380	M 24	3.45	260231022

Wheels and tyres

Tyres

For agricultural machinery and trailers.

Type

10.0/75-15 TL/8PR (for wheel with tube)	330691050
10.5/80-18 TL/10PR (for tubeless wheel)	330691087

Wheels for farm carts

With tube.

Wheel rim size	Suitable for wheel fixing [mm]	Tyre size	Max. load capacity [kg]	At bar	Max. speed [km/h]	
9.00 x 15	6/161/205-EPT.O	10.0/75-15(8 ply)	1600	4.25	30	330691058
9.00 x 15	6/161/205-EPT.O	11.5/80-15(8 ply)	2040	3.50	30	330691059
9.00 x 15	6/161/205-EPT.O	11.5/80-15(10 ply)	2330	4.75	30	330691080
9 x 18	6/161/205-EPT.O	10.5/80-18(10 ply)	2335	5.00	30	330691081

No longer available

Wheels for farm carts

Tubeless.

Wheel rim size	Suitable for wheel fixing [mm]	Tyre size	Max. load capacity [kg]	At bar	Max. speed [km/h]	
9.00 x 15	6/161/205-EPT.O	10.0/75-15(8 ply)	1600	4.25	30	330691061
9.00 x 15	6/161/205-EPT.O	11.0/80-15(8 ply)	2040	3.50	30	330691062
9.00 x 15	6/161/205-EPT.O	11.5/80-15(10 ply)	2330	4.75	30	330691082

No longer available



Wheels for car trailers

Wheel rim size	Suitable for wheel fixing [mm]	Tyre size	Max. load capacity [kg]	at bar	Wheel offset [mm]	Max. speed [km/h]	
2.50 A x 8	4/60/100	4.00-8/6 ply	250 (275)	---	0	80 (25)	330691065
3.50 x 10	4/60/100	5.00-10/4 ply	355	---	0	80	330691123
4½J x 12	5/67/112	155/70-R12C	900	---	20	100	330691098
4½J x 13	4/57/100	155R-13	470	---	30	100	330691099
4½J x 13	4/57/100	165-13	525	2.5	30	100	330691069
4½J x 13	5/63/112	165-13	500	2.5	30	100	330691070
4½J x 13	4/57/100	175/70-13	495	2.6	30	100	330691088
5J x 13	5/63/112	175/70-13	495	2.6	30	100	330691089
5½J x 14	5/63/112	175-14	615	2.5	30	100	330691074
5J x 14	5/63/112	185-14	660	2.5	30	100	330691075
5½J x 14	5/63/112	185/70-14	615	2.6	30	100	330691076
5½J x 13	5/67/112	195/50-R13 C/8PR	900	---	30	100	330691128
5½J x 14	5/63/112	195/70-14	660	2.7	30	100	330691077
5½J x 15	5/67/112	185/60-R15	555	---	30	100	330691122
5½J x 15	5/67/112	185/65-R15	600	---	30	100	330691103
5½J x 15	5/67/112	195/60-R15	600	---	30	100	330691105
5½J x 15	5/67/112	195/65-R15	675	---	30	100	330691100
5½J x 14	5/67/112	185R-14C/8Ply	895	----	30	100	330691093
5½J x 14	5/67/112	195R-14C/8Ply	900	----	30	100	330691101
5½J x 14	5/67/112	205R-14C/8Ply	900	----	30	100	330691094
6.00 x 10	5/67/112	195/50-B10	750	----	-4	100	330691095
6J x 14	6/161/205	195R-14C/8Ply	1000	4.5	0	100	330691091
6J x 14	6/160/205	215R-14C/8Ply	1175	---	0	100	330691102
7.00 x 12	5/67/112	225/55-B12	900	---	10	100	330691121
8.5-10	5/94/140	20.5/10.0-10/8Ply	750	---	0	100	330691110



No longer available

Wheels for light truck trailers

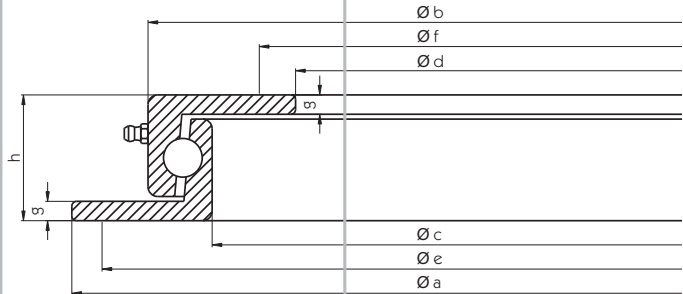
Wheel rim size	Suitable for wheel fixing [mm]	Tyre size	Max. load capacity [kg]	Wheel offset [mm]	Load-Index	
17.5 x 6.00	6/161/205	215/75 R 17.5	2180/2060	0	135/133	330692032
17.5 x 6.75	6/161/205	235/75 R 17.5	2725/2575	0	143/141	330692033
17.5 x 6.00	6/161/205	245/75 R 17.5	2725/2575	0	143/141	330692034
17.5 x 6.00	6/161/205	205/65 R 17.5	1600/1500	0	124/123	330692063
19.5 x 8.25	8/221/275	285/70 R 19.5	3150/2900	0	148/145	330692036
22.5 x 8.25	10/281/335	295/80 R 22.5	3550/3150	0	152/148	330692040
22.5 x 9.00	10/281/335	315/80 R 22.5	3750/3350	0	154/150	330692041
20 x 10.00 V	10/281/335	365/80 R 20	4500/4250	0	160/158	330692042
22.5 x 11.75	10/281/335	385/65 R 22.5	4500/4250	0	160/158	330692043
22.5 x 13.00	10/281/335	425/65 R 22.5	5150	0	165	330692060
19.5 x 14.00	10/281/335	445/45 R 19.5	4000	0	156	330692037
22.5 x 7.50	10/281/335	275/70 R 22.5	3150/2900	0	148/145	330692038
19.5 x 7.50	8/221/275	265/70 R 19.5	2725/2575	139	143/141	330692052
19.5 x 8.25	8/221/275	285/70 R 19.5	3150/2900	147	148/145	330692053
22.5 x 8.25	10/281/335	295/80 R 22.5	3550/3150	172	152/148	330692054
22.5 x 9.00	10/281/335	315/80 R 22.5	3750/3350	161	154/150	330692055
20 x 10.00 V	10/281/335	365/80 R 20	4500/4250	120	160/158	330692056
22.5 x 11.75	10/281/335	385/65 R 22.5	4500/4250	120	160/158	330692057
22.5 x 13.00	10/281/335	425/65 R 22.5	5150	120	165	330692058
22.5 x 7.50	10/281/335	275/70 R 22.5	3150/2900	141	148/145	330692062



No longer available

No longer available

Turntables

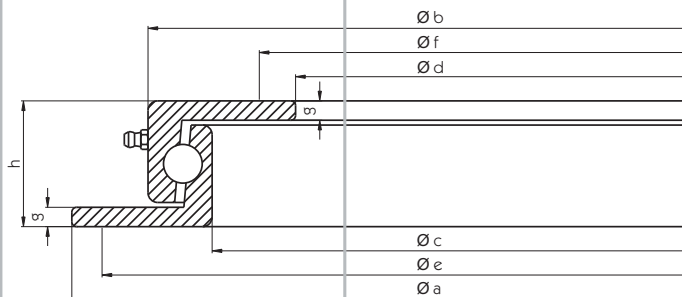
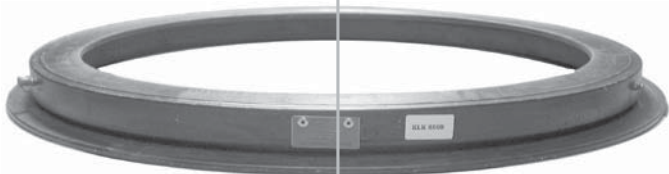


The drawings on this page do not illustrate the cross sections of the itemised turntable collars precisely.

Series L

For farm carts and transport equipment up to 30 km/h.

Designation	Dim. a [mm]	Dim. b [mm]	Dim. c [mm]	Dim. d [mm]	Dim. e [mm]	Dim. f [mm]	Dim. g [mm]	Dim. h [mm]	Ball Ø [mm]	Weight [kg]	Axial load [t]	
400 L	400	342	292	230	375	260	8	45	14	11	0.75	107291001
500 L	500	442	392	330	475	360	8	45	14	15	0.90	107291002
650 L	650	592	542	480	625	510	8	45	14	20	1.50	107291003
750 L	750	692	642	580	725	610	8	45	14	23	1.80	107291004
850 L	850	792	742	680	825	710	8	45	14	27	2.50	107291005
950 L	950	892	842	780	925	810	8	45	14	30	3.00	107291006
1050 L	1050	992	942	880	1025	910	8	45	14	34	3.50	107291007



Series N

For heavy farm carts and light truck trailers over 30 km/h.

Designation	Dim. a [mm]	Dim. b [mm]	Dim. c [mm]	Dim. d [mm]	Dim. e [mm]	Dim. f [mm]	Dim. g [mm]	Dim. h [mm]	Ball Ø [mm]	Weight [kg]	Axial load* [t]	
500 N	500	437	384	315	475	340	8	52	16	17	1.8	107291008
650 N	650	587	534	465	625	490	8	52	16	23	2.5	107291009
750 N	750	687	634	565	725	590	8	52	16	28	3.0	107291010
850 N	850	787	734	665	825	690	8	52	16	32	3.5	107291011
950 N	950	887	834	765	925	790	8	52	16	36	4.0	107291012
1050 N	1050	987	934	865	1025	890	8	52	16	40	4.5	107291013

* The permissible axial load is increased at speeds of under 30 km/h by 30 - 50%.

The drawings on this page do not illustrate the cross sections of the itemised turntable collars precisely.

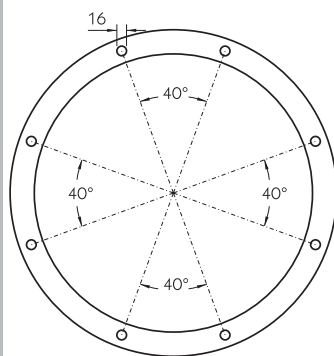
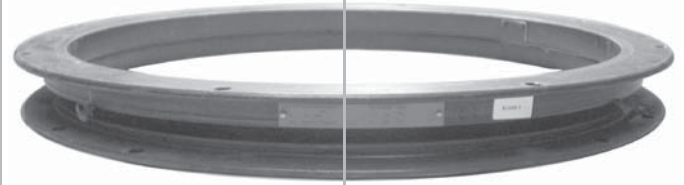
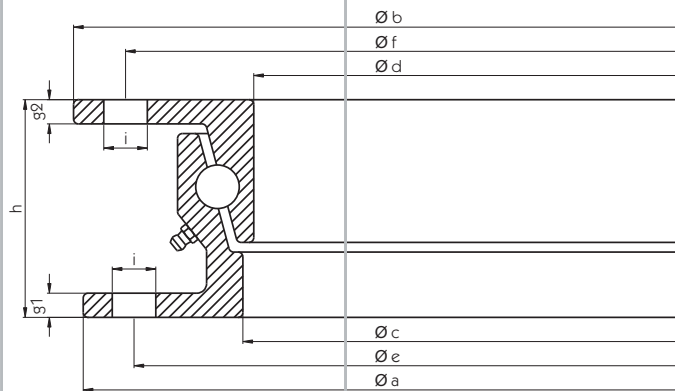


Illustration: hole pattern, top ring 107291015.

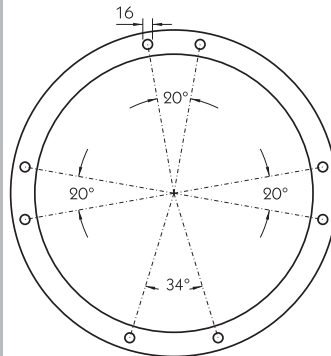


Illustration: hole pattern, bottom ring 107291015.

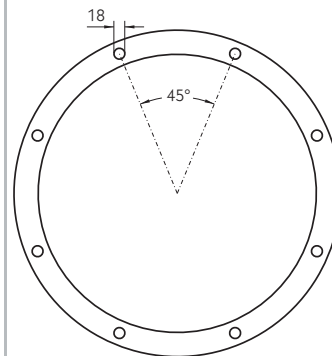


Illustration: hole pattern, top ring 107291017, 107291019, 107291021, 107291023, 107291024, 107291051.

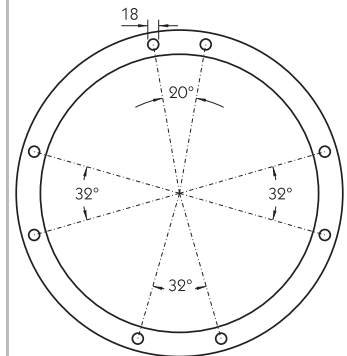
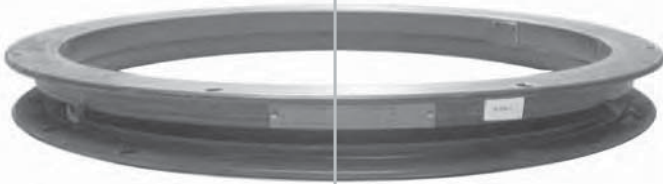


Illustration: hole pattern, bottom ring 107291017, 107291019, 107291021, 107291023, 107291024, 107291051.

Series HE and SO
For goods vehicle trailers and utility vehicles.

Designation	Dim. a [mm]	Dim. b [mm]	Dim. c [mm]	Dim. d [mm]	Dim. e [mm]	Dim. f [mm]	Dim. g1/2 [mm]	Dim. h [mm]	Dim. i [mm]	Weight [kg]	Axial load [t]	
HE 4	685	700	588	567	657	671	9	80	--	32	3.0	107291014
HE 5	880	895	783	762	852	866	9	80	16	43	5.0	107291015
HE 6-1000	1000	1015	903	882	972	986	9	80	--	48	6.0	107291016
HE 6	1090	1105	993	972	1060	1074	9	80	18	52	6.5	107291017
HE 12-1000	1000	1011	886	859	960	974	10	90	--	63	7.0	107291018
HE 12	1100	1111	986	959	1060	1074	10	90	18	69	8.0	107291019
HE 18-1000	1000	1011	886	859	960	974	10	90	--	63	8.0	107291020
HE 18	1100	1111	986	959	1060	1074	10	90	18	69	10.0	107291021
HE 1000-22	1000	1011	886	859	960	974	10	90	--	63	10.0	107291022
HE 1100-22	1100	1111	986	959	1060	1074	10	90	18	69	12.0	107291023
HE 1200-22	1200	1211	1086	1059	1160	1174	10	90	18	76	13.0	107291024
SO 1000-24	987	1000	871	844	952	966	10	90	--	72	12.0	107291050
SO 1100-24	1095	1108	979	952	1060	1074	10	90	18	82	16.0	107291051



The drawings on this page do not illustrate the cross sections of the itemised turntable collars precisely.

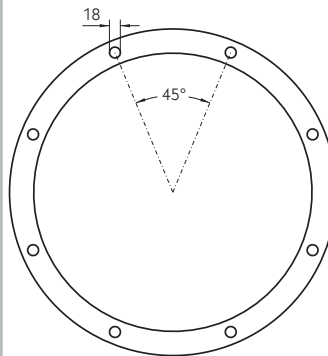
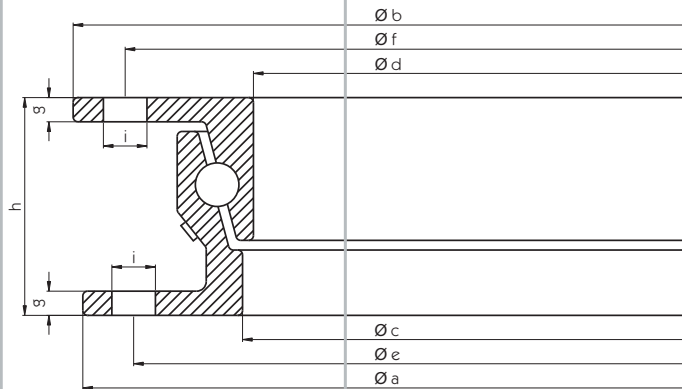


Illustration: hole pattern, top ring 107291053, 107291055, 107291056, 107291057, 107291058, 107291061.

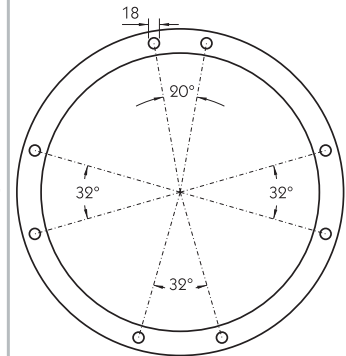


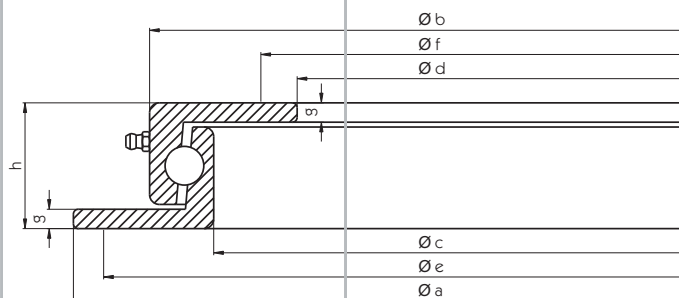
Illustration: hole pattern, bottom ring 107291053, 107291055, 107291056, 107291057, 107291058, 107291061.

Series HE and SO
low-maintenance
For goods vehicle trailers and
utility vehicles.

Designation	Dim. a [mm]	Dim. b [mm]	Dim. c [mm]	Dim. d [mm]	Dim. e [mm]	Dim. f [mm]	Dim. g [mm]	Dim. h [mm]	Dim. i [mm]	Weight [kg]	Axial load [t]	
HE 12-1000 W	1000	1008	877	846	960	974	10	90	--	65	7.0	107291052
HE 12 W	1100	1108	977	946	1060	1074	10	90	18	72	8.0	107291053
HE 18-1000 W	1000	1008	877	846	960	974	10	90	--	65	8.0	107291054
HE 18 W	1100	1108	977	946	1060	1074	10	90	18	72	10.0	107291055
HE 1000-22 W	1000	1008	877	846	960	974	10	90	--	65	10.0	107291056
HE 1100-22 W	1100	1108	977	946	1060	1074	10	90	18	72	12.0	107291057
HE 1200-22 W	1200	1208	1077	1046	1160	1174	10	90	18	80	13.0	107291058
HE 1300-22 W	1300	1308	1177	1146	1260	1274	10	90	--	89	14.0	107291059
SO 1000-24 W	987	1000	871	844	952	966	10	90	--	73	12.0	107291060
SO 1100-24 W	1095	1108	979	952	1060	1074	10	90	18	83	16.0	107291061

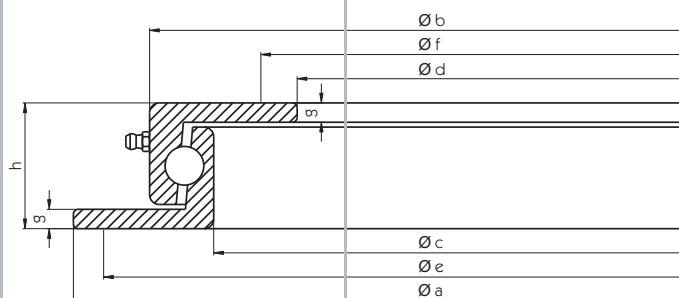
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The drawings on this page do not illustrate the cross sections of the itemised turntable collars precisely.



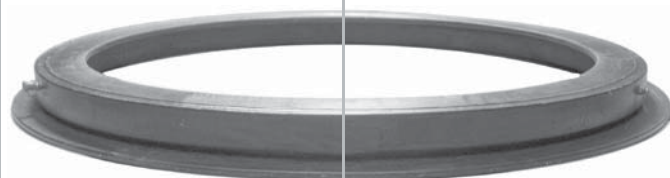
Type 16 L
For farm carts and transport equipment under 25 km/h.

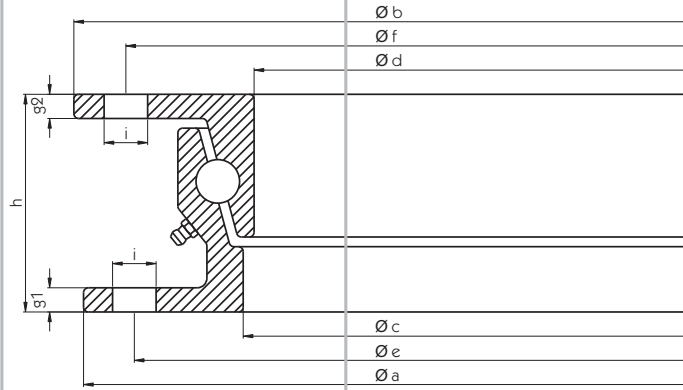
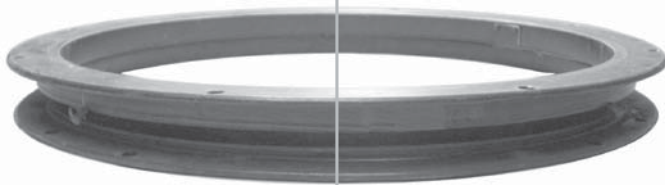
Designation	Dim. a [mm]	Dim. b [mm]	Dim. c [mm]	Dim. d [mm]	Dim. e [mm]	Dim. f [mm]	Dim. g [mm]	Dim. h [mm]	Ball Ø [mm]	Weight [kg]	Axial load [t]	
16L/400	404	346	294	236	375	260	8	42	16	11	0.75	305291025
16L/500	504	446	394	336	475	360	8	42	16	15	0.90	305291026
16L/650	654	596	544	486	625	510	8	42	16	20	1.50	305291027
16L/750	754	696	644	586	725	610	8	42	16	23	1.80	305291028
16L/850	854	796	744	686	825	710	8	42	16	27	2.50	305291029
16L/950	954	896	844	786	925	810	8	42	16	30	3.00	305291030
16L/1050	1054	996	944	886	1025	910	8	42	16	34	3.50	305291031



Type 16
For light truck trailers and farm carts over 25 km/h.

Designation	Dim. a [mm]	Dim. b [mm]	Dim. c [mm]	Dim. d [mm]	Dim. e [mm]	Dim. f [mm]	Dim. g [mm]	Dim. h [mm]	Ball Ø [mm]	Weight [kg]	Axial load [t]	
16/500	500	434	381	315	475	340	8	48	16	17	1.80	305291032
16/650	650	584	531	465	625	490	8	48	16	23	2.50	305291033
16/750	750	684	631	565	725	590	8	48	16	26	3.00	305291034
16/850	850	784	731	665	825	690	8	48	16	30	3.50	305291035
16/950	950	884	831	765	925	790	8	48	16	34	4.00	305291036
16/1050	1050	984	931	865	1025	890	8	48	16	39	4.50	305291037





The drawing on this page does not illustrate the cross section of the itemised turntable collars precisely.
 Axial load 1 = Loading for 2-axle trailers.
 Axial load 2 = Loading for 3-axle trailers and/or more than 1 axle at the turntable.

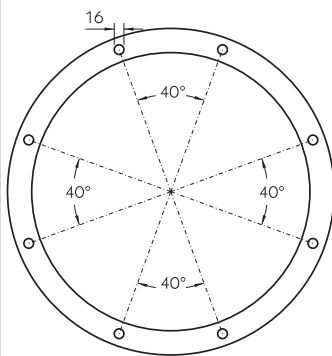


Illustration: hole pattern, top ring 305291039.

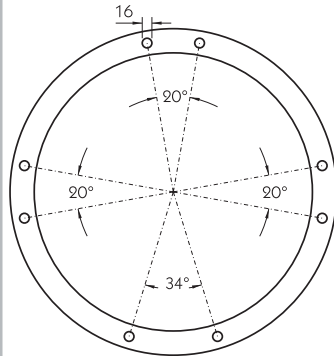


Illustration: hole pattern, bottom ring 305291039.

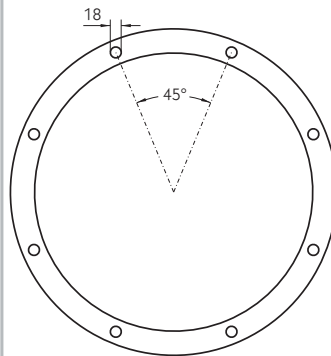


Illustration: hole pattern, top ring 305291041, 305291045, 305291046, 305291047, 305291048.

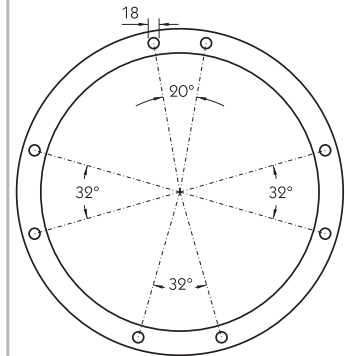


Illustration: hole pattern, bottom ring 305291041, 305291045, 305291046, 305291047, 305291048.

Type 80

For two and three axle trailers over 25 km/h.

Designation	Dim. a [mm]	Dim. b [mm]	Dim. c [mm]	Dim. d [mm]	Dim. e [mm]	Dim. f [mm]	Dim. g1 [mm]	Dim. g2 [mm]	Dim. h [mm]	Dim. i [mm]	Weight [kg]	Axial load 1 [t]	Axial load 2 [t]	
80/685	696	721	583	567	657	671	10	9	80	--	38	3.5	3.0	305291038
80/880	891	916	778	762	852	866	10	9	80	16	48	5.5	5.0	305291039
80/1000	1011	1036	898	882	984	970	10	9	80	--	58	6.0	6.0	305291040
80/1090	1101	1126	988	972	1074	1060	10	9	80	18	63	7.0	6.5	305291041

Type 90

For two and three axle trailers over 25 km/h.

Designation	Dim. a [mm]	Dim. b [mm]	Dim. c [mm]	Dim. d [mm]	Dim. e [mm]	Dim. f [mm]	Dim. g1/2 [mm]	Dim. h [mm]	Dim. i [mm]	Weight [kg]	Axial load 1 [t]	Axial load 2 [t]	
90/1000.18	1000	1008	885	854	960	974	10	90	--	64	7.5	7.0	305291042
90/1000.20	1000	1008	885	854	960	974	10	90	--	64	9.0	8.0	305291043
90/1000.22	1000	1008	885	854	960	974	10	90	--	64	11.0	10.0	305291044
90/1100.18	1100	1108	985	954	1060	1074	10	90	18	71	9.0	8.0	305291045
90/1100.20	1100	1108	985	954	1060	1074	10	90	18	71	11.0	10.0	305291046
90/1100.22	1100	1108	985	954	1060	1074	10	90	18	71	13.0	12.0	305291047
90/1200.22	1200	1208	1085	1054	1160	1174	10	90	18	79	16.0	14.0	305291048

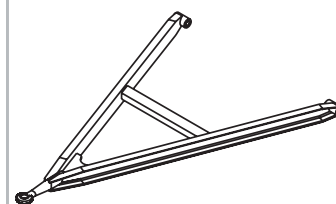
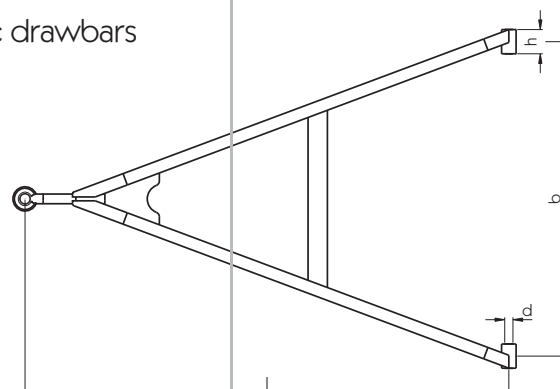
The A-frame drawbars illustrated on this page are not true to the actual design. They are only to serve as orientation.

Towing equipment

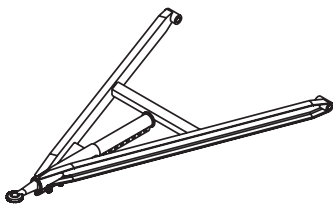
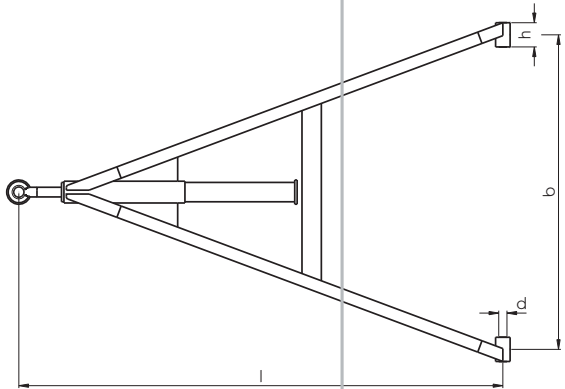
A-frame drawbars

A-frame drawbars

Standard design 18/27 t, type approved, drawbar eye \varnothing 40 mm to DIN 74054-40 A and EC 94-20 Class S.



Dim. l [mm]	Dim. b [mm]	Dim. h [mm]	Dim. d [mm]	Silentbloc bushes 18 t article number	Silentbloc bushes 27 t article number	Brass bushes 18 t article number	Brass bushes 27 t article number
1800	980	100	30	410439600	410439647	410439300	410439347
1800	1000	80	30	410439601	410439648	410439301	410439348
1800	1100	100	30	410439602	410439649	410439302	410439349
1800	1200	100	30	410439603	410439650	410439303	410439350
1800	1300	100	30	410439604	410439651	410439304	410439351
1900	1200	100	30	410439605	410439652	410439305	410439352
1900	1300	100	30	410439606	410439653	410439306	410439353
2000	1300	100	30	410439607	410439654	410439307	410439354
2100	900	100	30	410439608	410439655	410439308	410439355
2100	980	100	30	410439609	410439656	410439309	410439356
2100	1000	80	30	410439610	410439657	410439310	410439357
2100	1000	100	30	410439611	410439658	410439311	410439358
2100	1100	80	26	410439612	410439659	410439312	410439359
2100	1100	80	28	410439613	410439660	410439313	410439360
2100	1100	80	30	410439614	410439661	410439314	410439361
2100	1100	100	30	410439615	410439662	410439315	410439362
2100	1200	80	28	410439616	410439663	410439316	410439363
2100	1200	100	30	410439617	410439664	410439317	410439364
2100	1300	80	28	410439618	410439665	410439318	410439365
2100	1300	100	30	410439619	410439666	410439319	410439366
2200	1200	100	30	410439620	410439667	410439320	410439367
2200	1300	100	30	410439621	410439668	410439321	410439368
2300	900	100	30	410439622	410439669	410439322	410439369
2300	980	100	30	410439623	410439670	410439323	410439370
2300	1000	80	30	410439624	410439671	410439324	410439371
2300	1100	80	28	410439625	410439672	410439325	410439372
2300	1100	100	30	410439626	410439673	410439326	410439373
2300	1200	80	28	410439627	410439674	410439327	410439374
2300	1200	100	30	410439628	410439675	410439328	410439375
2300	1300	80	28	410439629	410439676	410439329	410439376
2300	1300	100	30	410439630	410439677	410439330	410439377
2400	980	100	30	410439631	410439678	410439331	410439378
2400	1100	100	30	410439632	410439679	410439332	410439379
2400	1200	80	28	410439633	410439680	410439333	410439380
2400	1200	100	30	410439634	410439681	410439334	410439381
2400	1300	80	28	410439635	410439682	410439335	410439382
2400	1300	80	30	410439636	410439683	410439336	410439383
2400	1300	100	30	410439637	410439684	410439337	410439384
2500	980	100	30	410439638	410439685	410439338	410439385
2500	1100	100	30	410439639	410439686	410439339	410439386
2500	1200	100	30	410439640	410439687	410439340	410439387
2500	1300	100	30	410439641	410439688	410439341	410439388
2600	1200	100	30	410439642	410439689	410439342	410439389
2700	1300	100	30	410439643	410439690	410439343	410439390
2800	980	100	30	410439644	410439691	410439344	410439391
2800	1200	100	30	410439645	410439692	410439345	410439392
2800	1300	100	30	410439646	410439693	410439346	410439393



Dim. l [mm]	Dim. b [mm]	Dim. h [mm]	Dim. d [mm]	
1000	980	100	30	400439500
1400	1200	100	30	400439501
1500	1300	100	30	400439502
1600	1300	100	30	400439503
1700	1200	100	30	400439504
1700	1300	100	30	400439505
1800	1200	100	30	400439506
1800	1300	100	30	400439507
1900	1100	100	30	400439508
1900	1200	100	30	400439509
1900	1300	100	30	400439510
2000	1000	80	30	400439520
2000	1300	100	30	400439511
2100	980	100	30	400439512
2100	1200	100	30	400439514
2100	1300	100	30	400439515
2200	1100	100	30	400439513

The A-frame drawbars illustrated on this page are not true to the actual design. They are only to serve as orientation.

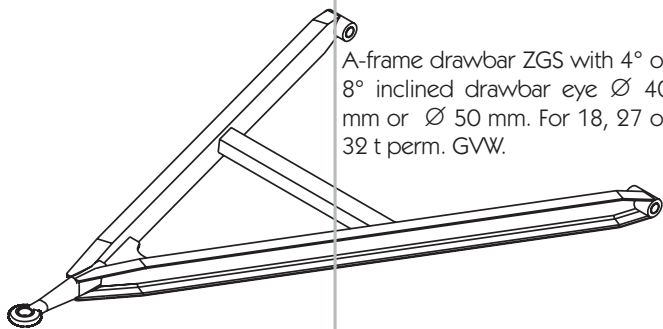
A-frame drawbars PZL 27-E

12 x 50 mm extendable, for 27 t GVW and max. front axle load 9 t, D=125 kN, with drawbar eye Ø 40 mm to DIN 74054-40 A. EC no. ©*94/20* 0061*00.

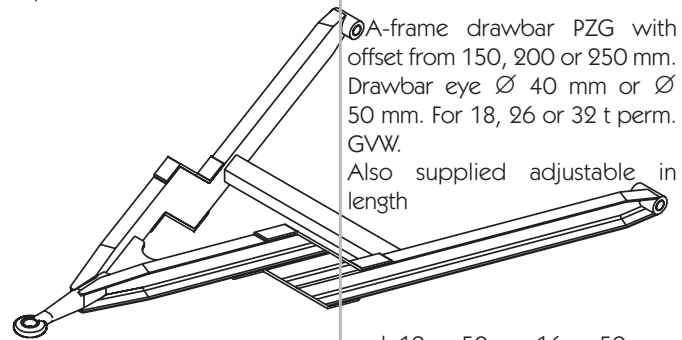
No longer available

A-frame drawbars: special designs

These may be ordered on request.

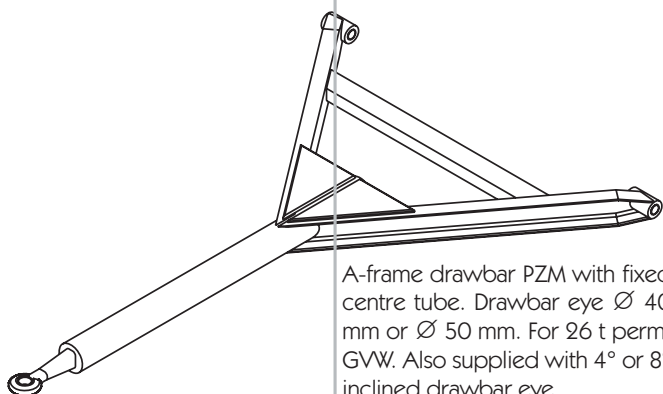


A-frame drawbar ZGS with 4° or 8° inclined drawbar eye Ø 40 mm or Ø 50 mm. For 18, 27 or 32 t perm. GVW.

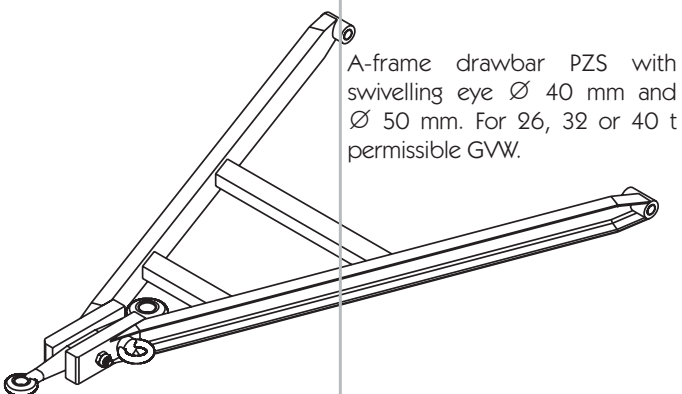


A-frame drawbar PZG with offset from 150, 200 or 250 mm. Drawbar eye Ø 40 mm or Ø 50 mm. For 18, 26 or 32 t perm. GVW. Also supplied adjustable in length

and 12 x 50 or 16 x 50 mm pullout.



A-frame drawbar PZM with fixed centre tube. Drawbar eye Ø 40 mm or Ø 50 mm. For 26 t perm. GVW. Also supplied with 4° or 8° inclined drawbar eye.

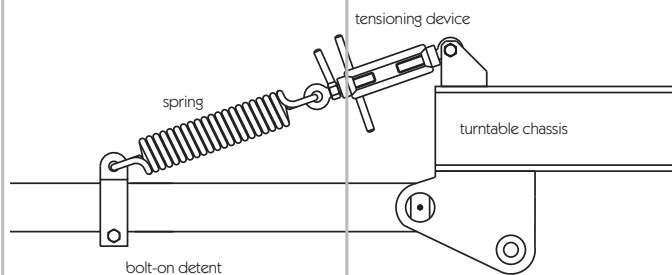


A-frame drawbar PZS with swivelling eye Ø 40 mm and Ø 50 mm. For 26, 32 or 40 t permissible GVW.

Height adjustment devices for A-frame drawbars

Height adjustable device VHE

For A-frame drawbars without over-run units, consisting of spring, turnbuckle with two eyes, welding bracket and bolt-on spring detent. Cert. number ~ F809. Please order all parts separately.



Description

Weight [kg]

Spring	2.00	406433035
Tensioning device with eyes and welding bracket	1.50	406433036
Bolt-on detent for UNP 65	0.65	406433034
Bolt-on detent for UNP 80	0.70	406433033
Bolt-on detent for UNP 100	0.70	406433040

Accessories

For A-frame drawbars.

Drawbar hangers

With hook, inside width 45 mm.

Type

Weight [kg]

UNP 65	0.75	125131238
UNP 80	0.85	125131239



Drawbar holders

Hole 12.5 mm, consisting of upper part with hook or eye, lower backing plate.

Type

Weight [kg]

With hook	0.60	215131240
With eye	0.60	215131241
Lower backing plate	0.12	215131242



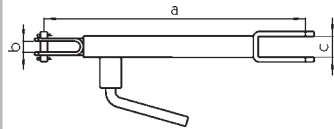
No longer available

Tension springs

Cast steel wire, both ends with open or closed eyes.

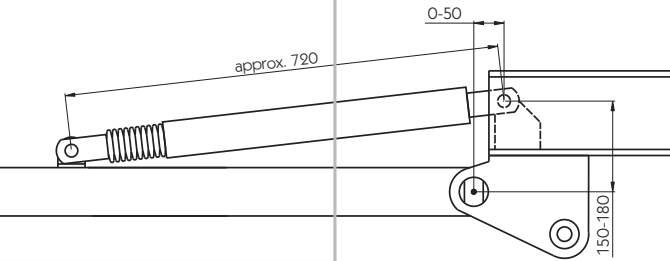
Size	Length excl. eyes [mm]	Length between eyes [mm]	Outside Ø [mm]	Wire thk. [mm]	Weight [kg]	
87	250	310	50	8	1.65	405131243
89	300	360	50	9	1.80	405131244
90	250	310	50	10	2.00	405131245
91	300	365	50	10	2.40	405131246
92	350	420	50	10	2.80	405131247





Height adjustment devices

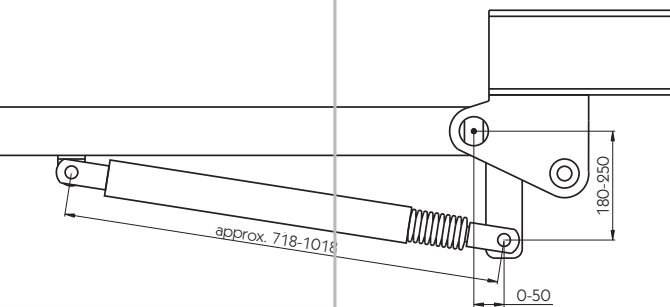
Designation	Type	Cert. no.	Dim. a [mm]	Dim. b [mm]	Dim. c [mm]	Weight [kg]	
GH 229-001	A	M 802	415-570	15.5	33	2.5	406433008
GH 230-001	B	M 802	630-880	15.5	33	3.5	406433009
GH 231-001	C	M 802	680-930	15.5	33	4.0	406433010
GH 232-001	D	M 802	840-1090	15.5	33	4.0	406433011
SK 3767-001	G	M 802	415-570	15.5	15.5	2.5	406433012
SKA 4072-001	H	M 802	680-930	15.5	15.5	4.0	406433013
SKA 4075-001	I	M 802	680-1030	22	33	4.0	406433014



Klemmfix 72/Z

Tensile acting, type approved (certification no. \sim F 823), weight 6.0 kg.

406433037



Klemmfix 72/D

Compression acting, type approved (certification no. \sim F 823), weight 6.0 kg.

406433038



Klemmfix 72 are height adjustable devices for A-frame drawbars which enable the drawbar eye to be steplessly adjusted at least 300 mm up and down (measured at the drawbar eye).

Klemmfix 72/Z, tensile acting, is pre-assembled. The version Klemmfix 72/D, compression acting, is supplied with a loose clevis end for welding to the push rod. This can be shortened by up to 300 mm to suit the particular mounting situation.

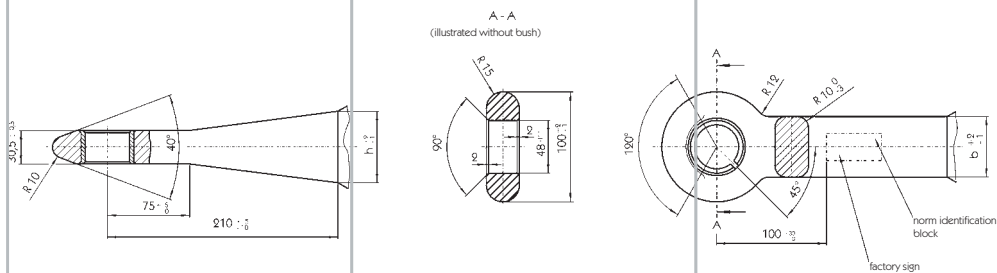
With an A-frame drawbar weight of over 75 kg, an additional height maintaining device must be fitted (e.g.: type VHE, or the pressure spring pack). The A-frame drawbar fixing point may be on the fork leg or cross leg, as required.

Pressure spring pack

Only to be used for supporting the Klemmfix 72 height maintaining device. Recommended for a drawbar weight of over 75 kg. Not illustrated.

406433042

A-frame drawbar eye

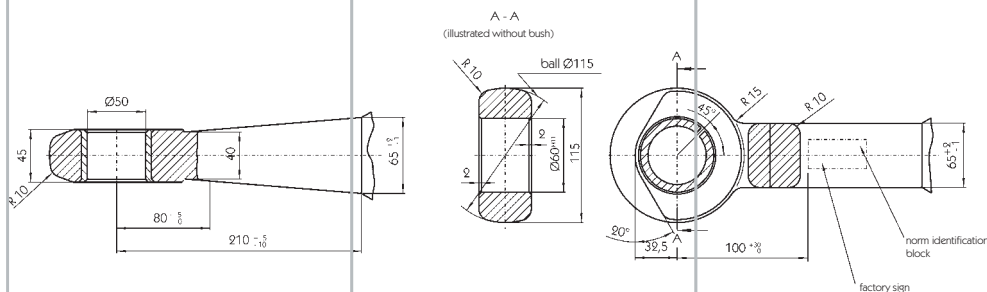


A-frame drawbar eyes 40
In accordance with DIN 74054-40 and EC 94-20 Class S, material St 52-3 to DIN 17100, Form A with solid shaft.

Shaft cross section height x width [mm]	D value [kN]	Vert. static load over 25 km/h [kg]	Vert. static load up to 25 km/h [kg]	Perm. gross weight of centre axle trailer [kg]	Overall length [mm]	Weight [kg]	
40 x 40	18	180	360	1800	320/370**	3.5	405171001
50 x 40	25	250	500	2500	370	4.5	405171002
50 x 50	70	500	1000	5000	370	5.3	405171003
60 x 55	95	700	1300	6500	385	6.8	405171005
65 x 55	120	900	1350	8000	385	7.2	405171006
65 x 60	120	1000	1400	9500	385	7.8	405171038
65 x 55*	120	900	1350	8000	385	5.6	405171027
57 x 50*	120	---	---	---	380	4.85	405171009

* With H profile shaft.

**The overall length depends on the manufacturer. It is not fixed on a DIN.



A-frame drawbar eye 50
In accordance with DIN 74053, material St 52-3 to DIN 17100, Form A with solid shaft.

Shaft cross section height x width [mm]	D value [kN]	Vert. static load over 25 km/h [kg]	Vert. static load up to 25 km/h [kg]	Perm. gross weight of centre axle trailer [kg]	Overall length [mm]	Weight [kg]	
65 x 60	120	1000	---	12000	430	10.5	405171036



Heavy duty A-frame drawbar eye

D value 314 kN, up to 250 t trailer load with 50 mm bush, eye Ø 110 mm, with profiled shaft 75 x 80 mm (w x h), overall length 440 mm, weight 13.5 kg.

405171035





A-frame drawbar eye

In accordance with DIN 74054-40 and EC 94-20 Class S, shaft \varnothing 40 mm, material ST 52-3, with rolled-in flanged bush 40 mm inside \varnothing , overall length 350 mm, weight 13.5 kg.

405171010



NATO A-frame drawbar eye

Rectangular section shaft, material St 52-3, length from centre of eye 320 mm, length of rectangular section shaft 140 mm, eye inside \varnothing 75 mm, eye outside \varnothing 159 mm, shaft thickness 65 x 60 mm, weight 10 kg.

405171011



A-frame drawbar eyes for towing poles

With eye to DIN 74054-40 and EC 94-20 Class S, material St 52.

Shaft \varnothing [mm]	Overall length [mm]	Weight [kg]	
50	200	3.0	405171012
55	350	6.0	405171013

No longer available

Spare parts

For A-frame drawbar eyes.

A-frame drawbar eye bushes

Closed, suitable for A-frame drawbar eyes to DIN 74054-40 and EC 94-20 Class S, hardness approx. 130 - 150 kg/mm².

Bush \varnothing [mm]	Weight [kg]	
48	0.11	405171021
48.5	0.12	405171022
49	0.13	405171023
49.5	0.14	405171024
50	0.15	405171025



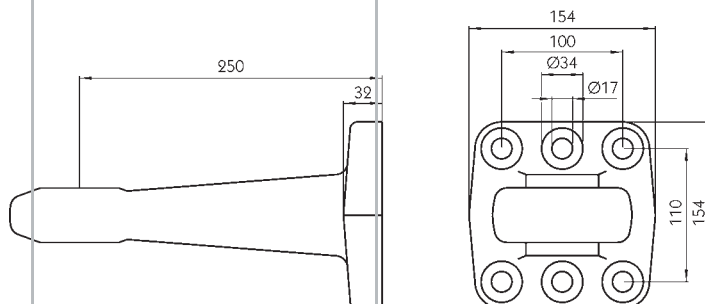
Drive-in mandrel

For A-frame drawbar eye bushes 48 - 50 mm outside \varnothing .

No longer available

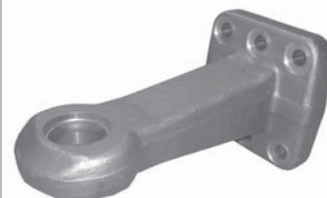
215171026

Drawbar eyes with mounting flange



Drawbar eye 40 B with flange

For agricultural and forestry vehicles, only for trailer couplings in accordance with DIN 11029, without mounting plate and screws.



Type	Flange holes [kN]	D value [kN]	Dc value [kN]	Max. vert. static load [kg]	V value [kN]	Weight [kg]	
Up to 25 km/h	6	130	120	2500	49	11.3	114462175
Over 25 km/h	6	130	77.3	2000	55.2	11.3	114462175

Bush

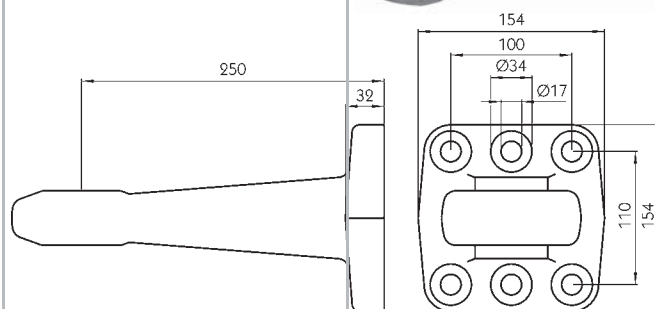
Spare part for drawbar eye 40 B with flange.

114462176

Drawbar eye D-40

With flange, to DIN 74054-40 and EC 94-20 Class S, for bolting on to mounting plate (400431450), 6-hole type, permissible gross weight 14 t (applies to centre axle trailers), permissible vertical static load up to 25 km/h: 2000 kg, over 25 km/h: 1000 kg, perm. D value 125 kN (with centre pivot trailers), V value 36 kN, Dc value 100 kN, weight 9.9 kg.

400431449



Mounting plate

For drawbar eye D-40, for welding, 160 x 160 x 30 mm, weight 4.5 kg.

400431450

Screw set:

Containing 8 x socket head screws to ISO 4762 - M 16 x 50 - 10.9, zinc plated, weight 0.84 kg.

115431454



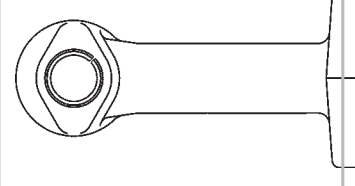
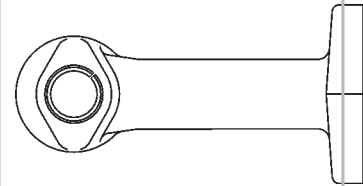
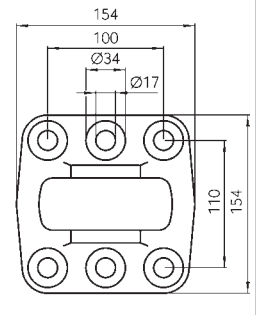
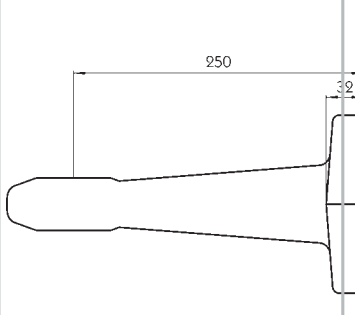
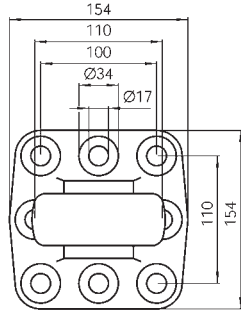
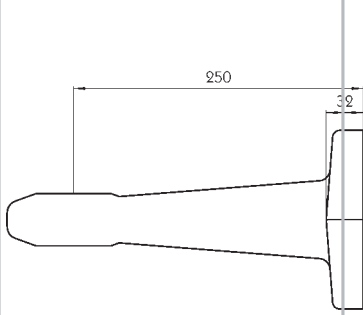


Illustration: 114462181

Illustration: 114462168

Drawbar eye 40 D with flange

Without plate and screws.



Flange holes	D value [kN]	Dc value [kN]	Max. vert. static load [kg]	V value [kN]	Weight [kg]	
6	130	100	1000	35.8	8.8	114462168
8	130	100	1000	35.8	8.8	114462181

Accessories

For drawbar eyes 40 D with flange.

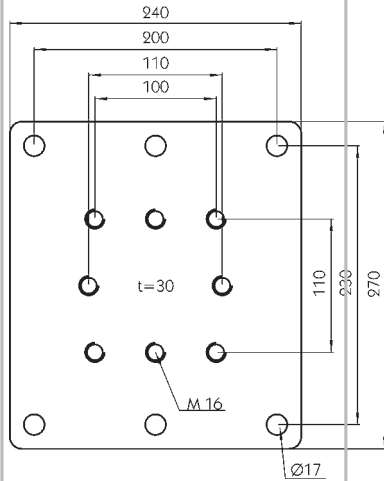
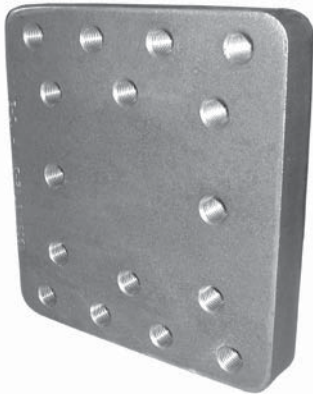


Illustration: 114462174

Accessories/spare parts

Description	
Drawbar eye bush, closed	114462169
Bolt set for 114462168	114462170
Weld-on plate 30 mm	114462172
Bolt-on plate 30 mm	114462173
Bolt-on plate 30 mm	114462174

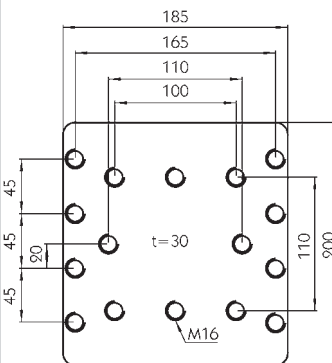


Illustration: 114462173

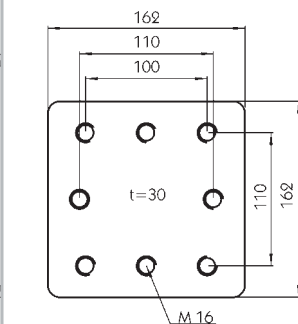
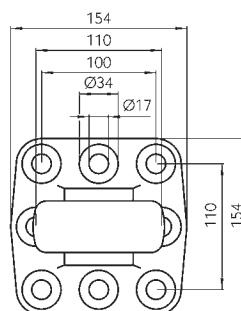
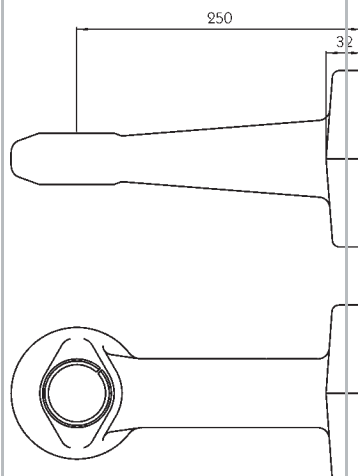
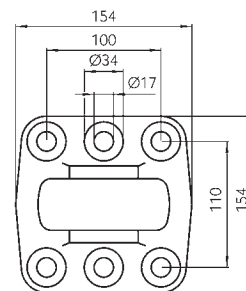
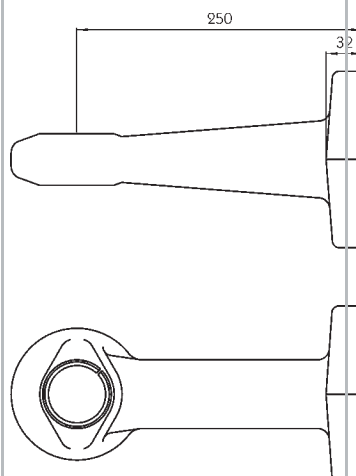


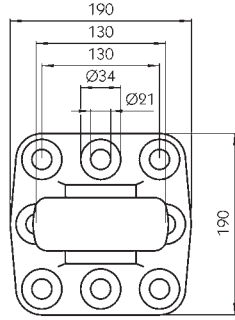
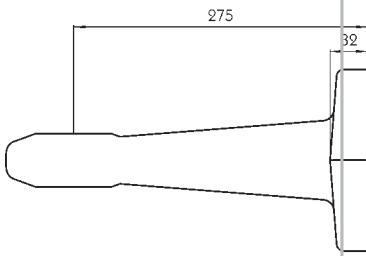
Illustration: 114462172

Drawbar eye 50 D with flange, 6-hole
Only for use as spare part, without plate and screws, weight 9.5 kg.
114462177



Drawbar eye 50 D with flange, 8-hole
Without plate and screws.

Flange holes	D value [kN]	Dc value [kN]	Max. vert. static load [kg]	V value [kN]	Weight [kg]	
8	190	135	1000	72.5	9.5	
8	190	113	2500	43.2	9.5	114462178



Drawbar eyes 50 D/57284 with flange

For heavy centre axle trailers, without plate and screws.

Flange holes	D value [kN]	Dc value [kN]	Max. Vert. static load [kg]	V value [kN]	Weight [kg]
8	250	113	3000	43.2	17.9
8	250	135	1000	90	17.9

114462180

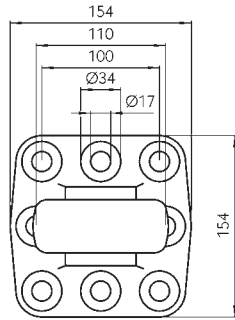
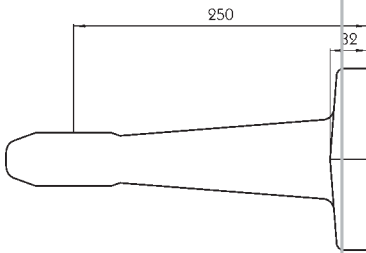


Description

Drawbar eye bush, closed
Bolt set **114462180**

114462179

114462182

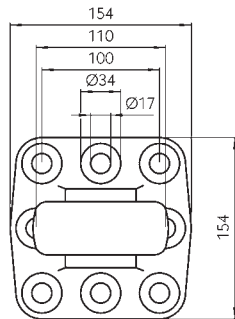
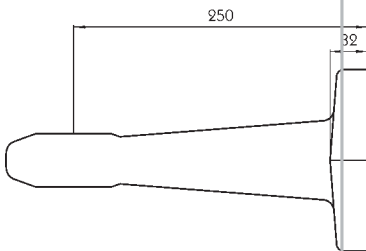


Drawbar eyes 51 F8E with flange

For heavy centre axle trailers, ©00-1153, without plate and screws.

Flange holes	D value [kN]	Dc value [kN]	Max. Vert. static load [kg]	V value [kN]	Weight [kg]
8	200	140	1000	75	12.37
8	200	140	2500	50	12.37

130464177



Drawbar eye D-50

With flange, for bolting to mounting plate (**400431452**), 8-hole, D value 190 kN, Dc value 135 kN, weight 9.9 kg.

Type	Perm. gross weight [kg]	V value [kN]	Perm. vert. static load [kg]
Up to 40 km/h	27000		2000
	25000		2500
	23000		3000
Over 40 km/h		V75	1000
		V65	2000
		V55	2500

400431451

Mounting plate

For drawbar eye D-50, for welding, 270 x 240 x 30 mm, weight 4.0 kg.

400431452

Screw set:

Containing 8 x socket head screws to ISO 4762 - M 16 x 50 - 10.9, zinc plated, weight 0.84 kg.

115431454



Accessories

For drawbar eyes 50 D with flange.

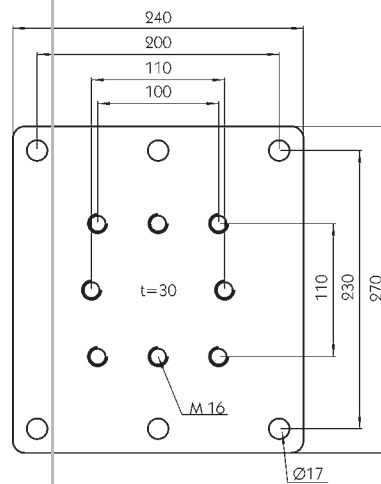
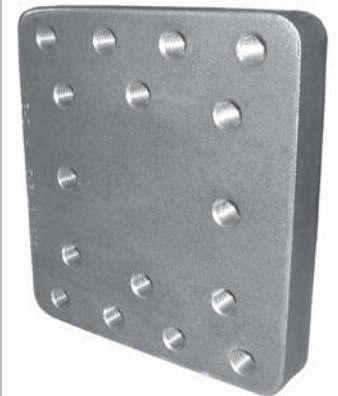


Illustration: 114462174



Accessories/spare parts

Description

Drawbar eye bush, closed	114462179
Bolt set for 114462177	114462170
Weld-on plate 30 mm	114462172
Bolt-on plate 30 mm	114462173
Bolt-on plate 30 mm	114462174

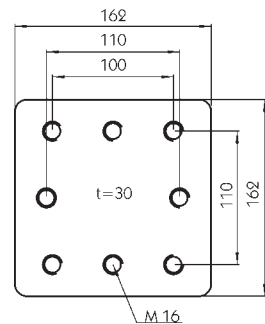


Illustration: 114462172

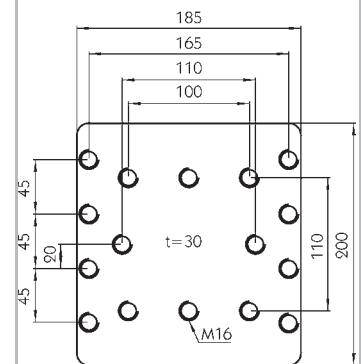


Illustration: 114462173

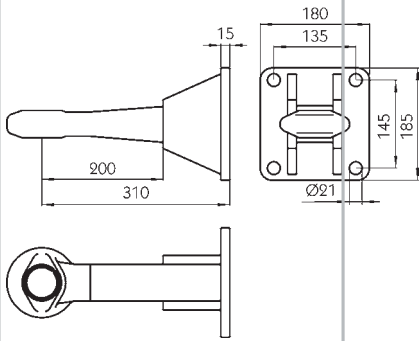
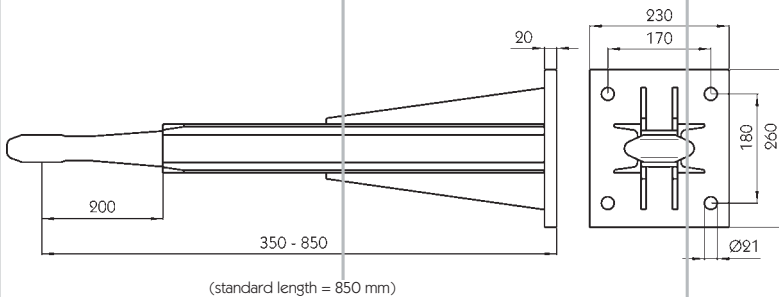


Illustration: type A

Towing equipment up to
25 km/h
Type A.

Perm. gross weight [kg]	Perm. vert. static load [kg]	Weight [kg]	
4500	800	20	400431093
9000	1200	20	400431098



(standard length = 850 mm)

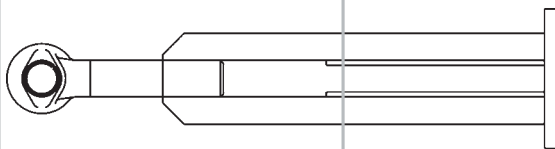
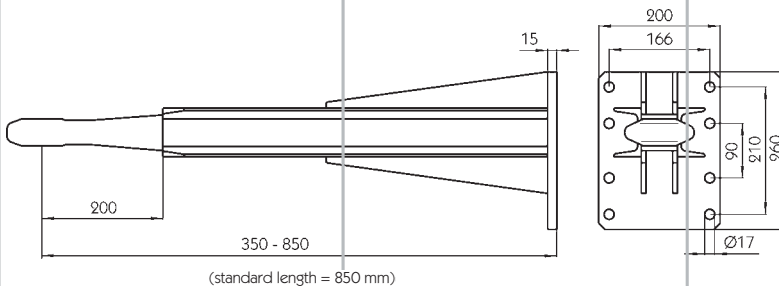


Illustration: type B



(standard length = 850 mm)

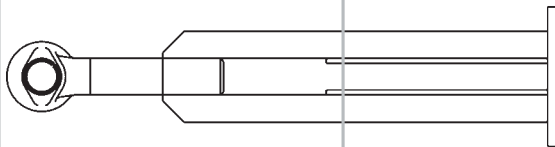


Illustration: type C

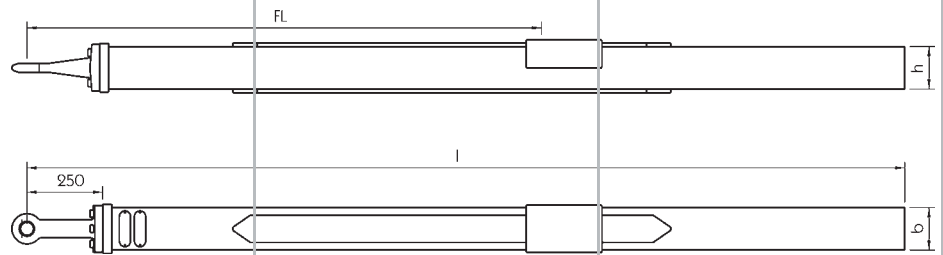
Towing equipment over
25 km/h
With drawbar eye \varnothing 40 mm.

Perm. gross weight [kg]	Perm. vert. static load [kg]	Type A 400 mm article number	Type B 850 mm article number	Type C 850 mm article number
5000	500	---	---	400431143
6000	600	400431128	---	400431144
9500	950	400431132	400431140	400431148

No longer available

Special designs and other lengths supplied on request.

Drawbar tubes



ZD 10-1

For centre axle trailers 10 t permissible GVW, permissible vertical static load 1000 kg, rigid, with drawbar eye \varnothing 40 mm in accordance with DIN 74054-40 and EC 94-20 Class S. EC no. ©*94/20* 0872*00.

Type	Dim. FL [mm]	Dim. l [mm]	Section (b x h) [mm]	Dc value [kN]	V value [kN]	
ZD 10-1	1700	2900	140 x 140	70	30.8	400431513
ZD 10-1	2300	3500	140 x 140	70	20.2	400431515

ZD 13.5-1

For centre axle trailers 13.5 t permissible GVW, permissible vertical static load 1000 kg, rigid, with drawbar eye \varnothing 40 mm in accordance with DIN 74054-40 and EC 94-20 Class S. EC no. ©*94/ 20*0956*00.

Type	Dim. FL [mm]	Dim. l [mm]	Section (b x h) [mm]	Dc value [kN]	V value [kN]	
ZD 13.5-1	1700	2900	160 x 160	90	46.7	400431517
ZD 13.5-1	2300	3500	160 x 160	90	32.0	400431519

ZD 18-1

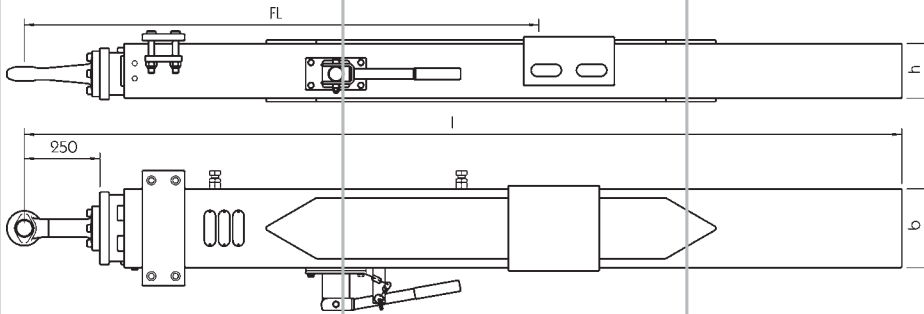
For centre axle trailers 18 t permissible GVW, permissible vertical static load 1000 kg, rigid, with drawbar eye \varnothing 50 mm in accordance with DIN 74053-50. EC no. ©*94/20* 0957*00.

Type	Dim. FL [mm]	Dim. l [mm]	Section (b x h) [mm]	Dc value [kN]	V value [kN]	
ZD 18-1	1700	2900	250 x 150	110	60.5	400431521
ZD 18-1	2300	3500	250 x 150	110	51.8	400431523

ZD 24-1

For centre axle trailers 24 t permissible GVW, permissible vertical static load 1000 kg, rigid, with drawbar eye \varnothing 50 mm in accordance with DIN 74053-50. EC no. ©*94/20* 0958*00.

Type	Dim. FL [mm]	Dim. l [mm]	Section (b x h) [mm]	Dc value [kN]	V value [kN]	
ZD 24-1	1700	2900	260 x 180	130	87.4	400431525
ZD 24-1	2300	3500	260 x 180	130	70.5	400431527



Special designs and other lengths supplied on request.

ZFL 20-1 A

For centre axle trailers 24 t permissible GVW, permissible vertical static load 1000 kg, 4 x 100 mm extendable, with drawbar eye Ø 50 mm in accordance with DIN 74053-50. EC no. ©*94/20*1141*00.

Type	Dim. FL [mm]	Dim. L [mm]	Section (b x h) [mm]	Dc value [kN]	V value* [kN]	
ZFL 20-1 A	1700	2900	260 x 180	130	70.0/ 61.9	400431505
ZFL 20-1 A	2000	3200	260 x 180	130	63.8/ 56.8	400431506
ZFL 20-1 A	2300	3500	260 x 180	130	58.4/ 52.2	400431507
ZFL 20-1 A	2600	3800	260 x 180	130	53.7/ 48.2	400431508

* V value applies to fully retracted/fully extended states.

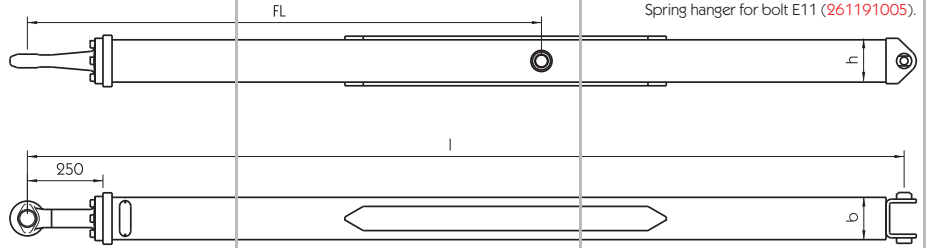
ZFL 20-3 A

For centre axle trailers 18 t permissible GVW, permissible vertical static load 2000 kg, 4 x 100 mm extendable, with drawbar eye Ø 50 mm in accordance with DIN 74053-50. EC no. ©*94/20*1141*00.

Type	Dim. FL [mm]	Dim. L [mm]	Section (b x h) [mm]	Dc value [kN]	V value* [kN]	
ZFL 20-3 A	1700	2900	260 x 180	130	59.7/ 52.8	400431509
ZFL 20-3 A	2000	3200	260 x 180	130	54.4/ 48.4	400431510
ZFL 20-3 A	2300	3500	260 x 180	130	49.8/ 44.5	400431511
ZFL 20-3 A	2600	3800	260 x 180	130	45.8/ 41.1	400431512

* V value applies to fully retracted/fully extended states.

Special designs and other lengths supplied on request.



ZEQ 10-1

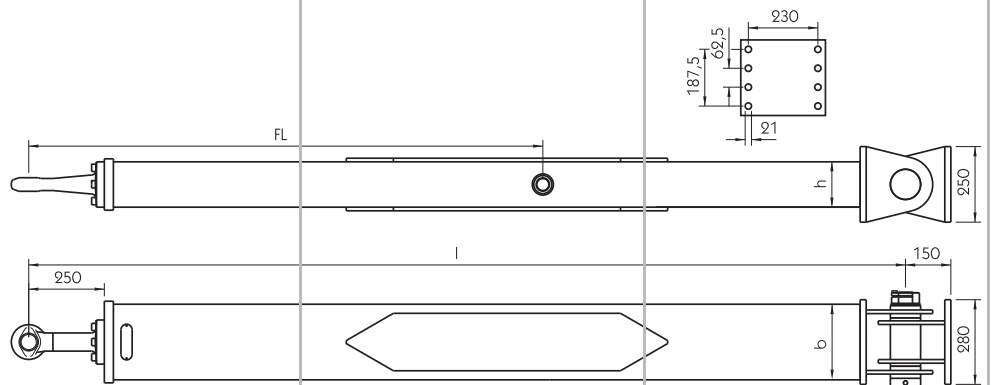
For centre axle trailers 10 t permissible GVW, permissible vertical static load 1000 kg, height adjustable, with drawbar eye \varnothing 40 mm in accordance with DIN 74054-40 and EC 94-20 Class S. With individual certification.

Type	Dim. FL [mm]	Dim. l [mm]	Section (b x h) [mm]	Dc value [kN]	V value [kN]	
ZEQ 10-1	1700	2900	140 x 140	70	30.1	400431493
ZEQ 10-1	2000	3200	140 x 140	70	24.1	400431494

ZEQ 13.5-1

For centre axle trailers 13.5 t permissible GVW, permissible vertical static load 1000 kg, height adjustable, with drawbar eye \varnothing 40 mm in accordance with DIN 74054-40 and EC 94-20 Class S. With individual certification.

Type	Dim. FL [mm]	Dim. l [mm]	Section (b x h) [mm]	Dc value [kN]	V value [kN]	
ZEQ 13.5-1	1700	2900	160 x 160	90	36.0	400431489
ZEQ 13.5-1	1700	2900	160 x 160	90	36.0	400431489



ZEQ 18-1

For centre axle trailers 18 t permissible GVW, permissible vertical static load 1000 kg, height adjustable, with drawbar eye \varnothing 50 mm in accordance with DIN 74053-50. With individual certification.

Type	Dim. FL [mm]	Dim. l [mm]	Section (b x h) [mm]	Dc value [kN]	V value [kN]	
ZEQ 18-1	1700	3050	250 x 150	110	60.5	400431501
ZEQ 18-1	2000	3350	250 x 150	110	60.5	400431502
ZEQ 18-1	2300	3650	250 x 150	110	51.8	400431503
ZEQ 18-1	2600	3950	250 x 150	110	44.7	400431504

Towing poles and holders



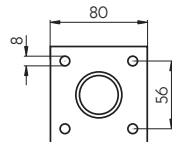
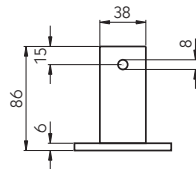
Towing poles

Precision steel tube, 40 mm bore.

Tube outer Ø x wall thk. [mm]	Overall length [mm]	Length between eye centres [mm]	Towing capacity [t]	Finish	Weight [kg]	
60 x 4	2350	2250	16	red primer	18.5	125171014
64 x 6	2350	2250	32	blue primer	25.0	125171015

Accessories

For towing poles.

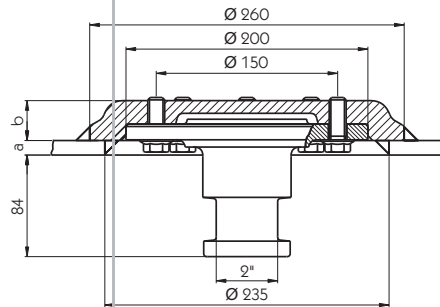


Mounting bracket

With securing hole for spring cotter, weight 0.51 kg.

125171032

Kingpins 2"



KZ 1008-1012

Replaceable from below, functional dimensions in accordance with DIN 74080, ISO 337. D value 162 kN, cert. mark \sim F 3148.

Designation	Saddle plate thickness a [mm]	Dim. b [mm]	Weight [kg]	
KZ 1008	8	37	14.8	107471208
KZ 1010	10	34	14.8	107471209
KZ 1012	12	33	14.8	107471114



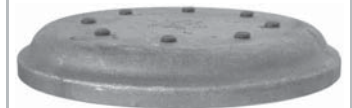
Spare parts

For king pins KZ 1008-1012.

Seating dish

Complete with screws.

Designation	Spare part for	Weight [kg]	
KZ 1008-04	107471208	2.5	107471210
KZ 1010-04	107471209	2.5	107471211
KZ 1012-04	107471114	2.5	107471212



Pin KZ 1012-01

Loose, weight 3.5 kg.

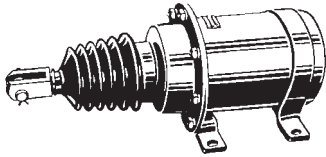
107471213



Components for air brake systems

Single chamber piston brake cylinder

Loose, in accordance with DIN 74282, Form A, operating pressure up to $p_e = 10$ bar.

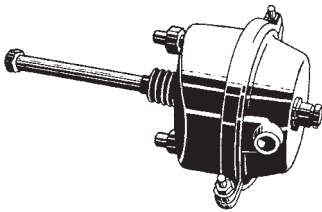


Designation	Piston \varnothing [mm]	Piston stroke [mm]	Force at piston rod* [N]	Stroke volume [l]	Weight [kg]	Equivalent Haldex number	
GL 100	65	105	1800	0.30	2.1	340 029 001	240541022
GL 101	80	100	2700	0.55	2.3	340 026 001	240541023
GL 102	100	135	4200	1.10	3.8	340 005 001	240541024
GL 103	125	135	6700	1.72	4.8	340 008 001	240541025
GL 105	150	155	9700	2.82	7.7	340 013 011	240541027

* At $p_e = 6$ bar and 1/3 stroke.

Membrane brake cylinder

Types 9/12/36 standard version with gaiter and 2 connections (middle closed off), types 16/20/24/30 long stroke version (80 mm stroke) with 2 threaded connections M 16 x 1.5 mm, installed dimension of all types 227 mm, please order clevis fork separately, operating pressure up to $p_e = 10$ bar.



Type	Connections	Piston rod thread	Stroke [mm]	Piston rod sealing	Equivalent Haldex number	
Type 9	M 16 x 1.5	M 16 x 1.5	56	gaiter	120 311 101	240541248
Type 12	M 16 x 1.5	M 16 x 1.5	55	gaiter	345 125110*	240542079
Type 16	M 16 x 1.5	M 16 x 1.5	80	gaiter	120 331 101	240541196
Type 16	M 16 x 1.5	M 16 x 1.5	80	gaiter	120 331 101*	240542196
Type 20	M 16 x 1.5	M 16 x 1.5	80	gaiter	120 341 101	240541197
Type 20	M 16 x 1.5	M 16 x 1.5	80	gaiter	120 341 101	240542197
Type 24	M 16 x 1.5	M 16 x 1.5	80	gaiter	120 351 101	240541198
Type 24	M 16 x 1.5	M 16 x 1.5	80	gaiter	120 351 101*	240542198
Type 30	M 16 x 1.5	M 16 x 1.5	80	gaiter	120 361 101	240541199
Type 36	M 22 x 1.5	M 16 x 1.5	76	gaiter	120 371 101*	240541200

* Original Haldex part

No longer available

No longer available

Rod end clevis

Elongated or round hole type.

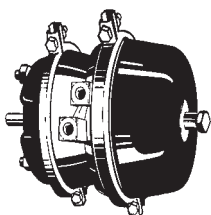


Type	Equivalent Haldex number	
Elongated hole	003 033 609	240541344
Elongated hole	003 033 609*	240542344
Round hole	003 561 409*	240541379

* Original Haldex part

Combination brake cylinder

Membrane/membrane, stroke 75/75 S cams, without ventline.



Type	Equivalent Haldex number	
Type 20/30	346 180 011*	240542054

* Original Haldex part

Trailer dual line brake valve

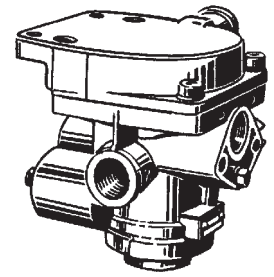
Complies with EC/ECE directives, universal type with adjustable lead phase, with connections for brake force regulator and release valve.

Description Equivalent Haldex number

Brake valve 351 008 022*

230541375

* Original Haldex part



Release valves

For releasing the brakes when shunting.

Description

Equivalent Haldex number

Release valve suitable for brake valve **230541375**

352 012 001*

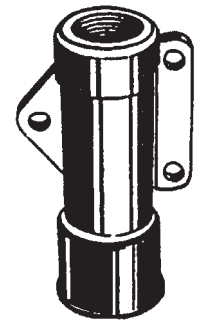
230541376

Release valve 3/2 way, automatic, M 16 x 1.5 with gaiter

352 018 011*

230541234

* Original Haldex part



Brake force regulator

Description

Equivalent Haldex number

Brake force regulator with handle, dual line with release position

352 011 102*

230541377

Brake force regulator autom. load sensing, static, lever length 25 to 50 mm

601 002 021*

230541235

Brake force regulator autom. load sensing, static, lever length 50 to 130 mm

601 013 011*

230541236

Load sensing linkage, spring accessory for **230541236**. Please order separately.

003 480 209*

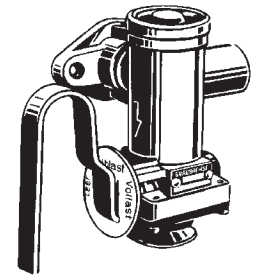
230541237

Brake force regulator autom. load sensing, static, pneumatically controlled, universally adjustable

601 005 001*

230541238

* Original Haldex part



Trailer brake valves

Trailer brake valve, dual line.

Description

Equivalent Haldex number

With release valve, EC/ECE type, with lead phase device

350 026 002*

230541201

With brake force regulator

350 027 002*

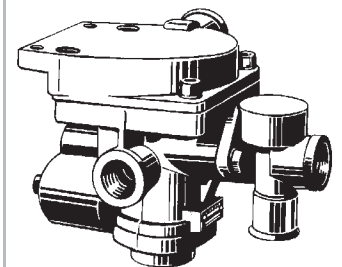
230541203

With brake force regulator and release valve, EC/ECE type, with lead phase device

350 028 001*

230541205

* Original Haldex part



Trailer brake valve

Trailer brake valve, dual line, 6 cylinder connections, with lead phase adjustment.

Description

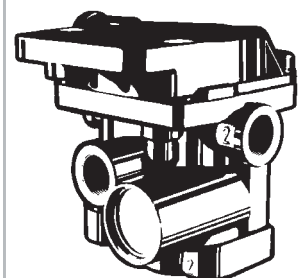
Equivalent Haldex number

Brake valve

351 022 001*

230541233

* Original Haldex part





Manual water drain-off valve
M 22 x 1.5.

Description

Equivalent Haldex number

Water drain-off valve

315 019 011*

240541038

* Original Haldex part



Automatic water drain-off valve
Automatically removes condensed water from the compressed air receiver. Pressure differential 0.2 bar.

Description

Equivalent Haldex number

Water drain-off valve

315 016 021*

240541252

* Original Haldex part



Coupling heads
Cross-coupling safeguard, ISO 1728.

Description

Equivalent Haldex number

Brake coupling head "yellow" M 22 x 1.5

334 054 211

240541124

Brake coupling head "yellow" M 22 x 1.5

334 054 211*

240542124

Reserve coupling head "red" M 22 x 1.5

334 055 211

240541125

Reserve coupling head "red" M 22 x 1.5

334 055 211*

240542125

Brake coupling head "yellow" M 16 x 1.5

334 054 201

240541347

Brake coupling head "yellow" M 16 x 1.5

334 054 201

240542044

Reserve coupling head "red" M 16 x 1.5

334 055 201

240541348

Reserve coupling head "red" M 16 x 1.5

334 055 201*

240542045

* Original Haldex part



Coupling heads, automatic
For fitting to the first trailer (rear) when towing a second trailer.

Description

Equivalent Haldex number

Brake coupling head "yellow" M 22 x 1.5

334 072 001

240541254

Brake coupling head "yellow" M 22 x 1.5

334 072 001*

240542254

Reserve coupling head "red" M 22 x 1.5

334 071 001

240541253

Reserve coupling head "red" M 22 x 1.5

334 071 001*

240542253

Brake coupling head "yellow" M 16 x 1.5

334 04 001*

240542046

Reserve coupling head "red" M 16 x 1.5

334 063 001*

240542047

* Original Haldex part



Dummy coupling
For coupling heads.

Description

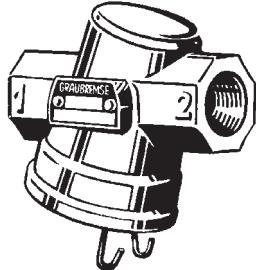
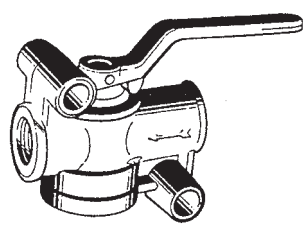
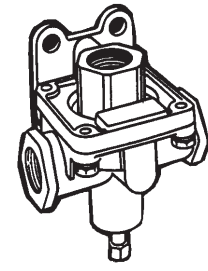
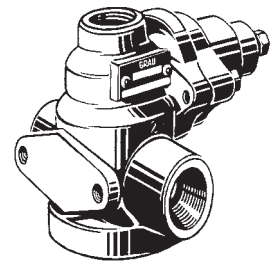
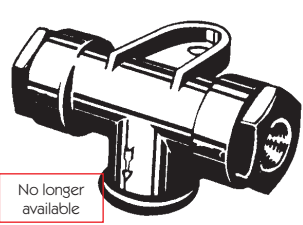
Equivalent Haldex number


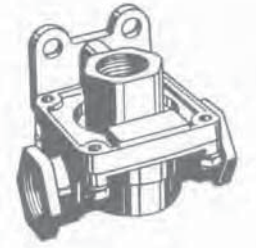
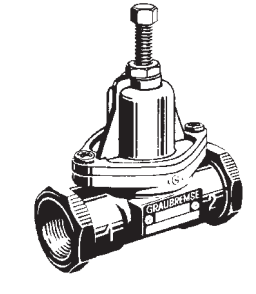



Dummy coupling

334 028 001*

240541126

* Original Haldex part

<p>Description</p> <p>Pipeline air filter</p>	<p>Pipeline air filter To DIN 74347.</p>	<p>Equivalent Haldex number</p> <p>310 005 011</p> <p>310 005 011*</p>	
<p>Pipeline air filter</p> <p>Pipeline air filter</p>		<p>240541041</p> <p>240542051</p> <p>* Original Haldex part</p>	
<p>Description</p> <p>Shut off valve</p>	<p>Shut off valve To DIN 74293, with venting, M 22 x 1.5.</p>	<p>Equivalent Haldex number</p> <p>334 047 001</p>	
<p>Shut off valve</p>		<p>240541040</p> <p>* Original Haldex part</p>	
<p>Description</p> <p>Regulator valve</p>	<p>Proportional pressure valve with rapid venting Operating press. to $p_e = 10$ bar.</p>	<p>Equivalent Haldex number</p> <p>356 009 011*</p>	
<p>Regulator valve</p>		<p>230541207</p> <p>* Original Haldex part</p>	
<p>Description</p> <p>Regulator valve, pressure equalisation at 3.0 bar</p> <p>Regulator valve, pressure equalisation at 4.0 bar</p>	<p>Proportional pressure valve with pressure equalization Operating press. to $p_e = 10$ bar.</p>	<p>Equivalent Haldex number</p> <p>356 005 101*</p> <p>356 005 102*</p>	
<p>Regulator valve, pressure equalisation at 3.0 bar</p> <p>Regulator valve, pressure equalisation at 4.0 bar</p>		<p>230541255</p> <p>230542058</p> <p>* Original Haldex part</p>	
<p>Description</p> <p>Shuttle valve</p>	<p>Two-way valve Operating press. to $p_e = 10$ bar.</p>	<p>Equivalent Haldex number</p> <p>333 001 001*</p>	
<p>Shuttle valve</p>		<p>230541036</p> <p>* Original Haldex part</p>	<p>No longer available</p>

	<p>Relay valve M 22 x 1.5, operating press. to $p_e = 10$ bar.</p>	<p>Equivalent Haldex number</p>	<p>355 023 011* 230541208 * Original Haldex part</p>	<p>No longer available</p>
	<p>Quick release valve Operating press. to $p_e = 10$ bar.</p>	<p>Equivalent Haldex number</p>	<p>356 006 011* 230541209 * Original Haldex part</p>	
	<p>Overflow valves To DIN 74279.</p>	<p>Equivalent Haldex number</p>	<p>314 012 004* 230541210 314 014 003* 230541247 * Original Haldex part</p>	
	<p>Test points</p>	<p>Equivalent Haldex number</p>	<p>318 072 001* 235541232 318 044 001* 235541212 318 040 001* 235541213 318 036 001* 235541214 * Original Haldex part</p>	
<p>Illustration: 235541213</p>				
	<p>COLAS Raise and lower valve</p>	<p>Equivalent Haldex number</p>	<p>338 051 001* 230542055 * Original Haldex part</p>	
	<p>Modular wiring loom with central plug Plug to ISO 7638.</p>	<p>Equivalent Haldex number</p>	<p>364 340 011* 230542073 364 344 001* 230542060 * Original Haldex part</p>	

Power supply cable
With ISO 7638 connection, not suitable for ADR (Hazardous goods).

Type	Cable length [m]	Cable [material]	Equivalent Haldex number	
Socket, for semi-trailer & centre axle trailers	12	PVC	364 357 001*	230542074
Socket, for semi-trailer & centre axle trailers	12	PUR	364 357 021*	230542085
Plug, for trailers	8	PVC	364 367 061*	230542062

* Original Haldex part



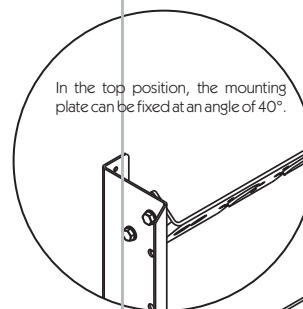
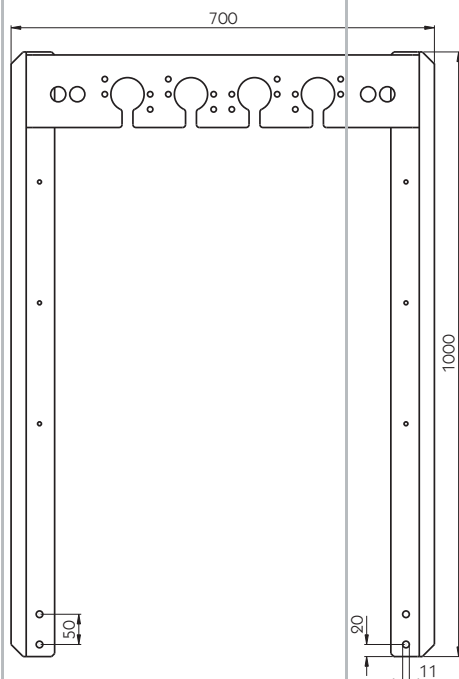
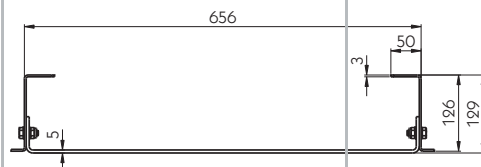
Illustrations:
above: socket, below: plug to ISO 7638



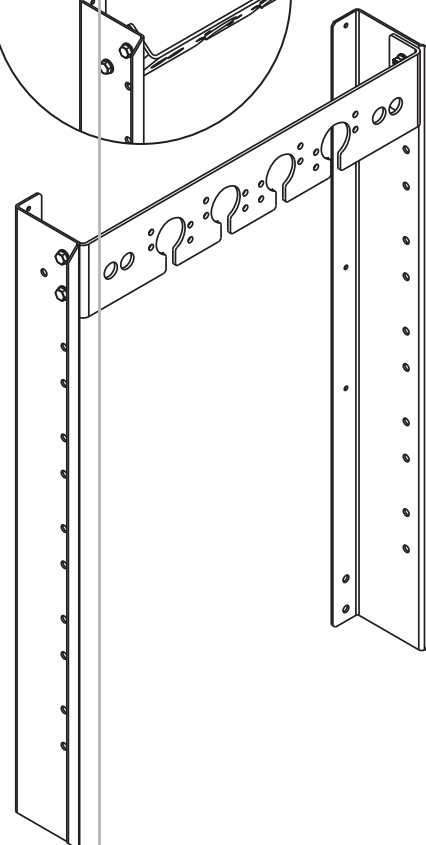
Chassis for electrical and pneumatic connections

Consisting of mounting plate and two chassis legs, supplied without screw materials.
Black KTL coated, weight 11.68 kg.

245552098



In the top position, the mounting plate can be fixed at an angle of 40°.

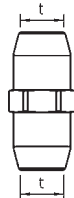


Pneumatic push-in fittings/
threaded fittings



GE push-in male stud
coupling

Dim. t (tube) [mm]	Dim. d [mm]	Weight [g]	
6 x 1.0	M 12 x 1.5	28	235541405
6 x 1.0	M 16 x 1.5	38	235541407
8 x 1.0	M 12 x 1.5	34	235541412
8 x 1.0	M 14 x 1.5	40	235541413
8 x 1.0	M 16 x 1.5	46	235541414
8 x 1.0	M 22 x 1.5	67	235541415
10 x 1.0	M 12 x 1.5	47	235541417
10 x 1.0	M 16 x 1.5	91	235541420
10 x 1.0	M 22 x 1.5	72	235541421
12 x 1.5	M 12 x 1.5	59	235541436
12 x 1.5	M 16 x 1.5	61	235541438
12 x 1.5	M 22 x 1.5	81	235541439
15 x 1.5	M 16 x 1.5	84	235541442
15 x 1.5	M 22 x 1.5	87	235541443
16 x 2.0	M 16 x 1.5	86	235541446
16 x 2.0	M 22 x 1.5	89	235541447
18 x 2.0	M 16 x 1.5	98	235541448
18 x 2.0	M 22 x 1.5	99	235541449
3/8"	M 16 x 1.5	47	235541659
1/2"	M 16 x 1.5	62	235541665



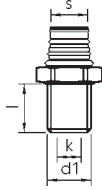

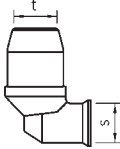

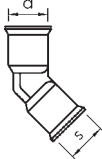

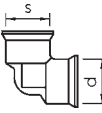

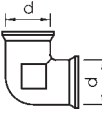

Straight push-in coupling

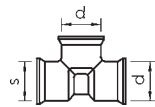
Dim. t (tube) [mm]	Weight [g]	
6 x 1.0	40	235541402
8 x 1.0	53	235541409
10 x 1.0	81	235541419
10 x 1.5	81	235541427
12 x 1.5	95	235541433
15 x 1.5	131	235541441
16 x 2.0	136	235541672



Male swivel adapter to
male stud

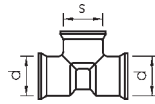
Connection s [mm]	Dim. d [mm]	Weight [g]	
P 5	1/8" - 27 NPTF	28	235541635
P 5	1/4" - 18 NPTF	34	235541636
P 5	1/2" - 14 NPTF	57	235541638
P 5	M 12 x 1.5	29	235541631
P 5	M 14 x 1.5	30	235541632
P 5	M 16 x 1.5	33	235541633
P 5	M 22 x 1.5	48	235541634

		<p>Male swivel adapter to male bulkhead stud With internal cone.</p> 					
Connection s	Dim. d1 [mm]	Dim. k cone	Dim. l [mm]	Weight [g]			
P 5	M 18 x 1.5	24° -12	34	73			235541640
		<p>90° elbow Female swivel adapter elbow to push-in coupling.</p> 					
Dim. t (tube) [mm]	Connection s	Weight [g]					
6 x 1.0	P 5	50					235541615
8 x 1.0	P 5	53					235541617
10 x 1.0	P 5	100					235541628
12 x 1.5	P 5	86					235541622
15 x 1.5	P 5	132					235541629
16 x 2.0	P 5	95					235541626
		<p>45° elbow Female swivel adapter to female thread.</p> 					
Dim. d [mm]	Connection s	Weight [g]					
M 16 x 1.5	P 5	43					235541618
		<p>90° elbow Female swivel adapter to female thread.</p> 					
Dim. d [mm]	Connection s	Weight [g]					
M 12 x 1.5	P 5	58					235541611
M 16 x 1.5	P 5	45					235541619
		<p>90° elbow Female thread.</p> 					
Dim. d [mm]	Weight [g]						
M 16 x 1.5	52						235541525
M 22 x 1.5	80						235541529



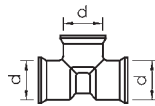
Tee
Female swivel run adapter, female thread.

Dim. d [mm]	Connection s	Weight [g]	
M 12 x 1.5	P 5	88	235541612
M 16 x 1.5	P 5	61	235541620



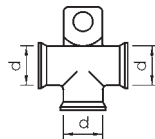
Tee
Female swivel branch adapter, female thread.

Dim. d [mm]	Connection s	Weight [g]	
M 16 x 1.5	P 5	62	235541621



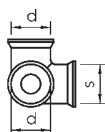
Tee
Female thread.

Dim. d [mm]	Weight [g]	
M 12 x 1.5	64	235541513
M 16 x 1.5	68	235541527
M 22 x 1.5	95	235541530



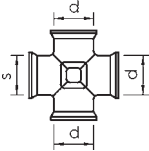

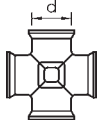

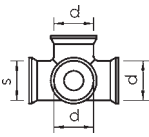

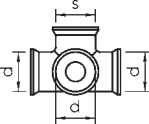

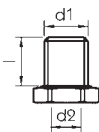

Tee
Female thread, with mounting lug.

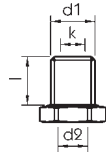
Dim. d [mm]	Weight [g]	
M 16 x 1.5	80	235541526



3-way corner elbow
Female swivel branch adapter, female thread.

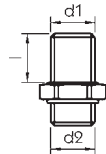
Dim. d [mm]	Connection s	Weight [g]	
M 16 x 1.5	P 5	66	235541627

Dim. d [mm]	Connection s	Weight [g]			
M 16 x 1.5	P 5	78	235541624		
Dim. d [mm]	Weight [g]				
M 16 x 1.5	81		235541516		
Dim. d [mm]	Connection s	Weight [g]			
M 16 x 1.5	P 5	80	235541625		
Dim. d [mm]	Connection s	Weight [g]			
M 16 x 1.5	P 5	80	235541623		
Dim. d1 [mm]	Dim. d2 [mm]	Dim. l [mm]	Weight [g]		
M 22 x 1.5	M 16 x 1.5	24	57	235541476	



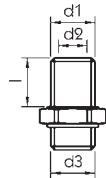
Bulkhead connector
With cone.

Dim. d1 [mm]	Dim. k	Dim. d2 [mm]	Dim. l [mm]	Weight [g]	
M 22 x 1.5	24° -15	M 16 x 1.5	24	60	235541471



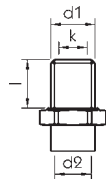
Bulkhead connector

Dim. d1 [mm]	Dim. d2 [mm]	Dim. l [mm]	Weight [g]	
M 16 x 1.5	M 16 x 1.5	24	42	235541470



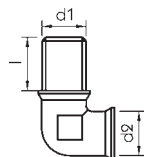
Bulkhead connector

Dim. d1 [mm]	Dim. d2 [mm]	Dim. d3 [mm]	Dim. l [mm]	Weight [g]	
M 22 x 1.5	M 16 x 1.5	M 16 x 1.5	24	70	235541478
M 22 x 1.5	M 16 x 1.5	M 16 x 1.5	40	94	235541587
M 22 x 1.5	M 16 x 1.5	M 22 x 1.5	24	70	235541477
M 22 x 1.5	M 16 x 1.5	M 22 x 1.5	30	75	235541698



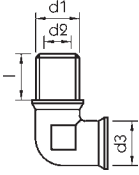

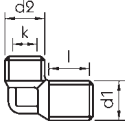

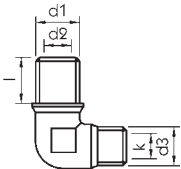

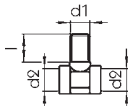




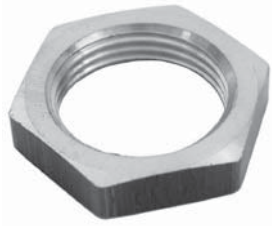
Bulkhead connector
With cone.

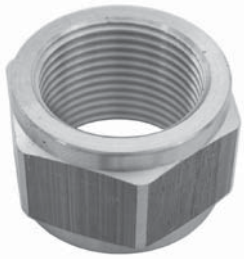
Dim. d1 [mm]	Dim. k cone	Dim. d2 [mm]	Dim. l [mm]	Weight [g]	
M 16 x 1.5	K 24° -10	M 16 x 1.5	34	76	235541472



90° male/female bulk-head elbow

Dim. d1 [mm]	Dim. d2 [mm]	Dim. l [mm]	Weight [g]	
M 16 x 1.5	M 16 x 1.5	22	62	235541507

		90° male/female bulk-head elbow							
Dim. d1 [mm]	Dim. d2 [mm]	Dim. d3 [mm]	Dim. l [mm]	Weight [g]					
M 22 x 1.5	M 16 x 1.5	M 16 x 1.5	20	75			235541508		
		90° bulkhead elbow with cone							
Dim. d1 [mm]	Dim. d2 [mm]	Dim. k cone	Dim. l [mm]	Weight [g]					
M 16 x 1.5	M 18 x 1.5	24° -12	17	64			235541511		
		90° bulkhead elbow with cone							
Dim. d1 [mm]	Dim. d2 [mm]	Dim. d3 [mm]	Dim. k cone	Dim. l [mm]	Weight [g]				
M 22 x 1.5	M 16 x 1.5	M 18 x 1.5	24° -12	17	77			235541528	
		Bulkhead branch tee							
Dim. d1 [mm]	Dim. d2 [mm]	Dim. l [mm]	Weight [g]						
M 16 x 1.5	M 16 x 1.5	21	86					235541551	
		Locking nut With O-ring.							
Dim. d [mm]	Weight [g]								
M 14 x 1.5	11							235541588	
M 16 x 1.5	12							235541485	
M 22 x 1.5	17							235541486	
		Locking nut							
Dim. d [mm]	Weight [g]								
M 18 x 1.5	14							235541494	
M 22 x 1.5	16							235541488	

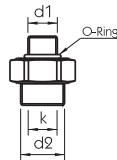


Threaded socket

Dim. d [mm]	Weight [g]
M 16 x 1.5	35
M 22 x 1.5	48

235541482

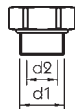
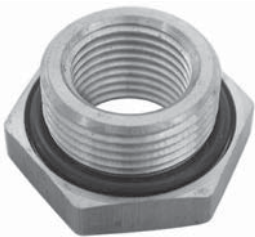
235541483



Male stud union connector
With cone.

Dim. d1 [mm]	Dim. d2 [mm]	Dim. k cone	Weight [g]
M 16 x 1.5	M 18 x 1.5	24° -12	32

235541501

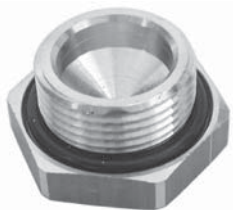


Reducing bush

Dim. d1 [mm]	Dim. d2 [mm]	Weight [g]
M 16 x 1.5	M 12 x 1.5	20
M 22 x 1.5	M 16 x 1.5	34

235541464

235541466



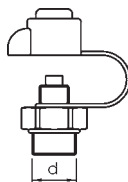
Plug

Dim. d [mm]	Weight [g]
M 14 x 1.5	25
M 16 x 1.5	29
M 22 x 1.5	53

235541576

235541462

235541463



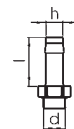
Test point

Dim. d [mm]	Weight [g]
M 16 x 1.5	42
M 22 x 1.5	68

235541495

235541496

Dim. h (∅ hose) [mm]	Dim. d	Dim. l [mm]	Weight [g]	
11	M 16 x 1.5	40	44	235541534
11	M 22 x 1.5	40	69	235541537
13	M 16 x 1.5	40	60	235541535
13	M 22 x 1.5	40	70	235541536



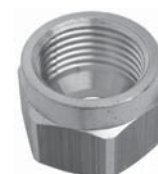
Please order union nut separately.
For connection to bulkhead
connector or male stud union
with cone (K 24°).

Dim. h (∅ hose) [mm]	Dim. k cone	Dim. l [mm]	Weight [g]	
11	24° -12	40	18	235541541



Hose tail adaptor with cone and O-ring

Dim. d [mm]	Weight [g]	
M 18 x 1.5	25	235541609



Union nut Suitable for 235541541.

Spare parts

Type	
M 16 x 1.5	235541544
M 22 x 1.5	235541543

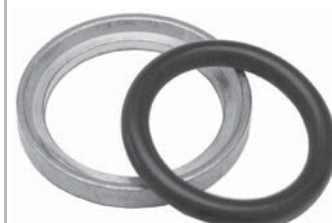
O-ring For GE push-in male stud couplings and male swivel adaptors P5.

Type	
M 16 x 1.5	235541599
M 22 x 1.5	235541543

O-ring 8 For locking nut.

Type	
M 14 x 1.5	235541708
M 16 x 1.5	235541709
M 22 x 1.5	235541710

Pressure backing ring With O-ring.





Brake hosing
In accordance with DIN 74310,
roll length 40 m.



Inside Ø x wall thickness
[mm]

13 x 6

240541091

11 x 3.5

240541165



Plastic tubing
Mecany tube PA 12 PHL-V to DIN
74324, black.



Outside Ø x wall thickness
[mm]

Roll length
[m]

6 x 1

100

241541399

8 x 1

100

241541397

10 x 1

100

241541800

12 x 1,5

100

241541801

15 x 1,5

100

241541802

18 x 2

100

241541363



**Tube sleeve inserts for
plastic tube**
Flared style, brass.



For tubing
[mm]

Dim. D
[mm]

Dim. l
[mm]

6 x 1

4

10

235541215

8 x 1

6

15

235541216

8 x 1.5

5

15

235541217

10 x 1

8

15

235541218

10 x 1.5

7

15

235541219

12 x 1.5

9

15

235541220

15 x 1.5

12

15

235541221

15 x 2

11

15

235541222

18 x 2

14

15

235541224

Steel tubes
In accordance with DIN 2391, for
pneumatic and hydraulic plant.



Outside Ø x wall thickness
[mm]

Finish

6 x 1

bonderised

241541079

6 x 1

zinc plated*

241541270

8 x 1

bonderised

241541080

8 x 1

zinc plated*

241541271

10 x 1

bonderised

241541081

10 x 1

zinc plated*

241541272

12 x 1.5

bonderised

241541082

12 x 1.5

zinc plated*

241541114

15 x 1.5

bonderised

241541083

15 x 1.5

zinc plated*

241541084

15 x 2

bonderised

241541085

16 x 2

bonderised

241541086

16 x 2.5

bonderised

241541164

18 x 1.5

zinc plated*

241541087

18 x 2.5

bonderised

241541088

20 x 3

bonderised

241541089

25 x 3

bonderised

241541090

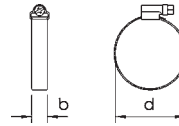
* Inside and outside zinc galvanised.

Worm drive hose clip

To DIN 3017, band and worm housing: non-rusting steel, quality X6Cr17 (material no. 1.4016), screw: yellow chromed steel Cq15.

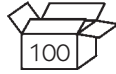
Dim. d [mm]	Band width b [mm]	No. per pack [pieces]	
8 - 12	9	50	245543001
10 - 16	9	50	245543002
12 - 20	9	50	245543003
12 - 22	9	50	245543004
16 - 25	9	50	245543005
16 - 27	9	50	245543006
20 - 32	9	50	245543007
23 - 35	9	50	245543008
25 - 40	9	50	245543009
30 - 45	9	25	245543010
32 - 50	9	25	245543011
40 - 60	9	25	245543012
50 - 70	9	25	245543013
60 - 80	9	25	245543014
70 - 90	9	25	245541178
80 - 100	9	25	245543015
90 - 110	9	25	245543016
100 - 120	9	25	245543017
110 - 130	9	25	245543018
120 - 140	9	25	245543019
130 - 150	9	25	245543020
140 - 160	9	25	245543021
150 - 170	9	25	245543022
160 - 180	9	25	245543023
170 - 190	9	25	245543024
180 - 200	9	25	245543025
190 - 210	9	25	245543026
16 - 25	12	50	245543027
16 - 27	12	50	245543028
20 - 32	12	50	245543029
23 - 35	12	50	245543030
25 - 40	12	50	245543031
32 - 50	12	50	245543032
40 - 60	12	25	245543033
50 - 70	12	25	245543034
60 - 80	12	25	245543035
70 - 90	12	25	245543036
80 - 100	12	25	245543037
90 - 110	12	25	245543038
100 - 120	12	25	245543039
110 - 130	12	25	245543040
120 - 140	12	25	245543041
130 - 150	12	25	245543042
140 - 160	12	25	245543043
150 - 170	12	25	245543044
160 - 180	12	25	245543045
170 - 190	12	25	245543046
180 - 200	12	25	245543047
190 - 210	12	25	245543048

Hose clips



No longer available





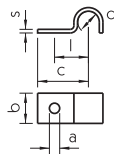
Hose clips
Zinc plated, DIN 74306.

Designation	Band width [mm]	No. per pack [no. of]	Weight [kg]	
S 12/12 SZ	12	100	0.08	245541273
S 20/12 SZ	12	100	0.01	245541274
S 25/15 SZ	15	100	0.04	245541092
S 28/15 SZ	15	100	0.04	245541093
S 30/15 SZ	15	100	0.05	245541094
S 35/15 SZ	15	100	0.05	245541095



Pipe clips with rubber profile lining

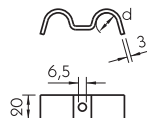
For pipe Ø [mm]	Band width [mm]	No. per pack [pieces]	Weight [kg]	
6	12	100	0.02	245541096
8	12	100	0.02	245541097
10	15	100	0.03	245541098
15	15	100	0.03	245541099
15	20	100	0.04	245541100
18	15	100	0.04	245541101
18	20	100	0.05	245541102



Fixing clips for tube and cable

Single, zinc galvanised, one sided fixing.

Diameter D [mm]	Width b [mm]	Thickness S [mm]	For screw Ø d [mm]	Length c [mm]	Length l [mm]	
6	10	1	4	---	10	245541103
8	20	2	6	26	16.5	245541104
10	20	2	6	26.5	17	245541105
12	20	2	6	28	18	245541106
15	25	3	6	40.5	25.5	245541107
18	25	3	8	42	28	245541108



Fixing clips for twin lines
Zinc plated.

For tube Ø d [mm]	
15	245541109
18	245541110

Compressed air receivers

Compressed air receiver,
sheet steel

For air brakes in accordance with directive 87/404/EEC, certified for operating temperatures from -40° to +100° C.

Volume [l]	Permissible max. operating pressure (gauge) [bar]	Bore [mm]	Length o/a [mm]	Weight [kg]	
4.5	10	206	185	4.0	310542001
10	10	206	355	6.0	310542002
15	10	206	520	7.5	310542003
20	10	206	660	9.0	310542004
20	10	246	500	9.0	310542005
25	10	246	585	12.0	310542006
30	10	246	700	13.0	310542007
30	10	276	600	13.0	310542008
37	10	246	850	14.0	310542009
40	10	246	915	15.0	310542010
40	10	276	745	15.0	310542011
40	10	310	600	16.0	310542012
60	10	246	1350	19.0	310542014
60	10	276	1100	19.0	310542015
60	10	310	880	19.0	310542016
60	10	396	565	22.0	310542017
80	10	396	730	27.0	310542020
85	10	276	1500	26.0	310542021
100	10	396	900	32.0	310542022
120	10	396	1089	28.0	310542093

Compressed air receiver,
aluminium

For air brakes in accordance with EN 286-2, certified for operating temperatures from -40° to +65° C.

Volume [l]	Permissible max. operating pressure (gauge) [bar]	Bore [mm]	Length over all. [mm]	Weight [kg]	
10	12.5	206	375	2.3	310542026
15	12.5	206	535	3.1	310542027
20	12.5	206	695	3.0	310542028
20	12.5	246	505	3.5	310542029
20	12.5	276	415	3.3	310542030
30	12.5	246	724	4.9	310542031
30	12.5	276	590	4.5	310542032
40	12.5	246	945	6.2	310542034
40	12.5	276	766	5.8	310542035
40	10.0	310	620	5.5	310542036
60	12.5	276	1115	8.2	310542038
60	10.0	310	900	7.7	310542039
60	10.0	396	585	7.4	310542040
80	10.0	396	755	9.3	310542041
100	10.0	396	920	10.8	310542042



Mounting clamps for compressed air receivers

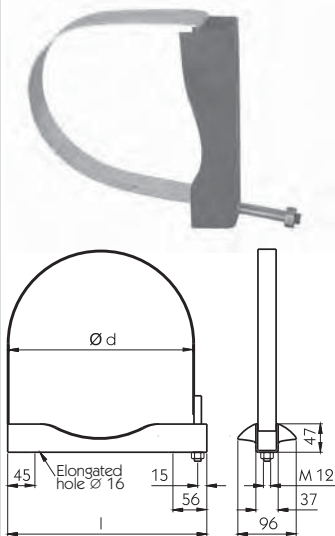
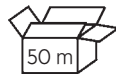


Illustration: 1:1 cross section

Receiver Ø [mm]	Type	Finish [band/bracket]	Weight [kg]	
206	1-part	primed black	0.95	310541016
246	1-part	primed black	1.05	310541017
276	1-part	primed black	1.15	310541018
310	1-part	primed black	1.25	310541019
396	1-part	primed black	1.65	310541021
276	1-part	V2A	1.15	310541372
310	1-part	V2A	1.25	310541373
206	2-part	galvanised/primed	0.86	310541351
246	2-part	galvanised/primed	1.00	310541352
276	2-part	galvanised/primed	1.12	310541353
310	2-part	galvanised/primed	1.26	310541354
396	2-part	galvanised/primed	1.58	310541355

No longer available



Rubber profile for air reservoir bands

Weight 0.12 kg/m.

240541334

Parking brakes

Parking brake

Heavy duty version with rigid crank handle, crank radius 195 mm, housing size 50 x 60 x 395 mm, acme style thread 20 x 4 mm, length overall 580 mm, black primer, weight 4.72 kg.

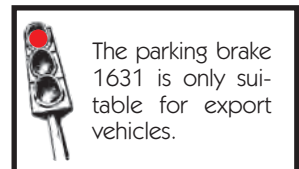
No longer available

250131570

1631

With rigid crank handle, crank radius 200 mm, cable eye Ø 15 mm, housing size 40 x 60 x 250 mm, acme style threaded spindle 25 x 5 mm, length overall 450 mm, black primer, weight 3.03 kg.

250131268



The parking brake 1631 is only suitable for export vehicles.

1632

With fold-in crank handle, crank radius 200 mm, black primer.

Type	Housing size [mm]	Acme style thread [mm]	Length o/a [mm]	Weight [kg]	
With cable eye Ø 15 mm	40 x 60 x 250	25 x 5	375/470	2.97	250131269
With cable eye Ø 60 mm	40 x 60 x 250	25 x 5	405/510	3.34	250131340

Illustration above: 25031269

Illustration below: 25031340

Crank handle

Spare part for parking brakes 1632. Including spring, washer and spring pin. Crank Ø 15 mm, all parts steel self colour.

250131270



1633

With fold-in crank handle, crank radius 195 mm, cable eye Ø 15 mm, housing size 40 x 60 x 250 mm, acme style threaded spindle 25 x 5 mm, length overall 400/500 mm, black primer, weight 3.22 kg.

250131271



Folding handle

Spare part for parking brake 1633. Including plastic end stop, steel self colour.

① Handle with crank lever, crank lever Ø 15 mm **250131272**

② Handle without crank lever, connection Ø 16.5 mm **250131273**



Parking brakes

With swivel mounted crank handle, acme style threaded spindle 26 x 5 mm, single start, pitch 5 mm, stroke 200 mm, spindle nut C 45 forged.



Illustration left: **250131551**
Illustration right: **250131554**

Type	Crank radius [mm]	Length o/a [mm]	Weight [kg]	
With cable pulley Ø 80 mm	300	440	5.05	250131551
With cable pulley Ø 80 mm	185	440	4.90	250131552
With cable pulley Ø 14 mm	300	440	4.65	250131553

No longer available

Hand brake lever

Flat iron, red primer.

Type	Length o/a [mm]	Weight [kg]	
Brake lever 632	610	2.96	215131258
Brake lever 633	600	2.86	215131261

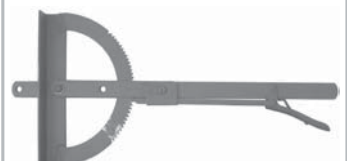


Illustration left: **215131258**
Illustration right: **215131261**

Spare parts
For hand brake lever.



Hand grip with spring

Loose.

215131259



Spare spring

Loose.

215131260



Hand brake ratchet with
eccentric action

Length of draw: 200 mm, suitable
for 8 mm and 10 mm steel cable.
Steel, self colour, weight 6.03 kg.

250131499



Cable brake T 64/C

For single and two axle trailers,
front and rear wheel braking,
approved for up to 25 km/h and
4 t gross weight.

Description

Sleeve length
[mm]

Cable length
[mm]

Weight
[kg]

Hand brake lever complete with Bowden cable and anchor bracket

2300

5150

5.0

117131525

Hand brake lever complete with Bowden cable and anchor bracket

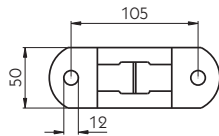
3500

6200

5.0

117131526

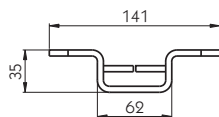
Spare parts
For cable brake T 64/C.



Anchor bracket

Loose, weight 0.15 kg.

117131534

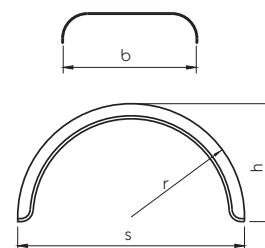


Rubber mudguards

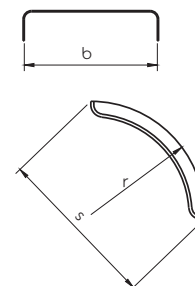
Designation	Dim. b [mm]	Dim. r [mm]	Length [mm]	Dim. h [mm]	Dim. s [mm]	Weight [kg]	
PF 2013	280	435	1360	435	870	2.8	112371001
PF 2276	520	480	1500	480	960	6.0	112371068

Mudguards

Rubber mudguards



Plastic mudguards



Half mudguard

Black PE.

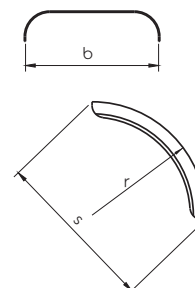
Designation	Dim. b [mm]	Dim. r [mm]	Length [mm]	Dim. s [mm]	Weight [kg]	
L-PE 27.580.06 (L 2706 K)	270	660	600	580	0.7	274375114
L-PE 35.685.07 (L 3507 K)	350	650	720	685	1.1	274375115
L-PE 35.980.11 (L 3511 K)	350	650	1100	970	1.8	274375086
L-PE 40.670.07 (L 4007 K)	400	670	700	670	1.2	274375073
L-PE 40.670.07 SL* (L 4007 KmS*)	400	670	700	670	1.3	274375138
L-PE 40.795.09 (L 4009 K)	400	670	840	795	1.6	274375116
L-PE 40.1025.12 (L 4012 K)	400	700	1140	1025	2.5	274375056
L-PE 45.650.07 (L 4507 K)	450	670	700	670	1.5	274375139
L-PE 45.950.11 (L 4511 K)	450	650	1060	950	2.7	274375057
L-PE 55.670.07 (L 5507 K)	550	650	700	650	1.7	274375268
L-PE 55.740.08 (L 5508 K)	550	500	810	740	2.0	274375058
L-PE 60.475.05 (L 6005 K)	600	640	490	475	1.4	274375140
L-PE 60.600.06 (L 6006 K)	600	640	620	600	1.6	274375024
L-PE 60.810.09 (L 6009 K)	600	550	915	810	2.7	274375059
L-PE 65.615.06 (L 6506 K)	650	640	640	615	1.6	274375025
L-PE 65.670.07 (L 6507 K)	650	670	700	670	2.0	274375118
L-PE 65.810.09 (L 6509 K)	650	550	920	810	2.7	274375060
L-PE 65.870.10 (L 6510 K)	650	650	950	870	2.8	274375141
L-PE 67.615.06 (L 6706 K)	670	640	640	615	1.6	274375026
L-PE 70.810.09 (L 7009 K)	700	550	910	810	2.5	274375061

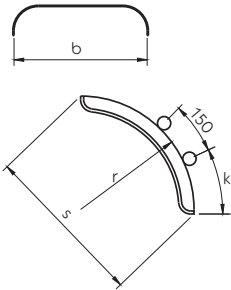
* With integrated mud flap

"Istoflex" short mudguard

Rubber/PP/PE composite.

Designation	Dim. b [mm]	Dim. r [mm]	Length [mm]	Dim. s [mm]	Weight [kg]	
L 2706	270	500	550	520	0.6	113373065
L 3006	300	610	650	620	0.8	113373066
L 3707	370	650	650	625	1.2	113373001
L 4207	420	650	650	625	1.3	113373003
L 4210	420	650	1020	915	2.0	113373004
L 4806	480	560	585	560	1.3	113373069
L 5006	500	560	615	585	1.4	113373070
L 5106	510	500	550	520	1.0	113373072
L 5306	530	560	615	585	1.3	113373085
L 5309	530	560	920	815	2.0	113373086
L 5507	550	650	620	600	1.6	113373007
L 5510	550	650	935	860	2.5	113373008
L 6206	620	610	650	600	1.8	113373087
L 6210	620	650	1020	915	2.7	113373010
L 6707	670	650	650	625	1.8	113373011
L 6710	670	650	1020	915	2.9	113373012



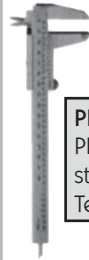


Half mudguard

With stepless adjustable mounting brackets for Ø 40 mm stay, black PE.

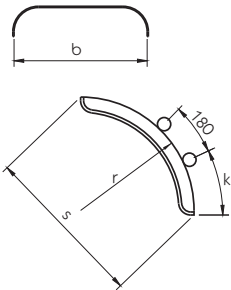
Designation	Dim. b [mm]	Dim. r [mm]	Length [mm]	Dim. k [mm]	Dim. s [mm]	Weight [kg]	
L 4009 KH	400	670	850	570	795	2.1	274375242
L 4012 KH	400	700	1150	770	1025	2.9	274375238
L 4507 KH	450	670	700	570	670	2.1	274375246
L 6507 KH	650	670	700	540	670	2.7	274375235

No longer available



PE - polyethylene

PE mudguards are suitable for temperatures ranging from -40° up to +80°. They are UV stable and resistant to oils, alkalis, petrol, dilute acids and most organic solvents. Tensile strength is good, with high tear resistance.

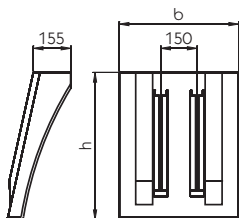


"S-Hansaflex" Half mudguard

With stepless adjustable mounting brackets for tube stays Ø40-42 mm, black PE.

Designation	Dim. b [mm]	Dim. r [mm]	Length [mm]	Dim. s [mm]	Dim. k [mm]	Weight [kg]	
L-PE 27.580.06-IKK	270	660	600	580	310	1.4	274375161
L-PE 35.685.07-IKK	350	650	720	685	390	1.7	274375162
L-PE 40.670.07-IKK	400	670	700	670	390	1.8	274375163
L-PE 40.670.07-IKK*	400	670	700	670	390	1.8	274375164
L-PE 40.795.09-IKK	400	670	840	795	390	2.1	274375165
L-PE 40.1025.12-IKK	400	700	1140	1025	590	2.8	274375166
L-PE 45.670.07-IKK	450	670	700	670	390	2.4	274375258
L-PE 45.950.11-KK	450	650	1060	950	590	2.9	274375167
L-PE 55.740.08-KK	550	500	810	740	390	2.4	274375168
L-PE 60.600.06-IKK	600	640	620	600	360	2.2	274375169
L-PE 60.810.09-KK	600	550	915	810	390	3.4	274375181
L-PE 65.670.07-IKK	650	670	700	670	360	2.4	274375170
L-PE 65.810.09-KK	650	550	920	810	390	2.8	274375171
L-PE 65.870.10-KK	650	650	950	870	405	3.1	181375283
L-PE 67.615.06-IKK	670	640	640	615	310	2.4	181375325
L-PE 70.810.09-KK	700	550	910	810	390	3.1	274375264

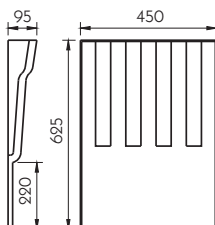
* With yellow reflector.



Half mudguard

Black PE.

Designation	Dim. b [mm]	Dim. h [mm]	Weight [kg]	
S 1020 49 060	490	608	1.97	181375338
S 1020 49 040	490	412	1.36	181375339



Half mudguard

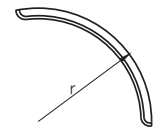
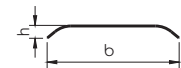
With integrated mud flap, black PE, weight 1.42 kg.

183376160

Half mudguards for tractor units

PE, black, textured surface.

Designation	Dim. b [mm]	Dim. r [mm]	Dim. h [mm]	Length [mm]	Weight [kg]	
HS-PE 1807	180	440	45	700	0.5	181375286
HS-PE 2308	230	480	45	800	0.7	181375287
E 2400	240	520	40	925	1.1	112371037
HS-PE 2509	250	525	45	920	0.8	181375288
HS-PE 2610	265	615	45	1000	0.9	181375289
HS-PE 3009	300	590	45	950	1.0	181375290
HS-PE 3210	320	640	45	1070	1.1	181375291
HS-PE 3312	330	720	45	1180	1.4	181375315
HS-PE 3510	350	650	45	1090	1.3	181375292
HS-PE 3713	370	725	45	1300	1.7	181375293
HS-PE 4212	420	725	45	1200	1.7	181375316
HS-PE 4213	420	725	45	1315	1.8	181375294
HS-PE 4713	470	790	45	1330	2.2	181375295
HS-PE 4714	470	790	45	1400	2.3	181375317
HS-PE 4722	470	964	45	2200	3.8	181375318
HS-PE 5415	540	800	45	1500	2.9	181375296
HS-PE 5522	550	964	45	2200	5.0	181375319
HS-PE 6119	620	900	45	1900	4.4	181375297
HS-PE 6215	620	800	45	1500	3.3	181375298

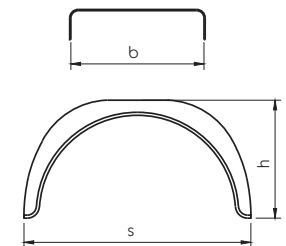


No longer available

Rear wheel mudguard

Black PE.

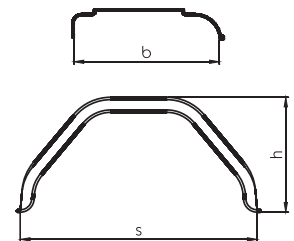
Designation	Dim. b [mm]	Dim. h [mm]	Dim. s [mm]	Weight [kg]	
E 2070	200	335	720	1.22	274372116
E 2275	220	335	770	1.36	274372117
E 2475	240	335	770	1.50	274372118
E 2680	260	335	820	1.64	274372119



Rear wheel mudguard with EU-hole pattern

Black PP.

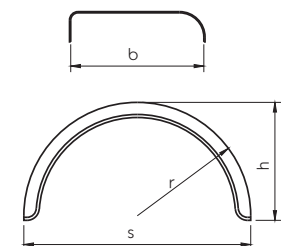
Designation	Dim. b [mm]	Dim. h [mm]	Dim. s [mm]	Weight [kg]	
HMK 2066	200	330	660	0.90	274372200
HMK 2275	220	330	750	1.00	274372201
HMK 2480	240	380	800	1.10	274372202

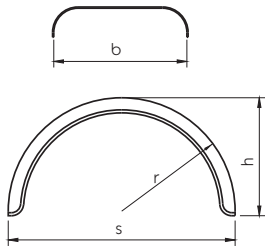


Rear wheel mudguard

Surface with 2 stiffening seams, black PE.

Designation	Dim. b [mm]	Dim. r [mm]	Length [mm]	Dim. s [mm]	Dim. h [mm]	Weight [kg]	
H-PE 20.750.12/12 (H 2012/12K)	200	375	1200	750	390	1.0	274375173
H-PE 22.750.12/12 (H 2212/12K)	220	375	1200	750	390	1.1	274375109
H-PE 22.800.13/12 (H 2213/12K)	220	400	1290	800	415	1.2	274375133
H-PE 24.750.12/12 (H 2412/12K)	240	375	1200	750	390	1.2	274375134
H-PE 24.800.13/12 (H 2413/12K)	240	400	1285	800	415	1.3	274375110
H-PE 26.800.13/12 (H 2613/12K)	260	400	1280	800	415	1.4	274375174

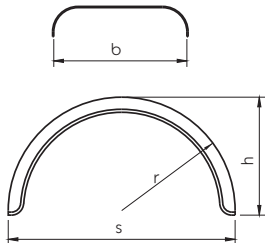




Rear wheel mudguard Black PE.

Designation	Dim. b [mm]	Dim. r [mm]	Length [mm]	Dim. s [mm]	Dim. h [mm]	Weight [kg]	
H-PE 30.1120.17 (H 3017 K)	300	560	1710	1120	540	2.5	274375067
H-PE 35.1340.22 (H 3522 K)	350	670	2150	1340	710	3.8	274375085
H-PE 40.900.15 (H 4015 K)	400	450	1470	900	480	2.6	274375111
H-PE 40.1340.21 (H 4021 K)	400	670	2100	1340	670	4.0	274375112
H-PE 40.1440.23 (H 4023 K)	400	720	2270	1440	730	4.5	274375049
H-PE 45.900.15 (H 4515 K)	450	450	1500	900	490	2.9	274375068
H-PE 45.1300.19 (H 4519 K)	450	650	1880	1300	570	4.3	274375069
H-PE 45.1300.21 (H 4521 K)	450	650	2100	1300	690	4.5	274375050
H-PE 48.1020.17 (H 4817 K)	480	510	1650	1020	535	3.3	274375018
H-PE 51.1020.17 (H 5117 K)	510	510	1680	1020	550	3.7	274375136
H 5120 K	510	650	---	1300	685	---	182375302
H-PE 53.1130.17 (H 5317 K)	530	565	1680	1130	520	3.3	274375070
H-PE 53.1280.20 (H 5320 K)	530	610	1950	1220	625	4.3	274375019
H-PE 55.1000.17 (H 5517 K)	550	500	1640	1000	540	3.8	274375051
H-PE 56.1280.20 (H 5620 K)	560	640	1940	1280	605	4.5	274375020
H-PE 60.1100.18 (H 6018 K)	600	550	1800	1100	600	4.8	274375052
H-PE 61.1320.21 (H 6121 K)	610	660	2070	1320	660	5.1	274375021
H-PE 62.1130.17 (H 6217 K)	620	565	1680	1130	520	5.0	274375071
H-PE 65.1100.18 (H 6518 K)	650	550	1800	1100	600	5.1	274375053
H-PE 65.1300.19 (H 6519 K)	650	650	1900	1300	570	5.2	274375072
H-PE 65.1300.21 (H 6521 K)	650	650	2070	1300	650	5.4	274375022
H-PE 67.1380.21 (H 6721 K)	670	690	2070	1380	650	5.6	274375023
H-PE 70.1100.18 (H 7018 K)	700	550	1830	1100	600	5.7	274375054
H-PE 70.1340.21 (H 7021 K)	700	670	2105	1340	630	6.1	181375304

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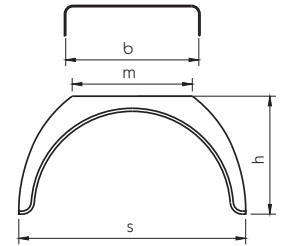
Istoflex rear wheel mudguard Rubber/PP/PE composite.

Designation	Dim. b [mm]	Dim. r [mm]	Length [mm]	Dim. s [mm]	Dim. h [mm]	Weight [kg]	
H 2213	220	400	1285	800	415	1.2	113373079
H 2413	240	400	1285	800	415	1.4	113373080
H 2613	260	400	1285	800	415	1.6	113373091
H 2416	240	480	1570	960	500	1.6	113373013
H 2717	270	500	1670	1000	550	1.8	113373014
H 3020	300	610	2000	1220	655	2.5	113373016
H 3722	370	650	2260	1300	750	3.7	113373017
H 4021	400	610	2000	1220	655	3.4	113373019
H 4222	420	650	2260	1300	750	3.8	113373020
H 4415	440	480	1530	960	480	2.4	113373025
H 4521	450	610	2000	1220	655	3.8	113373022
H 4722	470	650	2260	1300	750	4.5	113373023
H 4819	480	560	1870	1120	615	4.1	113373024
H 5117	510	500	1670	1000	550	3.0	113373027
H 5319	530	560	1870	1120	615	4.4	113373028
H 5519/2	550	560	1870	1120	615	4.4	113373036
H 5519	550	650	1900	1270	610	4.0	113373029
H 5819	580	560	1870	1120	615	4.7	113373082
H 6219	620	560	1870	1120	615	5.0	113373037
H 6220	620	610	2000	1220	655	5.2	113373075
H 6222	620	650	2260	1300	750	5.8	113373033
H 6519	650	650	1900	1270	610	4.9	113373034
H 6722	670	650	2260	1300	750	6.3	113373035
H 6520	650	610	2000	1220	655	5.5	113373077

Rear wheel mudguard with flat top

Black PE.

Designation	Dim. b [mm]	Dim. m [mm]	Dim. s [mm]	Dim. h [mm]	Weight [kg]	
HM 2616 K (D 3710)	260	400	880	480	2.0	128376010
HM 2616 K	275	500	895	480	2.0	274375234
HM 4514 K (H-PE 45.860.14 E)	450	400	860	425	2.9	274374001
HM 4517 K (H-PE 45.1000.17 E)	450	520	980	520	3.5	274375126
HM 5117 K	510	510	1000	560	3.5	113373092
HM 5519 K (H-PE 55.1105.19 E)	550	650	1150	550	4.7	274375055
HM 6022 K	600	700	1200	620	5.1	274375137
HM 6523 K	650	750	1330	715	6.6	274375113



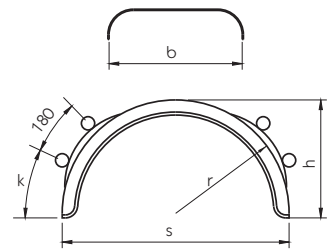
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"S-Hansaflex"

Rear wheel mudguard

With stepless adjustable mounting brackets, black PE.

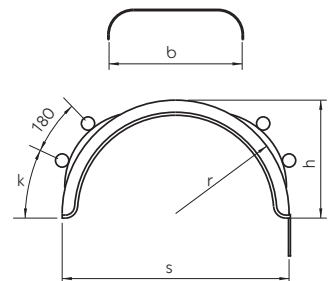
Designation	For tube stays [mm]	Dim. b [mm]	Dim. r [mm]	Length [mm]	Dim. s [mm]	Dim. h [mm]	Dim. k [mm]	Weight [kg]	
H-PE 30.1120.17-KK	Ø40-42	300	560	1700	1100	540	380	3.6	274375145
H-PE 35.1340.22-KK	Ø40-42	350	670	2150	1340	710	480	4.8	274375146
H-PE 40.1160.20-KK	Ø40-42	400	580	1940	1160	640	480	5.0	181375326
H-PE 40.1300.21-IKK	Ø40-42	400	650	2100	1300	680	480	5.7	274375147
H-PE 40.1440.23-KK	Ø40-42	400	720	2260	1440	730	480	5.0	274375148
H-PE 41.1280.20-IKK	Ø40-42	410	640	2000	1280	635	480	5.0	181375305
H-PE 45.900.15-KK	Ø40-42	450	450	1520	900	490	330	4.0	181375285
H-PE 45.1300.19-IKK	Ø40-42	450	650	1900	1300	580	430	5.3	181375311
H-PE 45.1300.21-IKK	Ø40-42	450	650	2100	1300	680	480	5.5	181375308
H-PE 51.1060.17-IKK	Ø40-42	510	530	1650	1060	520	380	4.5	181375312
H-PE 53.1140.18-IKK	Ø40-42	530	570	1750	1140	550	380	4.7	181375306
H-PE 55.1060.17-IKK	Ø40-42	550	530	1650	1060	520	380	4.8	181375313
H-PE 60.1140.18-IKK	Ø40-42	600	570	1750	1140	550	380	5.8	181375310
H-PE 61.1300.21-IKK	Ø40-42	610	650	2100	1300	680	480	6.2	181375307
H-PE 56.1280.20-KK	Ø40-42	560	640	1940	1280	605	410	5.5	274375154
H-PE 62.1130.17-KK	Ø40-42	620	565	1680	1130	520	380	6.0	274375157
H-PE 65.1140.18-IKK	Ø40-42	650	570	1750	1140	550	380	6.2	181375314
H-PE 65.1300.19-IKK	Ø40-42	650	650	1900	1300	580	430	6.3	274375180
H-PE 65.1300.21-IKK	Ø40-42	650	650	2100	1300	680	480	6.3	274375159
H-PE 67.1380.21-IKK	Ø40-42	670	690	2100	1380	655	480	6.4	181375309
H-PE 67.1380.21-IKK	Ø50	670	690	2100	1380	655	480	6.4	181375279
H-PE 70.1340.21-KK	Ø40-42	700	670	2105	1340	670	310	6.9	181375299



Rear wheel mudguard

With anti-spray system, with stepless adjustable mounting brackets for tube stays Ø40-42 mm, black PE.

Designation	Dim. b [mm]	Dim. r [mm]	Length [mm]	Dim. s [mm]	Dim. h [mm]	Dim. k [mm]	Weight [kg]	
H-PE 4021-IKK	400	650	2100	1300	680	480	8.6	181375273
H-PE 4120-IKK	410	640	2000	1280	635	480	7.8	181375331

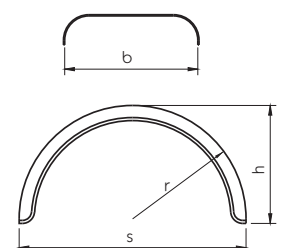


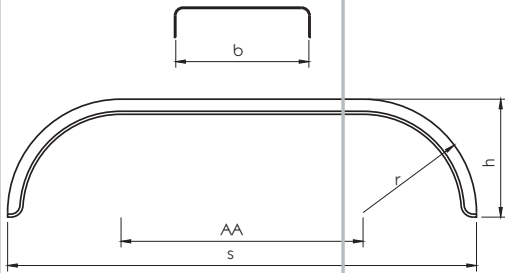
„White Line“

Rear wheel mudguard

White rim, black PE.

Designation	Dim. b [mm]	Dim. r [mm]	Length [mm]	Dim. s [mm]	Dim. h [mm]	Weight [kg]	
H 405/1270/1900	405	635	1900	1270	595	2.6	183376113
H 430/1300/2175	430	650	2175	1300	720	3.0	183376110
H 650/1260/2175	650	630	2175	1260	730	5.1	183376112

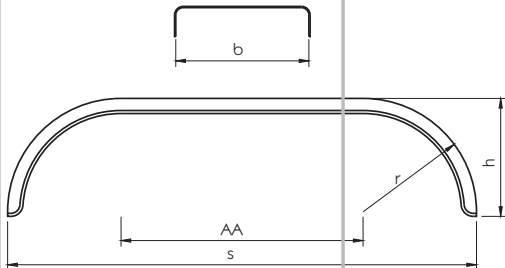




Tandem axle mudguard
Black PE.

Designation	Dim. b [mm]	Dim. r [mm]	Length [mm]	Axle centres AA [mm]	Dim. s [mm]	Dim. h [mm]	Weight [kg]
DK-PE 22.1550.20/12 (D 2220/12K)	220	375	1970	800	1550	375	2.0
DK-PE 24.1500.20/12 (D 2420/12K)	240	400	1970	700	1500	380	2.2

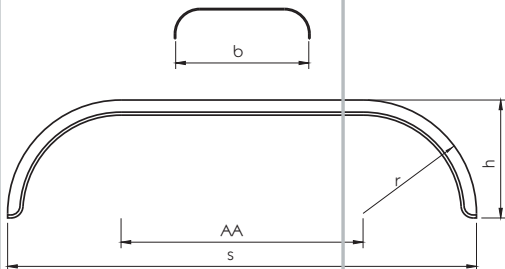
274375127
274375128



Tandem axle mudguard
Black PE.

Designation	Dim. b [mm]	Dim. r [mm]	Length [mm]	Axle centres AA [mm]	Dim. s [mm]	Dim. h [mm]
D 6534 K	670	635	3345	1400	2700	650

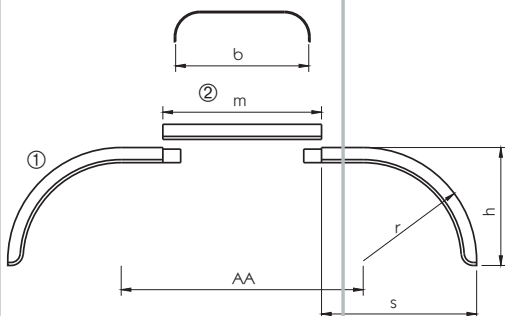
182375278



"S-Hansaflex" Tandem axle mudguard
Black PE.

Designation	Dim. b [mm]	Dim. r [mm]	Length [mm]	Axle centres AA [mm]	Dim. s [mm]	Dim. h [mm]	Weight [kg]
DK-PE 43.2700.36	430	700	3550	1200	2600	770	11.0

274375247



Front wheel, tandem and tri-axle mudguards
Black PE.

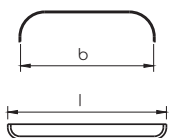
Designation	Dim. b [mm]	Dim. r [mm]	Length [mm]	Dim. m [mm]	Axle centres AA [mm]	Dim. s [mm]	Dim. h [mm]	Weight [kg]
② DM-PE 4515 (DM 4515 K)	450	---	---	1480	---	---	---	5.0
② DM-PE 6515 (DM 6515 K)	650	---	---	1500	---	---	---	6.6
① DE-PE 4519 (DT 4519 K)	450	670	1800	---	700	1370	600	5.5
① DE-PE 6519 (DT 6519 K)	650	670	1840	---	700	1370	600	7.2

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274375121
274375122



For axle centres (axle centres AA) up to 1400 mm, 2 mudguards ① are required; if the axle centres exceed this, an intermediate piece ② must be fitted.

"S-Hansaflex" middle parts
Black PUR with textured surface.



Designation	Dim. b [mm]	Dim. l [mm]	Weight [kg]
DM-PE 40.940	400	930	1.6
DM-PE 45.900	450	900	1.7

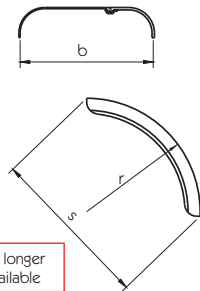
274375176
274375177

Sheet steel mudguards

Half mudguard

With interchangeable rubber rim, zinc galvanised sheet steel.

Designation	Dim. b [mm]	Dim. r [mm]	Length [mm]	Dim. s [mm]	Weight [kg]	
GL 3010/115	300	600	980	875	4.7	110361012
GLK 40.950.11/100 (GL 4011/115)	400	670	1055	950	6.4	110361014

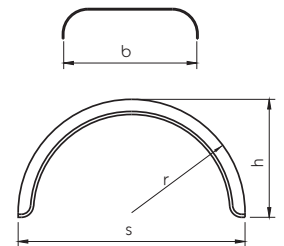


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Rear wheel mudguard

With beading, zinc galvanised sheet steel.

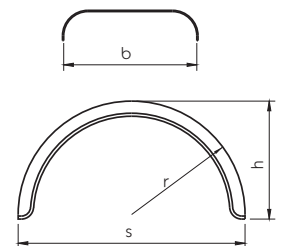
Designation	Dim. b [mm]	Dim. r [mm]	Length [mm]	Dim. s [mm]	Dim. h [mm]	Weight [kg]	
H 1509	150	280	910	560	295	1.6	110352022
H 1810	180	320	980	640	305	2.0	110352025
H 2011	200	330	1065	660	345	2.4	110352027
H 2012	200	375	1210	750	390	2.6	110352028
H 2212	220	375	1210	750	390	2.9	110352031
H 2213	220	400	1285	800	415	3.0	110352032
H 2413	240	400	1285	800	415	3.3	110352034
H 2414	240	430	1380	860	445	3.6	110352035
H 2717	270	500	1660	1000	545	4.8	110352039



Rear wheel mudguard

With beading, zinc galvanised sheet steel.

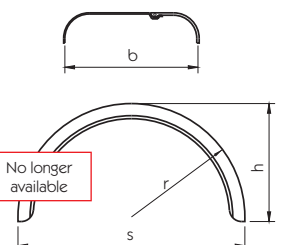
Designation	Dim. b [mm]	Dim. r [mm]	Length [mm]	Dim. s [mm]	Dim. h [mm]	Weight [kg]	
HK 65.1300.22 (H 6522)	650	650	2200	1300	730	13.0	110352078



Rear wheel mudguard

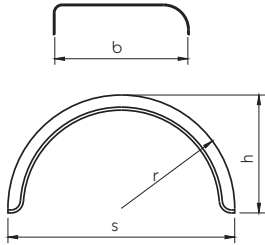
With interchangeable rubber rim, zinc galvanised sheet steel.

Designation	Dim. b [mm]	Dim. r [mm]	Length [mm]	Dim. s [mm]	Dim. h [mm]	Weight [kg]	
GHK 45.1360.23/100 (GH 4523/115)	450	680	2290	1360	755	15.3	110361062
GHK 60.1300.21/100 (GH 6021/115)	600	650	2110	1300	685	17.7	110361005
GHK 65.1340.21/100 (GH 6521/115)	650	670	2110	1340	670	19.0	110361006



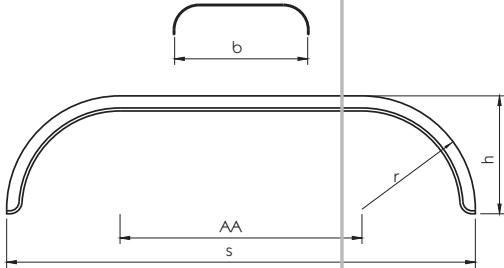
No longer available

Rear wheel mudguard
With fixing holes, zinc galvanised sheet steel.



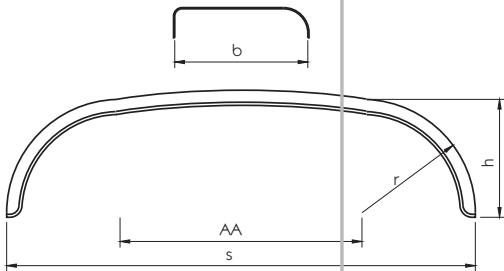
Designation	Dim. b [mm]	Dim. r [mm]	Length [mm]	Dim. s [mm]	Dim. h [mm]	Weight [kg]	
H 1810/12	180	310	970	620	300	2.0	132354242
H 2011/12	200	330	1065	660	345	2.3	132354005
H 2012/12	200	375	1210	750	390	2.7	132354006
H 2013/12	200	400	1285	800	415	2.9	132354007
H 2211/12	220	330	1065	660	345	2.5	132354009
H 2212/12	220	375	1210	750	390	2.9	132354010
H 2213/12	220	400	1285	800	415	3.1	132354011
H 2214/12	220	430	1380	860	445	3.3	132354012
H 2412/12	240	375	1210	750	390	3.1	132354013
H 2413/12	240	400	1285	800	415	3.2	132354014
H 2414/12	240	430	1380	860	445	3.6	132354015
H 2612/12	260	375	1210	750	390	3.3	132354016
H 2613/12	260	400	1285	800	415	3.5	132354018
H 2614/12	260	430	1380	860	445	3.7	132354019
H 2814/12	280	430	1380	860	445	3.9	132354020

Tandem axle mudguard
With beading, zinc galvanised sheet steel.



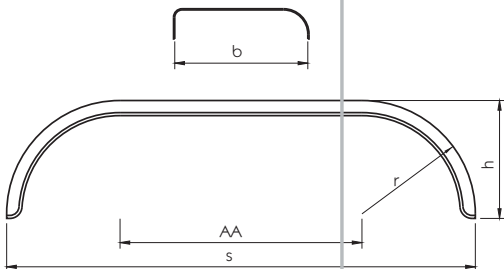
Designation	Dim. b [mm]	Dim. r [mm]	Length [mm]	Axle centres AA [mm]	Dim. s [mm]	Dim. h [mm]	Weight [kg]	
D 2220	220	375	2040	800	1550	410	4.8	110352042
D 2420	240	400	1980	700	1500	410	5.1	110352043
D 2620	260	400	1980	700	1500	410	5.4	110352044

Tandem axle mudguard
With beading, arched, zinc galvanised sheet steel.



Designation	Dim. b [mm]	Dim. r [mm]	Length [mm]	Axle centres AA [mm]	Dim. s [mm]	Dim. h [mm]	Weight [kg]	
D 2420/12W	240	400	1980	700	1500	435	5.3	110352049
D 2620/12W	260	400	1980	700	1500	435	5.6	110352051

Tandem axle mudguard
With fixing holes, zinc galvanised sheet steel.

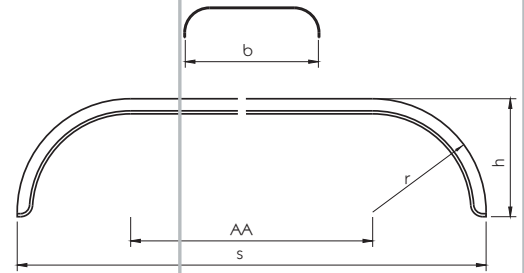


Designation	Dim. b [mm]	Dim. r [mm]	Length [mm]	Axle centres AA [mm]	Dim. s [mm]	Dim. h [mm]	Weight [kg]	
D 2218/12	220	375	1820	640	1390	375	4.4	132354045
D 2220/12	220	375	2040	800	1550	375	4.9	132354239
D 2420/12	240	400	2000	700	1500	410	5.1	132354240
D 2620/12	260	400	2000	700	1500	410	5.4	132354241

For one mudguard, the article number must be ordered 2 x.

Tandem and tri-axle mudguards (2 part)
With beading, zinc galvanised sheet steel.

Designation	Dim. b [mm]	Dim. r [mm]	o/a Length [mm]	Axle centres AA [mm]	Dim. s [mm]	Dim. h [mm]	Weight [kg]	
D 6050	600	650	5000	2800	4100	730	27.6	110352093
D 6550	650	650	5000	2800	4100	730	29.6	110352098

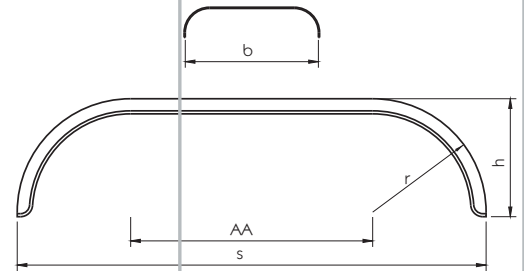


No longer available

Tandem and tri-axle mudguards
From three sections, welded together, with beading, zinc galvanised sheet steel.

Designation	Dim. b [mm]	Dim. r [mm]	Axle centres AA [mm]	Dim. s [mm]	Length [mm]	Dim. h [mm]	Weight [kg]	
DK 40.3040.40 gs (D 4040 zsg)	400	700	1640	3040	4000	780	16.0	110352194
DK 40.4240.52 gs* (D 4052 zsg*)	400	700	2840	4240	5200	780	20.8	110352195
DK 45.4010.50 gs* (D 4550 zsg*)	450	740	2530	4010	5000	815	22.1	110352200
DK 65.2700.36 gs (D 6536 zsg)	650	650	1400	2700	3600	730	21.6	110352213
DK 65.3100.40 gs (D 6540 zsg)	650	650	1800	3100	4000	730	24.0	111352215

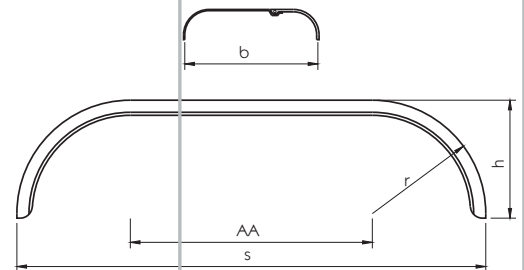
*Special production: subject to additional tooling costs.



No longer available

Tandem and tri-axle mudguards
With interchangeable rubber rim, zinc galvanised sheet steel.

Designation	Dim. b [mm]	Dim. r [mm]	Length [mm]	Dim. s [mm]	Axle centres AA [mm]	Dim. h [mm]	Weight [kg]	
GDK 40.3700.47/100 (GD 4047/115)	400	700	4660	3700	2300	780	24.5	110361112
GDK 65.2700.36/100 (GD 6536/115)	650	650	3600	2700	1400	730	32.8	110361077



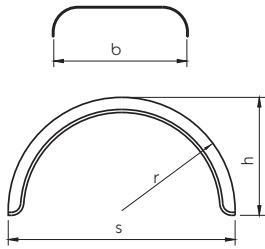
No longer available

Spare parts
For mudguards with rubber rim.

Included in the supply are:
1 rubber rim with stiffening wire,
2 wire holders (right and left),
2 nuts.

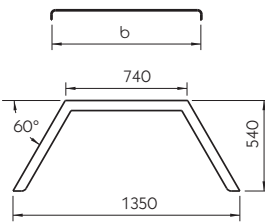
Rubber rim G 2110/100
Width 100 mm, length 2110 mm.
110361047

Aluminium mudguards



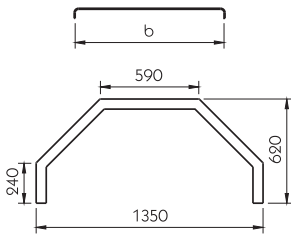
Rear wheel mudguard
Checker plate, one side welded
edge guard.

Designation	Dim. b [mm]	Dim. r [mm]	Length [mm]	Dim. s [mm]	Dim. h [mm]	Weight [kg]	
H 6522 ALQ	655	650	2170	1280	720	11.6	110353029



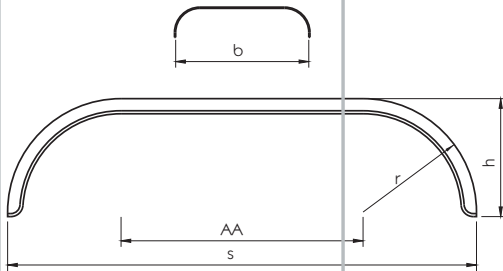
PWP rear wheel mudguard
Checker plate.

Designation	Dim. b [mm]	Weight [kg]	
135.45	450	9.6	105353001
135.64	640	13.0	105353003



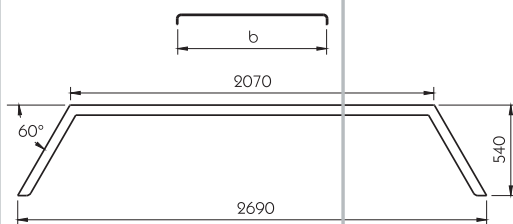
PWP rear wheel mudguard
Checker plate.

Designation	Dim. b [mm]	Weight [kg]	
135.45	450	10.3	105353008
135.56	560	12.4	105353009
135.60	600	13.2	105353010
135.64	640	14.2	105353011



Tandem and tri-axle
mudguard
With 3 sided edge guard, checker
plate.

Designation	axle	Dim. b [mm]	Dim. r [mm]	Length [mm]	Axle centres AA [mm]	Dim. s [mm]	Dim. h [mm]	Weight [kg]	
D 4649 ALQ	3	460	650	4900	1400	4100	680	--	110353030
D 6536 ALQ	2	650	650	3550	1450	2750	680	19.4	110353023



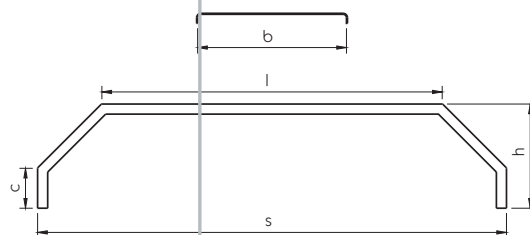
PWP tandem axle
mudguards
Checker plate.

Designation	Dim. b [mm]	Weight [kg]	
269.56	560	20.5	105353004
269.60	600	21.2	105353005
269.64	640	22.0	105353006

No longer available

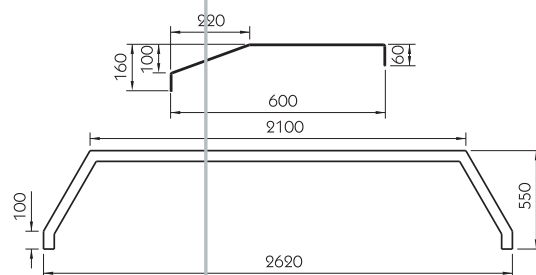
PWP tandem axle mudguards
Checker plate.

Designation	Dim. s [mm]	Dim. b [mm]	Dim. h [mm]	Dim. c [mm]	Dim. l [mm]	Weight [kg]	
265.60	2650	600	590	170	1810	21.2	105353013
265.64	2650	640	590	170	1810	22.0	105353014
273.60	2730	600	650	250	1930	22.0	105353015
273.64	2730	640	650	250	1930	23.0	105353016

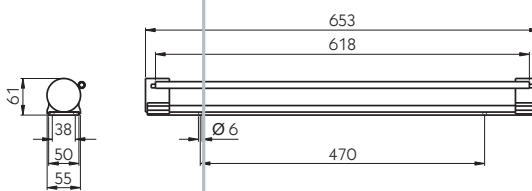


PWP tandem axle mudguards
Checker plate.

Description	Weight [kg]	
262.60	21.2	105353017



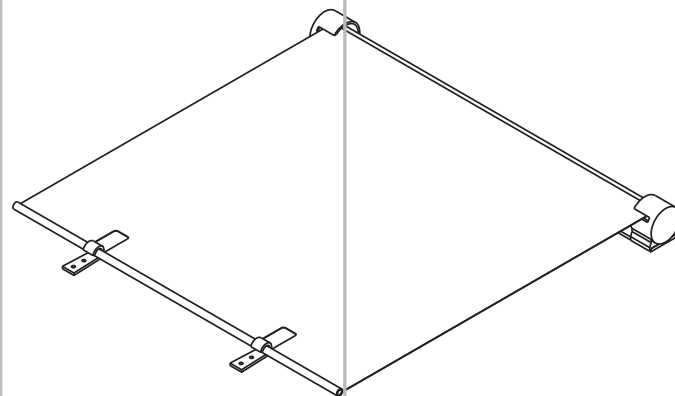
Accessories
For mudguards.



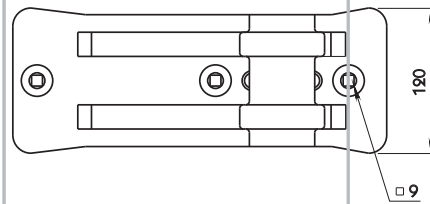
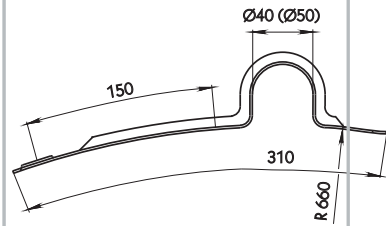
The roller blind mudguard is always mounted at the front in the direction of travel.

Roller-blind mudguard
With 2 plastic holders and aluminium fixing rail, extends approx. 1200 mm, weight 1.53 kg.

215381084



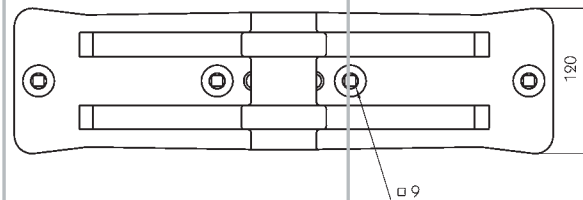
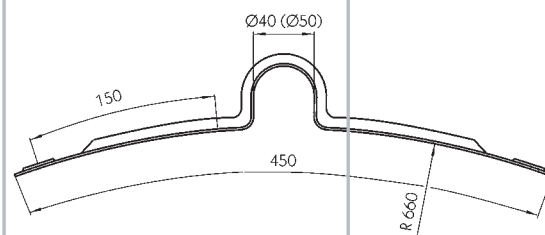
Mudguard bracketries



Mudguard mounting bracketries Type 400

For tube stay Ø40 mm. Please order all parts separately.

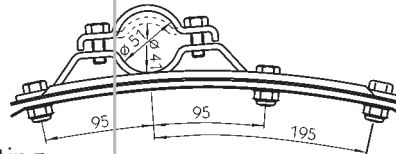
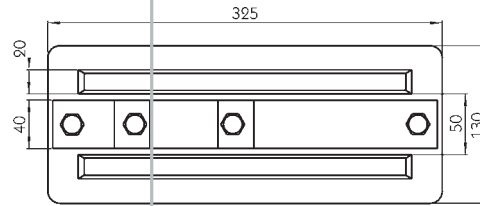
Description	Finish	Dim. a [mm]	Weight [kg]	
Mounting bracket, long type	zinc plated	450	0.82	125381120
Mounting bracket, long type	KTL	450	0.82	125382120
Mounting bracket, short type	zinc plated	310	0.63	125381121
Loose backing plate for above (fits both brackets)				125381070
Clamp, completely zinc plated (including 2 zinc plated nuts M10 and fixing lug)				125381077



Mudguard mounting bracketries type 500

For tube stay Ø50 mm. Please order all parts separately.

Description				
Mounting bracket, long type, 660 mm radius, bare approx. 115 mm wide, 450 mm long				125381122
Mounting bracket, short type, 660 mm radius, bare approx. 115 mm wide, 310 mm long				125381123
Loose backing plate for above (fits both brackets)				125381070
Clamp, completely zinc plated (including 2 zinc plated nuts M10 and fixing lug)				125381124



Mudguard mounting bracketries

For tube stay $\varnothing 40$ mm. Please order all parts separately.

Description

Backing plate with turn-up edges, zinc plated, type A, 100 x 330 mm	125381078
Ribbed base plate (bracket) 660 mm radius, zinc plated, type A, 130 x 325 mm	125381079
Backing plate with turn-up edges, zinc plated, type B, 90 x 440 mm	125381099
Ribbed base plate (bracket) 660 mm radius, zinc plated, type B, 130 x 410 mm, 4-step adjustable	125381100
Threaded saddle, zinc plated	125381080
Tube clamp, zinc plated	125381082
1 set steel screws (5 screws, 3 nylock nuts) M 10 x 25 mm, zinc plated	125381083

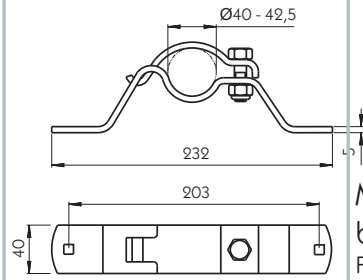
Mudguard mounting bracketries

For tube stay $\varnothing 51$ mm. Please order all parts separately.

Description

Backing plate with turn-up edges, zinc plated, type A, 100 x 330 mm	125381078
Ribbed base plate (bracket) 660 mm radius, zinc plated, type A, 130 x 325 mm	125381079
Backing plate with turn-up edges, zinc plated, type B, 90 x 440 mm	125381099
Ribbed base plate (bracket) 660 mm radius, zinc plated, type B, 130 x 410 mm, 4-step adjustable	125381100
Threaded saddle, zinc plated	125381080
Tube clamp, zinc plated	125381081
1 set steel screws (5 screws, 3 nylock nuts) M 10 x 25 mm, zinc plated	125381083





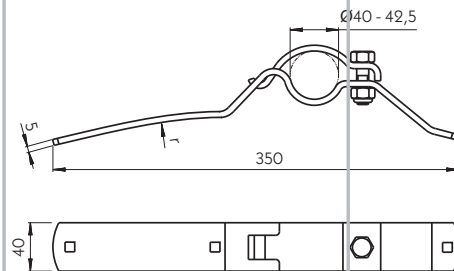
Mudguard mounting bracketries

For tube stays $\varnothing 40 - 42.5$ mm, zinc galvanised.

Designation	For mudguard radius [mm]	Weight [kg]
KSR straight	--	0.61
KS-R500	500	0.61

275381281

275381283



Mudguard mounting bracketries

For tube stays $\varnothing 40 - 42.5$ mm and $\varnothing 52$ mm, zinc galvanised.

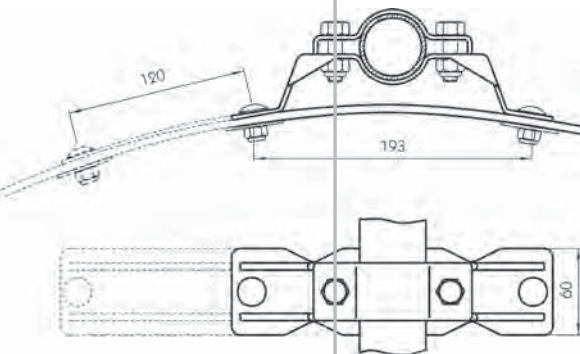
Designation	For mudguard radius [mm]	For tube stay \varnothing [mm]	Weight [kg]
KS-R500	500	40 - 42.5	0.80
KS-R600	600	40 - 42.5	0.83
KS-R650	650	40 - 42.5	0.80
KS-R650	650	52	0.83

275381282

275381284

275381285

275381286



Mudguard mounting bracketries

Consisting of mounting bracket ① and clamp ②. Please order all parts separately.

Brackets

Zinc plated.

Type	Installed length [mm]	Suitable for tube outside \varnothing [mm]	Suitable for mudguard radii from - to [mm]	Weight [kg]
Long	340	40.0/42.4 + 50/51	600-700	0.45
Long	340	40.0/42.4 + 50/51	500-600	0.45
Short	220	40.0/42.4 + 50/51	600-700	0.31
Short	220	40.0/42.4 + 50/51	500-600	0.31

125381105

125381106

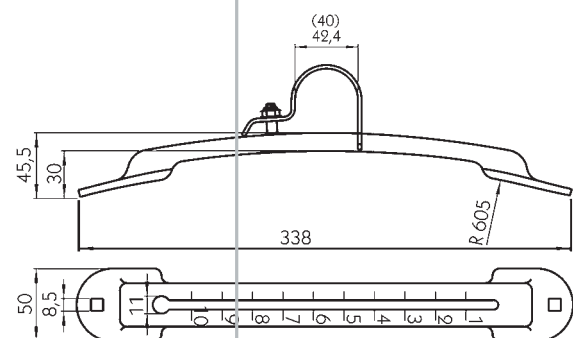
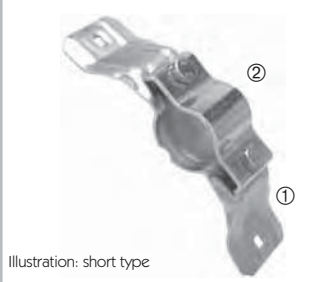
125381107

125381108



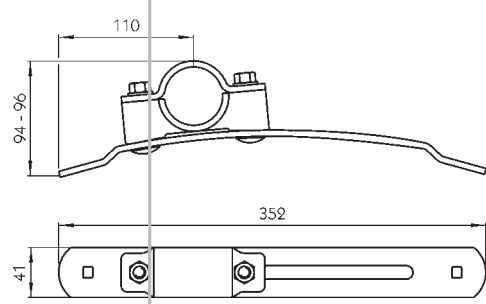
Illustration: long type

Type	Clamp Zinc plated.	Weight [kg]	
For tube stay with 40/42.4 outside diameter		0.175	125381082
For tube stay with 50/51 outside diameter		0.200	125381081



Mudguard bracketries VR
Stepless adjustable, consisting of top and bottom parts.

Designation	Installed length [mm]	Adjustment range [mm]	Suitable for tube outside Ø [mm]	Suitable for mudguard radii from - to [mm]	Weight [kg]	
VR 40,0	340	150	40.0	500-700	0.5	110381118
VR 42,4	340	150	42.4	500-700	0.5	110381119



Mounting brackets
For tube stays Ø50 mm, height adjustable by approx. 140 mm. Bracket mounting plate zinc plated, tube clamp black KTL coated /plastic, weight 0.84 kg.
275381251

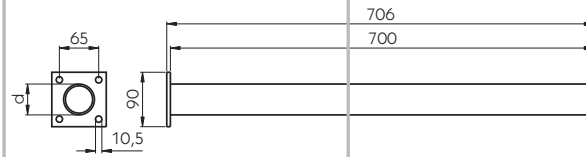
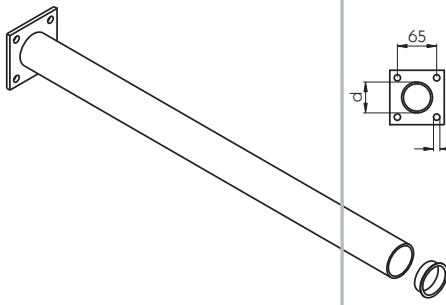
No longer available

Mudguard bracket clamps

Type		Weight [kg]	
For tube stays with Ø 42 mm, plastic clamping rail		0.29	274381253
For tube stays with Ø 52 mm, steel clamping rail		0.46	274381288



Tube stays



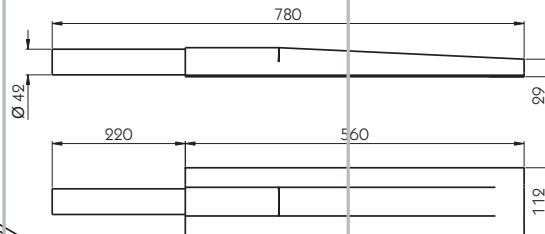
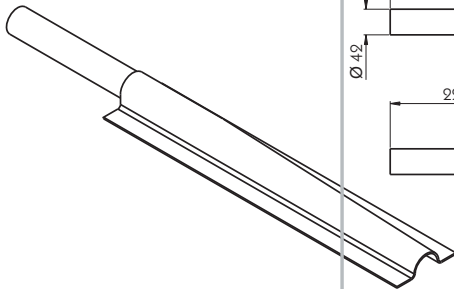
Straight tube stay

With screw-on mounting plate, please order plastic end cap separately, primer.

Nominal size (Dim. d)
[mm]

Weight

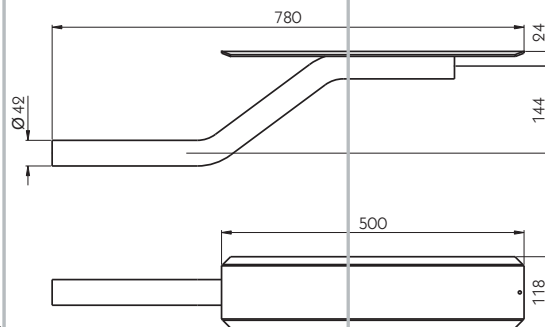
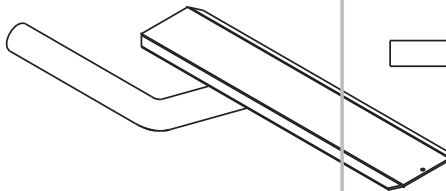
40	2.18 kg	125381072
Plastic end cap for 40 mm tube stay	3 g	125381073
51	2.89 kg	125381045
Plastic end cap for 51 mm tube stay	3 g	125381048



PWP straight tube stay

Zinc galvanised, weight 2.75 kg.

[105381246](#)

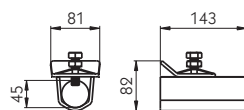
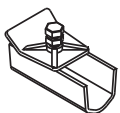


PWP middle tube stay for

2 and 3 axle mudguards

Zinc galvanised, weight 3.66 kg.

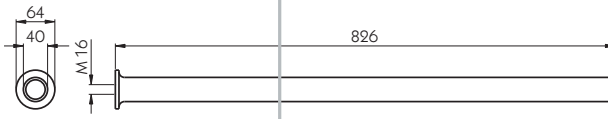
[105381248](#)



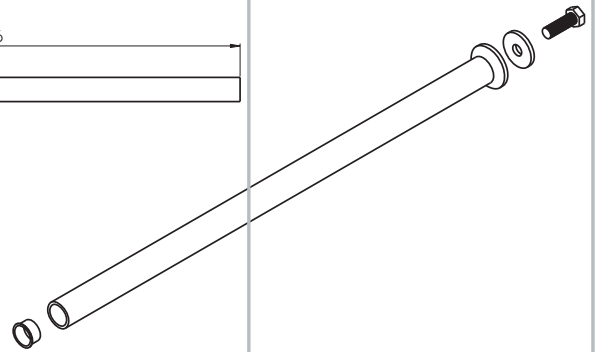
PWP bracketing for tube stay

Self colour, weight 1.16 kg.

[105381247](#)

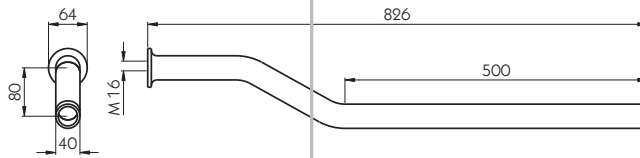


Straight tube stay
Including fitting kit and plastic end cap, weight 3.53 kg.

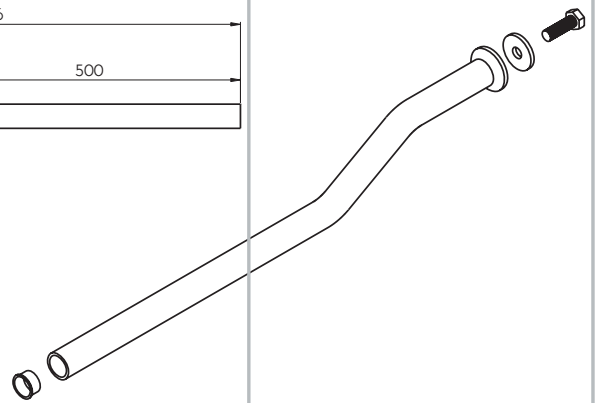


Finish

Primer 125381256
Zinc plated 125381257




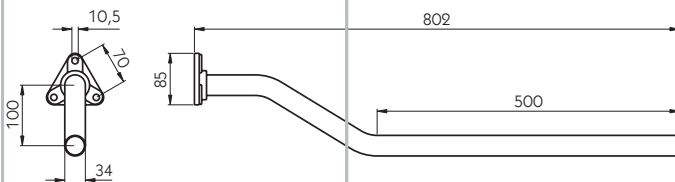
Offset tube stays
Including fitting kit and plastic end cap, weight 3.50 kg.



Finish

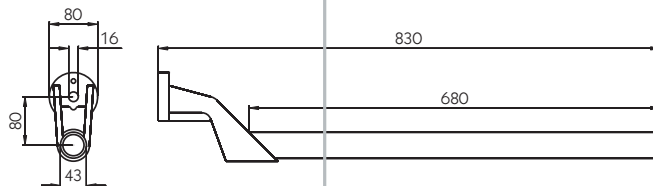
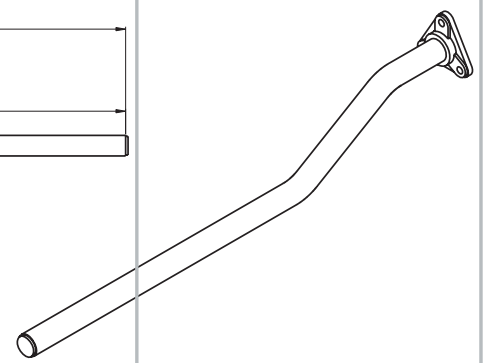
Primer 125381254
Zinc plated 125381255

 Mudguard tube stays mounted on the truck chassis are subject to a high level of vibration which can lead to cracking in the tube. Despite this, tube stays in excess of 700 mm in length are requested by finishing contractors. The manufacturer of the tube stays 125381254 to 57 accepts no liability for any damage resulting from mounting of these tube stays where they are not shortened to a maximum of 700 mm.

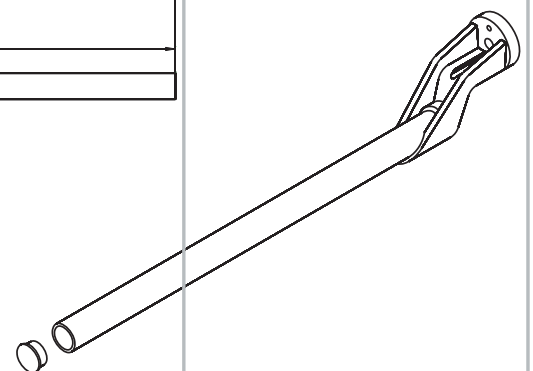


Offset tube stay
With plastic end cap, powder coated, weight 2.37 kg.
275381252

No longer available



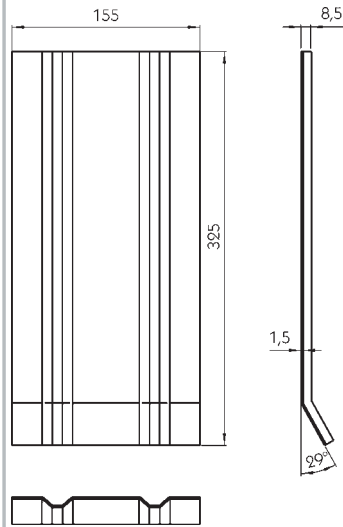
Offset tube stay
Please order plastic end cap separately, zinc plated, weight 4.43 kg.



Type

Mudguard tube stay 275381324
Plastic end cap, weight 5g 275381280

Support plates

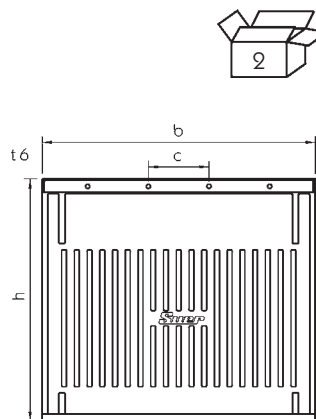


Mudguard support plate
1.5 mm, zinc galvanised.

Designation	Width [mm]	Length [mm]	Thickness [mm]	Suitable for mudguard width [mm]	Weight [kg]	
St 1629 S	155	290	1.5	220 - 300	0.6	110381004
St 2229 S	215	290	1.5	300 - 400	0.9	110381005
St 3334 S	330	340	1.5	400 - 500	1.5	110381006
St 4044 S	400	440	1.5	500 - 600	2.2	110381007
St 4049 S	400	490	1.5	500 - 650	2.6	110381008

No longer available

Mud flaps



Mud flap

With stiffener band and fixing materials. Hardness shore A 80 ± 5. Black PVC.

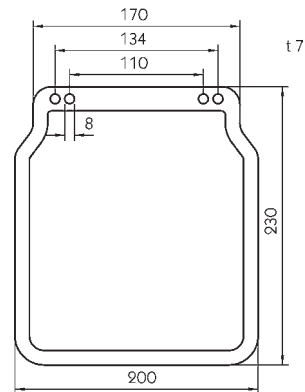
Dim. b [mm]	Dim. h [mm]	Dim. c [mm]	Weight [kg/each]	
260	260	100	0.47	350381260
300	300	110	0.71	350381261
350	300	100	0.82	350381262
400	300	110	0.93	350381263
400	400	110	1.26	350381264
450	300	100	1.09	350381265
450	400	100	1.36	350381266
500	300	100	1.25	350381267
500	400	110	1.60	350381268
550	300	100	1.40	350381269
550	400	100	1.59	350381270
550	500	110	1.98	350381271
600	300	110	1.45	350381272
600	400	110	1.82	350381273
600	500	110	2.12	350381274
650	300	100	1.61	350381275
650	400	100	1.94	350381276
700	400	110	2.13	350381277

Mud flap

Minimum order quantity for embossed mud flaps is 50 pcs., weight 0.31 kg.

Type

Neutral	350381194
Embossed/logo	350381195



Truck rear apron

PVC, with traffic symbols, weight 5.36 kg.

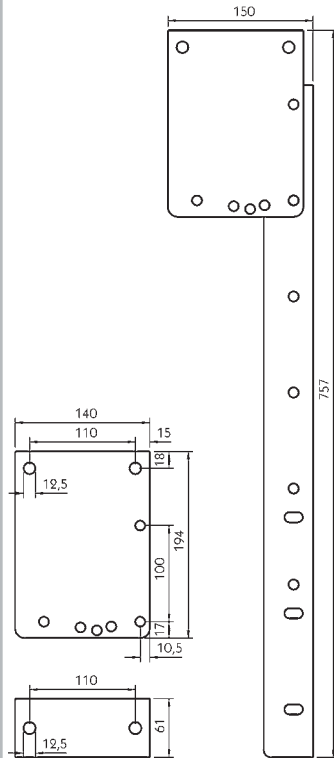
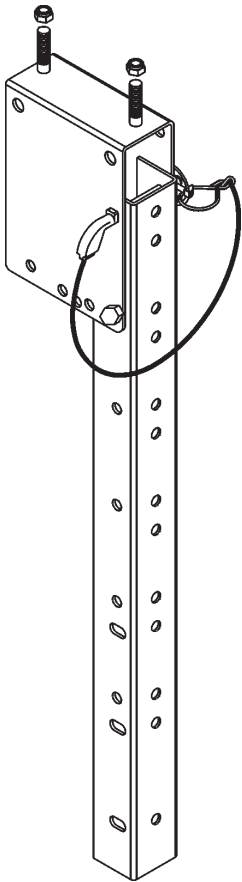
Type

Type	Large [mm]	Part Number
2 part, with fixing materials	2400 x 380	350381196
1 part, for underrun protection, aluminium (380563040)	2360 x 380	350381278



Illustration:
Rear apron 350381278 mounted on aluminium underrun guard with lighting equipment.

Side collision protection



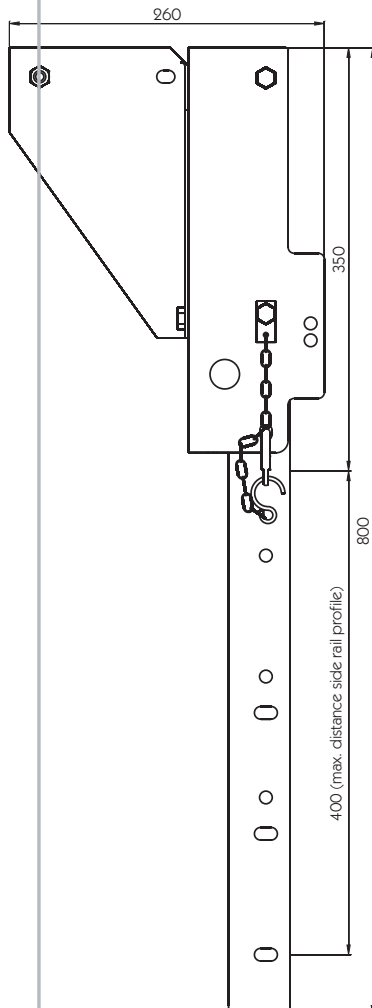
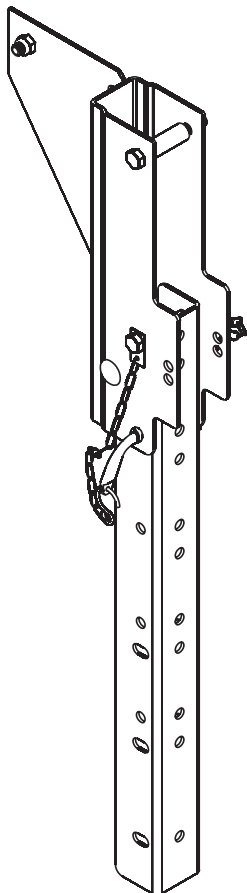
Holder
Side collision protection
Zinc plated, weight 3.96 kg.
380561386

On this holder, the pre-assembled U-section carrier bracket, onto which the side rail profiles are screwed, can be swung up by approx. 90°, 120°, 135° and 150°.

The system is fastened to the underside of the vehicle floor or onto (or to the underside of) a body crossmember.

A holder consists of:

1 x swing adapter, 1 x U-section carrier bracket 700 mm, 1 x bent arm pin 9 x 80, 1 x linchpin 4.5 mm, 1 x hex. head screw DIN 931 M10 x 80, 2 x hex. head screws DIN 931 M12 x 45, 1 x hex. nut DIN 985 M 10-8, 2 x hex. nuts DIN 985 M 12-8 and 1 PVC covered cable DIN 3055-2.0, length 500 mm.



Side collision protection
carrier set
Carrier is pre-assembled as far as possible (gusset plate loose), black KTL coated, weight 5.04 kg.
380561387

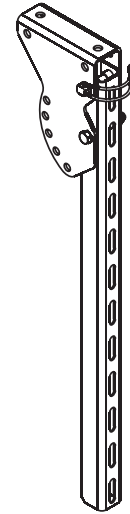
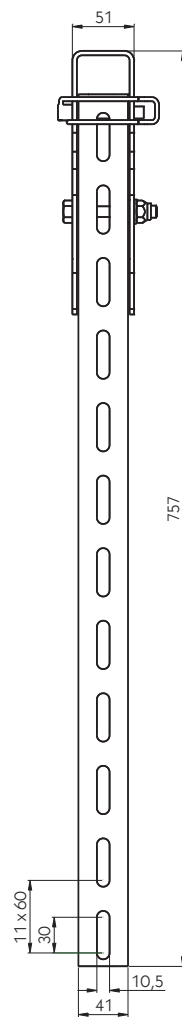
Each carrier set consists of 2 left hand and 2 right hand carriers with 600 mm high carrier U-profiles.

The carrier U-profile onto which the side profile rails are screwed is mounted on the swing adapter and can be swung approx. 150°. An extra rattle lock prevents unnecessary noise when travelling. The angle gusset plate is screwed or welded to the body crossmember.

Hinged carrier

Carrier for side collision protection with 712 mm high mounting profile. Mounting profile can be swung up and secured by a tube linchpin at approx. 75° + 4 x approx. 20°. All parts zinc plated, weight 2.89 kg.

380561446



Individual parts overview Side collision protection

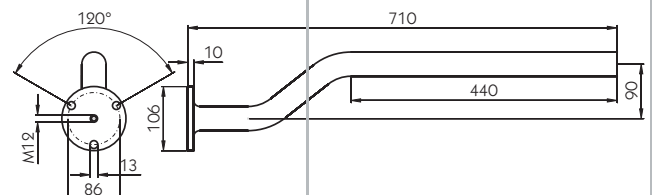
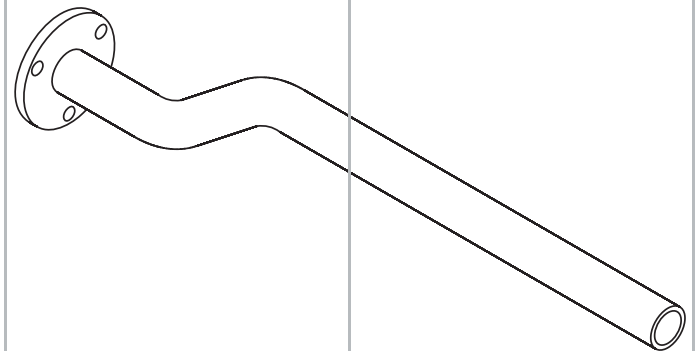
This carrier tube replaces the previous article number **380561186**. In contrast to the previous variant, the offset is 60 mm to the flange. This now also enables mudguards with integrated fixing brackets to be quickly and simply mounted on chassis with frame widths from approx. 900 mm (MB Atego 12.xxx).

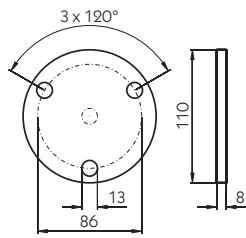
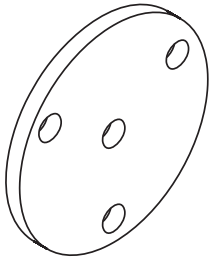
The carrier tube with flange is screwed to the vehicle chassis leg. It is imperative to fit the 4-hole backing plate **380561233** to the reverse side.

Alternatively it can be welded to the flange with a continuous weld seam of at least 4 x 50 mm.

Carrier tube with flange
Ø 40 x 4.5 mm, zinc plated,
weight 3.64 kg.

125381328

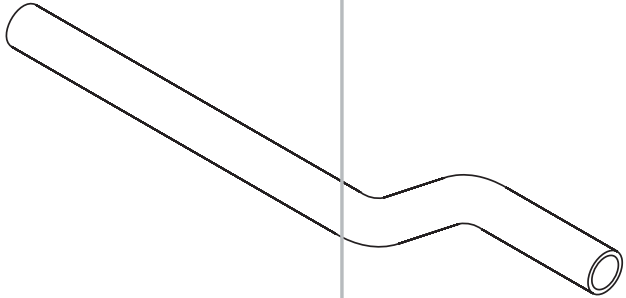




4-hole backing plate

For carrier tube with flange, zinc plated, weight 0.57 kg.

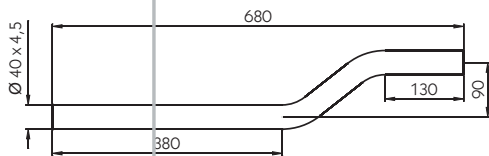
380561233



Carrier tube without flange

Ø 40 x 4.5 mm, zinc plated, weight 2.50 kg.

380561241



Further bracket/adapters can be pushed onto the carrier tube from both sides, which is also why the tube can be fitted when turned through an angle of 180°.

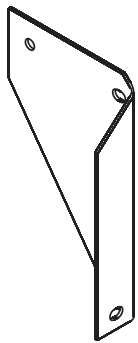
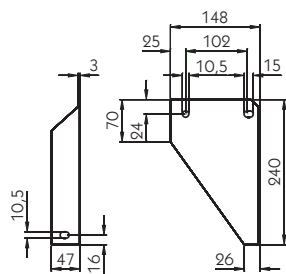


Illustration: left hand



Angle gusset plate

Zinc plated, weight 0.91 kg.

Type

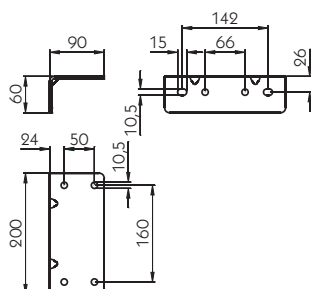
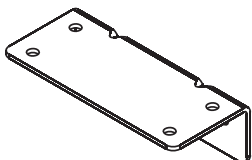
Left

380561178

Right

380561179

As an alternative to screwing, the angle gusset plate, when mounted directly on a crossmember, can be welded with an intermittent weld seam at least 4 x 25 mm.

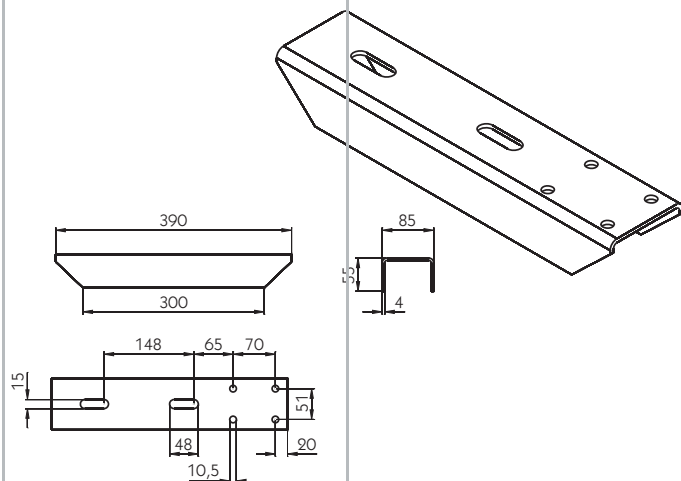


Screwed angle bracket

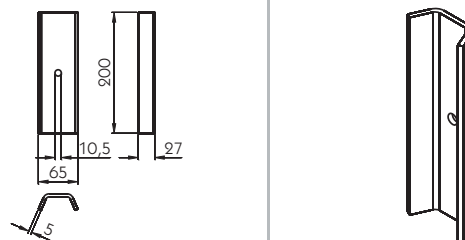
Zinc plated, weight 0.87 kg.

380561237

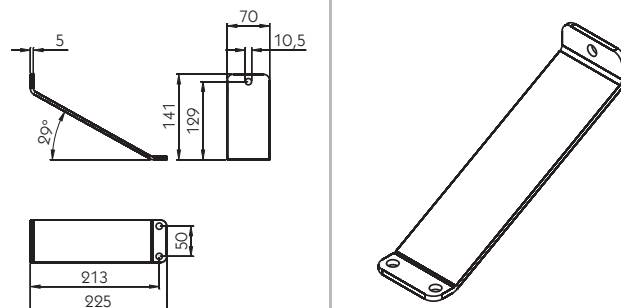
U-section arm 390 mm
Zinc plated, weight 2.06 kg.
380561238



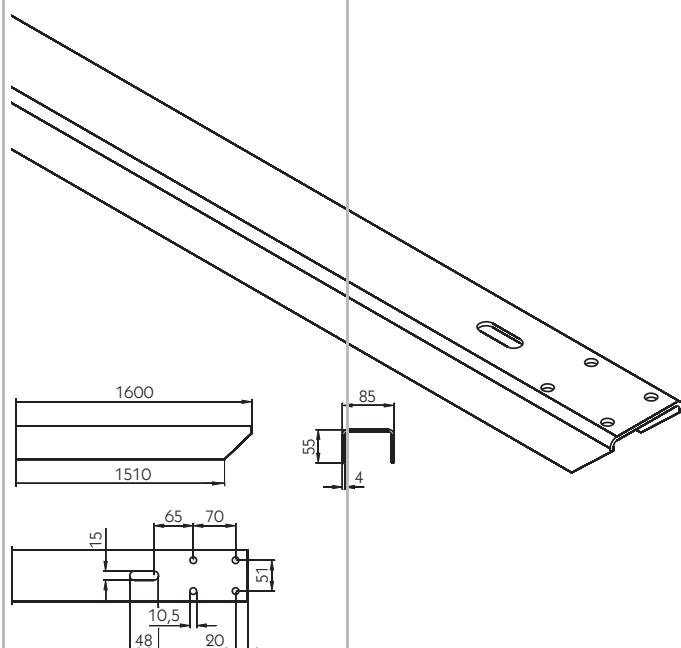
Reinforcing channel
Zinc plated, weight 0.84 kg.
380561287

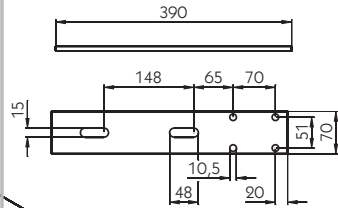
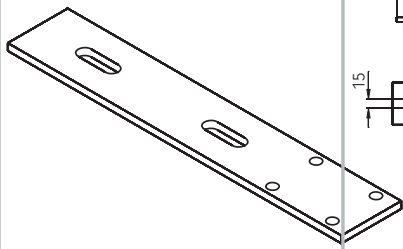


Flat stay
Zinc plated, weight 0.60 kg.
380561288

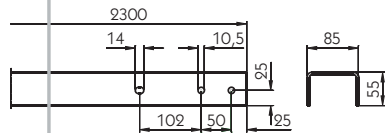
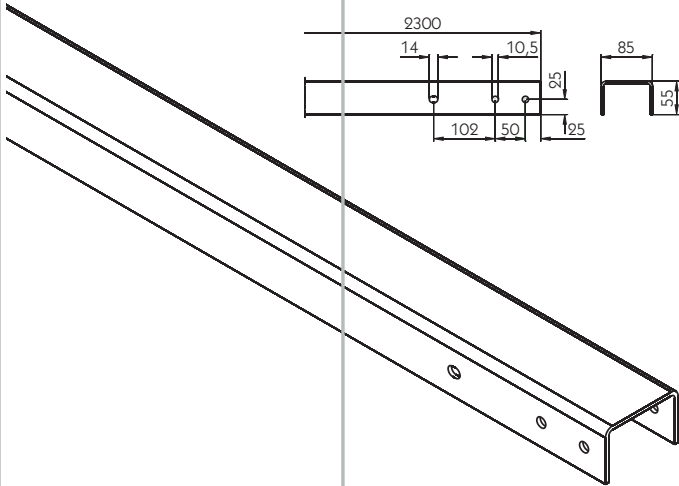


U-section arm 1600 mm
Zinc plated, weight 9.05 kg.
380561244

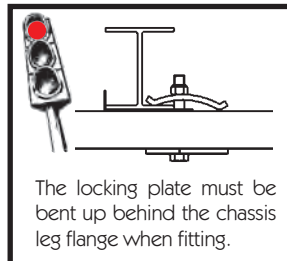
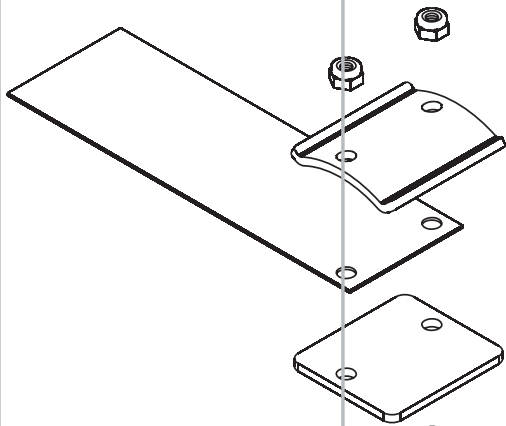




Reinforcing plate
Zinc plated, weight 1.56 kg.
380561240

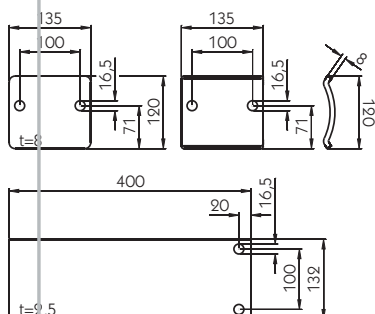


U-section arm 2300 mm
Zinc plated, weight 13.00 kg.
380561242



The locking plate must be bent up behind the chassis leg flange when fitting.

Clamping system for U-section arm
Zinc plated, weight 3.35 kg.
380561376

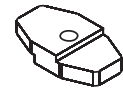
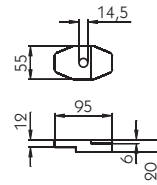


This clamping system offers the following advantages:

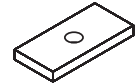
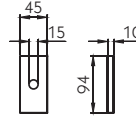
1. Flexible application on all chassis leg spacings with stepless adjustability.
2. No additional drilling work.

Included in the supply are:
1 x bottom clamping plate, 1 x top clamping plate, 1 x locking plate, 2 x hex. head screws DIN 931 M16 x 110 and 2 x hex. nuts DIN 985 M16.

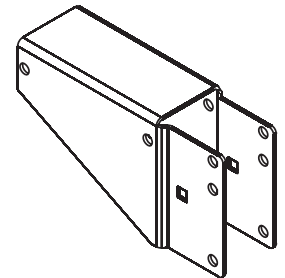
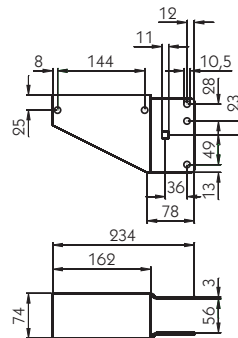
Clamping plate
Double sided, 5-8 mm/8-12 mm,
zinc plated, weight 0.57 kg.
380561239



Reinforcing plate
Zinc plated, weight 0.57 kg.
380561243

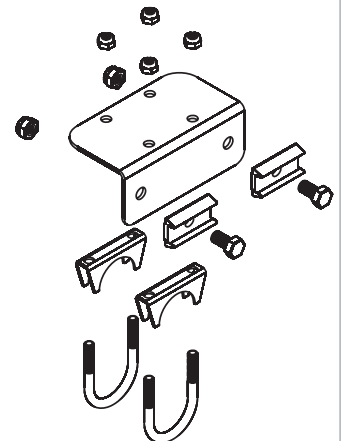
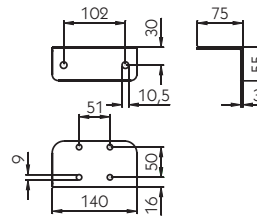


Swing adapter 4000
Zinc plated, weight 1.43 kg.
380561284

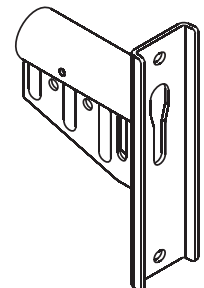
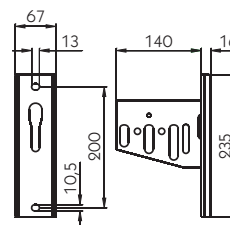


Included in the supply are:
1 x angle bracket, 2 x tube clamps
M8, 1 5/8"-42 mm, 4 x hex.nuts
DIN 985 M8, and for fitting a
max. of 2 aluminium side rails; 2
clamps, 2 hex. head screws DIN
933 M10 x 20 and 2 hex. nuts DIN
985 M 10-8.

Clamping bracket
Zinc plated, weight 0.59 kg.
380561388

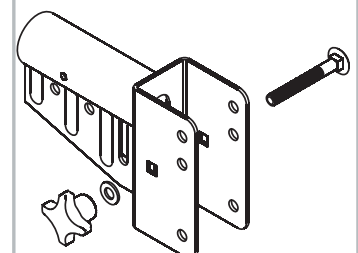
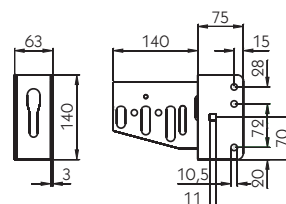


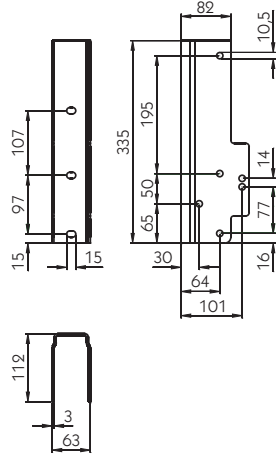
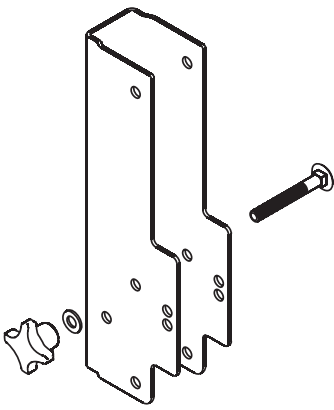
Tube clamping bracket
Zinc plated, weight 1.30 kg.
380561187



The anti-rattle device (as the
name suggests) prevents the col-
lision protection from rattling on
bad road surfaces. It consists of a
star knob to DIN 6335 with fema-
le thread M10, a carriage bolt to
DIN 603 - M 10 x 80 and a spring
washer to DIN 137-A10.

Swing adapter 3902
With anti-rattle device, zinc
plated, weight 1.40 kg.
380561285



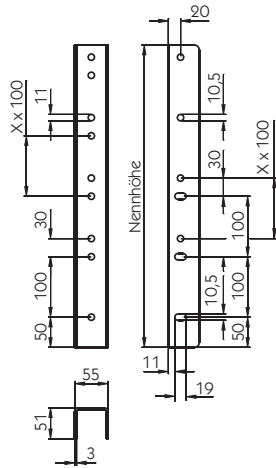
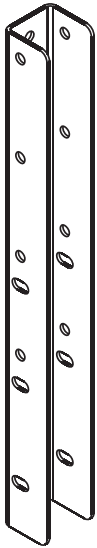


Swing adapter 3901

With rattle lock, zinc plated, weight 1.91 kg.

380561228

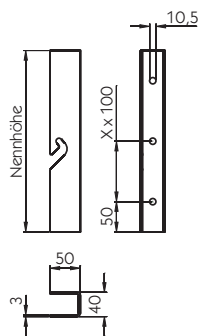
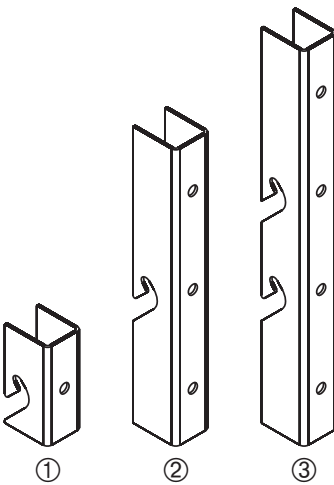
On the swing adapter 3901, the anti-rattle device consists of a star knob to DIN 6335 with female thread M10, a carriage bolt to DIN 603 - M 10 x 80 and a spring washer to DIN 137-A10.



U-section carrier bracket

Zinc plated.

Height [mm]	Weight [kg]	
300	0.93	380561283
500	1.59	380561183
700	2.25	380561182
800	2.54	380561181
1000	3.24	380561180



Bearer bracket

Zinc plated.

Height [mm]	No. of spars [rows]	Type	Weight [kg]	
100	1	①	0.24	380561224
300	1-2	②	0.75	380561185
400	2	③	0.99	380561282
500	2	②	1.24	380561184
500	2	③	1.23	380561271
700	3	②	1.77	380561270

The second mounting notch in the type ③ bearer bracket allows the side collision protection planks to be moved up by 100 mm. This option is recommended for vehicles for railway shipment.

Length [mm]	Weight [kg]
44	0.030
48	0.033
57	0.039

Spacer tube
 \varnothing 16 x 2 mm, zinc plated.

380562232
 380561232
 380562432

Star knob
 DIN 6335, female thread M10,
 plastic, weight 0.04 kg.
380561253

The fitting kit I consists of:
 4 x spacing tube \varnothing 16 x 2 x 48
 mm, 8 x hex. head screws DIN
 933 M10 x 20, 4 x hex.head
 screws DIN 931 M10 x 80 and 12
 x hex. nuts DIN 985 M10-8.

Fitting kit I
 For fastening the angle gusset
 plate, all parts zinc plated, weight
 complete 0.66 kg.
380561217

The fitting kit II consists of:
 4 x star knobs DIN 6335 with
 female thread M10, 4 x eye bolts,
 material V2A DIN 444-A2-50B
 M10 x 40, 4 x spring washers DIN
 137-A 10, 4 x clevis pins DIN EN
 22341-B 10 x 65 x 3.2, 4 x was-
 hers DIN 125-A 10 and 4 x split
 pins DIN 94- 3.2 x 20.

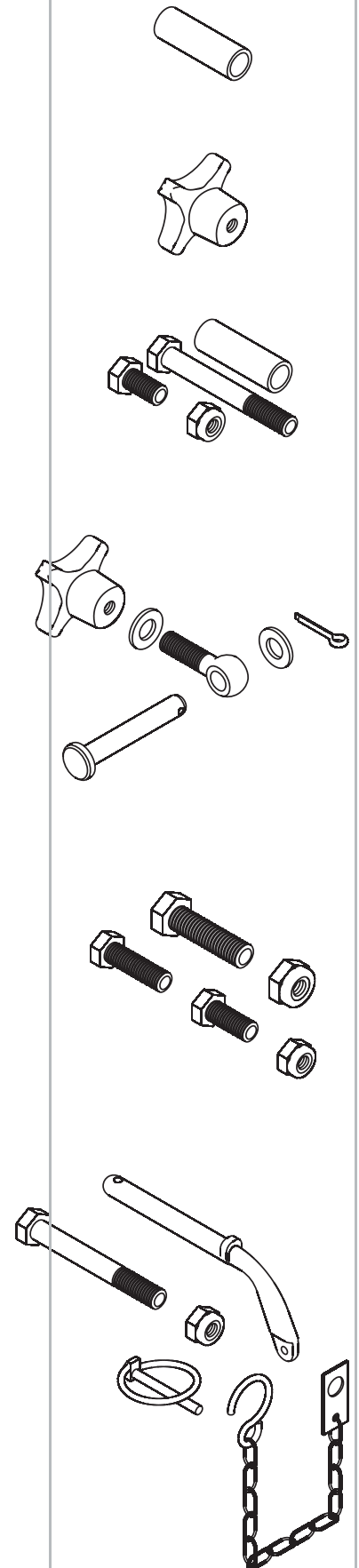
Fitting kit II
 For fastening the carrier bracket,
 all steel parts zinc plated, weight
 complete 0.51 kg.
380561218

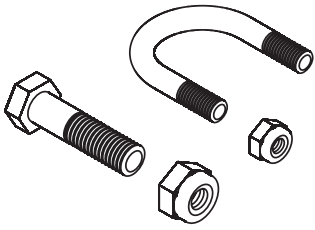
The fitting kit III consists of:
 8 x hex. head screws DIN 933
 M10 x 25, 8 x hex. head screws
 DIN 933 M10 x 35, 16 x hex. head
 screws DIN 931 M12 x 45, 16 x
 hex. nuts DIN 985 M10-8 and 12
 x hex. nuts DIN 985 M12-8.

Fitting kit III
 For fastening the carrier tubes
 with flange, all parts zinc plated,
 weight complete 1.58 kg.
380561219

The fitting kit V consists of:
 4 x linchpins 4.5 mm, 4 x bent arm
 pins 9 x 80, 8 x safety chains with
 fixing plates and S-hooks, length
 approx. 200 mm, 4 x hex. head
 screws DIN 931 M10 x 80 and 4
 x hex. nuts DIN 985 M10-8.

Fitting kit V
 For swing fastening the U-sections,
 all parts zinc plated, weight
 complete 0.76 kg.
380561231





Fitting kit VI

For fastening the carrier tube and clamping plate to the U-section arm, all parts zinc plated, weight complete 1.68 kg.

380561245

Screws, nuts and spring washers

All parts zinc plated.

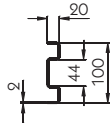
The fitting kit VI consists of:

8 x U-bolts M10, 8 x hex. head screws DIN 931 M14 x 55, 16 x hex. nuts DIN 985 M10-8 and 8 x hex. nuts DIN 985 M14-8.

	DIN	Quantity [per box]	
Hex. head screw M10 x 30	933	200	960970015
Hex. head screw M10 x 80	931	100	960970329
Hex. head screw M14 x 60	931	50	960970352
Hex. head screw M10-8	985	100	964976755
Hex. head screw M14-8	985	100	964976757
Spring washer A 10	127	1000	965987333

Steel side rail profile

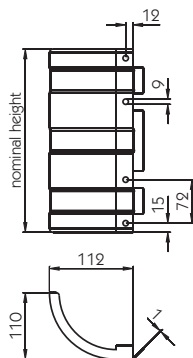
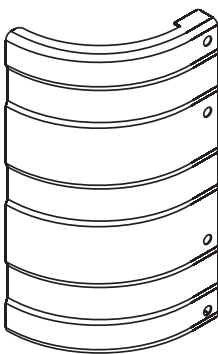
Zinc plated, weight 2.31 kg.



Length [mm]	
1000	380561202
1500	380561203
2000	380561204
2500	380561205
3000	380561206
3500	380561207
3900	380561208
6000	380561209

Capping finisher, front

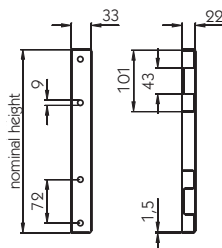
Zinc plated.



Height [mm]	Weight [kg]	
100	0.19	380561210
300	0.49	380561212
400	0.66	380561213
500	0.82	380561214

Capping finisher, rear

Zinc plated.



Height [mm]	Weight [kg]	
100	0.08	380561220
300	0.24	380561221
400	0.32	380561222
500	0.39	380561223

Fitting capping finishers to the rear end is not a legal obligation.

The screw set I consists of:
 4 x button head socket screws to ISO 7380 M10 x 25 and 4 x hex. nuts DIN 985 M10-8.
 One set is required per side rail profile.

Screw set I

For fixing the steel side rails, all parts zinc plated, weight 0.11 kg.

380561249

The screw set II consists of:
 4 x button head socket screws to ISO 7380 M8 x 15 and 4 x hex. nuts DIN 985 M8-8.
 One set is required per side rail profile.

Screw set II

For fixing the steel capping finishers front and rear, all parts zinc plated, weight 0.05 kg.

380561250

The aluminium side rails with the capping finishers are also available as a finished assembly.
 Please ask our aluminium department in Wermelskirchen.

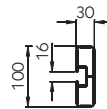


Please note: the mounted aluminium side rail profile **591151** must be labeled with type approval plate **500591167**. The type approval plate (see page 629) has to be riveted on the aluminium side rail profile.

Aluminium side rail profile

Weight 1.549 kg/m.

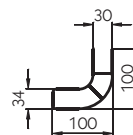
Profile no. **591151**



Capping finisher, front

Weight 1.967 kg/m.

Profile no. **591152**



End cap for side rail profile

Black plastic, weight 0.010 kg.

380561226

End cap for capping finisher

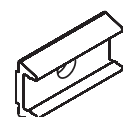
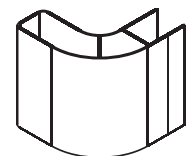
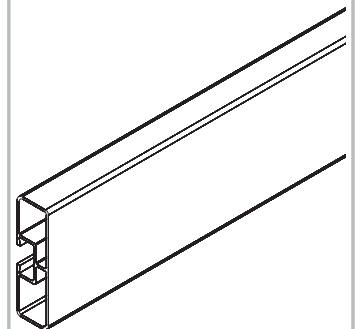
Black plastic, weight 0.016 kg.

380561227

Clamp 50 mm

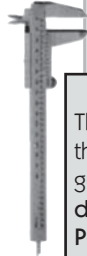
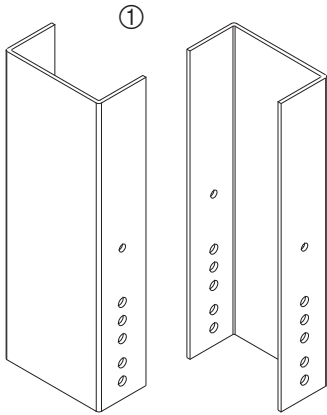
Aluminium self colour, weight 0.02 kg.

500591086



Rear underrun protection

In accordance with par. 32b StVZO (German Road Traffic Law) and directive 70/ 221/ EWG



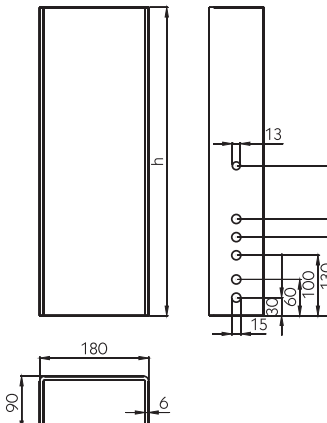
General information on the carrier 2011

The carrier 2011 has certification for use in conjunction with the aluminium underrun guard 2430 and the steel underrun guard (old) 563010. **Please note the mandatory installed dimensions and regulations contained in the certification.** Permissible gross weight unlimited.

Maximum **horizontal distance** from the rearmost edge of the underrun guard to the rear edge of the vehicle is 363 mm.

Maximum **vertical distance** from the bottom edge of the underrun guard to the underside of the chassis is 350 mm.

Chassis frame width between 700 and 1400 mm.

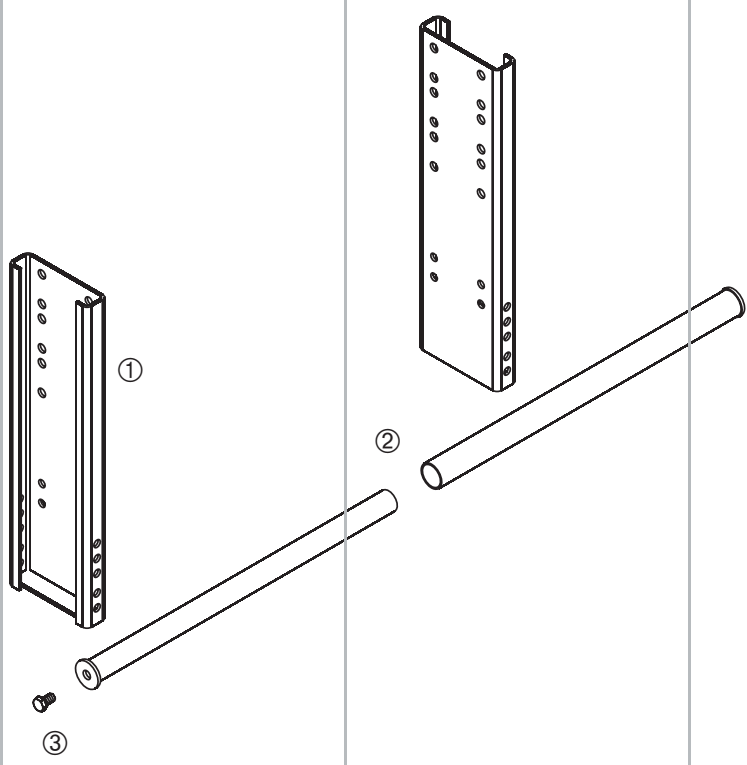


The carrier 2011 can be used for both sides. The hole plan allows the underrun guard panel to be mounted at different heights. The hole plan fits both versions of the steel underrun guard 2340.

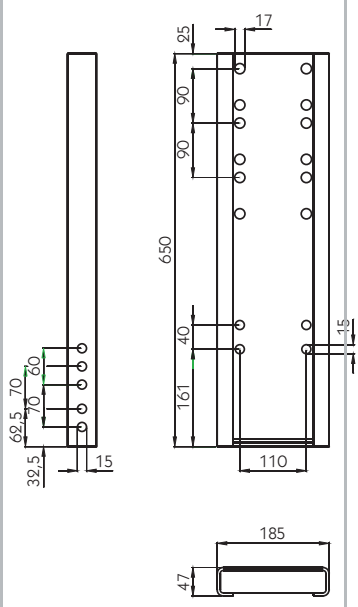
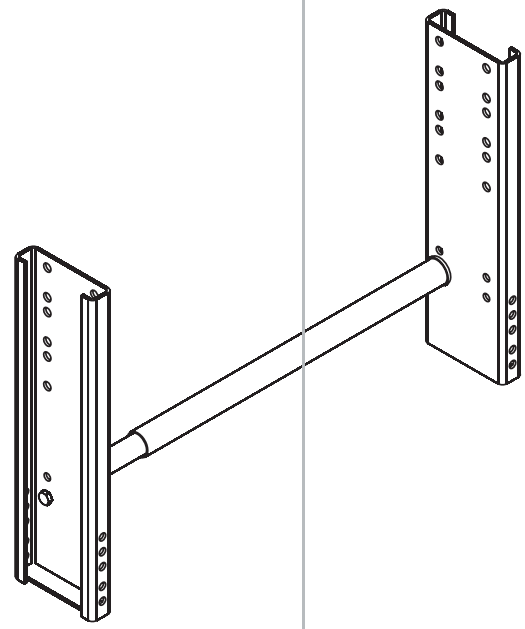
2011

Rigid underrun guard carrier, primer, please order all parts separately.

Item	Quantity required	Weight [kg]	
① Carrier 2011	2	8.50	380561358



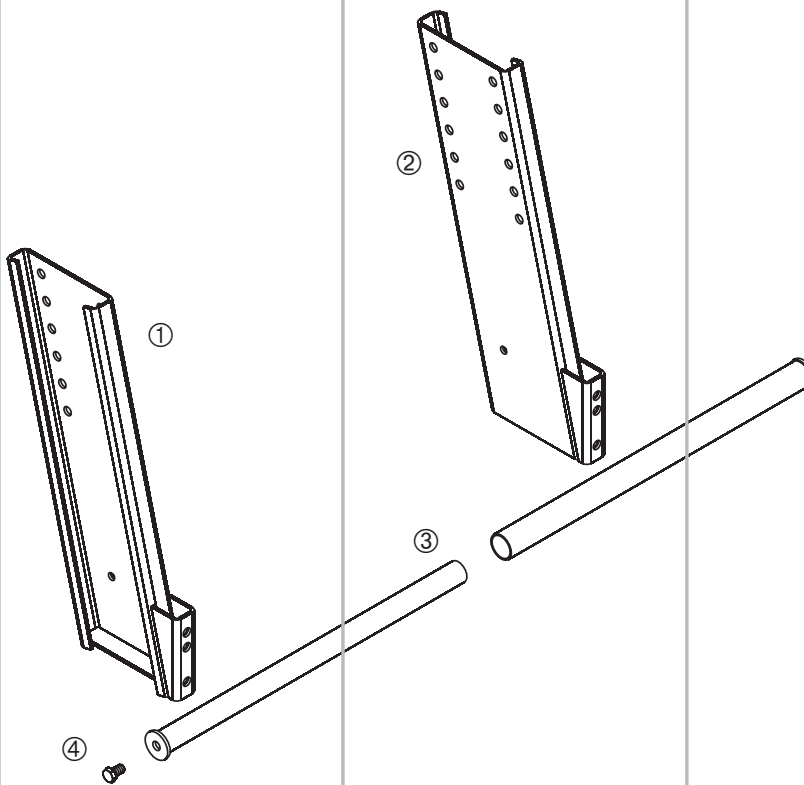
General information on the carrier 1002 GK
 The carrier 1002 GK has certification for use in conjunction with the steel underrun guard 2340 and standard steel underrun guards. **Please note the mandatory installed dimensions and regulations contained in the certification.**
Permissible gross weight unlimited. Over 18000 kg permissible GVW or over 1100 mm chassis frame width necessitates fitting the tube bracings (2, 3).
 Maximum **horizontal distance** from the rearmost edge of the underrun guard to the rear edge of the vehicle is 365 mm.
 Maximum **vertical distance** from the bottom edge of the underrun guard to the underside of the chassis is 445 mm.
Chassis frame width between 770 and 1300 mm.



The carrier 1002 GK can be used for both sides. The hole plan allows the underrun guard panel to be mounted at different heights. The hole plan fits both versions of the steel underrun guard 2340.

1002 GK
 Rigid underrun guard carrier, primer, please order all parts separately.

Item	Quantity required	Weight [kg]	
① Carrier 1002 GK, left = right	2	7.52	380561321
② Tube bracing 1004 RV, consisting of outer tube and inner tube		4.40	380561441
③ Hex. head screw DIN 933 - M 16 x 25 - 8.8 (recommendation)			not available



General information on the carrier 1003 SK

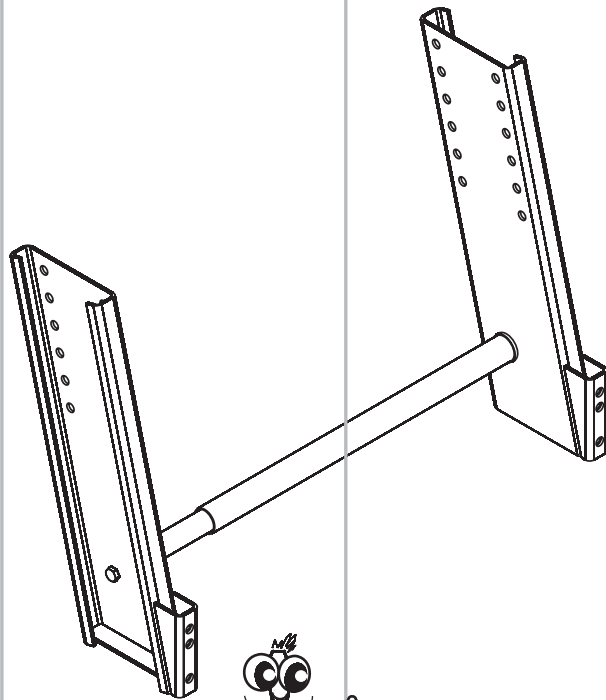
The carrier 1003 SK has certification for use in conjunction with the steel underrun guard 2340 and standard steel underrun guards. **Please note the mandatory installed dimensions and regulations contained in the certification.**

Permissible gross weight unlimited. Over 16000 kg permissible GVW necessitates fitting a tube bracing (3).

Maximum **horizontal distance** from the rearmost edge of the underrun guard to the rear edge of the vehicle is 365 mm.

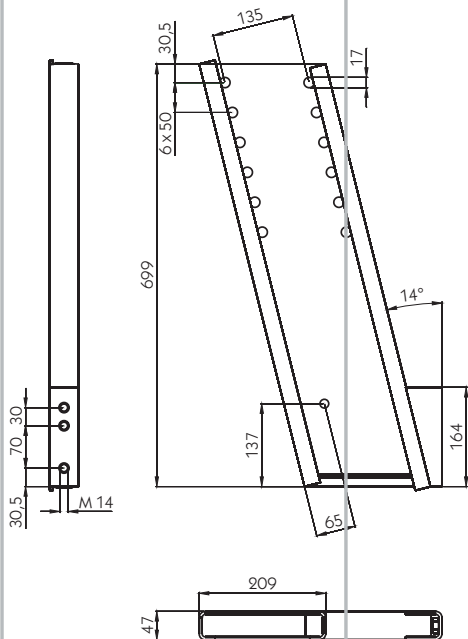
Maximum **vertical distance** from the bottom edge of the underrun guard to the underside of the chassis is 485 mm.

Chassis frame width between 770 and 1300 mm.



The hole plan pattern allows the carrier 1003 SK to be adjusted in 50 mm steps with no additional drilling to the chassis frame.

The hole plan for the fixing bracket fits both versions of the steel underrun guard 2340.

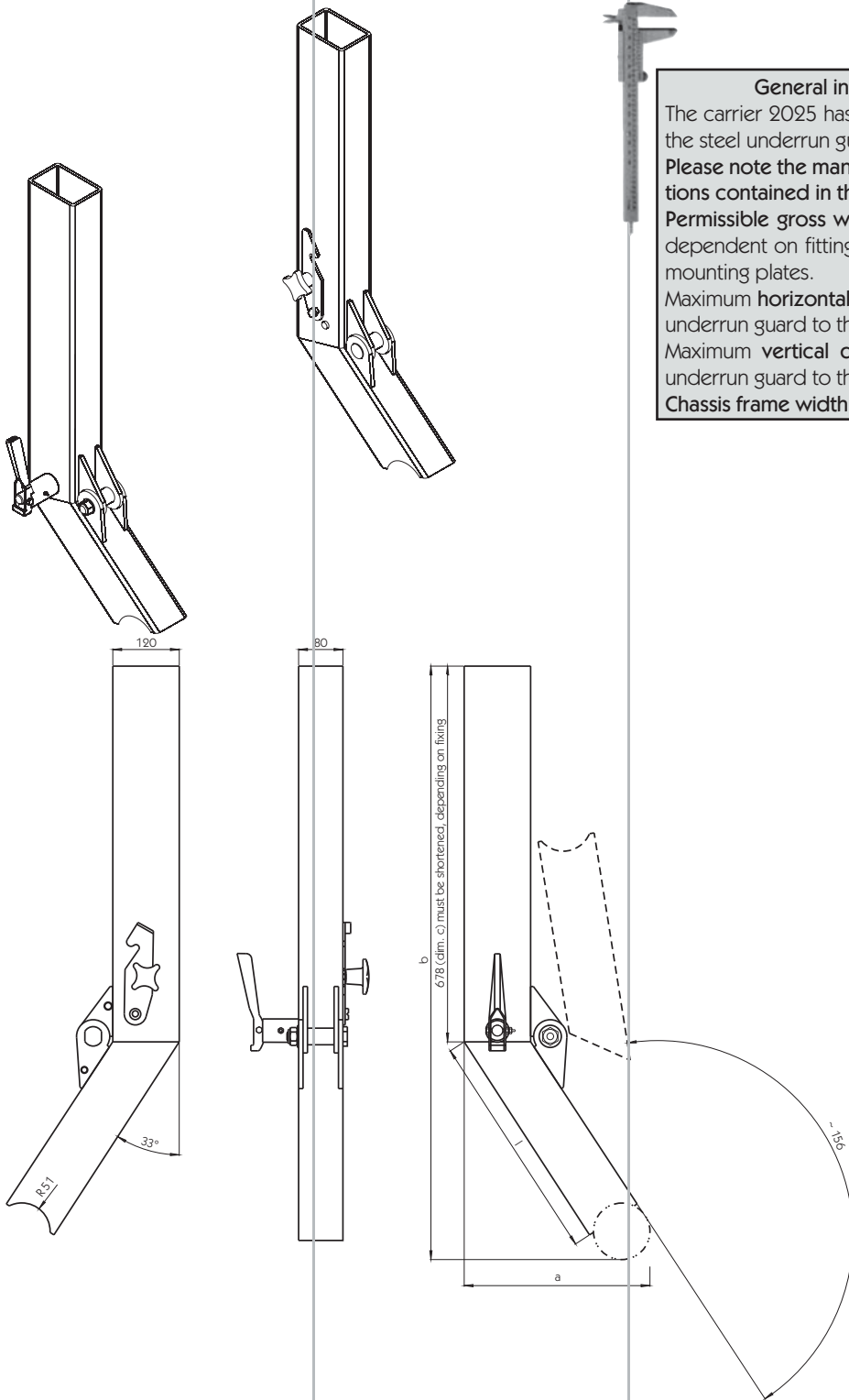


1003 SK

Rigid underrun guard carrier, primer, please order all parts separately.

Item	Quantity required	Weight [kg]	
① Carrier 1003 SK, left	1	9.93	380561344
② Carrier 1003 SK, right	1	9.93	380561345
③ Tube bracing 1004 RV, consisting of outer tube and inner tube		4.40	380561441
④ Hex. head screw DIN 933 - M 16 x 25 - 8.8 (recommendation)			not available

The information "left" and "right" serves only for identification. A mandatory mounting side is not specified in the certification.



General information on the carrier 2025
 The carrier 2025 has certification for use in conjunction with the steel underrun guard 2340.
Please note the mandatory installed dimensions and regulations contained in the certification.
Permissible gross weight 15000 kg. Over and above this is dependent on fitting with welded gusset plates or screwed mounting plates.
Maximum horizontal distance from the rearmost edge of the underrun guard to the rear edge of the vehicle is 345 mm.
Maximum vertical distance from the bottom edge of the underrun guard to the underside of the chassis is 890 mm.
Chassis frame width between 620 and 1320 mm.

2025

Hinged underrun guard carrier kit, suitable for underrun guard tube 2340 (article no. 380561170), Primer, consisting of right and left hand carrier.

Dim. l [mm]	Dim. a [mm]	Dim. b [mm]	Weight [kg]	
200	213	884	28.20	380561304
250	241	925	29.40	380561303
350	296	1009	31.80	380561301
400	324	1050	33.00	380561300



Welded gusset plate 2030
 (When mounted) permissible gross weight unlimited, dim. c max. 518 mm, weight 0.6 kg.
380561313



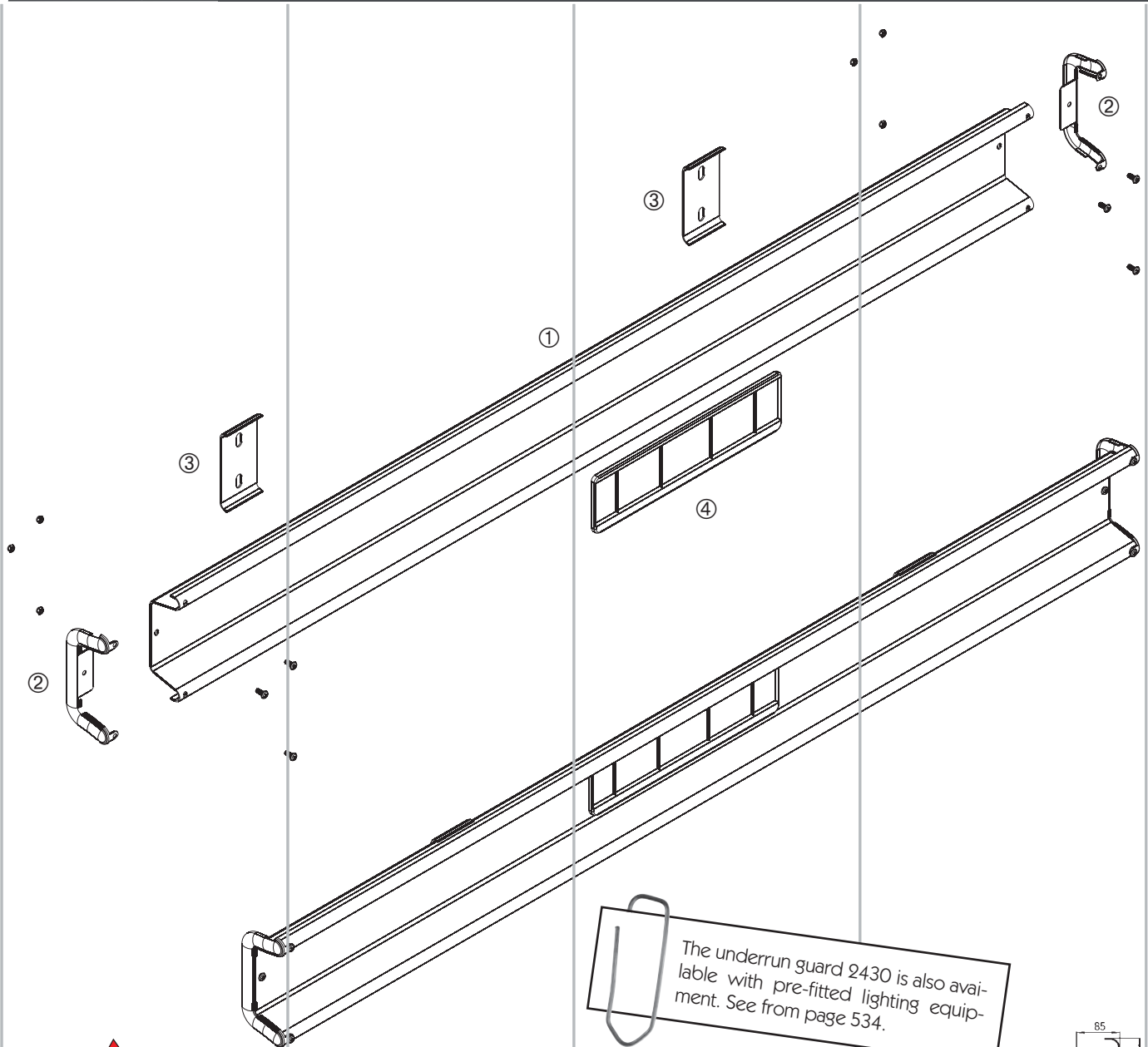
Screwed mounting plate 2026
 (When mounted) permissible gross weight unlimited, weight 2.8 kg.
380561305



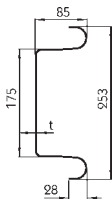
Screwed mounting plate 2032
 For angled mounting up to 30°, (when mounted) permissible gross weight unlimited, weight 4.6 kg.
380561319



Screwed mounting plate 2029
 (When mounted) permissible gross weight 15000 kg, with additional fitting of the welded gusset plate 2030 permissible gross weight unlimited, dim. c in both cases max. 518 mm, weight 3.6 kg.
380561312



The underrun guard 2430 is also available with pre-fitted lighting equipment. See from page 534.

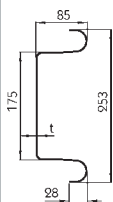
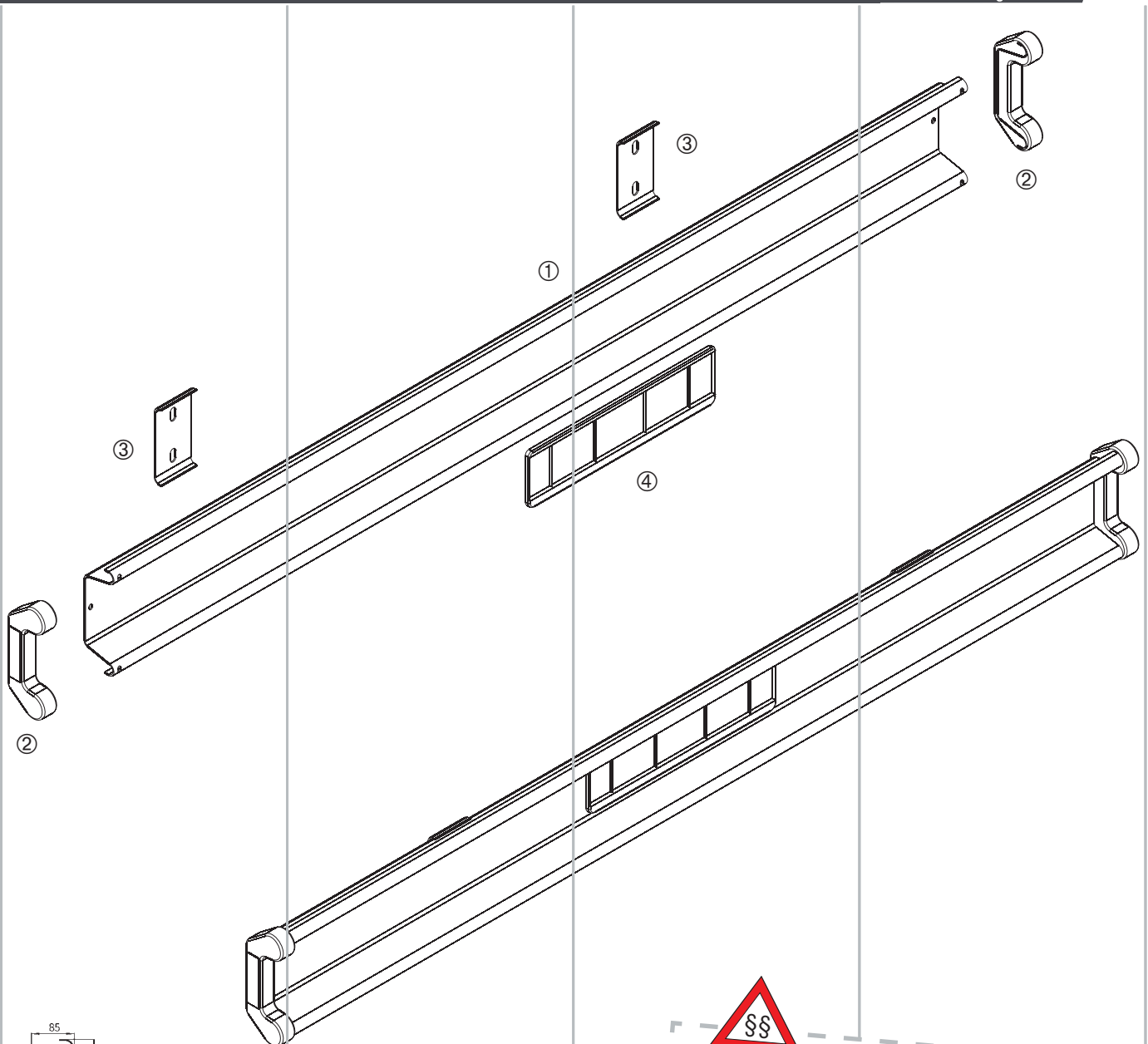


SS
There is certification for this steel underrun guard in conjunction with the carriers 1002 GK, 1003 SK and 2011.

Underrun protection
Steel, all parts zinc plated, please order all parts separately.

Item	Dim. t [mm]	Length [mm]	Quantity required	Weight [kg]	
① Underrun guard, optionally:					
2125, only up to 10 t GVW	2.5	2100	1	18.00	380561160
2325, only up to 10 t GVW	2.5	2300	1	19.50	380561159
2130	3.0	2100	1	21.50	380561162
2330	3.0	2300	1	23.50	380561165
2430	3.0	2400	1	24.57	380561350
② Steel end cap, with screw materials			2	0.43	380561157
③ Reinforcing plate			2	0.46	380561339
④ Number plate mount, black			1	0.15	380563007

The reinforcing plates ③ are mandatory on vehicles with a permissible GVW of over 10000 kg. They are mounted between the underrun guard and the carrier.

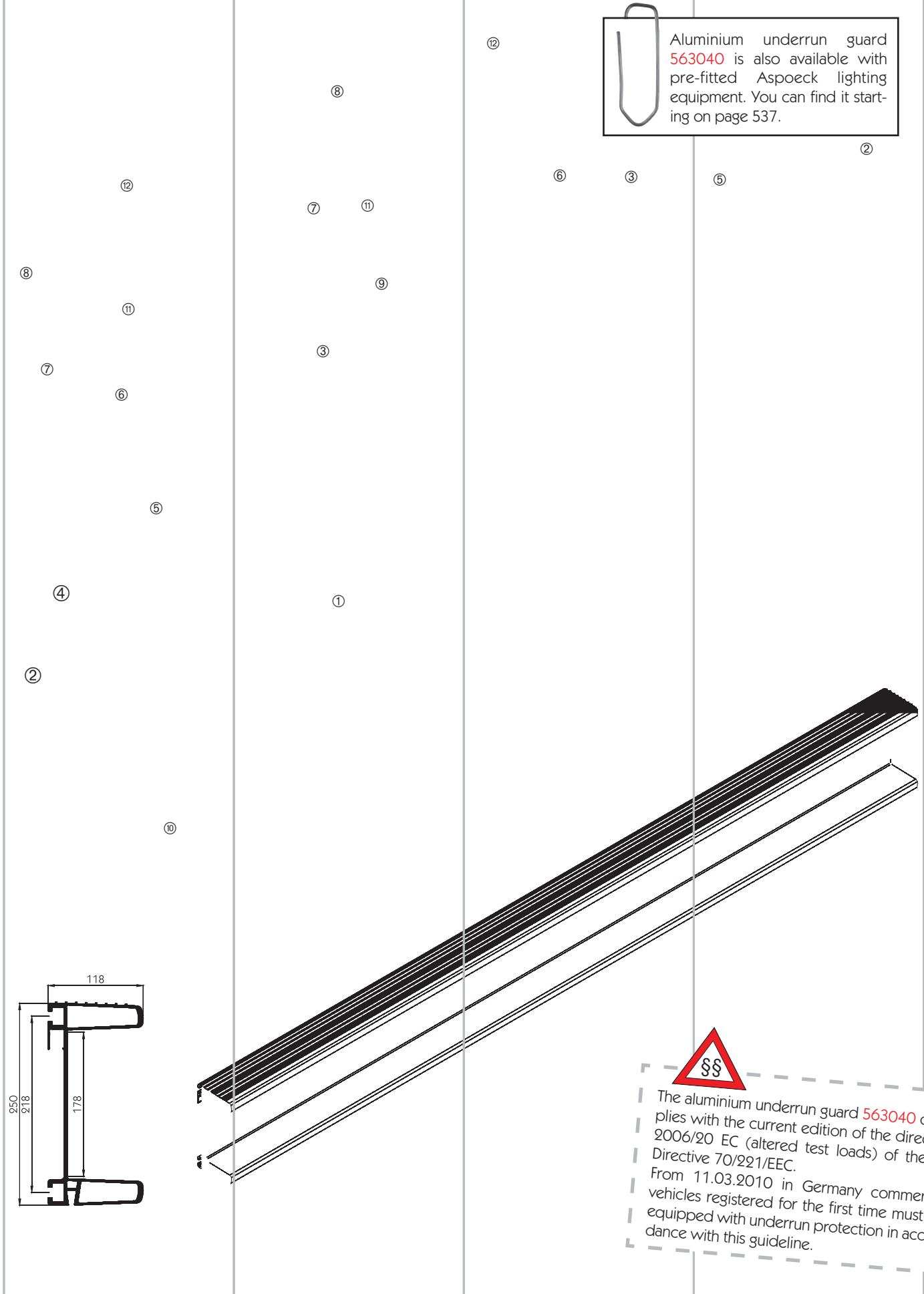


Underrun guard

Steel, all steel parts zinc plated,
please order all parts separately.

Item	Dim. t [mm]	Length [mm]	Quantity required	Weight [kg]	
① Underrun guard, optionally:					
2125, only up to 10 t GVW	2.5	2100	1	18.00	380561160
2325, only up to 10 t GVW	2.5	2300	1	19.50	380561159
2130	3.0	2100	1	21.50	380561162
2330	3.0	2300	1	23.50	380561165
2430	3.0	2400	1	24.57	380561350
② PUR end cap, black			2	0.32	380561330
③ Reinforcing plate			2	0.46	380561339
④ Number plate mount, black			1	0.15	380563007

The reinforcing plates ③ are mandatory on vehicles with a permissible GVW of over 10000 kg. They are mounted between the underrun guard and the carrier.



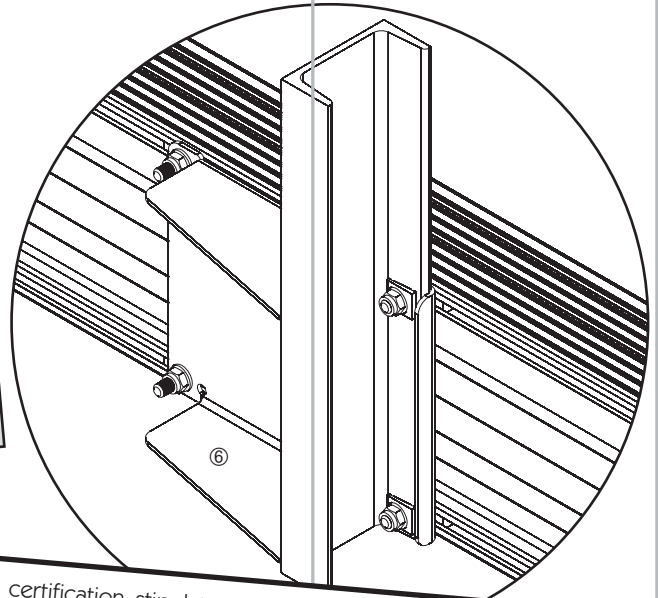
Aluminium underrun guard **563040** is also available with pre-fitted Aspoeck lighting equipment. You can find it starting on page 537.

SS

The aluminium underrun guard **563040** complies with the current edition of the directive 2006/20 EC (altered test loads) of the EC Directive 70/221/EEC. From 11.03.2010 in Germany commercial vehicles registered for the first time must be equipped with underrun protection in accordance with this guideline.



General information on the aluminium underrun guard
The aluminium underrun guard 563040 has only one certification in connection with holders from the u-profile DIN 1026-U 120-S235JRG2. Please note the mandatory installed dimensions and regulations contained in the certification. Permissible gross weight unlimited.
Maximum horizontal distance from the rearmost edge of the underrun guard to the rear edge of the vehicle is 200 mm.
Maximum vertical distance from the bottom edge of the underrun guard to the underside of the chassis is 500 mm.
Chassis frame width between 840 and 1360 mm.
Chassis width between 840 - 1250 mm necessitates fitting the reinforcing 380563042 ⑥.



The reinforcements 380563042 are necessary with a chassis width (distance bet. U-profile centres) of up to 1250 mm.

The plastic plugs 380563012 allow electric cables to be clamped into the protective channel provided. Using the spacers 380563014, (4 off required) for mounting the distributor box ASS1 dispenses with the need to mill out the protective channel.



The certification stipulates that the aluminium underrun guard 563040 may only be mounted on the vehicle on carriers made from U-profile to DIN 1026-U 120-S235JRG2 and by means of T-slot studs M 12 380563041, washers to DIN EN ISO 7089-12 (old DIN 125 A) and hexagon nuts to DIN EN ISO 7042-M 12-8 (lock nuts without metallic inserts, old DIN 980-V).
In the case of underrun guard 380563040 the name plate 380563043 must be ordered separately. The name plate is compulsory as it constitutes a component part of the underrun protection certification. The fixing location of the name plate is also specified in the certification.

Aluminium underrun protection 563040

Please order all parts separately.

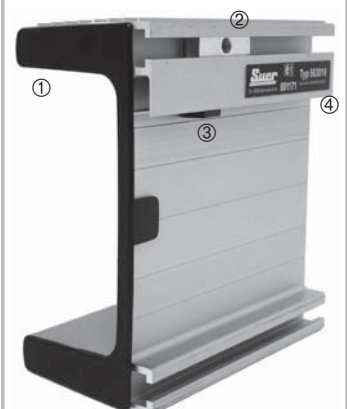
Item	Length [mm]	Quantity required	Weight [kg]	
① Underrun guard, anodised	2400	1	19.49	380563040
② PVC end cape, black		2	0.064	380563044
③ T-slot stud M 12		8	0.145	380563041
④ Name plate 90 x 18 mm		1	0.003	380563043
⑤ Plastic plug (optional for fastening cables in the cable duct)		10	0.003	380563012
⑥ Reinforcement		2	3.76	380563042
⑦ Washers DIN EN ISO 7089-12 (old DIN 125 A)		8		965987034
⑧ Hexagon nut DIN EN ISO 7042-M 12-8 (old DIN 980 V)		8		964976803
⑨ Spacer for distributor (optional for fixing distribution boxes)		4	0.003	380563014
⑩ PVC rear apron (optional)		1	5.36	350381278
⑪ Washer to DIN 434-14		4		965987153
⑫ U-profile to DIN 1026-U 120-S235JRG2		2		not available

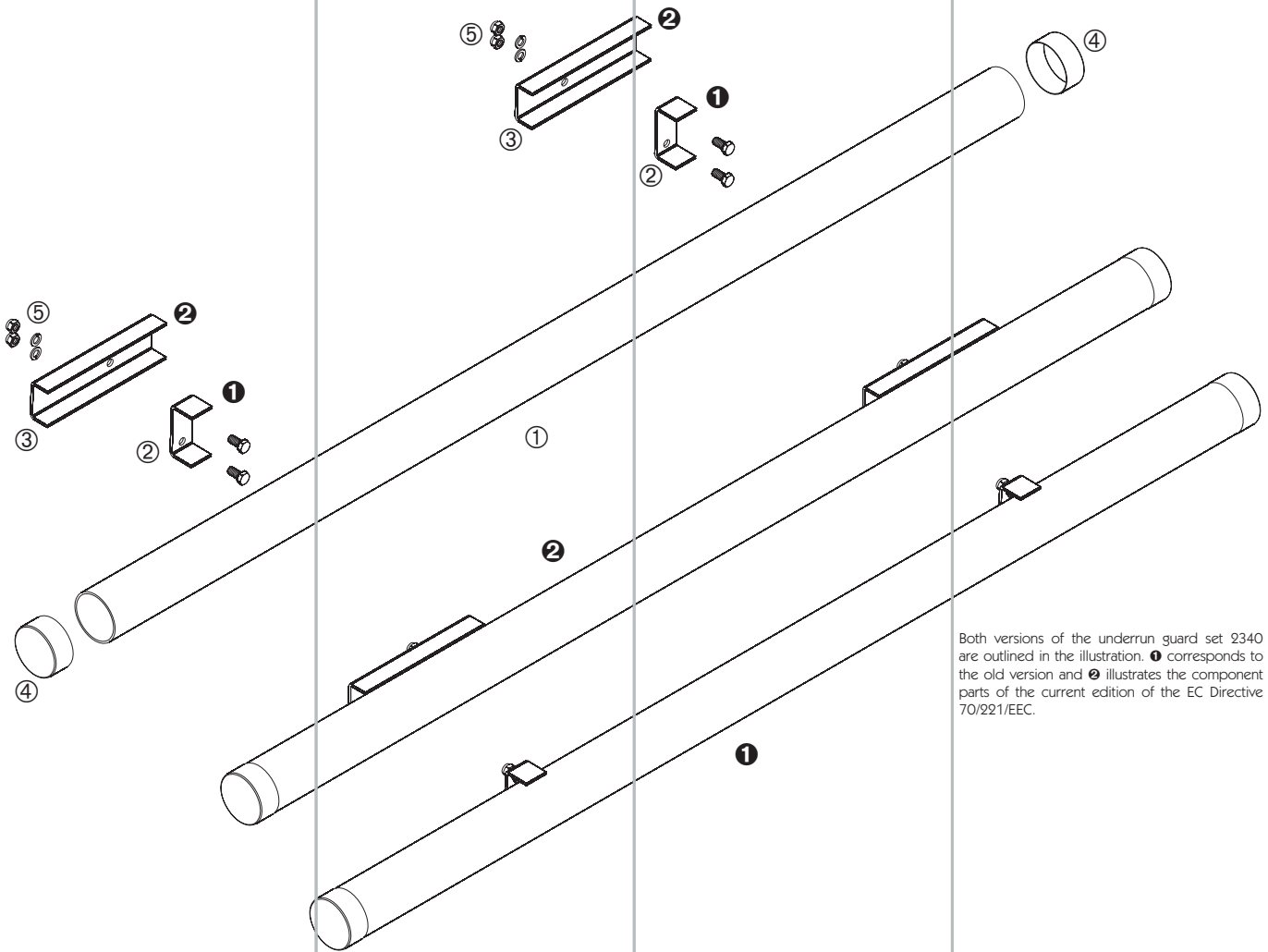
No longer available

Spare parts for aluminium underrun guard 563010

	Weight [g]	
① End cap, black plastic	64	380563031
② T-slot nut with M 12 thread, zinc plated	112	380563011
③ Plastic plug	3	380563012
Spacer, black plastic	5	380563014
④ Name plate with adhesive backing	5	380563019
④ Name plate, old version, with adhesive backing	3	380563018

Spare parts for aluminium underrun guard





Both versions of the underrun guard set 2340 are outlined in the illustration. ❶ corresponds to the old version and ❷ illustrates the component parts of the current edition of the EC Directive 70/221/EEC.



The underrun guard 2340 together with the fixing bracket ❸ complies with the current edition of the directive 2006/20/EC (altered test loads) of the EC Directive 70/221/EEC. From 11.03.2010 in Germany commercial vehicles registered for the first time must be equipped with underrun protection in accordance with this guideline. There is a certification for this underrun protection panel in conjunction with the carriers 1002 GK and 1003 SK.

2340

Steel underrun protection set consisting of underrun guard 2300 mm, Ø 101.6 mm, fixing brackets, end caps and screw set. Underrun protection tube and fixing brackets, primed:

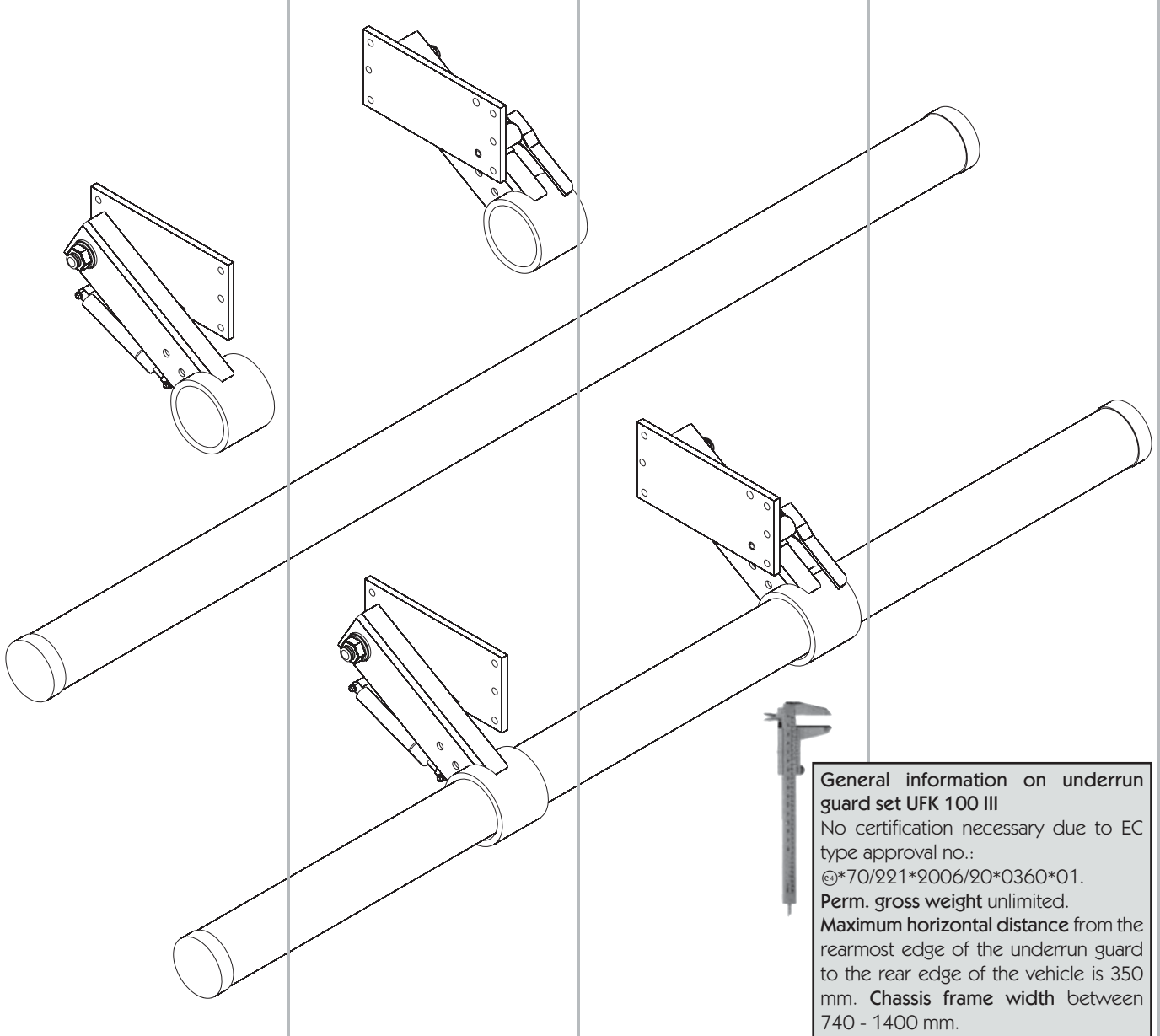
The screw set consists of 4 x hex. headed screws to DIN 933 - M 14 x 30, 4 x spring washers to DIN 127 A - 14 and 4 x hex. nuts to DIN 985 - M 14 - 8.

Designation	70/221/EWG	Consisting of items	Weight [kg]	
2340	old version	❶, ❷, ❹, ❺	24.0	380561170
2340	updated version	❶, ❸, ❹, ❺	26.4	380561459

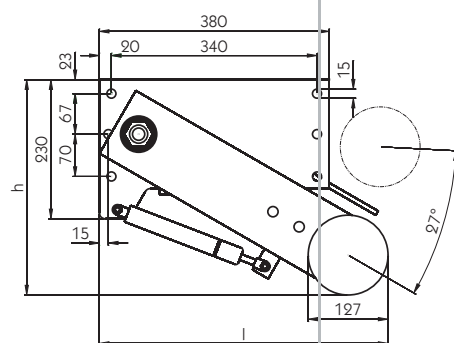
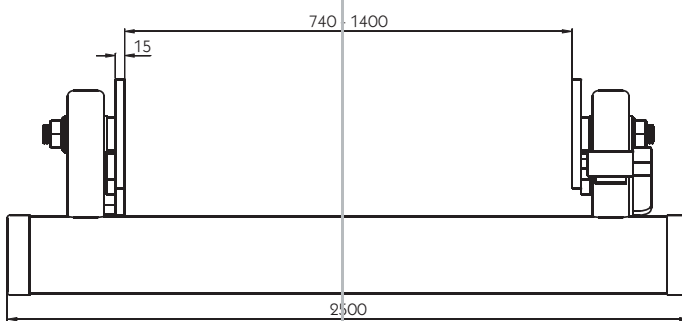
No longer available

Accessories/spare parts

	Weight [kg]	
❷ Fixing bracket (old version)	0.49	380561347
❹ End cap, black	0.033	380561171
End cap with side reflector, black	0.038	380561172

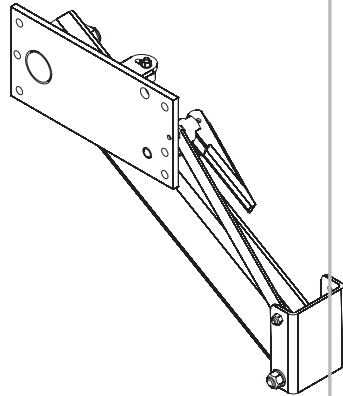
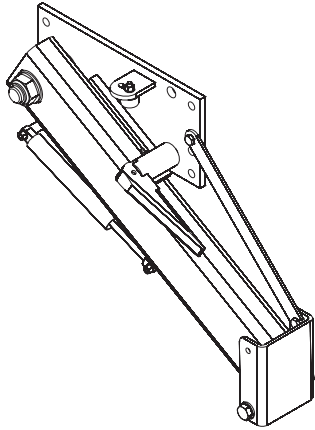


General information on underrun guard set UFK 100 III
 No certification necessary due to EC type approval no.:
 ©*70/221*2006/20*0360*01.
Perm. gross weight unlimited.
Maximum horizontal distance from the rearmost edge of the underrun guard to the rear edge of the vehicle is 350 mm. **Chassis frame width** between 740 - 1400 mm.



UFK 100 III
 Swing type, complete steel underrun protection set, gas strut assisted, all steel parts KTL coated.

	Dim. h [mm]	Dim. l [mm]	Weight complete [kg]	
Assembled height 350 mm	350	approx. 475	73	380431546
Assembled height 500 mm	500	approx. 735	75	380431545



General information on underrun guard set UFK 100 III

No certification necessary due to EC type approval no.:

②*70/221*2006/20*0360*01.

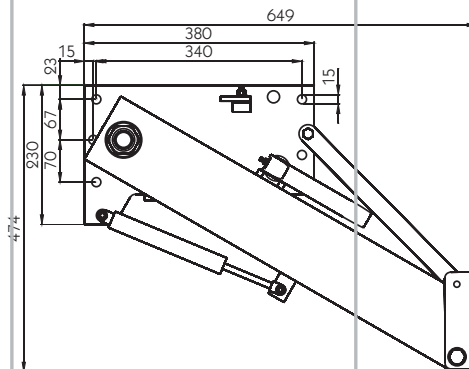
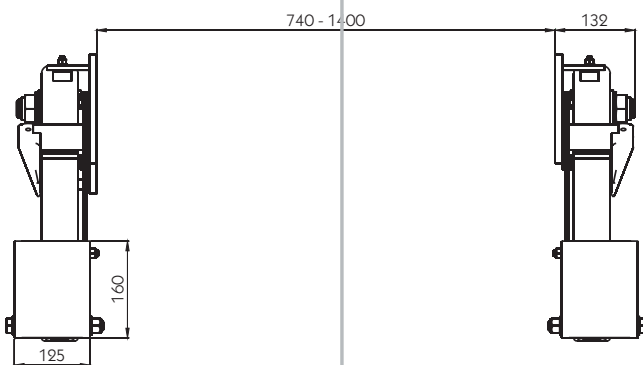
Perm. gross weight unlimited.

Maximum horizontal distance from the rearmost edge of the underrun guard to the rear edge of the vehicle is 350 mm. **Chassis frame width** between 740 - 1400 mm.



The underrun guard UFK 100 III complies with the current edition of the directive 2006/20 EC (altered test loads) of the EC Directive 70/221/EEC.

From 11.03.2010 in Germany commercial vehicles registered for the first time must be equipped with underrun protection in accordance with this guideline.

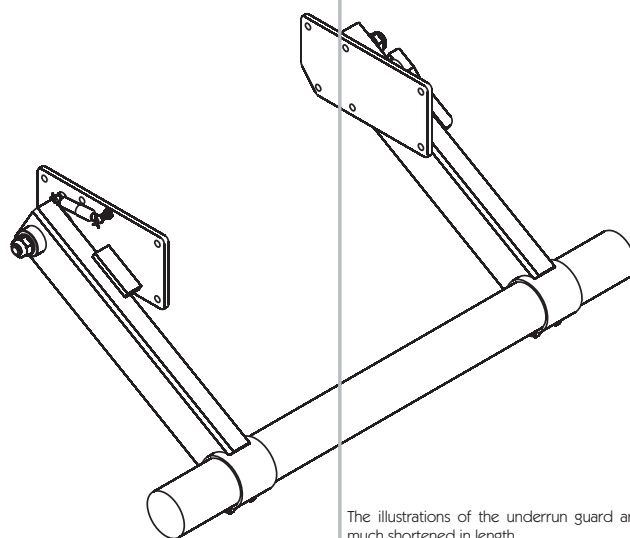
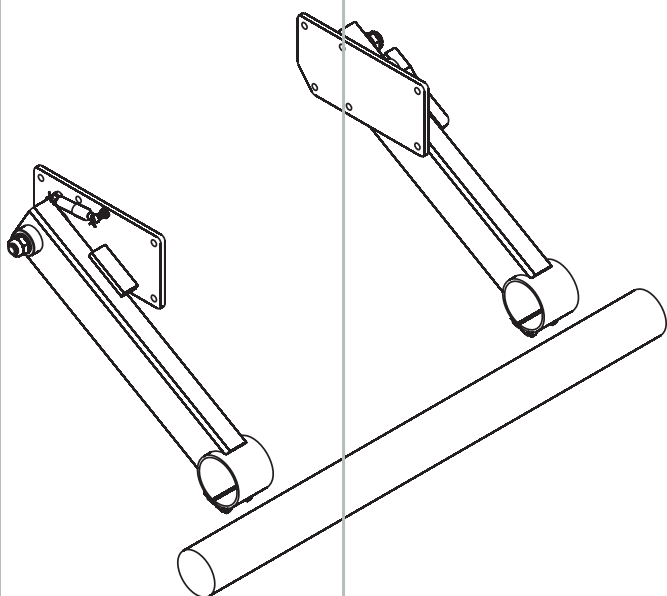


UFK 100 III

Swing type, steel underrun guard carrier, gas strut assisted and parallelogram for mounting any underrun guard panels. All steel parts KTL coated, weight 48 kg.

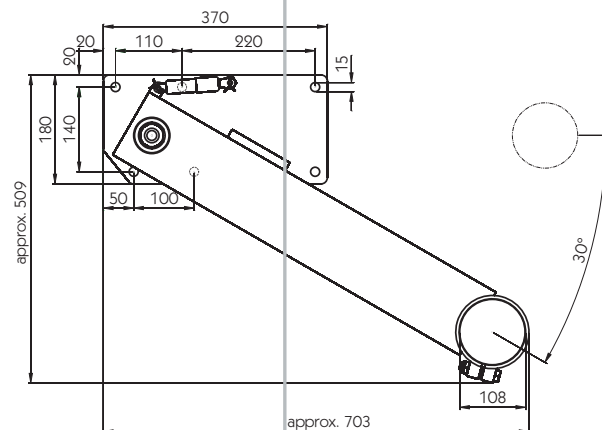
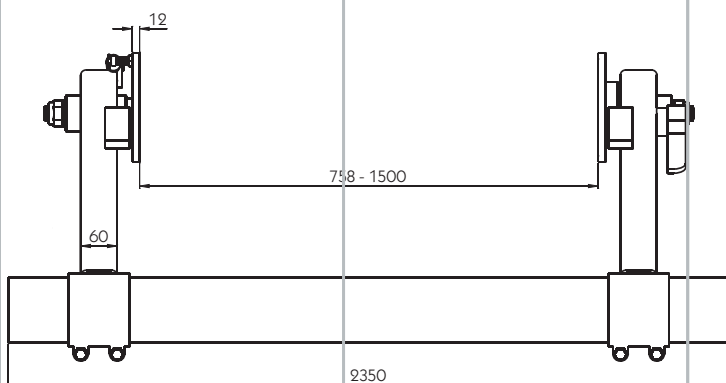
Designation UFK 100 III updated version

380431541



General information on underrun guard set WUF 100 K/WUF 105 K
 No certification necessary due to EC operating licence:
 WUF 100 K: ©02-0083
 WUF 105 K: ©00-0705
Perm.gross weight unlimited.
Maximum horizontal distance from the rearmost edge of the underrun guard to the rear edge of the vehicle is 325 mm.
Chassis frame width between 758 - 1500 mm.

The illustrations of the underrun guard are very much shortened in length.



WUF 100 K/ WUF 105 K
 Swing type, complete steel underrun protection set with gas strut assistance and clamped underrun guard cross-tube. All steel parts KTL coated, weight 70 kg.



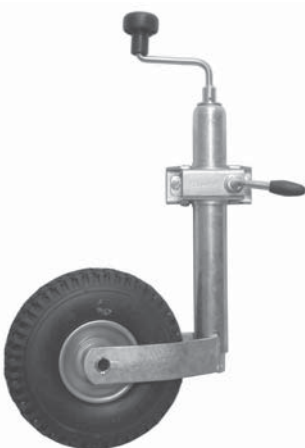
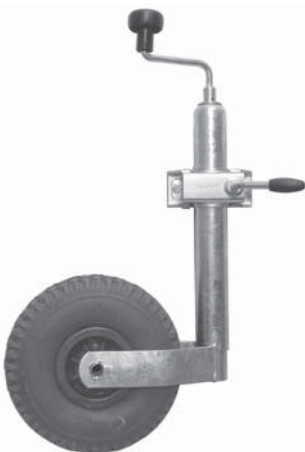
The underrun guard WUF 105 K complies with the current edition of the directive 2006/20 EC (altered test loads) of the EC Directive 70/221/EEC.
 From 11.03.2010 in Germany commercial vehicles registered for the first time must be equipped with underrun protection in accordance with this guideline.

No longer available

Designation	70/221/EWG
WUF 100 K	old version
WUF 105 K	updated version

380431630
380431629

Jockey wheels



ST 48/200 V

With thrust bearing, outer tube \varnothing 48 x 2.3 mm, tube length 370 mm, overall height 630 mm. Maximum stationary load 150 kg, zinc plated.

Illustrated with leg clamp 375161004, not included.

Type	Wheel	Tyre	Wheel size [mm]	Extension [mm]	Weight [kg]	
ST 48/200 V	plastic	solid rubber	200 x 50	220	4.38	375161003

ST 48/200 VB

With thrust bearing, outer tube \varnothing 48 x 2.3 mm, tube length 370 mm, overall height 630 mm. Maximum stationary load 150 kg, zinc plated.

Illustrated with leg clamp 375161004, not included.

Type	Wheel	Tyre	Wheel size [mm]	Extension [mm]	Weight [kg]	
ST 48/200 VB	steel	solid rubber	200 x 50	220	4.57	375161184

ST 48/260 L

With thrust bearing, outer tube \varnothing 48 x 2.3 mm, tube length 370 mm, overall height 625 mm. Maximum stationary load 150 kg, zinc plated.

Illustrated with leg clamp 375161004, not included.

Type	Wheel	Tyre	Wheel size [mm]	Extension [mm]	Weight [kg]	
ST 48/260 L	plastic	pneumatic	260 x 85	210	4.71	375161037

ST 48/260 LB

With thrust bearing, outer tube \varnothing 48 x 2.3 mm, tube length 370 mm, overall height 625 mm. Maximum stationary load 150 kg, zinc plated.

Illustrated with leg clamp 375161004, not included.

Type	Wheel	Tyre	Wheel size [mm]	Extension [mm]	Weight [kg]	
ST 48/260 LB	steel	pneumatic	260 x 85	210	4.93	375161189

D 48/200VB

Rotatable, with thrust bearing, outer tube Ø 48 x 2.3 mm, tube length 275 mm, overall height 625 mm. Maximum stationary load 150 kg, zinc plated.

Type	Wheel	Tyre	Wheel size [mm]	Stroke [mm]	Weight [kg]	
D 48/200 VB	Steel	solid rubber	200 x 50	150	6.69	375161185

No longer available

Illustrated with tube clamp 375161004, not included.

ST 48/V/200 VB

Strengthened model with thrust bearing, outer tube Ø 48 x 3.5 mm, tube length 370 mm, overall height 630 mm. Maximum stationary load 200 kg, zinc plated.

Type	Wheel	Tyre	Wheel size [mm]	Stroke [mm]	Weight [kg]	
ST 48/V/200 VB	Steel	Solid rubber	200 x 50	230	5.14	375161207

Illustrated with tube clamp 375161004, not included.

ST 48/V/260 LB

Strengthened model with thrust bearing, outer tube Ø 48 x 3.5 mm, tube length 370 mm, overall height 625 mm. Maximum stationary load 200 kg, zinc plated.

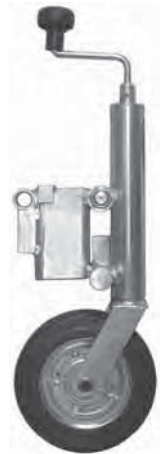
Type	Wheel	Tyre	Wheel size [mm]	Stroke [mm]	Weight [kg]	
ST 48/V/260 LB	Steel	pneumatic	260 x 85	220	5.16	375161209

Illustrated with tube clamp 375161004, not included.

ST 48/V/255 SB

Strengthened model with thrust bearing, outer tube Ø 48 x 3.5 mm, tube length 370 mm, overall height 625 mm. Maximum stationary load 200 kg, zinc plated.

Type	Wheel	Tyre	Wheel size [mm]	Stroke [mm]	Weight [kg]	
ST 48/V/255 SB	Steel	Soft rubber	225 x 70	220	6.39	375161208





VK 60/200 VBB

Fully automatic folding, with thrust bearing, Ø outer tube 60 x 4 mm, tube length 470 mm, overall height 685 mm. Maximum stationary load 250 kg, zinc plated.

Type	Mount	Tyre	Wheel size [mm]	Stroke [mm]	Weight [kg]	
VK 60/200 VBB	none	solid rubber	200 x 60	235+235	9.41	375161094



VK 60/B/200 VBB

Fully automatic folding, with thrust bearing, Ø outer tube 60 x 4 mm, tube length 470 mm, overall height 685 mm. Maximum stationary load 250 kg, zinc plated.

Type	Mount	Tyre	Wheel size [mm]	Stroke [mm]	Weight [kg]	
VK 60/B/200 VBB	"B"	solid rubber	200 x 60	235+235	10.15	375161190



VK 60/K/200 VBB

Fully automatic folding, with thrust bearing, Ø outer tube 60 x 4 mm, tube length 470 mm, overall height 685 mm. Maximum stationary load 250 kg, zinc plated.

Type	Mount	Tyre	Wheel size [mm]	Stroke [mm]	Weight [kg]	
VK 60/K/200 VBB	"K"	solid rubber	200 x 60	235+235	10.09	375161317



VK 60/S/200 VBB

Fully automatic folding, with thrust bearing, Ø outer tube 60 x 4 mm, tube length 470 mm, overall height 695 mm. Maximum stationary load 250 kg, zinc plated.

Type	Mount	Tyre	Wheel size [mm]	Stroke [mm]	Weight [kg]	
VK 60/S/200 VBB	"S"	solid rubber	200 x 60	235+235	10.05	375161116

No longer available

VK 60/BL/200 VBB

Fully automatic folding, with thrust bearing, Ø outer tube 60 x 4 mm, tube length 570 mm, overall height 760 mm. Maximum stationary load 250 kg, zinc plated.

Type	Mount	Tyre	Wheel size [mm]	Stroke [mm]	Weight [kg]	
VK 60/BL/200 VBB	"BL"	solid rubber	200 x 60	235+235	11.00	375161306

Illustrated with tube clamp 375161187, not included.

ST 60/255 SB

With thrust bearing, Ø outer tube 60 x 4 mm, tube length 390 mm, overall height 652 mm. Maximum stationary load 300 kg, zinc plated.

Type	Mount	Tyre	Wheel size [mm]	Stroke [mm]	Weight [kg]	
ST 60/255 SB	none	solid rubber	225 x 70	230	9.11	375161186

K 60/200 VB

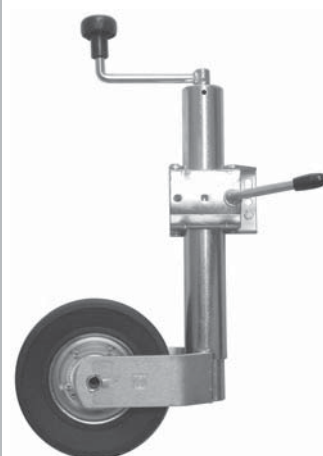
With thrust bearing, Ø outer tube 60 x 4 mm, tube length 390 mm, overall height 640 mm. Maximum stationary load 250 kg, zinc plated.

Type	Mount	Tyre	Wheel size [mm]	Stroke [mm]	Weight [kg]	
VK 60/K/200 VBB	none	solid rubber	200 x 50	180+230	8.11	375161109

K 60/B/200 VB

Retaining pin locking, with thrust bearing, Ø outer tube 60 x 4 mm, tube length 390 mm, overall height 640 mm. Maximum stationary load 250 kg, zinc plated.

Type	Mount	Tyre	Wheel size [mm]	Stroke [mm]	Weight [kg]	
VK 60/B/200 VBB	"B"	solid rubber	200 x 50	180+230	8.82	375161191





K 60/S/200 VB

Retaining pin locking, with thrust bearing, Ø outer tube 60 x 4 mm, tube length 390 mm, overall height 640 mm. Maximum stationary load 250 kg, zinc plated.

Type	Mount	Tyre	Wheel size [mm]	Stroke [mm]	Weight [kg]	
VK 60/S/200 VBB	"S"	solid rubber	200 x 50	180+230	8.75	375161117

Spare parts

For jockey wheels page 180 - 184.



Wheel 200 V

Solid rubber on plastic wheel, 200 x 50 mm, Ø hub 20 x 58 mm, stationary load 200 kg.

375161071

Spare wheel for jockey wheel **375161003**.



Wheel 200 VB

Solid rubber on steel wheel, 200 x 50 mm, Ø hub 20 x 58 mm, static load 200 kg.

375161007

Spare wheel for jockey wheels **375161109, 375161117, 375161184, 375161185, 375161191 and 375161207**.



Wheel 260 L

Pneumatic tyre on plastic wheel, 260 x 85 mm, Ø hub 20 x 88 mm, stationary load 200 kg.

375161077

Spare wheel for jockey wheel **375161037**.



Wheel 260 LB

Pneumatic tyre on steel wheel, 260 x 85 mm, Ø hub 20 x 88 mm, stationary load 200 kg.

375161192

Spare wheel for jockey wheels **375161189 and 375161209**.

Spare wheel for jockey wheels
 375161094, 375161116,
 375161190, 375161306 and
 375161317.

Spare wheel for jockey wheels
 375161208 and 375161186.

Spare part for jockey wheels
 375161094, 375161109,
 375161116, 375161117,
 375161185, 375161190,
 375161191, 375161306,
 375161207 and 375161317.

Spare par for jockey wheels
 375161094, 375161116,
 375161190, 375161306 and
 375161317.

Spare par for jockey wheel
 375161109, 375161117, and
 375161191.

Wheel 200 VBB

Solid rubber on steel wheel, 200
 x 60 mm, Ø hub 20 x 58 mm,
 stationary load 250 kg.

375161268

Wheel 255 SB

Soft rubber on steel wheel, 225
 x 70 mm, Ø hub 20 x 88 mm,
 stationary load 400 kg.

375161193

Axle tube with split pin

Zinc plated.

375161242

Tyre arrester with spring

For VK 60 wheels.

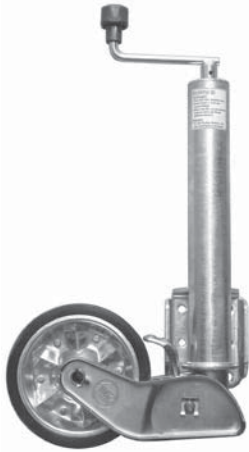
375161246

Retaining pin

For K 60 jockey wheels, not illus-
 trated.

375161274





242061

Fully automatic folding, Ø outer tube 60 mm, tube length 410 mm, overall length 830 mm (without crank handle). Maximum stationary load 500 kg, zinc plated.

Type	Tyre	Wheel size [mm]	Stroke [mm]	Weight [kg]	
242061	solid rubber	200 x 50	300	10.12	375161236

Spare wheel

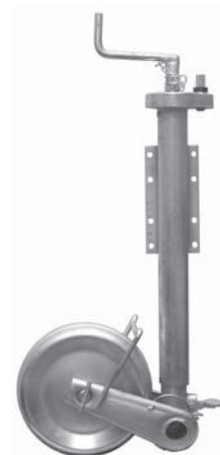
Solid rubber on steel wheel, 260 x 65 mm, for jockey wheel
[375161021](#).

[375161084](#)

2000 GD

Folding, Ø outer tube 70mm, tube length 450 mm, overall height approx. 930 mm (without crank handle). Maximum stationary load 1500 kg, zinc plated.

Type	Tyre	Wheel size [mm]	Stroke [mm]	Weight [kg]	
2000 GD	hollow steel	320 x 80	350 + 300	22	375161139



2000 GD

Folding, Ø outer tube 82.5 mm, tube length 450 mm, overall height approx. 1081 mm (without crank handle). Maximum stationary load 2000 kg, zinc plated.

Type	Tyre	Wheel size [mm]	Stroke [mm]	Weight [kg]	
2000 GD	hollow steel	320 x 100	350 + 300	22.5	375161140



Spare wheels

Not illustrated.

Wheel Ø [mm]	For jockey wheel	
320 x 100	375161140	375161177



AC 297 S

Folding, Ø outer tube 60 mm, tube length 460 mm, overall height 810 mm (without crank handle). Maximum stationary load 500 kg, zinc plated.

Type	Tyre	Wheel size [mm]	Stroke [mm]	Weight [kg]	
AC 297 S	solid rubber	220 x 70	300	10.87	375161305

S-160

Retaining pin locking, Ø outer tube 48 mm, tube length 330 mm, overall height 740 mm (with crank handle). Maximum stationary load 400 kg, primer.

Type	Tyre	Wheel size [mm]	Stroke [mm]	Weight [kg]	
S-160	solid rubber	200 x 50	160 + 190	6.6	375161059

S-121/E

Retaining pin locking, Ø outer tube 70 mm, tube length 460 mm, overall height 1010 mm (with crank handle). Maximum stationary load 1000 kg, primer.

Type	Tyre	Wheel size [mm]	Stroke [mm]	Weight [kg]	
S-121/E	hollow steel	320 x 90	255 + 300	15.1	375161061

S-156

Retaining pin locking, Ø outer tube 70 mm, tube length 460 mm, overall height 970 mm (with crank handle). Maximum stationary load 1200 kg, primer.

Type	Tyre	Wheel size [mm]	Stroke [mm]	Weight [kg]	
S-156	solid rubber	250 x 80	300 + 300	17.7	375161060

M-206

Semi-automatic, Ø outer tube 60 mm, tube length 380 mm, overall height 855 mm (with crank handle). Maximum stationary load 800 kg, primer.

Type	Tyre	Wheel size [mm]	Stroke [mm]	Weight [kg]	
M-206	solid rubber	250 x 65	280 + 220	11.3	375161062

A-110

Fully automatic, Ø outer tube 70 mm, tube length 460 mm, overall height 1105 mm (with crank handle). Maximum stationary load 1000 kg, primer.

Type	Tyre	Wheel size [mm]	Stroke [mm]	Weight [kg]	
A-110	solid rubber	280 x 65	415 + 230	15.8	375161066

A-101

Fully automatic, Ø outer tube 70 mm, tube length 460 mm, overall height 1135 mm (with crank handle). Maximum stationary load 1200 kg, primer.

Type	Tyre	Wheel size [mm]	Stroke [mm]	Weight [kg]	
A-101	hollow steel	320 x 90	485 + 230	18.2	375161065

M-237

Semi-automatic, □ outer tube 80 x 80 mm, tube length 460 mm, overall height 840 mm (without crank handle). Maximum stationary load 1400 kg, primer.

Type	Tyre	Wheel size [mm]	Stroke [mm]	Weight [kg]	
M-237	hollow steel	320 x 90	300	19.3	375161137





M-300

Semi-automatic, Ø outer tube 70 mm, tube length 460 mm, overall height 880 mm (without crank handle). Maximum stationary load 1500 kg, primer.

Type	Tyre	Wheel size [mm]	Stroke [mm]	Weight [kg]	
M-300	hollow steel	280 x 80	300	23.0	375161136

M-305

Semi-automatic, Ø outer tube 70 mm, tube length 460 mm, overall height 910 mm (without crank handle). Maximum stationary load 1500 kg, primer.

Type	Tyre	Wheel size [mm]	Stroke [mm]	Weight [kg]	
M-305	hollow steel	310 x 100	300	19.0	375161138

DM-432

Semi-automatic, Ø outer tube 90 mm, tube length 460 mm, overall height 940 mm (without crank handle). Maximum stationary load 2000 kg, primer.

Type	Tyre	Wheel size [mm]	Stroke [mm]	Weight [kg]	
DM-432	hollow steel	320 x 90	300	25.0	853432000

Spare parts

For jockey wheels page 188 - 190.

Spare wheel for jockey wheel
375.161059.

RRG 900

Solid rubber on steel wheel, 200 x 50 mm.

375161168

Spare wheel for jockey wheel
 375161305.

RRG 904
 Solid rubber on steel wheel,
 220 x 60 mm.
 375161311



Spare wheel for jockey wheel
 375161062.

RRG 910
 Solid rubber on steel wheel,
 250 x 65 mm.
 375161169



Spare wheel for jockey wheel
 375161060.

RRG 915
 Solid rubber on steel wheel,
 250 x 80 mm.
 375161170



Spare wheel for jockey wheel
 375161066.

RRG 921
 Solid rubber on steel wheel,
 280 x 65 mm, with 2 loose plastic
 bushes.
 375161171



Spare wheel for jockey wheel
 375161136.

RRL 834
 Hollow steel wheel, 280 x 80 mm.
 375161175



Spare wheel for jockey wheel
 375161061, 375161065,
 375161137, 375161138 and
 853432000

RRL 832
 Hollow steel wheel, 310 x 90 mm,
 not illustrated.
 375161176

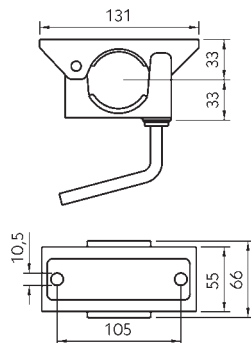


Axle tube
With split pin for jockey wheel
375161060, zinc plated.
375161244

Tension spring
3.5 x 22 x 102 mm, spare part for
jockey wheel 375161062.
375161245

Hand grip
Spare part for majority of jockey
wheels and prop stands, plastic.
375161249

Accessories
For jockey wheels.



Leg clamping bracket
For tube \varnothing 48 mm, zinc plated,
weight 0.79 kg.
375161004



Leg clamping bolt, loose
Spare part for leg clamping bracket
375161004.
375161243



The anti-slip device BS 375161279 fulfils the loss prevention requirement of Par. 44 Sect. 2 StVZO (German traffic law).

Anti-slip device BS
Safety device for jockey wheels, accessory for leg clamp 375161004, weight 0.012 kg.
375161279

Leg clamping bracket
For tube \varnothing 60 mm.
375161187

Leg clamping bolt, loose
Spare part for 375161187, not illustrated.
375161275

Mounting flanges

Description	Weight [kg]	
F1	1.0	375161265
F2	1.7	375161264

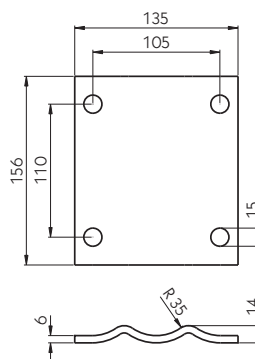
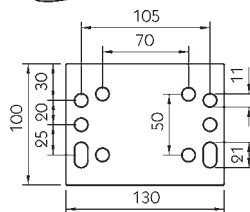
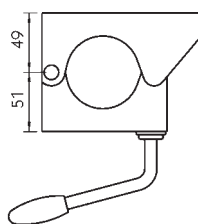
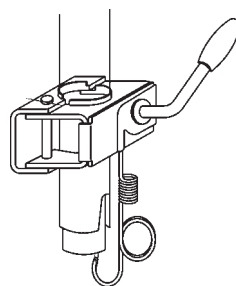
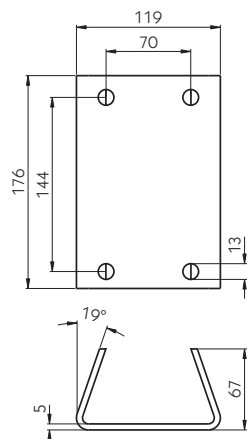


Illustration: above 375161265, below 375161264.



Stabilizer



Prop stands

Tube \varnothing 48 mm, stationary load 150 kg, foot plate \varnothing 90 mm, zinc plated.

Type	Tube length [mm]	Weight [kg]	
RSR/48/600	600	2.07	375161106
RSR/48/700	700	2.15	375161291



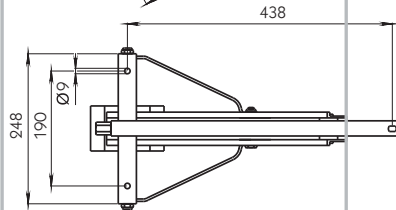
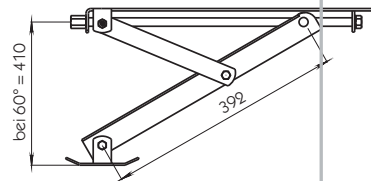
End cap

Spare part for prop stands, plastic.

375161330

Clamping brackets and tube clamps can be found on the previous page.

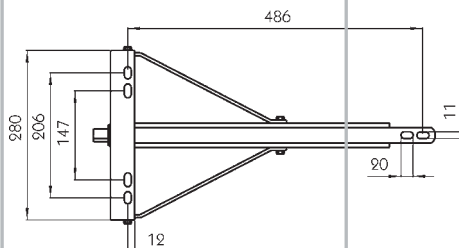
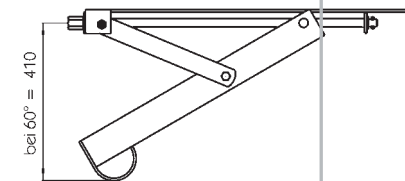
Corner steadies



205712

With swivelling foot, maximum load capacity 500 kg, zinc plated, weight 3.70 kg.

375161001



ADS 460 V

Stroke 450 mm, load applied on 4 units, from 45°: 1800 kg, zinc plated, weight 4.59 kg.

375161212

ADS 480 V

Stroke 480 mm, load applied on 4 units, from 45°: 2000 kg, zinc plated, weight 6.66 kg.

Left hand
Right hand

375161135
375162035

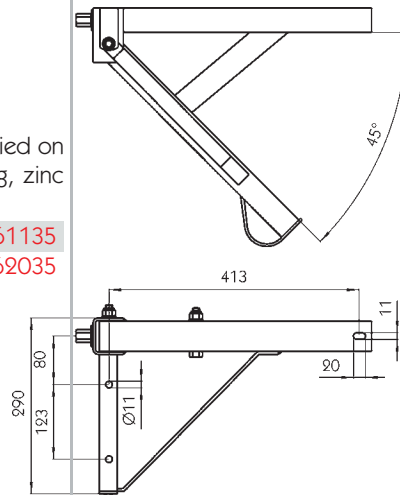


Illustration: left hand

Accessories
For corner steadies.

Hand cranks

Socket size 19 mm, zinc plated.

	Length [mm]	Weight [kg]	
Steel bar 10 mm	660	0.56	375161096
Steel bar 12 mm	670	0.91	375161002



Prop stands

LR

Gearbox drive 19 mm a/f, folds up using mounting tube LT/ST 0151, zinc plated.

Type	Outer tube Ø [mm]	Spindle stroke [mm]	Load capacity [kg]	Height [mm]	Weight [kg]	
LR 3102/19	57	250	1300	430	6.1	375161300
LR 3152/19	57	375	1300	560	7.1	375161301



LR

With crank, folds up using mounting tube LT/ST 0151, zinc plated.

Type	Outer tube Ø [mm]	Spindle stroke [mm]	Load capacity [kg]	Height [mm]	Weight [kg]	
LR 3102	57	250	1300	430	6.1	375161253
LR 3152	57	375	1300	560	7.1	375161254





LT 3103

With crank, folds up using mounting tube LT/ST 0151, zinc plated.

Type	Outer tube ∅ [mm]	Spindle stroke [mm]	Load capacity [kg]	Height [mm]	Weight [kg]
LT 3103	57	250	1300	430	6.1

375161272

Accessories

For prop stands LR and LT.



Mounting tube

LT/ST 0151

Zinc plated, weight 0.83 kg.

375161255



DG 590/3SF

4 x 85 mm, pull-out type, zinc plated steel.

Type	Outer tube ∅ [mm]	Spindle stroke [mm]	Load capacity [kg]	Height [mm]	Weight [kg]
DG 590/3SF	70	350	1500	592	12.5

375161290



DG 706/3SF

3 x 92 mm pull-out type, primer.

Type	Outer tube ∅ [mm]	Spindle stroke [mm]	Load capacity [kg]	Height [mm]	Weight [kg]
DG 706/3SF	80	310	2500	685	21.0

375161309

Illustration without plastic hand-grip **375161249**, this is supplied loose.

DT 490
 Primer

Type	Outer tube ∅ [mm]	Spindle stroke [mm]	Load capacity [kg]	Height [mm]	Weight [kg]	
DT 490	60	320	800	565	8.4	375161141

Illustration without plastic hand grip 375161249, this is supplied loose.

DG
 Primer

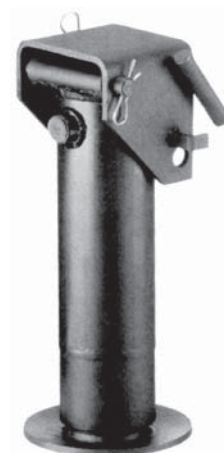
Type	Outer tube ∅ [mm]	Spindle stroke [mm]	Load capacity [kg]	Height [mm]	Weight [kg]	
DG 701	70	310	3000	620	14.5	375161142
DG 706	80	310	4000	620	15.6	375161143
DG 709	80	400	4000	870	19.4	375161263

DS 510/S
 With swivel mount, primer.

Type	Outer tube ∅ [mm]	Spindle stroke [mm]	Load capacity [kg]	Height [mm]	Weight [kg]	
DS 510/S	70	170	6000	455	15.5	375161262

DH 713
 Single acting spring return hydraulic jacking leg.

Type	Outer tube ∅ [mm]	Stroke [mm]	Load capacity at 100 bar [kg]	Height [mm]	Weight [kg]	
DH 713	100	250	5670	445	17.4	375161329



Spare parts

For prop stands page 195 - 197.



Hand grip

Spare part for majority of jockey wheels and prop stands, plastic.

375161249



End cap

Spare part for prop stand **375161141**, plastic.

375161247



Pin with chain

Zinc plated steel.

375161321

Spare part for prop stands **375161253**, **375161254**, **375161300** and **375161301**.



Prop stand

Without carrier, black KTL coated.

Load [kg]	Spindle stroke [mm]	Height [mm]	Weight [kg]
3000	180	370	23
5000	180	370	26

375161144
375161145

No longer available



Prop stands 90 mm pull-out type

Without carrier, black KTL coated.

Load [kg]	Spindle stroke [mm]	Height [mm]	Weight [kg]
3000	180	370	24
5000	180	370	27

375161146
375161147

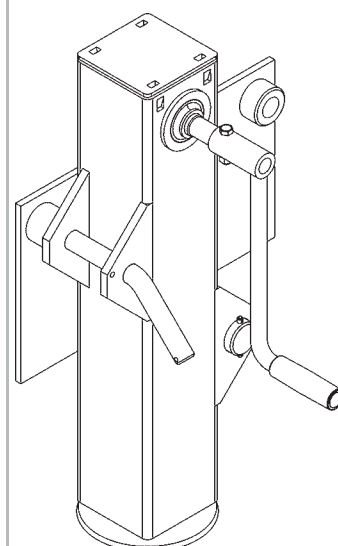
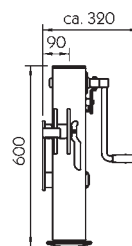
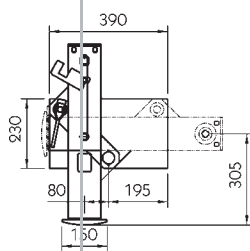
Accessories

For prop stands page 198.

Swing mount

Type A, black KTL coated, weight 7.72 kg.

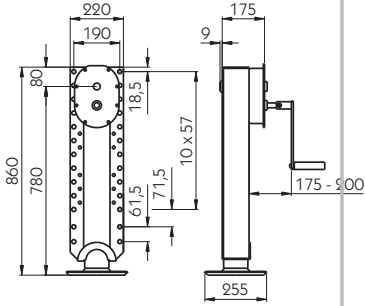
375161148



Prop stand 8248.2

With swing mechanism for centre axle trailers. Zinc phosphated and powder coated.

Stroke [mm]	Perm. load dynamic [kg]	Perm. load static [kg]	Cranking force [N]	Gear ratio	Stroke /crank turn [mm]	Mechanical advantage	Weight [kg]	
300	2000	7000	280	1.5	6.7	0.32	32	375481119

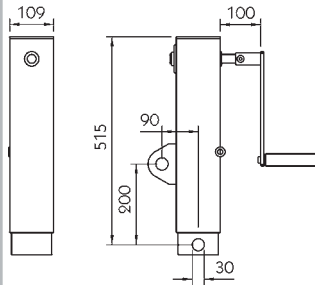
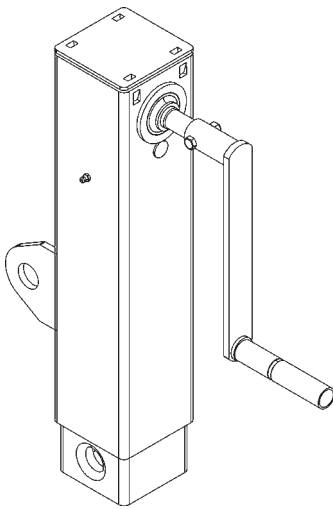


Prop stand S/VKmG

For centre axle trailers, zinc phosphated and powder coated.

Stroke [mm]	Perm. load dynamic [kg]	Perm. load static [kg]	Cranking force (at 10 t) [N]	Stroke Load gear [mm]	Stroke Rapid gear [mm]	Weight [kg]
550	12000	25000	255	1.0	20	43

375481128



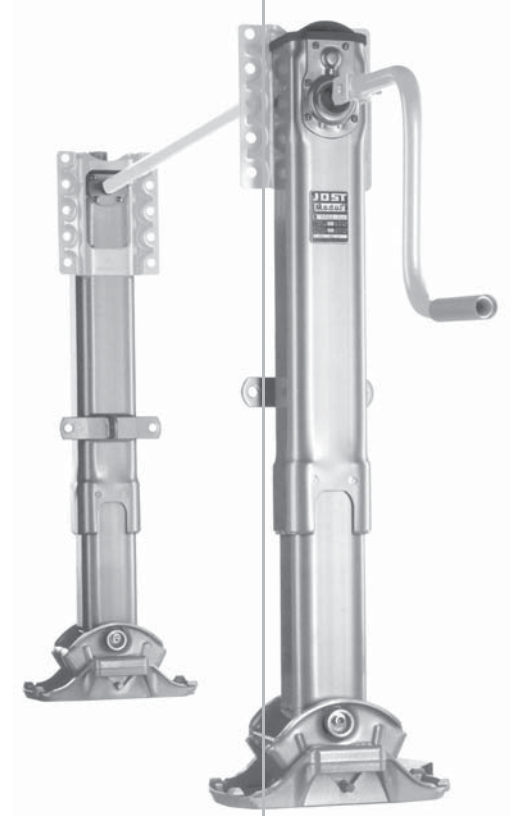
Spindle jack 8712

For height adjustable drawbars. Zinc phosphated and powder coated.

Stroke [mm]	Perm. load (ten./press.) dynamic	Perm. load (ten./press.) static	Cranking force [N]	Gear ratio	Stroke /crank turn [mm]	Mechanical- advantage	Weight [kg]
200	2	5	280	1.5	6.7	0.3	21

375481120

Telescopic landing legs



Jacking leg module

Load data

All values are per set

Lifting load [t] 24

Static load [t] 50 (35 with R feet)

Stroke per crank turn

Load gear [mm] 0.9

Rapid gear [mm] 24

Cranking force at 16 t lifting load [N] 210

Weights

Jacking leg set including crank and connecting drive shaft with:

S feet 110.41 kg

A feet 100.01 kg

R feet 112.15 kg

T feet 97.61 kg

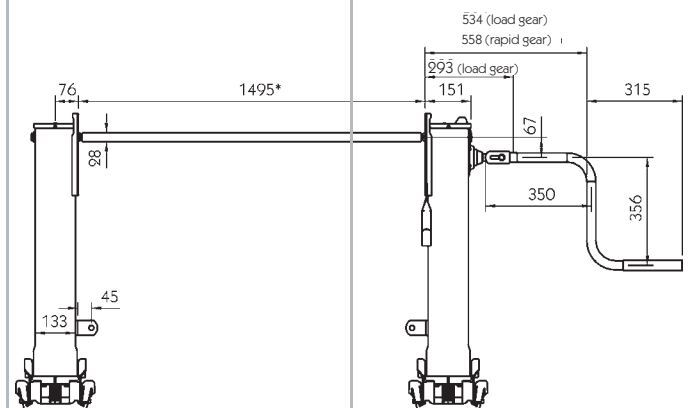
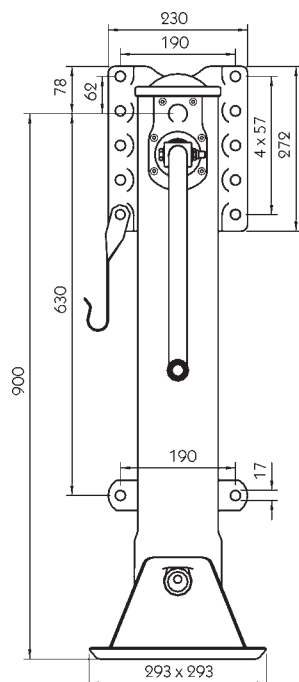
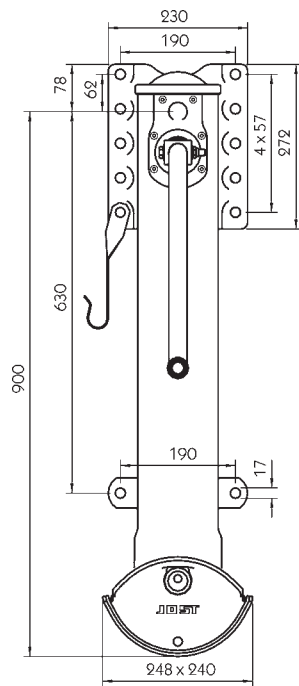
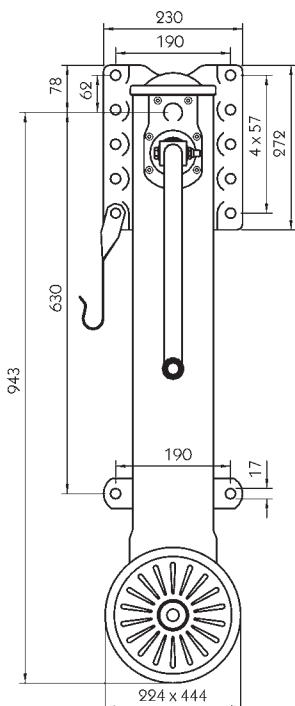
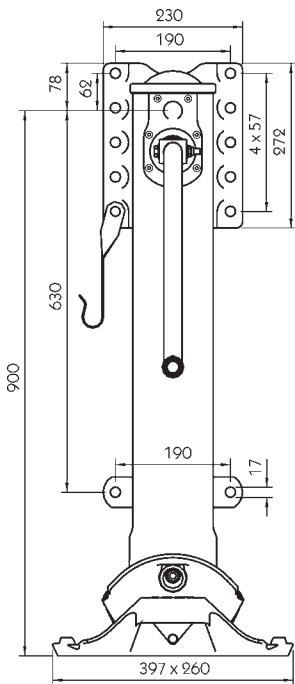


Illustration with S feet, *connecting drive shaft length 1470 mm.



Jacking leg set with S feet

The complete jacking leg set with S feet consists of the following individual parts to be ordered separately:

1 x jacking leg set	
Right hand jack with gearbox and top mounting plate,	
left hand jack with top mounting plate	178481106
2 x S feet, loose	178481107
1 x crank with retainer, loose	178481111
1 x connecting drive shaft, length 1470 mm, loose	178481112

Jacking leg set with A feet

The complete jacking leg set with A feet consists of the following individual parts to be ordered separately:

1 x jacking leg set	
Right hand jack with gearbox and top mounting plate,	
left hand jack with top mounting plate	178481106
2 x A feet, loose	178481108
1 x crank, with retainer, loose	178481111
1 x connecting drive shaft, length 1470 mm, loose	178481112

Jacking leg set with R feet

The complete jacking leg set with R feet consists of the following individual parts to be ordered separately:

1 x jacking leg set	
Right hand jack with gearbox and top mounting plate,	
left hand jack with top mounting plate	178481106
2 x R feet, loose	178481109
1 x crank, with retainer, loose	178481111
1 x connecting drive shaft, length 1470 mm, loose	178481112

Jacking leg set with T feet

The complete jacking leg set with T feet consists of the following individual parts to be ordered separately:

1 x jacking leg set	
Right hand jack with gearbox and top mounting plate,	
left hand jack with top mounting plate	178481106
2 x T feet, loose	178481110
1 x crank, with retainer, loose	178481111
1 x connecting drive shaft, length 1470 mm, loose	178481112

Spare parts
For jacking leg module.



Illustration: 178481107
S = wheel segment with support plate



Illustration: 178481108
A = wheel segment



Illustration: 178481109
R = support roller

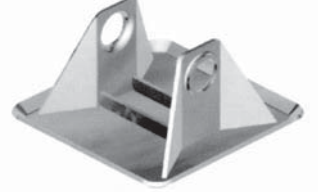


Illustration: 178481110
T = support plate

Jacking leg feet

Description

S foot	178481107
A foot	178481108
R foot	178481109
T foot	178481110

Crank handle
With handle retainer.
178481111

Connecting drive shaft
Length 1470 mm.
178481112



Included in the supply are:
1 right hand landing leg with gearbox, 1 left hand landing leg with gearbox, 2 crank handles, 1 connecting drive shaft, 2 crank handle retainers.

Landing leg E 240

With dual sided operation, lifting load 24 t, static load 50 t, lifting capacity in load gear 1.0 mm per crank turn, and in rapid gear 10.6 mm per crank turn, crank force per turn at 12 t lifting load: 9 kg, at 16 t lifting load: 12 kg, at 20 t lifting load: 15 kg and at 24 t lifting load: 18 kg.

Type	Dim. A [mm]	Dim. B [mm]	Dim. C [mm]	Dim. H [mm]	Weight [kg]	
E 240 with G foot	950	870	576	460	88.0	107481060
E 240 with R foot	950	870	576	460	105.0	107481058
E 240 with T foot	950	870	576	460	94.0	107481059
E 240 with A foot	950	870	576	460	100.0	107481065
E 240 with S foot	950	870	576	460	112.6	107481068

No longer available

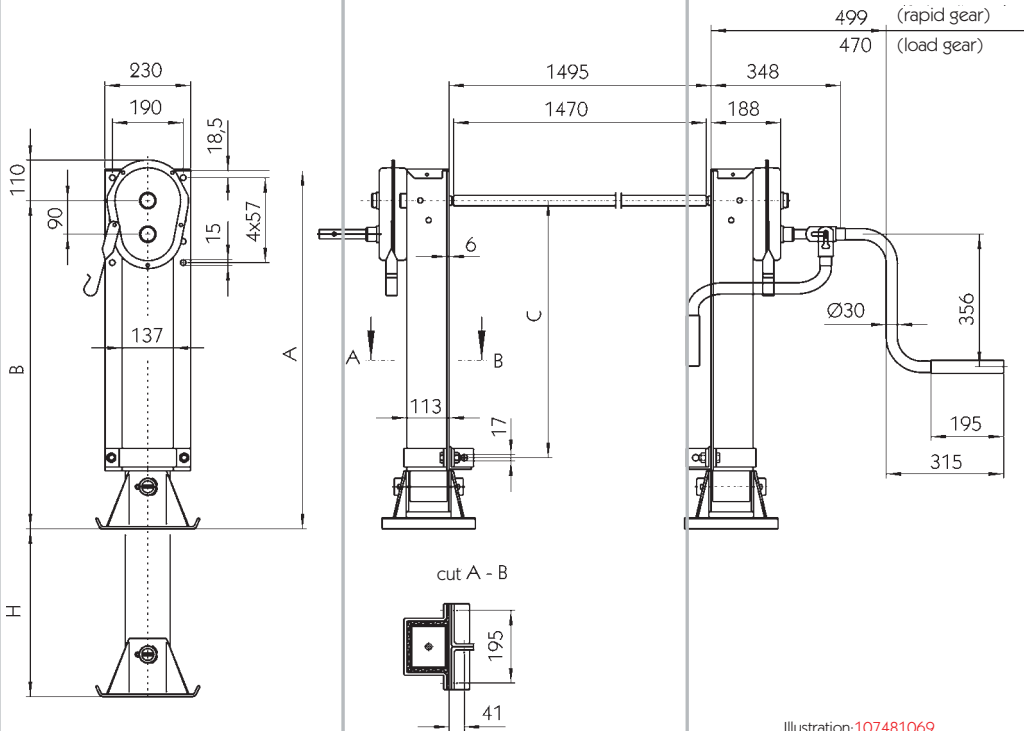


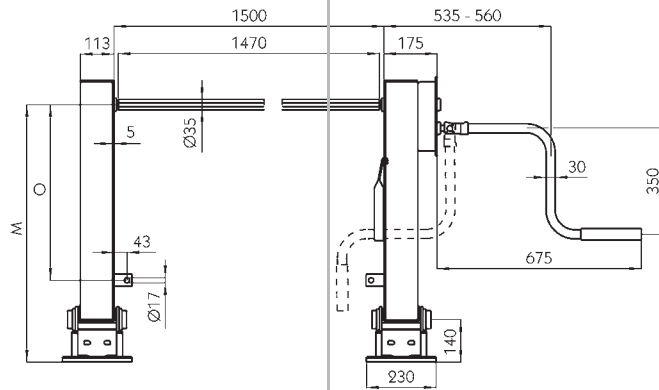
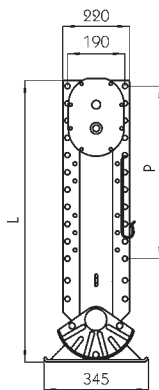
Illustration: 107481069

Included in the supply are:
1 landing leg with gearbox,
1 landing leg without gearbox,
1 hand crank,
1 connecting drive shaft,
1 crank handle retainer.

Landing leg E 100 T Aluminium construction

With single sided operation, lifting load 24 t, static load 50 t, lifting capacity in load gear 1.0 mm per crank turn, and in rapid gear 10.6 mm per crank turn, crank force per turn at 12 t lifting load: 17 kg, at 16 t lifting load: 23 kg, at 20 t lifting load: 29 kg and at 24 t lifting load: 35 kg.

Type	Dim. A [mm]	Dim. B [mm]	Dim. C [mm]	Dim. H [mm]	Weight [kg]	
E 100 T with T foot	960	880	690	450	61.0	107481069
E 100 A with A foot	970	890	690	450	64.1	107481071



Landing leg S 2000 PLUS

With single sided operation, support feet "A", permissible dynamic load 24 t, static load 50 t, lifting capacity in load gear 1.0 mm per turn, and in rapid gear 20 mm per turn, cranking force per turn at 16 t lifting load: 230 kN.

Dim. L [mm]	Dim. M [mm]	Dim. N [mm]	Dim. O [mm]	Dim. P [mm]	Weight [kg]	
930	850	510	580	570	100.1	375482001
880	800	460	530	513	96.6	375482002
830	750	410	480	456	92.7	375482003
780	700	360	430	456	88.8	375482004

Included in the supply are:
 1 landing leg with gearbox,
 1 landing leg without gearbox,
 1 hand crank,
 1 connecting drive shaft,
 1 crank handle retainer.

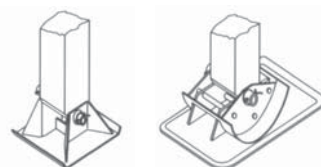
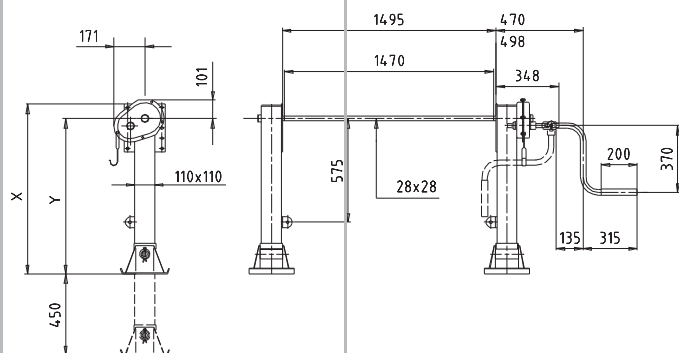


Illustration left: support foot "T", right: support foot "S".

Landing leg LG 3000

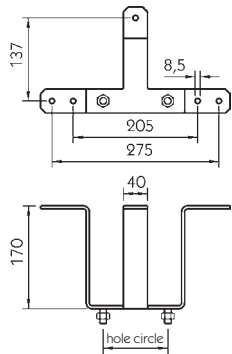
With single sided operation, lifting load 24 t, static load 50 t, lifting capacity in load gear 1.0 mm per crank turn, in rapid gear 10.6 mm per crank turn, crank force per turn up to 20 t lifting load: 29 kg, up to 24 t lifting load: 35 kg.

Type	Dim. X [mm]	Dim. Y [mm]	Weight [kg]	
LG A1BM1 with T foot*	940	860	90	130484056
LG A1CM1 with S foot*	960	880	97	130484067

*Other support feet on request.



Spare wheel carriers and cable winches



Type	Weight [kg]
For 4-hole wheel	1.41
For 5-hole wheel	1.41

Spare wheel carrier

For car trailer with 4-hole (hole circle Ø 100 mm) or 5-hole wheel (hole circle Ø 112 mm), zinc plated.

250161295
250161296



Spare wheel cable winch type 67

With fixed or removable crank handle, winching capacity 250 daN, for cable Ø 6 mm or 8 mm, housing length x width 140 x 80 mm, hole spacing width x height 115 x 120 mm, hole Ø 12 mm, weight 5.5 kg.

Type
Winch with fixed hand crank
Winch with removable hand crank
Winch with fixed fold-in handle

250161322
250161011
250161012

Illustration: 250161011

Accessories

For spare wheel cable winch type 67.



Hand crank

Weight 0.69 kg, zinc plated steel.

250161013



Spare wheel cable winch type 90

Only for offset wheels, with adjustable carrier arm, universally applicable for wheel fixing dimensions: 6/161/205, 6/202/245, 8/221/275, 10/281/335 and 10/176/225. Winching force 250 daN, with self-limiting gearbox, nylon cable Ø 8 mm, weight 14.0 kg.

250161179

Accessories

For spare wheel cable winch type 90.



Hand crank
Weight 1.59 kg, KTL coated steel.
250161183



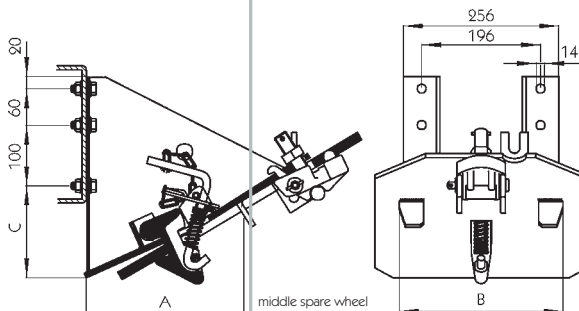
Spare wheel carrier for light goods vehicles
Maximum tyre size 8.25" - 20", only for offset wheels.

Type	Installed height [mm]	Suitable for wheels with fixing dimensions	Weight [kg]
ERH 6/205	260	6/161/205 Daimler Benz	11 250161126
ERH 6/245	260	6/202/245 MAN/Magirus IVECO	11 250161127



Illustration: 250161126

The spare wheel carrier **250161126** - **29** are not suitable for aluminium wheel rims.



Spare wheel carrier for medium weight and heavy goods vehicles
Only for offset wheels.

Type	Dim. A [mm]	Dim. B [mm]	Dim. C [mm]	Hole circle [mm]	Wheel rim thick. max [mm]	Weight [kg]
ERH 8/275	approx. 150	210	43	275	16	14.3 250161128
ERH 10/335	approx. 188	270	43	335	16	16.4 250161129



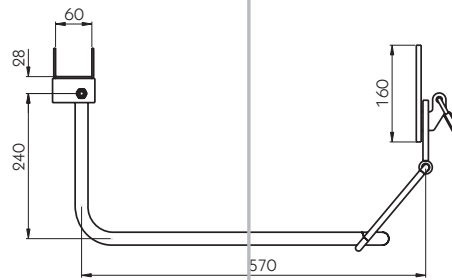
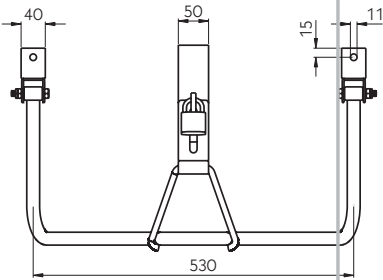
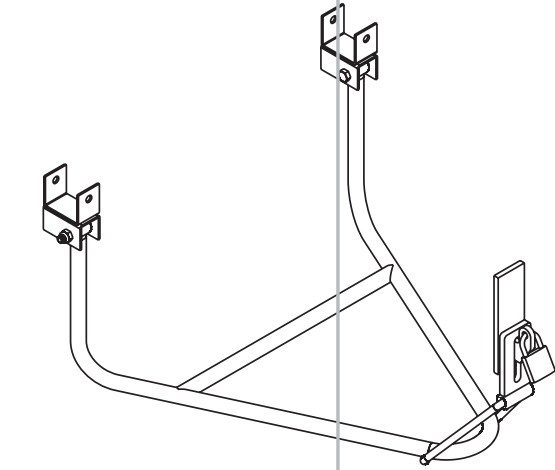
Illustration: 250161129

Accessories

For spare wheel carrier for medium weight and heavy goods vehicles.

Fitting lever
Length 900 mm, weight 1.43 kg, KTL coated steel.
250161130

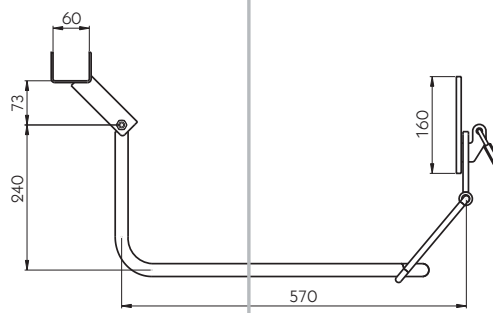
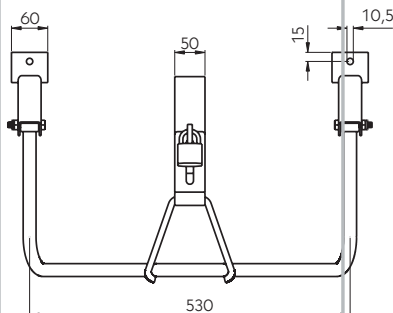
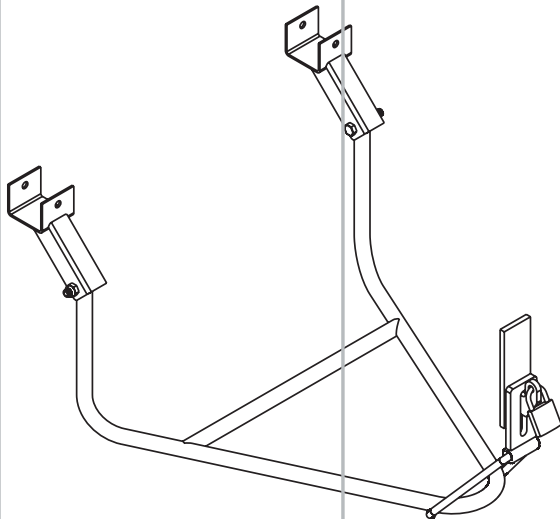




PWP spare wheel carrier with standard holder

Bearing brackets and carrier zinc galvanised, weight 5.18 kg.

105161238

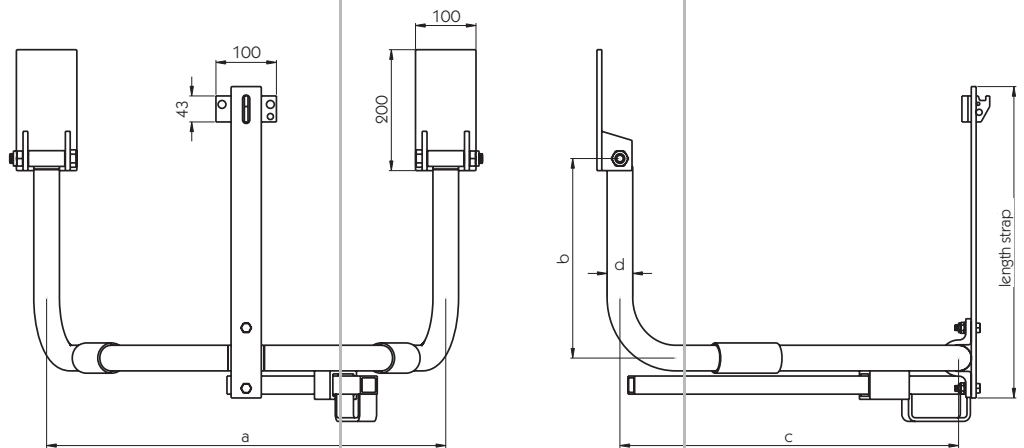
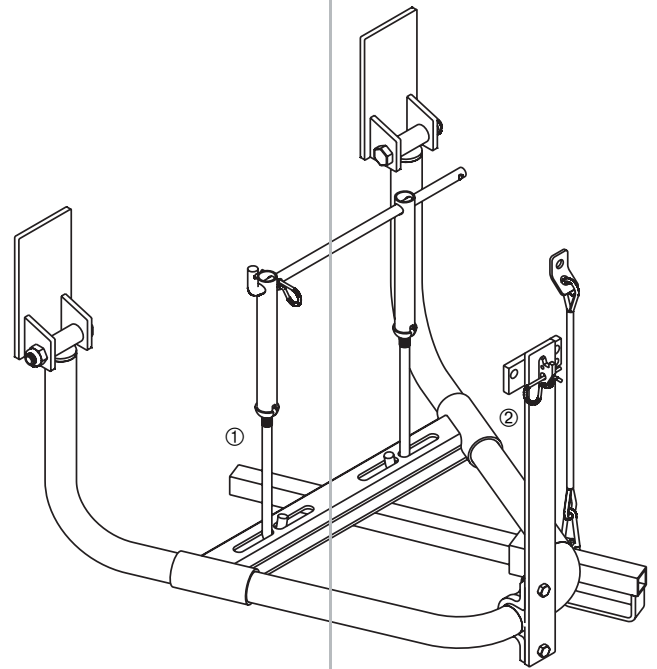


PWP spare wheel carrier for MB Sprinter and VW LT

For 208 D - 312 D with 3550 mm and 4250 mm wheelbases, for double cab with 4250 mm wheelbase, bearing brackets and carrier zinc galvanised, weight 5.18 kg.

105161239

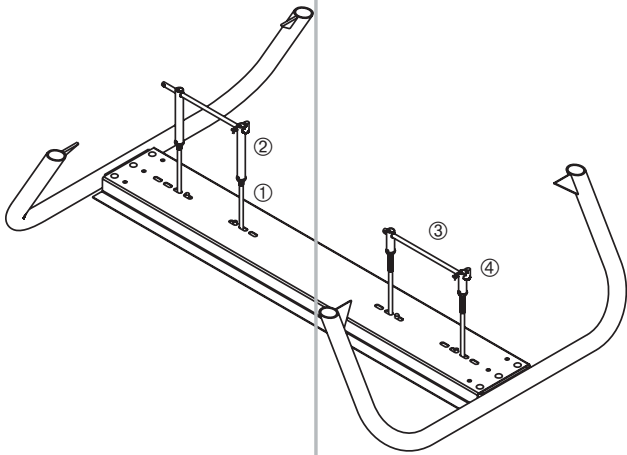
Due to differing wheel dimensions, 2 hook bolts ① and 1 strap ② for each carrier must be ordered separately.



PWP spare wheel carrier type 89

With wheel hub securing device, including fitting kit, all parts zinc galvanised, bearings and U-brackets self colour.

Wheel Ø [mm]	Carrier frame Dim. d [mm]	Dim. a [mm]	Dim. b [mm]	Dim. c [mm]	Fitting kit	Weight complete [kg]	
700 - 750	tube Ø 42.4 x 3.2	660	330	560	B	22.65	105161150
765 - 850	tube Ø 42.4 x 3.2	705	330	675	B	23.15	105161151
855 - 930	tube Ø 42.4 x 3.2	730	330	760	B	23.65	105161152
940 - 1020	tube Ø 48.3 x 3.6	860	430	790	A	26.70	105161153
1020 - 1090	tube Ø 48.3 x 3.6	900	430	845	A	27.50	105161154
1020 - 1090	tube Ø 48.3 x 3.6	900	590	845	A	28.50	105161155
1080 - 1150	tube Ø 48.3 x 3.6	900	430	920	A	28.00	105161156
1080 - 1150	tube Ø 48.3 x 3.6	900	590	920	A	29.50	105161157

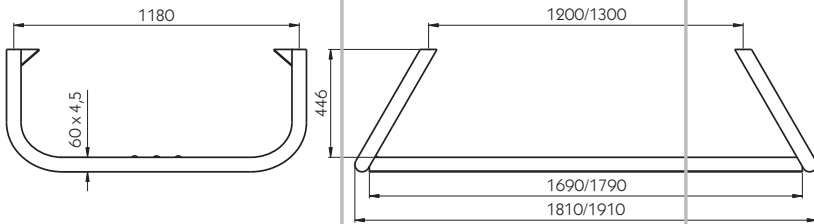


PWP spare wheel carrier for 2 wheels

Max. wheel Ø 1070 mm.

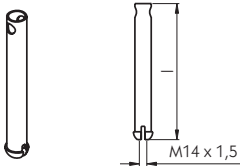
105161280

Due to the differing wheel dimensions, 2 hook bolts ①, 2 tube nuts ② and 2 tie rods ③ including their fasteners ④ must be ordered separately.



Spare parts/accessories

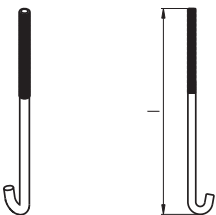
For PWP spare wheel carrier type 89 and PWP spare wheel carrier for 2 wheels.



Tube nut Zinc plated.

Dim. l [mm]	Weight [kg]
95	0.13
225	0.27

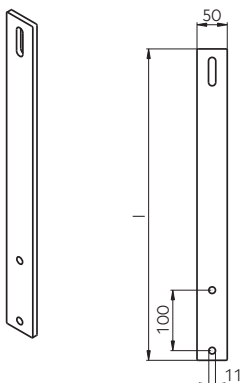
105161261
105161229



Hook bolt Zinc galvanised.

Dim. l [mm]	Weight [kg]
340	0.26
415	0.45

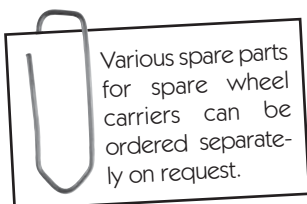
105161288
105161162



Strap Zinc galvanised.

Dim. l [mm]	Weight [kg]
515	1.60
640	2.00
735	2.30
855	2.70

105161163
105161164
105161165
105161166



Tie rod
105161240

Safety loop
 Nylon, weight 2 grams.
105161241

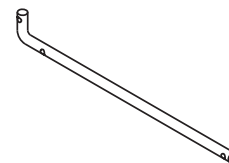
Fitting kit A
 Weight 6.3 kg.
105161158

Fitting kit B
 Weight 6.0 kg.
105161159

Safety cable
 With fixing plate and carbine,
 length o/a approx. 910 mm, zinc
 plated steel, weight 0.23 kg.
105161269

Padlock
 With safety loop, weight 0.14 kg.
105161167

Adjuster element
 Steel, zinc galvanised, weight
 0.14 kg.
105161228



Wheel chocks and chock holders



Description

Plastic wheel chock

For axles up to 1600 kg, dimensions 222 x 90 x 100 mm (l x w x h), white PE.

Weight [kg]

Wheel chock

0.23

250141600

Holder

0.04

250141601

No longer available



Description

Plastic wheel chock

For axles up to 1600 kg, dimensions 224 x 90 x 99 mm (l x w x h), white PE.

Weight [kg]

Wheel chock

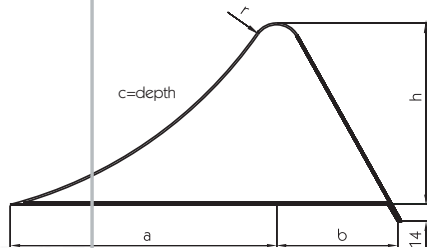
0.18

250141115

Holder

0.04

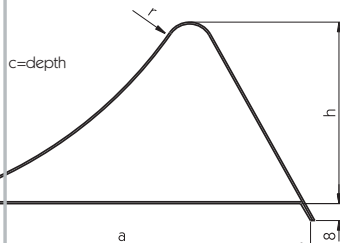
250141116



Wheel chock

Wheel chock to DIN 76051 part 1, Form D (with front hand hold).

Type	Dim. a	Dim. b	Dim. c	Dim. h	Dim. r	Wheel load on the chock	Finish	Weight	
	[mm]	[mm]	[mm]	[mm]	[mm]	[kg]		[kg]	
Gr. 360	220	100	120	150	360	1600	primer	1.92	250141410
Gr. 460	260	120	160	190	460	5000	primer	3.34	250141411
Gr. 460	260	120	160	190	460	5000	zinc plated	3.34	250141538
Gr. 530	320	150	200	230	560	6500	primer	5.31	250141412
Gr. 530	320	150	200	230	560	6500	zinc plated	5.31	250141539



Wheel chock

Wheel chock similar to DIN 76051 Part 1 (Dimensions issue, November 1964), Form D (with front hand hold).

Type	Dim. a	Dim. c	Dim. h	Dim. r	For vehicles with permissible GVW.	Weight	
	[mm]	[mm]	[mm]	[mm]	[t]	[kg]	
D 250	250	110	140	340	2.5 - 6	1.33	250141107
D 280	280	150	170	500	6 - 9	2.52	250141108
D 340	340	170	200	550	9 - 15	3.46	250141109
D 400	400	190	230	600	over 15	5.04	250141110



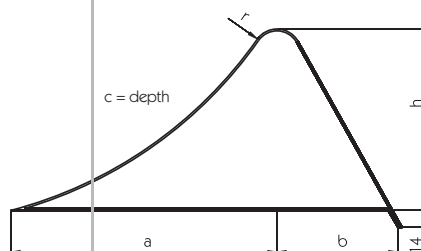
Wheel chock holder
For above wheel chocks to DIN 76051, Part 1, Form D.

Type	For chock	Inside width [mm]	Finish	Weight [kg]	
H 250	D 250	115	primer	1.24	250141111
H 280	D 280	155	primer	1.53	250141112
H 340	D 340	175	primer	1.87	250141113
H 360	Gr. 360	125	primer	1.32	250141413
H 400	D 400	195	primer	2.03	250141114
H 460	Gr. 460	165	primer	1.72	250141414
H 460	Gr. 460	165	zinc plated	1.72	250141540
H 530	Gr. 530	205	primer	2.24	250141415
H 530	Gr. 530	205	zinc plated	2.24	250141541



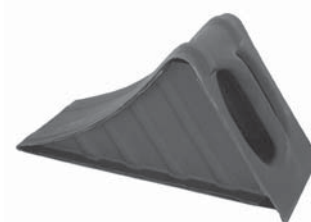
Tension springs
Spare parts for wheel chock holders

Spring for H 250/H 280/H 360	250141480
Spring for H 340/H 400/H 530	250141482



Wheel chock
Chock to DIN 76051, part 1, form G.

Type	Nominal size	Dim. a	Dim. b	Dim. c	Dim. h	Dim. r	Stat. tyre radius up to max. [mm]	Finish	Weight [kg]	
G 36, with hole	380	220	100	120	150	360	360	primer	1.0	250141398
G 36, with hole	380	220	100	120	150	360	360	zinc plated	1.0	250141401
G 46, without hole	480	260	120	160	190	460	460	primer	2.2	250141399
G 46, without hole	480	260	120	160	190	460	460	zinc plated	2.2	250141402
G 53, without hole	600	320	150	200	230	560	530	primer	4.0	250141400
G 53, without hole	600	320	150	200	230	560	530	zinc plated	4.0	250141403



Rubber wheel chock
Similar to DIN 76051, dimensions 350 x 160 x 190 mm (l x w x h), colour black.

Type	Weight [kg]	
Wheel chock G 46	6.68	250141473



Plastic wheel chock
DIN 76051, dimensions 475 x 200 x 227 mm (l x w x h), colour yellow.

Description	Weight [kg]	
Wheel chock G 53	1.84	250141652





Plastic wheel chock

DIN 76051, dimensions 385 x 160 x 198 mm (l x w x h), colour yellow, PP.

Description

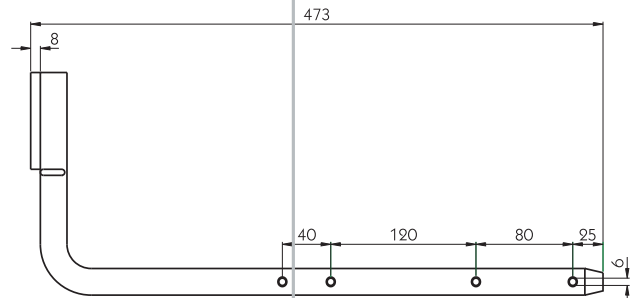
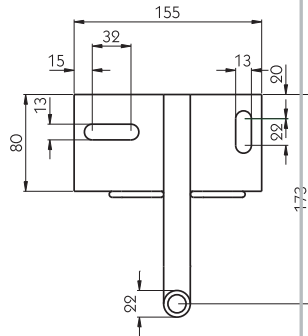
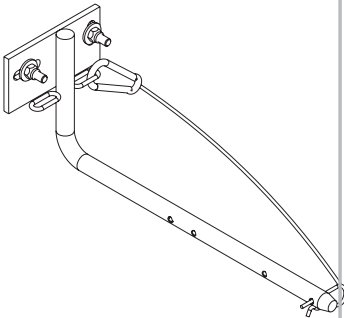
Weight

[kg]

Wheel chock G 46

1.91

250141701



Wheel chock holder

Maximum 2 plastic wheel chocks
250141701 and/or 250141652,
zinc plated, weight 2.79 kg.

250141717

No longer available

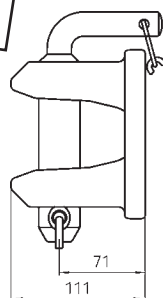
Wheel chock holder

To DIN 76051.

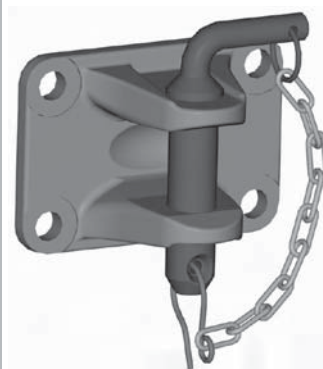
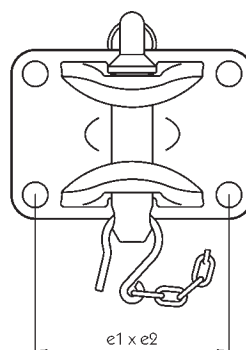


Type	Nominal size [mm]	Inside width [mm]	Finish	Weight [kg]	
G 36	380	125	primer	0.50	250141404
G 36	380	125	zinc plated	0.50	250141407
G 46	480	165	primer	0.80	250141405
G 46	480	165	powder coated	0.80	136141660
G 46	480	165	zinc plated	0.80	250141408
G 53	600	205	primer	1.30	250141406
G 53	600	205	powder coated	1.30	136141661
G 53	600	205	zinc plated	1.30	250141409
G 53	600	205	galvanised	1.30	136141664

All breakdown couplings are supplied without type approval plate. Type SK 30 complies with the directive 79/533/EEC and 77/389/EEC, type SK 5A complies with the directive 77/389/EEC. For use with drawbar eyes 40 mm (DIN 74054), 50 mm (DIN 74053) and drawbar eyes to NATO (VG 74059) standards.



Breakdown couplings



Illustrations: 115462119

Breakdown coupling

Designation	Permissible towing load [t]	e1 x e2 [mm]	Ø of fixing screws (please order separately)	Weight [kg]	
Type 6434	20	120 x 55	M 14	4.0	115462166
Type 6441	25	140 x 80	M 16	5.9	115462118
Type 6451	25	160 x 100	M 20	7.5	115462119
Type 6451 V	50	160 x 100	M 20	7.5	115462167

Push, shunt and breakdown couplings

Designation	Permissible Towing load [t]	Fixing hole spacing [mm]	Weight [kg]	
Type SK 30	25	120 x 55	4.0	114462184
Type SK 5	25	160 x 100	6.7	114461063
Type SK 5A	50	160 x 100	6.7	114461064
Type SK 7	25	140 x 80	6.0	114461065

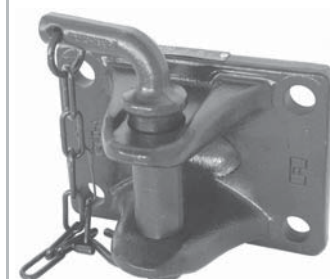


Illustration: 114461063

Accessories

For non-automatic push, shunt and towing couplings.

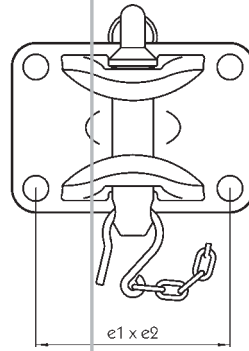
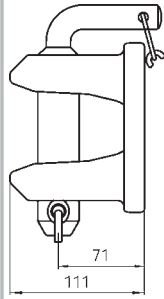


Par. 32 sect. 3 of the StVZO (German road traffic law) states that no parts shall project beyond the outline of the vehicle in a way that endangers traffic more than is unavoidable. Breakdown couplings, which are mounted on the bumper and project beyond vehicle periphery and which cannot otherwise be recessed, must be equipped accordingly with protective padding.

Protective cover

To par. 32 sect. 3, StVZO (German road traffic law).

114461151



Tow coupling GM 10

Designation	Perm. towed load [t]	e1 x e2 [mm]	Weight [kg]	
GM 103	20	120 x 55	4.0	130464184
GM 104	25	140 x 80	6.0	130464065

Farm trailer couplings



Illustrations: above 215451017,
below 215451019



The couplings for agricultural trailers are not permitted for supporting static loads.

Couplings for agricultural trailers

Designation	Perm. towed load [kg]	Hole spacing [mm]	V max. trailer [km/h]	Cert. mark	Weight [kg]	
CKD 4.3	4300	110	25	F 534	3.2	215451017
AW 8	8000	150	40	F 685	5.4	215451019

Spare parts For couplings for agricultural trailers.



Coupling pin
Ø 30 mm, with 200 mm long chain and spring cotter double, weight 0.85 kg.
215451020

The farm trailer couplings are not approved for static loads.

Farm trailer coupling

Designation	Perm. trailer load [kg]	Hole spacing [mm]	Hole Ø [mm]	No. of holes	Weight [kg]	
K 80	8000	110 - 150	16.5	2	4.5	215451090



Spare parts
For farm trailer couplings.

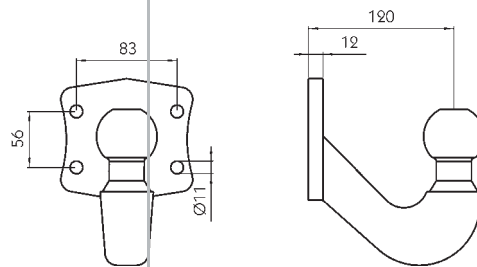
Towing pin
Ø 30 mm.
215451057



Safety spring
215451058

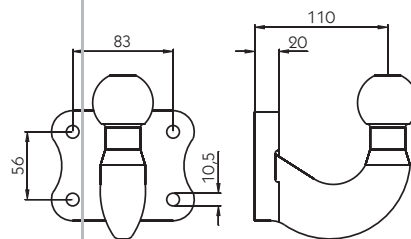


Trailer couplings



Ball hitch

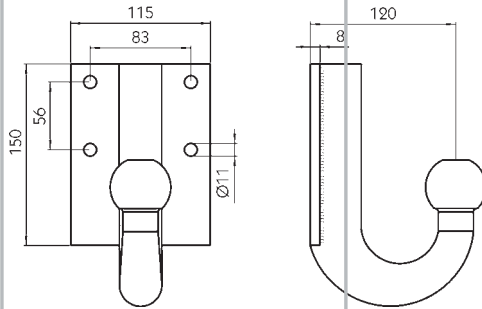
Designation	Cert. mark	D value ± [kN]	S load [kg]	Weight [kg]	
Type 329062	Ⓢ00-0585	23.5	150	3.0	315451106



Ball hitch

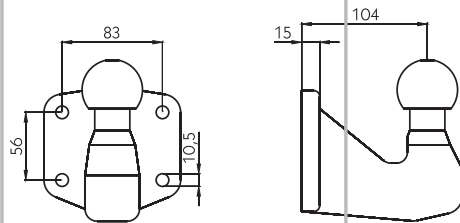
Designation	Cert. mark	D value ± [kN]	S load [kg]	Weight [kg]	
Type D 125/1	Ⓢ*94/20*0019*	25.0	120	3.4	315451135





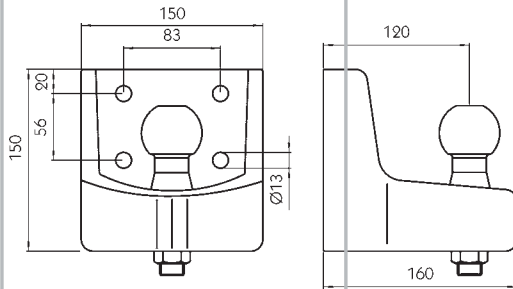
Ball hitch

Designation	Cert. mark	D value ± [kN]	S load [kg]	Weight [kg]	
Type 321169	F 3367	17.2	75	3.9	315451107



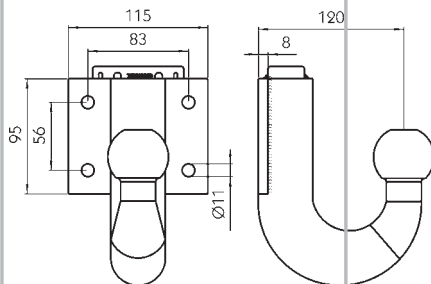
Ball hitch

Designation	Cert. mark	D value ± [kN]	S load [kg]	Weight [kg]	
Type KK 370	©2358	24.8	300	4.0	856739000



Ball hitch

Designation	Cert. mark	D value ± [kN]	S load [kg]	Weight [kg]	
Type 329060	©00-0075	25.1	120	8.5	315451108



Ball hitch

Designation	Cert. mark	D value ± [kN]	S load [kg]	Weight [kg]	
Type 329042	F 3845	17.2	100	4.4	315451109

Plastic cap
Blue, loose.
315451117

Accessories
For towing balls.



Technical data

Hole plan [mm]	D max. [kN]	Dc max. [kN]	S max. [kg]	V max. [kN]
83 x 56	30	30	250	12

The given values are valid only for the Variobloc RO*100.
The lowest load values from the component combination of vehicle, Variobloc RO*100 and coupling may not be exceeded.
It is mandatory to register the Variobloc RO*100 in the vehicle documentation.

The multi-functional Variobloc interchange system for goods vehicles, off-road vehicles and buses, besides the basic idea of rapid and simple switching of various types of trailer couplings (see under possible combinations), is also suitable for mounting tow bar carrier systems or utility equipment.

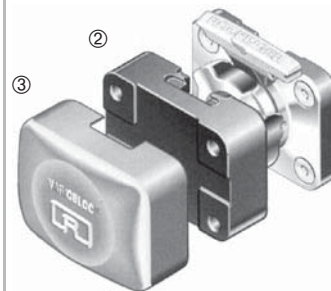
The complete Variobloc consists of the individual parts: base plate ①, which is rigidly mounted on the vehicle, the adapter plate ②, which is screwed to the coupling/carrier system or utility equipment, and the protective cover ③. It is recommended that each interchangeable coupling unit has its own adapter plate ② fitted to it.

Variobloc

Designation	Parts supplied	Weight [kg]	
RO*100, complete	①, ②, ③	2.6	114462219
RO*100, without adapter plate	①, ③	1.35	114462220
Adapter plate	②	1.25	114462221



①



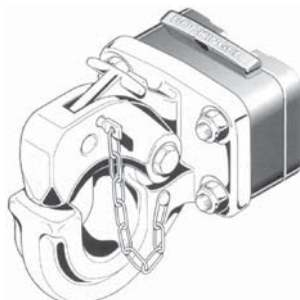
②

③

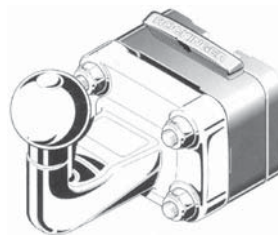
Possible combinations

Any coupling with the 83 x 56 mm hole plan can be fitted.

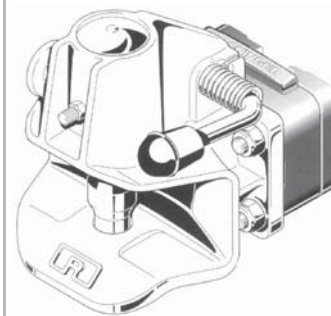
The permissible load values are dependent on vehicle, Variobloc and coupling. When deploying towing balls, specifically measured areas within which range the centre point of the ball must lie, have to be considered for the permissible load values.



Example:
Hook coupling 231 A

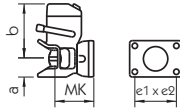


Example:
Towing ball D 125/1
(Article no. **315451135**)



Example:
Pin coupling 243 A
(Article no. **114462197**)

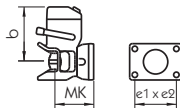
Fully automatic trailer couplings



RO*243

For Ø 40 mm drawbar eyes to DIN 74054-40 and EC 94/20 Class D. Hand lever upwards.

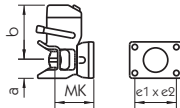
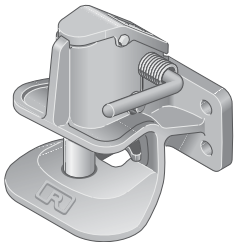
Designation	Dim. MK [mm]	Dim. a [mm]	Dim. b [mm]	e1 x e2 [mm]	D value [kN]	Dc Value [kN]	V value [kN]	S load [kg]	Weight [kg]	
RO*243 U 115	85	66	117	83 x 56	30	18/30	12/8.4	250	4.1	114462197
RO*243 U 130	85	66	117	120 x 55	30	30	12	350	4.4	114462217



GA 384 A0

For Ø 40 mm drawbar eyes to ©*94/20*3281*00 Class S, hand lever upwards.

Designation	Dim. MK [mm]	Dim. a [mm]	Dim. b [mm]	e1 x e2 [mm]	D value [kN]	S load [kg]	Weight [kg]	
GA 384 A0	85	---	127	83 x 56	30	350	5.8	130464197



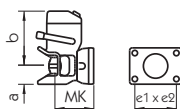
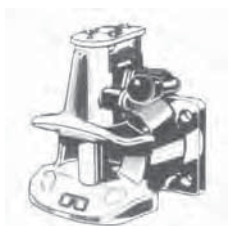
RO*244

To DIN 15170 for factory vehicles and their trailers, for Ø 40 mm drawbar eyes to DIN 74054-40 and EC 94/20 Class S, and DIN 8454. Hand lever upwards.

Designation	Dim. MK [mm]	Dim. a [mm]	Dim. b [mm]	e1 x e2 [mm]	Perm. GVW towing vehicle [kg]	Perm. GVW trailer [kg]	Weight [kg]	
RO*244	105	58	129	130 x 30	4500	2000*	6.0	114462198
RO*244 D	105	58	129	120 x 55	5000	4000**	6.0	114462199

No longer available

* Up to 2 trailers of 2000 kg GVW each (without static load).
** Up to 5 trailers of 4000 kg GVW each (without static load).



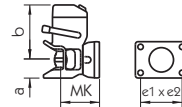
RO*245

For in-company vehicles, for Ø 40 mm drawbar eyes to DIN 74054-40 and EC 94/20 Class S, and DIN 8454. Hand lever upwards.

Designation	Dim. MK [mm]	Dim. a [mm]	Dim. b [mm]	e1 x e2 [mm]	D value [kN]	Perm. GVW towing vehicle [kg]	Perm. GVW trailer [kg]	S load [kg]	Weight [kg]	
RO*245 A	118	56	156	140 x 80	73.6	10000	3000	350	12.6	114462204

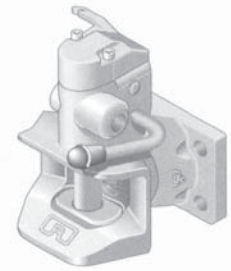
Both coupling systems vary only in respect of their coupling pins. The RO*850 has a cylindrical pin \varnothing 30.6 mm, and the RO*860 has a ball shaped \varnothing 38 mm pin.

No longer available



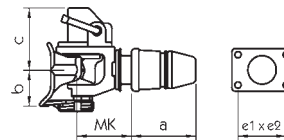
RO*850/ RO*860

For agricultural vehicles to Par. 43, Sect. 4 StVZO (German road traffic law), for \varnothing 40 mm drawbar eyes to DIN 74054-40 and EC 94/20 Class S, to DIN 11026 and DIN 11043. Hand lever upwards.



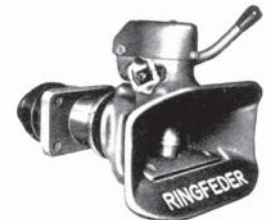
Designation	Dim. MK [mm]	Dim. a [mm]	Dim. b [mm]	e1 x e2 [mm]	Permissible Tractor weight [kg]	S load [kg]	D value [kN]	
RO*850 U 140	128	62	182	140 x 80	11000	2000	78.2	114462200
RO*850 B 03	128	62	182	160 x 100	14000	2000	89.3	114462211
RO*860 B 40	128	62	182	140 x 80	11000	2000	78.2	114462212
RO*850 B 50	128	62	182	160 x 100	14000	2000	89.3	114462213

No longer available

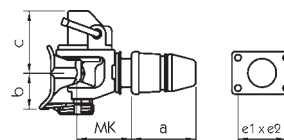


863/ 864

For \varnothing 40 mm drawbar eyes to DIN 74054-40 and EC 94/20 Class S.



Designation	Hand lever	Dim. MK [mm]	Dim. a [mm]	Dim. b [mm]	Dim. c [mm]	e1 x e2 [mm]	D value [kN]	Dc value [kN]	V value [kN]	S load [kg]	Weight [kg]	
863 A	upwards	168	150	114	160	120 x 55	70	70.0	28.2	700	27	115462194
864 A	upwards	168	162	114	160	140 x 80	100	90.0	35.0	1000	33	115462195
864 B	downwards	168	162	114	160	140 x 80	100	90.0	35.0	1000	33	115462196

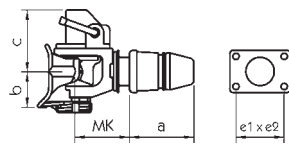
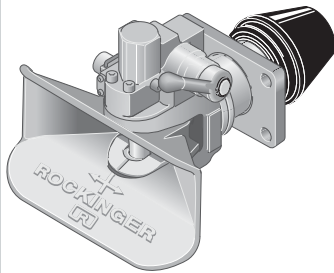


86

For \varnothing 40 mm drawbar eyes to DIN 74054-40 and EC 94/20 Class S. Hand lever upwards.



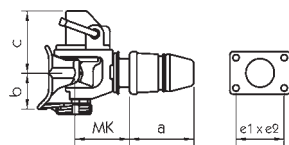
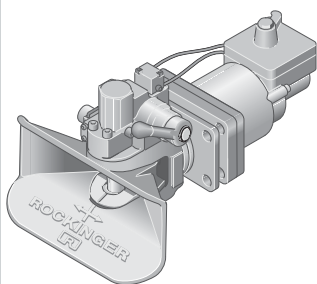
Designation	Dim. MK [mm]	Dim. a [mm]	Dim. b [mm]	Dim. c [mm]	e1 x e2 [mm]	D value [kN]	Dc value [kN]	V value [kN]	S load [kg]	Weight [kg]	
86 G 110 A	126	153	114	160	83 x 56	66	35.0	15.5	500	20	115462155
86 G 135 E	168	150	114	160	120 x 55	70	70.0	20.0	700	26	115462157
86 G 145 A	168	162	114	160	140 x 80	100	70.0	25.0	950	32	115462158
86 G 150 A	175	155	114	160	160 x 100	130	72.0	25.0	1000	33	115462159



RO*400

For Ø 40 mm drawbar eyes to DIN 74054-40 and EC 94/20 Class S. Hand lever upwards.

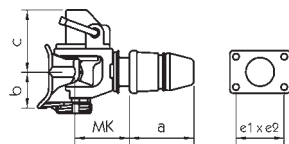
Designation	Dim. MK [mm]	Dim. a [mm]	Dim. b [mm]	Dim. c [mm]	e1 x e2 [mm]	D value [kN]	Dc value [kN]	V value [kN]	S load [kg]	Weight [kg]	
RO*400 G 135 A	160	148	113.5	180	120 x 55	70	70.0	24.0	700	30	114462205
RO*400 G 145 A	164	168	113.5	180	140 x 80	100	91.5	31.2	1000	34	114462206
RO*400 G 150 A	164	168	113.5	180	160 x 100	130	90.0	35.0	1000	35	114462207



RO*430

For Ø 40 mm drawbar eyes to DIN 74054-40 and EC 94/20 Class S. Hand lever upwards.

Designation	Dim. MK [mm]	Dim. a [mm]	Dim. b [mm]	Dim. c [mm]	e1 x e2 [mm]	D value [kN]	Dc value [kN]	V value [kN]	S load [kg]	Weight [kg]	
RO*430 G 145 A	166	273	113.5	180	140 x 80	100	91.5	36	1000	51	114462208
RO*430 G 150 A	166	273	113.5	180	160 x 100	130	91.5	36	1000	52	114462209

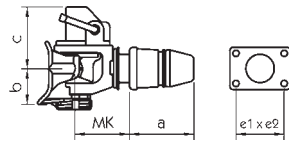
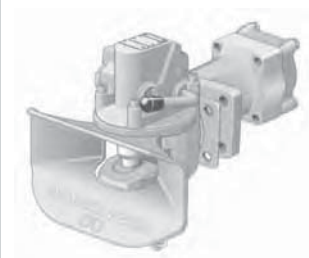


RO*500

For Ø 50 mm drawbar eyes to DIN 74053-50 and EC 94/20 Class D. Hand lever upwards.

Designation	Dim. MK [mm]	Dim. a [mm]	Dim. b [mm]	Dim. c [mm]	e1 x e2 [mm]	D value [kN]	Dc value [kN]	V value [kN]	S load [kg]	Weight [kg]	
RO*500	170	209	120	200	160 x 100	190	135	72.5	1000	43	114462110
RO*500	195	184	120	200	160 x 100	190	113	43.2	2500	44	114462223

No longer available



RO*700

For Ø 50 mm drawbar eyes to DIN 74053-50 and EC 94/20 Class D.

Designation	Hand lever	Dim. MK [mm]	Dim. a [mm]	Dim. b [mm]	Dim. c [mm]	e1 x e2 [mm]	D value [kN]	Dc value [kN]	V value [kN]	S load [kg]	Weight [kg]	
RO*700	upwards	194.5	208	120	200	160 x 100	190	135	72.5	1000	50	114462164
RO*700 ¹	upwards	194.5	208	120	200	160 x 100	190	135	72.5	1000	50	114462192
RO*700 ²	none	194.5	208	120	200	160 x 100	190	135	72.5	1000	50	114462193

No longer available

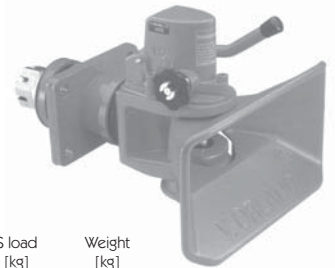
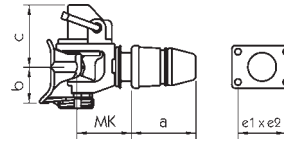
¹ With electric remote indicator
² With mechanical remote control and electrical remote indicator

Accessories for trailer couplings RO

Upgrade kit, pneumatic connection for RO*430	114462214
Upgrade kit, electrical connection for RO*500	114462215
Upgrade kit, mechanical remote control for RO*400. RO*430. RO*500	114462216

GT 40

For \varnothing 40 mm drawbar eyes to DIN 74054-40 and EC 94/20 Class S. Hand lever upwards.



Designation	Dim. MK [mm]	Dim. a [mm]	Dim. b [mm]	Dim. c [mm]	e1 x e2 [mm]	D value [kN]	Dc value [kN]	V value [kN]	S load [kg]	Weight [kg]	
GT 403	169	150	114	171	120 x 55	70	53.00	15.6	700	30.5	130464205
GT 402	169	150	114	171	140 x 80	100	68.91	21.6	950	32.0	130464206
GT 401	169	150	114	171	160 x 100	120	71.86	22.8	1000	33.2	130464154

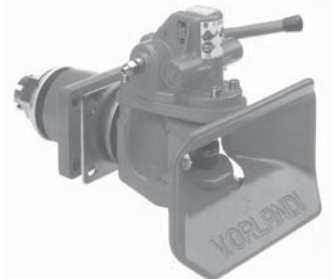
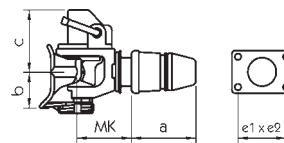
No longer available

Spare parts for trailer couplings GT 40

Pressure spring	130464251
Bell mouth	130464258
Repair kit, pins and bushes	130464259
Repair kit, bearing for GT 400. GT 401 and GT 402	130464260
Automatic unit, hand lever upwards	130464261

E 50

For \varnothing 50 mm drawbar eyes to DIN 74053-50 and EC 94/20 Class D.



Designation	Hand lever	Dim. MK [mm]	Dim. a [mm]	Dim. b [mm]	Dim. c [mm]	e1 x e2 [mm]	D value [kN]	Dc value [kN]	V value [kN]	S load [kg]	Weight [kg]	
E 506	upwards	182	205	136.5	270	160 x 100	190	120	50.0	1000	43.5	130464266
E 509	upwards	196	191	136.5	270	160 x 100	200	135	75.0*	1000*	47.5	130464210
E 509	downwards	196	191	136.5	270	160 x 100	200	135	75.0*	1000*	47.5	130464250

*Optional S load 2500 kg at V value 50.0 kN

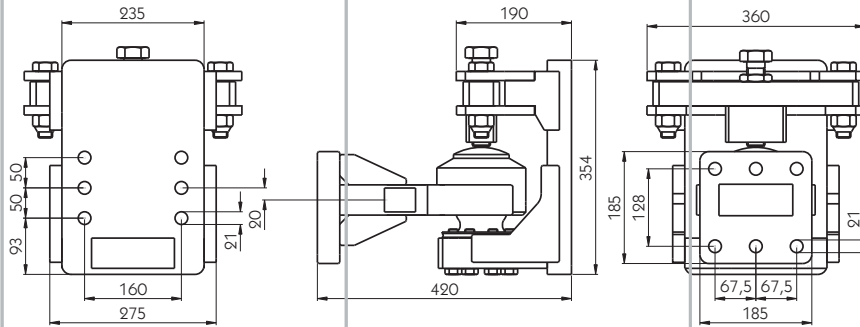
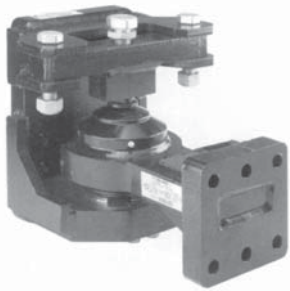
Accessories for trailer couplings E 50

Upgrade kit, remote indicator lamp	130464001
Upgrade kit, remote indicator with lamp	130464215
Hand lever adapter	130464265
Upgrade kit, mechanical remote control	130464216

Spare parts for trailer couplings E 50

Pressure spring	130464251
Automatic unit, hand lever upwards	130464252
Bell mouth arrester	130464253
Repair kit, bottom part	130464254
Repair kit, bearing for E 506 and E 509	130464255
Bell mouth for E 506 and E 509	130464256
Repair kit, pins and bushes	130464257

Car transporter trailer coupling



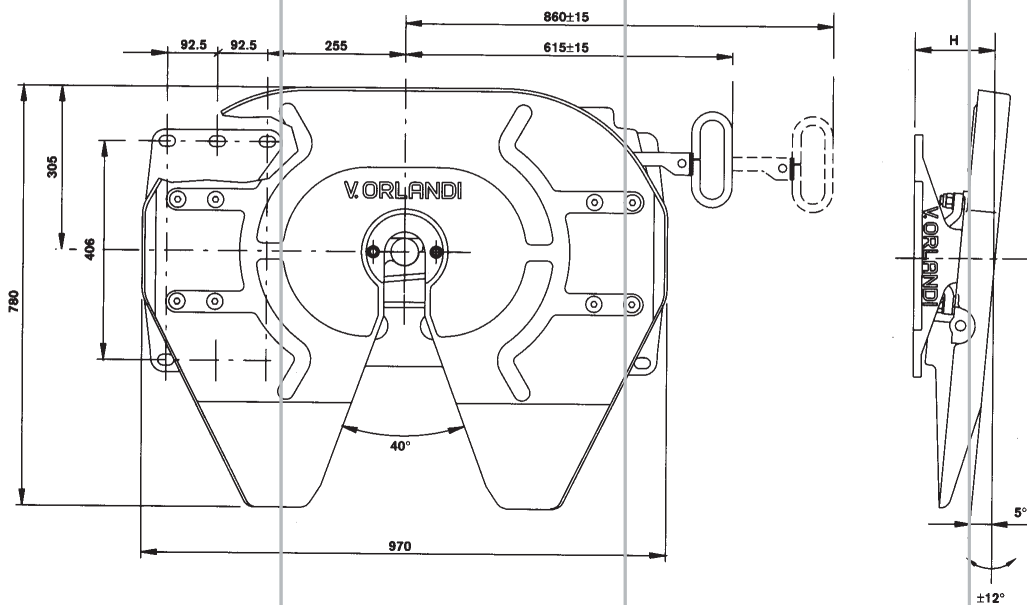
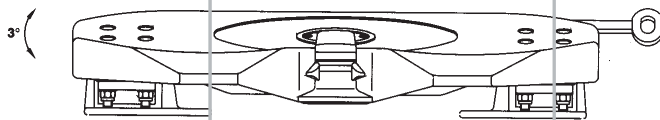
GS 900

Car transporter coupling consisting of ball head and drawbar eye coupling. Tested to EC 94/20 Class S, approval ©00-4172, and ECE-R55 Class T, approval ©-013791.

Designation	Values in acc. with EG 94/20			Values in acc. with ECE-R55			Weight [kg]	130464269
	Dc value [kN]	V value [kN]	S load [kg]	Dc value [kN]	V value [kN]	S load [kg]		
GS 900	120	90	1000	140	90	1000	90	

No longer available

Fifth wheel couplings



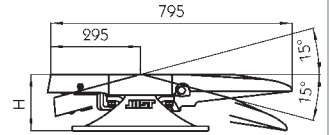
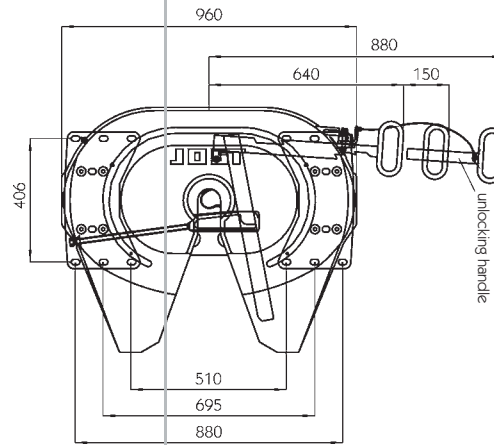
RVO2/E 2" coupling.

Type	Installed height [mm]	D value [kN]	Saddle load [kg]	Cert. mark	Weight [kg]	130474182
RVO2/E-150	150	150*	22000	94/20/CE	148	
RVO2/E-185	185	150*	22000	94/20/CE	150	

*D=170 for semi trailers without steering wedge.

No longer available

Fifth wheel couplings comply with DIN 74081 and ISO 3842. They are type approved for all trailer steering systems.



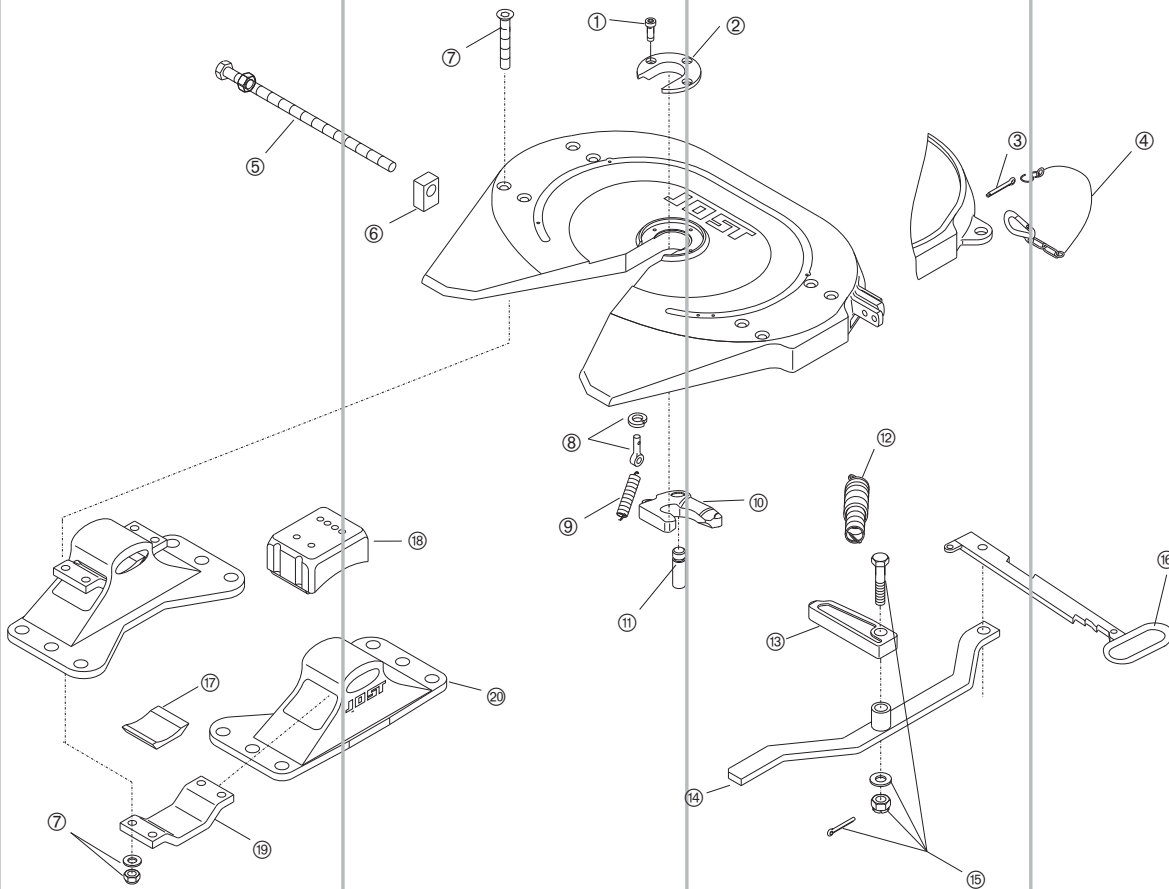
JSK 37 C-Z
2" coupling, for central lubrication.

Designation	Installed height H [mm]	Saddle load [t]	D value [kN]	Cert. mark	Weight [kg]
JSK 37 C 150-Z	150	20	152	F 3096	136 107471182
JSK 37 C 185-Z	185	20	152	F 3096	141 107471181
JSK 37 C 250-Z	250	20	152	F 3096	145 107471183
JSK 37 C 300-Z	300	20	152	F 3096	161 107471184

JSK 37 CW
2" coupling.

Designation	Installed height H [mm]	Saddle load [t]	D value [kN]	Cert. mark	Weight [kg]
JSK 37 C 150-W	150	20	152	F 3096	149 107471236
JSK 37 C 185-W	185	20	152	F 3096	152 107471238
JSK 37 C 250-W	250	20	152	F 3096	168 107471239

Spare parts
For JSK 37 C/JSK 37 CZ.



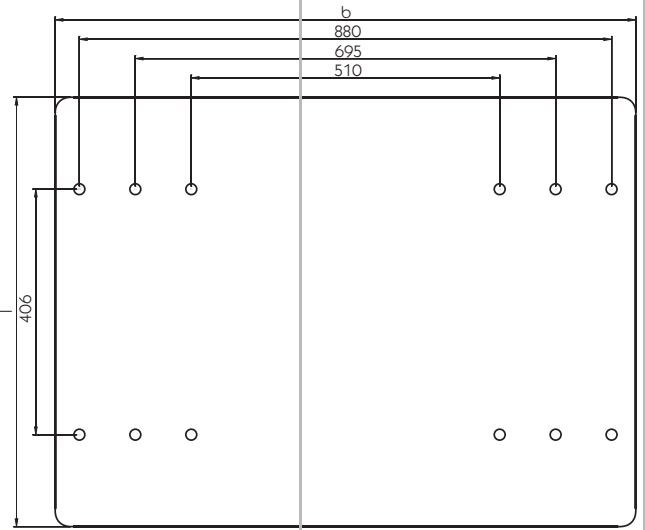
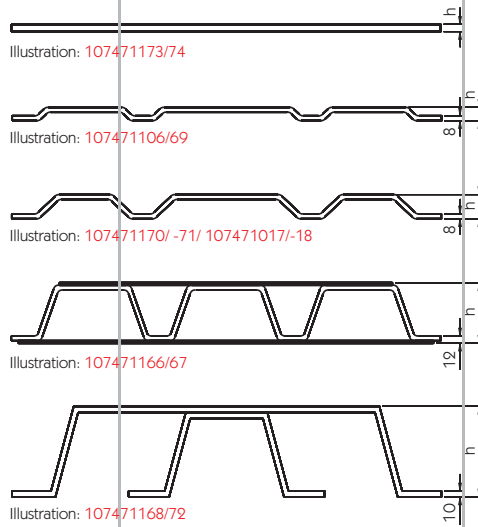
Spare parts

Designation	Fig. no.	Quantity	
Socket head screw	①	3	177471141
Wear ring	②	1	177471140
Split pin	③	1	177471144
Carbine	④	1	177471076
Alignment screw	⑤	1	177471198
Guide	⑥	1	177471200
C/sunk screw, complete	⑦	8	177471196
Eye bolt, complete	⑧	1	177471201
Tension spring	⑨	1	177471020
Jaw	⑩	1	177471185
Bearing pin	⑪	1	177471186
Double tension spring	⑫	1	177471191
Wedge	⑬	1	177471187
Lever	⑭	1	177471189
Wedge pin complete	⑮	1	177471188
Release lever	⑯	1	177471190
Rubber pad, bottom	⑰	2	177471154
Rubber pad, top	⑱	2	177471153
Bridge piece	⑲	2	177471155
Mount 185 mm	⑳	2	177471192
Mount 150 mm	⑳	2	177471193
Mount 250 mm	⑳	2	177471194
Mount 300 mm	⑳	2	177471195

Repair kits

Designation	Fig. no.	Quantity	
Repair kit for C-Z lock	1•2•9•10•11• Lubrication instructions	1	177471219
Repair kit for C-Z lock	9•10•11• Lubrication instructions	1	177471220
Repair kit for mount	7•17•18	1	177471222

Accessories
For 2" fifth wheel coupling.



Hole plan DIN 74081/ISO 3842

Mounting plates

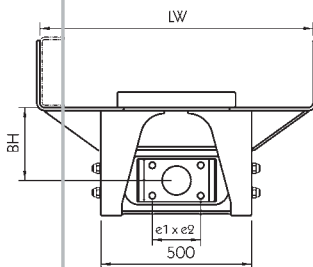
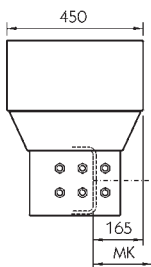
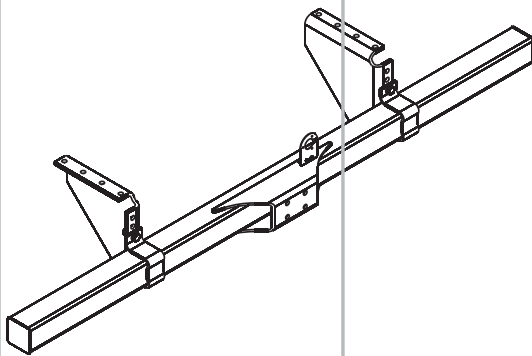
Type certified, approved for positive steering, with name plate and embossed certification mark, suitable for all fifth wheel couplings to DIN 74081.

Designation	Installed height H [mm]	Dim. b [mm]	Dim. l [mm]	Saddle load [t]	D value [kN]	Cert. mark ~~~~	Up to installed height [mm]	Weight [kg]	
MP 0113	12	960	710	20	152	F 3399	300	62	107471173
MP 0115	12	1050	710	20	152	F 3399	300	72	107471174
MP 2101	22	960	710	20	152	F 3401	300	44	107471106
MP 2103	22	1050	710	20	152	F 3401	300	48	107471169
MP 4102	40	960	665	20	152	F 3403	300	44	107471170
MP 4101	40	960	710	20	152	F 3402	300	47	107471017
MP 4103	40	1050	710	20	152	F 3402	300	52	107471018
MP 1101	100	970	710	20	152	F 3219	250	79	107471166
MP 1103	100	1060	710	20	152	F 3219	250	85	107471167
MP 1108	150	960	700	15	108	F 3357	250	110	107471168
MP 1107	150	1050	700	15	108	F 3357	250	120	107471172

Towing brackets



Illustration with towing ball: please order this separately as it not included in the supply.



Universal tow bar type 314 052

For towing ball and bell mouth couplings with bolt-on mounting plate, certification mark F 3078, D value 16.4 kN, S load 75 kg, weight 27 kg, tested trailer load 2000 kg, tested gross weight 10 t.

315451104

Universal tow bar type 342 076 with integrated underrun protection

For towing ball and bell mouth couplings with bolt-on mounting plate, tow bar type approval to 94/20/EC: E00-0345, D value 23.5 kN, S load 150 kg, weight 67.3 kg, tested trailer load 3500 kg, tested gross weight 7500 kg. Underrun protection to 70/221/EWG, certification no. E-00 86.

315451123

Fit to following bolt-on plates with coupling:

315451106, 315451107, 315451108, 315451109.

End cap

Spare part for universal towing bar type 342 076. VPE 2 pieces.

315451139

PAB 17-1

For centre axle trailers 18 t perm. GVW, perm. S load 1000 kg, straight design, inside width 740 - 905 mm, D value max. 110 kN, Dc value max. 100 kN, V value max. 50 kN.

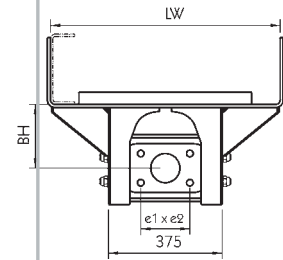
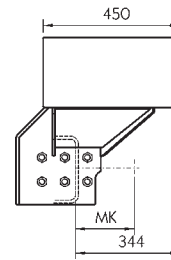
With individual certification.

Dim. BH [mm]	e1 x e2 [mm]	
155	140 x 80	400431468
155	160 x 100	400431473
185	140 x 80	400431469
185	160 x 100	400431474
240	140 x 80	400431470
240	160 x 100	400431475
300	140 x 80	400431471
300	160 x 100	400431476
340	140 x 80	400431472
340	160 x 100	400431477

PAB 17-1/G

For centre axle trailers 18 t perm. GVW, perm. S load 1000 kg, offset design, inside width 740 - 905 mm, D value max. 120 kN, Dc value max. 110 kN, V value max. 50 kN. With individual certification.

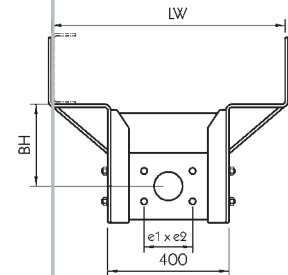
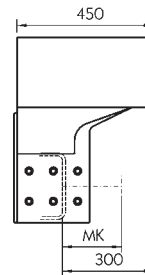
Dim. BH [mm]	e1 x e2 [mm]	
240	140 x 80	400431478
240	160 x 100	400431481
300	140 x 80	400431479
300	160 x 100	400431482
340	140 x 80	400431480
340	160 x 100	400431483



WUB 18/1 G

For centre axle trailers 18 t perm. GVW, perm. S load 1000 kg, straight design, inside width 758 - 903 mm, D value max. 190 kN, Dc value max. 125 kN, V value max. 60 kN. With individual certification.

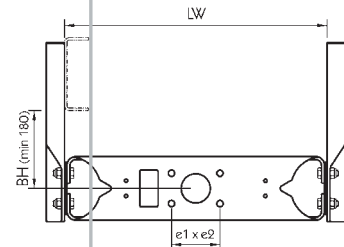
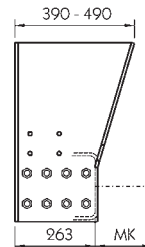
Dim. BH [mm]	e1 x e2 [mm]	
240	160 x 100	400431600
270	160 x 100	400431601
330	160 x 100	400431602



WUB 751

For centre axle trailers 18 t perm. GVW, permissible. S load 1000 kg, straight design, inside width 758 - 866 mm, D value max. 190 kN, Dc value max. 130 kN, V value max. 75 kN. EC no. ©*94/20* 1208*00.

Dim. BH [mm]	e1 x e2 [mm]	
As required	160 x 100	400431624

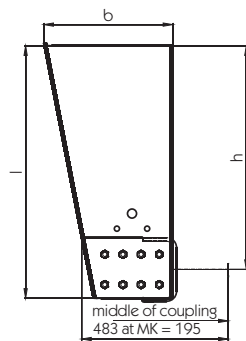
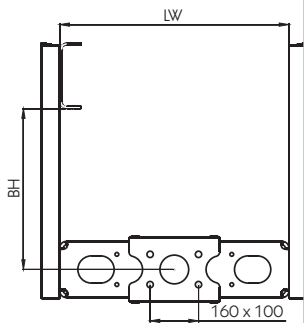


All itemised tow bars are also suitable for centre pivot trailers, which is why the D values are also given.

The maximum permissible V value is dependent on the trailer coupling being used.

For hitching to centre axle trailers, we supply the following \varnothing 50 mm trailer couplings:

	Dim. MK [mm]	e1 x e2 [mm]	D value [kN]	Dc value [kN]	V value [kN]	Permissible S load [kg]	
E 506	182	160 x 100	190	120	50	1000	130464266
E 509 A	196	160 x 100	200	135	75	1000	130464210
E 509 B	196	160 x 100	200	135	75	1000	130464250
RO 500 G 61 A	170	160 x 100	190	135	7.5	1000	114462210
RO 500 G 63 A	195	160 x 100	190	113	43.2	2500	114462223
RO 700 G 61 A	194.5	160 x 100	190	135	72.5	1000	114462164
RO 700 G 61 A with remote indicator	194.5	160 x 100	190	135	72.5	1000	114462192
RO 700 G 61 E with remote indicator	194.5	160 x 100	190	135	72.5	1000	114462193



AB 75 SV

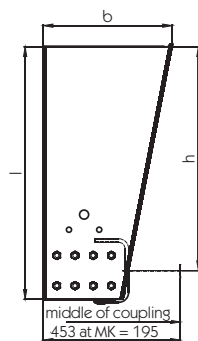
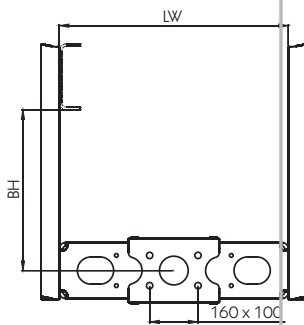
For centre axle trailers 18 t permissible GVW. Maximum permissible V value is dependant on Dim. MK (centre coupling) of the trailer coupling, see table below. EEC approval no.: ©*94/20*3173*00.

Available with dimension LW: 758, 762, 770, 790, 802, 850, 854, 862 and 866 mm.

Established dimensions (other dimensions on request):

Dim. BH [mm]	Dim. h [mm]	Dim. l [mm]	Dim. b [mm]
150	440	535	369
200	480	575	376
250	540	635	388
300	570	665	394
350	640	735	408
400	690	785	417

Supplied on request



AB 75 SH

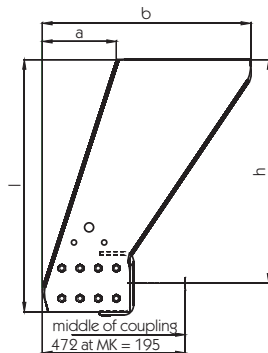
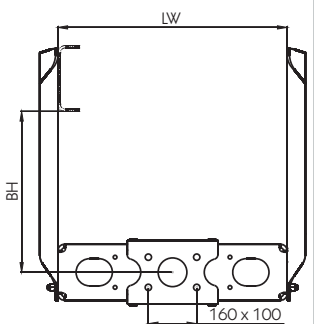
For centre axle trailers 18 t permissible GVW. Maximum permissible V value is dependant on Dim. MK (centre coupling) of the trailer coupling, see table below. EEC approval no.: ©*94/20*3173*00.

Available with dimension LW: 758, 762, 770, 790, 802, 850, 854, 862 and 866 mm.

Established dimensions (other dimensions on request):

Dim. BH [mm]	Dim. h [mm]	Dim. l [mm]	Dim. b [mm]
150	440	535	369
200	480	575	376
250	540	635	388
300	570	665	394
350	640	735	408
400	690	785	417

Supplied on request



AB 75 GK

For centre axle trailers 18 t permissible GVW. Maximum permissible V value is dependant on Dim. MK (centre coupling) of the trailer coupling, see table below. EEC approval no.: ©*94/20*3173*00.

Available with dimension LW: 758, 762, 770, 790, 802, 850, 854, 862 and 866 mm.

Established dimensions (other dimensions on request):

Dim. BH [mm]	Dim. h [mm]	Dim. l [mm]	Dim. a [mm]	Dim. b [mm]
150	440	535	148	499
200	480	575	160	529
250	540	635	180	569
300	570	665	189	589
350	640	735	212	634
400	690	785	229	669

Supplied on request



The following possible combinations for the permissible values are available for the towing brackets AB 75 SV/SH/GK:

Specific value	Alternative 1	Alternative 2	Alternative 3	Alternative 4
D	190 kN	190 kN	190 kN	190 kN
Dc	130 kN	130 kN	130 kN	150 kN
S	1000 kg	2000 kg	2500 kg	1000 kg
V at MK = 195	75.0 kN	58.7 kN	50.5 kN	50.0 kN
V at MK = 180	81.0 kN	65.7 kN	57.5 kN	55.0 kN
V at MK = 175	83.5 kN	68.3 kN	60.2 kN	56.8 kN

Remote operation cable pull

No longer available

For all established \varnothing 50 mm trailer couplings.

Towing bracket

WUB 18/1 G	400431625
WUB 751	400431626
FB-10, for PAB 17 and AB 75 - to weld on towing bracket	400431559
FB-10, for PAB 17 and AB 75 - to screw on towing bracket	400431560

Remote operation rod linkage

For all established \varnothing 50 mm trailer couplings.

Towing bracket

PAB 17-1	400431543
PAB 17-1/G	400431544
AB 75 SV and AB 75 GK	400431564
WUB 18/1 G	400431627
WUB 751	400431628

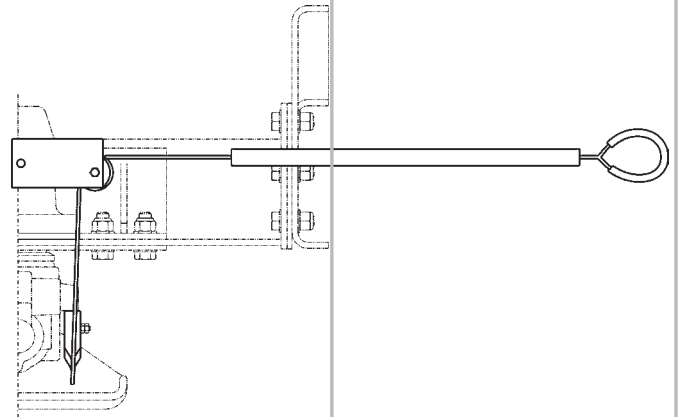
Plug holder

Holding plate 350 x 249 mm, for remote operation device FB 10, weight 2.3 kg.

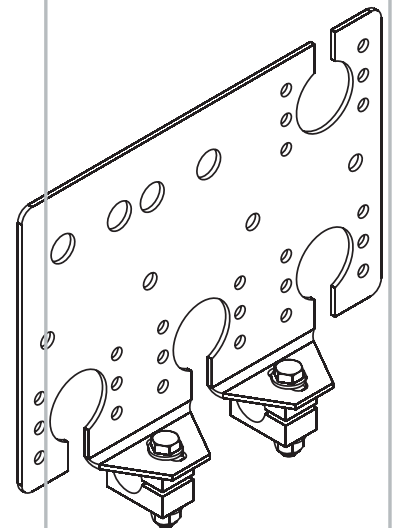
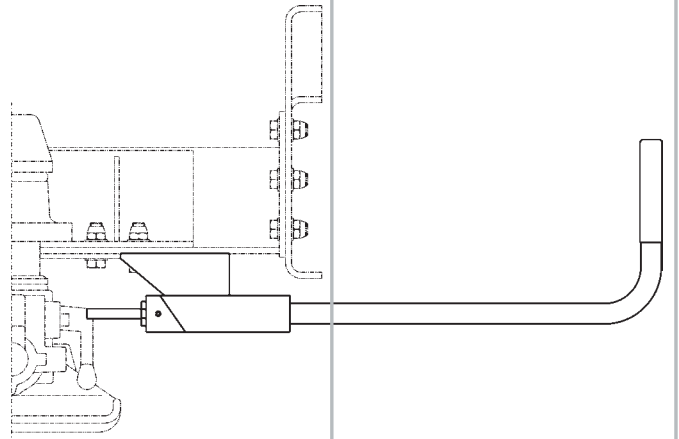
400431561

Accessories

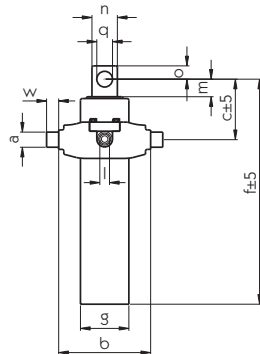
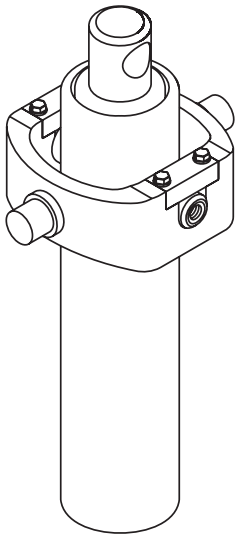
For towing brackets.



The illustrations of the remote operating devices are only to clarify the function principle.



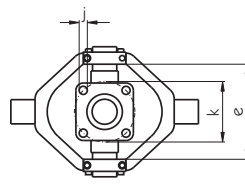
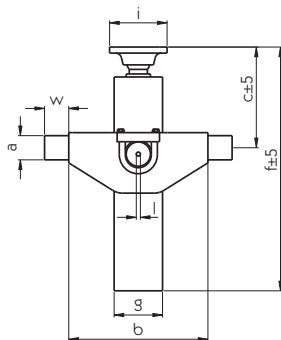
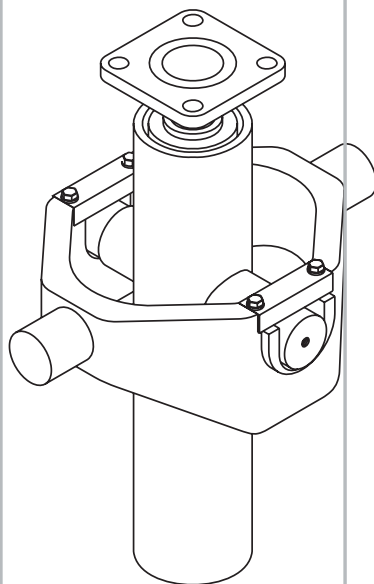
Tipper cylinder



Hydraulic 2 stage tipper cylinder with rod dowel hole

For 2 sided equipment, stroke speed up to 0.1 m/s, temperature range 10°C to + 80°C, pressure medium: mineral oil with viscosity 10 to 300 cSt., nominal pressure 200 bar, test pressure 220 bar, stroke limiter required, cylinder stages hard chromed, polyurethane seals.

Type	Stroke [mm]	Stages Ø [mm]	Load at 180 bar [t]	Dim. a Ø [mm]	Dim. b [mm]	Dim. c [mm]	Dim. d [mm]	Dim. e [mm]	Dim. f [mm]	Dim. g Ø [mm]	Dim. h [mm]	Dim. i [mm]	Dim. j Ø [mm]	Dim. k [mm]	Dim. l [mm]	Dim. m [mm]	Dim. n Ø [mm]	Dim. o [mm]	Dim. p [mm]	Stroke volume [l]	Weight [kg]	
TZE 2B 4505	500	45/60	4	25	152	100	20	372	80	M16 x 1.5	27	41.5	25.5	20	1.7	10.4				1.7	10.4	121521130
TZE 2B 6005	500	60/75	5	30	165	120	25	400	95	M16 x 1.5	45	53.5	30.5	25	2.2	17.4				2.2	17.4	121521131
TZE 2B 7505	500	75/90	8	40	230	120	25	402	110	M16 x 1.5	47	65.5	30.5	40	3.2	17.4				3.2	17.4	121521132



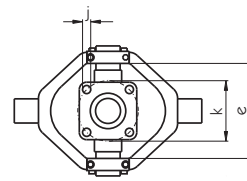
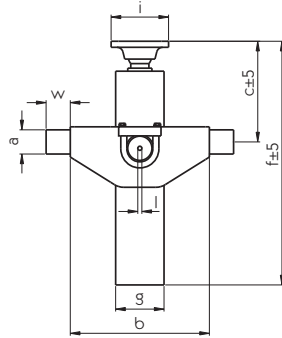
pivoting angle ball pan max. 30°

Hydraulic 3 stage tipper cylinder with ball socket

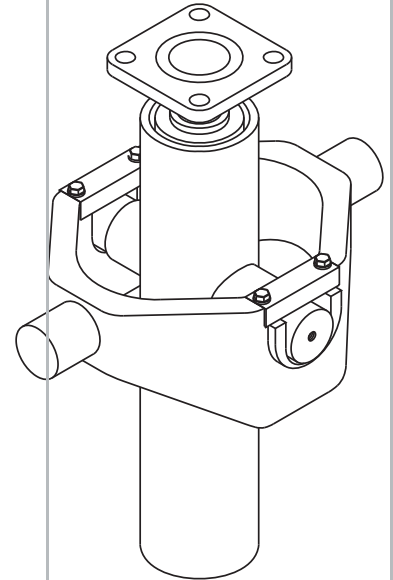
For 2 and 3 sided equipment, stroke speed up to 0.1 m/s, temperature range 10°C to + 80°C, pressure medium: mineral oil with viscosity 10 to 300 cSt., nominal pressure 200 bar, test pressure 220 bar, stroke limiter required, cylinder stages hard chromed, polyurethane seals.

Type	Stroke [mm]	Stages Ø [mm]	Load at 180 bar [t]	Dim. a Ø [mm]	Dim. b [mm]	Dim. c [mm]	Dim. d [mm]	Dim. e [mm]	Dim. f [mm]	Dim. g [mm]	Dim. h [mm]	Dim. i [mm]	Dim. j [mm]	Dim. k [mm]	Dim. l [mm]	Dim. m [mm]	Dim. n [mm]	Dim. o [mm]	Dim. p [mm]	Dim. q [mm]	Dim. r [mm]	Dim. s [mm]	Dim. t [mm]	Dim. u [mm]	Dim. v [mm]	Dim. w [mm]	Dim. x [mm]	Dim. y [mm]	Dim. z [mm]	Stroke volume [l]	Weight [kg]			
TZE 3P 3206	580	32/45/60	3	40	230	265	127	337	80	95	13.5	100	M16 x 1.5	40	1.5	17.0																1.5	17.0	121521133
TZE 3P 3208	760	32/45/60	3	40	230	170	127	408	80	95	13.5	100	M16 x 1.5	40	2.0	20.0																2.0	20.0	121521134
TZE 3P 3209	900	32/45/60	3	40	230	265	127	446	80	95	13.5	100	M16 x 1.5	40	2.3	20.5																2.3	20.5	121521135
TZE 3P 3210	1000	32/45/60	3	40	230	170	127	493	80	95	13.5	100	M16 x 1.5	40	2.6	21.0																2.6	21.0	121521136
TZE 3P 4507	750	45/60/75	5	40	230	170	127	417	95	95	13.5	100	M16 x 1.5	40	2.7	29.0																2.7	29.0	121521137
TZE 3P 4510	1000	45/60/75	5	40	230	170	127	503	95	95	13.5	100	M16 x 1.5	40	3.6	30.2																3.6	30.2	121521138

No longer available



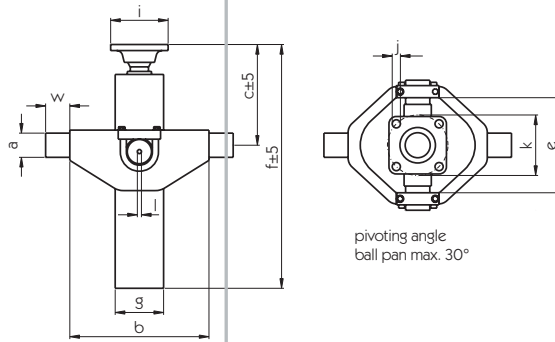
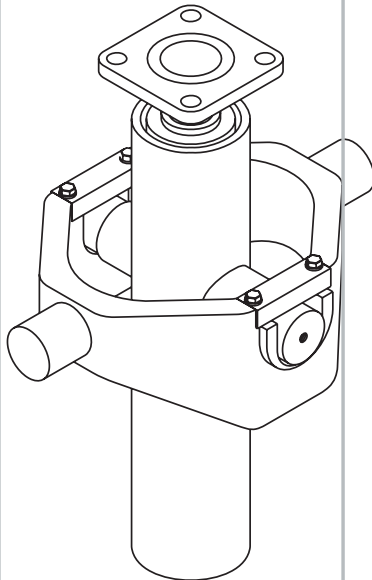
pivoting angle
ball pan max. 30°



Hydraulic 3 stage tipper cylinder with ball socket

For 2 and 3 sided equipment, stroke speed up to 0.1 m/s, temperature range 10°C to + 80°C, pressure medium: mineral oil with viscosity 10 to 300 cSt., nominal pressure 200 bar, test pressure 220 bar, stroke limiter required, cylinder stages hard chromed, polyurethane seals.

Type	Stroke [mm]	Stages Ø [mm]	Load at 180 bar [t]	Dim. a Ø [mm]	Dim. b [mm]	Dim. c [mm]	Dim. e [mm]	Dim. f [mm]	Dim. g [mm]	Dim. i □ [mm]	Dim. j Ø [mm]	Dim. k Ø [mm]	Dim. l [mm]	Dim. w [mm]	Stroke volume [l]	Weight [kg]	
TZE 3P 6010	1000	60/75/90	7	40	230	180	141	514	110	125	14.5	125	M16 x 1.5	40	5.4	44.0	121521139
TZE 3P 6012	1200	60/75/90	7	40	230	180	141	578	110	125	14.5	125	M16 x 1.5	40	6.4	44.6	121521140
TZE 3P 6014	1400	60/75/90	7	40	230	180	141	641	110	125	14.5	125	M16 x 1.5	40	7.4	47.5	121521141
TZE 3P 7512	1200	75/90/105	8	40	230	180	155	578	125	125	14.5	125	M16 x 1.5	40	10.4	53.0	121521143
TZE 3P 7514	1400	75/90/105	8	40	230	180	155	641	125	125	14.5	125	M16 x 1.5	40	11.9	56.7	121521144
TZE 3P 7515	1500	75/90/105	8	40	230	180	155	679	125	125	14.5	125	M16 x 1.5	40	12.9	60.0	121521145
TZE 3P 9012	1200	90/105/120	12	45	230	180	169	578	145	95	13.5	100	M22 x 1.5	40	14.1	82.0	121521148
TZE 3P 9014	1400	90/105/120	12	45	230	180	169	641	145	95	13.5	100	M22 x 1.5	40	16.2	85.0	121521149
TZE 3P 9016	1600	90/105/120	12	45	230	180	169	721	145	95	13.5	100	M22 x 1.5	40	18.9	90.0	121521150



pivoting angle ball pan max. 30°

Hydraulic 4 stage tipper cylinder with ball socket

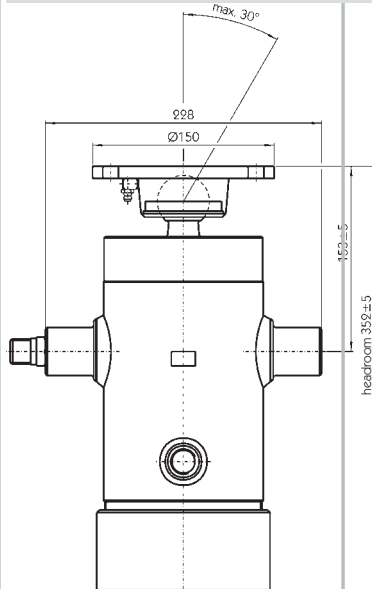
For 2 and 3 sided equipment, stroke speed up to 0.1 m/s, temperature range 10°C to + 80°C, pressure medium: mineral oil with viscosity 10 to 300 cSt., nominal pressure 200 bar, test pressure 220 bar, stroke limiter required, cylinder stages hard chromed, polyurethane seals.

Type	Stroke [mm]	Stages Ø [mm]	Load at 180 bar [t]	Dim. a Ø [mm]	Dim. b [mm]	Dim. c [mm]	Dim. e [mm]	Dim. f [mm]	Dim. g [mm]	Dim. i [mm]	Dim. j Ø [mm]	Dim. k [mm]	Dim. l [mm]	Dim. w [mm]	Stroke volume [l]	
TZE 4P 3205	450	32/45/60/75	3	40	230	170	127	268	95	95	13.5	100	M16 x 1.5	40	1.4	121521152
TZE 4P 3210	1000	32/45/60/75	4	40	230	170	127	421	95	95	13.5	100	M16 x 1.5	40	3.0	121521153
TZE 4P 3213	1350	32/45/60/75	4	40	230	170	127	506	95	95	13.5	100	M16 x 1.5	40	4.0	121521154
TZE 4P 3216	1600	32/45/60/75	4	40	230	170	127	573	95	95	13.5	100	M16 x 1.5	40	4.7	121521155
TZE 4P 4510	1000	45/60/75/90	6	40	230	170	141	421	110	95	13.5	100	M16 x 1.5	40	4.6	121521156
TZE 4P 4513	1350	45/60/75/90	6	40	230	170	141	506	110	95	13.5	100	M16 x 1.5	40	6.1	121521157
TZE 4P 4516	1600	45/60/75/90	6	40	230	170	141	570	110	95	13.5	100	M16 x 1.5	40	7.2	121521158
TZE 4P 6013	1350	60/75/90/105	8	40	230	180	155	517	125	125	14.5	125	M16 x 1.5	40	8.8	121521160
TZE 4P 6016	1600	60/75/90/105	8	40	230	180	155	581	125	125	14.5	125	M16 x 1.5	40	10.4	121521161
TZE 4P 6019	1850	60/75/90/105	8	40	230	180	155	644	125	125	14.5	125	M16 x 1.5	40	11.9	121521162
TZE 4P 7513	1350	75/90/105/120	12	45	230	180	169	517	145	125	14.5	125	M22 x 1.5	40	13.1	121521163
TZE 4P 7516	1600	75/90/105/120	12	45	230	180	169	581	145	125	14.5	125	M22 x 1.5	40	15.4	121521164
TZE 4P 7519	1850	75/90/105/120	12	45	230	180	169	644	145	125	14.5	125	M22 x 1.5	40	17.8	121521165
TZE 4P 7524	2400	75/90/105/120	12	45	230	180	169	789	145	125	14.5	125	M22 x 1.5	40	22.9	121521166
TZE 4P 9016	1600	90/105/120/140	16	45	280	180	189	581	165	circular part Ø93		M22 x 1.5	40	20.9	121521167	
TZE 4P 9019	1850	90/105/120/140	16	45	280	180	189	644	165	circular part Ø93		M22 x 1.5	40	24.1	121521168	
TZE 4P 9021	2150	90/105/120/140	16	45	280	180	189	724	165	circular part Ø93		M22 x 1.5	40	27.7	121521169	
TZE 4P 9024	2400	90/105/120/140	16	45	280	180	189	789	165	circular part Ø93		M22 x 1.5	40	31.0	121521170	
TZE 4P 10520	2000	105/120/140/160	18	50	384	245	225	709	185			¾"	55	30.5	121521171	

No longer available

No longer available

No longer available



Tipper 5 stage tipper cylinder

Working pressure max. 200 bar, 5.7 litre oil volume, stroke 1016 mm, with cardan ring and ball socket, weight 35 kg.

624643142

Hydraulic tanks

Hydraulic tanks

2 mm primer painted sheet steel, with angle mounting brackets, dipstick, floor screw, without oil filter.

Designation	Length [mm]	Height [mm]	Width [mm]	Height above floor [mm]	High-level volume [l]	Low-level volume [l]	Weight [kg]	
Hydraulic tank 110 l	600	600	350	30	113.0	100.6	40.5	215521081
Hydraulic tank 130 l	600	600	400	30	130.7	116.3	42.5	215521082
Hydraulic tank 150 l	600	600	450	30	148.4	132.0	44.5	215521083
Hydraulic tank 170 l	600	600	500	30	166.0	147.7	46.5	215521084
Hydraulic tank 190 l	600	600	550	30	183.7	163.4	47.5	215521085
Oil filter for 110 litre oil tank								215521086
Oil filter for 130 - 190 litre oil tank								215521087



Areas of application:

For 2 and 3 sided farm trailer tipper bodies with 1 or 2 hydraulic cylinders. It can be used to raise the tipping arms either on its own or in conjunction with the towing vehicle hydraulics.

Hydraulic units

Hydraulic hand pump

Nominal pressure pN = 180 bar, with overload relief valve.

Operated with 800 mm long slip on tube, supplied loose with pump.

Contents oil reservoir [l]	Useable oil volume [l]	Nom. press. pN [bar]	Test press. Pp [bar]	Pumped vol. per stroke [cm ³]	Weight [kg]	
5	4.5	180	250	19	7.0	121521038
7	6.5	180	250	19	7.5	121521039
9	8.5	180	250	19	8.0	121521040
12	10.5	180	250	19	10.0	121521041



Electro-hydraulic pumping equipment

With 7 litre tank, runs off 12 V car battery, 1500 Watt, pumping capacity 3.2 cm³/rev., including solenoid valve for raising and lowering.

No longer available

624643002

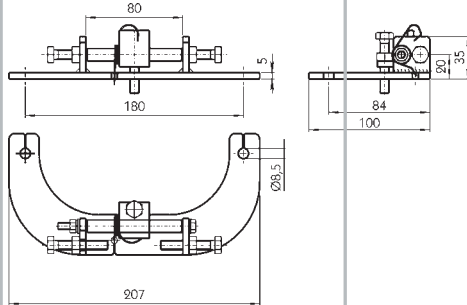


Hydraulic hose

Overall length 1400 mm, for connection from pumping equipment to tipper cylinder.

624643003





Brass bush

Fits cardan ring and aluminium profile [624641105](#).

[624301400](#)

Trigger unit

Fits tipper cylinder and limit switch. Consisting of mounting bracket [624643100](#) and rocker [624643101](#).

[624643099](#)

No longer available

Rocker

Fits trigger unit.

[624643101](#)

Mounting bracket

Fits trigger unit.

[624643100](#)

Operating pod

With rotary switch, control lamp and umbilical cable.

[624643028](#)



Battery cable 50 mm²

Both ends with ring lugs \varnothing 8 mm, length 3000 mm.

[624643030](#)



Limit switch with plug

Suitable for electro-hydraulic pumping equipment.

[624643031](#)



Connecting cable

For operating pod, plug both ends, length 6000 mm.

[624643029](#)



Aluminium mounting bracket

Fits trigger unit, limit switch and aluminium profile [624641105](#).

[624643111](#)



Accessories

For hydraulic tipping equipment.

Flow equaliser valve ST
23 - M 18 x 1.5 mm

A flow equalising valve controls e.g. the synchronised extension of two hydraulic cylinders.

121521074

Stroke limiter HB 12-L - M
18 x 1.5 mm


121521076

Miscellaneous accessories

Description	Application	
High pressure hose DN 8/400 mm long	Transition from pipe to tipper cylinder	121521044
High pressure hose DN 10/1000 mm long	For tipping via the hydraulic plant on the towing vehicle. Connection from the loose coupling half to the pipe on the drawbar.	121521045
Steel tube 12 x 1.5 mm, bonderised		240541082
3 way ball valve DN 10	For tipping a second trailer.	121521077
2 way ball valve DN 10	For isolating a second line.	121521048
Pipeline coupling without breakaway safety device	For tipping via the hydraulic plant on the towing vehicle	
Fixed half		123531007
Loose half		123531010
Dust cap DN 10	Accessory for pipeline coupling	123531019
Plug DN 10	Accessory for pipeline coupling	123531021
Hex. nut DN 10	Accessory for pipeline coupling	123531023



No longer available

 Coupling up the male adapter to the female coupling is done by sliding back the outer sleeve. The basic sizes DN 10 and DN 16 have female threads and can be equipped to take three connection sizes by using various male stud couplings.

Hydraulic fittings

SVK male couplings
Quick release couplings.

DN [mm]	Nominal pressure coupled and uncoupled [bar]	Female thread	
10	250	M 22 x 1.5	123531025
16	250	M 30 x 1.5	123531026

No longer available





SVK female couplings

Quick release couplings.

No longer available

DN [mm]	Nominal pressure coupled and uncoupled [bar]	Female thread	
10	250	M 22 x 1.5	123531027
16	250	M 30 x 1.5	123531028



Dust caps

For male adapter.

No longer available

Basic type DN [mm]		
10		123531031
16		123531032



Steel male stud couplings

Type F1 = female cone equivalent to (60°) DIN 7631, fits male cone to DIN 3863 (DIN 7608) and union nut.

Type D1 = female cone equivalent to (24°) DIN 3902, light duty, fits olive to DIN 3861 and union nut.

Type E1 = female cone equivalent to (24°) DIN 3902, heavy duty, fits olive to DIN 3861 and union nut.

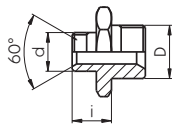


Illustration: Type F1

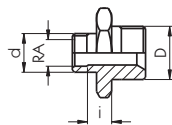


Illustration: Type D1

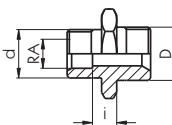


Illustration: Type E1

Type	DN [mm]	Dim. d [mm]	Dim. D [mm]	Dim. i [mm]	RA [mm]	
F1	10/8	M 16 x 1.5	M 22 x 1.5	16	---	123531109
F1	10/10	M 18 x 1.5	M 22 x 1.5	16	---	123531035
F1	10/13	M 22 x 1.5	M 22 x 1.5	18	---	123531036
F1	16/13	M 22 x 1.5	M 30 x 1.5	19	---	123531037
D1	8/10	M 16 x 1.5	M 22 x 1.5	10	10	123531111
D1	10/10	M 18 x 1.5	M 22 x 1.5	10	12	123531112
D1	10/13	M 22 x 1.5	M 22 x 1.5	11	15	123531113
D1	16/13	M 22 x 1.5	M 30 x 1.5	12	15	123531114
D1	16/16	M 26 x 1.5	M 30 x 1.5	11.5	18	123531115
E1	10/8	M 20 x 1.5	M 22 x 1.5	10.5	12	123531117
E1	10/10	M 22 x 1.5	M 22 x 1.5	12	14	123531118
E1	10/13	M 24 x 1.5	M 22 x 1.5	11.5	16	123531039
E1	16/13	M 24 x 1.5	M 30 x 1.5	12.5	16	123531040

No longer available

Seals for male stud couplings

For basic size DN [mm]	O-ring [mm]	
10	18 x 2	123531042
16	26 x 2	123531043

No longer available

Pipeline couplings with breakaway safety device AK

Fixed half with breakaway housing.

DN [mm]	Connection thread [mm]	Weight [kg]	
10	M 18 x 1.5	0.68	123531001
13	M 22 x 1.5	1,75	123531002
16	M 26 x 1.5	1.75	123531003

No longer available



Pipeline coupling with breakaway safety device AK

Loose half with breakaway hand nut, DN 10 mm, threaded connection M 18 x 1.5 mm, weight 0.37 kg.

No longer available

~~123531004~~



Pipeline couplings with breakaway safety device AK

Fixed half without breakaway housing, with hex. nut.

DN [mm]	Connection thread [mm]	Weight [kg]	
10	M 18 x 1.5	0.21	123531007
16	M 26 x 1.5	0.66	123531009

No longer available



Pipeline coupling with breakaway safety device AK

Loose half with hex. nut, DN 10 mm, threaded connection M 18 x 1.5 mm, weight 0.43 kg.

No longer available

~~123531010~~

Spare parts

For pipeline couplings with breakaway safety device AK.

	DN [mm]	
Fixed half without breakaway housing and hex. nut	10	123531013
Fixed half without breakaway housing and hex. nut	13	123531014
Loose half without breakaway nut	10	123531016
Loose half without breakaway nut	16	123531018
Dust cap	10	123531019
Dust cap	13/16	123531020
Plug	10	123531021
Plug	13/16	123531022
Hex. nut	10	123531023
Hex. nut	13/16	123531024

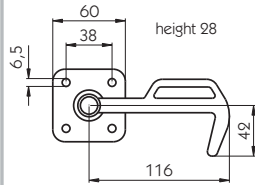
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Side board fasteners

Box fasteners



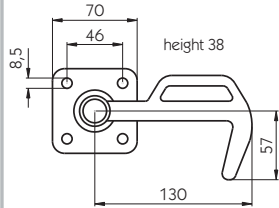
Illustration: left hand



256 B, size 0

Zinc plated, weight 0.25 kg.

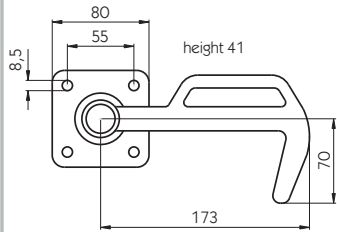
Left	385101619
Right	385101620



256 B, size 1

Zinc plated, weight 0.45 kg.

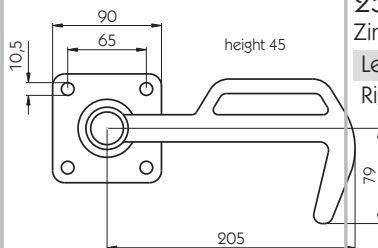
Left	385101505
Right	385101506



256 B, size 2

Zinc plated, weight 0.76 kg.

Left	385101507
Right	385101508



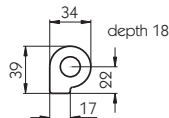
256 B, size 3

Zinc plated, weight 1.08 kg.

Left	385101509
Right	385101510

Keeper

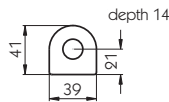
For box fastener 256 B.



258 A

Size 2, self colour, weight 0.11 kg.

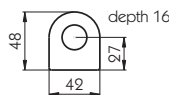
215101027



258 C

Size 2, self colour, weight 0.13 kg.

215101029



258 C

Size 3, self colour, weight 0.16 kg.

215101030

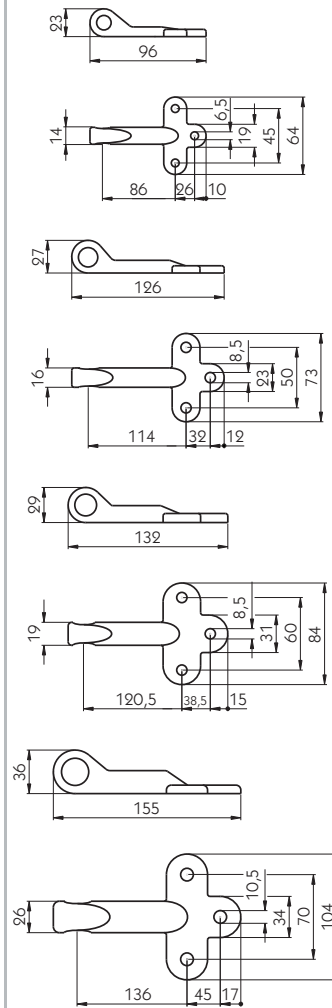
257 A, size 0
Zinc plated, weight 0.11 kg.
385101621

257 A, size 1
Zinc plated, weight 0.18 kg.
385101511

257 A, size 2
Zinc plated, weight 0.29 kg.
385101512

257 A, size 3
Zinc plated, weight 0.47 kg.
385101513

Keeper
For box fastener 256 B.



Size 1 fastener for fitting to all body types. Integrated safety device prevents self-opening.

6121 N
Zinc plated, weight 0.77 kg.

Left	101101997
Right	101101998

Elbow lever fasteners

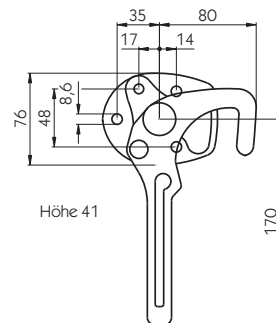


Illustration: left hand

Size 0 fastener for fitting to all body types.

Elbow lever fastener
Zinc plated, weight 0.33 kg.

Left	103102044
Right	103102045

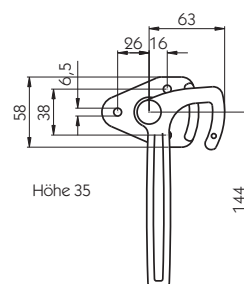
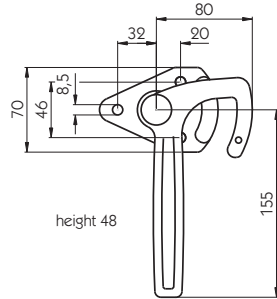


Illustration: left hand



Illustration: left hand



Elbow lever fastener
Zinc plated, weight 0.66 kg.

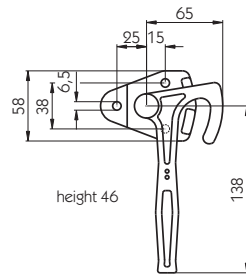
Left 385102404

Right 385102405

Size 1 fastener for fitting to all body types.



Illustration: left hand



3990
Zinc plated, weight 0.39 kg.

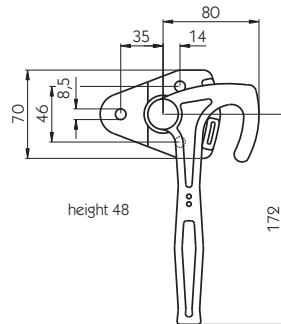
Left 103102481

Right 103102482

Size 0 fastener for fitting to all body types. A latch spring prevents self-opening.



Illustration: left hand



3991
Zinc plated, weight 0.65 kg.

Lefts 103102483

Right 103102484

Size 1 fastener for fitting to all body types. A latch spring prevents self-opening.



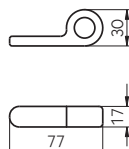
Illustration: 103102632

Spring latch
Spare part for elbow lever fastener 3991.

For 103102483 103102632

For 103102484 103102634

Keeper
For elbow lever fasteners.



3551
Self colour, weight 0.11 kg.

Size 0 103101518

Size 1 103101519

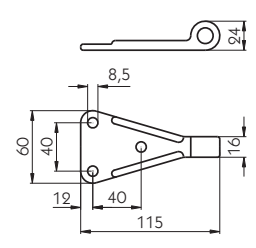
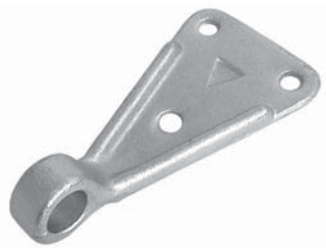
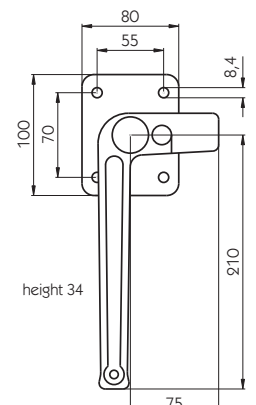

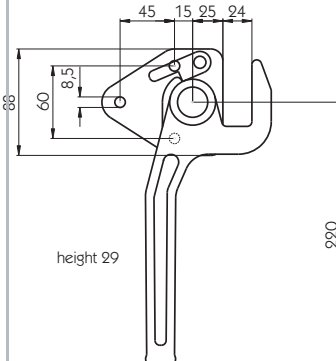

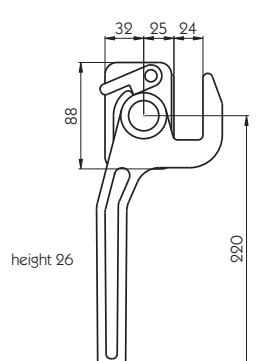

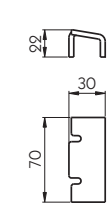

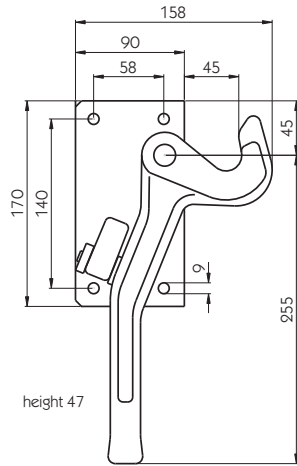
<p>Size 0 Size 1</p>	<p>3525 Zinc plated, weight 0.15 kg.</p>		
<p>Fastener for fitting to bodies with centre and corner pillars. Hand lever with ball and spring detent. The fastener is fitted by screwing to the side board. The keeper is formed by making a slot in the pillar.</p> <p>Left Right</p>	<p>6020/ 2 Self colour, weight 1.01 kg.</p>		 <p>Illustration: left hand</p>
<p>Flat form fastener for fitting to all body types.</p> <p>Left Right</p>	<p>6022 Zinc plated, weight 1.09 kg.</p>		 <p>Illustration: left hand</p>
<p>Flat form fastener for fitting to all body types.</p> <p>Left Right</p>	<p>6022 S Self colour, weight 0.95 kg.</p>		 <p>Illustration: left hand</p>
<p>6024 Zinc plated, weight 0.10 kg. 101101069</p>	<p>Keeper For elbow lever fasteners 6022 + 6022 S.</p>		



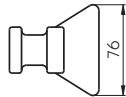
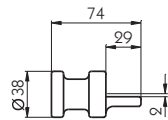
Illustration: left hand



height 47

Keeper

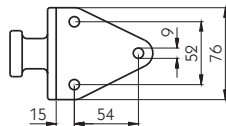
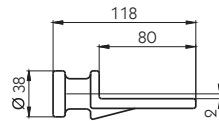
For elbow lever fastener H 115 S.



For welding

Self colour, weight 0.38 kg.

102101333



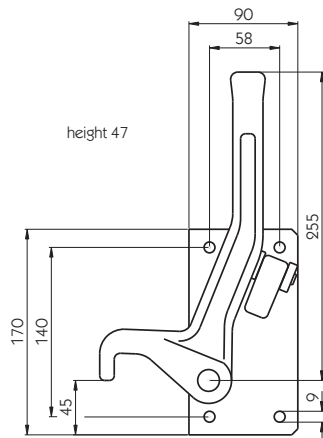
For screwing

Self colour, weight 0.46 kg.

102101334



Illustration: left hand



height 47

H 115 SD

Zinc plated, weight 1.67 kg.

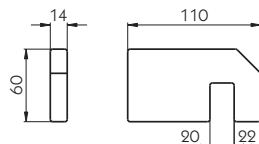
Left

102102223

Right

102102224

Special fastener for securing tail lifts.



H 115 SD

Keeper for elbow lever fastener H 115 SD, self colour, weight 0.53 kg.

102102225

Adjustable toggle lever fastener for single handed operation. The fastener hook remains blocked in the open lever position.

3210
Zinc plated, weight 0.71 kg.

Left	103101950
Right	103101951

Toggle lever fastener

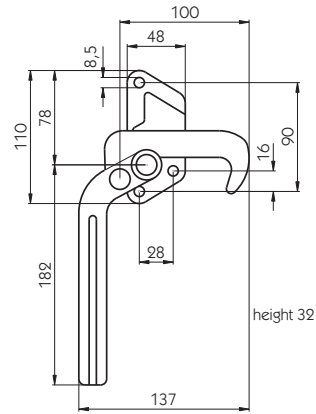
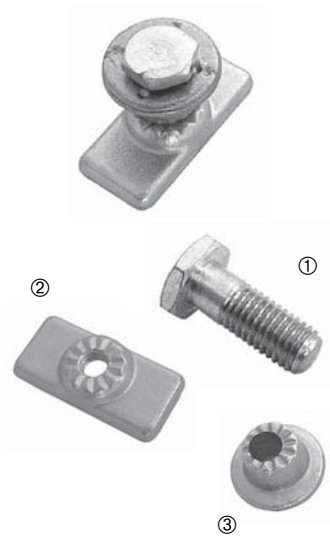
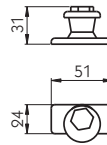


Illustration: left hand

3210
Keeper for toggle lever fastener 3210, zinc plated, weight 0.10 kg.

103101952



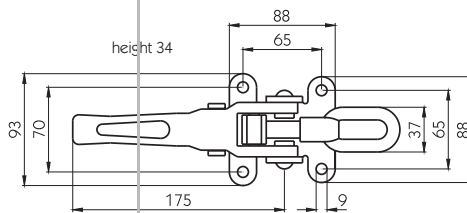
Spare parts
For keeper 3210, all parts zinc plated.

① Hex. head screw	103102560
② Threaded plate	103102561
③ Eccentric keeper	103102562

Over-centre fasteners

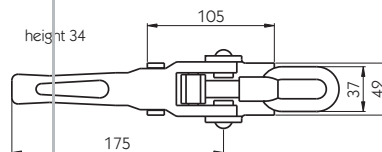
Fasteners for fitting to car trailers and light flatbed bodies. Option with integrated safety device to prevent self-opening.

6043

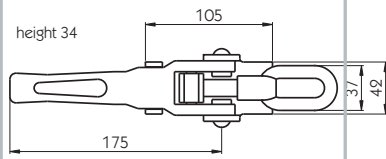


Type	Weight [kg]	
Without safety device, zinc plated	0.86	101101702
With safety device, zinc plated	0.89	101102319
Without safety device, self colour	0.93	101101097

6043 S
Self colour.

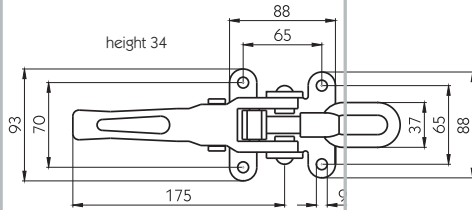


Type	Weight [kg]	
Without safety device	0.81	101101098
With safety device	0.84	101102320

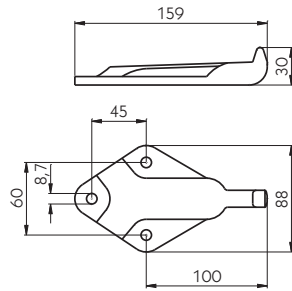


Over-centre fastener
With safety device.

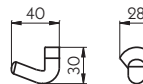
Finish	Weight [kg]	Part Number
self colour	0.81	385102320
Zinc plated	0.84	385102319



Keeper
For over-centre fasteners.



6044
Zinc plated.
101101704

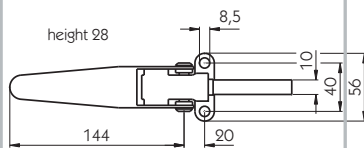


6044S
Self colour.
101102032



Spare parts
For over-centre fasteners 6043 + 6043 S, all parts zinc plated.

Safety lever	101102589
Spring sleeve, (not illustrated)	101102588
Spring pin DIN 1481-8 x 45, (not illustrated)	101102558

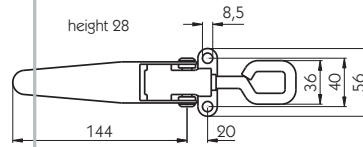


60451
Zinc plated, weight 0.33 kg.
101101690

Fastener for fitting to car trailers and light flatbed bodies.

Fasteners for fitting to car trailers and light flatbed bodies.

60450
Zinc plated, weight 0.36 kg.
101101688



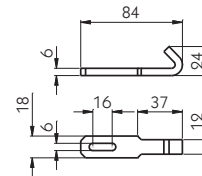
Eye bolt
Spare part for over-centre catch 60450.

No longer available

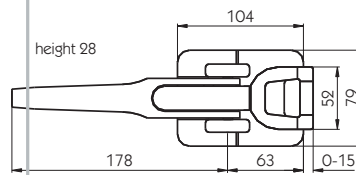
101102583



Keeper
For over-centre fastener 60450.

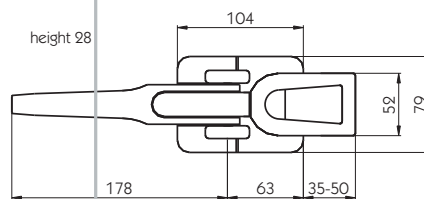


60455
Zinc plated, weight 0.06 kg.
101101698

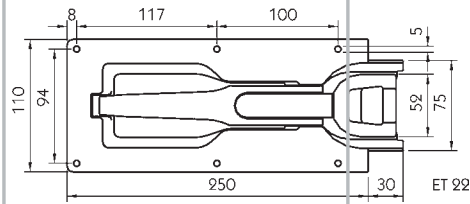


Body fastener for fitting to flatbed bodies.

PWP over-centre fastener with short stirrup catch
Zinc plated, weight 0.84 kg.
105101624



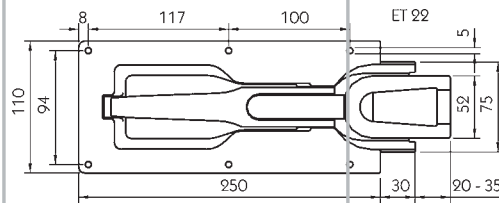
PWP over-centre fastener with long stirrup catch
Zinc plated, weight 0.93 kg.
105101625



Recessed fastener for fitting to flatbed bodies.

PWP over-centre fastener with short stirrup catch
Zinc plated, weight 0.74 kg.

105102117



PWP over-centre fastener with long stirrup catch
Zinc plated, weight 0.77 kg.

105102119

Spare parts
For PWP over-centre fastener.



Stirrup catch
Zinc plated.

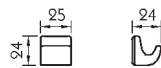
Short

105102578

Long

105102580

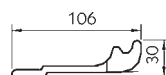
Keeper
For PWP over-centre fastener.



Short design

Self colour, weight 0.06 kg.

385102523



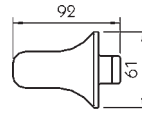
Straight design

Zinc galvanised, weight 0.19 kg.

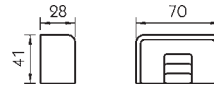
105101627



Angle type
Zinc plated, weight 0.17 kg.
105101628



Keeper pocket
Self colour, weight 0.23 kg.
105102040



Flat form fastener for fitting to light flatbed bodies and car trailers.
Both the keepers 6044 (101101704) or 6044 S (101102032) can be used for this fastener. More information on these keepers can be found on page 246.

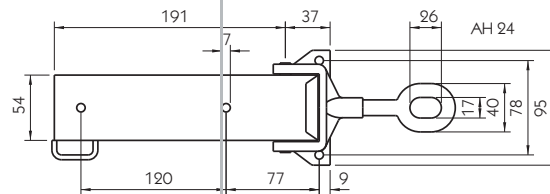
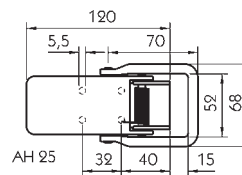


Illustration: left hand

Over-centre fastener
Zinc plated, weight 0.99 kg.

Left	385102041
Right	385102042

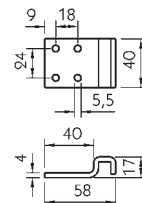
Over-centre fastener
Zinc plated, weight 0.36 kg.
108071061

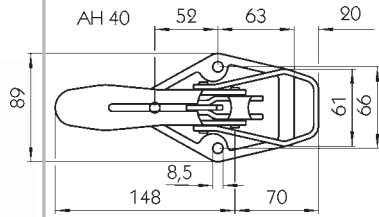


Over-centre fastener
With staple for padlock, weight 0.36 kg.
108071482



Keeper
For over-centre fastener
108071061 + 108071482, zinc plated, weight 0.09 kg.
108071062





AH 27

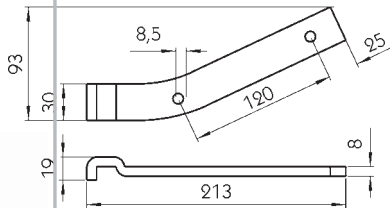
Weight 0.53 kg.

Self colour

385101121

Zinc plated

385102112



Keeper

For over-centre fastener AH 27, weight 0.40 kg.

Self colour, left

385101122

Self colour, right

385101123

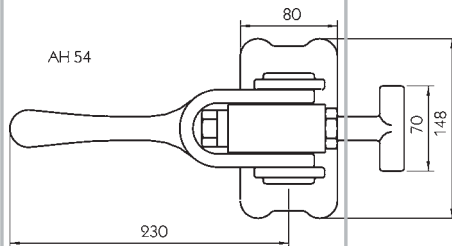
Zinc plated, left

385102113

Zinc plated, right

385102114

Illustration: left hand



PWP jumbo over-centre fastener

For closing and pulling down. Maximum permissible force 5000 kg, self colour, weight 3.12 kg.

385101207



Spare parts

For jumbo over-centre fastener, all parts zinc plated.

① T-piece

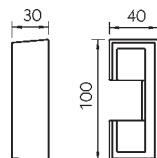
385101209

② Tensioning nut

385102567

③ Locking nut

385102568



Keeper pocket

For jumbo over-centre fastener, self colour, weight 0.46 kg.

385101208

Flat bolt fasteners

680
Zinc plated, weight 1.28 kg.

Left
Right

101101186
101101187

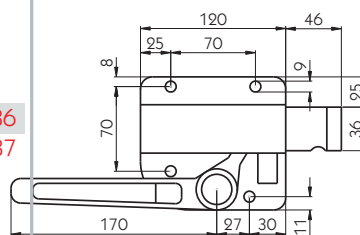


Illustration: left hand

Side board fastener for heavy flatbed and dropside bodies with safety devices to prevent self-opening.

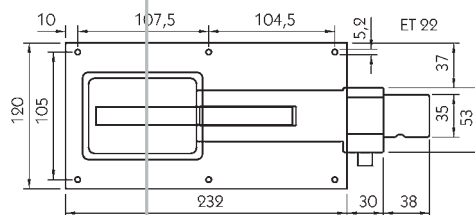
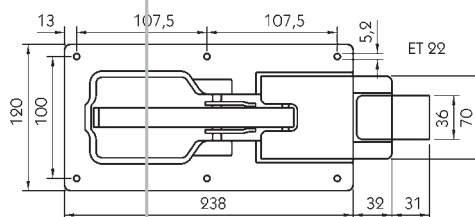
682
Zinc plated, weight 1.35 kg.

101101198

Hand lever safety spring
Spare part for flat bolt fastener 682.

No longer available

101102565



PWP Flat bolt fastener
Zinc plated, weight 0.87 kg.

105101204



The description "left/right" in the case of this fastener, only serves for identification. It can also be fitted when turned through 180°.

Flat bolt fastener
Zinc plated, weight 1.57 kg.

Left
Right

101102141
101102140

No longer available

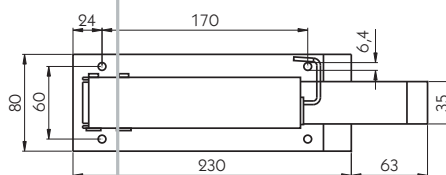
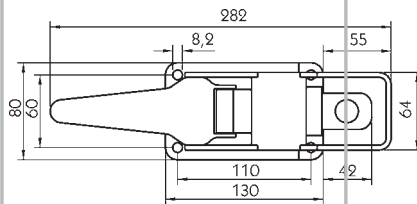


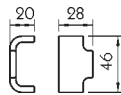
Illustration: left hand

Tension fasteners



604
Zinc plated, weight 1.03 kg.
101101567

Tension fastener for flatbed bodies. For fitting in the tarpaulin eyelet profile (604) or recessing into the side board (6040). The design safeguards the fastener from self-opening.

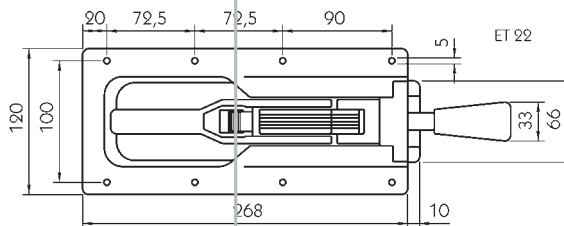


6041
Keeper pocket for 604 + 6040,
self colour, weight 0.06 kg.
101101568

Tension fastener for heavy flat-bed and dropside bodies. For recessing into the side board. With safety knob to prevent self-opening.

Safety knob can be replaced with barrel lock 6915 (101102167, see page 257).

Please order fasteners and catch hooks separately.



Description

681 N

Zinc plated, consisting of fastener and catch hook.

Weight [kg]

Fastener 681 S	1.46	101102745
Catch hook 681 N	0.20	101102322

No longer available

Spare parts

For tension fastener 681 N.



Tension spring

101102618

Safety knob

101102619



Various designs of keeper pockets are available for tension fastener 681 N:

6811 N: for recessing into a centre or corner pillar.

6815: for recessing into a 120 mm wide centre pillar.

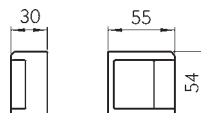
Keeper pocket

For tension fastener 681 N.

6811 N

Self colour, weight 0.26 kg.

101102163

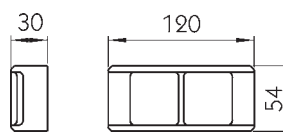


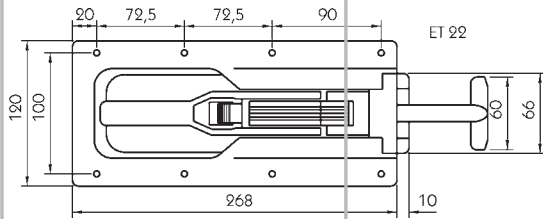
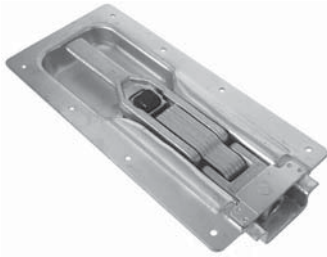
6815

Self colour, weight 0.54 kg.

101102166

No longer available





681 NT

Zinc plated, consisting of fastener and catch hook.

Description	Length [mm]	Weight [kg]	
Fastener 681 S		1.46	101102745
T-piece for 681 NT	95	0.14	101102620

Spare parts

For tension fastener 681 NT.



Tension spring

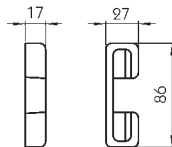
101102618

Safety knob

101102619

Keeper pocket

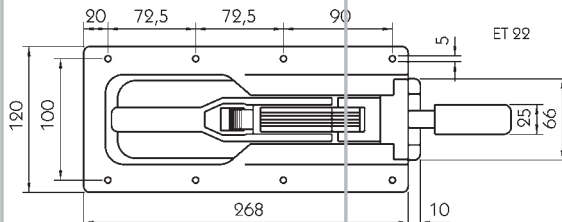
For tension fastener 681 NT.



6813

Self colour, weight 0.15 kg.

101101839



681 N-SK

Zinc plated, consisting of fastener and catch hook.

Description	Length [mm]	Weight [kg]	
Fastener 681 S		1.46	101102745
Catch hook 681	99	0.17	101101195

Tension fastener for heavy flatbed and dropside bodies. For recessing into the side board. With safety knob to prevent self-opening.

Safety knob can be replaced with barrel lock 6915 (101102167, see page 257).

Keeper pocket 6813 for recessing into a centre or corner pillar. Please order fasteners and catch hooks separately.

Tension fastener for heavy flatbed and dropside bodies. For recessing into the side board. With safety knob to prevent self-opening.

Safety knob can be replaced with barrel lock 6915 (101102167, see page 257).

Keeper pocket 6811 for recessing into a centre or corner pillar. Please order fasteners and catch hooks separately.

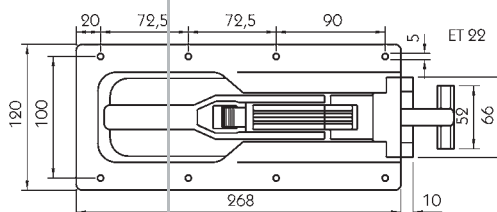
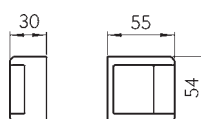
Tension spring
101102618

Safety knob
101102619

6811 N
Self colour, weight 0.26 kg.
101102163

Spare parts
For tension fastener 681 N-SK.

Keeper pocket
For tension fastener 681 N-SK.



681 S/1
Zinc plated with load pressure safety device consisting of fastener and catch hook.

Description	Length [mm]	Weight [kg]	
Fastener 681 S		1.46	101102745
T-piece for 681 S/1	63	0.09	101102630

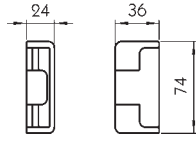
Tension spring
101102618

Safety knob
101102619

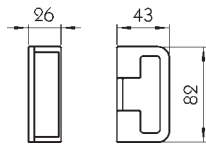
Spare parts
For tension fastener 681 S/1.



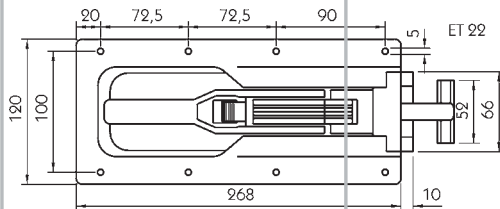
Keeper pocket
For tension fastener 681 S/1.



6817
Self colour, weight 0.17 kg.
101102461



MAN
Self colour, weight 0.25 kg.
101102671



681 SL
Zinc plated with load pressure safety device consisting of fastener and catch hook.

Description	Length [mm]	Weight [kg]	
Fastener 681 S		1.46	101102745
T-piece for 681 SL	98	0.07	101102638

Tension fastener for heavy flatbed and dropside bodies. For recessing into the side board. With safety knob to prevent self-opening. Safety knob can be replaced with barrel lock 6915 (**101102167**, see page 257). Keeper pocket 6817 for welding to a pillar stop, and 6818 for recessing into a corner pillar. Please order fasteners and catch hooks separately.

Spare parts
For tension fastener 681 SL.



Tension spring
101102618

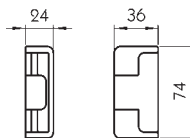


Safety knob
101102619

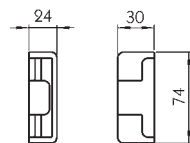
Keeper pockets

For tension fastener 681 SL.

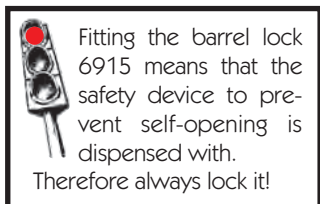
6817
Self colour, weight 0.17 kg.
101102461



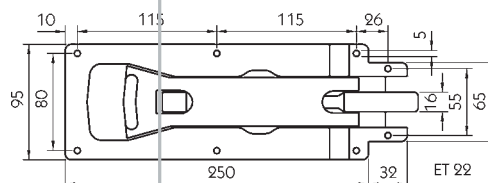
6818
Self colour, weight 0.14 kg.
101102513



Barrel lock 6915
Accessory for all 681 N + 681 S
tension fasteners.
101102167



Tension fastener for flatbed bodies, for recessing into the side board. With safety knob to prevent self-opening. Keeper pocket 6861 for welding to the pillar stop.



686
Zinc plated, weight 1.14 kg.
101101643

Spare parts

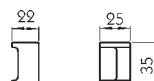
For tension fastener 686.

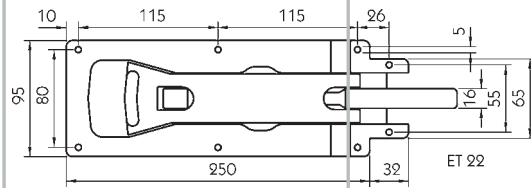
Catch hook
Length 154 mm.
101102581

No longer available

Safety knob
101102619

6861
Keeper pocket for tension fastener 686, self colour, weight 0.08 kg.
101101644





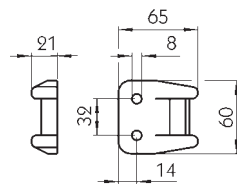
686 LN
Zinc plated, weight 1.17 kg.
101101705

Spare parts
For tension fastener 686 LN.

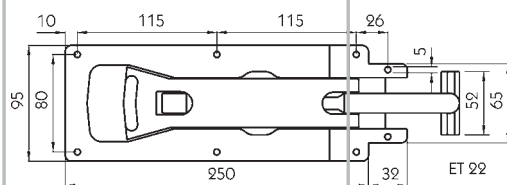
Catch hook
Length 180 mm.
101102590

No longer available

Safety knob
101102619



6864
Keeper pockets for tension fastener 686 LN. Zinc plated, weight 0.24 kg.
101101707



686 S
With load pressure safety device, zinc plated, weight 1.22 kg.
101102514

Spare parts
For tension fastener 686 S.

Spare parts
For tension fastener 686 S.

T-piece
Length 180 mm.
101102527

Safety knob
101102619

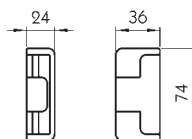


Tension fastener for flatbed bodies, for recessing into the side board. With safety knob to prevent self-opening. This fastener, in contrast to tension fastener 686, has a lift-out device whereby the catch hook, when opened, lifts out to a maximum of 33 mm.

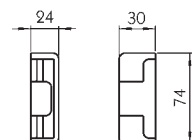
Tension fastener for flatbed bodies, for recessing into the side board. With safety knob to prevent self-opening. Keeper pocket 6817 for welding onto the pillar stop or 6818 for recessing into the pillar. 6867 for screwing onto the head or tailboard, for bodies without pillars.

Keeper pockets
For tension fastener 686 S.

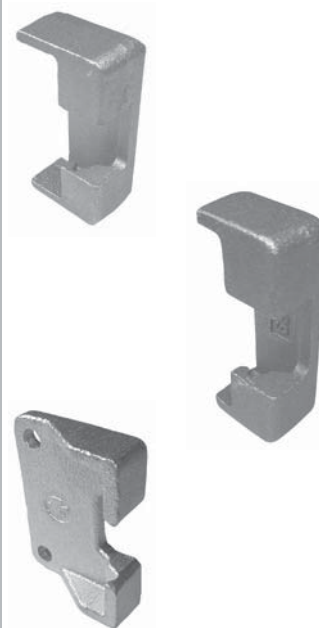
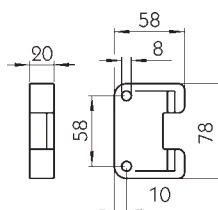
6817
Self colour, weight 0.17 kg.
101102461



6818
Self colour, weight 0.14 kg.
101102513



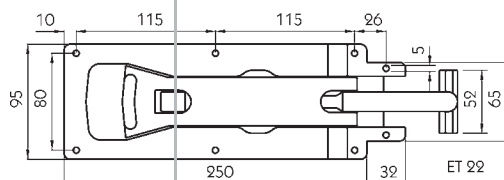
6867
Zinc plated, weight 0.23 kg.
101102516



Tension fastener for flatbed bodies, for recessing into the side board. With safety knob to prevent self-opening. This fastener, in contrast to fastener 686 S, has a lift-out device whereby the catch hook, when opened, lifts out to a maximum of 33 mm.

Keeper pocket 6817 for welding onto the pillar stop or 6818 for recessing into the pillar. 6867 for screwing onto the head or tailboard, for bodies without pillars.

686 SN
With load pressure safety device, zinc plated, weight 1.22 kg.
101102515



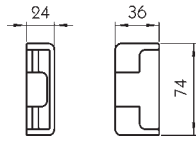
Spare parts
For tension fastener 686 SN.

T-piece
Length 180 mm.
101102527

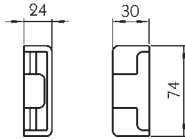
Safety knob
101102619



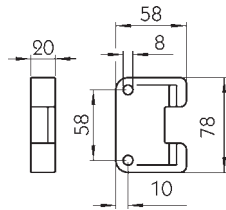
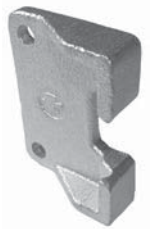
Keeper pockets
For tension fastener 686 SN.



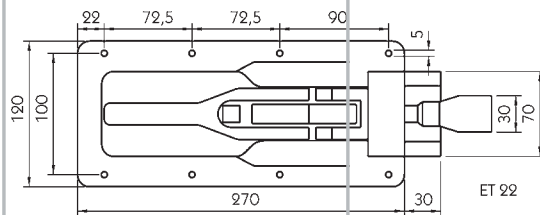
6817
Self colour, weight 0.17 kg.
101102461



6818
Self colour, weight 0.14 kg.
101102513



6867
Zinc plated, weight 0.23 kg.
101102516



H 206 N
Zinc plated, weight 1.77 kg.
102102406

Tension fastener for flatbed bodies, for recessing into the side board.

Various designs of keeper pockets are available:

H 206 N:
for recessing into a centre or corner pillar.

H 206 NA:
for recessing into a corner pillar.

H 206 N/120:
for recessing into a 120 mm wide centre pillar.

Spare parts
For tension fastener H 206 N.



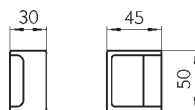
Catch hook
Length 97 mm.
102102627



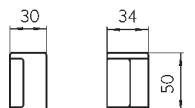
Hand lever safety spring
102102626

Keeper pockets
For tensioning fastener H 206 N.

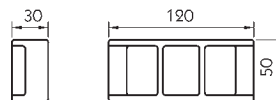
H 206 N
Self colour, weight 0.23 kg.
102102408



H 206 NA
Self colour, weight 0.15 kg.
102102411



H 206 N/120
Self colour, weight 0.65 kg.
102102413

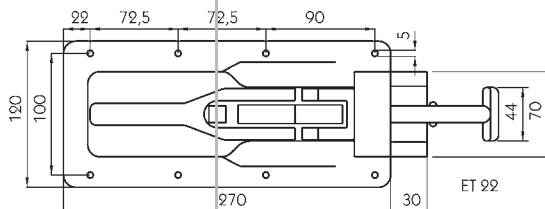


Tension fastener for flatbed bodies, for recessing into the side board.

Various designs of keeper pockets are available:

H 206 N-LF-R: for recessing into a centre or corner pillar.

H 206 N-LF-A + H 206 N-LF-H: for welding to the pillar stop.



H 206 N-LF
With load pressure safety device, zinc plated, weight 1.74 kg.
102102541



Spare parts
For tension fastener H 206 N-LF.

T-piece
Length 84 mm.
102102705

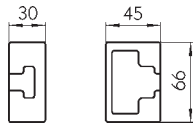
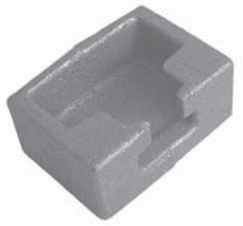


Hand lever safety spring
102102626

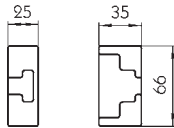


Keeper pockets

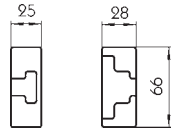
For tension fastener H 206 N-LF.



H 206 N-LF-R
Self colour, weight 0.38 kg.
102102510



H 206 N-LF-A
Self colour, weight 0.16 kg.
102102511



H 206 N-LF-H
Self colour, weight 0.15 kg.
102102543

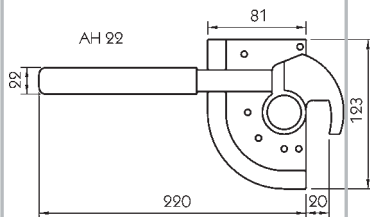


When using the keeper pockets H 206 N-LF-A and H 206 N-LF-H for fitting to the pillar stop, the side board must be equipped with the surround profile **621173**.

Quadrant fastener



Illustration: left hand



6830
Zinc plated, weight 0.57 kg.

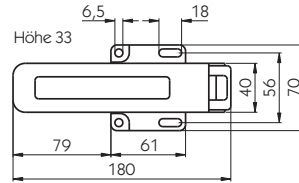
Left
Right

101101202
101101203

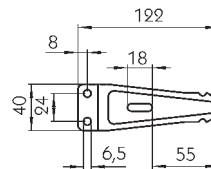
No longer available

Automatic bolt fastener

620
Zinc plated, weight 0.35 kg.
101102115



6201
Keeper for automatic bolt fastener 620. Zinc plated, weight 0.15 kg.
101102116



Box lid fastener

Box lid fastener
Zinc plated, consisting of:

	Weight [kg]	
① Locking bar	0.42	385101988
② Round nut, incl. washer and screw	0.16	385101989
③ Latch with square section threaded bar	0.13	385101990

Square section threaded bar
Spare part for latch for box lid fastener ④.
385101991

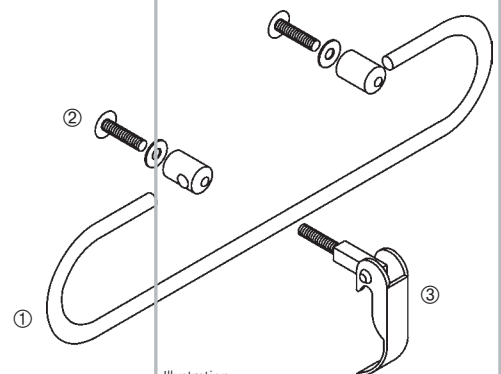
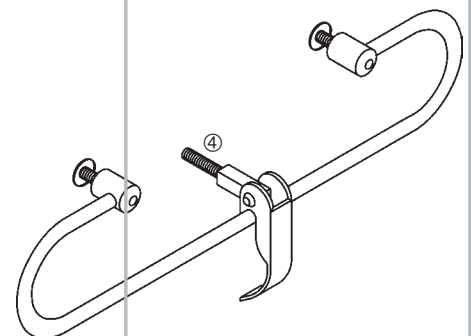
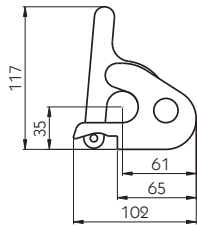


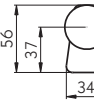
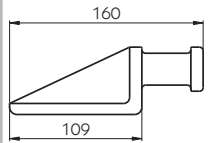
Illustration:
above: individual parts, below: assembled.



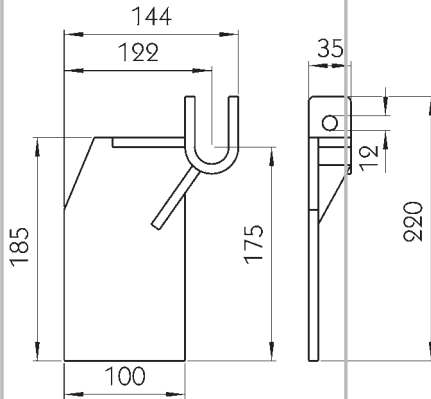
Swing bearings



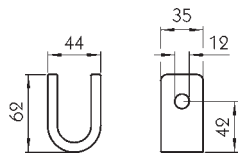
H 121
Self colour, weight 0.94 kg.
102101388



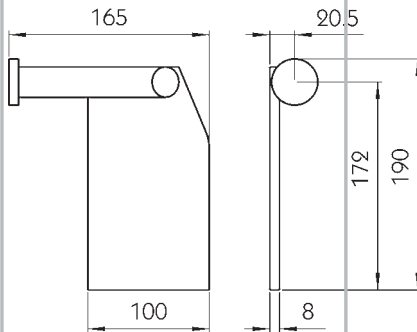
H 121
Lug for forker H 120 B, self colour,
weight 0.79 kg.
102101373



171
Self colour, weight 1.51 kg.
Left **125101400**
Right **125101401**



123
Self colour, weight 0.29 kg.
104131207



114
Lug for forkets 171 and 123, self
colour, weight 1.65 kg.
Left **125101402**
Right **125101403**

Swing bearings for tipper bodies with centre and corner pillars.

The bearing block H 121 is welded to the pillar, and the lug H 121 is fitted to the swing board. The swing bearing must be secured to prevent self-opening e.g. with a chain hook. Chain hooks and lanyards can be found on page 316.

Forket for tipper bodies with and without centre and corner pillars.

Optional forker with fixing plate for bodies without pillars. The lug must be secured e.g. with a retaining pin to prevent it from jumping out of the forker. Retaining pins can be found from page 354.

Illustration: left hand

Illustration: left hand

Swing bearing for tipper bodies with centre and corner pillars.

The bearing block is welded to the pillar. The lug plate is either welded or screwed to the inside of the swing board. The lug plate mates with the bearing block from the inside.

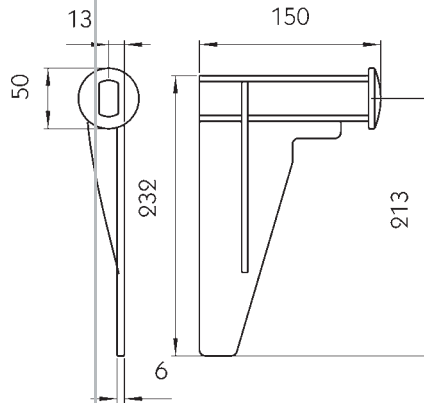
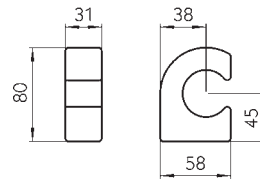


Illustration: left hand

H 107
Self colour, weight 1.10 kg.

Left	102101251
Right	102101252

H 109
Bearing block for lug plate H 107, self colour, weight 0.43 kg.
102101259



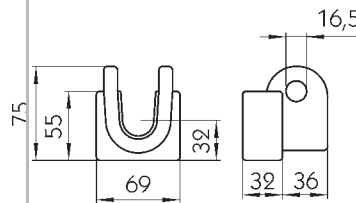
Swing bearing for all tipper bodies.

The forket H 120 B is welded onto, or on the side of the pillar, and the lug fitted to the swing board.

By swapping the lugs H 120 from left to right, the board can be designed to swing inward or outward.

The lugs must be secured in the forks with a split pin to prevent it inadvertently jumping out.

H 120 B
Self colour, weight 0.82 kg.
102101385



Split pin
16 x 100 mm, zinc plated, weight 0.21 kg.
102101920

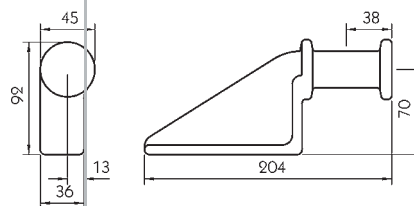


Illustration: left hand

H 120
Lug for forket H 120 B, self colour, weight 1.35 kg.

Left	102101383
Right	102101390

Tipper fasteners

AH 36

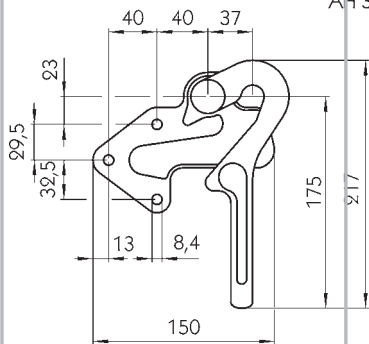


Illustration: left hand

603

Zinc plated, weight 0.80 kg.

Left **101102326**

Right **101102327**

Fastener for tipper bodies.

The fastener must be secured to prevent self-opening e.g. with a chain hook.

Chain hooks and lanyards can be found on page 316.

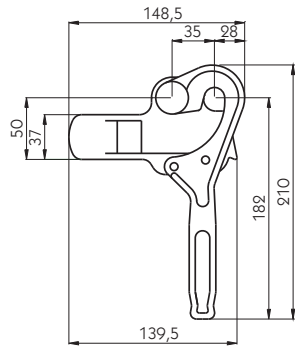


Illustration: left hand

3821

Self colour, weight 0.84 kg.

Left **103102767**

Right **103102768**

Fastener for tipper bodies.

The fastener must be secured to prevent self-opening e.g. with a chain hook.

Chain hooks and lanyards can be found on page 316.

Lugs

For tipper fasteners 603 + 3821.

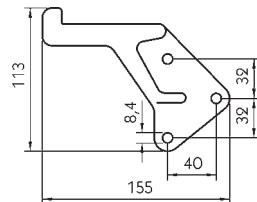


Illustration: left hand

6030

Zinc plated, weight 0.41 kg.

Left **101102328**

Right **101102329**

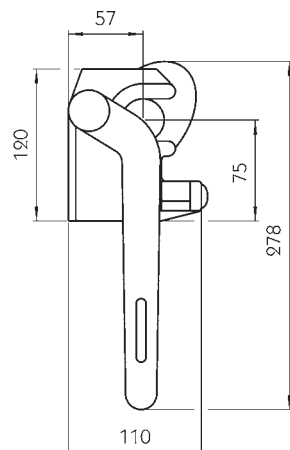


Illustration: left hand

H 120

Self colour, weight 2.62 kg.

Left **102101381**

Right **102101382**

Tipper fastener for tailboard.

The fastener is welded to the corner pillar and the lug fitted to the swing board.

By swapping the lugs from left to right, the board can be designed to swing inward or outward.

H 114 is conceived for tipper vehicles up to 3.5 t load capacity. It can be used on agricultural vehicles or on the extension (greedy) boards of tipper bodies with a maximum load capacity of 5t.

Lug H 120
For tipper fastener H 120, self colour, weight 1.35 kg.

Left	102101383
Right	102101390

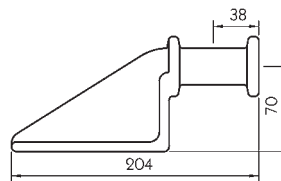
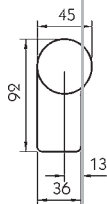


Illustration: left hand

H 114 is conceived for tipper vehicles up to 3.5 t load capacity. It can be used on agricultural vehicles or on the extension (greedy) boards of tipper bodies with a maximum load capacity of 5t.

H 114
Self colour, weight 1.27 kg.

Left	102101309
Right	102101310

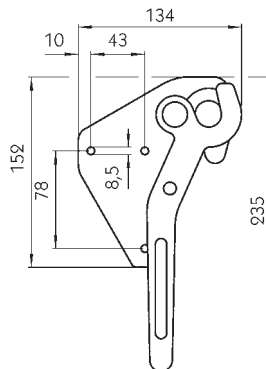


Illustration: left hand

H 114/4,5 is conceived for tipper vehicles up to 4.5 t load capacity. It can be used on agricultural vehicles or on the extension (greedy) boards of tipper bodies with a maximum load capacity of 6 t. Fastener and cam lock are provided with a fixing point on the inside for a restraining chain.

Lug H 114 A
For tipper fastener H 114, self colour, weight 1.35 kg.

Left	102102770
Right	102102771

H 114/4,5
Self colour, weight 1.35 kg.

Left	102101540
Right	102101541

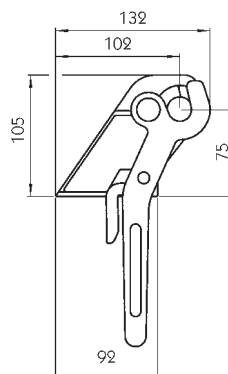


Illustration: left hand

Lug H 114/4,5
For tipper fastener H 114/4,5, self colour, weight 0.71 kg.

Left	102101542
Right	102101543

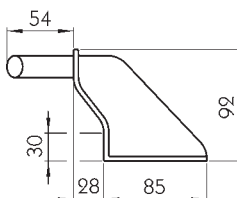
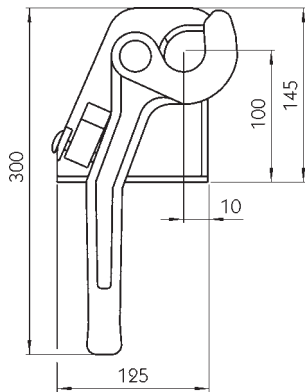


Illustration: left hand



Illustration: left hand



H 114 ST

Self colour, weight 2.74 kg.

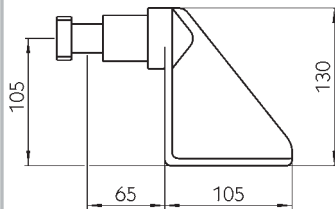
Left	102101321
Right	102101322

H 114 ST can be used on tipper vehicles with a load capacity of over 4.5 t.

Fastener and cam lock are provided with a fixing point on the inside for a restraining chain.



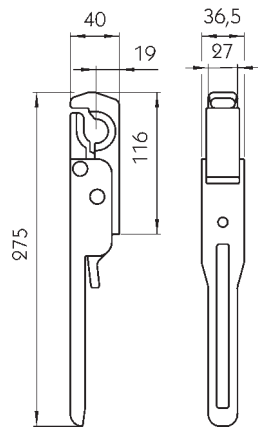
Illustration: left hand



Lug H 114 ST

For tipper fastener H 114 ST, self colour, weight 1.92 kg.

Left	102101323
Right	102101324



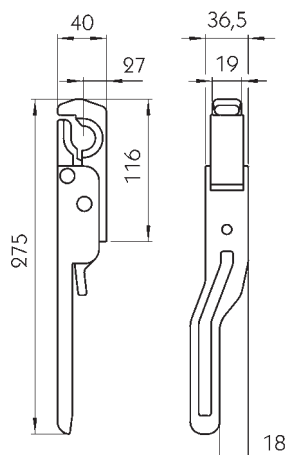
664 N

Straight, weight 0.91 kg.

Self colour	101101953
Zinc plated	101102953



Illustration: left hand



664 N

Offset, weight 0.93 kg.

Left, self colour	101101955
Left, zinc plated	101102955
Right, self colour	101101954
Right, zinc plated	101102954

Spare parts

For tipper fasteners 664 N, all parts zinc plated.

① Safety lever	101102589
② Torsion spring	101102605
Spring sleeve DIN EN 28752 5 x 35, not illustrated	101102606

6640 N
Weight 0.86 kg.

Self colour	101101956
Zinc plated	101102956

6641 N
Zinc plated, weight 0.50 kg.

Left	101102402
Right	101102403

Lug
For tipper fastener 664 N.

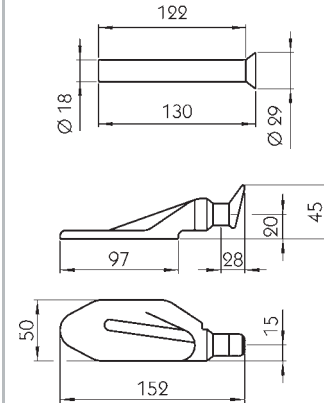


Illustration: left hand

Tipper fastener for all pallet tipper bodies with side boards.
Side board pull-in capacity approx. 16 mm.

When fitting, the swing bearing is first welded into the pillar. Next, screw the turnbuckle, the locking bolt and the operating mechanism together and insert into the swing bearing. The operating mechanism can now be welded and/or screwed to the pillar.

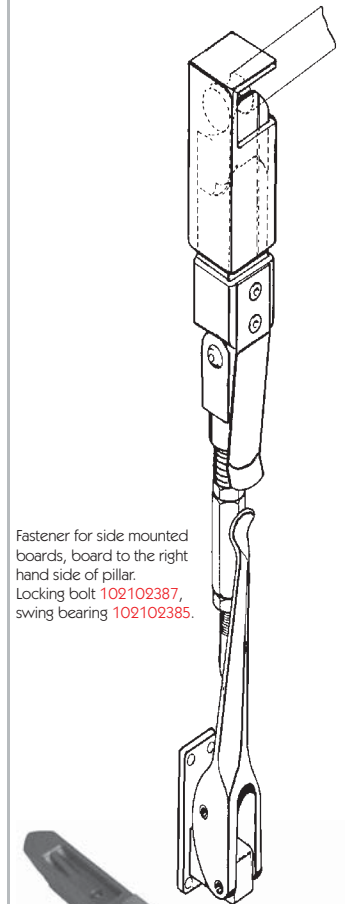
Finally, adjust the bolt action by rotating the turnbuckle.



Turnbuckle [mm]	Max. fastener o/a length [mm]
55	536
120	596
180	656
240	716
300	776

Locking bolt H 10 G
Self colour, weight 0.75 kg.

Side mounted, (left = right)	102102387
Rear left	102102388
Rear right	102102389



Fastener for side mounted boards, board to the right hand side of pillar.
Locking bolt 102102387, swing bearing 102102385.

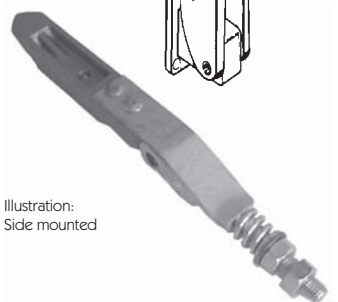
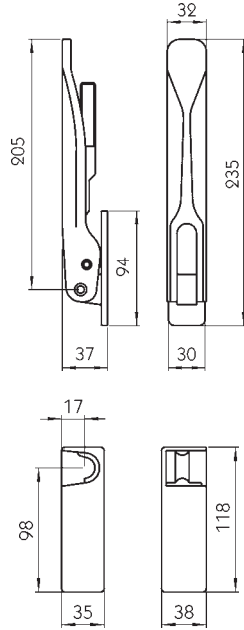


Illustration: Side mounted



Illustration: left hand



Turnbuckle H 10 G/H 11 Zinc plated.

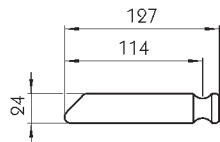
Length [mm]	Weight [kg]	Part Number
55	0.09	102102390
120	0.22	102102391
180	0.36	102102392
240	0.51	102102393
300	0.66	102102394

Operating mechanism H 10 G/H 11 Zinc plated, weight 0.71 kg. 102102684

Swing bearing H 10 G Self colour, weight 0.50 kg.

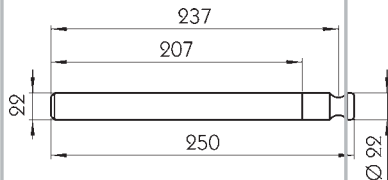
Left	102102385
Right	102102386

Lugs and lug pins



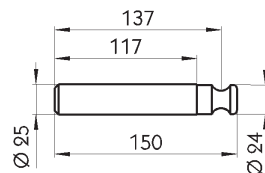
Lug H 10 G, straight Self colour, weight 0.41 kg. 102101848

Straight lug for welding to steel boards.



Lug pin H 10 G, straight Self colour, weight 0.88 kg. 102102677

Straight lug pin for inserting into steel or aluminium hollow profiles.



Lug pin H 10 G, straight Self colour, weight 0.54 kg. 102102681

Straight lug pin for inserting into steel or aluminium hollow profiles e.g. Suer aluminium profiles 611074 and 611059.

Tipper fastener for all pallet tipper bodies with side boards.
Side board pull-in capacity approx. 21 mm.

When fitting, the swing bearing is first welded into the pillar. Next, screw the turnbuckle, the locking bolt and the operating mechanism together and insert into the swing bearing. The operating mechanism can now be welded and/or screwed to the pillar. Finally, adjust the bolt action by rotating the turnbuckle.



Turnbuckle [mm]	Max. fastener o/a length [mm]
55	536
120	596
180	656
240	716
300	776

Locking bolt H 11

Self colour, weight 1.15 kg.

Side mounted, (left = right)	102102387
Rear left	102102205
Rear right	102102206

Turnbuckle H 10 G/H 11

Zinc plated.

Length [mm]	Weight [kg]	
55	0.09	102102390
120	0.22	102102391
180	0.36	102102392
240	0.51	102102393
300	0.66	102102394

Operating mechanism H 10 G/H 11

Zinc plated, weight 0.71 kg.

102102684

Swing bearing H 11

Self colour, weight 1.09 kg.

Left	102102199
Right	102102200

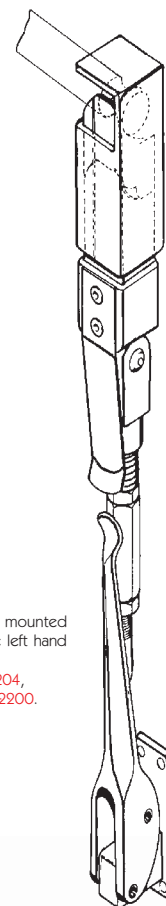
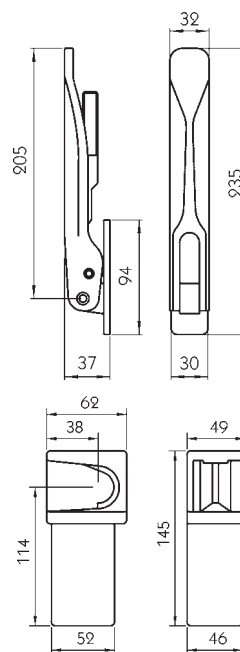


Illustration:
Fastener for side mounted boards, board to the left hand side of pillar.
Locking bolt 102102204,
swing bearing 102102200.

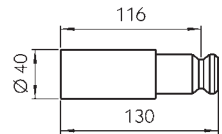
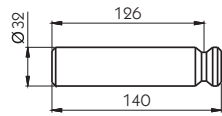


Illustration:
lateral



Illustration: left hand

Lugs and lug pins
For tipper fastener H 11.



Lug pin H 11 C
Self colour, weight 0.85 kg.
102102201

Straight lug pin for inserting into steel or aluminium hollow profiles.

Lug pin (R40) H 11
Self colour, weight 1.03 kg.
102101936

Straight lug pin for inserting into steel or aluminium hollow profiles.

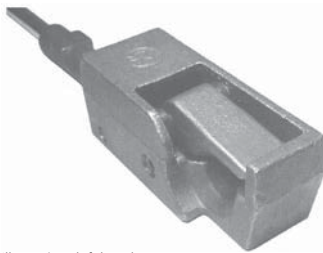
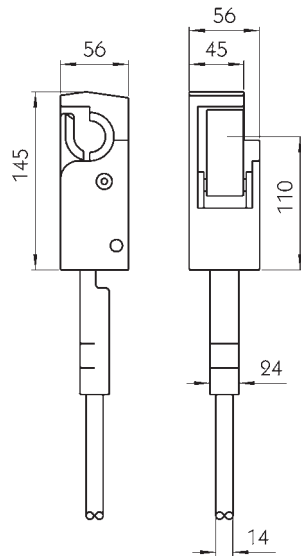


Illustration: left hand



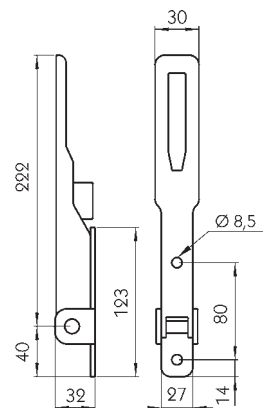
Tipper fastener for all tipper bodies with side boards. Side board pull-in capacity approx. 32 mm radially and 8 mm axially. The lug 6620 N is fitted to the side board. The threaded rod on the fastener can be shortened by max. 70 mm.

662 N
For side board height 600 - 800 mm, self colour, weight 2.71 kg.

Left **101102258**
Right **101102259**

662 N
For side board height 1000 - 1200 mm, self colour, weight 3.19 kg.

Left **101102260**
Right **101102261**

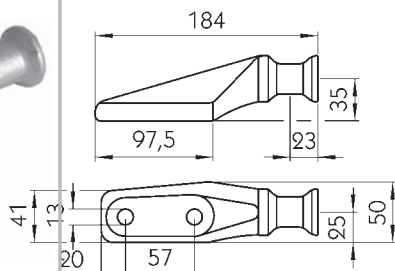


Hand lever
Self colour, weight 0.69 kg.
101102262

Safety spring
Spare part for hand lever
101102262.
101102624



Illustration: left hand



6620 N
Self colour, weight 0.86 kg.
Left **101102125**
Right **101102126**

Tipper fastener for all pallet tipper bodies with side boards.
Side board pull-in capacity approx. 32 mm radially and 8 mm axially.

The lug 6620 N is fitted on the side board. The lug 6623 P is for inserting into steel or aluminium hollow profiles, e.g. Suer aluminium profile 611052.

The threaded rod on the fastener can be shortened by max. 70 mm.

662 NP

For side board height 600 - 800 mm, self colour, weight 1.67 kg.

- Left 101102267
- Right 101102268

662 NP

For side board height 1000 - 1200 mm, self colour, weight 2.16 kg.

- Left 101102269
- Right 101102270

Hand lever

Self colour, weight 0.69 kg.

101102262

Safety spring

Spare part for hand lever

101102262.

101102624

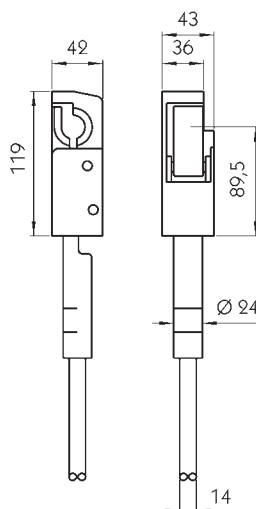
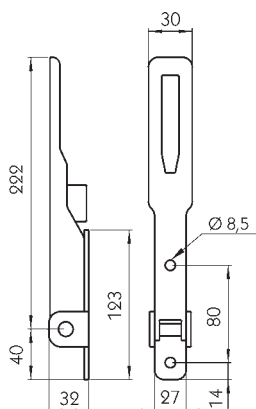
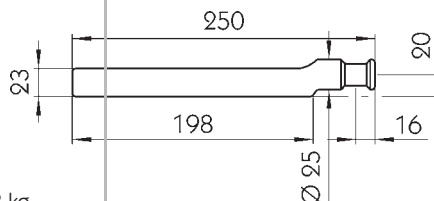


Illustration: left hand



Lug

For tipper fastener 662 NP.



6623 P

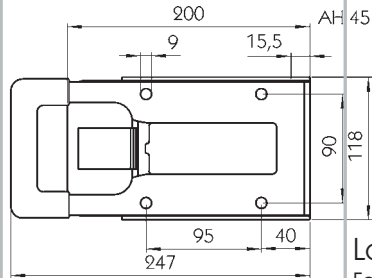
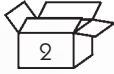
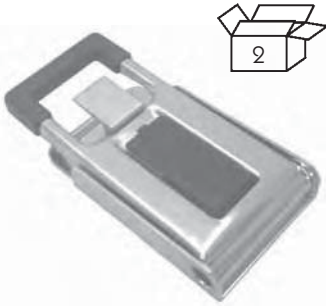
Self colour, weight 0.88 kg.

101102033



Door locking gears

External door locking gears



No longer available

Locking bar fastener

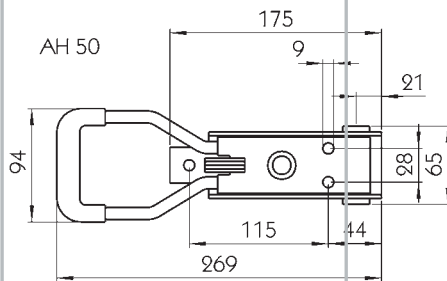
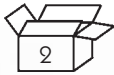
For 16 mm locking bar, with integrated barrel lock, Nirosta, weight approx. 1.72 kg.

108071433

All locking bar fasteners on this page can be combined with the bar bracket accessory set on the next page.

Supply of one locking bar fastener includes:

2 keys for the built-in barrel lock, 2 return springs and 4 spring pins 5 x 26 mm.



No longer available

Locking bar fastener

For 16 mm locking bar, with integrated barrel lock, Nirosta, weight approx. 1.14 kg.

108071317

Supply of one locking bar fastener includes:

2 keys for the built-in barrel lock and 4 spring pins 5 x 26 mm.

Accessories/spare parts

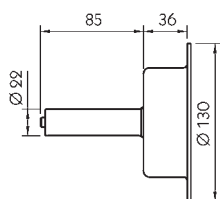
For 16 mm locking bar fasteners.



Barrel lock

Spare part for locking bar fasteners **108071433** and **108071317**, without cam, Nirosta.

108071305

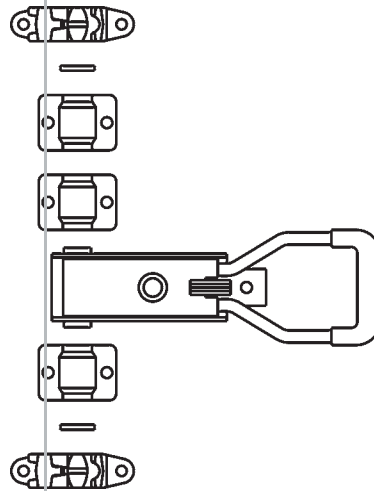


Internal release

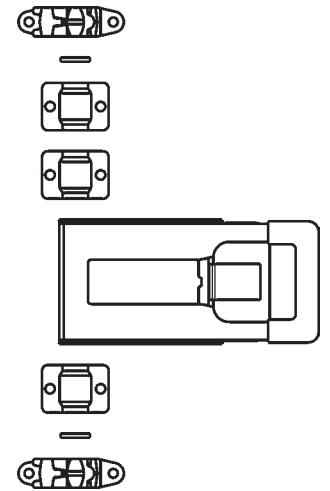
Accessory for locking bar fastener **108071433**, weight 0.16 kg.

108071434

Included in the supply are:
2 locking cams, 2 keepers, 2 anti-rack rings, 3 bar brackets and 6 nylon half bushes.

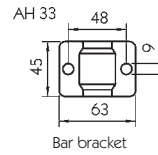


Locking bar fastener 108071317

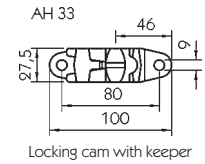


Accessory set with locking bar fastener 108071433

Bar bracket accessory set
For 16 mm bar, weight 0.94 kg.



Bar bracket



Locking cam with keeper

Zinc plated	108071542
Nirosta	108071540

Spare parts
For bar bracket accessory set.

Locking cam
Nirosta.
108071374



Keeper
Nirosta.
108071375

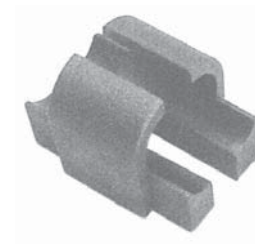


Bar bracket

Zinc plated	108071304
Nirosta	108071303



Nylon half bearing
2 pieces make up one bearing.
108071287



Anti-rack ring

Zinc plated	108071302
Nirosta	108071301





Delta hand lever

Weight approx. 0.68 kg.

Zinc plated

108071326

Nirosta

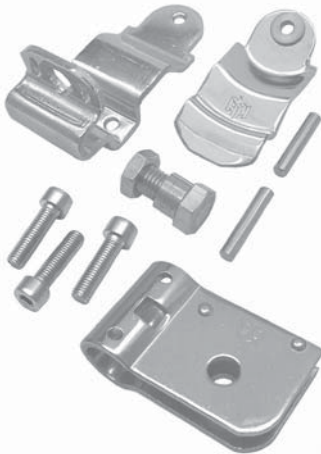
108071325



Hand lever

Nirosta, weight approx. 0.98 kg.

108071278



Included in the supply are:

1 locking device, 1 hub, 1 screw M 12 x 25 to DIN 933 with nut to DIN 439, 3 screws M 8 x 30 to DIN 912, 1 bush and 2 spring pins 6 x 32 mm.

Locking device with staple for padlock.

Locking device

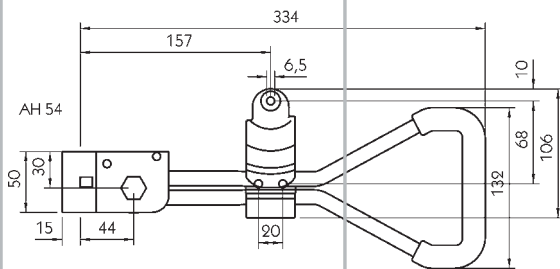
Weight approx. 0.59 kg.

Zinc plated

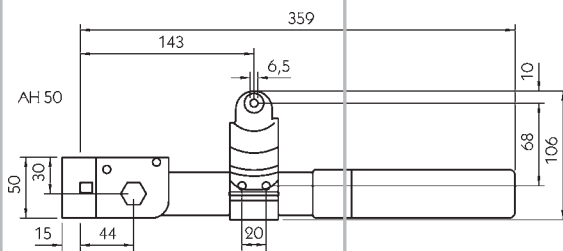
108071556

Nirosta

108071551



Locking device with Delta hand lever



Hand lever



Bush

Spare part for locking device, Nirosta.

108071286

Included in the supply are:
2 locking cams, 2 keepers, 2 anti-rack rings, 3 bar brackets and 6 nylon half bushes.

Bar bracket accessory set
For 22 mm locking bar, weight 1.79 kg.

Zinc plated	108071555
Nirosta	108071550

Locking cam

Zinc plated	108071350
Nirosta	108071343

Keeper

Zinc plated	108071348
Nirosta	108071344

No longer available

Bar bracket

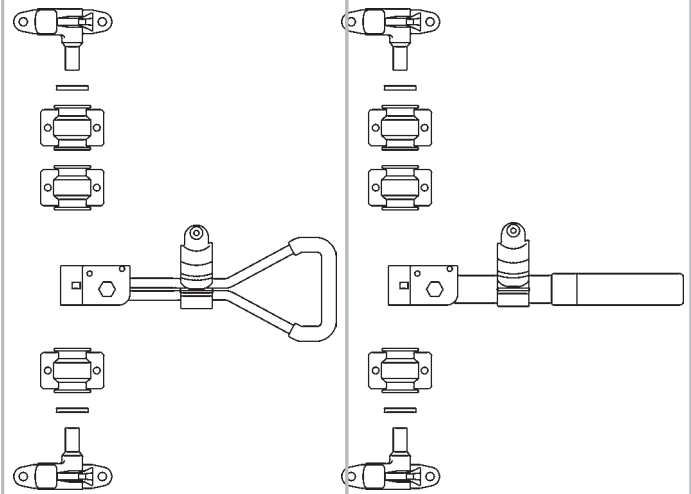
Zinc plated	108071336
Nirosta	108071335

Nylon half bearing
2 pieces make up one bearing.
108071307

Anti-rack ring

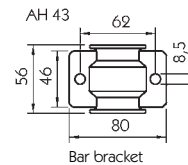
Zinc plated	108071309
Nirosta	108071308

Accessories
For 22 mm locking bar fasteners.

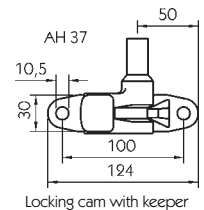


Delta hand lever locking bar fastener with locking device

Accessory set with: hand lever locking bar fastener with locking device



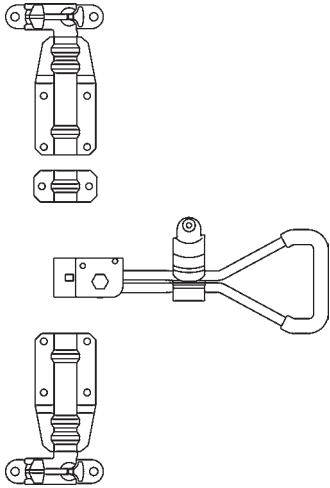
Bar bracket



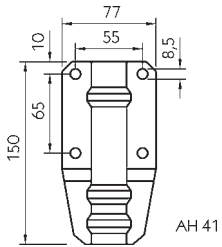
Locking cam with keeper

Spare parts
For bar accessory set.

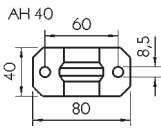




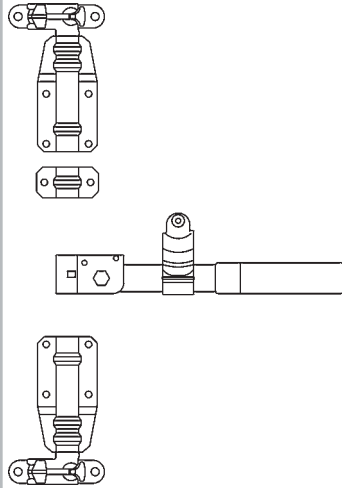
Accessory set with Delta hand lever locking bar fastener with locking device



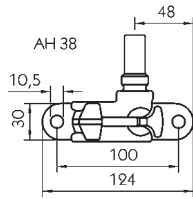
AH 41



Bar bracket



Locking bar fastener hand lever with locking device



Locking cam with keeper

Spare parts
For bar bracket accessory set.



Locking cam
Nirosta.
108071415



Keeper
Nirosta.
108071414



Bar bracket, large
With support plate, Nirosta.
108071412



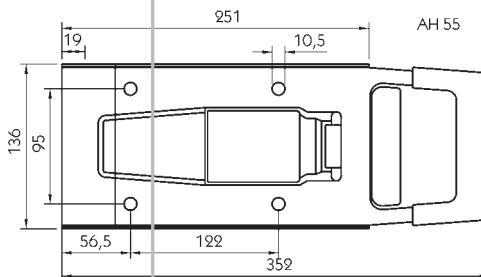
Bar bracket, small
With support plate, Nirosta.
108071411



Nylon bush
108071410

Included in the supply are:
2 locking cams, 2 keepers, 2 bar brackets, large, with support plates, 1 bar bracket, small, with support and 5 nylon bushes.

Included in the supply are:
1 fastener with 2 keys for the built-in barrel lock, and 2 return springs.



Locking bar fastener
For 27 mm locking bar, with integrated barrel lock, Nirosta, weight approx. 2.57 kg.

108071430

Delta hand lever
Weight approx. 0.68 kg.

Zinc plated
Nirosta

108071326
108071325



Both types of hand lever can be combined with the following locking device variants.

Hand lever
Nirosta, weight approx. 0.98 kg.

108071278

Supply of the locking device includes:

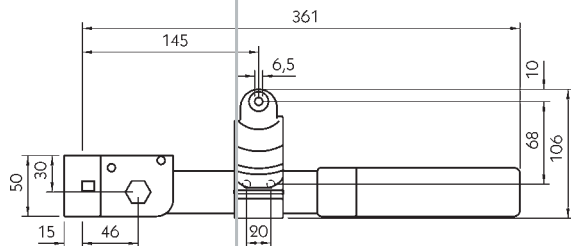
1 locking device, 1 hub, 1 screw M 12 x 25 to DIN 933 with nut to DIN 439, 3 screws M 8 x 30 to DIN 912, 1 bush and 2 spring pins 6 x 38 mm.

Locking device with staple for padlock.

Locking device
Weight approx. 0.59 kg.

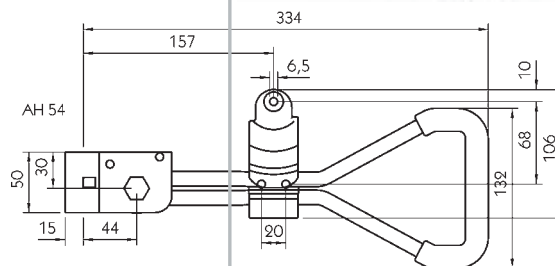
Zinc plated
Nirosta

108071562
108071545



AH 50

Hand lever



Locking device with Delta hand lever



Locking device with bonnet hasp

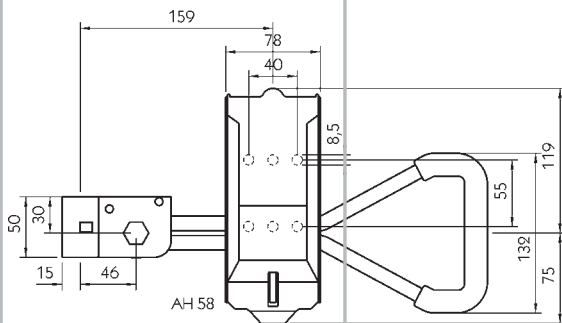
To TIR standards, Nirosta, weight 1.10 kg.

108071546

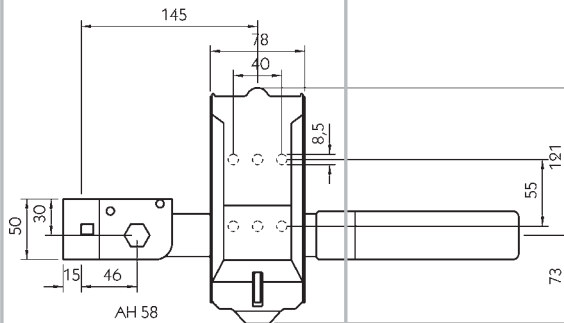
Supply of the locking device includes:

1 locking device, 1 hub, 1 screw M 12 x 25 to DIN 933 with nut to DIN 439, 3 screws M 8 x 30 to DIN 912, 1 bush and 2 spring pins 6 x 38 mm.

Locking device with staple for padlock.



Locking device with bonnet hasp combined with Delta hand lever



Hand lever

Accessories/spare parts For 27 mm locking bar fasteners.



Barrel lock

Spare part for locking bar fasteners **108071430**, without cam, Nirosta.

108071305



Cam

Spare part for locking bar fastener, Nirosta.

108071332



Internal release

Accessory for locking bar fasteners **108071430**, weight 0.16 kg.

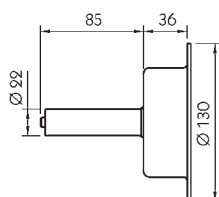
108071434

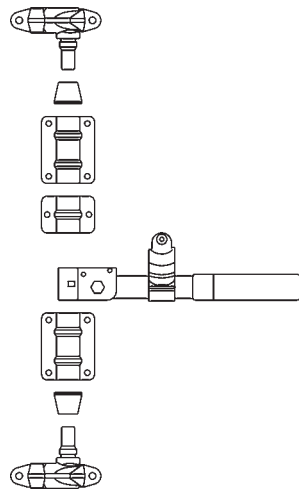


Bush

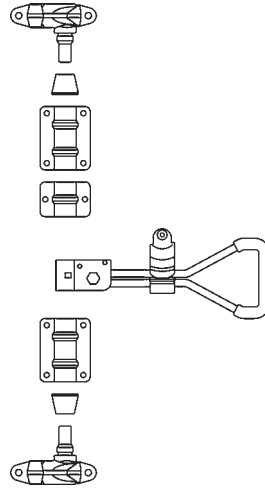
Spare part for locking device, Nirosta.

108071286

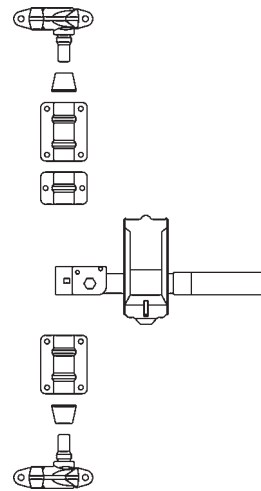




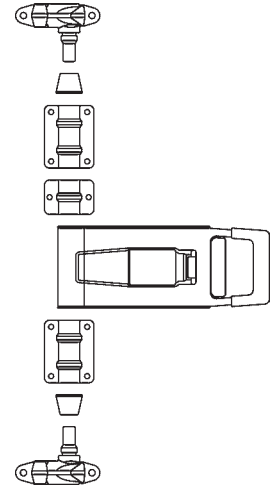
Locking bar fastener hand lever with locking device



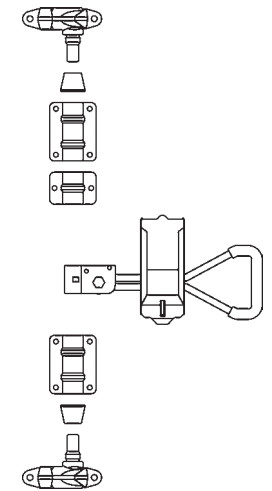
Locking bar fastener Delta hand lever with locking device



Locking bar fastener hand lever with locking device to TIR standards



Accessory set combined with locking bar fastener 108071430

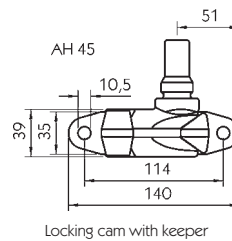


Accessory set combined with locking bar fastener Delta hand lever with locking device to TIR standards

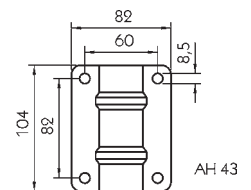
Included in the supply are:
2 locking cams, 2 keepers, 2 anti-rack rings, 2 bar brackets, large, 1 bar bracket, small, 5 nylon bushes and 2 plastic caps.

Bar bracket accessory set
For 27 mm locking bar, Niosta,
weight approx. 3.53 kg.

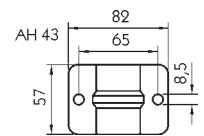
108071549



Locking cam with keeper



AH 43



Bar bracket



Spare parts
For bar bracket accessory set.

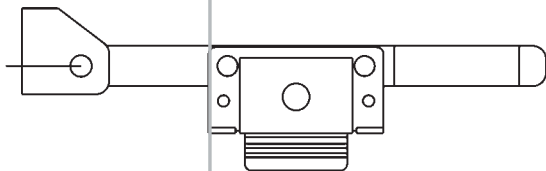
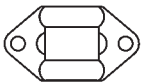
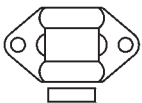
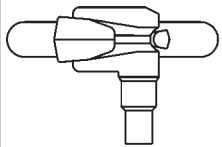
Locking cam
Nirosta.
108071596



Keeper
Nirosta.
108071597



Nylon bush
108071388



6900 N
3/4", customs secure., zinc plated, weight 4.91 kg.
101102054

Included in the supply are:
2 locking cams, 2 keepers, 3 bar brackets with support, 2 anti-rack rings, 1 hand lever, 1 hub, 1 complete bonnet hasp, 1 customs plate.

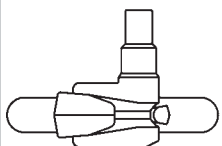
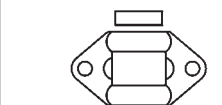
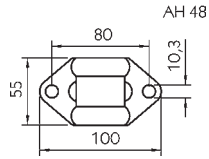
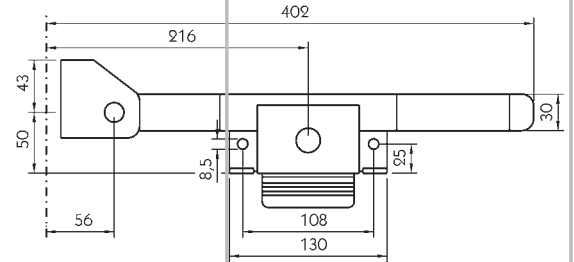


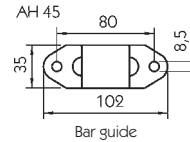
Illustration: type zinc plated



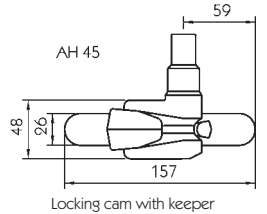
Bar bracket, left hand



Hand lever with bonnet hasp and hub



Bar guide



Locking cam with keeper

6916

Accessory for locking bar fasteners 6900 N.

101102471



Spare parts

For locking bar fasteners 6900 N.

Locking cam

Zinc plated **101102462**
Nirosta **101102466**



Keeper

Zinc plated **101102056**
Nirosta **101102467**



Bar bracket
Nirosta.

101102074
No longer available



Anti-rack ring

Zinc plated **101101881**
Nirosta **101102299**



Bar guide
Nirosta.

101102076



Bar guide support
Nirosta.

101102077





Hand lever

Zinc plated	101102463
Nirosta	101102468

Bonnet hasp

Zinc plated	101102464
Nirosta	101102469

Customs plate

Zinc plated	101102465
Nirosta	101102470

Hub

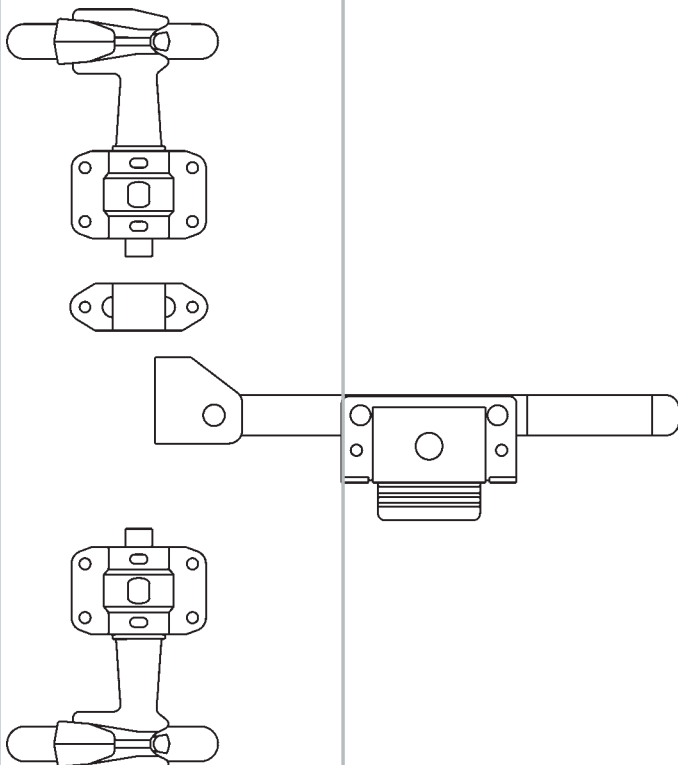
Zinc plated	101102058
Nirosta	101102079

Rivet

10 x 18 - DIN 124

Zinc plated	101101884
Nirosta	101102080

No longer available



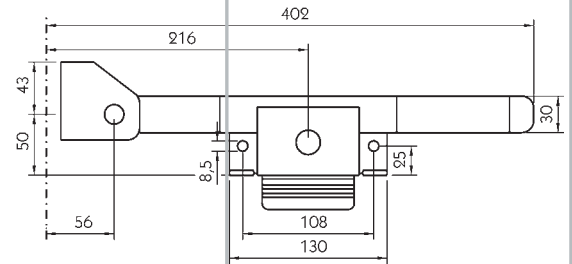
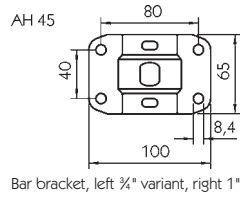
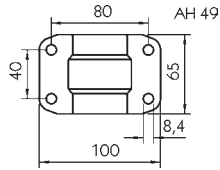
Illustrated: 3/4" variant, zinc plated

Included in the supply are:
 2 locking cams, 2 keepers, 2 (3/4" variant) or 3 (1" variant) bar brackets with supports, 2 anti-rack rings (only 1" variant), 1 bar guide with support (only 3/4" variant), 1 hand lever, 1 hub, 1 complete bonnet hasp, 1 customs plate.

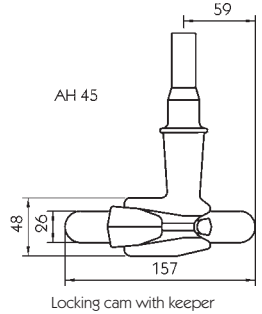
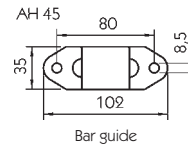
6900 NS Customs secure.

	Weight [kg]	
3/4" zinc plated	5.96	101102062
1" zinc plated	5.94	101102064
1" Nirosta	5.94	101102251

No longer available



Hand lever with bonnet hasp and hub



6916

Accessory for locking bar fasteners 6900 N.

101102471

Spare parts

For locking bar fasteners 6900 NS.



Locking cam

Zinc plated	101101977
Nirosta	101102307

No longer available

Keeper

Zinc plated	101102056
Nirosta	101102467

No longer available



Bar bracket

3/4" zinc plated	101101978
3/4" Nirosta	101102074
1" zinc plated	101102070
1" Nirosta	101102083

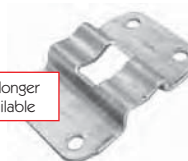
No longer available



Support for bar bracket

3/4" zinc plated	101101979
3/4" Nirosta	101102075
1" zinc plated	101102071
1" Nirosta	101102084



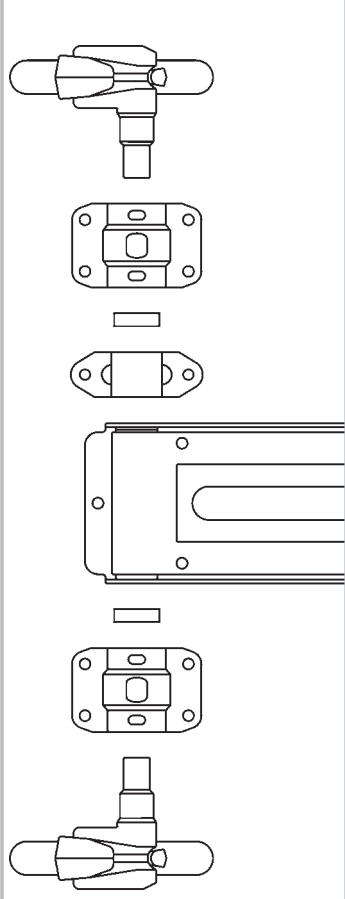
No longer available

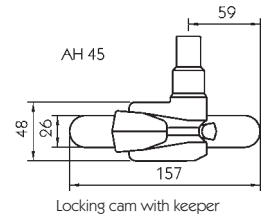
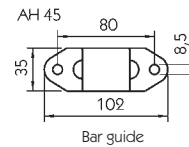
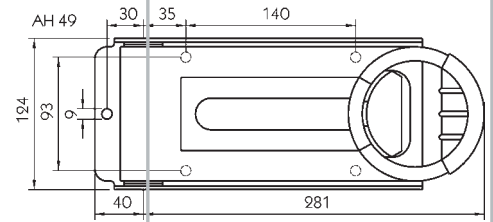
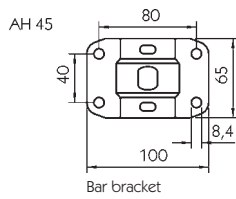


Anti-rack ring

1" zinc plated	101102085
1" Nirosta	101102086



		<p>Bar guide Zinc plated 101101980 Nirosta 101102076</p> <p>Bar guide support Nirosta. 101102077</p> <p>Hand lever Zinc plated 101102463 Nirosta 101102468</p> <p>Bonnet hasp Zinc plated 101102464 Nirosta 101102469</p> <p>Customs plate Zinc plated 101102465 Nirosta 101102470</p> <p>Hub Zinc plated 101102058 Nirosta 101102079</p> <p>Rivet 10 x 18 - DIN 124. Zinc plated 101101884 Nirosta 101102080</p>	<p>No longer available</p>
	<p>No longer available</p>	<p>790.1 3/4", customs secure, Nirosta, weight 5.70 kg. 101102648</p> <p>No longer available</p>	<p>Included in the supply are: 1 fastener 790.1, 2 locking cams, 2 keepers, 2 bar brackets with supports, 2 anti-rack rings, 1 bar guide with support.</p>



6912
Accessory for locking bar fasteners 790.1.
101102003



Spare parts
For locking bar fasteners 790.1.

Locking cam

Zinc plated **101102462**
Nirosta **101102466**



Keeper

Zinc plated **101102056**
Nirosta **101102467**



Bar bracket

Zinc plated **101101978**
Nirosta **101102074**



Support for bar bracket

Zinc plated **101101979**
Nirosta **101102075**

No longer available



Anti-rack ring

Zinc plated **101101881**
Nirosta **101102299**



Bar guide

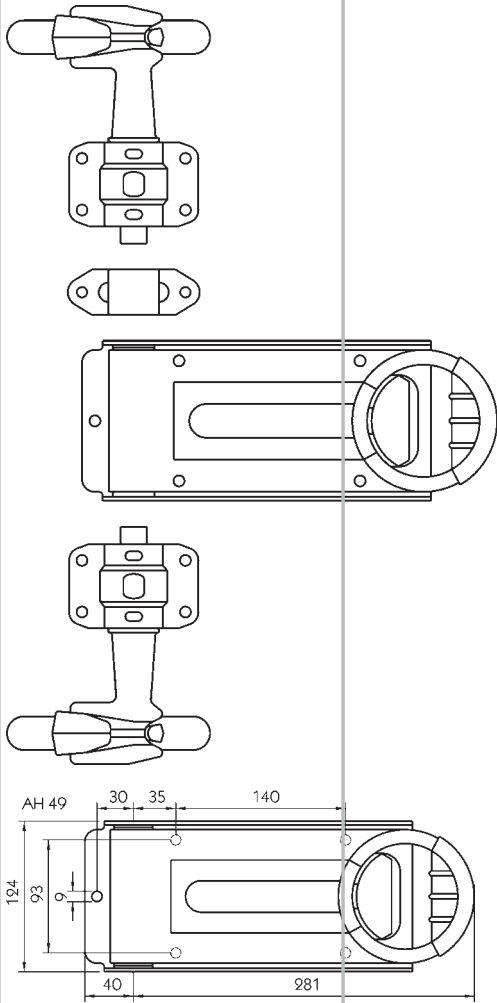
Zinc plated **101101980**
Nirosta **101102076**



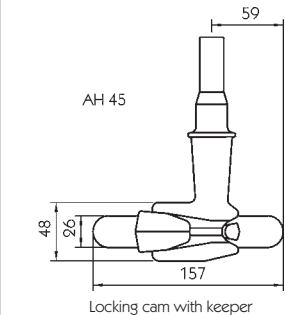
Bar guide support
Nirosta.

No longer available
101102077





Fastener



Locking cam with keeper



Spare parts
For locking bar fasteners 790. 2.

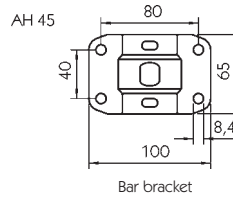


790.2

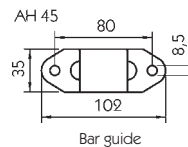
3/4", customs secure.

	Weight [kg]	
Zinc plated	6.42	101102659
Nirosta	6.40	101102649

No longer available



Bar bracket



Bar guide

6912

Accessory for locking bar fasteners 790.1.

101102003

Locking cam

Zinc plated	101101977
Nirosta	101102301

No longer available

Keeper

Zinc plated	101102056
Nirosta	101102467

No longer available



Bar bracket

Zinc plated	101101978
Nirosta	101102074

No longer available



Support for bar bracket

Zinc plated	101101979
Nirosta	101102075

No longer available



Bar guide

Zinc plated	101101980
Nirosta	101102076



Bar guide support
Nirosta.

No longer available

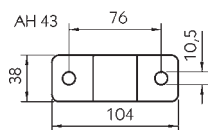
101102077



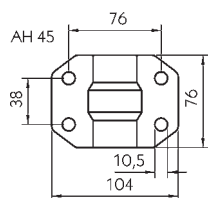
Included in the supply are:

2 locking cams, 2 keepers, 2 bar brackets with supports, 2 bar guides with supports, 1 hand lever, 1 hub, 1 complete locking device.

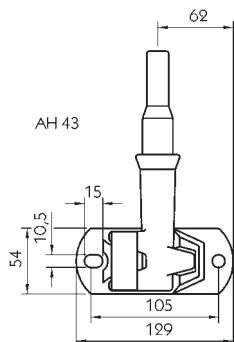
Container fastener 3/4" Similar to the Bloxwich B 2000, zinc plated, weight 5.79 kg. 385102678



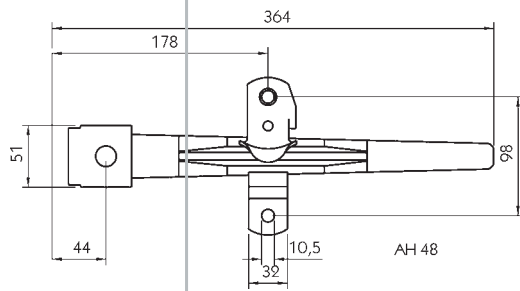
Bar guide



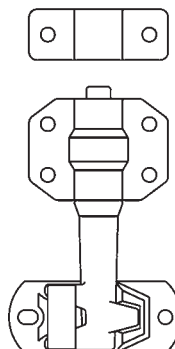
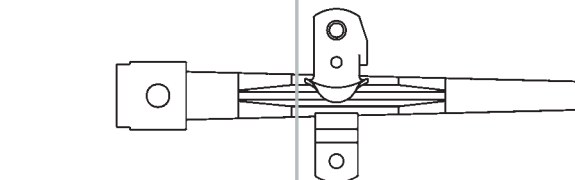
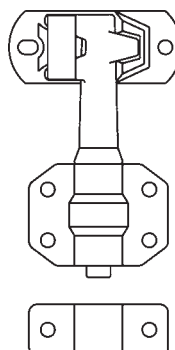
Bar bracket

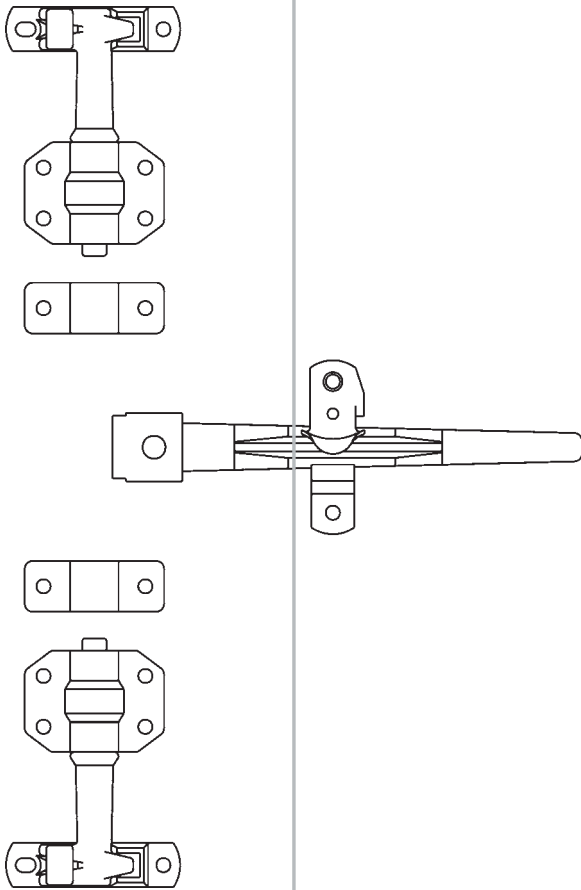


Locking cam with keeper



Hand lever with locking device and hub





Container fastener 3/4"
 Similar to the Bloxwich B 2000 N,
 zinc plated, weight 5.15 kg.
385102679

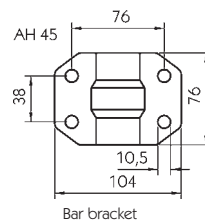
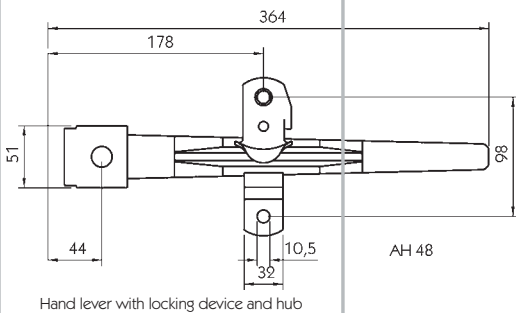
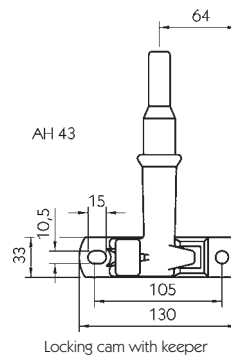
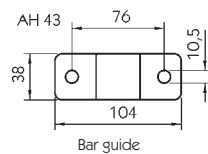
Included in the supply are:
 2 locking cams, 2 keepers, 2 bar
 brackets with supports, 2 bar
 guides with supports, 1 hand
 lever, 1 hub, 1 complete locking
 device.



Locking bar fasteners are often denoted in imperial sizes, e.g. 3/4" or 1". These dimensions or sizes relate to the inside diameter of the locking tube or bar. Medium threaded tube to DIN 2440 is used for locking bars. Tube dimensions to DIN 2440:

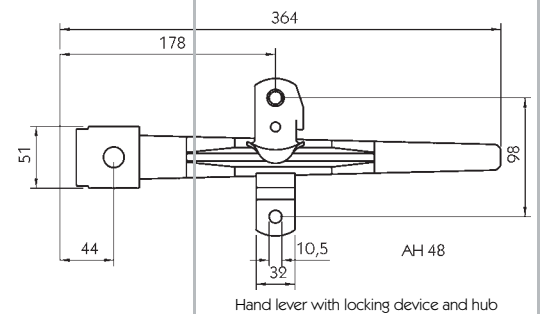
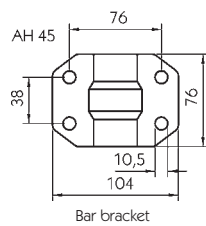
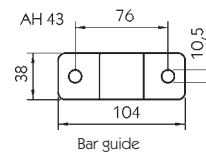
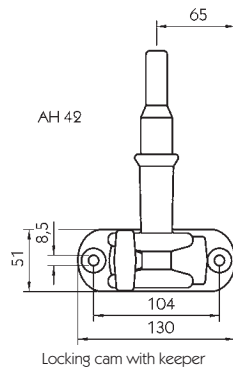
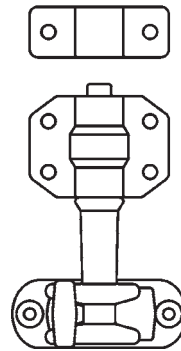
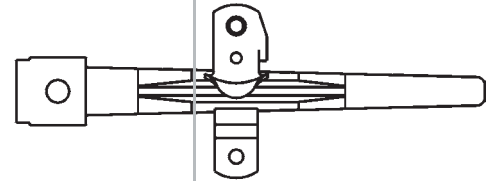
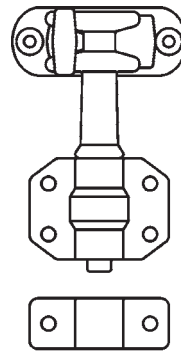
Size Inch	Outside Ø [mm]	Wall thickness [mm]	Inside Ø [mm]
1/2	21.3	2.65	16
3/4	26.9	2.65	21.6
1	33.7	3.25	27.2

Alternatively we can offer tube as shown on page 293.

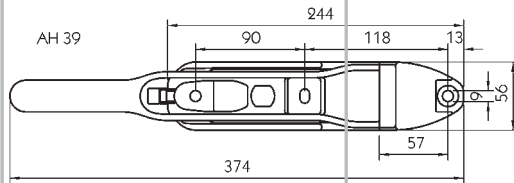


Included in the supply are:
 2 locking cams, 2 keepers, 2 bar
 brackets with supports, 2 bar
 guides with supports, 1 hand
 lever, 1 hub, 1 complete locking
 device.

Container fastener 3/4"
 Similar to the Bloxwich C 300,
 zinc plated, weight 5.80 kg.
385102680



Internal door locking gears



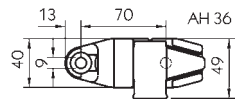
Included in the supply are:
Screw-on variant (zinc plated or inox):

1 fastener with locking device, 1 locking cam, 1 keeper pocket, 1 threaded rail, long, 1 threaded rail, short, 5 hex. head screws M 8 x 25.

Threaded rails zinc plated, other parts zinc plated or inox.

Weld-on variant (self colour):

1 fastener, 1 locking cam, 1 keeper pocket. All parts self colour.



PWP Boxer

For locking bar 18 mm.

Type	Weight [kg]	
Zinc plated, with screw-on set	2.65	105102698
Inox, with screw-on set	2.65	105102750
Self colour, with screw-on set	2.56	105102700

No longer available



Accessories

For locking bar fasteners Boxer.



Barrel lock

With cam, zinc plated.

105102702



The PWP Boxer 16/18 locking bar fastener has a flatted-off socket which makes it a snug fit on the locking bar. We recommend the locking bar 105102706 for this fastener.

Spare parts

For locking bar fasteners Boxer.



Fastener handle Boxer

643119020



Fastener Boxer

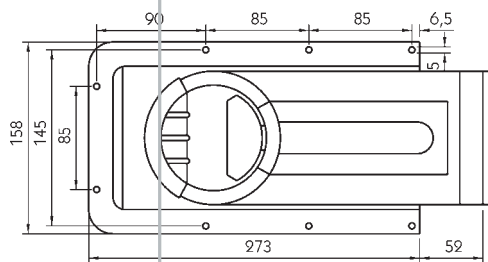
643119066



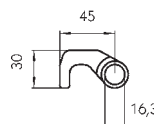
Fastener Pocket Boxer

643019661

Included in the supply are:
1 fastener 788.2, 1 locking cam,
1 cover plate, 4 spring pins \varnothing 6
x 92 mm.



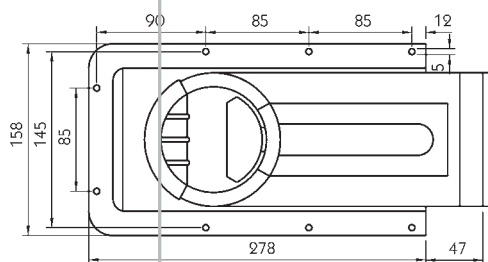
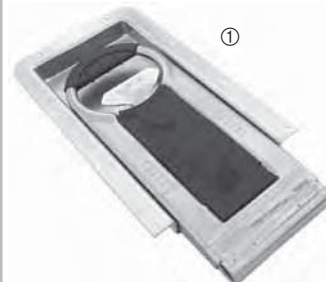
788.2
For fitting to a wing door with
thickness 25 mm, zinc plated,
weight 1.90 kg.
101102657



Spare parts
For 788.2.

① Fastener	101102683
② Locking cam	101102021
③ Cover plate	101102019

No longer available

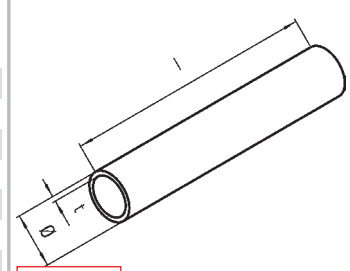


788.3
For Suer dropside bodies, zinc
plated, weight 1.57 kg.
101102957

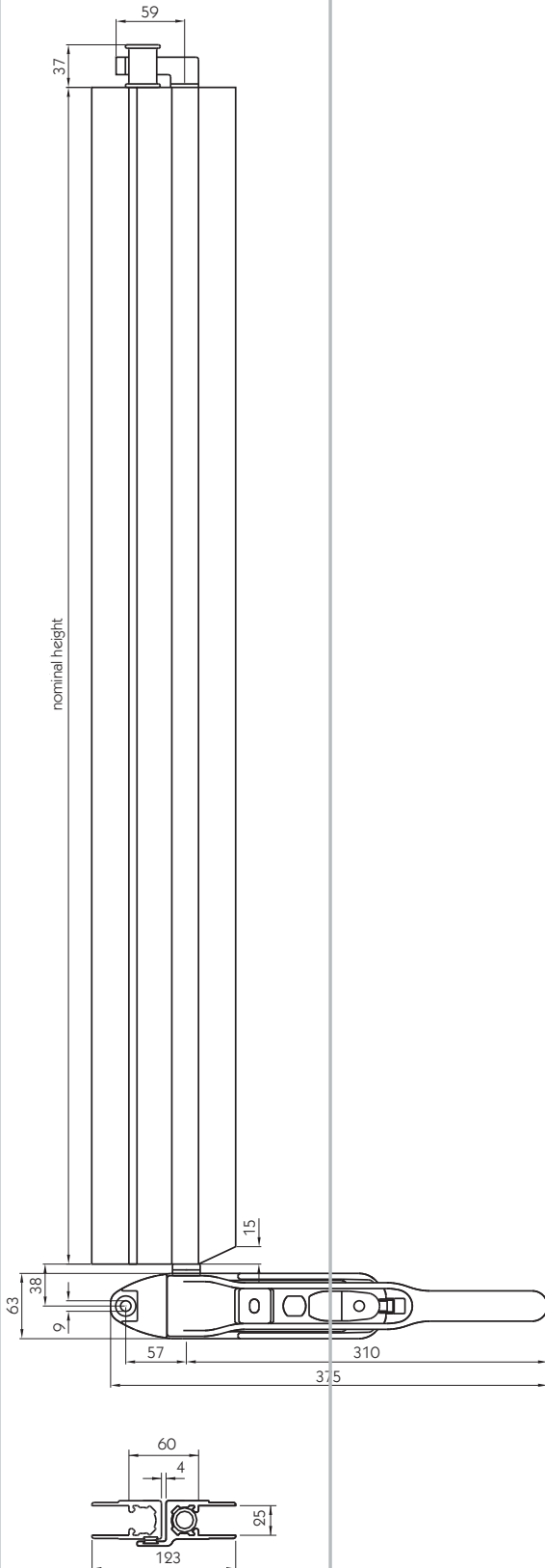
Tubes for locking bar
fasteners

Tube for locking bar
fasteners

\varnothing [mm]	Dim. t [mm]	Dim. l [mm]	Finish	Weight [kg/m]	
16	2.0	2500	zinc plated	0.67	108071300
16	2.0	2500	Nirosta	0.67	108071312
18/16	solid	3000	zinc plated	0.66	105102706
22	2.0	3000	zinc plated	0.88	108071314
22	2.0	2500	Nirosta	0.88	108071339
22	2.0	2500	Nirosta	0.88	108071313
27	2.5	3000	zinc plated	1.43	108071280
27	2.5	2600	Nirosta	1.43	108071570
27	2.5	2600	Nirosta	1.43	108071416



No longer available



All aluminium edge profiles for the PWP Container and Boxer locking bar fasteners already have cut-outs on the reverse side for Suer 25 mm aluminium side board profiles with the flange to the inside.

Locking bar fasteners pre-fitted to 25 mm aluminium edge profiles. Edge profiles with polyamide strip.

Included in the supply are:
1 fastener Boxer, 2 edge profiles, 1 keeper pocket, weld-on or screw-on.

Fastener parts zinc plated, steel keeper pocket and aluminium edge profile self colour.


Locking bar fastener

Boxer

For fitting to a surface mounted two-winged rear door.

Nominal height [mm]	Weld/screw-on pocket	Weight [kg]	
600	weld-on, self colour	5.01	105105424
800	weld-on, self colour	5.21	105105426
1000	weld-on, self colour	6.02	105105427
600	screw-on, self colour	5.01	105105428
800	screw-on, self colour	5.21	105105429
1000	screw-on, self colour	6.02	105105430
600	weld-on, zinc plated	5.01	105105431
800	weld-on, zinc plated	5.21	105105432
1000	weld-on, zinc plated	6.02	105105433
600	screw-on, zinc plated	5.01	105105434
800	screw-on, zinc plated	5.21	105105435
1000	screw-on, zinc plated	6.02	105105436

Dim. a for the PWP Container locking bar fastener can also be fixed to customer's requirement. Please refer to our aluminium department regarding price and delivery time enquiries, tel.: 02196/946-0.



When the fastener is opened and closed, the locking cam requires more room than is available between the weld-on lug and the floor frame. Therefore a window must be cut in the outer frame when fitting the weld-on lug.

Locking bar fasteners pre-fitted to 25 mm aluminium edge profiles. Edge profiles with polyamide strip.

Included in the supply are:

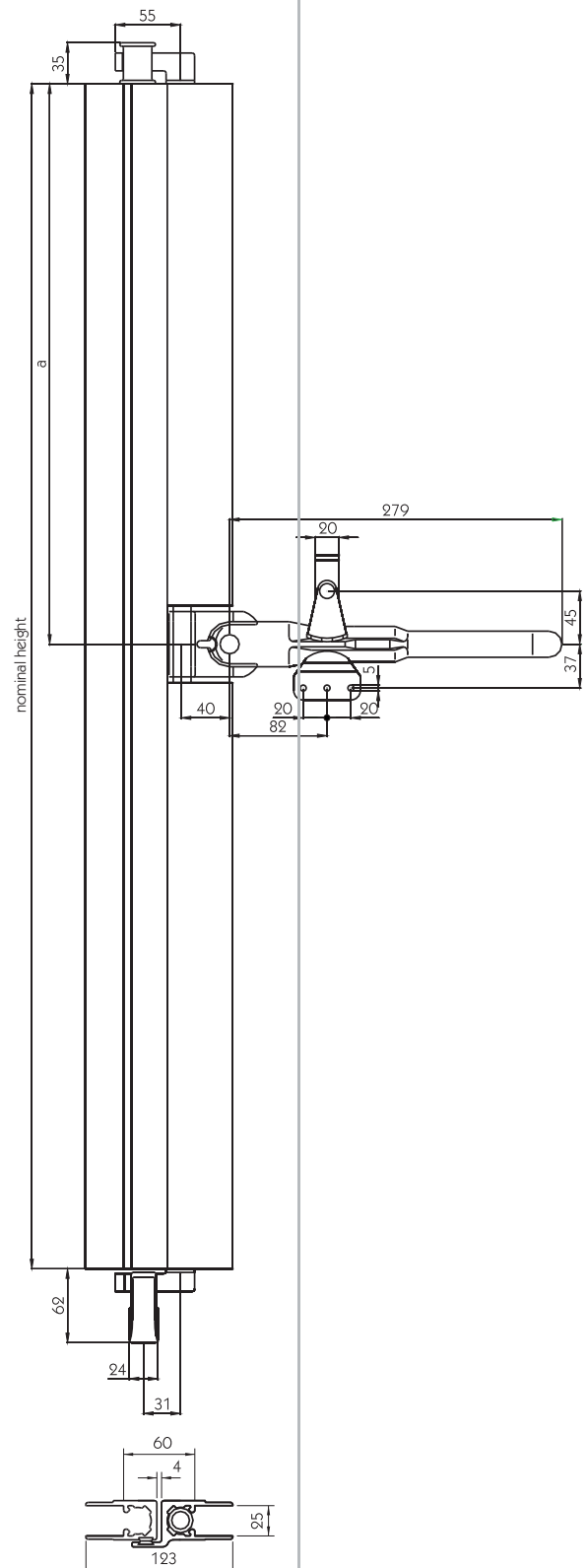
1 Container fastener, 2 edge profiles, 1 weld-on lug.

Fastener parts zinc plated, steel weld-on lug and edge profiles self colour.

Locking bar fastener Container

For fitting to a surface mounted two-winged rear door.

Nominal height [mm]	Dim. a [mm]	Weight [kg]	
500	225	4.73	105104620
600	275	4.92	105104621
600	475	4.92	105104622
800	275	5.31	105104623
800	475	5.31	105104624
1000	475	5.69	105104626
1000	675	5.69	105104627



Spare parts
For Direkt and Container locking
bar fasteners.



Weld-on lug
Self colour, for Container.
643011908



Fastener pin
Zinc plated, for Direkt and
Container.
643019043



Locking device, Container
Zinc plated.
643019125



Keeper pocket, Direkt
Self colour.
643011946



No longer
available

Fastener handle, Direkt
Zinc plated.
643019210



Torsions spring, right hand
Inox, for Direkt.
643019198

Spring pin 5 x 20 mm
DIN 1481, not illustrated.
643019006

Special slam lock for mobile sales vehicles.

It can be opened from inside with the tee key **215102429** or from the outside with external handles **215102426** and **27**. It can be locked against unauthorised entry from outside.

1331
Zinc plated, weight 0.23 kg.
215102421

1331/ZN
Zinc plated, weight 0.33 kg.
215102423

All budget locks can be used for left and right handing.

Zinc plated 100 x 19 mm
Weight 0.07 kg.
215102419

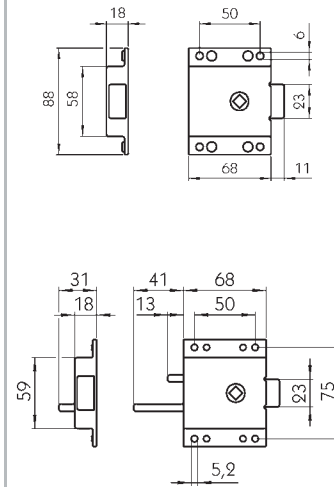
Zinc plated 105 x 19 mm
Weight 0.08 kg.
108071012

Nirosta 115 x 22 mm
Weight 0.10 kg.
215102552

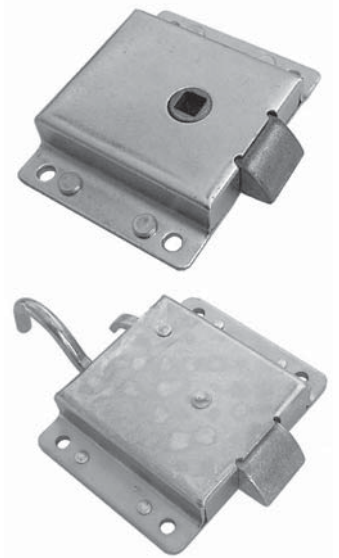
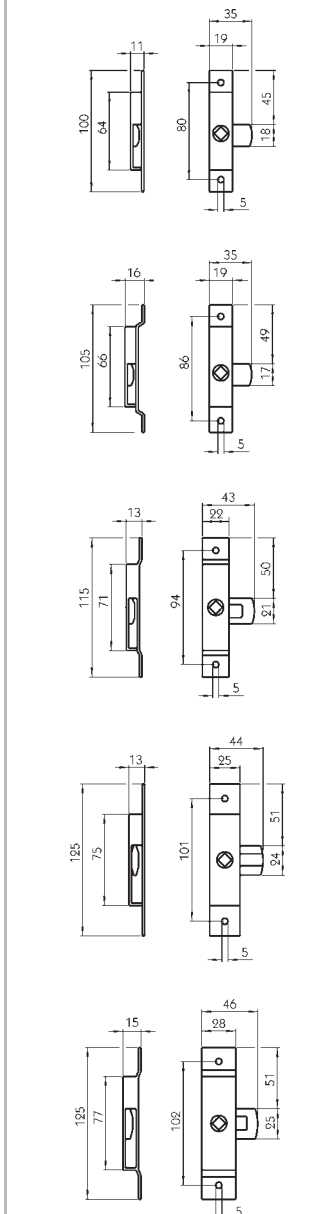
Zinc plated 124 x 25 mm
Weight 0.15 kg.
215102420

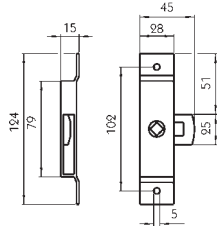
Zinc plated 125 x 28 mm
Weight 0.17 kg.
108071014

Slam locks



Budget locks





Accessories
For budget and slam locks.



Tee key
For 5 - 8 mm square holes, zinc plated, weight 0.05 kg.
215102422

The budget lock can be used for left and right handing.

Tee key suitable for all itemised slam and budget locks.



Twist lever handle
For 8 mm square holes, aluminium, weight 0.06 kg.
108071015

Flat lever handle not for use with budget locks **215102419** and **215102552**.

No longer available



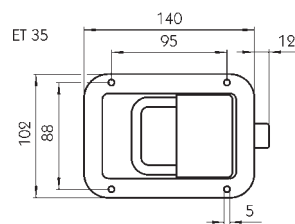
Exterior handle
For 8 mm square holes, chrome plated, weight 0.33 kg.

Exterior handle not for use with budget locks **215102419** and **215102552**.

With integrated barrel lock and 2 keys **215102426**
Without lock **215102427**

No longer available

Built-in door fasteners

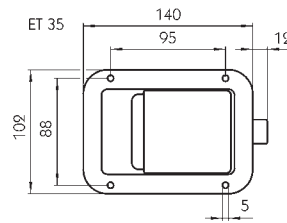


Door fastener
Nirosta, weight 0.40 kg.
108071032

With 2 keys for the built-in barrel lock. Plastic locking bolt.

Door fastener without barrel lock

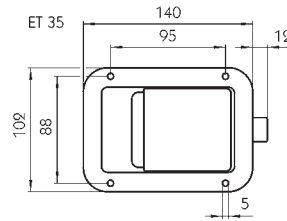
Locking bolt	Housing	Weight [kg]	
Plastic	zinc plated	0.40	108071028
Plastic	Nirosta	0.40	108071026
Nirosta	zinc plated	0.51	108071036



With 2 keys for the built-in barrel lock.

Door fastener with barrel lock

Locking bolt	Housing	Weight [kg]	
Plastic	zinc plated	0.44	108071031
Plastic	Nirosta	0.44	108071027
Nirosta	zinc plated	0.55	108071037
Nirosta	Nirosta	0.55	108071035



Spare parts

For built-in door fasteners with barrel locks.

Barrel lock
Without cam, Nirosta.
108071316



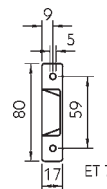
Cam
For barrel lock 108071316, Nirosta.
108071582



Accessories

For built-in door fasteners.

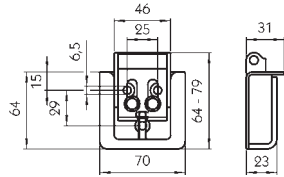
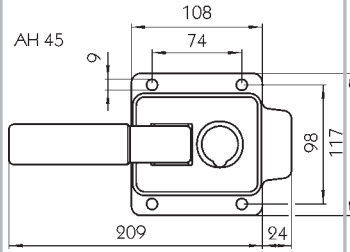
Keeper
Nirosta, weight 0.02 kg.
108071030



Ball knob
Plastic, weight 0.01 kg.
108071029

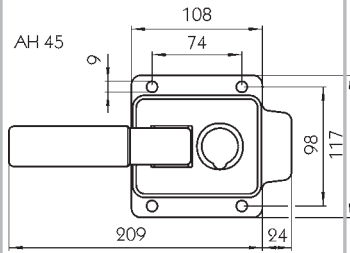


Surface mounted door fasteners



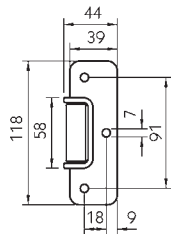
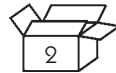
Door fastener
For recessed fitting, Nirosta,
weight 1.43 kg.

108071260



Door fastener
Nirosta, weight 1.43 kg.

108071261



Spare parts
For door fasteners.

Included in the supply are:
1 fastener with loose backing plate,
2 keys for the built-in barrel lock,
1 keeper with adjustable roller, 3
spacers, 1 screw M 6 x 20 and 2
screws M 6 x 10. Screws are to DIN
933 with washers. Screws for fixing
the keeper roller to the keeper.

Additional fitting for padlock.

Included in the supply are:
1 fastener with loose backing plate, 2
keys for each built-in barrel lock and
1 keeper.
Additional fitting for padlock.



Barrel lock
Without cam, Nirosta.

108071305



Barrel lock cover
Black plastic.

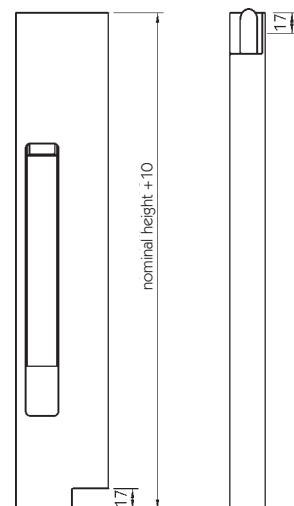
108071380

Long travel bolt fasteners

Edge profile without flange, top pivoting fastener lever

Edge profile, anodised, fastener mechanism zinc plated.

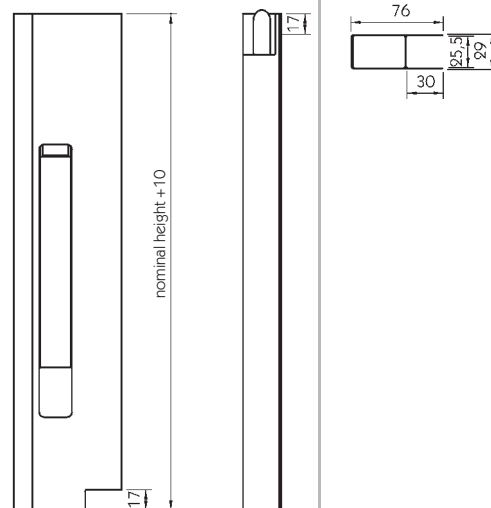
Nominal height [mm]	Handing	Weight [kg]	
400	left	0.98	108071069
400	right	0.98	108071068
500	left	1.08	108071071
500	right	1.08	108071070



Edge profile with flange, top pivoting fastener lever

Edge profile anodised, fastener mechanism zinc plated.

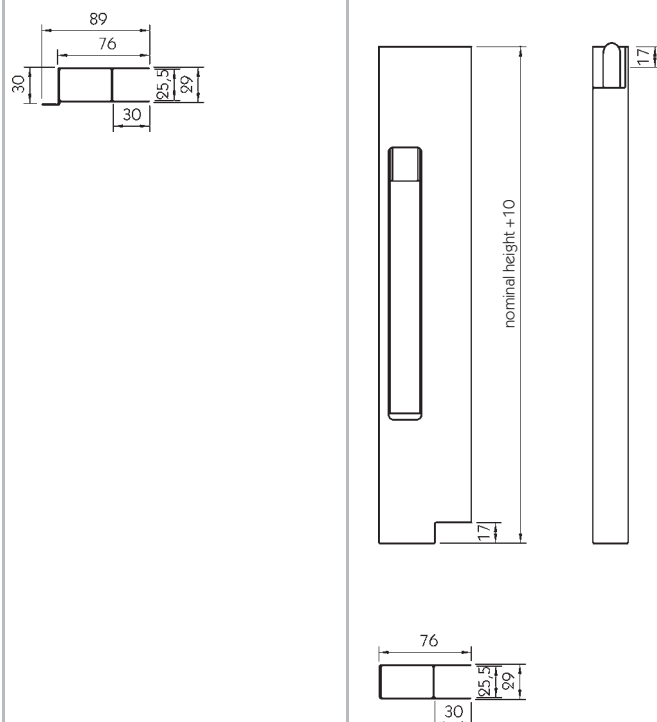
Nominal height [mm]	Handing	Weight [kg]	
400	left	1.01	108071079
400	right	1.01	108071078

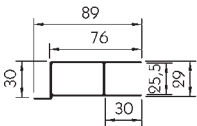
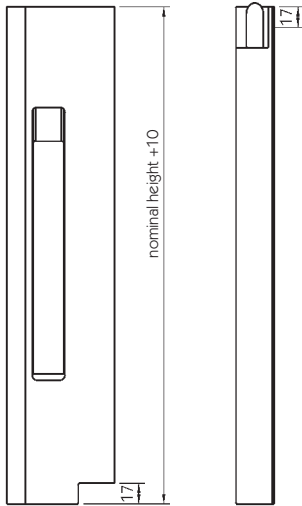


Edge profile without flange, bottom pivoting fastener lever

Edge profile anodised, fastener mechanism zinc plated.

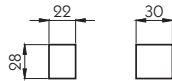
Nominal height [mm]	Handing	Weight [kg]	
400	left	1.08	108071087
400	right	1.08	108071086





Keepers

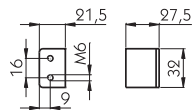
For long travel bolt fasteners.



For welding

Self colour, weight 0.04 kg.

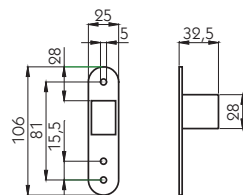
108071094



For screwing

Zinc plated, weight 0.05 kg.

108071096



With base plate

Zinc plated, weight 0.09 kg.

108071095

The long travel fasteners 710, 712 and 715 have an internal pressure recognition device, an additional positive locking safety device to prevent inadvertent opening and an automatic adjuster.

710 Edge profile, self colour

Edge profile with smooth side out, fastener mechanism zinc plated.

Nominal height [mm]	Handing	Weight [kg]	
615	left	1.72	101629015
615	right	1.72	101629016
1015	left	2.46	101629019
1015	right	2.46	101629020

710 Edge profile primed

Edge profile with smooth side out, fastener mechanism zinc plated.

Nominal height [mm]	Handing	Weight [kg]	
615	left	1.72	101629035
615	right	1.72	101629036
1015	left	2.46	101629039
1015	right	2.46	101629040

710 Edge profile anodised

Edge profile with smooth side out, fastener mechanism zinc plated.

Nominal height [mm]	Handing	Weight [kg]	
615	left	1.72	101629055
615	right	1.72	101629056
815	left	2.01	101629057
815	right	2.01	101629058

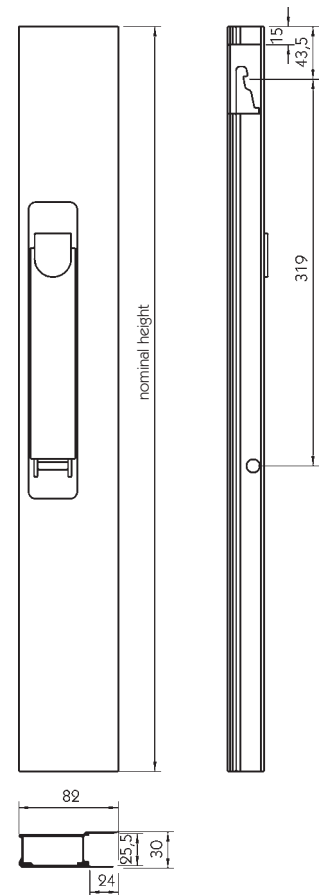


Illustration: left hand

The long travel bolt fastener 710 in nominal heights of 615 mm and 815 mm, are also available in customs variant with customs inspection opening in accordance with customs technical guidelines. Please refer to our aluminium department regarding price and delivery time enquiries, tel.: 02196/ 946-0.

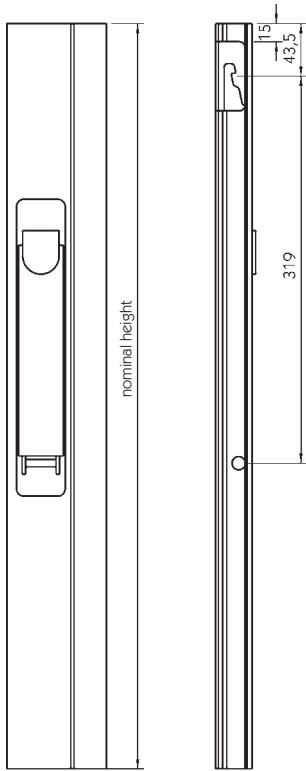


Illustration: left hand

The long travel fasteners 710, 712 and 715 have an internal pressure recognition device, an additional positive locking safety device to prevent inadvertent opening and an automatic adjuster.

712 Edge profile self colour

Edge profile with smooth side in, fastener mechanism zinc plated.

Nominal height [mm]	Handing	Weight [kg]	
615	left	1.72	101629005
615	right	1.72	101629006
1015	left	2.46	101629009
1015	right	2.46	101629010

712 Edge profile primed

Edge profile with smooth side in, fastener mechanism zinc plated.

Nominal height [mm]	Handing	Weight [kg]	
1015	left	2.46	101629029
1015	right	2.46	101629030

712 Edge profile anodised

Edge profile with smooth side in, fastener mechanism zinc plated.

Nominal height [mm]	Handing	Weight [kg]	
615	left	1.72	101629045
615	right	1.72	101629046
815	left	2.01	101629047
815	right	2.01	101629048

The long travel fasteners 710, 712 and 715 have an internal pressure recognition device, an additional positive locking safety device to prevent inadvertent opening and an automatic adjuster.

715

Edge profile with smooth side out and polyamide strip inside, edge profile self colour, fastener mechanism zinc plated.

Nominal height [mm]	Handing	Weight [kg]	
1015	left	2.88	101629061
1015	right	2.88	101629062

Please note with screw-on keepers:
A left hand fastener requires a right hand keeper, and vice versa. Thus a left hand keeper for welding is as for a right hand screw-on keeper.



The keeper should always be fitted under pre-tension from the fastener bolt.

Keeper for welding

Self colour, weight 0.13 kg.

Left	101102504
Right	101102505

Keeper, screw-on type

KTL coated, weight 0.20 kg.

Left	101102748
Right	101102749

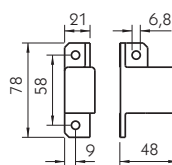
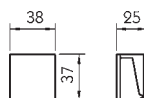
End cap

Black plastic, weight 0.016 kg.

Left	101103209
Right	101103109

Accessories/spare parts

For long travel bolt fasteners 710, 712 and 715.



The end cap is included in the supply of the long travel fastener part 720. As the edge profiles are the same, they can also be used with the 710 and 712 variants.

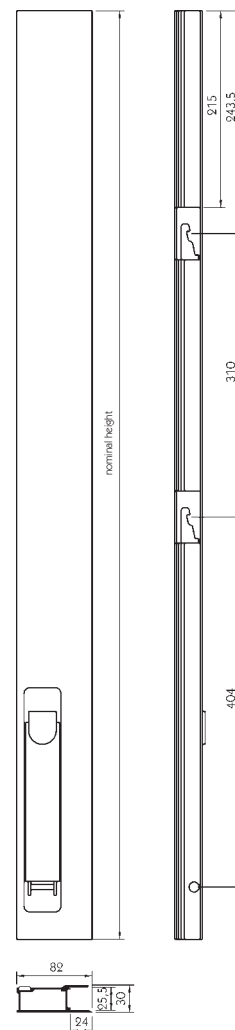


Illustration: left hand



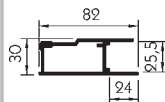
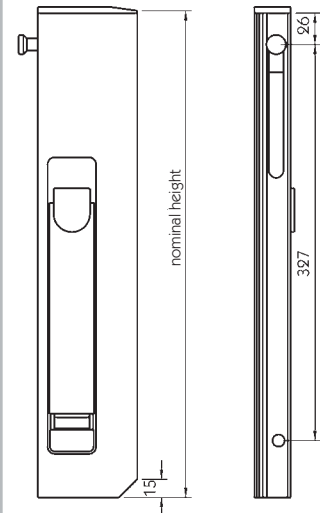
Illustrations: above, left hand
below, right hand



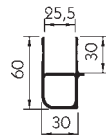
Illustration: right hand



Illustration:
When opening, the hand lever folds down completely and lies on the side board. The illustration shows a left hand assembly.



With fastener



With keeper



Illustration: right hand

The long travel fastener 720 consists of one edge profile with fastener mechanism and one pre-fitted keeper in an aluminium edge profile.

The edge profiles are finished on the top end with a black plastic cap to protect against the ingress of dirt and rain water.

Together they make up a pillarless corner connection without the need for further components.

The area of application is on light and medium weight flatbed bodies.

720

The complete fastener consists of the individual parts: edge profile with fastener, and edge profile with keeper. Please order both parts separately.

Edge profiles anodised, fastener mechanism yellow chromed, hand lever assembly black powder coated.

Nominal height [mm]		Assembly	Weight [kg]	
415	fastener	left	1.34	101629181
415	keeper	left	0.48	101629281
415	fastener	right	1.34	101629182
415	keeper	right	0.48	101629282
515	fastener	left	1.48	101629183
515	keeper	left	0.59	101629283
515	fastener	right	1.48	101629184
515	keeper	right	0.59	101629284

End cap

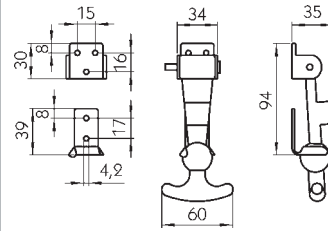
Black plastic, weight 0.016 kg.

Left	101103209
Right	101103109

Bonnet fastener
Weight 0.10 kg.

215101396

Bonnet fastener



Rubber hook

Spare part for bonnet catch.

215101815



Spade keeper

Primed plate, weight 0.16 kg.

215131686

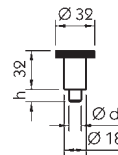
Spade keeper



Spring bolt

Without detent, bolt force approx. 50 N, self colour.

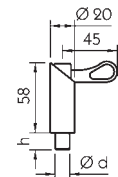
	Dim. d [mm]	Dim. h [mm]	Weight [kg]	
F 86 N	8	6	0.08	215102335
F 810 N	8	10	0.08	215102336
F 1010 N	10	10	0.09	215102337
F 1210 N	12	10	0.09	215102338



Spring bolt

With detent, bolt force approx. 50 N, twist lever zinc plated, other parts self colour.

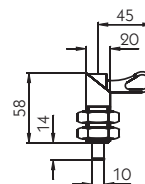
	Dim. d [mm]	Dim. h [mm]	Weight [kg]	
S 814 N	8	14	0.12	215102330
S 1010 N	10	10	0.13	215102331
S 1014 N	10	14	0.13	215102332
S 1214 N	12	14	0.13	215102333
S 1514 N	15	14	0.14	215102334

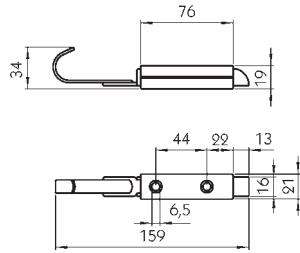


SG 1014

With detent, outer sleeve threaded M 20 x 1.5, bolt force approx. 50 N, lock nut DIN 936, zinc plated, weight 0.15 kg.

215102717

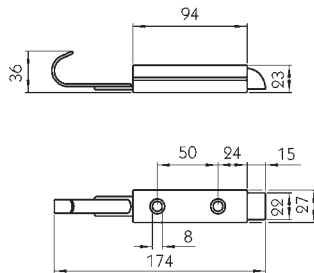




1333

Zinc plated, weight 0.17 kg.

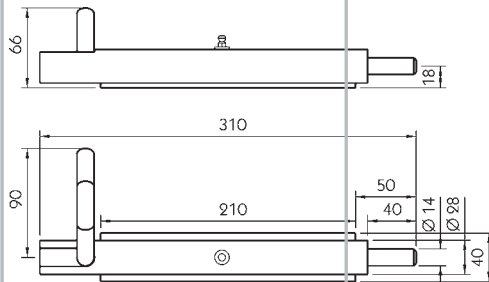
215102424



1334

Zinc plated, weight 0.27 kg.

215102425



With weld-on mounting plate

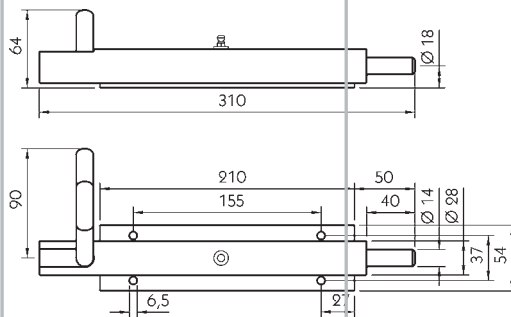
Primer finish, weight 1.35 kg.

Left

125101638

Right

125101639



With screw-on mounting plate

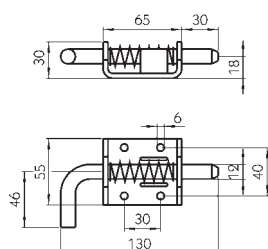
Primer finish, weight 1.38 kg.

Left

125101640

Right

125101641



With screw-on mounting plate

Zinc plated, weight 0.33 kg.

103102508

When open, the bolt pin protrudes approx. 4 mm from the housing.

With screw-on mounting plate
Weight 0.34 kg.

Zinc plated	108071478
Nirosta	108071064

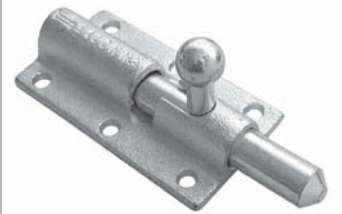
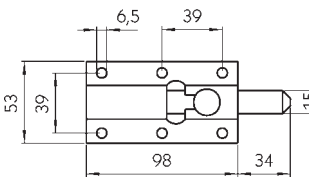
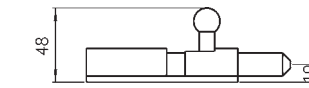
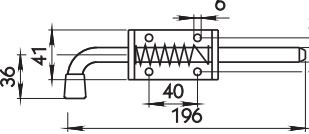
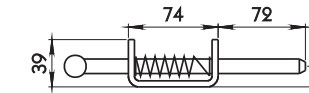
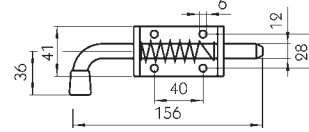
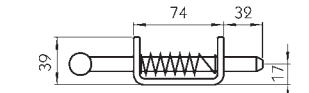
When open, the bolt pin protrudes approx. 40 mm from the housing.

With screw-on mounting plate
Weight 0.38 kg.

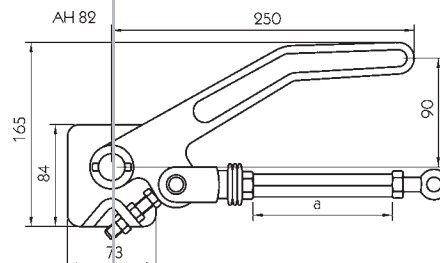
Zinc plated	108071067
Nirosta	108071605

When open, the bolt pin protrudes approx. 15 mm from the housing.

740
Zinc plated, weight 0.35 kg.
215101987



Central locking devices
Toggle tensioners



H 519
For mounting under the floor, self colour.

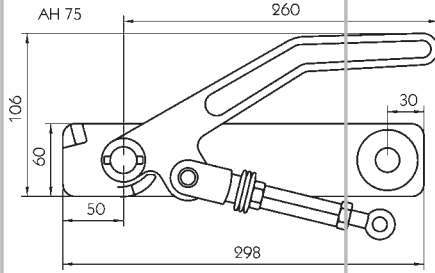
Dim. a [mm]	Handing	Weight [kg]	
115	left	1.95	102101957
115	right	1.95	102101958
300	left	2.38	102101552
300	right	2.38	102101553



Illustration: left hand



Illustration: left hand



H 519

For body mounting, self colour.

Shaft Ø [mm]	Handing	Weight [kg]	
20	left	2.55	102102473
20	right	2.55	102102474
25	left	2.55	102102475
25	right	2.55	102102476
30	left	2.51	102102477
30	right	2.51	102102478
35	left	2.49	102102479
35	right	2.49	102102480

Spare parts

For toggle fastener H 519, all parts self colour.



Illustration: left hand

Hand lever

Left	102102574
Right	102102575

The shaft linkages have a nose which arrests against the floor frame profile in the open position.

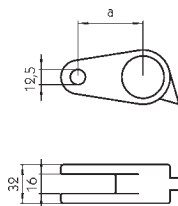
The supply includes the shaft linkage, and (loose) 1 clevis pin, 1 washer, and one split pin.

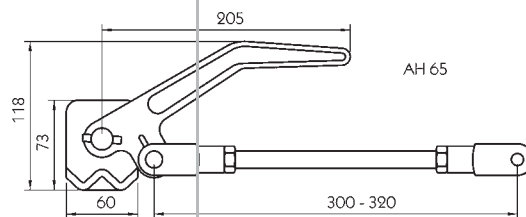
Splint pin zinc plated, all other parts self colour.

Shaft linkages

For toggle fastener H 519, self colour.

Shaft Ø [mm]	Dim. a [mm]	Weight [kg]	
20	42.5	0.22	102101554
25	42.5	0.28	102101555
30	54	0.26	102101556
35	45	0.27	102101557





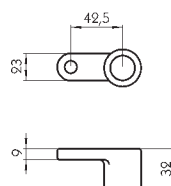
H 519 light
For mounting under the floor,
weight 1.32 kg.

Left	102101959
Right	102101960

The supply includes the shaft linkage, and (loose) 1 clevis pin, 1 washer, and one split pin. Split pin zinc plated, all other parts self colour.

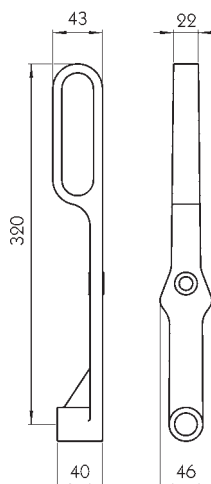
Shaft linkages
For toggle fastener H 519 light.

Shaft Ø [mm]	Weight [kg]	
20	0.15	102101961
25	0.14	102101962



H 119 E/H 120 A
Self colour.

Shaft Ø [mm]	Weight [kg]	
20	0.81	102101361
25	0.83	102101366
30	0.85	102101534
35	0.86	102101536



Safety devices
For operating lever H 119 E/H 120 A.

H 119 E
Self colour, weight 0.22 kg.
102101362



Illustration: left hand



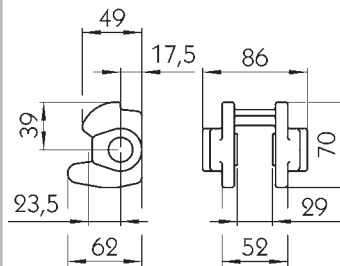
H 119 E/ALU
Self colour, weight 0.23 kg.
102101449

Keepers and locking cams

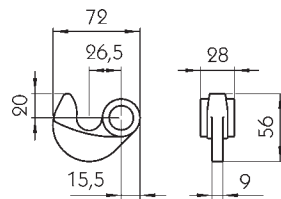


H 119 E
Keeper with locking cam fitted,
self colour, weight 1.12 kg.
102101356

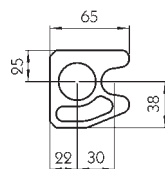
Bottom central locking with hinge
for aluminium, steel or wooden
side boards.
Locking cam and keeper for \varnothing
20 mm shafts.



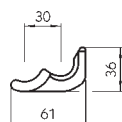
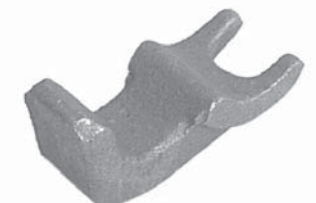
Keeper H 119 E
Loose, self colour, weight 0.50 kg.
102101359



Locking cam H 119 E
Loose, self colour, weight 0.21 kg.
102101360



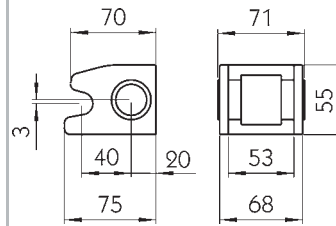
Keeper 6591 N
Self colour, weight 0.19 kg.
101102324



Locking cam 6592 N
Self colour, weight 0.12 kg.
101102325

Bottom central locking with hinge for 25 mm or 30 mm aluminium side boards.
Locking cam and keeper for \varnothing 25 mm shafts. For additionally screwing the hinges article no. **102101972** and **102101973**, to the side board, we recommend c/sunk socket head screws M8 to DIN 799.1.

Keeper H119M-Alu-K30
Self colour, weight 0.47 kg.
102101849



Locking cam H 119 M -Alu-K 30
Self colour, weight 0.20 kg.

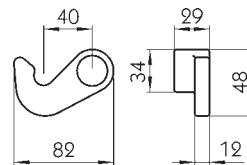
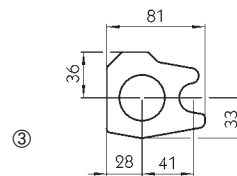
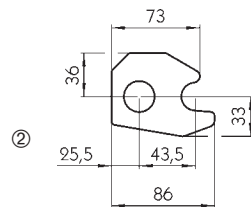
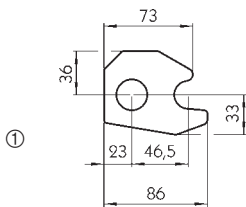


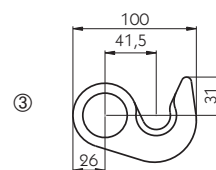
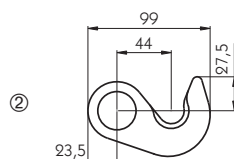
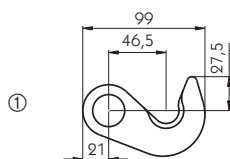
Illustration: left hand

Left	102101850
Right	102101974



Keeper H 120 A
Self colour, weight 0.37 kg.

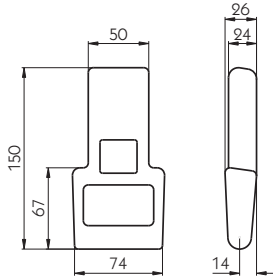
Shaft \varnothing [mm]	Drawing	
25	①	102101363
30	②	102101527
35	③	102101529



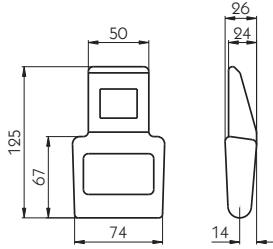
Locking cam H 120 A
Self colour.

Shaft \varnothing [mm]	Drawing	Weight [kg]	
25	①	0.38	102101364
30	②	0.38	102101528
35	③	0.49	102101530

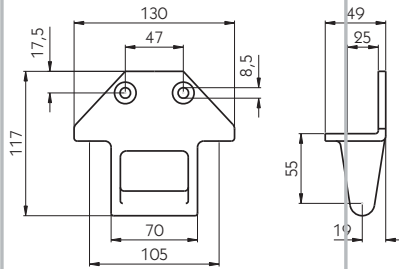
Side board hinges



H 119 E
Self colour, weight 0.76 kg.
102101357

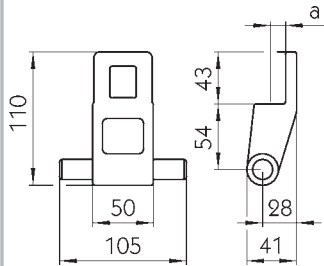


H 119 EST
Self colour, weight 0.61 kg.
102102642



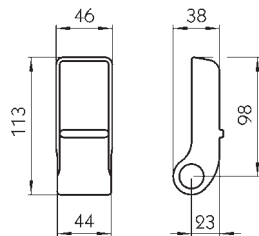
H 119 E-Alu/K 50
Zinc plated, weight 0.73 kg.
102101446

Bottom central locking with hinge for 50 mm aluminium side boards.
Locking cam and keeper for \varnothing 20 mm shafts.

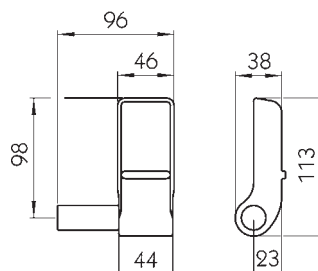


H 119 M-Alu-K 30/13
Zinc plated, weight 0.62 kg.

	Dim. a [mm]	
For 25 mm side boards	12.5	102101972
For 30 mm side boards	15	102101973



H 120 A
For round steel pin \varnothing 20 mm, self-colour, weight 0.46 kg.
102101365

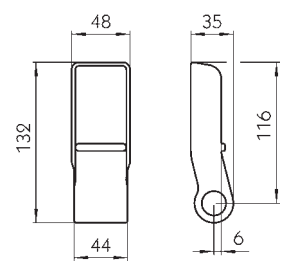


H 120 A
With round steel pin \varnothing 20 mm, self-colour, weight 0.69 kg.
Round steel pin left **102101791**
Round steel pin right **102101792**

Illustration: left hand

No longer available

H 120 A/B
For round steel pin \varnothing 20 mm, self-colour, weight 0.54 kg.
102101793



H 120 A/B
With round steel pin \varnothing 20 mm, self-colour, weight 0.80 kg.

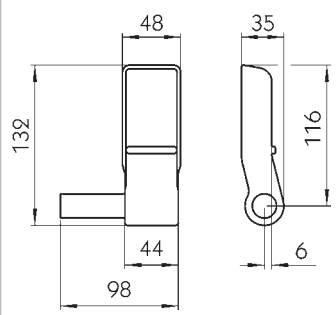
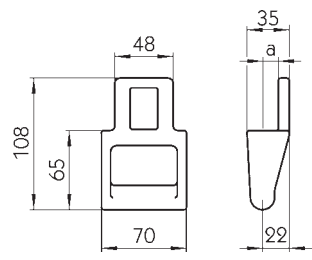


Illustration: left hand

Round steel pin left **102101795**
Round steel pin right **102101794**

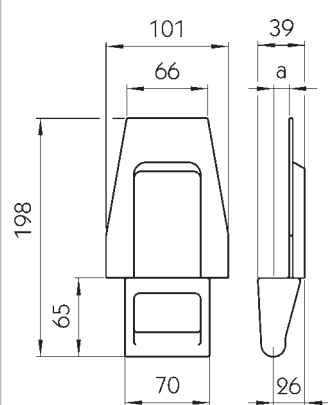
Bottom central locking with hinge for 25 mm or 30 mm aluminium side boards.
Locking cam and keeper for \varnothing 25 mm shafts. For additionally screwing the hinges article nos. **102101966** and **102101967**, to the side board, we recommend c/sunk socket head screws M8 to DIN 7991.

H 119 E-Alu-K 30/13
Zinc plated, weight 0.56 kg.



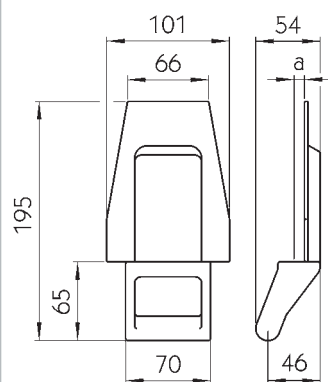
	Dim. a [mm]	
For 25 mm side boards	12.5	102101966
For 30 mm side boards	15	102101967

H 119 E-Alu-K 30/13 with hinge leaf S 13
Zinc plated, weight 0.87 kg.

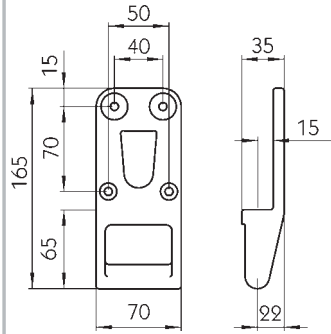


	Dim. a [mm]	
For 25 mm side boards	12.5	102102213
For 30 mm side boards	15	102102214

H 119 EP-Alu-K 30/13 with hinge leaf S 13
Zinc plated, weight 0.89 kg.

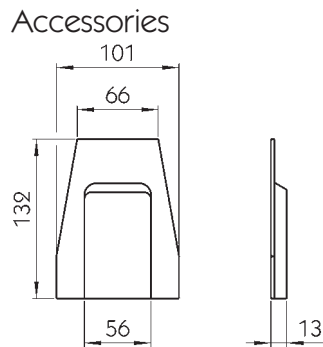


	Dim. a [mm]	
For 25 mm side boards	12.5	102102215
For 30 mm side boards	15	102102216



659 N
Zinc plated, weight 0.82 kg.
101102323

No longer available



Accessories

Hinge leaf S 13
Self colour, weight 0.29 kg.
102102212



Hexagon socket counter-sunk head screws
With socket head, DIN 7991, zinc plated.

M 10 x 25	102101448
M 8 x 70	102101993

Safety chains and lanyards



S-hook \varnothing 3.8 mm
With screw-on plate, zinc plated.

	Weight [kg]	
Overall length approx. 270 mm	0.02	215101890
Overall length approx. 320 mm	0.04	215101606



6082
With S-hook \varnothing 3.8 mm and \varnothing 3 mm, overall length approx. 270 mm, weight 0.03 kg.
101101037

S-hooks
Zinc plated.

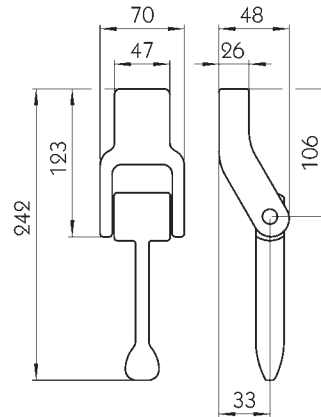
Weight
[kg]

∅ 3 mm, length approx. 35 mm	0.005	215102599
∅ 3.8 mm, length approx. 54 mm	0.01	215102577

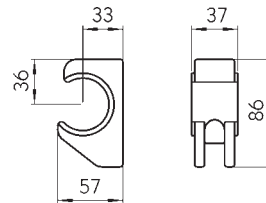


Side board hinges

Weld-in hinge H 111 B
Self colour, weight 1.11 kg.
102101293

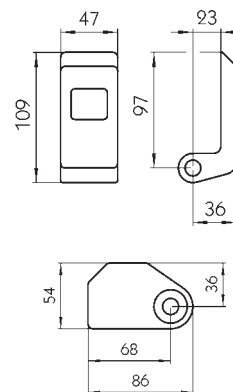


Weld-on keeper
Self colour, weight 0.41 kg.
102101294

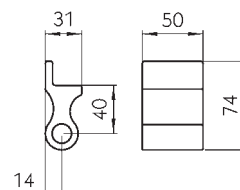


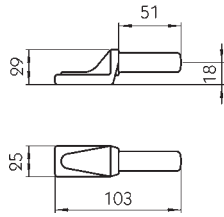
For fitting to tipper bodies, consisting of hinge leaf and eye plate.

H 929
Self colour, weight 1.04 kg.
102102667

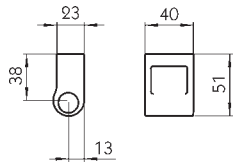


Hinge housing
Self colour, weight 0.40 kg.
340111932

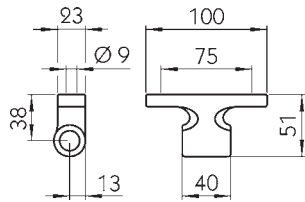




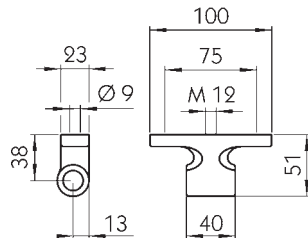
6550
Self colour, weight 0.18 kg.
10111519



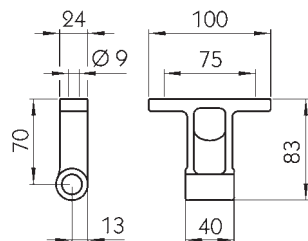
6551
For anchor bolt M12, zinc plated,
weight 0.25 kg.
10111520



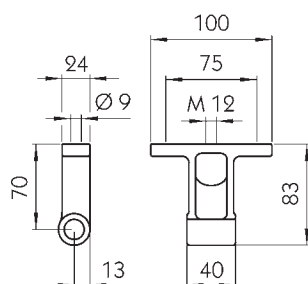
6552
Zinc plated, weight 0.35 kg.
10111521



6552
For anchor bolt M12, zinc plated,
weight 0.33 kg.
10111702



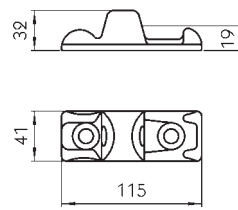
6561
Zinc plated, weight 0.47 kg.
10111601



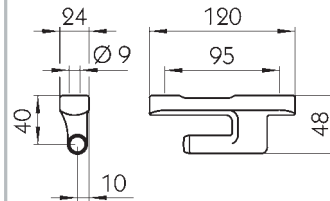
6561
For anchor bolt M12, zinc plated,
weight 0.46 kg.
10111602

No longer available

6540
Self colour, weight 0.31 kg.
101111542

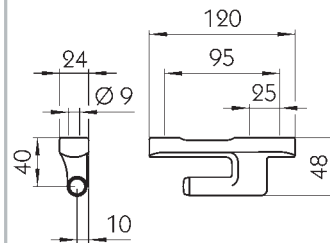


6541
Zinc plated, weight 0.43 kg.
101111543

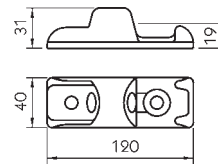


No longer available

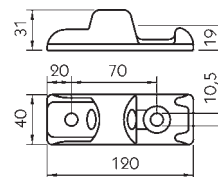
6541
For anchor bolt M12, zinc plated, weight 0.41 kg.
101111823



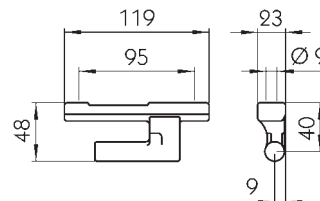
TIR
Weld-on, self colour, weight 0.35 kg.
102111529



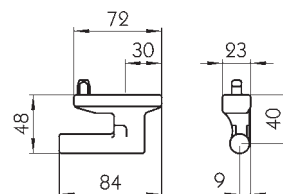
TIR
Screw-on, zinc plated, weight 0.34 kg.
102111948

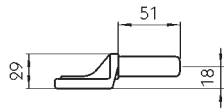


TIR
Zinc plated, weight 0.36 kg.
102111530



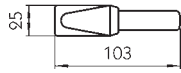
TIR
With locking peg for anchor bolt M 12, zinc plated, weight 0.29 kg.
102111531





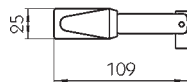
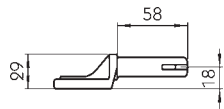
25/30 Suer
Self colour, weight 0.18 kg.

102111527



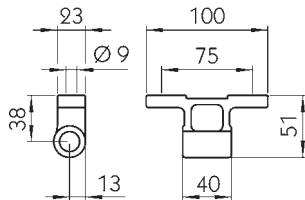
25/30 with drop nose
Self colour, weight 0.19 kg.

102111688



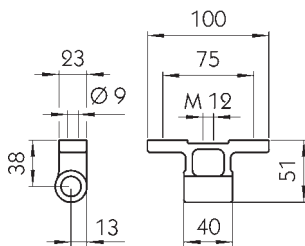
25/30
Zinc plated, weight 0.28 kg.

102111528



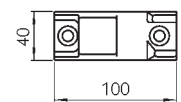
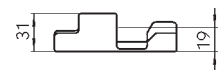
25/30
For anchor bolt M12, zinc plated, weight 0.25 kg.

102111822



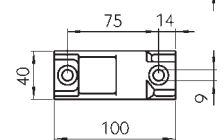
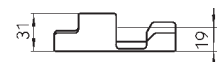
6540 N
Self colour, weight 0.28 kg.

101111746



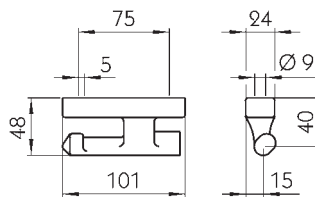
65400 N
Zinc plated, weight 0.30 kg.

101111747



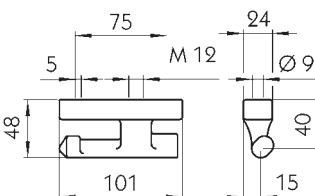
6541 N
Zinc plated, weight 0.33 kg.

101111748



6541 N
For anchor bolt M12, zinc plated, weight 0.32 kg.

101111749



Left
Right

6550 N
Self colour, weight 0.22 kg.

10111730
10111731

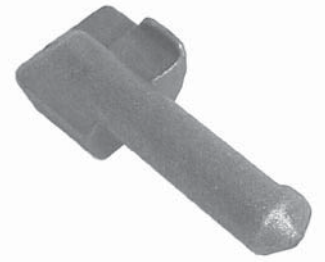
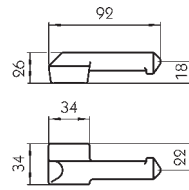
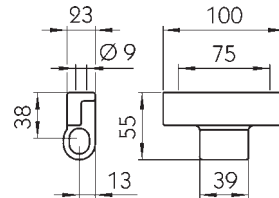
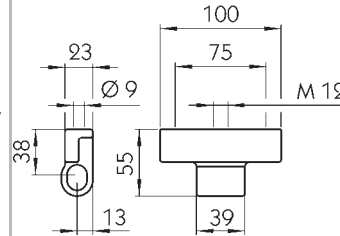


Illustration: left hand

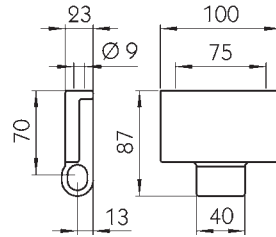
6552 N
Zinc plated, weight 0.32 kg.
10111732



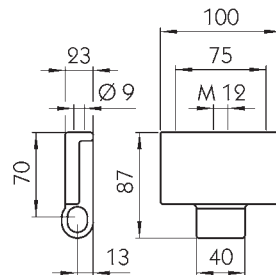
6552 N
For anchor bolt M12, zinc plated,
weight 0.29 kg.
10111733



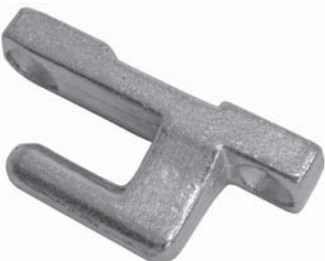
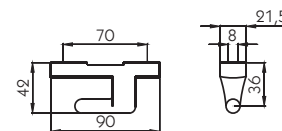
6561 N
Zinc plated, weight 0.50 kg.
10111758



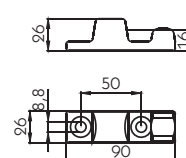
6561 N
For anchor bolt M12, zinc plated,
weight 0.48 kg.
10111759

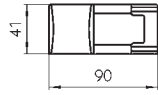


Hinge gudgeon
Zinc plated, weight 0.23 kg.
21511985

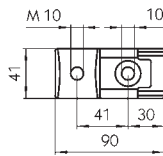
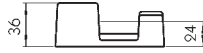


Screw-on gudgeon
Zinc plated, weight 0.18 kg.
21511986

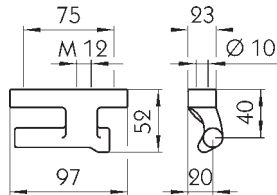
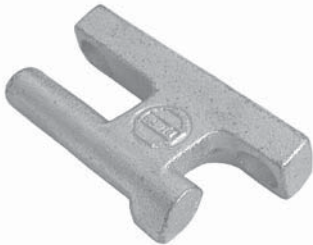




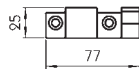
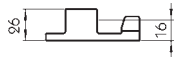
H 871 K/24
Self colour, weight 0.36 kg.
102111854



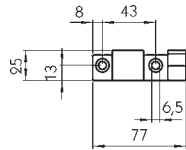
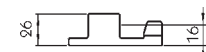
H 871 K/24/A
Zinc plated, weight 0.43 kg.
102111865



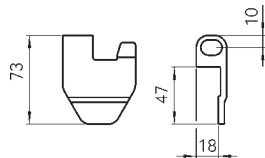
Hinge gudgeon
For anchor bolt M12, zinc plated,
weight 0.34 kg.
102111853



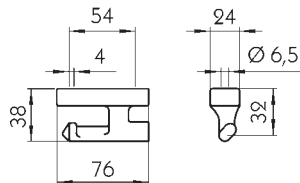
6570
Self colour, weight 0.11 kg.
101111813



65700
Zinc plated, weight 0.12 kg.
101111814

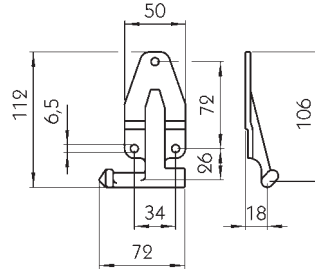


6571
Self colour, weight 0.20 kg.
101111815

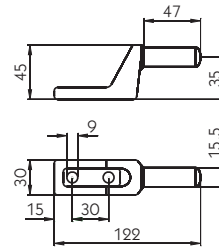


6572
Zinc plated, weight 0.17 kg.
101111817

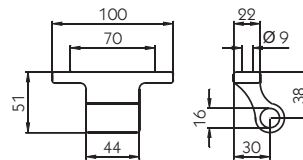
6573
Zinc plated, weight 0.23 kg.
10111818



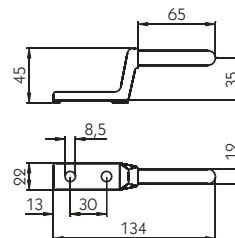
PWP screw-on gudgeon
Zinc plated, weight 0.27 kg.
10511950



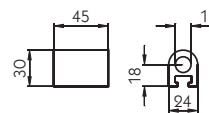
PWP hinge housing
Zinc plated, weight 0.34 kg.
10511951



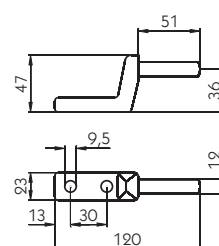
4040
Zinc plated, weight 0.16 kg.
10311884



4041
Aluminium self-colour, weight 0.05 kg.
10311885

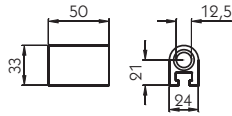


Screw-on gudgeon
Weight 0.22 kg.



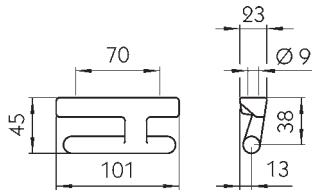
The screw-on gudgeons are fastened to the side board by means of a threaded plate. The hinge housing can be fastened to the floor frame by means of the T-slot which fits an M8 screw head.

Self colour **215112696**
Zinc plated **215111696**



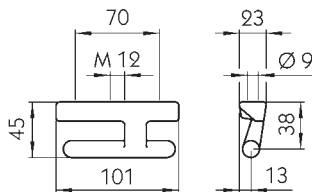
Hinge housing
Aluminium self-colour, weight
0.07 kg.

500111697



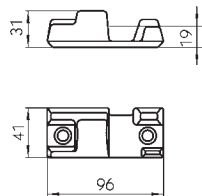
PWP Hinge gudgeon
Zinc plated, weight 0.28 kg.

105111935



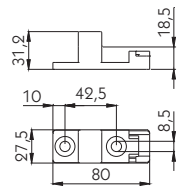
PWP Hinge gudgeon
For anchor bolt M12, zinc plated,
weight 0.27 kg.

105111952



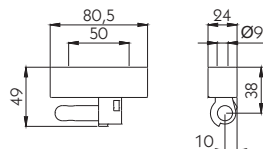
PWP weld-on hinge
housing
Self colour, weight 0.32 kg.

105111933



H 871 - KL
Zinc plated, weight 0.16 kg.

102111958

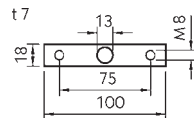


H 871 - KL
Zinc plated, weight 0.22 kg.

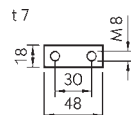
102111959

Threaded plates

Threaded plate 7 mm
Zinc plated, weight 0.09 kg.
10111761



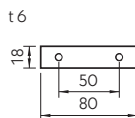
Threaded plate 7 mm
Zinc plated, weight 0.04 kg.
10311886



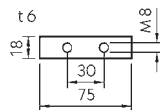
Threaded plate 6 mm
Zinc plated, weight 0.06 kg.

Thread M 6
Thread M 8

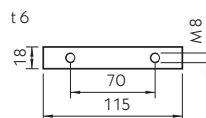
10111819
10211960



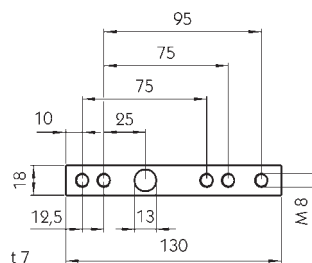
Threaded plate 6 mm
Zinc plated, weight 0.06 kg.
10511953



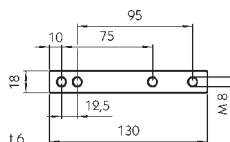
Threaded plate 6 mm
Zinc plated, weight 0.09 kg.
10511954



Threaded plate 7 mm
Zinc plated, weight 0.11 kg.
34011751



Threaded plate 6 mm
Zinc plated, weight 0.10 kg.
34011752



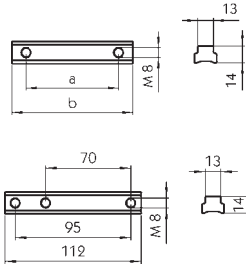
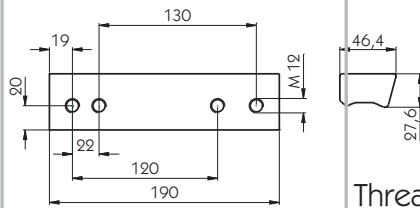
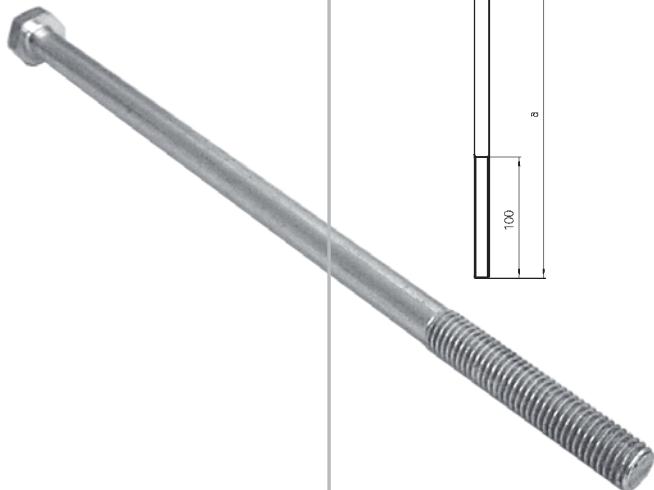


Illustration: 500111667

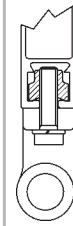


Anchor bolts



Threaded rails

Aluminium, self colour.



The forces arising in the side board hinges are ideally taken up by the opposing bevels on the threaded rail and the bottom-most hollow section in the aluminium profile.

	Dim. a [mm]	Dim. b [mm]	Weight [kg]	
Threaded rail	30	67	0.03	500111811
Threaded rail	40	62	0.03	500111668
Threaded rail	75	98	0.05	500111669
Threaded rail	85	106	0.06	500111670
Threaded rail			0.06	500111667

Threaded rail

Aluminium, self colour, weight 0.53 kg.

500631031

Threaded rail for 40 mm Aluminium side board profile.

Anchor bolt M 12

Similar to DIN 601, zinc plated.

Dim. a [mm]	Weight [kg]	
265	0.20	500111834
315	0.24	500111835
515	0.38	500111018
565	0.42	500111019
615	0.45	500111020
815	0.59	500111024
1015	0.73	500111028
1215	0.87	500111846
1315	0.95	500111848

No longer available

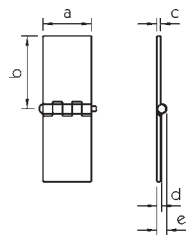
Anchor bolt M 16

Similar to DIN 601, zinc plated.

Dim. a [mm]	Weight [kg]	
815	1.10	500111763
1015	1.36	500111765
1115	1.49	500111766
1215	1.62	500111767
1315	1.75	500111849

No longer available

Door hinges
Straight door hinges



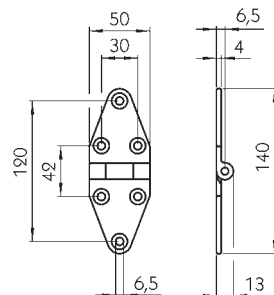
Straight door hinges
Self colour.

	Dim. a [mm]	Dim. b [mm]	Dim. c [mm]	Dim. d [mm]	Dim. e [mm]	Weight [kg]	
Straight door hinge	30	60	3	4	8	0.09	340111263
Straight door hinge	40	60	3	4	8	0.13	340111264
Straight door hinge	40	60	5	6	12	0.21	340111265
Straight door hinge	40	80	5	6	12	0.27	340111266
Straight door hinge	50	80	5	6	12	0.33	340111267
Straight door hinge	50	100	5	6	12	0.42	340111268
Straight door hinge	60	80	6	7.5	15	0.48	340111269
Straight door hinge	60	120	6	7.5	15	0.69	340111270
Straight door hinge	70	120	6	7.5	15	0.81	340111271
Straight door hinge	80	120	6	7.5	15	0.92	340111272

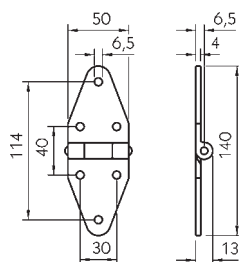
Straight door hinges
With grease nipple, self colour.

	Dim. a [mm]	Dim. b [mm]	Dim. c [mm]	Dim. d [mm]	Dim. e [mm]	Weight [kg]	
Straight door hinge	60	120	6	7.5	15	0.70	340111931
Straight door hinge	80	120	6	7.5	15	0.93	340111897

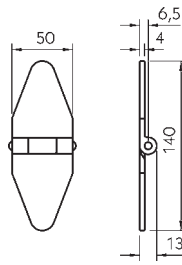
Locker hinges



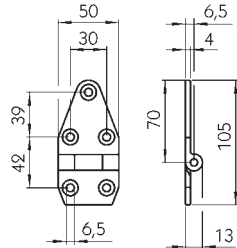
Locker hinge
Zinc plated, weight 0.13 kg.
340111718



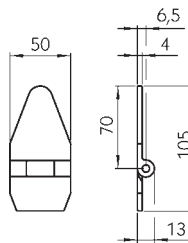
Locker hinge
Niosta, weight 0.15 kg.
340111939



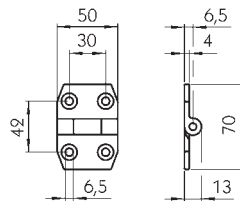
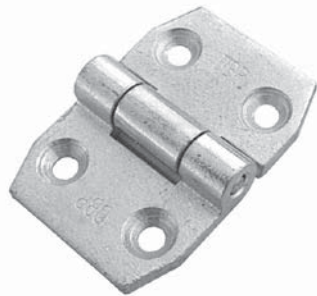
Locker hinge
Zinc plated, weight 0.14 kg.
34011719



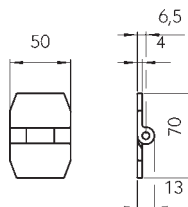
Locker hinge
Zinc plated, weight 0.14 kg.
34011720



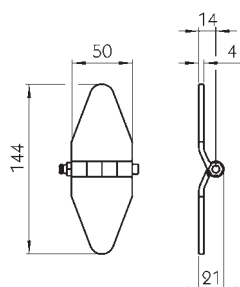
Locker hinge
Zinc plated, weight 0.15 kg.
34011721



Locker hinge
Zinc plated, weight 0.12 kg.
34011722



Locker hinge
Zinc plated, weight 0.13 kg.
34011723



Locker hinge
With hinge pin and grease nipple,
zinc plated, weight 0.17 kg.
34011638



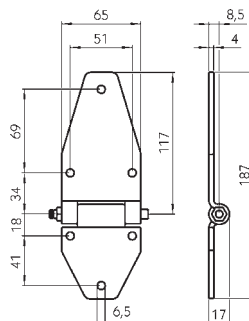
Metaloplast bushes have the following advantages over plastic bushes:

- Lower friction coefficient.
- Zero play between fixed and moving parts.
- Self-lubricating. Retains slippage also after long standstill periods.

Locker hinge

With hinge pin and grease nipple, zinc plated, weight 0.33 kg.

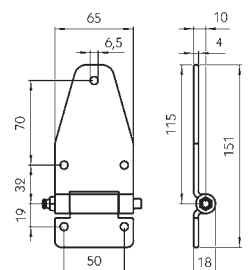
340111724



Locker hinge

With Metaloplast bushes, Nirosa, weight 0.32 kg.

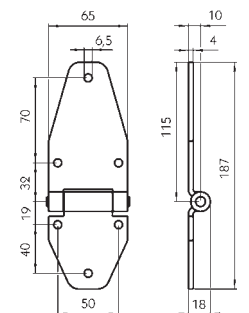
108071194



Locker hinge

With Metaloplast bushes, Nirosa, weight 0.37 kg.

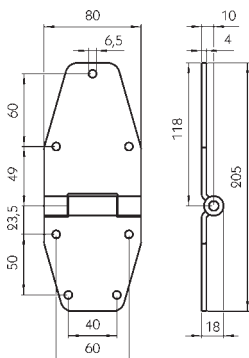
108071195



Locker hinge

With Metaloplast bushes, Nirosa, weight 0.52 kg.

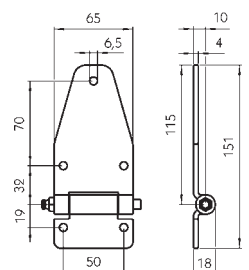
108071197

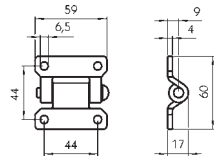
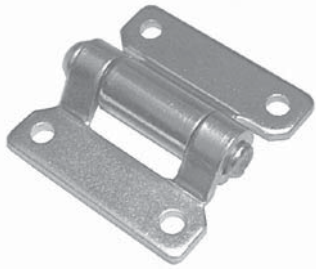


Locker hinge

With grease nipple, zinc plated, weight 0.32 kg.

108071198





Locker hinge

Weight 0.14 kg.

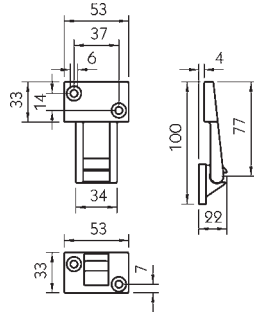
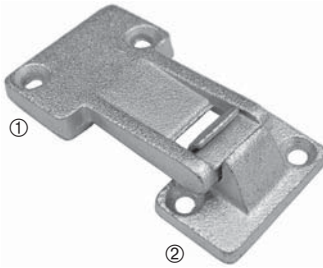
Zinc plated

108071207

Nirosta

108071192

Box lid hinge



Box lid hinge

Screw-on, zinc plated, consisting of:

Weight [kg]

① Hinge blade

0.15

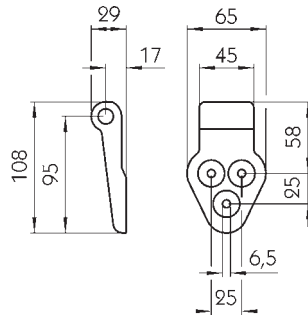
340111856

② Hinge bracket

0.08

340111857

Door hinges

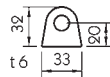
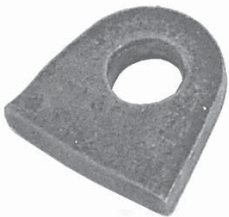


Hinge

Zinc plated, weight 0.28 kg.

340111590

Hinge produced in malleable iron.



Weld-on eye plate

Self colour, weight 0.03 kg.

340111593

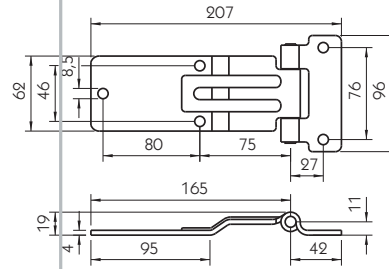


Hinge pin with split pin

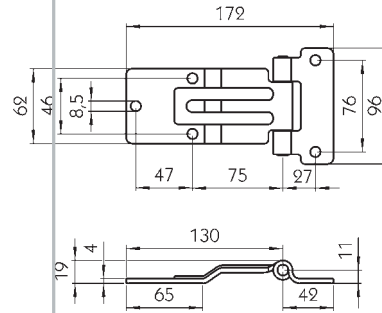
Ø 12 x 70 mm, zinc plated, weight 0.08 kg.

340111591

Door hinge
With Metaloplast bushes, Nirosta,
weight 0.50 kg.
108071196

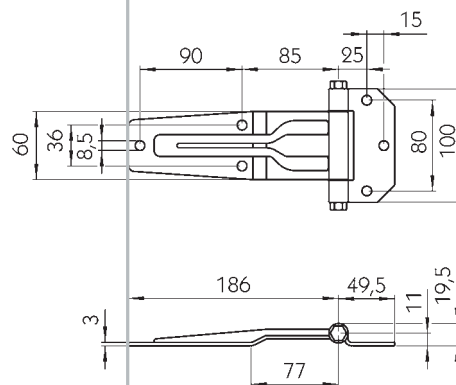



Door hinge
With Metaloplast bushes, weight
0.43 kg.



Zinc plated **108071208**
Nirosta **108071538**

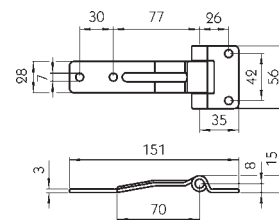
Door hinge
Nirosta, weight 0.48 kg.
108071193

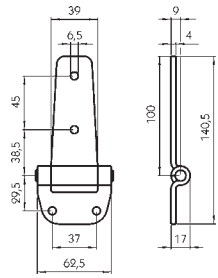



Metaloplast bushes have the following advantages over plastic bushes:

- Lower friction coefficient.
- Zero play between fixed and moving parts.
- Self-lubricating. Retains slippage also after long standstill periods.

Door hinge
With Metaloplast bushes, Nirosta,
weight 0.18 kg.
108071585



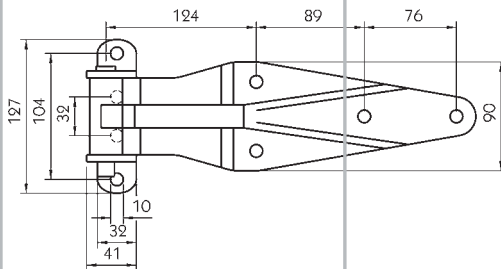
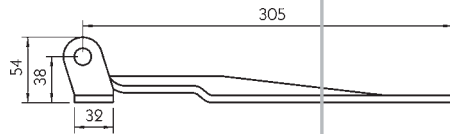


Door hinge
With Metaloplast bushes, weight
0.23 kg.

Zinc plated
Nirosta

108071202

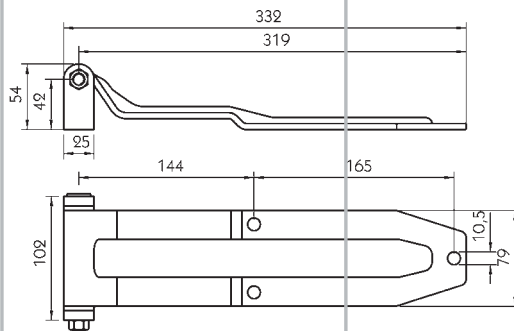
108071185



Container door hinge

Similar to the Bloxwich BCP 10045, complete with screw-on bracket and hinge pin, zinc plated, weight 1.79 kg.

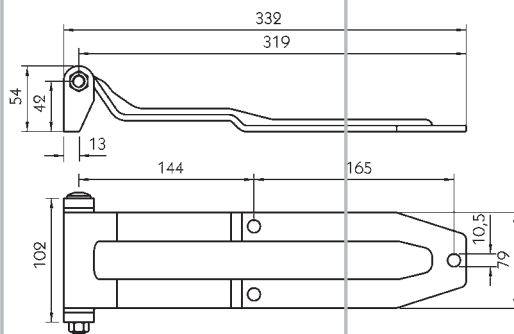
340111938



Door hinge

Complete with weld-on bracket and hinge pin, zinc plated, weight 1.50 kg.

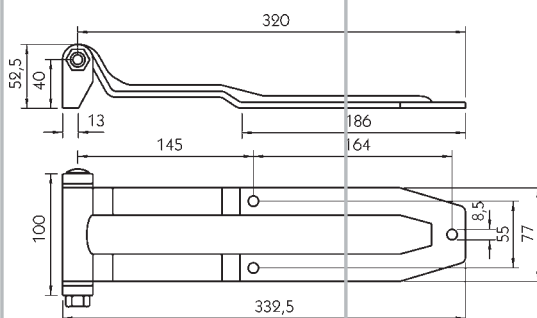
340111941



Door hinge

Complete with weld-on bracket and hinge pin, zinc plated, weight 1.41 kg.

340111942



Door hinge
With hinge bracket and pin, weight
1.10 kg.

Zinc plated
Nirosta

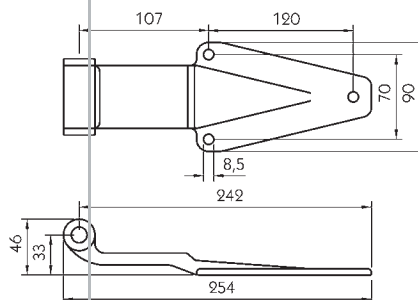
108071118

108071103

Spare parts
For hinges 10807118 and
108071103.

Plastic bush for hinge blade	108071340
Hinge pin M 10 x 115, Nirosta	108071167
Hex. nut to DIN 985 M 10, Nirosta	108071162

Hinge blade 6920
Zinc plated, weight 0.89 kg.
10111544

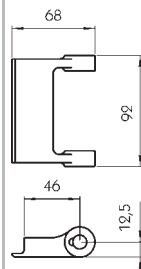


Plastic bush
Spare part for hinge blade 6920.
10111900

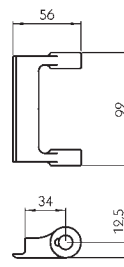


Accessories
For hinge blade 6920.

Weld-on bracket 6921
Self colour, weight 0.23 kg.
10111545



Weld-on bracket 6923
Self colour, weight 0.18 kg.
10111636

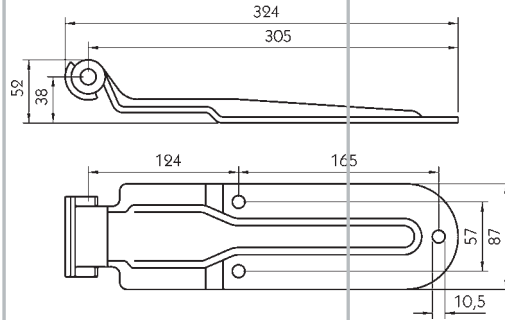


Hinge pin 6922
With accessories, weight 0.15 kg.
10111546



Brass washer
Spare part for hinge pin 6922.
10111901

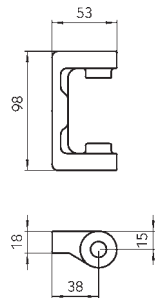




No longer available

Hinge blade 795.2
Nirosta, weight 1.27 kg.
101111917

Accessories
For hinge blade 795.2



Weld-on bracket 6943
Weight 0.34 kg.
Left **101111753**
Right **101111754**

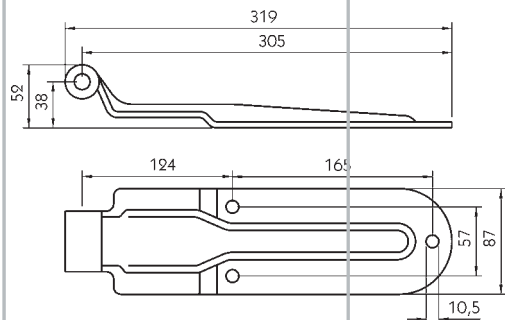
No longer available

Illustration: left hand



No longer available

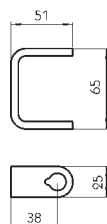
Hinge pin 6944
With accessories, weight 0.09 kg.
101111755
Brass washer
Spare part for flat bolt fastener 6944.
101111901



No longer available

Hinge blade 795.1
Nirosta, weight 1.14 kg.
101111916

Accessories
For hinge blade 795.1.



Hinge bracket 795.1
Weight 0.14 kg.
Nirosta **101111918**

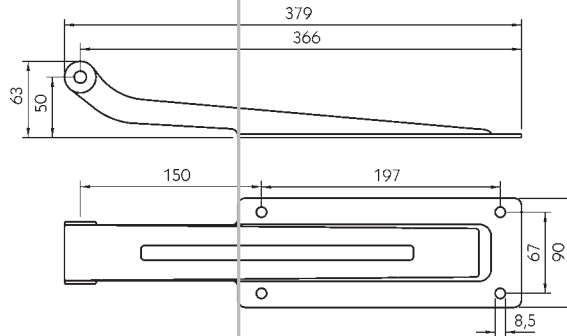
No longer available



These hinge blades are especially resistant to bending as the neck of the hinge is fabricated from rectangular section tube.



Hinge pin 795.1
With accessories, weight 0.13 kg.
101111919



Hinge blade
Weight 1.04 kg.

Zinc plated
Nirosta

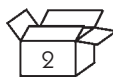
108071116
108071101

No longer available

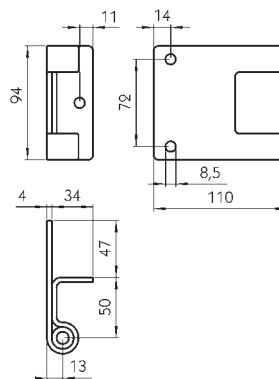
Plastic bush
Spare part for hinge blades itemised above.
108071289



Hinge brackets
For hinge blades **108071116** and **108071101**.



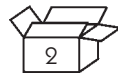
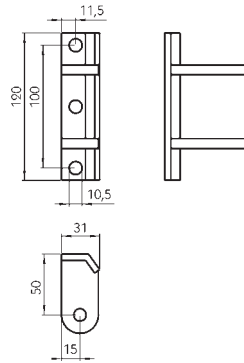
Hinge bracket
With brass bush, zinc plated, weight 0.55 kg.
108071503



Spare parts
For hinge bracket.

Hinge pin
10 x 98 mm, Nirosta.
108071159



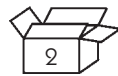
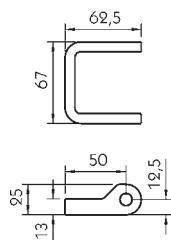


Hinge bracket
Weight 0.35 kg.

Zinc plated
Nirosta

108071506

108071490



Hinge bracket
Zinc plated, weight 0.35 kg.

108071607

No longer available

Spare parts
For hinge brackets.



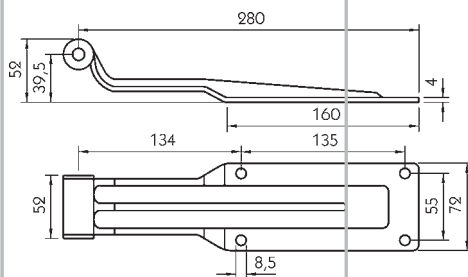
Hinge pin
M 10 x 80, Nirosta.

108071163

Hex. nut DIN 985

M 10, Nirosta.

108071162



Hinge blade
Weight 0.63 kg.

Zinc plated
Nirosta

108071608

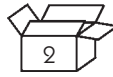
108071105



Plastic bush
Spare part for hinge blades ite-
mised above.

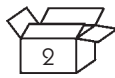
108071340

Zinc plated	
Nirosta	

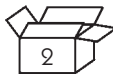


Hinge bracket
Weight 0.30 kg.

~~108071513~~
~~108071491~~



Hinge bracket
Nirosta, weight 0.30 kg.
108071492



Hinge bracket
Weight 0.30 kg.

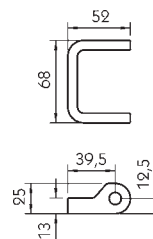
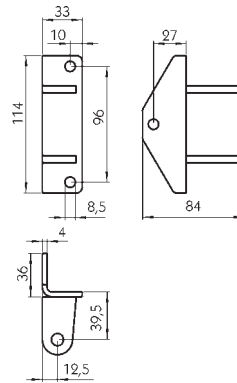
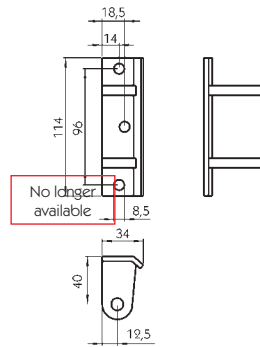
Zinc plated
Nirosta

~~108071609~~
~~108071610~~

Hinge pin
M 10 x 80, Nirosta.
108071163

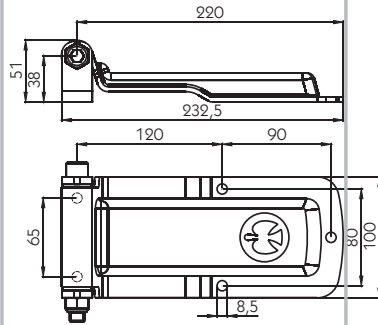
Hex. nut DIN 985
M 10, Nirosta.
108071162

Accessories
For hinge blade.

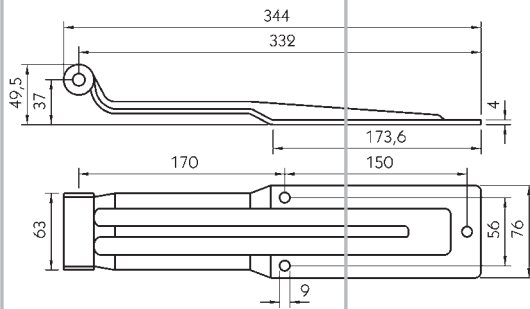


Spare parts
For hinge brackets.





Hinge blade 895.10
Complete with hinge bracket,
zinc plated, weight 1.92 kg.
101111983



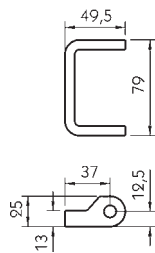
Hinge blade
Weight 0.87 kg.
Zinc plated
Nirosta

108071120
108071108

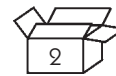


Plastic bush
Spare part for hinge blades item-
ised above.
108071340

Accessories
For hinge blades.



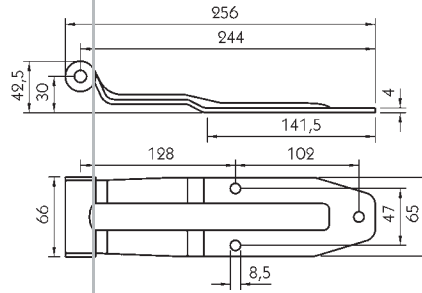
Hinge bracket
Zinc plated, weight 0.25 kg.
108071577



Spare parts
For hinge bracket.



Hinge pin
M 10 x 90, Nirosta.
108071168
Hex. nut DIN 985
M 10, Nirosta.
108071162



Hinge blade
Weight 0.58 kg.

Zinc plated	108071114
Nirosta	108071102

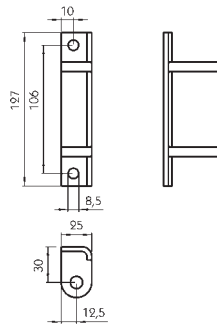
Plastic bush
Spare part for hinge blades
108071114 + 108071102.
108071327



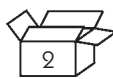
Accessories
For hinge blade.



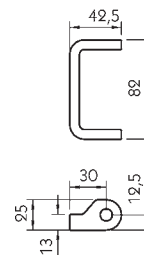
Hinge bracket
Weight 0.25 kg.



Zinc plated	108071502
Nirosta	108071486



Hinge bracket
Weight 0.40 kg.



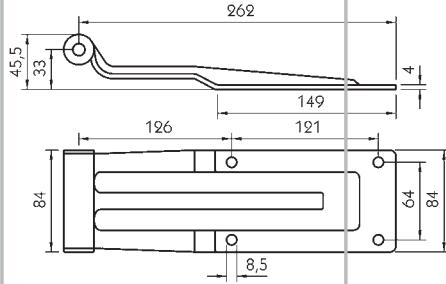
Zinc plated	108071576
Nirosta	108071611

Spare parts
For hinge brackets.

Hinge pin
M 10 x 90, Nirosta.
108071168

Hex. nut DIN 985
M 10, Nirosta.
108071162



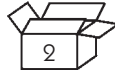
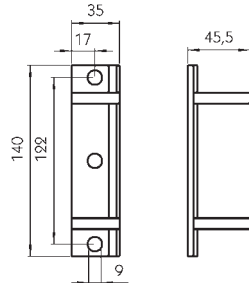
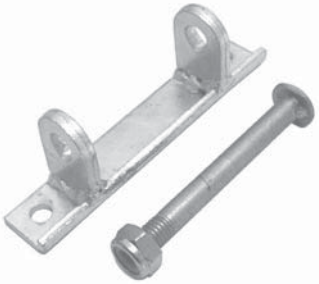


Hinge blade
Nirosta, weight 0.85 kg.
108071111



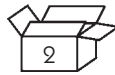
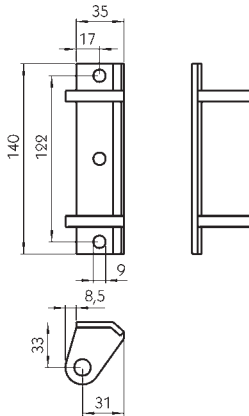
Plastic bush
Spare part for hinge blade
108071111.
108071340

Accessories
For hinge blade



Hinge bracket
Weight 0.35 kg.
Zinc plated
Nirosta

108071509
108071494



Hinge bracket
Weight 0.35 kg.
Zinc plate
Nirosta

108071615
108071616

Spare parts
For hinge brackets.



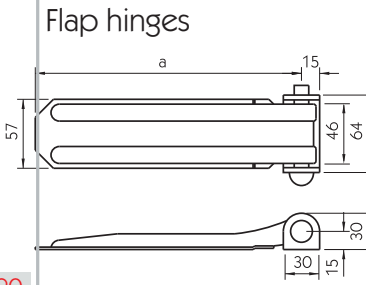
Hinge pin
M 10 x 115, Nirosta.
108071167

Hex. nut DIN 985
M 10, Nirosta.
108071162

Pressed, light duty.

Flap hinges
Incl. hinge bracket and accessories, zinc plated.

	Dim. a [mm]	Weight [kg]	
Flap hinge	220	0.48	104111790
Flap hinge	270	0.56	104111547
Flap hinge	320	0.57	104111548
Flap hinge	370	0.70	104111549
Flap hinge	420	0.69	104111550
Flap hinge	470	0.85	104111551
Flap hinge	520	0.96	104111552
Flap hinge	570	1.01	104111553
Flap hinge	620	0.96	104111554
Flap hinge	670	1.18	104111555
Flap hinge	720	1.19	104111556
Flap hinge	770	1.30	104111557
Flap hinge	820	1.44	104111558



Spare parts
For flap hinges.

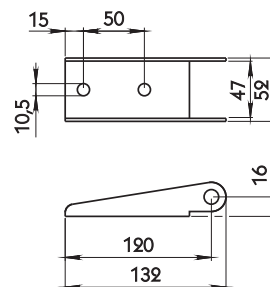
Hinge bracket
Zinc plated.
104111559



Hinge pin with split pin
Ø 12 x 65 mm, zinc plated.
104111560



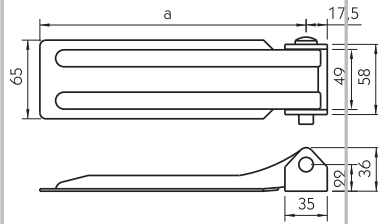
Accessories
For flap hinges.



Pressed, light duty.

Hinge bracket
Screw-on, zinc plated, weight 0.16 kg.
104111792





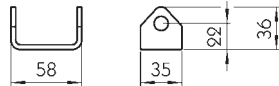
Pressed, light duty.

Flap hinges

Incl. hinge bracket and accessories, zinc plated.

	Dim. a [mm]	Weight [kg]	
Flap hinge	220	0.49	340111793
Flap hinge	270	0.55	340111794
Flap hinge	320	0.62	340111795
Flap hinge	370	0.70	340111796
Flap hinge	420	0.75	340111797
Flap hinge	470	0.81	340111798
Flap hinge	520	0.88	340111799
Flap hinge	570	0.95	340111800
Flap hinge	620	1.03	340111801
Flap hinge	670	1.10	340111802
Flap hinge	720	1.15	340111803
Flap hinge	770	1.21	340111804
Flap hinge	820	1.26	340111805

Spare parts For flap hinges.



Hinge bracket

Weight 0.10 kg.

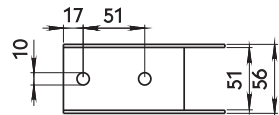
Zinc plated	340111807
Self colour	340111808

Hinge pin with split pin

Ø 12 x 65 mm, zinc plated.

340111806

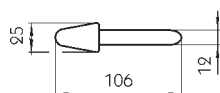
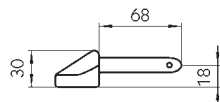
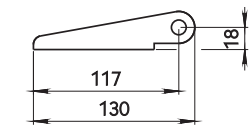
Accessories For flap hinges.



Hinge bracket

Screw-on, zinc plated, weight 0.18 kg.

340111809



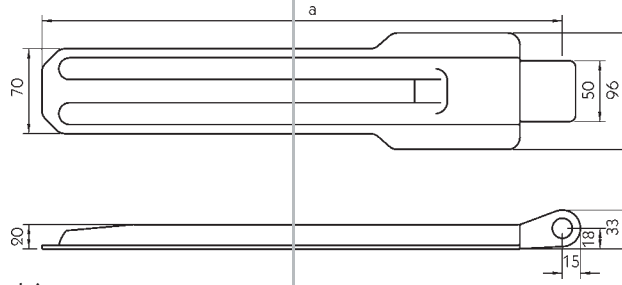
Weld-on gudgeon 4030

Weight 0.15 kg.

103111517

Suitable for hinges with pin diameters Ø 12 mm.

Pressed, heavy duty.



Flap hinges
Without accessories, zinc plated.

	Dim. a [mm]	Weight [kg]	
Flap hinge	430	1.70	104111619
Flap hinge	530	1.96	104111620
Flap hinge	630	2.20	104111621
Flap hinge	730	2.51	104111622
Flap hinge	830	2.55	104111623
Flap hinge	930	2.76	104111624
Flap hinge	1030	2.95	104111625

Accessories
For flap hinges.

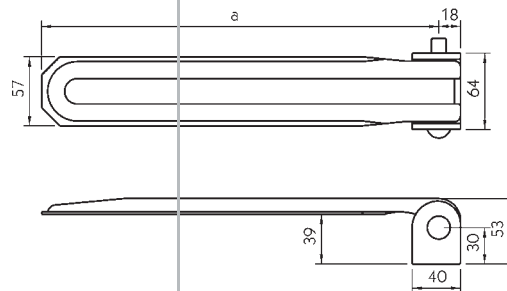
Bearing lug
Zinc plated, weight 0.06 kg.
104111633



Hinge pin with split pin
Ø 16 x 80 mm, zinc plated,
weight 0.15 kg.
104111635



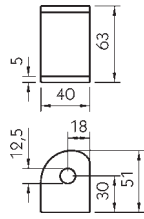
Side tipper hinges



Pressed, light duty.

Side tipper hinges
Incl. hinge bracket and accessories, zinc plated.

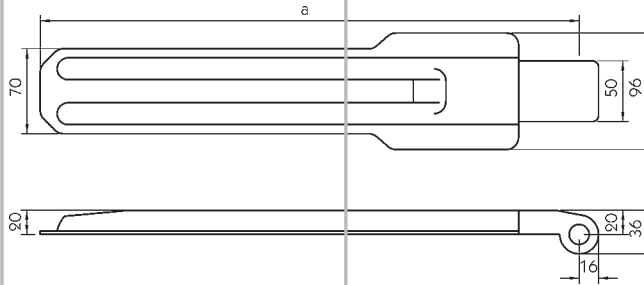
	Dim. a [mm]	Weight [kg]	
Side tipper hinge	328	0.79	104111561
Side tipper hinge	378	0.85	104111562
Side tipper hinge	428	0.90	104111563
Side tipper hinge	478	0.98	104111564
Side tipper hinge	528	1.11	104111565
Side tipper hinge	578	1.26	104111566
Side tipper hinge	628	1.33	104111567



Hinge bracket

Spare part for side tipper hinges, zinc plated, weight 0.19 kg.

104111571



Side tipper hinges

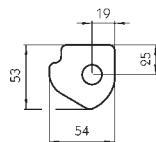
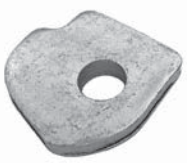
Without accessories, zinc plated.

Pressed, heavy duty.

	Dim. a [mm]	Weight [kg]	
Side tipper hinge	445	1.82	104111626
Side tipper hinge	545	2.03	104111627
Side tipper hinge	645	2.29	104111628
Side tipper hinge	745	2.55	104111629
Side tipper hinge	845	2.88	104111630
Side tipper hinge	945	3.06	104111631
Side tipper hinge	1045	3.30	104111632

Accessories

For side tipper hinges.



Bearing lug

Zinc plated, weight 0.16 kg.

104111634

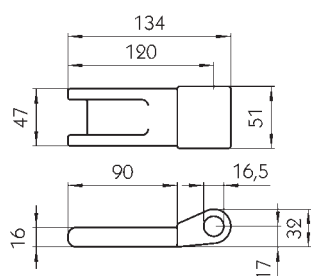


Hinge pin with split pin

Ø 16 x 80 mm, zinc plated, weight 0.15 kg.

104111635

Stump hinges



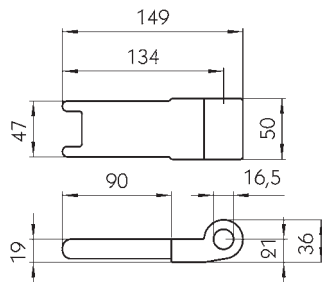
For flap hinges

Forged, self colour, weight 0.71 kg.

104111539

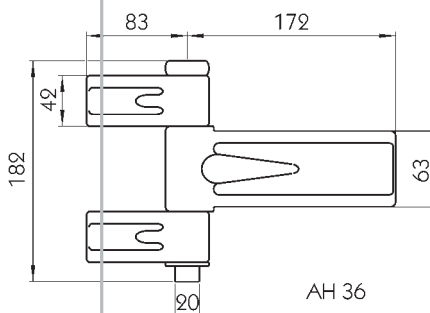
For side tipper hinges
Forged, self colour, weight 0.80 kg.

104111540



Container hinge

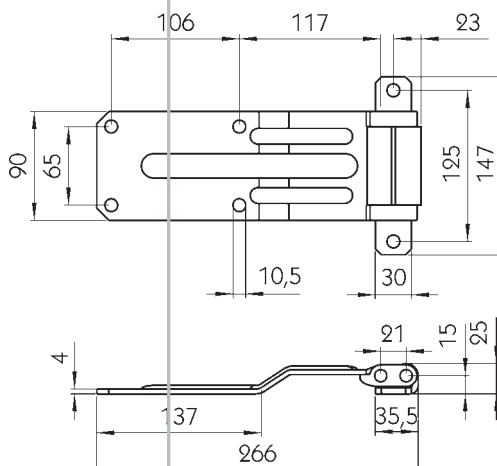
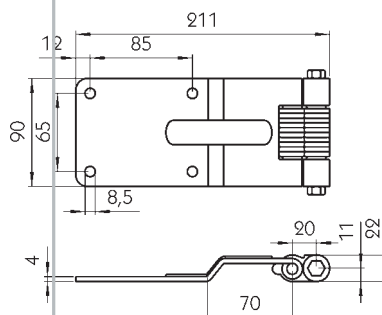
0928
Weight 3.14 kg.
340111894



Included in the supply are:
2 short and 1 long hinge leaves,
1 hinge pin with washer and split
pin.
All parts supplied loose.
Split pin zinc plated, other parts
self colour.

Double jointed door
hinges

Double jointed door
hinge
Zinc plated, weight 0.95 kg.
108071119

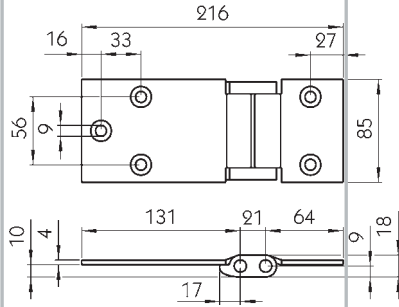


Double jointed door
hinge
With Metaloplast bushes, weight
1.25 kg.

Zinc plated
Nirosta

108071613
108071614

No longer
available

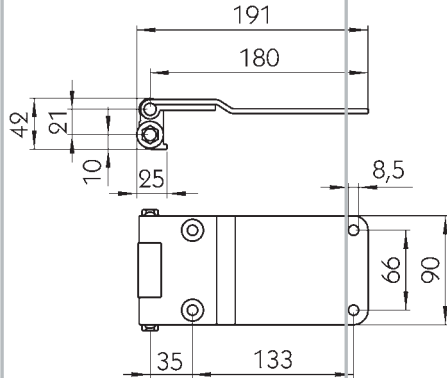


Double jointed door hinge

With Metaloplast bushes, Nirosta, weight 0.84 kg.

108071191

No longer available



Bearing bush

Spare part for double jointed hinge 698.

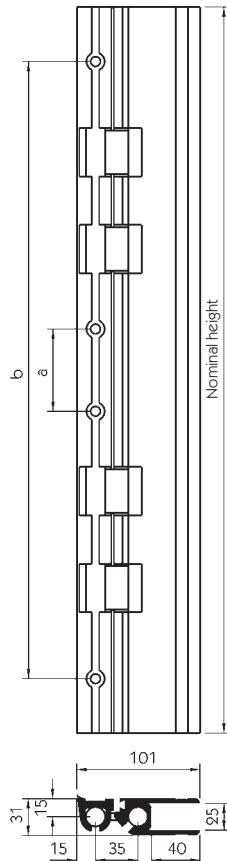
101111905

The double jointed hinge **108071191** is intended for side door fitting. As it is let into the door wing, it does not protrude on the outside.

698

Zinc plated, weight 0.89 kg.

101111717



699

Nominal height [mm]	Dim. a [mm]	Dim. b [mm]	Weight [kg]	
600	68	510	2.35	101111944
800	228	670	3.14	101111829

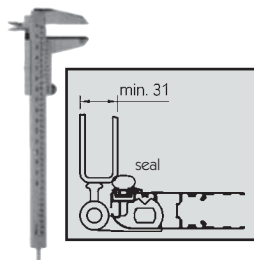
The double jointed hinge for 25 mm rear doors can be used for either side (l.h. = r.h.).

The supply includes the hinge, the fixing kit and the pre-fitted seal.

Aluminium, self-colour finish.

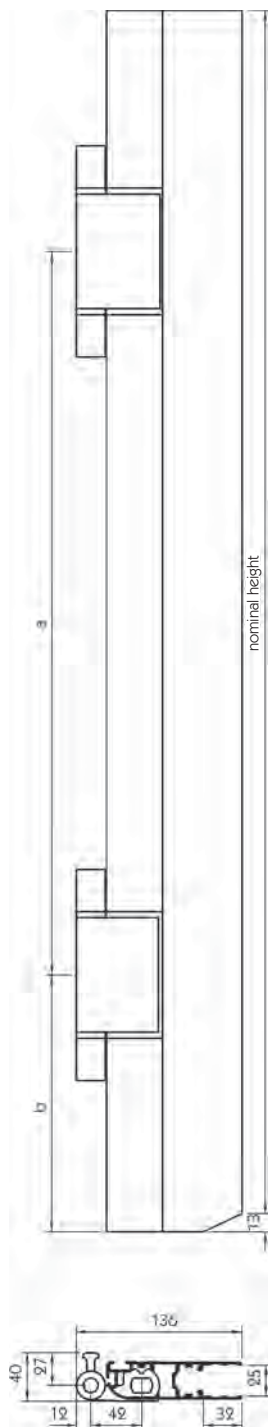
No longer available

Double jointed hinges for 25 mm aluminium profile, sandwich board or similar.
Aluminium, self-colour finish.
The fixing kit, seal and door guides are not included. Please order these parts separately.



PWP
For rear doors.

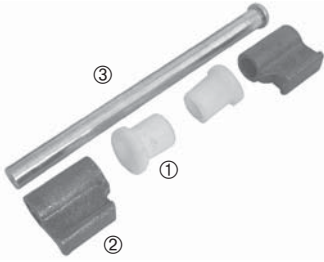
Nominal height [mm]	Handing	Dim. a [mm]	Dim. b [mm]	Weight [kg]	
500	left	300	115	2.32	105112032
500	right	300	115	2.32	105112042
600	left	400	115	2.57	105112052
600	right	400	115	2.57	105112062
800	left	600	115	3.12	105112092
800	right	600	115	3.12	105112102
1000	left	600	215	4.07	105112132
1000	right	600	215	4.07	105112142



Accessories/spare parts
For PWP double jointed and centre hinges, and also for PWP portal, side and sliding doors.

Fixing kit for double jointed hinges
For 2 hinge leaves, weight 0.31 kg/hinge leaf.
643045102





Individual parts

① Polyamide bush	643049104
② Hinge housing, self-colour	643049106
③ Hinge pin, zinc plated	643049107



Plastic cap

For PWP double jointed hinges, grey, weight 0.012 kg.

Left hand	643059001
Right hand	643059002

Illustration: left hand.



Rubber seal

For double jointed hinges. Seal for door surround, side (outer), top and bottom, weight 0.21 kg/m.


643219501



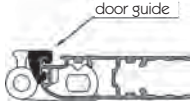
Door guide

For double jointed and centre hinges, weight 0.02 kg.

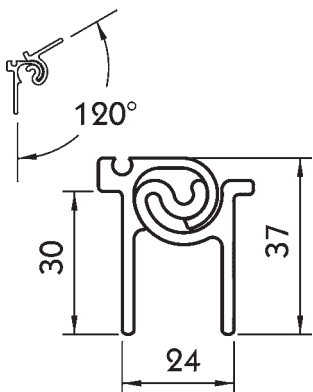
643049112



When opening and closing a door with double jointed hinges, the shifting door centre of gravity varies the friction forces in the hinge bushes so that one cannot basically determine in which order and around which hinge pin the door will open. In unfortunate cases, as well as paintwork damage, this leads to the rubber seal in the surround profile being pushed from its seating or shorn off. The door guide 643049112 compels the hinges to open and close in the correct order. One door guide per hinge is clamped into the aluminium surround profile.



Continuous hinges



Continuous hinge

Anodised aluminium, length 4000 mm, weight 1.04 kg/m.

108071473

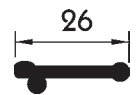
Accessories

For continuous hinge.

Rubber seal

Roll, approx. 20 m, weight 0.08 kg/m.

108071474



Continuous hinges

	Dim. h [mm]	Length [mm]	Weight [kg/m]	
Continuous hinge	24	2400	1.25	108071003
Continuous hinge	24	2700	1.25	108071005
Continuous hinge	24	4000	1.25	108071001
Continuous hinge	29	2400	1.41	108071004
Continuous hinge	29	4000	1.41	108071002

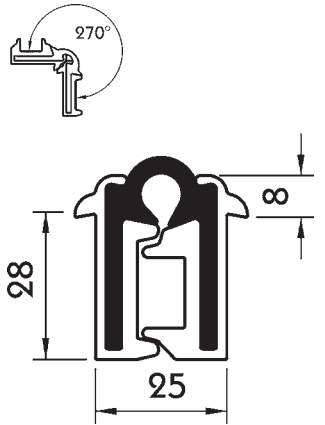
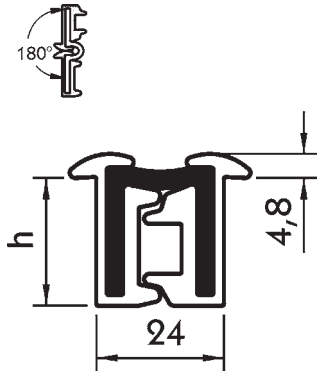
The continuous hinges below (10871001 - 5 and 108071008) consist of two anodised aluminium profiles bonded together by a pressed-in black, polyurethane rubber knuckle. On the continuous hinges 10871001 - 5, the aluminium profiles are drilled approx. every 200 mm with Ø 5 mm fixing holes. The aluminium profile 108071008 is not pre-drilled.

Continuous hinge
Length 3000 mm, weight 1.06 kg/m.
108071008

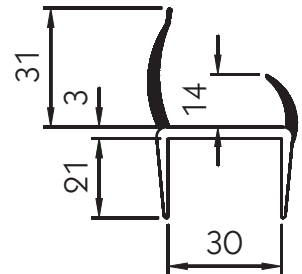
PVC rigid/soft profile
Length 2700 mm, weight 1.25 kg.
108071439

Door retainer 335 A
For rear doors, Nirosta, weight 0.06 kg.
215131566

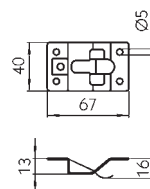
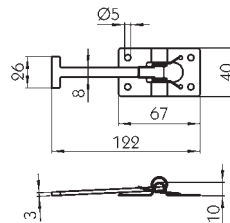
Catch 337 A
Nirosta, weight 0.03 kg.
215131567

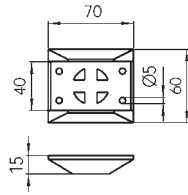


Rigid/soft profile door seal



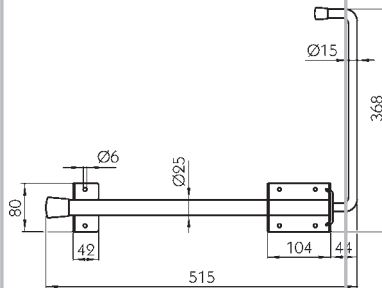
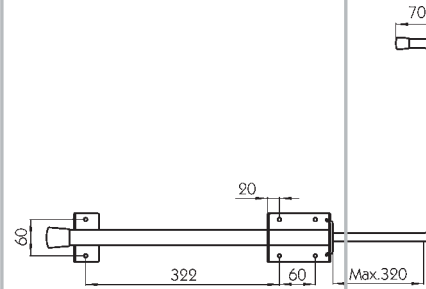
Door retainer





Protective mounting 339 A
Plastic, for door retainer and
catch, weight 0.12 kg.

215131568



Door retainer

For portal doors, zinc plated,
extendable and stop-
wable, weight 1.85 kg.

215131517

Rubber stop

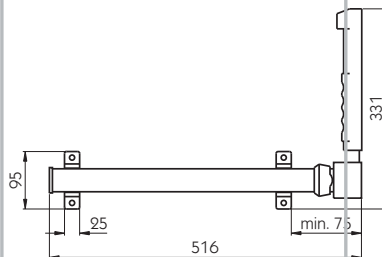
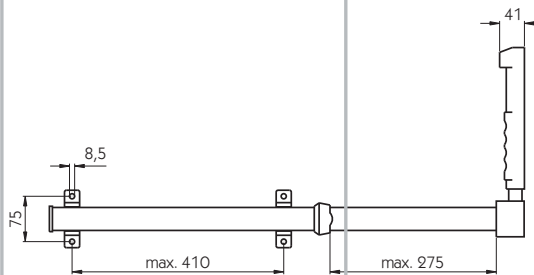
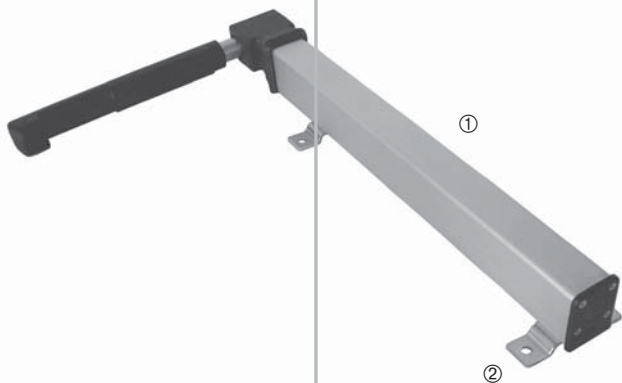
Spare part for door retainer.

① Rubber stop, small

215131649

② Rubber stop, large

215131650



Door retainer

Anodised aluminium housing
with Nirosta arm, please order
fitting kit separately.

Weight
[kg]

① Door retainer

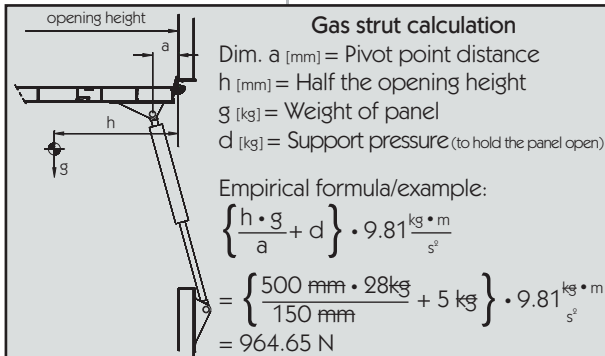
1.83

108071638

② Fitting kit

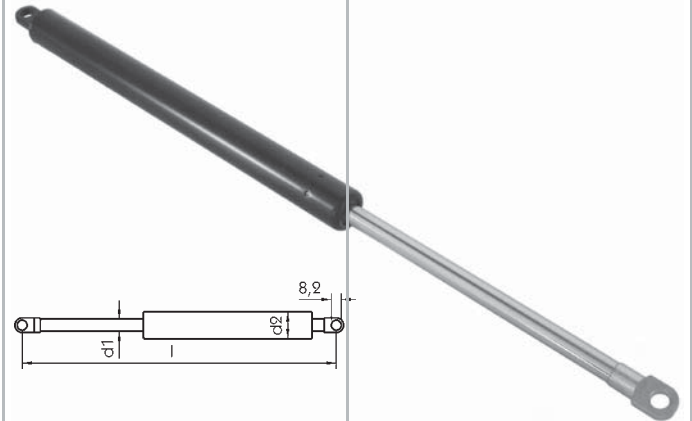
0.15

108071639



With 1 gas strut a spring force of 1000 N would be selected and with 2 gas struts a spring force of 500 N each.

Gas struts



Gas struts

Extending rod damping, piston rod chrome plated.

Designation	Spring force	Stroke	Dim. d1	Dim. d2	Length l		Weight	
	[N]	[mm]	∅ [mm]	∅ [mm]	retracted [mm]	extended [mm]		
0-3-150-1/250N-295/445 A/A	250	150	10	22	295	445	0.440	215141170
0-3-150-1/500N-295/445 A/A	500	150	10	22	295	445	0.440	215141171
0-3-150-1/750N-295/445 A/A	750	150	10	22	295	445	0.440	215141172
0-3-150-1/1000N-295/445 A/A	1000	150	10	22	295	445	0.440	215141173
4-8-150-1/1250N-245/395 A/A	1250	150	14	28	245	395	0.550	215141174
0-3-200-1/250N-305/505 A/A	250	200	10	22	305	505	0.460	215141175
0-3-200-1/500N-305/505 A/A	500	200	10	22	305	505	0.460	215141176
0-3-200-1/750N-305/505 A/A	750	200	10	22	305	505	0.460	215141177
0-3-200-1/1000N-305/505 A/A	1000	200	10	22	305	505	0.460	215141178
4-8-200-1/1500N-295/495 A/A	1500	200	14	28	295	495	0.600	215141179
4-8-200-1/1750N-295/495 A/A	1750	200	14	28	295	495	0.600	215141180
0-3-250-1/250N-402/652 A/A	250	250	10	22	402	652	0.660	215141181
0-3-250-1/500N-402/652 A/A	500	250	10	22	402	652	0.660	215141182
0-3-250-1/750N-402/652 A/A	750	250	10	22	402	652	0.660	215141183
0-3-250-1/1000N-402/652 A/A	1000	250	10	22	402	652	0.660	215141184
4-8-300-1/1000N-450/750 A/A	1000	300	14	28	450	750	0.900	215141186
4-8-300-1/1250N-450/750 A/A	1250	300	14	28	450	750	0.900	215141187

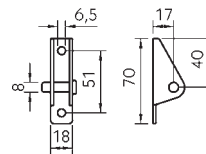
Accessories

For gas struts.

Clevis mount, small

With pin for swivelling and anchoring the gas strut, zinc plated steel, weight 0.07 kg.

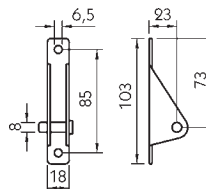
215141470

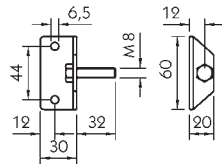


Clevis mount, large

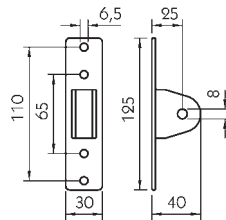
With pin for swivelling and anchoring the gas strut, zinc plated steel, weight 0.08 kg.

215141471



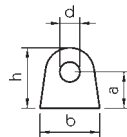
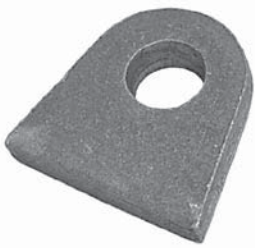


Angle bracket mount
Bearing bolt with screw-on plate,
zinc plated steel, weight 0.07 kg.
215141201



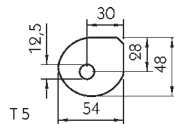
Clevis mount with screw-on plate
Zinc coated steel, weight 0.13 kg.
215141202

Strap hinge eye plates



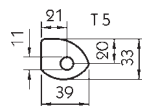
Strap hinge eye plates
Self colour.

	Dim. a [mm]	Dim. b [mm]	Dim. h [mm]	Dim. d [mm]	t [mm]	Weight [kg]	
Strap hinge eye plates	22	49	43	12.5	11	0.12	340111380
Strap hinge eye plates	22	49	43	14.5	11	0.12	340111381
Strap hinge eye plates	22	49	43	16.5	11	0.12	340111382
Strap hinge eye plates	25	46	41	12.5	8	0.08	340111386
Strap hinge eye plates	27	48	47	12.5	8	0.10	340111385
Strap hinge eye plates	30	49	50	12.5	10	0.13	340111383
Strap hinge eye plates	30	49	50	16.5	10	0.13	340111384



Strap hinge eye plates
For tipper hinges, self colour,
weight 0.06 kg.
104111387

Suitable for tipper floor frame profile **370561026**.

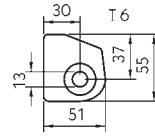


Strap hinge eye plates
For tipper hinges, self colour,
weight 0.04 kg.
104111388

Suitable for tipper floor frame profile 370561030.

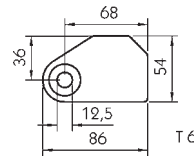
Strap hinge eye plates
For tipper hinges, self colour,
weight 0.11 kg.

215111389



Strap hinge eye plates
For tipper hinges, self colour,
weight 0.17 kg.

215111391



Accessories
For strap hinge eye plates.

Hinge pin 73 x 12 mm
With split pin, self colour, weight
0.08 kg.

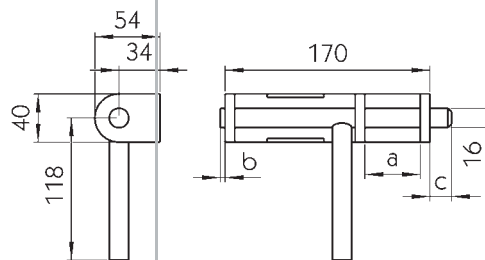
104111374



Sliding pin carriers for
tipper hinges



The values given under Dim. b are for open/closed positions, those under Dim. c are for the closed position only.



Sliding pin carrier
Self colour.

	Dim. a [mm]	Dim. b [mm]	Dim. c [mm]	Weight [kg]	
361/45	47	3/77	18	1.23	215111394
361/50	52	16/84	10	1.25	215111395

Retaining pins



More pins can be found under tipper ball joints.

No longer available

Bent arm pin 10 x 70

With chain and ring, chain length approx. 200 mm, self colour, weight 0.11 kg.

215101230

Bent arm pin 12 x 40

With drop nose, self colour, weight 0.12 kg.

125141023

Bent arm pin 12 x 65

With drop nose, weight 0.12 kg.

Self colour

125141024

Zinc plated

125141479

Bent arm pin 12 x 80

With drop nose, self colour, weight 0.16 kg.

125141019

Bent arm pin 12 x 100

Self colour, weight 0.16 kg.

215141021

Bent arm pin 13 x 62

With chain and plate, chain length approx. 150 mm, length, weight 0.22 kg.

215141025

Bent arm pin 16 x 75

With drop nose, self colour, weight 0.27 kg.

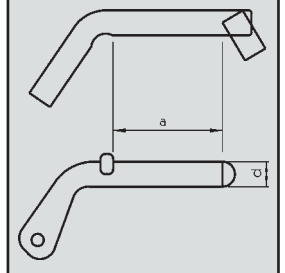
125141022

Bent arm pin

With chain and carbine 80, chain length approx. 220 mm, self colour.



The size designation of the bent arm pins relates to the diameter d and the useable length a.



Weight [kg]

Bent arm pin 16 x 70

0.35

215141027

Bent arm pin 20 x 85

0.55

215141029

Bent arm pin 24 x 100

0.74

215141030

No longer available

Bent arm pin
Self colour.

Weight
[kg]

Bent arm pin 16 x 70 mm	0.27	215141032
Bent arm pin 20 x 85 mm	0.46	215141034
Bent arm pin 24 x 100 mm	0.67	215141035

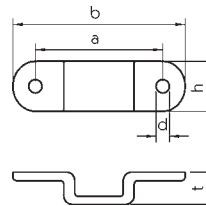


Accessories
For retaining pins.

Chain for retaining pin
With carbine 80, o/a length approx. 290 mm, self colour, weight 0.08 kg.
215141036



Pillar holder

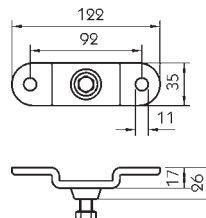


Pillar holders
Drop forged, zinc plated.

Nominal size	Dim. a [mm]	Dim. b [mm]	Dim. d [mm]	Dim. h [mm]	Dim. t [mm]	Weight [kg]	
10 x 30	84	112	8	38	17	0.22	215131488
10 x 35	84	112	8	38	17	0.19	103131489
10 x 40	78	110	8	40	17	0.22	103131490
13 x 40	104	145	11	43	20	0.32	103131491
20 x 40	104	141	11	41	27	0.34	103131492
22 x 43	102	144	11	40	29	0.33	103131493

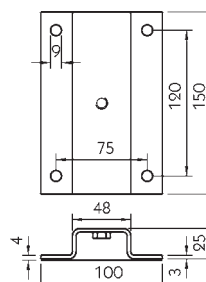
Pillar holder
Drop forged with locking screw M 10 x 25, suitable for pillars 10 x 40 mm., zinc plated, weight 0.31 kg.

103131710

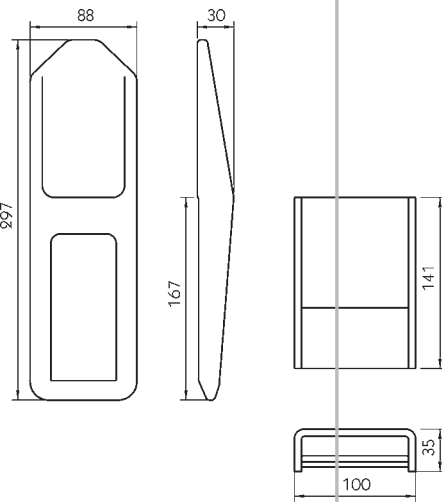


Pillar holder
With welded-in M 10 nut, sheet metal pressing, with welded-on back plate, suitable for 20 x 40 mm pillars (13 x 40 mm in the nut area), zinc plated, weight 0.46 kg.

215131495

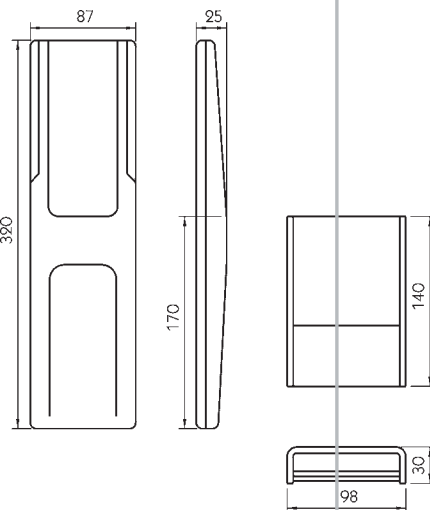
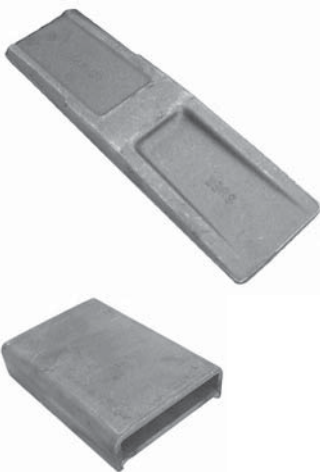


Pillar wedges and sockets



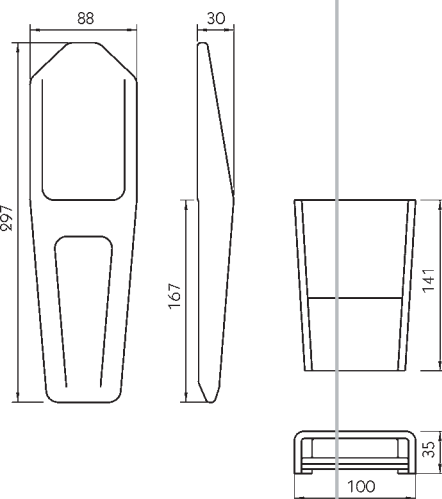
Pillar wedge 502-1
Self colour, weight 3.16 kg.
215121005

Pillar socket 502-3
Self colour, weight 1.19 kg.
215121006



Pillar wedge 500-1
Self colour, weight 3.71 kg.
215121030

Pillar socket 500-2
Self colour, weight 0.94 kg.
215121031



Pillar wedge 600-1
Self colour, weight 2.69 kg.
215121054

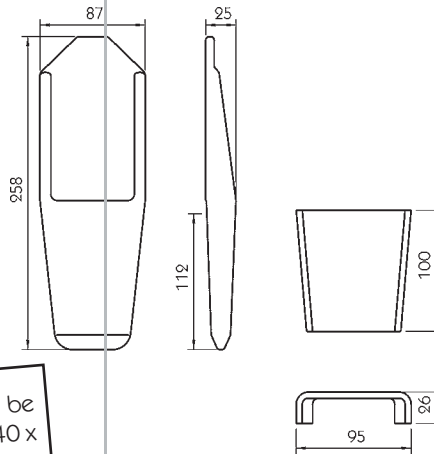
Pillar socket 600-2
Self colour, weight 1.11 kg.
215121055

Pillar wedge 602-1
Self colour, weight 2.27 kg.

215121244

Pillar socket 602-2
Self colour, weight 0.46 kg.

215121245



The pillar fastener **102102397** can also be obtained welded into U-profile 40 x 120 x 40 x 5 mm, suitable for side board heights 800 mm, 900 mm, 1000 mm, 1100 mm or 1200 mm. Price and delivery can be obtained from the vehicle building departments at Wermelskirchen or the branch offices.

The pillar fasteners H 12 are intended for use with retractable and removable pillars on tipper bodies and bodies for transporting long goods. They are welded into folded U-profiles. Both fasteners have a fitted depth of approx. 41 mm.

The complete fastener consists of the individual parts: pillar fastener, locking eye and pillar bearing. Please order all parts separately. Fastener body self colour, hand lever and locking mechanism zinc plated.

H 12/M 90

For U-profile 40 x 100 x 40 x 5 mm, dim. a = 88 mm, weight 5.60 kg.

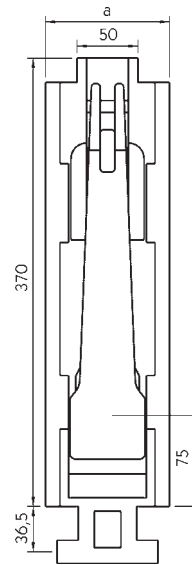
102102396

H 12/105

For U-profile 40 x 120 x 40 x 5 mm, dim. a = 103 mm, weight 6.55 kg.

102102397

Pillar fasteners



Accessories

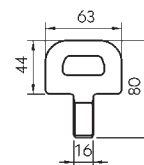
For pillar fastener.

The locking eye is screwed to the outer frame. The pillar is fastened by the locking eye reaching into the pillar through a window in the back of the U-profile where it is locked by the wedge in a bolting action.

Locking eye

With self-locking nut, self colour, weight 0.31 kg.

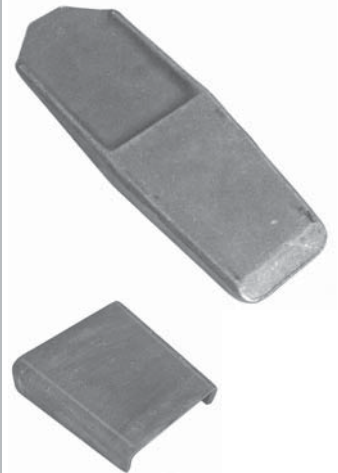
102102398



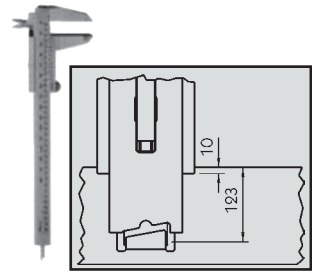
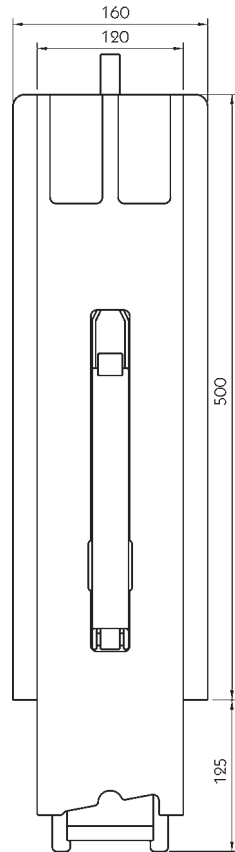
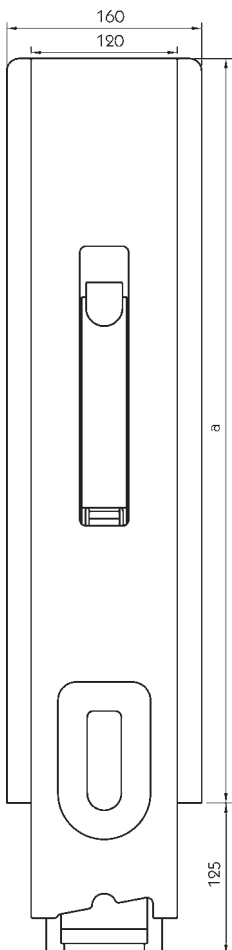
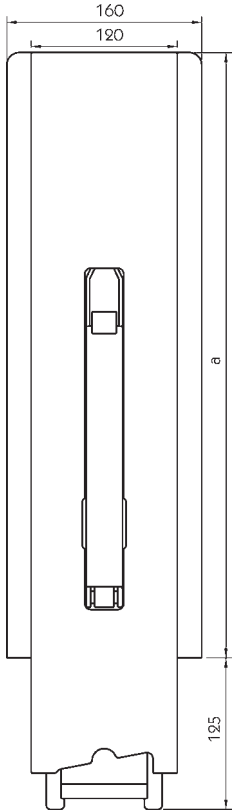
Pillar bearing

Self colour, weight 0.47 kg.

102102399



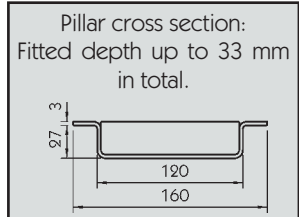
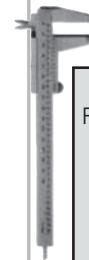
Pillars



6002 V

Please order retractable pillars and pillar sockets separately.

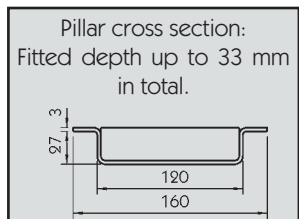
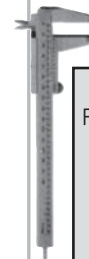
	Finish [mm]	Dim. a [mm]	Weight [kg]	
6002 V/4	KTL	400	6.54	101121457
6002 V/5	KTL	500	7.05	101121458



6002 V/5S

Please order retractable and sliding pillars with locator for centring device, pillar socket, separately, weight 8.07 kg.

KTL-coated				101121459
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701.11

Please order retractable pillars, pillar sockets separately, KTL coated.

	Dim. a [mm]	Weight [kg]	
701.11	615	9.80	101121454
701.12	815	11.75	101121455
701.13	1015	13.78	101121456

701.1

Retractable and sliding pillars with locator for centring device. Please order pillar socket separately.

	Finish [mm]	Dim. a [mm]	Weight [kg]	
701.6	KTL	665	14.65	101121444
701.8	KTL	865	15.15	101121445
701.10	KTL	1065	15.64	101121453

Accessories

For pillars 6002 V and 701.1.

6001 V/20

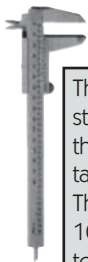
Pillar sockets for retractable pillars, weight 0.63 kg.

Self colour	101121405
KTL-coated	101121451

6001 VT/20

Pillar socket for retractable and sliding pillars, self colour, weight 0.63 kg.

101121406



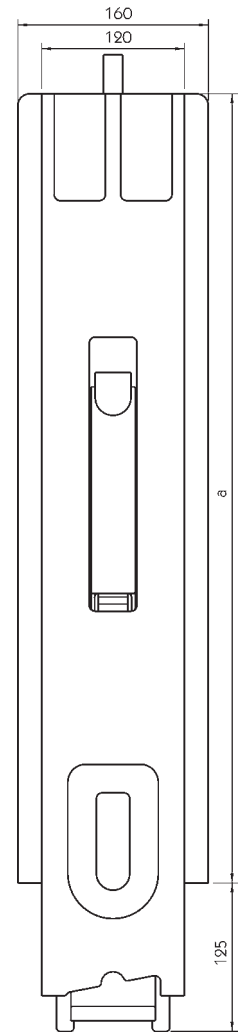
The centring device serves to connect the pillar to the roof, and is welded to the roof stand tube. The variant 6001 V/19 (101121403) is solely for retractable pillars. Opening the hand lever detaches the centring device from the pillar which can then be retracted or taken out.

The centring device 6001 VT/19 (101121404) is screwed to the pillar with the two M 8 x 10 socket screws provided. When the hand lever is opened, the pillar remains connected to the centring device but can be removed from the pillar socket and pushed to the side depending on the design of the roof.

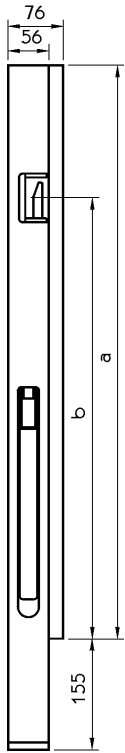
Centring device

Self colour, weight 1.88 kg.

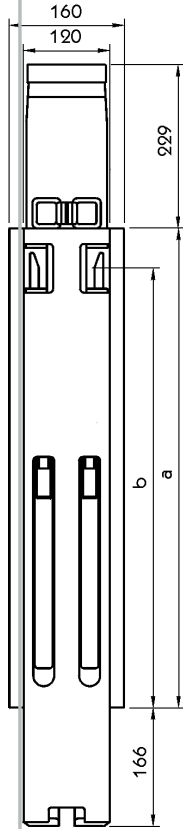
6001 V/19, for retractable pillars	101121403
6001 VT/19, for retractable and sliding pillars	101121404



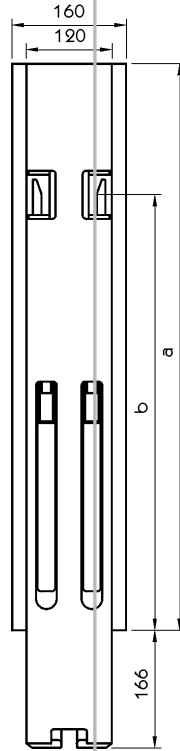
The following applies to all pillars:
Please order pillar socket separately. Pillar body black KTL coated.



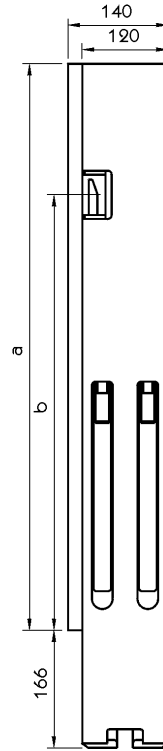
Corner pillar, front (left).



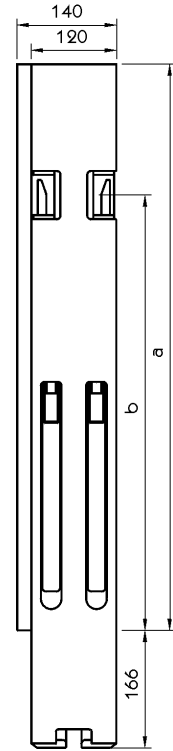
Centre pillar with locator for Kinnetop.



Centre pillar without locator for Kinnetop.



Corner pillar, rear (left), without fastener for tailboard.



Corner pillar, rear (left), with fastener for tailboard.

K IV For side board height 600 mm.

	Dim. a [mm]	Dim. b [mm]	Weight [kg]	
Corner pillar, front left	670	485	5.80	106121071
Corner pillar, front right	670	485	5.80	106121072
Centre pillar with locator for Kinnetop	541	485	13.40	106121069
Centre pillar without locator for Kinnetop	600	485	11.70	106121070
Corner pillar, rear left, without tailboard fastener	600	485	11.80	106121073
Corner pillar, rear right, without tailboard fastener	600	485	11.80	106121074
Corner pillar, rear left, with tailboard fastener	600	485	11.60	106121075
Corner pillar, rear right, with tailboard fastener	600	485	11.60	106121076

K IV For side board height 800 mm.

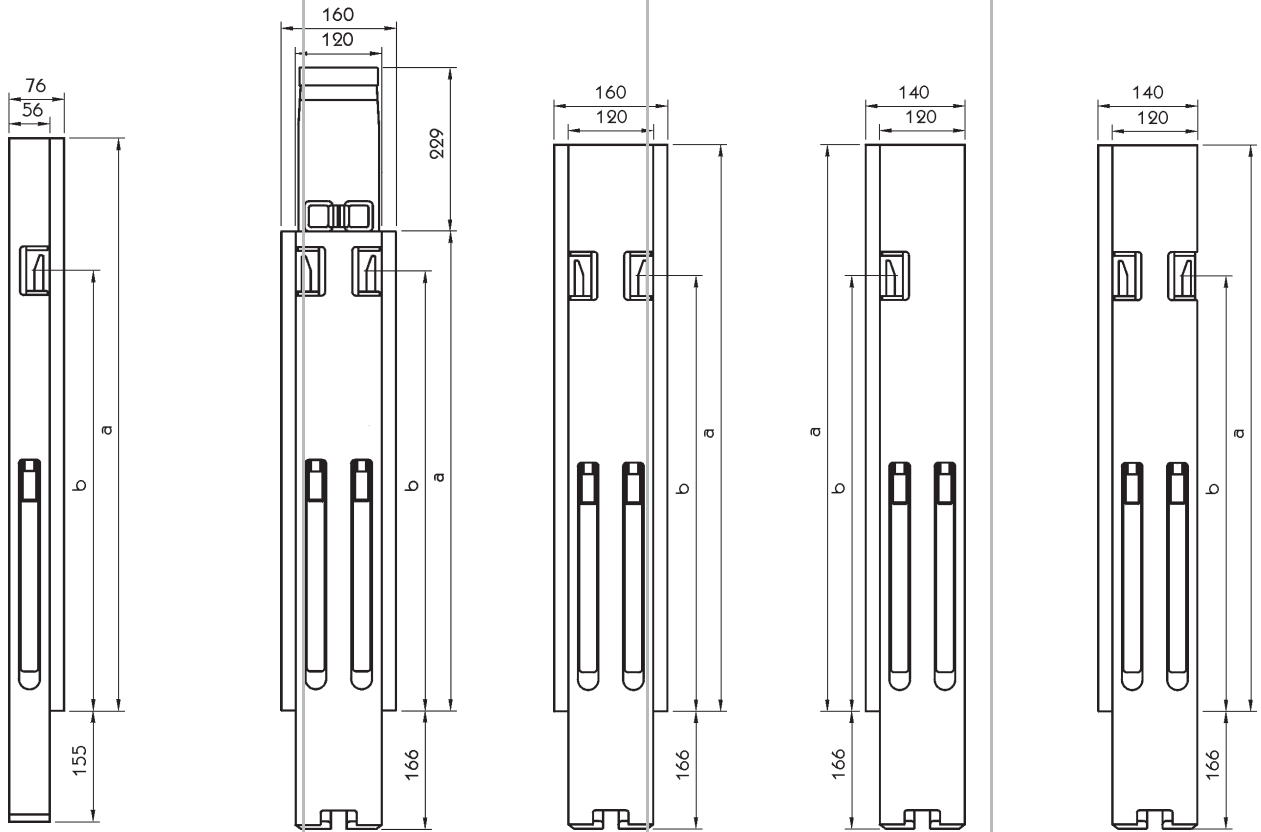
	Dim. a [mm]	Dim. b [mm]	Weight [kg]	
Corner pillar, front left	800	615	6.50	106121079
Corner pillar, front right	800	615	6.50	106121080
Centre pillar with locator for Kinnetop	671	615	15.00	106121077
Centre pillar without locator for Kinnetop	800	615	13.80	106121078
Corner pillar, rear left, without tailboard fastener	800	615	13.40	106121081
Corner pillar, rear right, without tailboard fastener	800	615	13.40	106121082
Corner pillar, rear left, with tailboard fastener	800	615	13.20	106121083
Corner pillar, rear right, with tailboard fastener	800	615	13.20	106121084

Further information can be obtained on the following page.



For 25 mm aluminium side boards, we recommend the edge profile 621136 in conjunction with the fastener keeper 106121148.

The following applies to all pillars:
Please order pillar socket separately.
Pillar body black KTL coated.



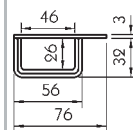
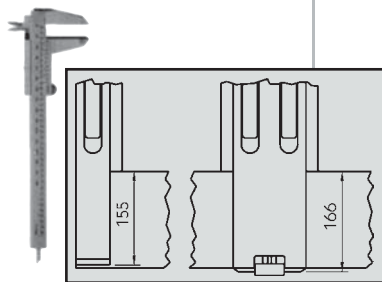
Corner pillar, front (left).

Centre pillar with locator for Kinnetop.

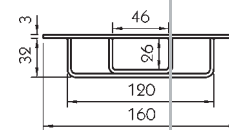
Centre pillar without locator for Kinnetop.

Corner pillar, rear (left), without fastener for tailboard.

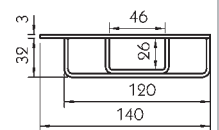
Corner pillar, rear (left), with fastener for tailboard.



Corner pillar, front (left).



Centre pillar



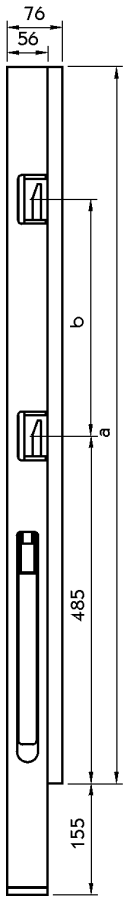
Corner pillar, rear (left).

These pillar cross sections apply to all K IV pillars.

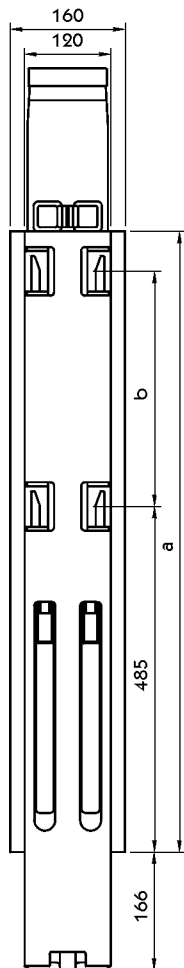
K IV
TIR spec. for side board height
800 mm.

	Dim. a [mm]	Dim. b [mm]	Weight [kg]	
Corner pillar, front left	800	615	6.70	106121099
Corner pillar, front right	800	615	6.70	106121100
Centre pillar with locator for Kinnetop	671	615	15.10	106121098
Centre pillar without locator for Kinnetop	800	615	13.90	106121146
Corner pillar, rear left, without tailboard fastener	800	615	13.50	106121101
Corner pillar, rear right, without tailboard fastener	800	615	13.50	106121102
Corner pillar, rear left, with tailboard fastener	800	615	13.40	106121103
Corner pillar, rear right, with tailboard fastener	800	615	13.40	106121104

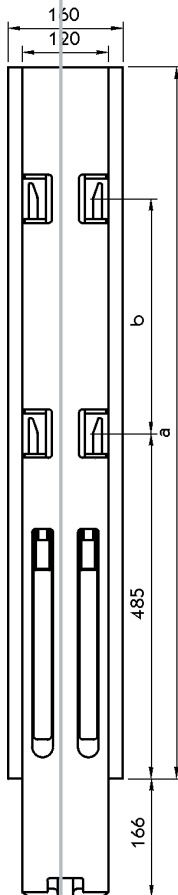
The following applies to all pillars:
Please order pillar socket separately.
Pillar body black KTL coated.



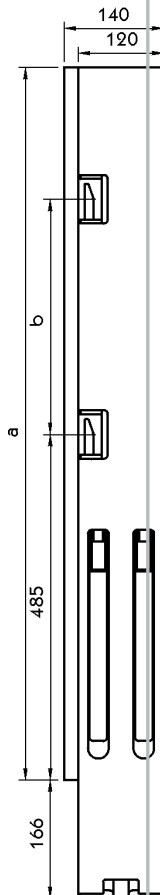
Corner pillar, front (left).



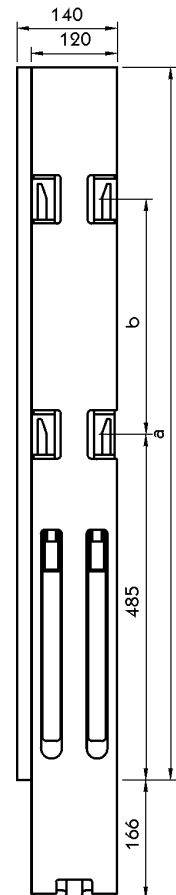
Centre pillar with locator for Kinnetop.



Centre pillar without locator for Kinnetop.



Corner pillar, rear (left), without fastener for tailboard.



Corner pillar, rear (left), with fastener for tailboard.

K IV

For side board height 1000 mm.

	Dim. a [mm]	Dim. b [mm]	Weight [kg]	
Corner pillar, front left	1000	330	7.80	106121087
Corner pillar, front right	1000	330	7.80	106121088
Centre pillar with locator for Kinnetop	871	330	16.90	106121085
Centre pillar without locator for Kinnetop	1000	330	16.00	106121086
Corner pillar, rear left, without tailboard fastener	1000	330	15.50	106121089
Corner pillar, rear right, without tailboard fastener	1000	330	15.50	106121090
Corner pillar, rear left, with tailboard fastener	1000	330	15.70	106121091
Corner pillar, rear right, with tailboard fastener	1000	330	15.70	106121092

K IV

For side board height 1200 mm.

	Dim. a [mm]	Dim. b [mm]	Weight [kg]	
Corner pillar, front left	1200	530	9.10	106121094
Corner pillar, front right	1200	530	9.10	106121095
Centre pillar with locator for Kinnetop	1071	530	19.50	106121137
Centre pillar without locator for Kinnetop	1200	530	18.50	106121093
Corner pillar, rear left, with tailboard faster	1200	530	17.80	106121096
Corner pillar, rear right, with tailboard faster	1200	530	17.80	106121097



For 25 mm aluminium side boards, we recommend the edge profile **621136** in conjunction with the fastener keeper **106121148**.

Spare parts/accessories
 For K IV pillars.

Hand lever repair kits

For corner pillar, front left	106121417
For corner pillar, front right	106121418
For rear centre pillar and corner pillar lever on left	106121411
For rear centre pillar and corner pillar, lever on right	106121412

Pillar sockets

Weld-on, self colour, weight 0.51 kg.

106121105

Keeper

Steel.

 Weight
 [kg]

Self colour	0.15	106121147
Zinc plated with screw fitting kit	0.21	106121148

Keeper

 Aluminium self-colour, weight
 0.07 kg.

106121106

Keeper

 All parts zinc plated steel, weight
 0.41 kg.

106121108

Kinetop profile

Self colour, weight 1.85 kg.

106121149

Coupling box

Self colour, weight 0.18 kg.

106121409

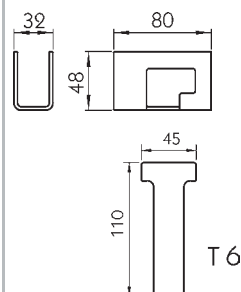
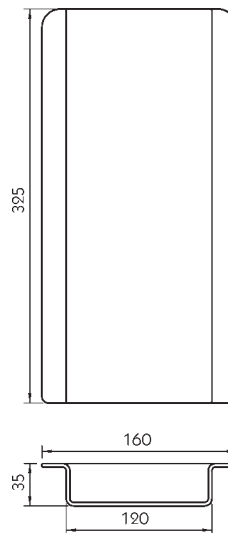
T-piece

Self colour, weight 0.12 kg.

106121410

Plastic cap

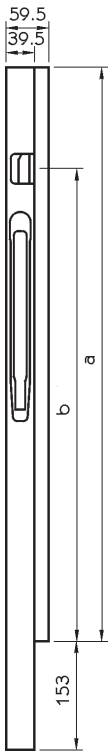
For centre pillars and corner pillars, rear	106121422
For corner pillar, front	106121423



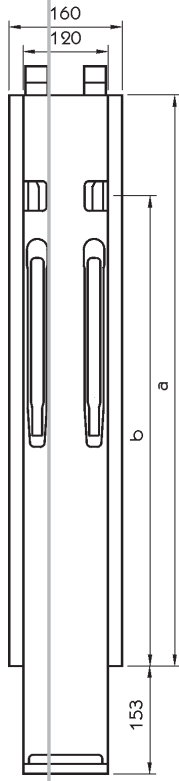
View on reverse side.



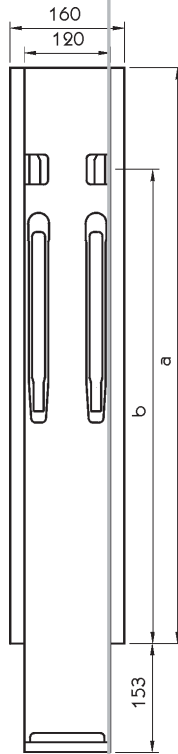
The following applies to all pillars:
Please order pillar socket separately. Pillar body black KTL coated.



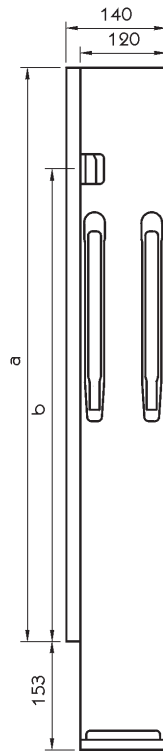
Corner pillar, front (left).



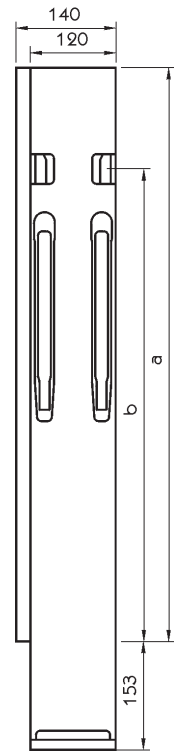
Centre pillar with locator for Kinnnetop.



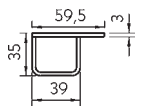
Centre pillar without locator for Kinnnetop.



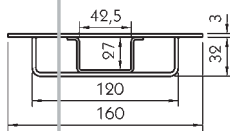
Corner pillar, rear (left), without fastener for tailboard.



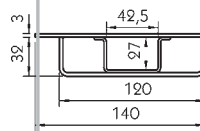
Corner pillar, rear (left), with fastener for tailboard.



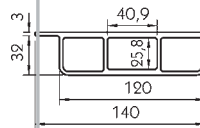
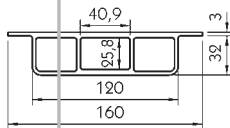
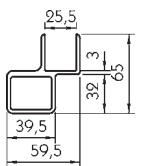
Corner pillar, front (left).



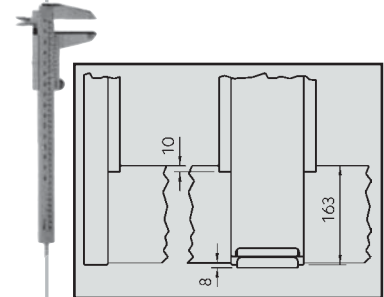
Centre pillar.



Corner pillar, rear (left).



These pillar cross sections apply to all pillars K 20, top row steel, bottom row aluminium.



K 20

For side board height 400 mm.

	Material	Dim. a [mm]	Dim. b [mm]	Weight [kg]	
Corner pillar, front left	steel	410	367	2.50	106121246
Corner pillar, front right	steel	410	367	2.50	106121247
Centre pillar without locator for Kinnnetop	steel	410	367	7.90	106121250
Centre pillar without locator for Kinnnetop	alumin.	410	367	4.70	106121251
Corner pillar, rear left, without tailboard fastener	steel	410	367	7.60	106121254
Corner pillar, rear right, without tailboard fastener	steel	410	367	7.60	106121255
Corner pillar, rear left, with tailboard fastener	steel	410	367	7.70	106121256
Corner pillar, rear right, with tailboard fastener	steel	410	367	7.70	106121257

K 20

For side board height 500 mm.

	Material	Dim. a [mm]	Dim. b [mm]	Weight [kg]	
Corner pillar, front left	steel	510	367	2.80	106121258
Corner pillar, front right	steel	510	367	2.80	106121259
Corner pillar, front left	alumin.	510	367	1.90	106121260
Corner pillar, front right	alumin.	510	367	1.90	106121261
Centre pillar with locator for Kinnetop	steel	510	367	8.60	106121263
Centre pillar without locator for Kinnetop	steel	510	367	8.90	106121262
Centre pillar with locator for Kinnetop	alum.	510	367	5.00	106121265
Centre pillar without locator for Kinnetop	alumin.	510	367	5.10	106121264
Corner pillar, rear left, without tailboard fastener	steel	510	367	8.60	106121266
Corner pillar, rear right, without tailboard fastener	steel	510	367	8.60	106121267
Corner pillar, rear left, with tailboard fastener	steel	510	367	8.70	106121268
Corner pillar, rear right, with tailboard fastener	steel	510	367	8.70	106121269
Corner pillar, rear left, with tailboard fastener	alum.	510	367	4.90	106121374
Corner pillar, rear right, with tailboard fastener	alum.	510	367	4.90	106121375

K 20

For side board height 600 mm.

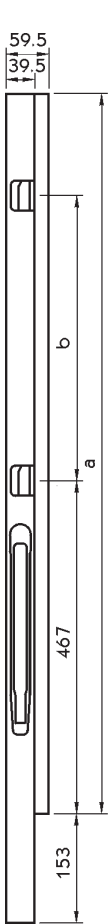
	Material	Dim. a [mm]	Dim. b [mm]	Weight [kg]	
Corner pillar, front left	steel	610	467	3.10	106121270
Corner pillar, front right	steel	610	467	3.10	106121271
Centre pillar with locator for Kinnetop	steel	610	467	9.50	106121275
Centre pillar without locator for Kinnetop	steel	610	467	9.80	106121274
Centre pillar with locator for Kinnetop	alumin.	610	467	5.30	106121277
Centre pillar without locator for Kinnetop	alumin.	610	467	5.40	106121276
Corner pillar, rear left, without tailboard fastener	steel	610	467	9.50	106121278
Corner pillar, rear right, without tailboard fastener	steel	610	467	9.50	106121279
Corner pillar, rear left, with tailboard fastener	steel	610	467	9.60	106121280
Corner pillar, rear right, with tailboard fastener	steel	610	467	9.60	106121281

K 20

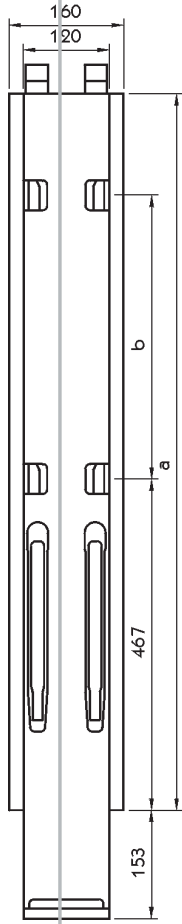
For side board height 800 mm, all pillars to TIR specification.

	Material	Dim. a [mm]	Dim. b [mm]	Weight [kg]	
Corner pillar, front left	steel	810	667	4.10	106121282
Corner pillar, front right	steel	810	667	4.10	106121283
Corner pillar, front left	alumin.	810	667	2.60	106121284
Corner pillar, front right	alumin.	810	667	2.60	106121285
Centre pillar with locator for Kinnetop	steel	810	667	11.80	106121287
Centre pillar without locator for Kinnetop	steel	810	667	12.10	106121286
Centre pillar with locator for Kinnetop	alumin.	810	667	6.30	106121289
Centre pillar without locator for Kinnetop	alumin.	810	667	6.40	106121288
Corner pillar, rear left, without tailboard fastener	steel	810	667	11.90	106121290
Corner pillar, rear right, without tailboard fastener	steel	810	667	11.90	106121291
Corner pillar, rear left, with tailboard fastener	steel	810	667	11.70	106121292
Corner pillar, rear right, with tailboard fastener	steel	810	667	11.70	106121293
Corner pillar, rear left, with tailboard fastener	alumin.	810	667	6.20	106121382
Corner pillar, rear right, with tailboard fastener	alumin.	810	667	6.20	106121383

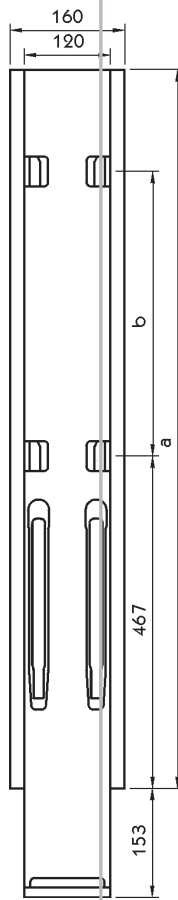
The following applies to all pillars:
Please order pillar socket separately. Pillar body black KTL coated.



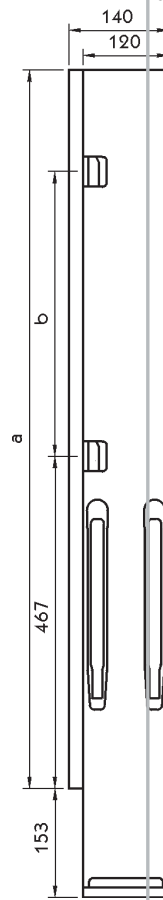
Corner pillar, front (left).



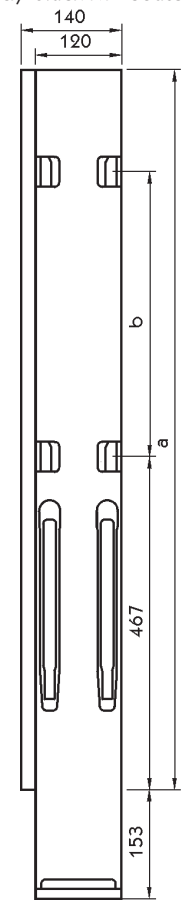
Centre pillar with locator for Kinnatop.



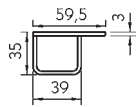
Centre pillar without locator for Kinnatop.



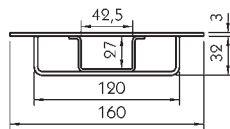
Corner pillar, rear (left), without fastener for tailboard.



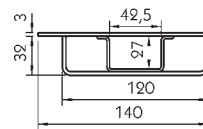
Corner pillar, rear (left), with fastener for tailboard.



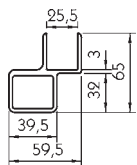
Corner pillar, front (left).



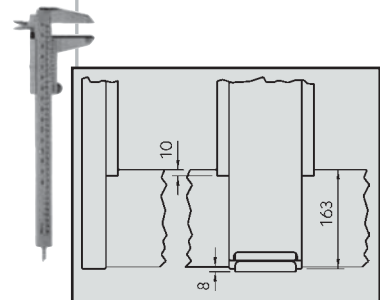
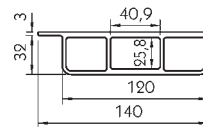
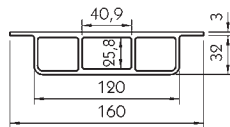
Centre pillar.



Corner pillar, rear (left).



These pillar cross sections apply to all pillars K 20, top row steel, bottom row aluminium.



K 20

For side board height 800 mm.

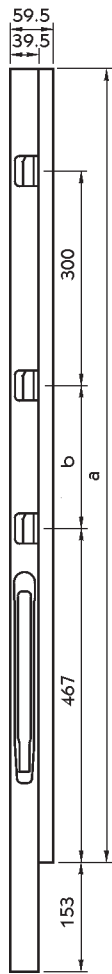
	Material	Dim. a [mm]	Dim. b [mm]	Weight [kg]	
Corner pillar, front left	steel	810	200	4.00	106121294
Corner pillar, front right	steel	810	200	4.00	106121295
Corner pillar, front left	alumin.	810	200	2.50	106121296
Corner pillar, front right	alumin.	810	200	2.50	106121297
Centre pillar with locator for Kinnnetop	steel	810	667	11.80	106121299
Centre pillar without locator for Kinnnetop	steel	810	200	12.00	106121298
Centre pillar with locator for Kinnnetop	alumin.	810	200	6.50	106121301
Centre pillar without locator for Kinnnetop	alum.	810	200	6.60	106121300
Corner pillar, rear left, without tailboard fastener	steel	810	200	11.70	106121302
Corner pillar, rear right, without tailboard fastener	steel	810	200	11.70	106121303
Corner pillar, rear left, with tailboard fastener	steel	810	200	11.60	106121304
Corner pillar, rear right, with tailboard fastener	steel	810	200	11.60	106121305

K 20

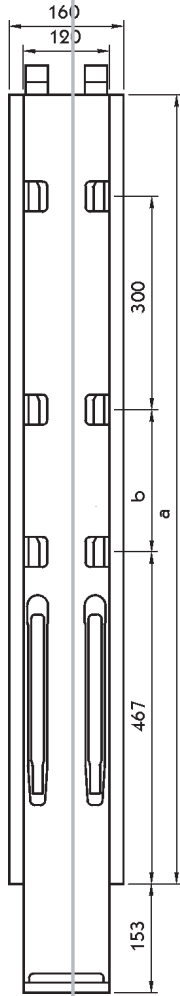
For side board height 1000 mm.

	Material	Dim. a [mm]	Dim. b [mm]	Weight [kg]	
Corner pillar, front left	steel	1010	400	4.90	106121306
Corner pillar, front right	steel	1010	400	4.90	106121307
Centre pillar with locator for Kinnnetop	steel	1010	400	13.80	106121311
Centre pillar without locator for Kinnnetop	steel	1010	400	14.20	106121310
Centre pillar, rear left, without tailboard fastener	steel	1010	400	13.50	106121314
Centre pillar, rear right, without tailboard fastener	steel	1010	400	13.50	106121315
Corner pillar, rear left, with tailboard fastener	steel	1010	400	13.70	106121316
Corner pillar, rear right, with tailboard fastener	steel	1010	400	13.70	106121317

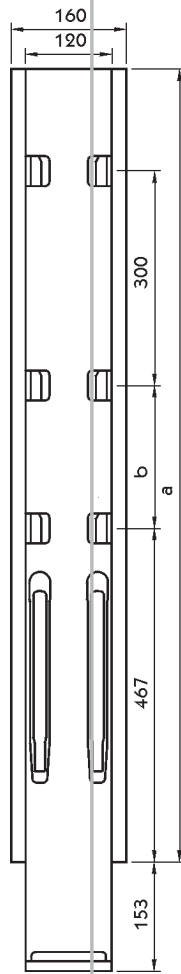
The following applies to all pillars:
Please order pillar socket separately. Pillar body black KTL coated.



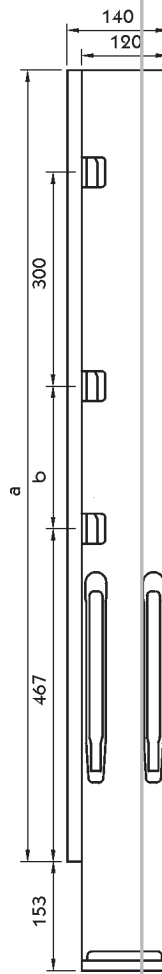
Corner pillar, front (left).



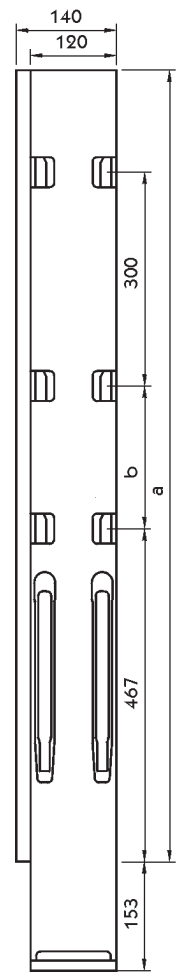
Centre pillar with locator for Kinnetop.



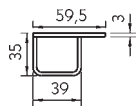
Centre pillar without locator for Kinnetop.



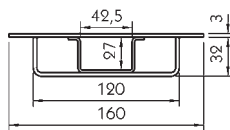
Corner pillar, rear (left), without fastener for tailboard.



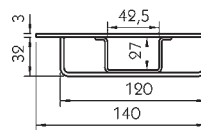
Corner pillar, rear (left), with fastener for tailboard.



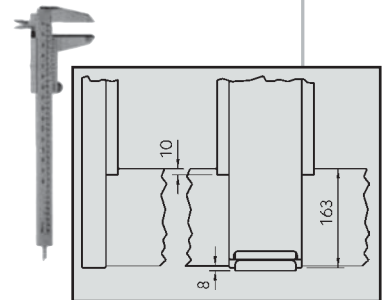
Corner pillar, front (left).



Centre pillar.



Corner pillar, rear (left).



K 20

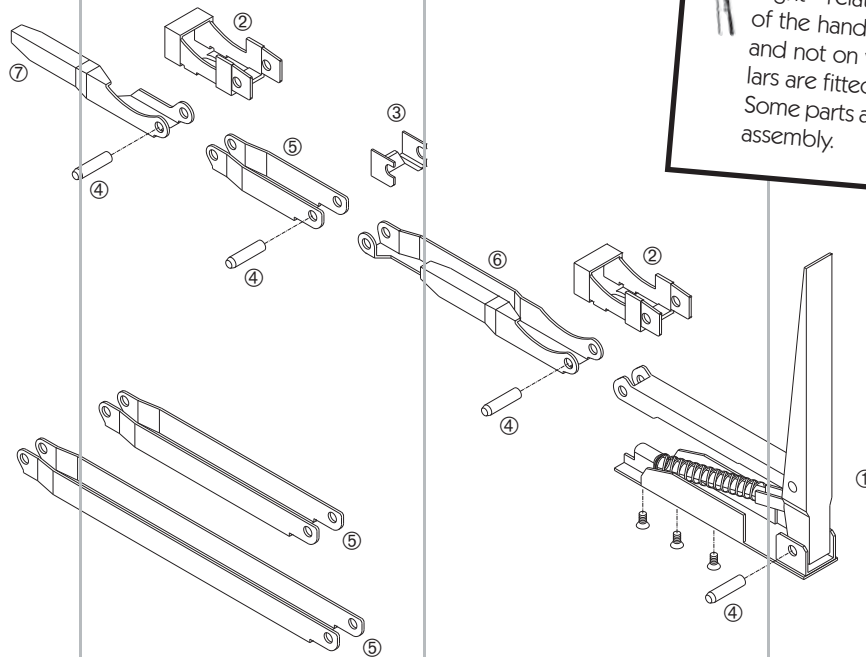
For side board height 1100 mm, only available in steel.

	Dim. a [mm]	Dim. b [mm]	Weight [kg]	
Corner pillar, front left	1110	200	5.30	106121318
Corner pillar, front right	1110	200	5.30	106121319
Centre pillar with locator for Kinnetop	1110	200	14.80	106121323
Centre pillar without locator for Kinnetop	1110	200	15.10	106121322
Corner pillar, rear left, without tailboard fastener	1110	200	14.40	106121326
Corner pillar, rear right, without tailboard fastener	1110	200	14.40	106121327
Corner pillar, rear left, with tailboard fastener	1110	200	14.60	106121328
Corner pillar, rear right, with tailboard fastener	1110	200	14.60	106121329

K 20

For side board height 1200 mm,
only available in steel.

	Dim. a [mm]	Dim. b [mm]	Weight [kg]	
Corner pillar, front left	1210	300	5.70	106121330
Corner pillar, front right	1210	300	5.70	106121331
Centre pillar with locator for Kinnetop	1210	300	16.40	106121335
Centre pillar without locator for Kinnetop	1210	300	16.80	106121334
Corner pillar, rear left, without tailboard fastener	1210	300	15.70	106121338
Corner pillar, rear right, without tailboard fastener	1210	300	15.70	106121339
Corner pillar, rear left, with tailboard fastener	1210	300	16.20	106121340
Corner pillar, rear right, with tailboard fastener	1210 </td <td>300</td> <td>16.20</td> <td>106121341</td>	300	16.20	106121341



Spare parts
For K 20.

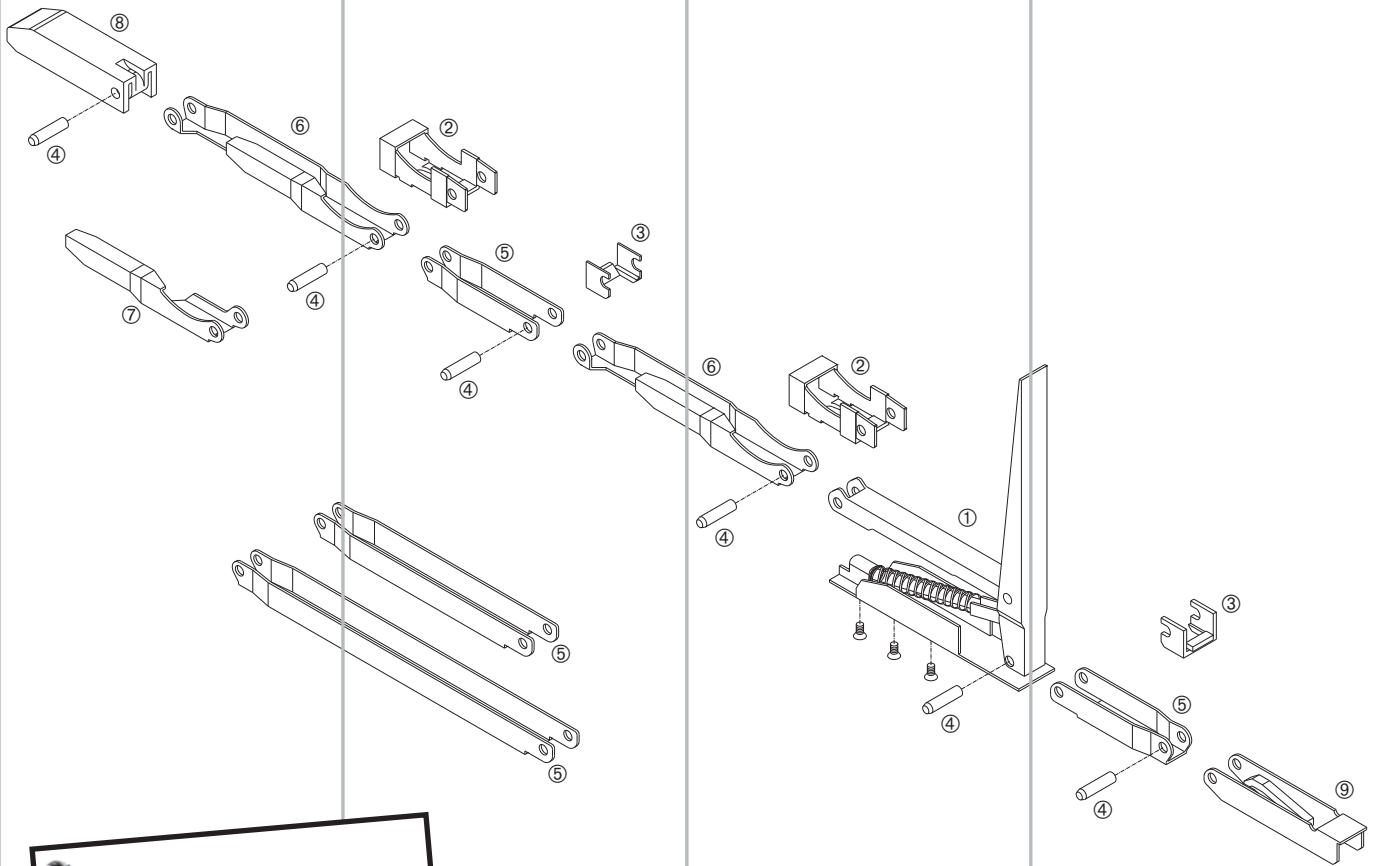



Please note:
The designations "left" and "right" relate to the position of the hand lever on the pillar, and not on which side the pillars are fitted to the body. Some parts are repeated in the assembly.

For front corner pillars

Item

① Hand lever repair kit, incl. 3 torx screws M 5 x 10 similar to DIN 7991 and 2 linkage pins \varnothing 8 x 32 mm	106121419
② Guide, large	106121430
③ Guide, small	106121432
④ Linkage pins, \varnothing 8 x 32 mm	106121438
⑤ Intermediate link, linkage pin hole spacing 100 mm	106121433
Intermediate link, linkage pin hole spacing 200 mm	106121431
Intermediate link, linkage pin hole spacing 300 mm	106121436
⑥ Side board bolt, left	106121437
Side board bolt, right	106121420
⑦ Side board bolt, left	106121435
Side board bolt, right	106121421



 Please note:
The designations "left" and "right" relate to the position of the hand lever on the pillar, and not on which side the pillars are fitted to the body. Some parts are repeated in the assembly.

For centre pillars and rear corner pillars

Item

① Hand lever repair kit, incl. 3 torx screws M 5 x 10 similar to DIN 7991 and 2 linkage pins \varnothing 8 x 32 mm	106121366
② Guide, large	106121430
③ Guide, small	106121432
④ Linkage pins, \varnothing 8 x 32 mm	106121438
⑤ Intermediate link, linkage pin hole spacing 100 mm	106121433
Intermediate link, linkage pin hole spacing 200 mm	106121431
Intermediate link, linkage pin hole spacing 300 mm	106121436
⑥ Side board bolt, left	106121437
Side board bolt, right	106121420
⑦ Side board bolt, left	106121435
Side board bolt, right	106121421
⑧ Kinnetop bolt	106121429
⑨ Socket wedge	106121434

Supply of the screw-on pillar socket **105121407** includes:
 1 pillar socket, 1 spacer plate, 2 socket screws M 10 x 35 to DIN 912,
 2 c/sunk screws M 10 x 60 to DIN 7991, 4 washers M 10 to DIN 125
 and 4 self-locking nuts M 10 to DIN 980.
 Spacer plate inox, other parts zinc plated.

Pillar sockets

Weld-on, self colour, weight 0.57 kg	106121346
Screw-on, weight 0.82 kg	105121407

Supply of the weld-on kit
106121349 includes:
 1 pillar socket **106121346**, 1 weld-
 ing jig **106121351** and 2 weld
 protection caps **106121350**.

Weld-on set **106121349**

Weld protection cap **106121350**

Welding jig **106121351**

Keeper Self colour.

① With screw set, weight 0.11 kg	106121347
② Weld-on, weight 0.07 kg	106121357

Keeper

③ For tailboard, zinc plated,
 weight 0.28 kg.

106121356

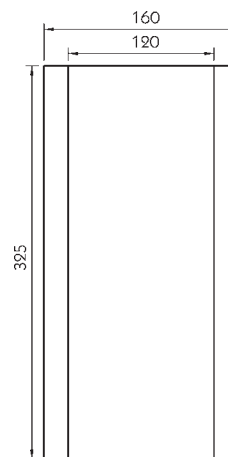
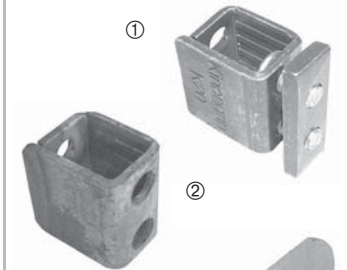
Kinnetop stand Self colour.

	Dim. a [mm]	Weight [kg]	
For 500 mm pillars	297	3.57	106121358
For 600 mm pillars	347	3.65	106121359
For 800 - 1200 mm pillars	447	3.98	106121360

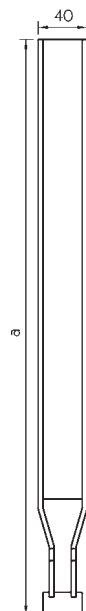
Kinnetop tube Self colour.

	Dim. a [mm]	Weight [kg]	
For 500 + 600 mm pillars	474	1.70	106121361
For 800 - 1200 mm pillars	574	2.13	106121362

Accessories For K 20.



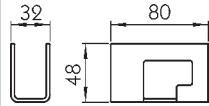
Stand



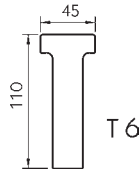
Tube



Pin 10 x 40 mm
For fitting the Kinnetop stand or tube to the pillar, weight 0.03 kg.
106121345



Coupling box
Self colour, weight 0.18 kg.
106121409



T-piece
Self colour, weight 0.12 kg.
106121410



Plastic caps
For centre pillars and rear corner pillars **106121408**
For front corner pillars **106121364**



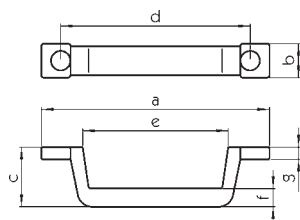
Tee handle allen key
For keeper and pins **106121352**
For locking device linkage **106121365**

Ventilation grille



Ventilation grille
Aluminium, 250 x 70 mm, weight 0.06 kg.
215131547

Hand grips



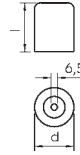
Hand grips
Polyurethane foam bonded to zinc plated steel core, black.

Dim. a [mm]	Dim. b [mm]	Dim. c [mm]	Dim. d [mm]	Dim. e [mm]	Dim. f [mm]	Dim. g [mm]	Weight [kg]	
188	30	50	155	120	18	10	0.1	215131511
280	30	55	255	196	18	15	0.2	215131512

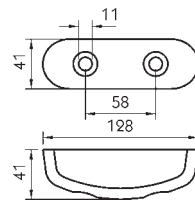
Ram buffers and ram guards

Door buffers
Rubber.

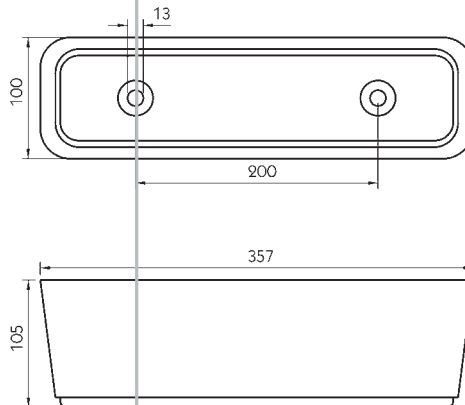
Dim. d [mm]	Dim. l [mm]	Weight [kg]	
30	17	0.017	215101824
30	25	0.026	215101825
30	34	0.034	215101826
40	25	0.042	215101827
40	35	0.061	215101828
40	40	0.071	215101829
40	50	0.090	215101830



Ram buffer
Weight 0.21 kg.
335102714



Ram buffer
Weight 3.14 kg.
335102694

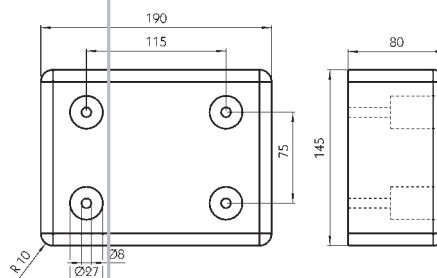


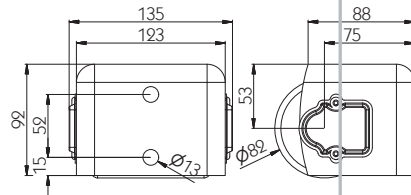
Ram buffers

Length [mm]	Width [mm]	Height [mm]	Weight [kg]	
400	52	60	1.4	335101391
200	52	60	0.7	335101392
320	35	60	0.6	335101637



Ram buffer
Vulcanised recycling rubber,
weight 2.5 kg.
335102551

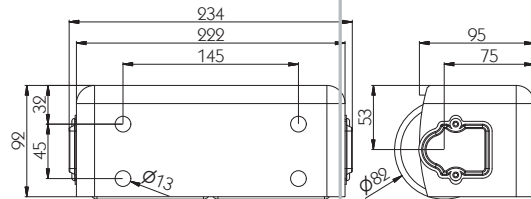




Ram buffer, 1 roller

Roller spring loaded, loose, steel parts zinc plated, weight 2.87 kg.

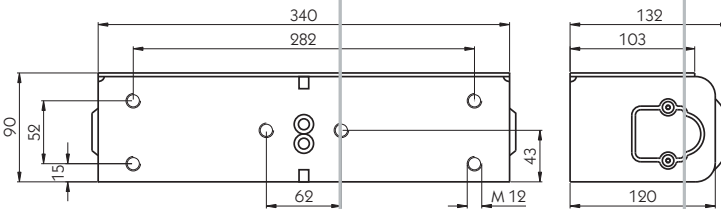
335102769



Ram buffer, 2 roller

Roller spring loaded, loose, steel parts zinc plated, weight 4.71 kg.

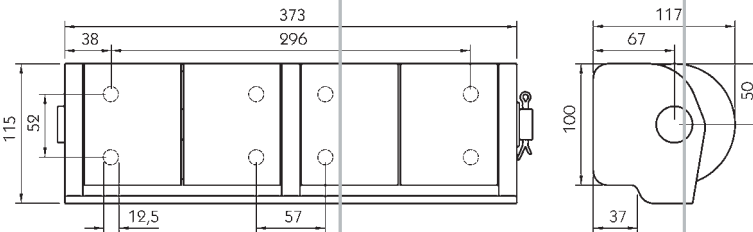
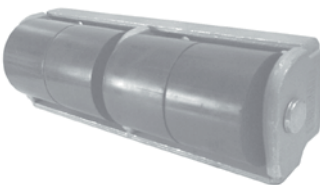
335102754



Ram buffer, 2 roller

Roller spring loaded, loose, steel parts zinc plated, weight 6.34 kg.

335102755



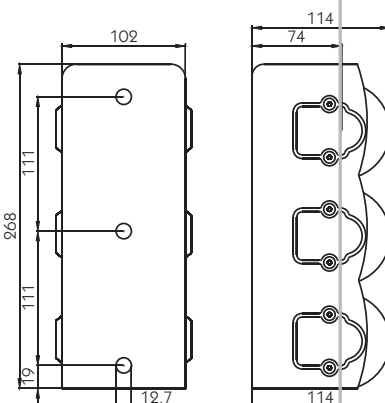
Ram buffer 4 roller

Rubber rollers with bushes, steel parts zinc plated, weight 11.48 kg.

335102688

Included in the supply are:

4 rubber rollers $\varnothing 98 \times 79$ mm, 1 housing, 1 spindle $\varnothing 25 \times 390$ mm, 1 washer to DIN 125 A25 and 1 Split pin 6 x 40 to DIN 94.



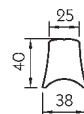
Ram buffer, 3 roller

Roller spring loaded, loose, steel parts zinc plated, weight 6.50 kg.

335102689

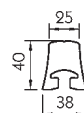
Ram guard profile
Length 3000 mm, PVC, weight
1.39 kg/m.

335101905



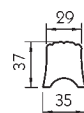
Ram guard profile
With T-slot to fit carriage bolts to
DIN 603-M8, length 3000 mm,
PVC, weight 1.33 kg/m.

335102647



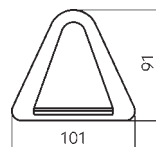
Ram guard profile
Length 3000 mm, PVC, weight
1.35 kg/m.

335101996



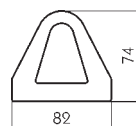
Ram guard profile
Length 2600 mm, rubber, weight
5.00 kg/m.

335102417



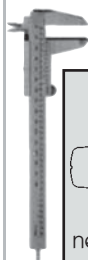
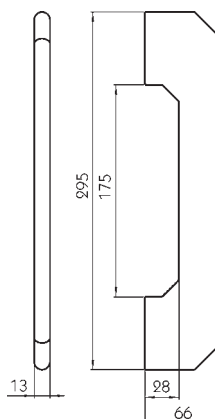
Ram guard profile
Length 2600 mm, rubber, weight
3.50 kg/m.

335102418

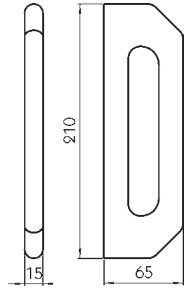


Ramp collision guard
Galvanised, also serves as dis-
mounting aid handhold, weight
0.96 kg.

215141315

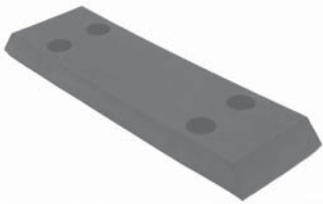


The T-slot dis-
penses with the
very time inten-
sive drilling and
chamfering
necessary with conventio-
nal ram guard profiles.



Ramp collision guard
 Galvanised, weight 0.90 kg.
215141316

Pads for tipper bodies

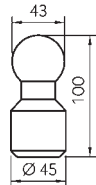


Pads for tipper bodies
 Rubber, shore hardness 80°.

Width [mm]	Length [mm]	Thickness [mm]	Weight [kg]	
60	200	15	0.36	215141071
70	255	15	0.51	215141072
70	255	12	0.47	215141073
90	255	15	0.64	215141074
90*	245	21	0.79	215141075
105	260	15	0.70	215141076

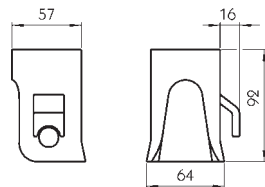
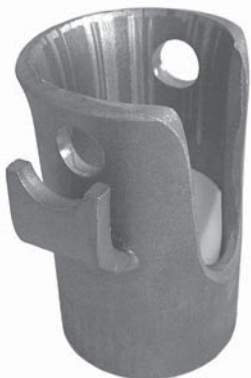
* 2-hole type, centre

Tipper ball joints



1002
 For welding, self colour, weight 0.92 kg.
109141334

The tipper ball joints 1000 with 43 mm ball diameter can be deployed on light tipper bodies on goods vehicles, trailers and agricultural vehicles up to 8 tons GVW.
 Tipping angle to max. 50°.



1001
 Retaining pin holes 16/16 mm, self colour, weight 1.62 kg.

The Durethane shell is supplied loose with all tipper sockets.

Left **109141335**
 Right **109141336**

Durethane shell
 Spare part for tipper socket 1001.
109141338

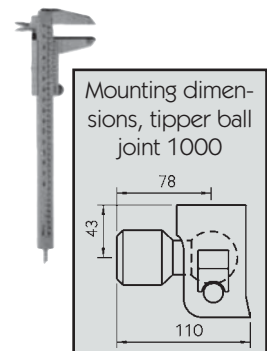


Illustration: left hand

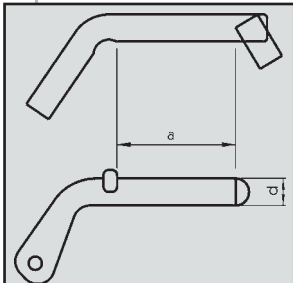
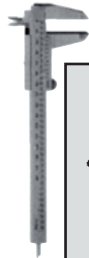
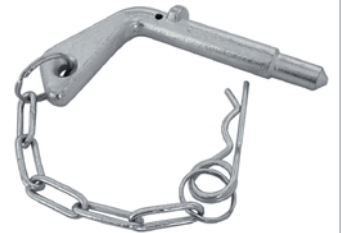


1004
16/16 x 70 mm, spring cotter
zinc plated, weight 0.30 kg.

Retaining pin, surface zinc-nickel alloy **109141337**
Retaining pin, zinc plated **109141584**

No longer available

Retaining pin
16/12 x 70 mm, zinc plated,
weight 0.29 kg.
624643057

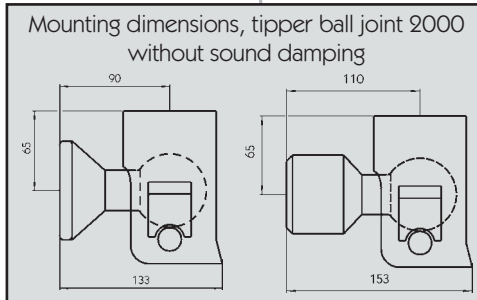
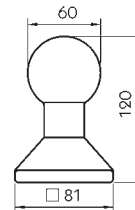
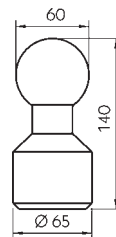


The size designation of the retaining pins relates to the diameter d and the useable length a.

The tipper ball joints 2000 with 60 mm ball diameter can be deployed on all tipper bodies on goods vehicles, trailers and agricultural vehicles up to 12 t GVW.
Tipping angle to max. 50°.

2002
Self colour.

With round stub, weight 2.44 kg **109141255**
With square stub, weight 2.25 kg **109141256**



The different retaining pin hole sizes result in a crossover safeguard with diagonal mounting of the same tipper ball joints, so that the danger of accidental damage to the tipper arms, caused by wrongly inserted retaining pins, is excluded.

2001
Self colour, weight 1.62 kg.

Retaining pin holes 19/19 mm **109141257**
Retaining pin holes 20/18 mm **109141258**

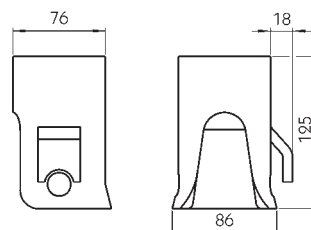


Illustration: 109141257

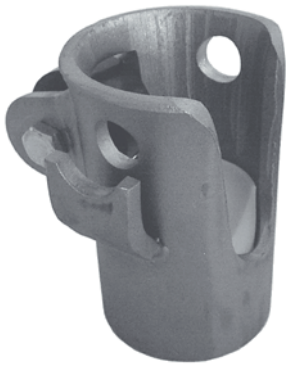
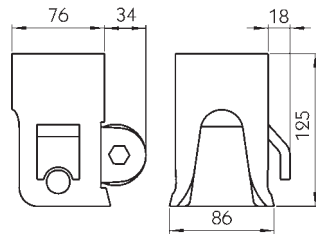


Illustration: 109141259



2001

With sound damping, self colour, weight 1.81 kg.

Retaining pin holes 19/19 mm

109141259

Retaining pin holes 20/18 mm

109141260

Spare parts
For tipper ball joint 2000.



Durethane shell

With fixing screw.

109141263



Vulkollan sound damping roller

Ø 50 x 20 x 18 mm.

109141264



2004

19/19 x 85 mm, weight 0.49 kg.

109141261

Retaining pin surface zinc-nickel alloy, spring cotter zinc plated.

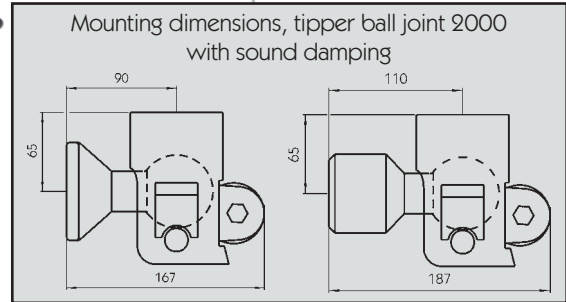
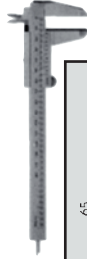


2004

20/18 x 65/85 mm, weight 0.50 kg.

109141262

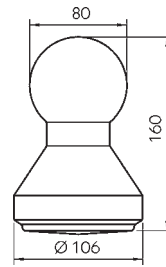
Retaining pin surface zinc-nickel alloy, spring cotter zinc plated.



The tipper ball joints 3000 with 80 mm ball diameter can be deployed on all tipper bodies on goods vehicles, trailers and semi trailers up to 24 t GVW. Tipping angle to max. 50°.

The different retaining pin hole sizes result in a crossover safeguard with diagonal mounting of the same tipper ball joints, so that the danger of accidental damage to the tipper arms, caused by wrongly inserted retaining pins, is excluded.

3002
Self colour, weight 5.58 kg.
109141265



3001
With sound damping, self colour, weight 3.77 kg.

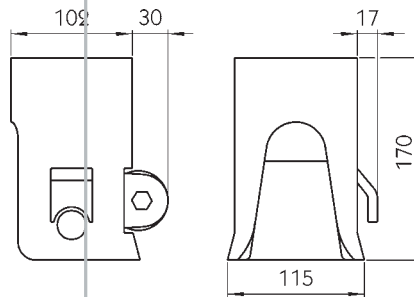


Illustration: 109141267

Retaining pin holes 24/24 mm **109141267**
Retaining pin holes 25/22 mm **109141268**

Spare parts
For tipper ball joint 3000.

Durethane shell
With fixing screw.
109141271



Vulkollan sound damping roller
Ø 50 x 42 x 18 mm.
109141272



Eccentric screw
109141273



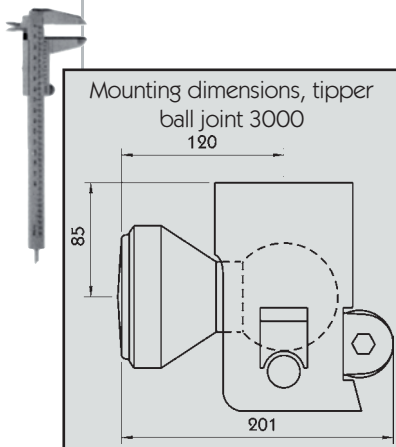
3004
24/24 x 120 mm, weight 0.87 kg.

① 1-pin locking **109141269**
② 3-pin locking **109141555**

Retaining pin surface zinc-nickel alloy, spring cotter zinc plated.

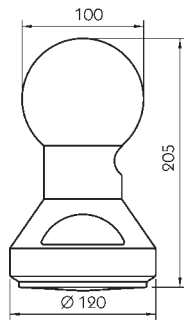
3004
25/22x85/120mm, weight 0.87 kg.

③ 1-pin locking **109141270**
④ 3-pin locking **109141556**



Retaining pin surface zinc-nickel alloy, spring cotter zinc plated.

Retaining pin surface zinc-nickel alloy, spring cotter zinc plated.

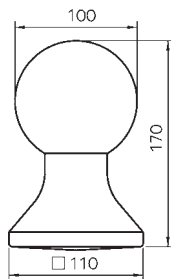
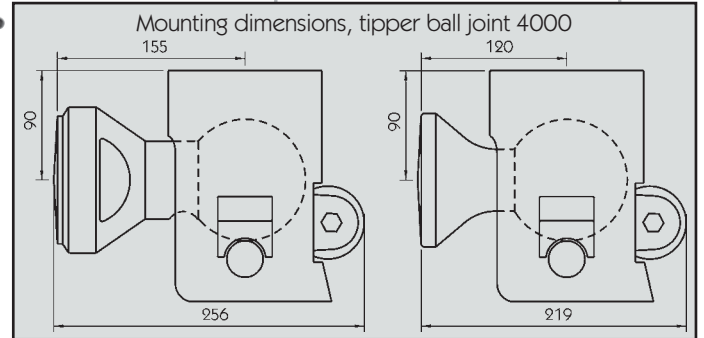


4002

With round stub, self colour, weight 9.70 kg.

109141274

The tipper ball joints 4000 with 100 mm ball diameter can be deployed on all tipper bodies on goods vehicles, trailers and semi trailers up to 40 t GVW. Tipping angle to max. 50°.

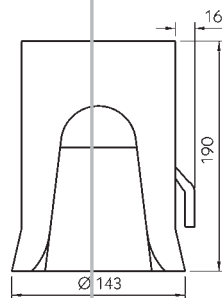
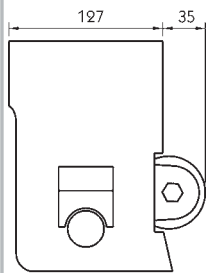


4002

With square stub, self colour, weight 7.64 kg.

109141275

The different retaining pin hole sizes result in a crossover safeguard with diagonal mounting of the same tipper ball joints, so that the danger of accidental damage to the tipper arms, caused by wrongly inserted retaining pins, is excluded.



4001

With sound damping, self colour, weight 6.58 kg.

Retaining pin holes 30/30 mm

109141276

Retaining pin holes 32/28 mm

109141277

Illustration: 109141276

Spare parts
For tipper ball joint 4000.

Durethane shell

With fixing screw.

109141280

Vulkollan sound damping roller

Ø 60 x 42 x 18 mm.

109141371

Eccentric screw

109141273



Retaining pin surface zinc-nickel alloy, spring cotter zinc plated.

4004
30/30 x 140 mm, weight 1.39 kg.

- ① 1-pin locking 109141278
- ② 3-pin locking 109141557

Retaining pin surface zinc-nickel alloy, spring cotter zinc plated.

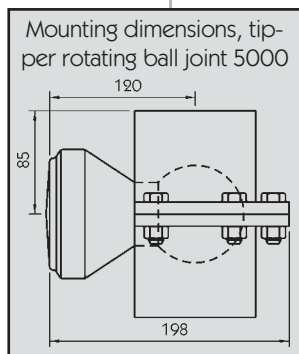
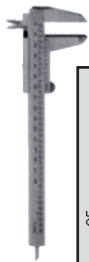
4004
32/28 x 108/140 mm, weight 1.47 kg.

- ③ 1-pin locking 109141279
- ④ 3-pin locking 109141558

The tipper rotating ball joint 5000 with 80 mm ball diameter can be deployed on all rear tipping bodies on goods vehicles, trailers and semi-trailers up to 24 t GVW. Tipping angle to max. 50°.

5001
Top half + bottom half are the same, please order 2 pieces for one tipper rotating ball joint. Self colour, weight 6.17 kg.

109141283

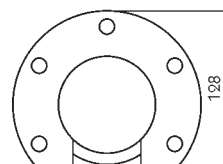
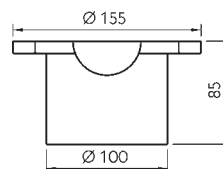
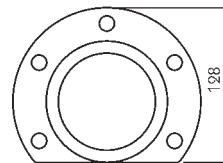
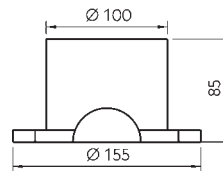


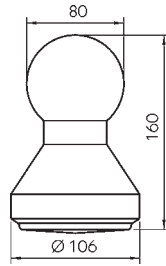
Durethane shell
Spare part for tipper rotating ball joint 5000, with fixing screw.

109141271

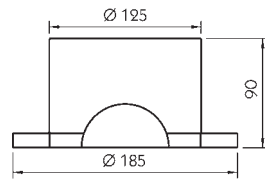


Tipper rotating ball joints



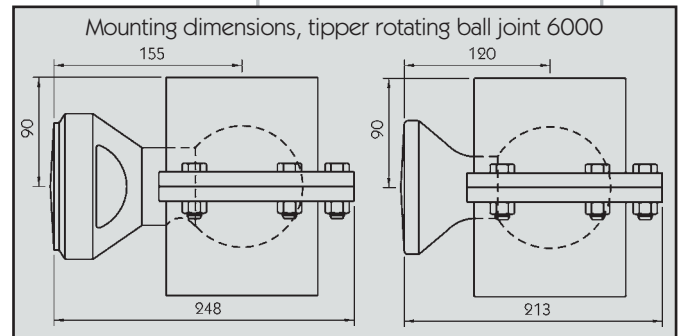
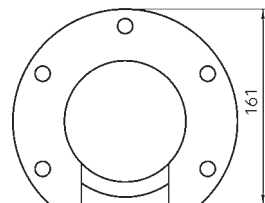
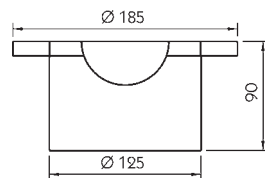


3002
Self colour, weight 5.58 kg.
109141265



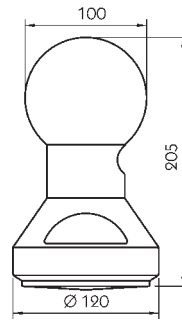
6001
Top half + bottom half are the same, please order 2 pieces for one tipper rotating ball joint. Self colour, weight 10.09 kg.
109141285

The tipper rotating ball joint 6000 with 100 mm ball diameter can be deployed on all rear tipping bodies on goods vehicles, trailers and semi-trailers up to 40 t GW. Tipping angle to max. 50°.

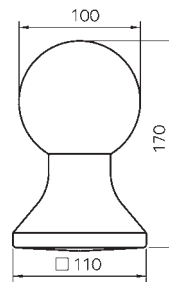


Durethane shell
Spare part for tipper rotating ball joint 6000, with fixing screw.
109141280

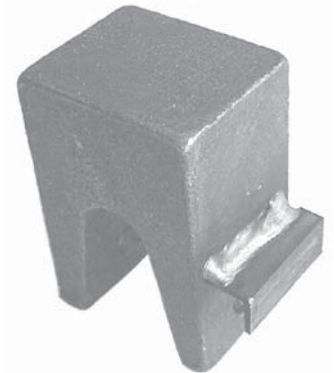
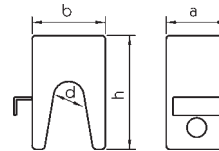
4002
With round stub, self colour,
weight 9.70 kg.
109141274



4002
With square stub, self colour,
weight 7.64 kg.
109141275



Tipper arm bearing



Tipper arm bearing
Self colour.

	Dim. a [mm]	Dim. b [mm]	Dim. h [mm]	Dim. d [mm]	Weight [kg]	
Size 1	50	60	94	25	1.53	215141037
Size 2	60	80	128	35	3.15	215141038

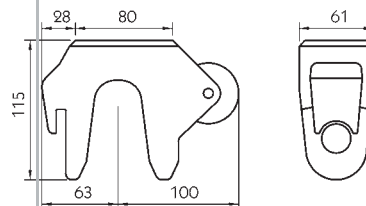
Retaining pin
Self colour.

	Weight [kg]	
Retaining pin 16 x 70 mm, for size 1	0.27	215141032
Retaining pin 20 x 85 mm, for size 2	0.46	215141034

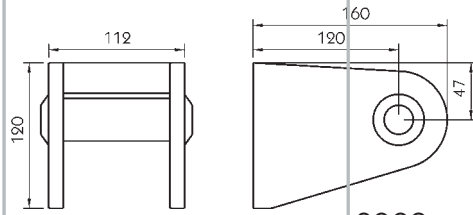


The tipper ball joints 8000 with sound damping can be deployed on all tipper bodies on goods vehicles, trailers and semi-trailers up to 28 t GVW.
Tipping angle to max. 50°.

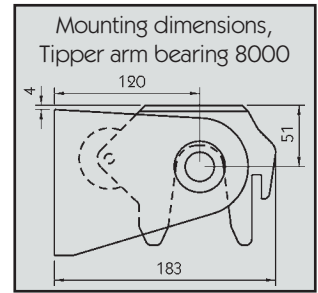
8001
Self colour, weight 3.55 kg.



Retaining pin holes 24/24 mm	109141387
Retaining pin holes 25/22 mm	109141388



8002
Self colour, weight 3.95 kg.
109141389



Retaining pin surface zinc-nickel alloy, spring cotter zinc plated.



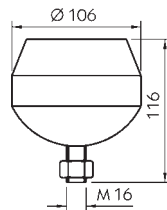
3004
24/24 x 120 mm, weight 0.87 kg.
① 1-pin locking **109141269**
② 3-pin locking **109141555**



3004
25/22x85/120mm, weight 0.87 kg.
③ 1-pin locking **109141270**
④ 3-pin locking **109141556**

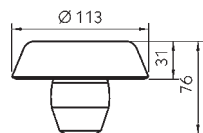
Retaining pin surface zinc-nickel alloy, spring cotter zinc plated.

Polyp catcher

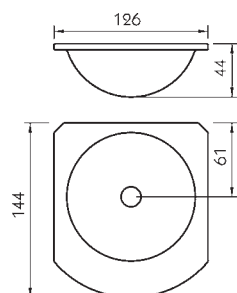


Rubber body
Weight 1.05 kg.
250141047

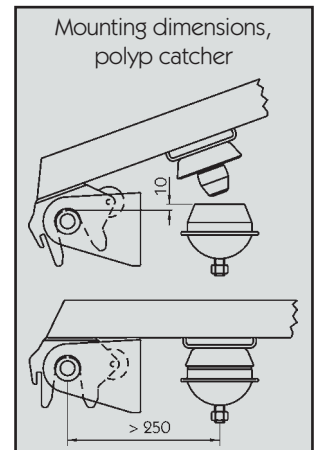
The polyp catcher can be deployed on all tipper variants. Fitting the polyp catcher creates an elastic support for the tipper arms. At the same time it serves as a hold-down device. 2 - 4 catchers are necessary according to vehicle size. All parts self colour.



Polyp shell
Weight 1.25 kg.
250141048



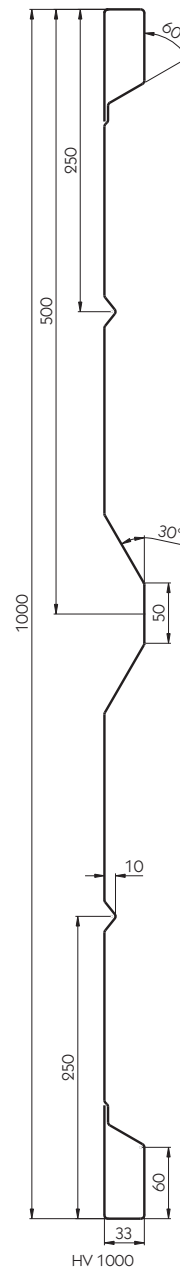
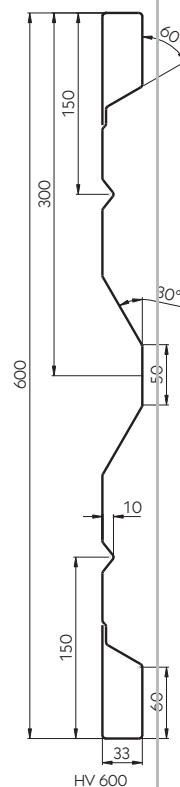
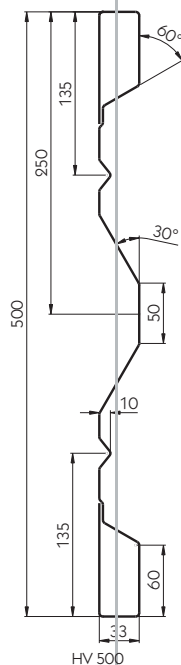
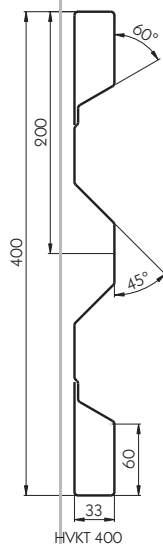
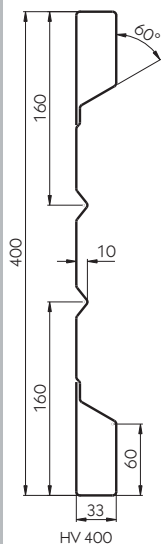
Bearing shell
Weight 0.71 kg.
250141049



Typical applications for the HV/
HVKT series:

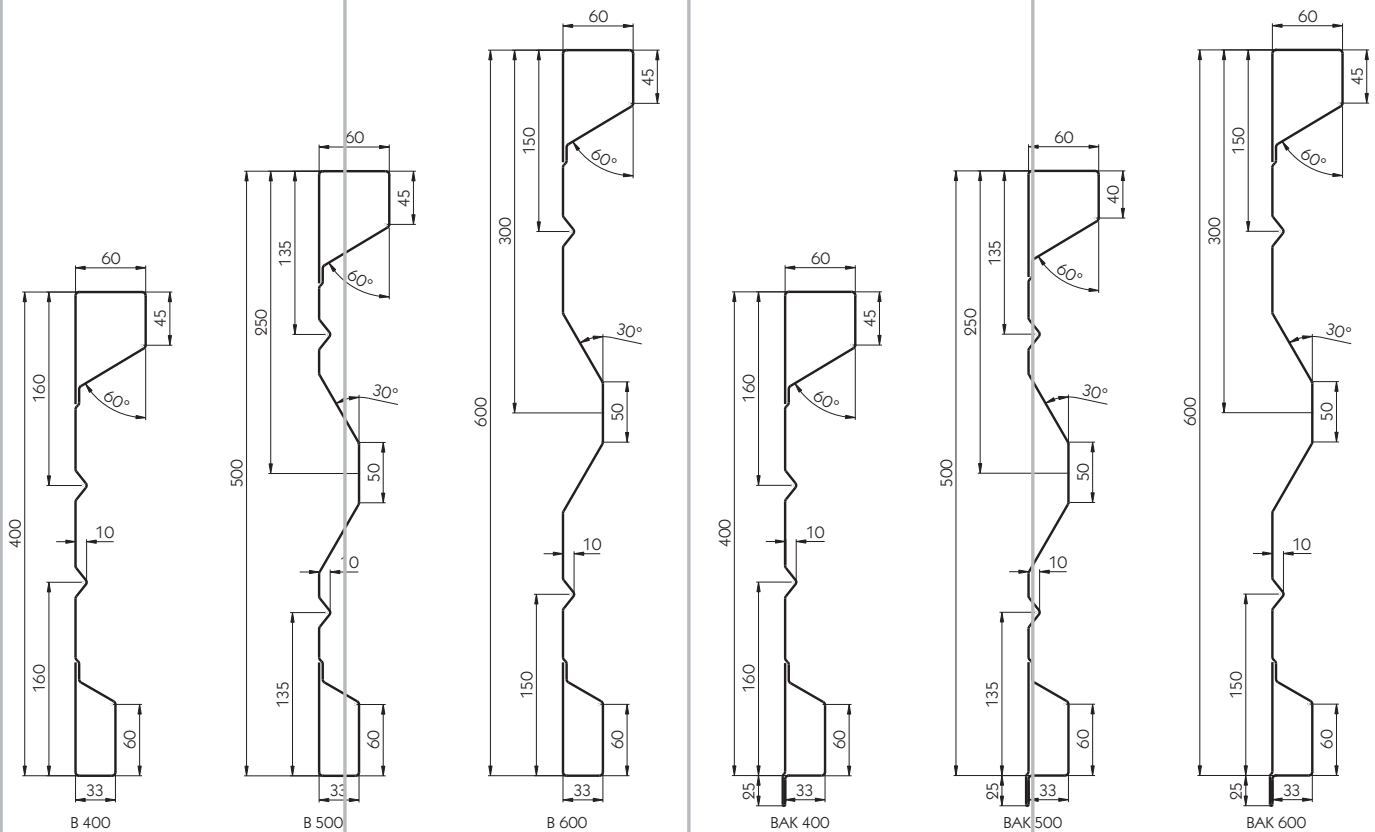
Side and tail boards for flatbed
and tipper goods vehicles or
agricultural tipping vehicles, and
as side boards for car trailers and
light commercial vehicle bodies.

Steel side board profiles



Steel side board profiles
Self colour.

	Length [mm]	Thickness [mm]	Weight [kg/m]	
HV 400	6000	1.25	6.8	365711100
HV 400	6000	1.5	8.2	365711111
HV 400	4500	2	10.9	365711185
HV 400	5000	2	10.9	365711186
HVKT 400	4500	2	11.2	365711173
HVKT 400	5000	2	11.2	365711102
HVKT 400	6000	2	11.2	365711112
HV 500	4500	2	12.8	365711172
HV 500	5000	2	12.8	365711103
HV 500	6000	2	12.8	365711104
HV 600	4500	2	14.3	365711174
HV 600	5000	2	14.3	365711175
HV 1000	6000	2	20.7	365711171



The B series steel side boards are intended for use with high side load pressure.

Typical applications:

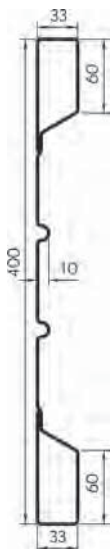
Side boards on flatbed goods vehicles and tipper bodies or agricultural tipper vehicles and manure spreaders.

The BAK series with inner profiled sealing strip as extension boards (greedy boards) for flatbed and tipper goods vehicle bodies or agricultural tipper vehicles.

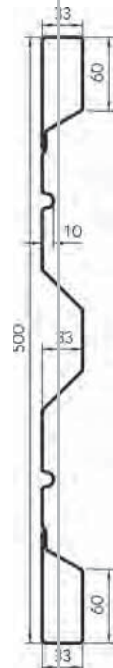
Steel side board profiles

Self colour.

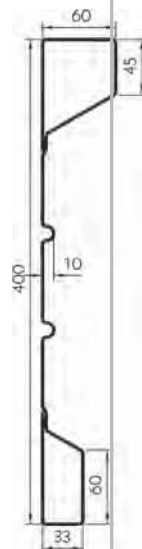
	Length [mm]	Thickness [mm]	Weight [kg/m]	
B 400	4500	2	11.6	365711176
B 400	5000	2	11.6	365711105
B 400	6000	2	11.6	365711106
B 500	4500	2	13.4	365711177
B 500	5000	2	13.4	365711107
B 500	6000	2	13.4	365711108
B 600	4500	2.5	18.8	365711178
B 600	5000	2.5	18.8	365711109
B 600	6000	2.5	18.8	365711110
BAK 400	4500	2	12.4	365711179
BAK 400	5000	2	12.4	365711180
BAK 500	4500	2	14.2	365711181
BAK 500	5000	2	14.2	365711182
BAK 600	4500	2.5	19.8	365711183
BAK 600	5000	2.5	19.8	365711184



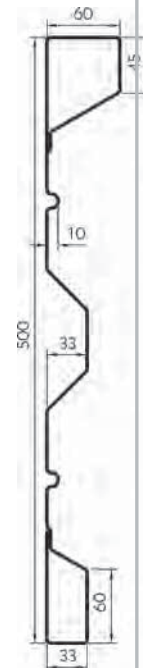
P 400/33/33 NS



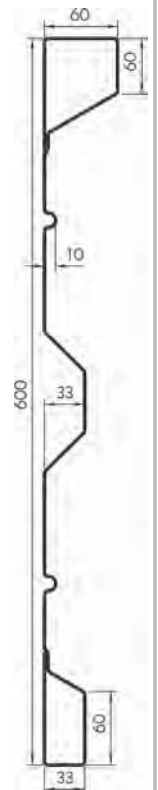
P 500/33/33 FS



P 400/60/33 NS



P 500/60/33 FS



P 600/60/33 FS

Steel side board profiles

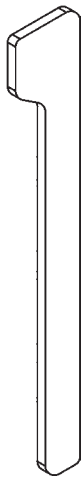
Self colour.

	Length [mm]	Thickness [mm]	Weight [kg/m]	
P 400/ 33/ 33 NS	6000	1.25	6.75	365711301
P 400/ 33/ 33 NS	5000	2	10.70	365711302
P 400/ 33/ 33 NS	6000	2	10.70	365711303
P 500/ 33/ 33 FS	5000	2	12.77	365711304
P 500/ 33/ 33 FS	6000	2	12.77	365711305
P 400/ 60/ 33 NS	5000	2	11.41	365711306
P 400/ 60/ 33 NS	6000	2	11.41	365711307
P 500/ 60/ 33 FS	5000	2	13.38	365711308
P 500/ 60/ 33 FS	6000	2	13.38	365711309
P 600/ 60/ 33 FS	5000	2.5	18.70	365711310
P 600/ 60/ 33 FS	6000	2.5	18.70	365711311

No longer
available

Accessories

For steel side board profiles.



Side board edging strips

Angle iron, 8 x 40 x 22 mm, self colour.

For 400 mm side board height	365711312
For 500 mm side board height	365711313
For 600 mm side board height	365711314
For 800 mm side board height	365711315
For 1000 mm side board height	365711316

The flat iron side board edging strips are intended specially for the steel side board profiles 365711307 - 365711311.

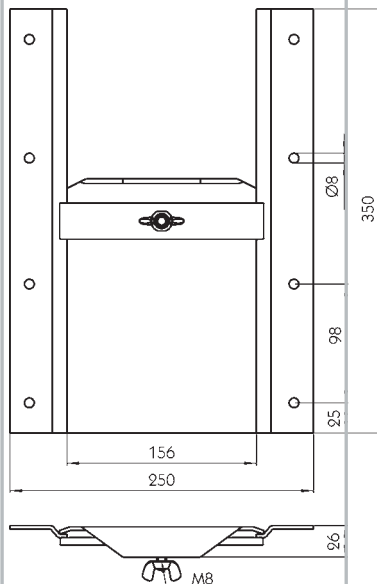
They will also fit other profiles with similar dimensions.

Side board edging strips

Flat iron, 8 mm with welded corners pieces (for welding), self colour.

For 400 mm side board height	365711317
For 500 mm side board height	365711318
For 600 mm side board height	365711319
For 800 mm side board height	365711320

Grain slide gate



Grain slide gate

Painted sheet steel, with guides and setting screw, weight 2.24 kg.

215131481

Tailboard closing and tension springs

Included in the supply are:
1 coil spring, 1 anchor bush with welding stub, 1 round link, 1 oval link, and 1 weld-on lug with spline.

Closing spring

Coil spring, tapered both ends with rolled-in screw M 12 x 100 mm incl. nut, and swivel hook rolled-in at other end, outside Ø 58 mm, wire thickness 8 mm, length 340 mm, weight 3.36 kg.

215131539

Coil spring

Loose, weight 2.69 kg.

215131694

Length measured from inside of ring to end of screw thread.

Length [mm]	Weight [kg]	
650	3.15 kg	405131540
800	4.75 kg	405131738

Tension spring

Coil spring, full ring one end, tapered at other end with rolled-in steel screw M 12 x 70 mm incl. nut, outside Ø 40 mm, wire size 8 mm, zinc plated.

Tension spring

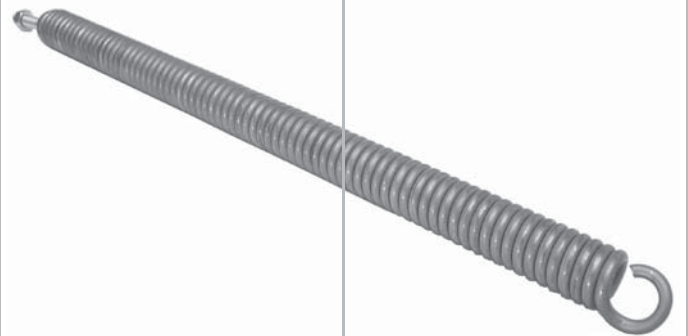
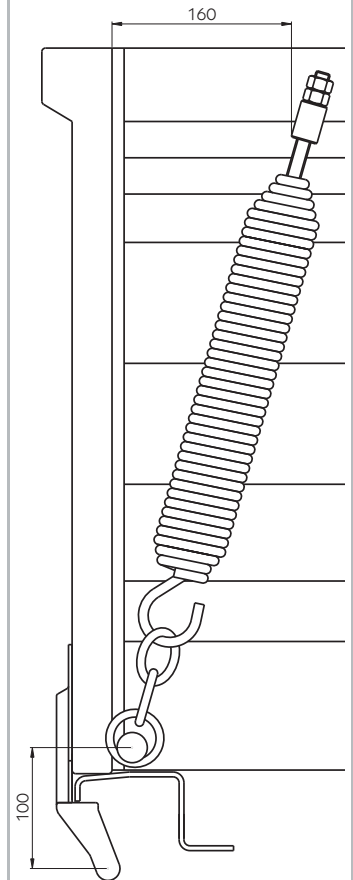
Coil spring, full ring both ends, outside Ø 45 mm, wire size 9 mm, length from inside of ring to inside of ring 1225 mm, zinc plated, weight 7.60 kg.

405131541

Protective sleeve

Length 1.50 mm, weight 0.50 kg.

215131542



Full ring

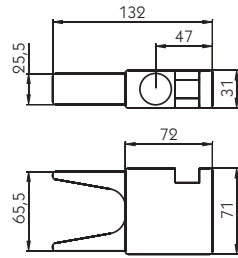
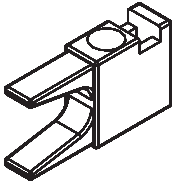


Tapered end with rolled-in steel screw

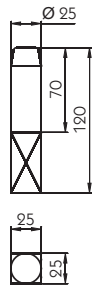
Accessories

For tension spring **405131541**.

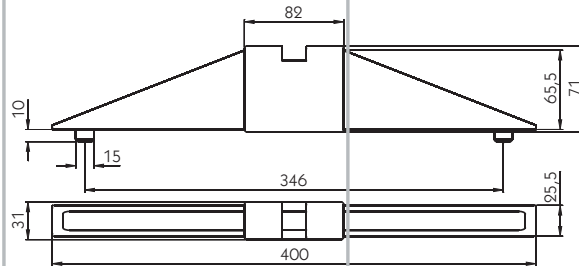
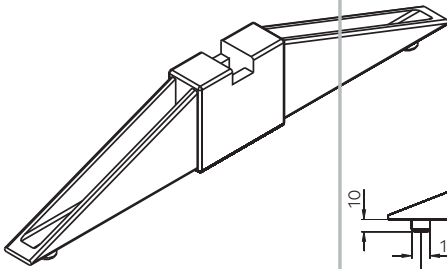
Tarpaulin/cover frame accessories Hamburger cover frame



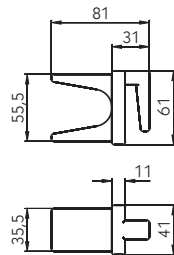
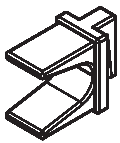
Tarpaulin tube bracket
Zinc plated, weight 0.99 kg.
320131820



Centring mandrel
Zinc plated, weight 0.51 kg.
320131821

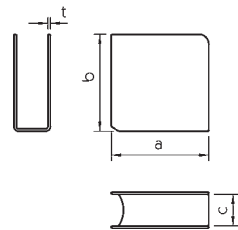


Tarpaulin tube connector
Zinc plated, weight 2.45 kg.
320131822



Spar bracket
Zinc plated, weight 0.56 kg.
320131823

Side plank pockets

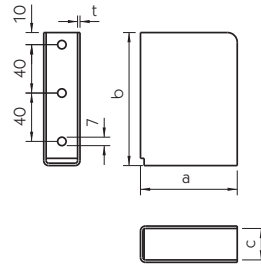


Single, open
Self colour.

Dim. a [mm]	Dim. b [mm]	Dim. c (inside) [mm]	Dim. t [mm]	Weight [kg]	
80	80	25	2.5	0.27	125131225
80	110	25	2.5	0.33	125131224
80	110	28	2.5	0.33	125131222
120	110	28	2.5	0.45	125131223
100	100	30	2.5	0.35	125131336

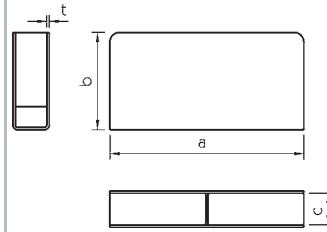
Single, closed

Finish	Dim. a [mm]	Dim. b [mm]	Dim. c (inside) [mm]	Dim. t [mm]	Weight [kg]	
Self colour	50	110	25	2.5	0.26	125131231
KTL coated	50	110	25	2.5	0.26	125132031
Self colour	50	110	25	2.5	0.26 overlap welded	125132231
Self colour	80	80	25	2.5	0.28	125131229
Self colour	80	110	25	2.5	0.41	125131228
KTL coated	80	110	25	2.5	0.41	125132028
Self colour	80	110	25	2.5	0.41 overlap welded	125132228
Self colour	50	110	28	2.5	0.27	125131230
Self colour	80	110	28	2.5	0.45	125131226
Self colour	120	110	28	2.5	0.51	125131227
Self colour	100	100	30	2.5	0.38	125131337



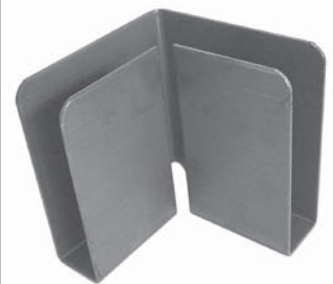
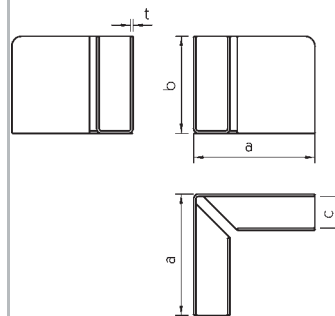
Double
Self colour.

Dim. a [mm]	Dim. b [mm]	Dim. c (inside) [mm]	Dim. t [mm]	Weight [kg]	
160	80	25	2.5	0.56	125131234
160	110	25	2.5	0.86	125131233
160	110	28	2.5	0.87	125131232



Double, corner
Self colour.

Dim. a [mm]	Dim. b [mm]	Dim. c (inside) [mm]	Dim. t [mm]	Weight [kg]	
100	80	25	2.5	0.51	125131237
100	110	25	2.5	0.73	125131236
100	110	28	2.5	0.74	125131235



Side plank pockets

For CS-centre pillars 670908391 and 670907991. Steel black KTL coated, weight 0.23 kg.

Left hand	670908394
Right hand	670908395

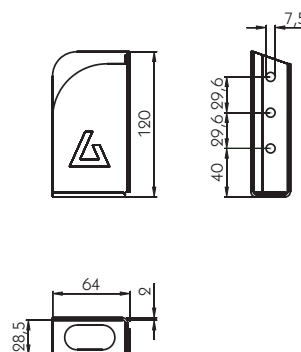


Illustration: Left hand

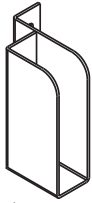
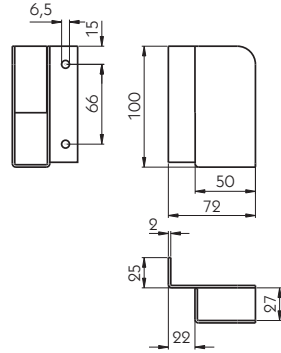


Illustration: left hand



Side plank pockets PWP

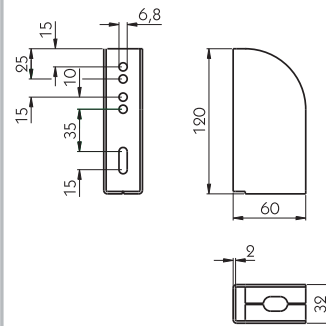
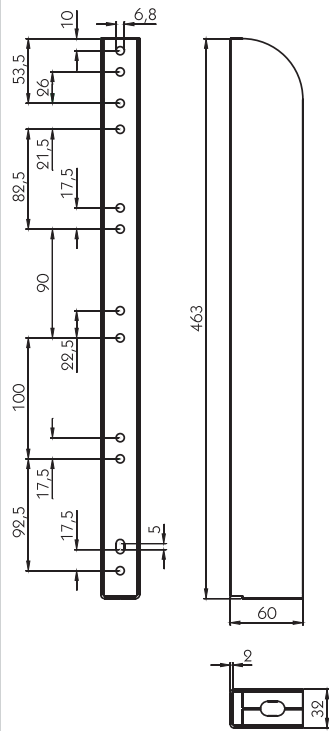
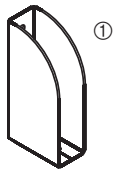
For PWP aluminium trailer kit headboard frame, tilt roof version, zinc plated steel, weight 0.28 kg.

Left hand

643355011

Right hand

643355012



901

For CS centre pillars Variomaster 901 code XL, steel, black KTL coated.

Weight [kg]

① Side plank pocket 901

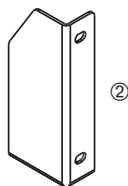
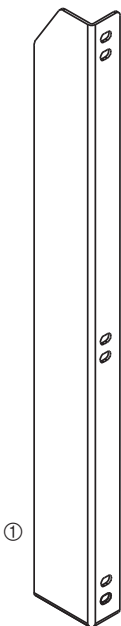
0.27

670901200

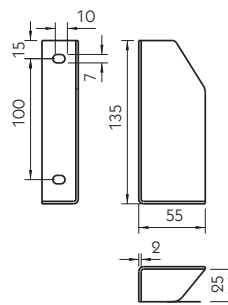
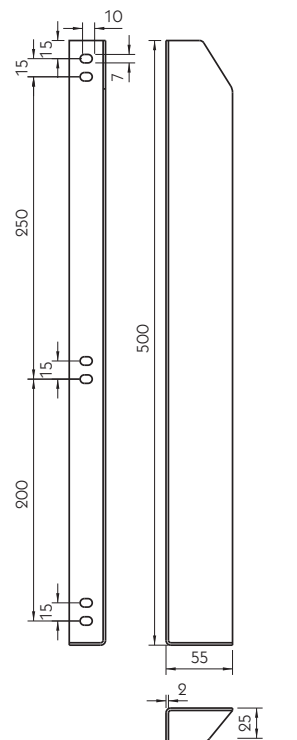
② Deep side plank pocket 901

1.03

670901100



Illustrations: Left hand



Side plank pockets

For pillars with stop (inside open), zinc plated steel.

Weight [kg]

① Short pocket, left hand

0.16

660038440

① Short pocket, right hand

0.16

660038450

② Deep pocket, left hand

0.62

660038460

② Deep pocket, right hand

0.62

660038470

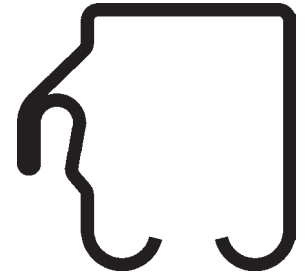
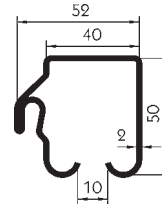
The steel C-rails and their accessories are especially suitable for fitting with the full tarpaulin sliding tops.
By welding on the C-rails below the sliding top steel track rails, all the advantages of the full tarpaulin sliding roof are retained. For instance, removing the track rails with the additional facility of a sliding centre pillar and/or a side curtain.

Length
[mm]

7000
7800

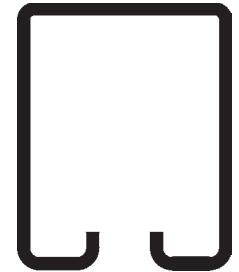
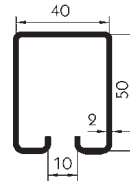
Steel C-rail
With seating for rubber seal, zinc plated, weight 2.94 kg/m.

670901593
670901594



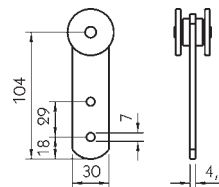

Steel C-rail
Length 7000 mm, zinc plated, weight 2.50 kg/m.

670901493



Curtain roller
For steel C-rails, zinc plated, weight 0.22 kg.

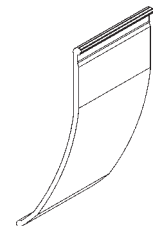
670903293

Modern pillar trolleys, as used on today's curtainsider bodies, exert upward pressure against the cant rail through a sliding pillar locked in a pillar socket, thus supporting the roof. If the sliding pillar is loosened from its socket, it will slip down several centimetres depending on the length of the curtain rollers modified for this purpose. The resultant play between the pillar trolley base plate and the cant rail allows the pillar to be slid comfortably with one hand, without it tilting. The design of the pillar trolley 670980393 functions in this way.

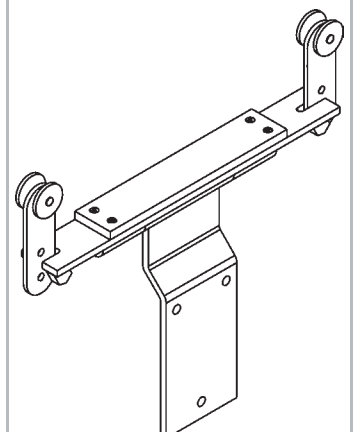
PVC seal
For steel C-rail, black, weight 0.56 kg/m, rolls of 16 m.

670901793

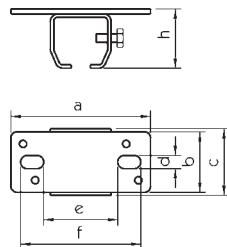
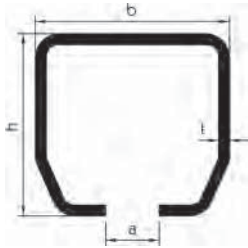


Pillar trolleys
For steel C-rails, KTL coated, weight 4.32 kg.

670980393



Steel track rails and accessories



The inclined leg of the track rail profile ensures the true running characteristics of the rollers. The closed form provides considerable weather protection for the running surfaces, rollers and trolleys. It is not possible for the rollers to jump out of the rail. Incidental dirt is simply rolled away. The rails are cold rolled hollow sections, quality S235JRH.

Track rails Length 6000 mm, zinc galvanised.

Profile no.	Dim. a [mm]	Dim. b [mm]	Dim. h [mm]	Dim. t [mm]	Load cap.* [kg/m]	Weight [kg/m]	
13	5.0	19.0	19.0	1.20	13 **	0.58	320121583
45	7.5	25.0	24.0	1.40	45 **	0.90	320121150
100	8.0	30.0	28.0	1.75	80	1.30	320121151
300	11.0	40.0	35.0	2.75	100	2.60	320121140
400	15.0	48.5	43.5	3.20	200	3.60	320121141
500	18.0	65.0	60.0	3.60	500	5.70	320121500
600	22.0	80.0	75.0	4.50	1000	8.90	320121501

* Distributed load for a suspended load interval of 750 - 1000 mm, with the exception of profiles 13 and 45. Point loading depending on application and drive method.

** Max. load of the roller /trolley.

90° arc bend Both ends with approx. 500 mm straight run, zinc galvanised.

For profile no.	Radius [mm]	Weight [kg]	
100	650 ±10	2.66	320121504
300	630 ±15	5.25	320121505
400	610 ±15	7.19	320121506

The 90° arc bend ensures trouble-free travel for the rollers and trolleys. The 500 mm straight section means that the rail joints lie outside the bend itself which means the roller and trolley ball bearings are only lightly stressed.



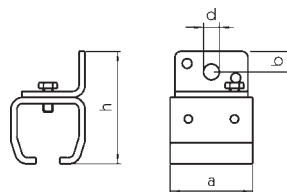
Fixing and connecting sleeves
All sleeves can be slid along the track rails to suit individual requirements. The track rail suspended intervals (sleeve intervals) should be approx. 400 - 500 mm with track rail profile 13, and 750 - 850 mm with all others. We recommend that the interval between the start /end of the track rail to the centre of the first sleeve should be max. 100 mm. Around the "bunching" section, the maximum sleeve interval should be approx. 350 - 500 mm.

Roof fixing sleeves Zinc galvanised.

For profile no.	Dim. a [mm]	Dim. b [mm]	Dim. c [mm]	Dim. d [mm]	Dim. e [mm]	Dim. f [mm]	Dim. h [mm]	Weight [kg]	
45	68	40	40	8.5	40.5	57.5	32.5	0.11	320121541
100	88	40	40	8.5	48	78	39	0.20	320121529
300	115	50	55	11	61	99	49	0.40	320121530
400	130	60	68	13	73	115	59	0.65	320121531
500	170	80	90	17	96	150	81	1.55	320121542
600	210	100	110	22	114	182	104	3.55	320121543

Wall mounted fixing sleeves

Zinc galvanised.



For profile no.	Dim. a [mm]	Dim. b [mm]	Dim. d [mm]	Dim. h [mm]	Weight [kg]	
100	40	10	8	60	0.15	320121525
300	55	13	11	75	0.25	320121526
400	68	16.5	13	93	0.45	320121527
500	90	17.5	17	122	1.40	320121539
600	110	25	22	157	2.50	320121540

The rail joints are bridged by connecting sleeves. Welding the rails is not necessary when using connecting sleeves and is also not recommended. When fitting, a smooth transition across the joints should be achieved.

Connecting sleeves

Zinc galvanised.

For profile no.	Length [mm]	Weight [kg]	
100	85	0.23	320121517
300	120	0.65	320121518
400	150	1.01	320121519
500	180	2.02	320121544
600	200	3.84	320121545



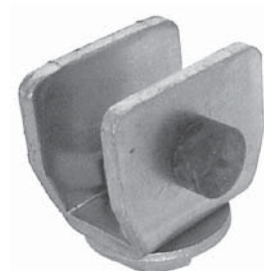
The rail mounted stops are clamped to the track rails. As travel limiters, they prevent the rollers or trolleys from running out of the track rails.

Rail mounted stop

Zinc galvanised.

For profile no.	Weight [kg]	
13 *	0.01	320121576
45 *	0.02	320121153
100	0.04	320121154
300	0.10	320121144
400	0.15	320121145

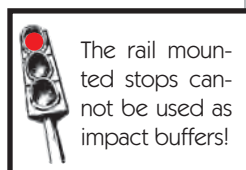
* Not as illustrated.

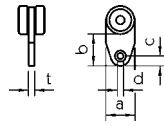


Rail mounted stop

Zinc galvanised.

For profile no.	Length o/a [mm]	Weight [kg]	
300	70	0.10	320121577
400	75	0.20	320121578
500	113	0.60	320121579
600	130	1.10	320121580



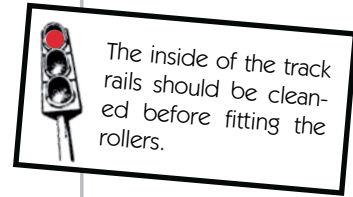


Curtain roller

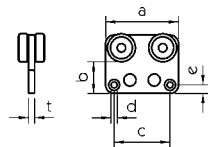
With hook-up holes, plastic.

For profile no.	Dim. a [mm]	Dim. b [mm]	Dim. c [mm]	Dim. d [mm]	Dim. t [mm]	Capacity [kg]	Weight [kg]	
13*	17	16	7.5	5	3.5	2.5	0.010	320121537
45*	22	23	6	5	5	4	0.015	320121155
100*	24	26	7.5	5	5.5	8	0.020	320121157
300	29	30	9	6	7.8	20	0.060	320121546

* Roller without ball bearing.



To improve guiding and handling the curtain, we recommend using a trolley for the first roller to act as the "hauling" unit. The number of rollers to use is determined by the curtain material and the application, whereby the spacing should be approx. 150 - 400 mm.

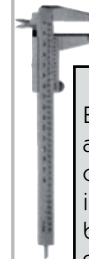


Trolley

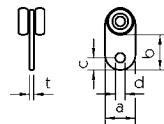
With hook-up holes, plastic.

For profile no.	Dim. a [mm]	Dim. b [mm]	Dim. c [mm]	Dim. d [mm]	Dim. e [mm]	Dim. t [mm]	Capacity [kg]	Weight [kg]	
13*	40	13.6	30	5	5	3.5	2.5	0.030	320121547
45*	52	24	40	5	6	5	4	0.035	320121156
100*	60	26	46	5	7.5	5.8	8	0.045	320121158
300	71	29	53	6	9	7.8	20	0.140	320121548

* Roller without ball bearing.



(Steel) rollers
Each roller is galvanised and fitted with partly dust tight, impact proof individually running ball bearings. By using a special grease, no lubrication is necessary in service. Operating temperature from -20° to +90°.

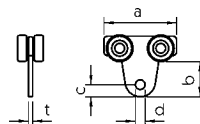


Roller

With hook-up hole, galvanised.

For profile no.	Dim. a [mm]	Dim. b [mm]	Dim. c [mm]	Dim. d [mm]	Dim. t [mm]	Capacity [kg]	Weight [kg]	
100	25	31	10	8	4.5	30	0.15	320121514
300	30	46	12	10	6	65	0.20	320121559
400	40	58	15	14	8	100	0.30	320121560
500	50	66	20	18	10	200	0.60	320121561
600	70	75	24	22	12	400	1.40	320121562

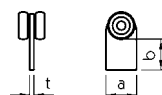
Trolley
With hook-up holes, galvanised.



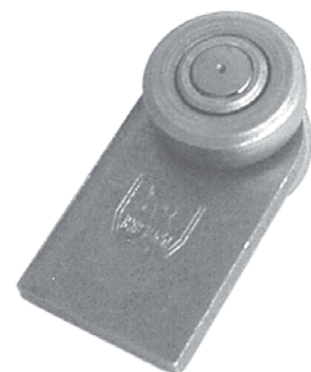
For profile no.	Dim. a [mm]	Dim. b [mm]	Dim. c [mm]	Dim. d [mm]	Dim. t [mm]	Capacity [kg]	Weight [kg]	
100	60	31	10	8	4.5	45	0.16	320121513
300	80	46	12	10	6	85	0.30	320121551
400	100	58	15	14	8	150	0.60	320121552
500	120	66	20	18	10	300	1.30	320121553
600	140	75	24	22	12	600	2.30	320121554



Roller
For welding, rollers galvanised, welding plate self colour.



For profile no.	Dim. a [mm]	Dim. b [mm]	Dim. t [mm]	Capacity [kg]	Weight [kg]	
100	25	25	4.5	30	0.10	320121563
300	30	27.5	6	65	0.20	320121564
400	40	37	8	100	0.30	320121565
500	50	38	10	200	0.80	320121566
600	70	47	12	400	1.20	320121567

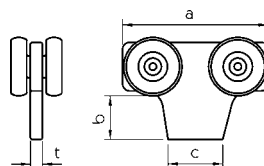


Roller or trolley?

With the exception of certain applications, this is a question for the designer. Because the track rails and accessories itemised on these pages have been developed originally for swing and sliding doors. You will also find plenty of applications in the automotive field.

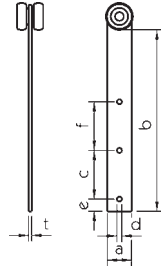
The single axle rollers are predominantly for conveying individual objects, on straight tracks, which are permitted to collide with each other without damage. The twin axle trolleys ensure (compared to rollers) a steady running behaviour without tipping in the track rail. They are intended for larger components e.g. partition walls which run in two parallel track rails.

Trolley
For welding, rollers galvanised, welding plate self colour.



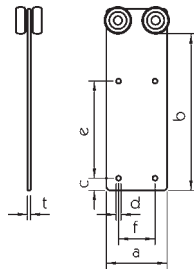
For profile no.	Dim. a [mm]	Dim. b [mm]	Dim. c [mm]	Dim. t [mm]	Capacity [kg]	Weight [kg]	
100	60	25	18.6	4.5	45	0.15	320121555
300	80	27.5	28.5	6	85	0.26	320121556
400	100	37	34.5	8	150	0.55	320121557
500	120	36	45	10	300	1.20	320121532
600	145	45	80	12	600	2.10	320121558





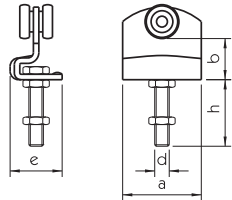
Roller
With hook-up holes, galvanised.

For profile no.	Dim. a [mm]	Dim. b [mm]	Dim. c [mm]	Dim. d [mm]	Dim. e [mm]	Dim. f [mm]	Dim. t [mm]	Capacity [kg]	Weight [kg]	
100	20	149	40	4.2	10	40	3	30	0.10	320121568
300	30	163	38	6.3	16	38	5	65	0.25	320121569
400	35	123	34	6.3	18	34	6	100	0.40	320121570



Trolley
With hook-up holes, galvanised.

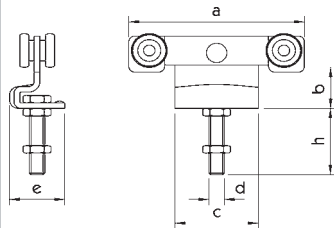
For profile no.	Dim. a [mm]	Dim. b [mm]	Dim. c [mm]	Dim. d [mm]	Dim. e [mm]	Dim. f [mm]	Dim. t [mm]	Capacity [kg]	Weight [kg]	
100	50	119	10	4.2	80	30	3	45	0.25	320121571
300	68	133	16	6.3	76.5	45	4.5	85	0.50	320121572
400	90	137	18	6.3	68	60	6	150	0.95	320121573



Rollers and trolleys with threaded bolt
The threaded bolt, which is screwed into an elongated hole, has the advantage the transported object can be hung, and also adjusted for horizontal and vertical positioning.

Roller
With threaded bolt, galvanised.

For profile no.	Dim. a [mm]	Dim. b [mm]	Dim. d [mm]	Dim. e [mm]	Dim. h [mm]	Capacity [kg]	Weight [kg]	
300	68	33	M 12	43	55	65	0.36	320121574
400	90	39	M 16	47	63	100	0.80	320121575

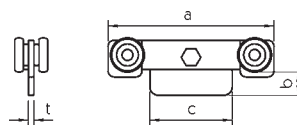


Trolley
With threaded bolt and swing link, galvanised.

For profile no.	Dim. a [mm]	Dim. b [mm]	Dim. c [mm]	Dim. d [mm]	Dim. e [mm]	Dim. h [mm]	Capacity [kg]	Weight [kg]	
100	105	26	50	M 10	28	37	45	0.25	320121152
300	136	34.5	68	M 12	43	55	85	0.60	320121142
400	180	40	90	M 16	46	64	150	1.10	320121143
500	237	51	110	M 20	62	72	300	2.65	320121538
600	234	69.5	130	M 24	84.5	140	600	4.70	320121549

Trolley

For welding, with swing link.
Rollers and roller plate galvanised,
welding plate self colour.

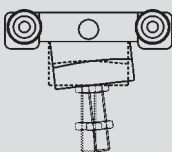


For profile no.	Dim. a [mm]	Dim. b [mm]	Dim. c [mm]	Dim. t [mm]	Capacity [kg]	Weight [kg]	
100	105	13.5	50	3	45	0.20	320121510
300	136	18.5	68	4.5	85	0.40	320121511
400	180	24	90	6	150	0.75	320121512
500	237	31	110	8	300	1.80	320121550



Swing link

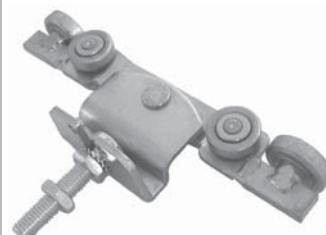
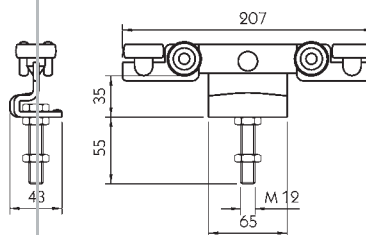
The swing link imparts an even loading on the rollers and track rails and helps to maintain the objects being conveyed in a perpendicular position where they are hung skewed or where the carrier structure is distorted.




Trolley

For profile no. 300, with threaded bolt, swing link and guide rollers. Carrying capacity 45 kg, galvanised, weight approx. 0.77 kg.

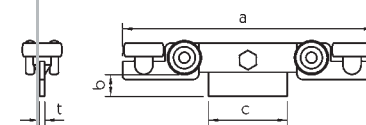
320121536



 Trolleys with guide rollers improve the lateral running characteristics in the profile. They should be utilised wherever the conveyed object is not directly moved by hand. E.g. with electronic or hydraulic drives or threaded rod winching devices.

Trolley

For welding, with swing link and guide rollers. Rollers and roller plate galvanised, welding plate self colour.



For profile no.	Dim. a [mm]	Dim. b [mm]	Dim. c [mm]	Dim. t [mm]	Capacity [kg]	Weight [kg]	
300	207	20	68	4.5	45	0.57	320121581
400	270	24	90	6	85	1.20	320121582

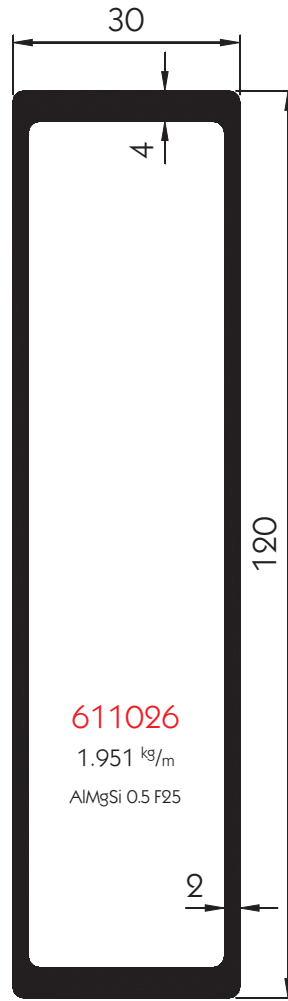
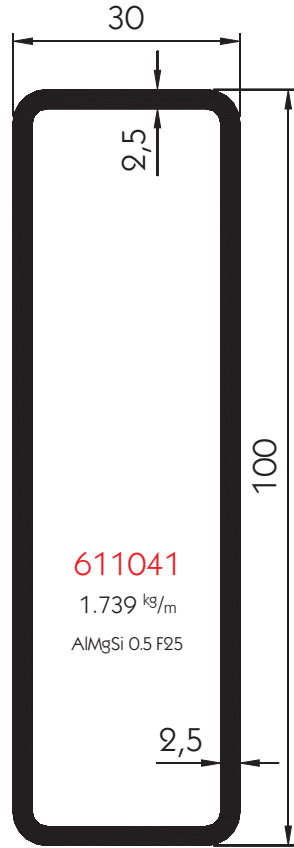
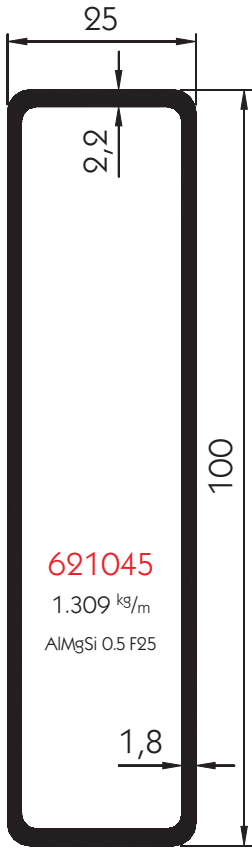
S-hooks

For hooking up to rollers and trolleys, zinc plated.



For profile no.	Dim. a [mm]	Dim. b [mm]	Dim. d [mm]	Dim. t [mm]	Weight [kg]	
13 + 45	12	35	5	∅ 2	0.002	320121159
100 + 300	14	41	6	∅ 3	0.004	320121160

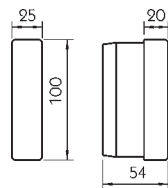
Aluminium side planks



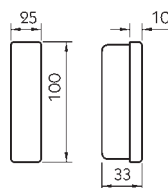
The adjacent aluminium profiles are illustrated full size.

Accessories

For aluminium side plank **621045**.

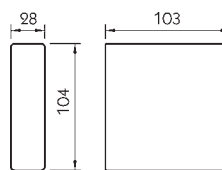


Plastic end stop
For inserting, weight 0.05 kg.
320131382



PUR end stop
For inserting, weight 0.03 kg.
215131536

Plastic end stop
For inserting, weight 0.06 kg.
320131383



Tarpaulin tube and accessories

Tarpaulin tube
Zinc plated.

Ø [mm]	Tube length [mm]	Weight [kg/m]	
35 x 1.5	6200	1.239	320561385
50 x 1.5	6300	1.794	320561630
50 x 1.5	7300	1.794	320561730
60 x 1.2	6300	1.740	320562630
60 x 1.2	7300	1.740	320562730

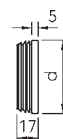


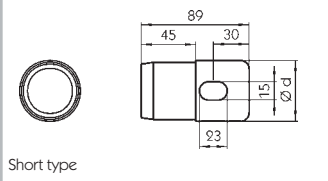
End stop
For tarpaulin tube Ø 50 x 1.5 mm, black PUR, weight 0.03 kg.
320131535



End stop
Black polypropylene.

	Weight [kg]	
Ø 35 mm	0.005	320131714
Ø 50 mm	0.008	320131715
Ø 60 mm	0.010	320131716



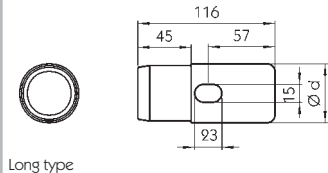
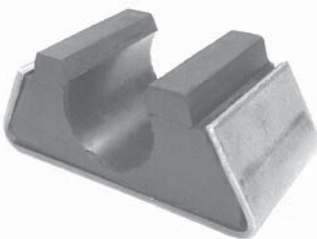


Short type

End stop with elongated hole

For tarpaulin tube \varnothing 50 x 1.5.

	Weight [kg]	
Short type	0.07	320131352
Long type	0.08	320131274

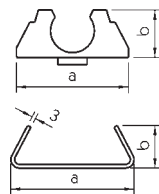


Long type

End stop with elongated hole

For tarpaulin tube \varnothing 60 x 1.2.

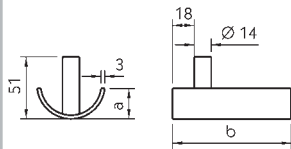
	Weight [kg]	
Short type	0.09	320131353
Long type	0.11	320131275



Tarpaulin tube bracket

Metal stiffener, self colour.

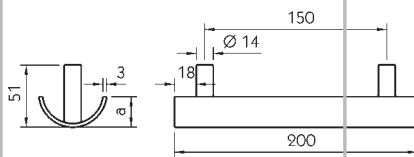
	Dim. a [mm]	Dim. b [mm]	Weight [kg]	
Rubber clip for tarpaulin tube \varnothing 35 mm	92	38	0.12	320131520
Metal stiffener for rubber clip \varnothing 35 mm	100	35	0.18	320131521
Rubber clip for tarpaulin tube \varnothing 50 mm	119	52	0.19	320131522
Rubber clip for tarpaulin tube \varnothing 60 mm	119	52	0.17	320131588
Metal stiffener for rubber clip \varnothing 50 + 60 mm	125	46	0.25	320131523



Tarpaulin tube clip, single

Self colour.

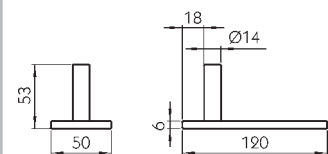
	Dim. a [mm]	Dim. b [mm]	Weight [kg]	
For tarpaulin tube \varnothing 50 mm	25	100	0.25	125131309
For tarpaulin tube \varnothing 60 mm	30	125	0.37	125131202



Tarpaulin tube clip, double

Self colour.

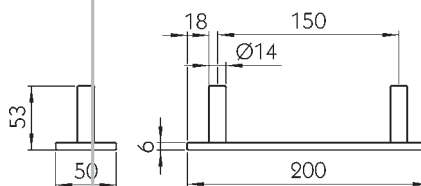
	Dim. a [mm]	Weight [kg]	
For tarpaulin tube \varnothing 50 mm	25	0.53	125131310
For tarpaulin tube \varnothing 60 mm	30	0.60	125131203



Tarpaulin tube clip, single

Self colour, weight 0.33 kg.

[125131204](#)

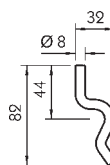


Tarpaulin tube clip,
double
Self colour, weight 0.57 kg.
125131206

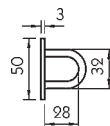


Tarpaulin fixings

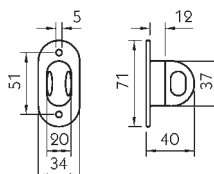
Tarpaulin hook
Self colour, weight 0.037 kg.
103141345



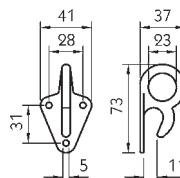
Staple strip
Length 2000 mm, 10 staples
spaced at 100 mm intervals, 20
fixing holes Ø 5.5 mm spaced at
100 mm intervals, zinc plated,
weight 2.62 kg.
320131130



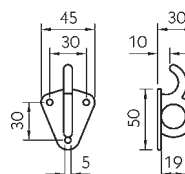
Turnbutton fastener
For oval eyelet 42 x 22 mm, pla-
stic, grey, weight 0.016 kg.
320131379



Tarpaulin hook
Galvanised, weight 0.076 kg.
320131122



Tarpaulin hook
Weight 0.061 kg.

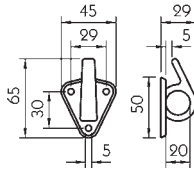


Galvanised
Self colour, without fixing holes

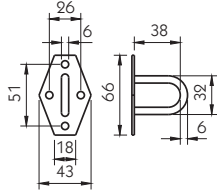
320131121

320131687

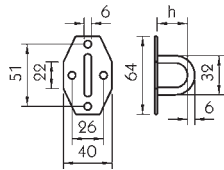
No longer
available



Tarpaulin hook
Grey plastic, weight 0.012 kg.
320131342

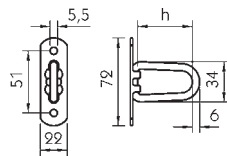


Staple
For round eyelets 36 and 40 mm,
also for oval eyelets 42 x 22 mm,
zinc plated, weight 0.047 kg.
320131375



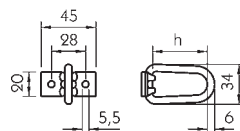
Staple
For round eyelets 36 and 40 mm,
also for oval eyelets 42 x 22 mm,
zinc plated.

Dim. h [mm]	Weight [kg]	
25	0.042	320131328
30	0.044	320131333



Staple
Folding staple, complies with
customs regulations, for round
eyelets 36 and 40 mm, also for
oval eyelets 42 x 22 mm, zinc
plated.

Dim. h [mm]	Weight [kg]	
25	0.041	320131507
37	0.047	320131508
45	0.051	320131509
55	0.053	320131510



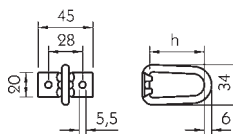
Staple
Folding staple, complies with
customs regulations, for round
eyelets 36 and 40 mm, also for
oval eyelets 42 x 22 mm, zinc
plated.

Dim. h [mm]	Weight [kg]	
25	0.046	320131503
37	0.052	320131504
45	0.055	320131505
55	0.059	320131506

Staple

Folding staple for round eyelets 36 and 40 mm, also for oval eyelets 42 x 22 mm, zinc plated.

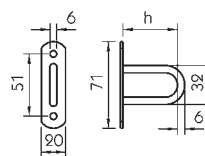
Dim. h [mm]	Weight [kg]	
25	0.034	320131442
37	0.040	320131378
45	0.043	320131330
55	0.048	320131443



Staple

For round eyelets 36 and 40 mm, also for oval eyelets 42 x 22 mm, zinc plated.

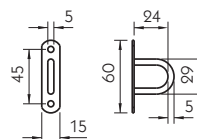
Dim. h [mm]	Weight [kg]	
21	0.034	320131444
25	0.035	320131445
30	0.037	320131446
38	0.044	320131447
45	0.045	320131448
55	0.051	320131449



Staple

For round eyelets 36 and 40 mm, also for oval eyelets 42 x 22 mm, zinc plated, weight 0.019 kg.

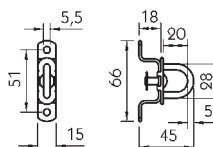
320131331



Twist fastener

For oval eyelets 42 x 22 mm, zinc plated, weight 0.045 kg.

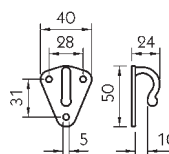
320131127



Tarpaulin hook

Small, zinc galvanised, weight 0.038 kg.

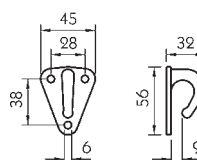
320131125



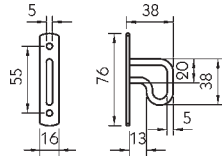
Tarpaulin hook

Large, weight 0.068 kg.

Zinc galvanised	320131126
Self colour, with fixing holes	320131670



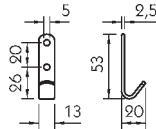
No longer available



Staple

For round eyelets 40 mm, also for oval eyelets 42 x 22 mm, zinc plated, weight 0.039 kg.

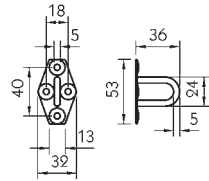
320133036



Flat hook

Zinc plated, weight 0.016 kg.

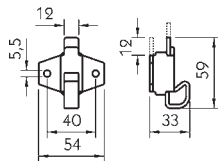
320133042



Staple

For round eyelets 25 mm, zinc plated weight 0.023 kg.

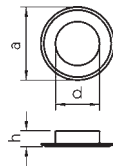
320133053



Quick-release sliding fastener

For round eyelets 40 mm and oval eyelets 42 x 22 mm, aluminium, weight 0.028 kg.

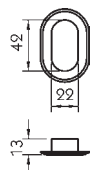
320131500



Round eyelet with ring

To DIN 7332, zinc plated.

Dim. d [mm]	Dim. h [mm]	Dim. a [mm]	Weight [g]	
20	9.4	36	7.6	320133006
36	13.1	60	19	320133008
40	13.0	62	7.6	320133009



Oval eyelet with ring

42 x 22 mm, zinc plated, weight 1.44 g.

320133040

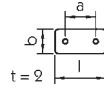


Underlay ring
Transparent plastic.

	Weight [g]	
For oval eyelet 42 x 22 mm	4.0	320133019
For round eyelet 40 mm	5.2	320133028

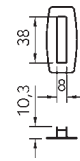
Rivet pad
Grey plastic.

Dim. a [mm]	Dim. b [mm]	Dim. l [mm]	Weight [g]	
20	20	36	1.4	320133030
25	20	42	1.6	320133032



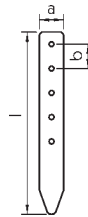
Rectangular slotted eyelet with ring
38 x 8 mm.

	Weight [g]	
Zinc plated	8.4	320133039
Brass	8.4	320133070

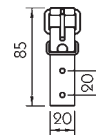


Strap
Beige plastic.

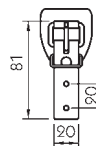
Dim. a [mm]	Dim. b [mm]	Dim. l [mm]	Weight [g]	
20	20	150	8	320133011
25	25	170	14	320133073



Buckle end
With welded buckle roller, beige plastic, weight 16 g.
320133014

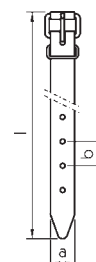


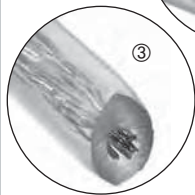
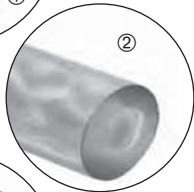
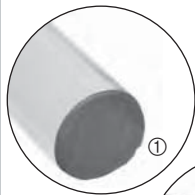
Buckle end with rubbing pad.
With welded buckle roller, beige plastic, weight 21 g.
320133068



Buckled belt
With buckle roller, beige plastic.

Dim. a [mm]	Dim. b [mm]	Dim. l [mm]	Weight [g]	
20	22	350	37	320133046
20	22	500	38	320133047
20	22	700	46	320133049





Rubber tensioning ring
Black.

	Weight [g]	
250 mm	27	320133061
400 mm	47	320133060

Crimping sleeve

For tarpaulin and bungee cord, zinc plated.

For cord Ø [mm]	Weight [g]	
8	3.6	320133076
10	6	320133083

Bungee cord

Ø [mm]	Colour	Length [m]	Weight [kg/m]	
8	black	100	0.070	320133081
10	white	100	0.109	320133082

Tarpaulin cord

Plastic, length 100 m.

Ø [mm]	Core	Illustration	Colour	Weight [kg/m]	
8	none	①	transparent	0.061	320135638
8	none	①	yellow	0.061	320135639
8	sisal	②	transparent	0.057	320135437
8	nylon	②	transparent	0.058	320135438
8	steel wire	③	transparent	0.073	320135115
10	none	①	transparent	0.096	320135640
10	none	①	yellow	0.096	320135641

No longer available

Cord termination

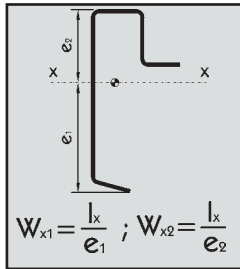
With simplex hook, zinc plated.

Ø [mm]	Weight [kg]	
8	0.023	320131119
10	0.025	320131120

Cord termination Ø 8 mm

Complies with customs regulations, zinc plated, weight 0.01 kg.

320131439

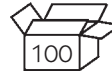


Brass oval tube rivet
For cord termination, weight
0.002 kg.

320131440

Aluminium pointed rivet
20 x 3 mm, for cord termination,
weight 0.038 kg/100 pcs.

320131441



Steel profiles
Flatbed floor frame
profiles

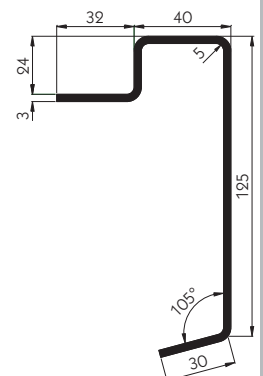
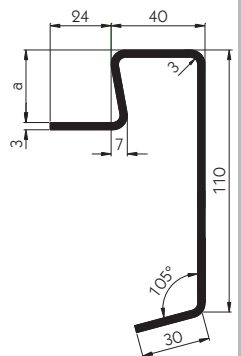
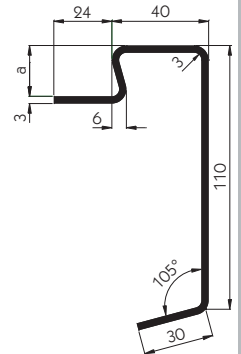
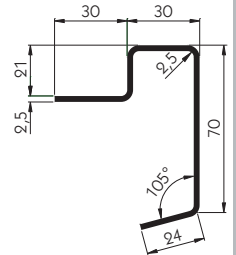


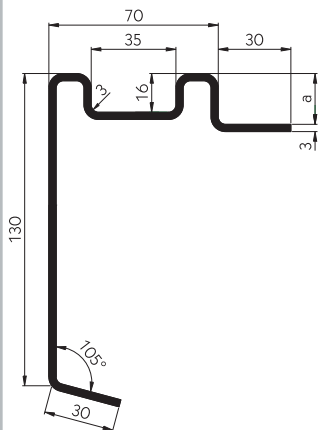
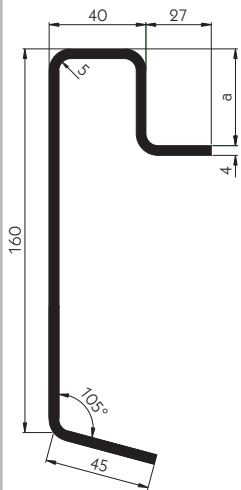
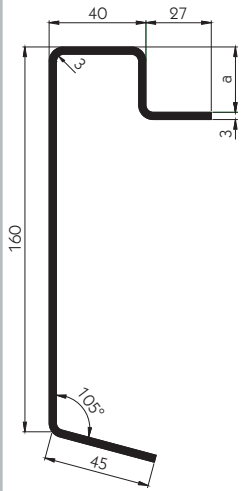
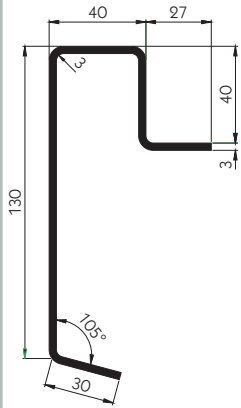
Length [mm]	Weight [kg/m]	W _{x1} [cm ³]	W _{x2} [cm ³]	Quality EN 10025	
6300	3.30	4.61	7.10	S235JRG2	372561146

Dim. a [mm]	Length [mm]	Weight [kg/m]	W _{x1} [cm ³]	W _{x2} [cm ³]	Quality EN 10025	Finish	
21	6300	5.20	9.65	15.02	S235JRG2	self colour	372561153
21	6300	5.20	9.65	15.02	S235JRG2	primed	373561153
21	6300	5.20	9.65	15.02	S235JRG2	zinc plated	372561378
27	6300	5.35	10.07	15.56	S235JRG2	self colour	372561154

Dim. a [mm]	Length [mm]	Weight [kg/m]	W _{x1} [cm ³]	W _{x2} [cm ³]	Quality EN 10025	Finish	
30	6300	5.30	10.10	15.56	S235JRG2	self colour	372561092
40	6300	5.66	11.05	16.52	S235JRG2	self colour	372561173
40	6300	5.66	11.05	16.52	S235JRG2	zinc plated	372561373

Length [mm]	Weight [kg/m]	W _{x1} [cm ³]	W _{x2} [cm ³]	Quality EN 10025	
7300	5.63	28.96	60.12	S235JRG2	372561457





Length [mm]	Weight [kg/m]	W_{x1} [cm ³]	W_{x2} [cm ³]	Quality EN 10025	
7300	6.10	13.03	19.63	S235JRG2	372562236

Dim. a [mm]	Length [mm]	Weight [kg/m]	W_{x1} [cm ³]	W_{x2} [cm ³]	Quality EN 10025	
27	6300	7.10	22.72	30.86	S235JRG2	372561234
30	6300	7.18	22.83	31.14	S235JRG2	372561235
40	7300	7.40	23.36	32.10	S235JRG2	372562124

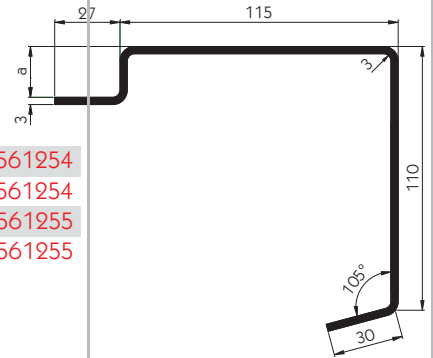
Floor frame profiles with a material thickness of at least 4 mm can also be obtained sand blasted and primer painted. Please ask your sales advisor for price and delivery.

Dim. a [mm]	Length [mm]	Weight [kg/m]	W_{x1} [cm ³]	W_{x2} [cm ³]	Quality EN 10025	
40	6300	9.60	30.54	41.34	S235JRG2	372561125
40	7300	9.60	30.54	41.34	S235JRG2	372562125
50	6000	9.92	31.56	42.72	S235JRG2	372561127

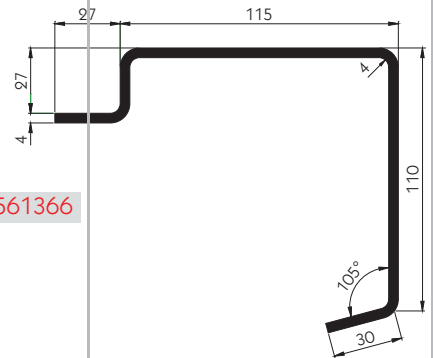
No longer available

Dim. a [mm]	Length [mm]	Weight [kg/m]	W_{x1} [cm ³]	W_{x2} [cm ³]	Quality EN 10025	Finish	
21	6300	6.90	12.33	23.64	S235JRG2	self colour	372561295
27	6300	7.04	12.80	24.42	S235JRG2	self colour	372561296
27	6300	7.04	12.80	24.42	S235JRG2	primed	373561296

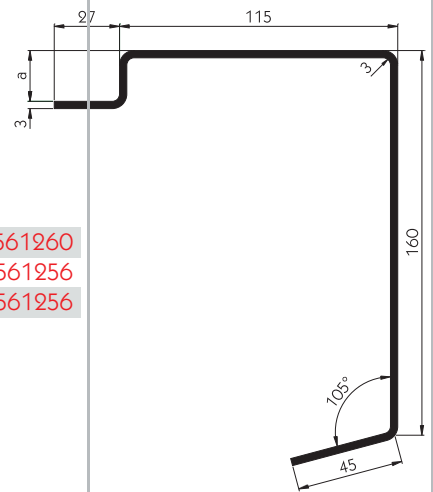
Dim. a [mm]	Length [mm]	Weight [kg/m]	W _{x1} [cm ³]	W _{x2} [cm ³]	Quality EN 10025	Finish	
21	6300	6.71	11.46	27.51	S235JRG2	self colour	372561254
21	6300	6.71	11.46	27.51	S235JRG2	primed	373561254
27	6300	7.00	11.97	28.32	S235JRG2	self colour	372561255
27	6300	7.00	11.97	28.32	S235JRG2	primed	373561255



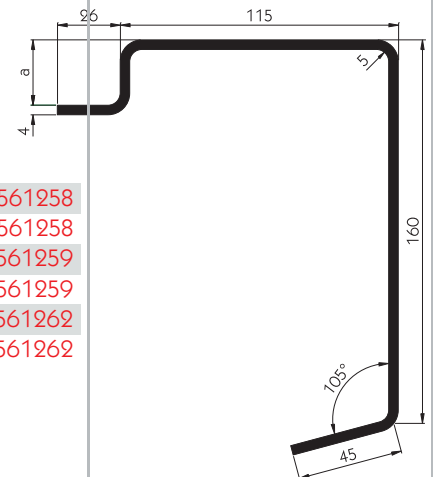
Length [mm]	Weight [kg/m]	W _{x1} [cm ³]	W _{x2} [cm ³]	Quality EN 10025	
7300	9.05	15.50	36.28	S235JRG2	372561366

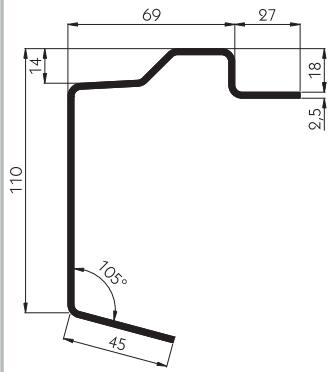


Dim. a [mm]	Length [mm]	Weight [kg/m]	W _{x1} [cm ³]	W _{x2} [cm ³]	Quality EN 10025	Finish	
21	7300	8.17	22.06	43.09	S235JRG2	self colour	372561260
27	7300	8.46	22.57	44.20	S235JRG2	self colour	372561256
27	7300	8.46	22.57	44.20	S235JRG2	primed	373561256



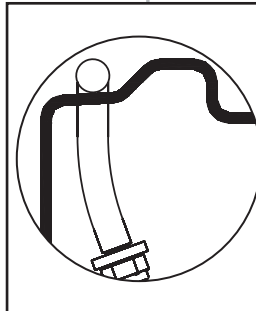
Dim. a [mm]	Length [mm]	Weight [kg/m]	W _{x1} [cm ³]	W _{x2} [cm ³]	Quality EN 10025	Finish	
27	7300	11.05	29.24	56.54	S235JRG2	self colour	372561258
27	7300	11.05	29.24	56.54	S235JRG2	primed	373561258
30	7300	11.15	29.59	57.27	S235JRG2	self colour	372561259
30	7300	11.15	29.59	57.27	S235JRG2	primed	373561259
40	7300	11.46	30.93	59.70	S235JRG2	self colour	372561262
40	7300	11.46	30.93	59.70	S235JRG2	primed	373561262



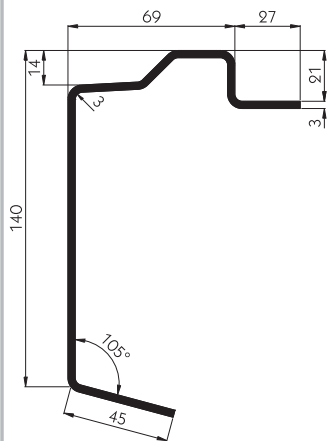


Length [mm]	Weight [kg/m]	W_{x1} [cm ²]	W_{x2} [cm ²]	Quality EN 10025
7300	4.90	17.26	26.19	S355MC

372561440

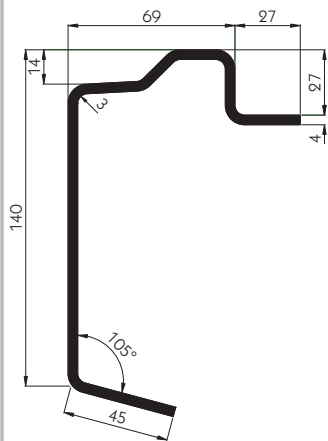


All floor frame profiles on this page are prepared for lashing rings **295131824** with the appropriate fitting holes at 250 mm spacing. Inserted lashing rings do not project above the floor frame profile. No water collecting and dirt deposits around the lashing ring, so there is also no freezing up of the lashing ring with ice. Splash water protection for open lashing rings mounting holes by means of plugs **215131818** (Ø 14 mm) or plugs **215131825** (Ø 16 mm).



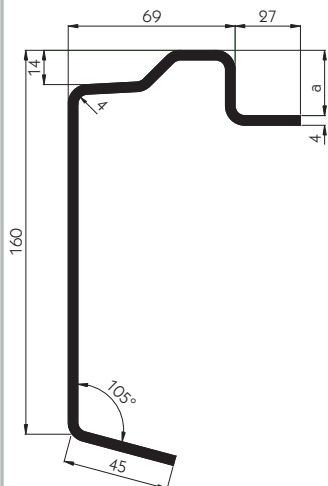
Length [mm]	Weight [kg/m]	W_{x1} [cm ²]	W_{x2} [cm ²]	Quality EN 10025
7300	6.61	27.44	40.68	S355MC

372561436



Length [mm]	Weight [kg/m]	W_{x1} [cm ²]	W_{x2} [cm ²]	Quality EN 10025
7300	8.82	35.21	51.68	S355MC

372561437



Dim. a [mm]	Length [mm]	Weight [kg/m]	W_{x1} [cm ²]	W_{x2} [cm ²]	Quality EN 10025	Finish
27	7300	9.45	42.48	61.68	S355MC	self colour
27	7300	9.45	42.48	61.68	S355MC	primed
30	7300	9.55	42.40	61.75	S355MC	self colour
40	7300	9.86	42.09	61.63	S355MC	self colour

372561434
373561434
372561435
372561439

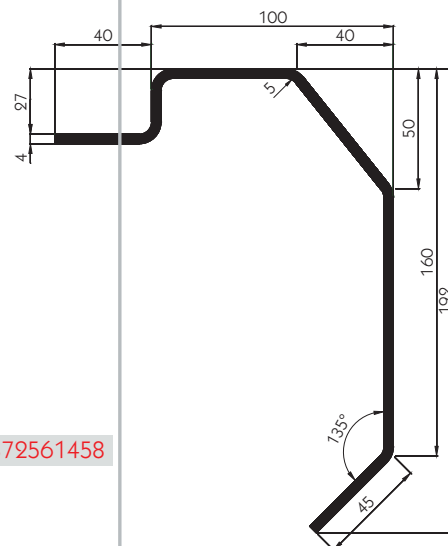
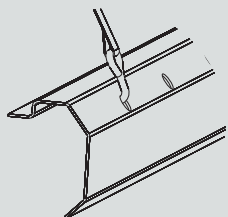
Plastic end stop
Black plastic.

∅
[mm]
14
16

215131818
215131825



The floor frame profile **372561458** is provided with mounting holes ∅ 30 mm for hooks at 300 mm spacing. The profile is tested to DIN EN 12640 and may be used for load securing.



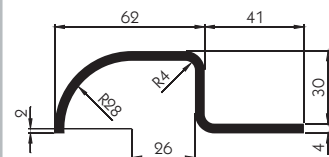
Length [mm]	Weight [kg/m]	W _{x1} [cm ²]	W _{x2} [cm ²]	Quality EN 10025
7500	10.50	49.29	92.08	S355MC

372561458

Tipper floor frame profiles

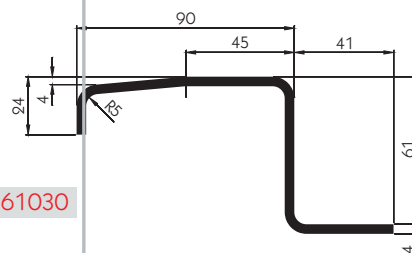
Length [mm]	Weight [kg/m]	W _{x1} [cm ²]	W _{x2} [cm ²]	Quality EN 10025
6000	4.40	4.24	4.03	S235JRG2

372561026



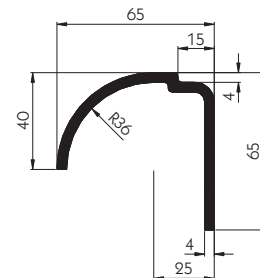
Length [mm]	Weight [kg/m]	W _{x1} [cm ²]	W _{x2} [cm ²]	Quality EN 10025
6000	6.40	5.67	9.04	S235JRG2

372561030

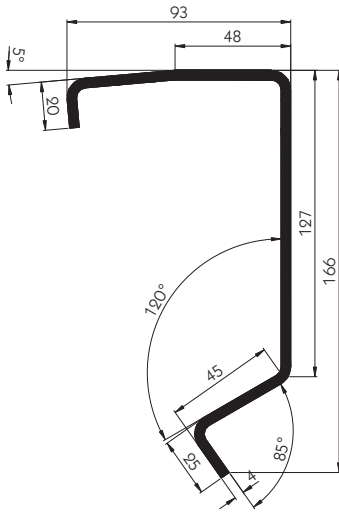


Length [mm]	Weight [kg/m]	W _{x1} [cm ²]	W _{x2} [cm ²]	Quality EN 10025
6000	4.38	3.90	7.64	S235JRG2

372561031

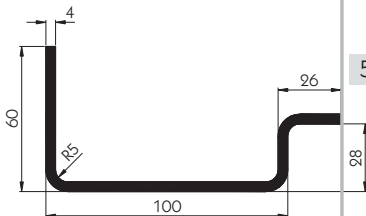


No longer available

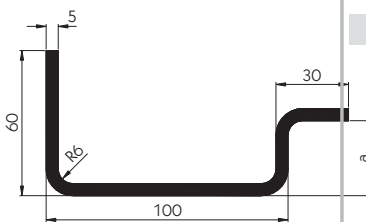


Length [mm]	Weight [kg/m]	W_{x1} [cm ³]	W_{x2} [cm ³]	Quality EN 10025	
6000	9.10	25.51	45.01	S235JRG2	372561120

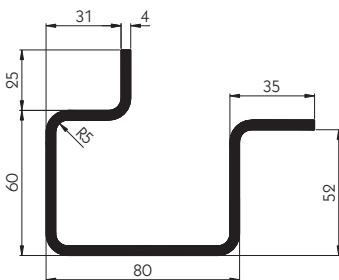
Corner pillar profiles



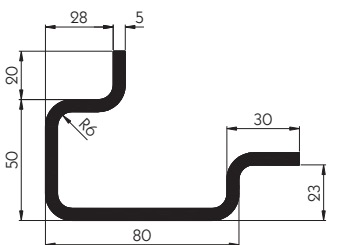
Length [mm]	Weight [kg/m]	W_{x1} [cm ³]	W_{x2} [cm ³]	W_{y1} [cm ³]	W_{y2} [cm ³]	Quality EN 10025	
5000	6.20	13.15	4.59	16.44	24.26	S235JRG2	372562042



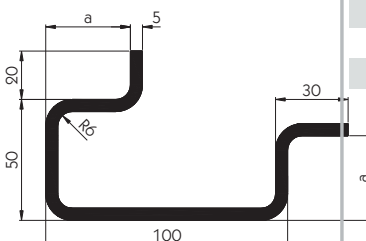
Dim. a [mm]	Length [mm]	Weight [kg/m]	W_{x1} [cm ³]	W_{x2} [cm ³]	W_{y1} [cm ³]	W_{y2} [cm ³]	Quality EN 10025	
31	5000	7.96	16.31	6.31	23.00	33.07	S235JRG2	372562095



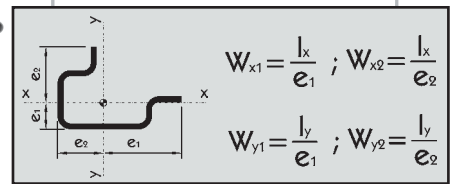
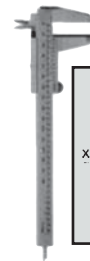
Length [mm]	Weight [kg/m]	W_{x1} [cm ³]	W_{x2} [cm ³]	W_{y1} [cm ³]	W_{y2} [cm ³]	Quality EN 10025	
5000	8.40	20.71	12.40	17.15	27.12	S235JRG2	372562139



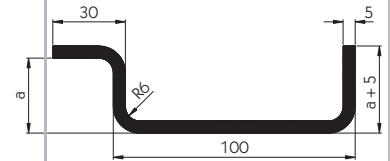
Length [mm]	Weight [kg/m]	W_{x1} [cm ³]	W_{x2} [cm ³]	W_{y1} [cm ³]	W_{y2} [cm ³]	Quality EN 10025	
5000	8.20	17.17	8.06	13.80	23.57	S235JRG2	372562038



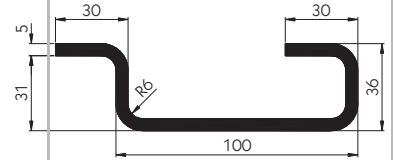
Dim. a [mm]	Length [mm]	Weight [kg/m]	W_{x1} [cm ³]	W_{x2} [cm ³]	W_{y1} [cm ³]	W_{y2} [cm ³]	Quality EN 10025	Finish	
31	5000	9.20	20.81	9.56	21.72	33.91	S235JR	self colour	372562039
31	5000	9.20	20.81	9.56	21.72	33.91	S235JR	primed	373562039
35	5000	9.50	21.42	10.53	23.43	35.50	S235JR	self colour	372562040



Dim. a [mm]	Length [mm]	Weight [kg/m]	W _{x1} [cm ³]	W _{x2} [cm ³]	W _{y1} [cm ³]	W _{y2} [cm ³]	Quality EN 10025
31	5000	7.00	9.64	5.21	15.21	13.14	S235JR 372562094

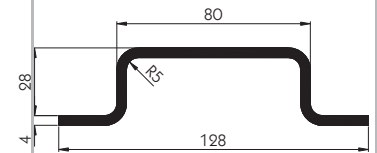


Length [mm]	Weight [kg/m]	W _{x1} [cm ³]	W _{x2} [cm ³]	W _{y1} [cm ³]	W _{y2} [cm ³]	Quality EN 10025
5000	7.70	11.72	8.24	26.51	20.07	S235JRG2 372562177

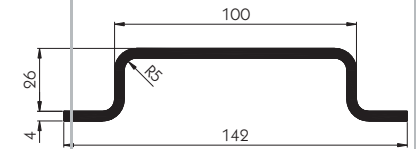


Centre pillar profiles

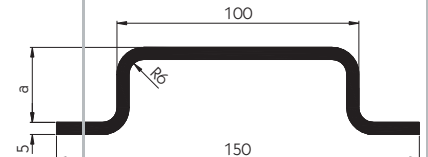
Length [mm]	Weight [kg/m]	W _{x1} [cm ³]	W _{x2} [cm ³]	Quality EN 10025
5000	5.41	5.72	7.31	S235JRG2 372562035



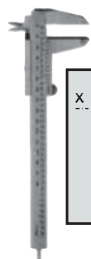
Length [mm]	Weight [kg/m]	W _{x1} [cm ³]	W _{x2} [cm ³]	Quality EN 10025	Finish
5000	5.80	4.86	7.89	S235JRG2	self colour 372562137
5000	5.80	4.86	7.89	S235JRG2	primed 373562137



Dim. a [mm]	Length [mm]	Weight [kg/m]	W _{x1} [cm ³]	W _{x2} [cm ³]	Quality EN 10025	Finish
31	5000	7.80	8.40	11.94	S235JRG2	self colour 372562036
31	5000	7.80	8.40	11.94	S235JRG2	primed 373562036
35	5000	8.12	9.85	13.90	S235JRG2	self colour 372562037



Miscellaneous steel profiles



$$W_{x1} = \frac{I_x}{e_1} ; W_{x2} = \frac{I_x}{e_2}$$

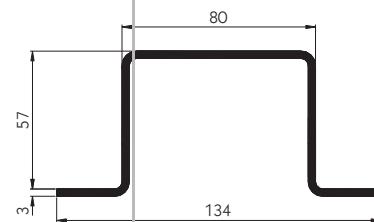
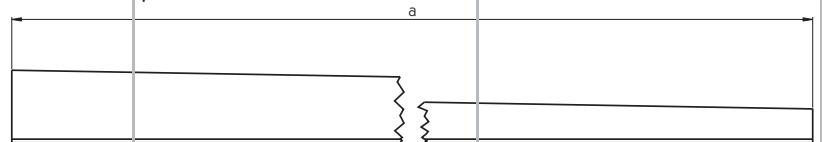
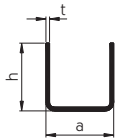
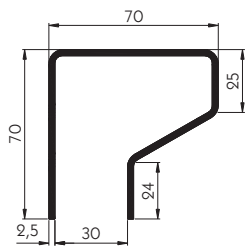
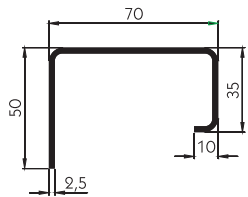
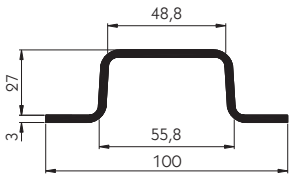
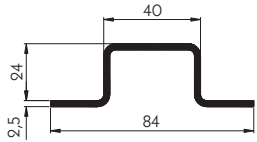


Illustration: Profile cross section below and above

Headboard supports

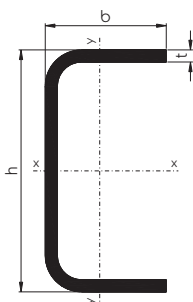
Dim. a [mm]	Weight [kg]	Quality	Finish
2200	11.00	S235JRG2	self colour 370561117
3000	15.00	QStE380TM	KTL 370561360



In the course of on-going European standardisation, DIN 17100 for metallic materials has been superseded by EN 10025. The designation system has also been changed. The steel quality of the relevant articles are already designated in accordance with the new standards. In the following overview, the previously used designations to DIN 17100 are shown opposite the new designations to EN 10025 standards.

DIN 17100	EN 10025
St33	S185
St37-2	S235JRH
USt37-2	S235JRG1
RSt37-2	S235JRG2
St52-3 U	S355JOH
St52-3 N	S355J2H
DX51D	St02Z

U-section steel



Dim. h [mm]	Dim. b [mm]	Dim. t [mm]	Weight [kg/m]	W _x [cm ³]	W _y [cm ³]	Length [mm]	
46	45	3	2.97	5.85	2.78	6000	372561006
50	40	4	3.67	7.24	2.91	6000	372561008
54	45	4	4.11	8.98	3.71	6000	372561009
62	45	4	4.36	10.82	3.81	6000	372561010
70	50	4	4.92	13.99	4.77	6000	372561011
80	50	4	5.24	16.80	5.07	7600	372562379
80	50	5	6.41	19.86	5.96	6000	372561012
90	50	5	6.81	23.36	6.09	6000	372561013
100	50	5	7.20	27.00	6.18	6000	372561014
100	50	5	7.20	27.00	6.18	7600	372562114
120	60	6	10.37	46.67	10.68	6000	372561016
140	60	6	11.31	57.86	10.95	6000	372561017

Top hat profile

Length [mm]	Weight [kg/m]	Quality EN 10025	Finish	
6000	2.24	S235JR	self colour	372561033
6000	2.24	S235JR	zinc plated	372561134

Top hat profile

Length [mm]	Weight [kg/m]	Quality EN 10025	Finish	
6000	3.23	S235JR	zinc plated	372561135

Rubbing stake profile

Length [mm]	Weight [kg/m]	Quality EN 10025	Finish	
6000	3.00	S235JRH	self colour	372561044

Rubbing stake profile

Length [mm]	Weight [kg/m]	Quality EN 10025	Finish	
6000	4.28	S235JRG2	self colour	372561047

Side board edging

Warehouse length approx. 6000 mm, quality DX51D, zinc plated.

Dim. a [mm]	Dim. h [mm]	Dim. t [mm]	Weight [kg/m]	
18.5	20	1.5	0.63	372561141
21.5	20	1.5	0.66	372561140
23	23	1.5	0.75	372561087
25	25	1.5	0.82	372561061
28	28	1.5	0.95	372561060
31	28	1.5	0.97	372561088
30	30	2	1.30	372561106

S235JRG2 = RSt37-2.

U-section steel, quality S235JRG2

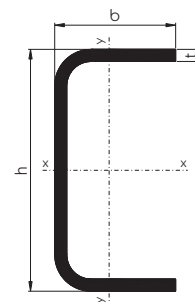
Cold rolled profile, self colour.

S235JRG2 = RSt37-2.

U-section steel, quality S235JRG2

Cold rolled profile, in warehouse lengths of 6000 mm, sand blasted and primer painted.

Dim. h [mm]	Dim. b [mm]	Dim. t [mm]	Weight [kg/m]	Wx [cm ²]	Wy [cm ²]	
62	45	4	4.36	10.82	3.81	373561368
70	50	4	4.92	13.99	4.77	373561369
80	50	5	6.41	19.86	5.96	373561370
100	50	5	7.20	27.00	6.18	373561371
120	60	6	10.37	46.67	10.68	373561372

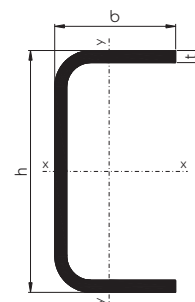


S355J0 = St52-3.

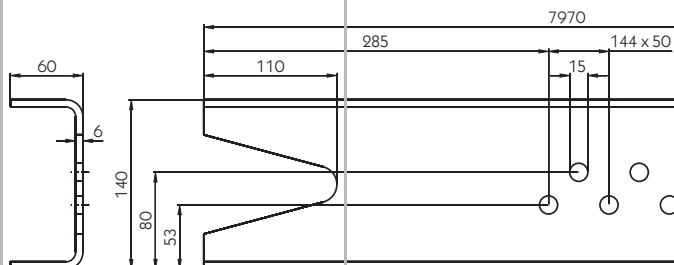
U-section steel, quality S355J0

Cold rolled profile, in warehouse lengths of 6000 mm, self colour.

Dim. h [mm]	Dim. b [mm]	Dim. t [mm]	Weight [kg/m]	Wx [cm ²]	Wy [cm ²]	
120	60	6	10.37	45.80	10.70	372561265
140	70	6	12.20	64.40	14.80	372561266
160	70	7	14.80	87.50	17.40	372561267
180	80	7	17.00	114.90	23.00	372561268
200	80	8	20.90	151.50	26.36	372561269



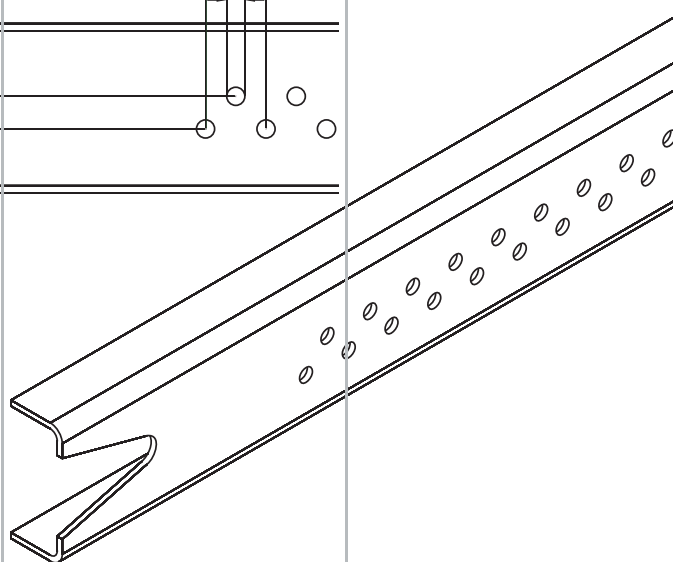
Subframe



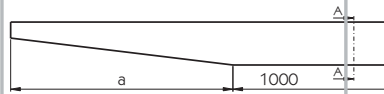
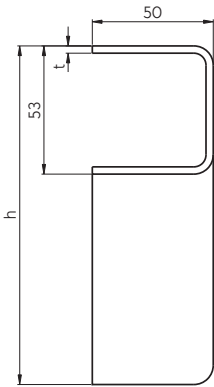
Subframe

Drilled, S460MC quality, warehouse length 7970 mm, sand blasted and galvanised.

	Weight [kg/m]	Wx [cm ²]	
Drilled subframe	11.25	57.31	605645066



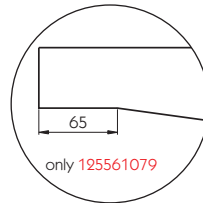
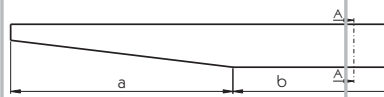
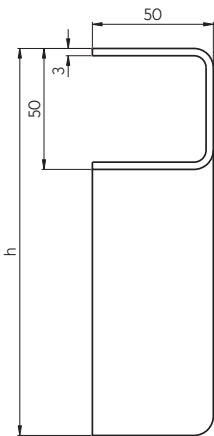
Crossmembers



Crossmembers,
quality S235JRH
Pressed fabrication, self colour.

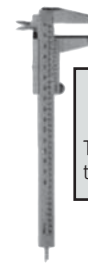
Dim. h [mm]	Length [mm]	Dim. t [mm]	Dim. a [mm]	Weight [kg]	W _x [cm ³]	
100	2470	3	735	11.50	17.44	325561142
100	2470	4	735	14.00	22.46	325561143
100	2520	3	760	11.75	17.44	125561272
100	2520	4	760	14.30	22.46	125561273
140	2470	3	735	12.00	27.54	325561081
140	2520	3	760	12.25	27.54	125561274

The flanges on the following crossmembers have raised stampings for additional structural strength:
125561079, 125561142, 325561143, 125561272, 125561273.



Crossmembers, quality S235JRH
Pressed fabrication, self colour.

Dim. h [mm]	Length [mm]	Dim. a [mm]	Dim. b [mm]	Weight [kg]	W _x [cm ³]	
160	2520	760	1000	13.50	33.19	325561275
200	2500	700	1100	15.00	45.69	125561079



Section moduli for the crossmembers
The values given are for the section at A-A.

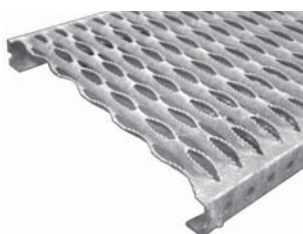
Accessories



Angle gusset plate
Support for crossmember, 4 mm steel plate, leg length approx. 150 x 150 mm, self colour.

Height [mm]	Weight [kg]	
90	0.45	125141293
140	0.70	125141294

Expanded metal grating

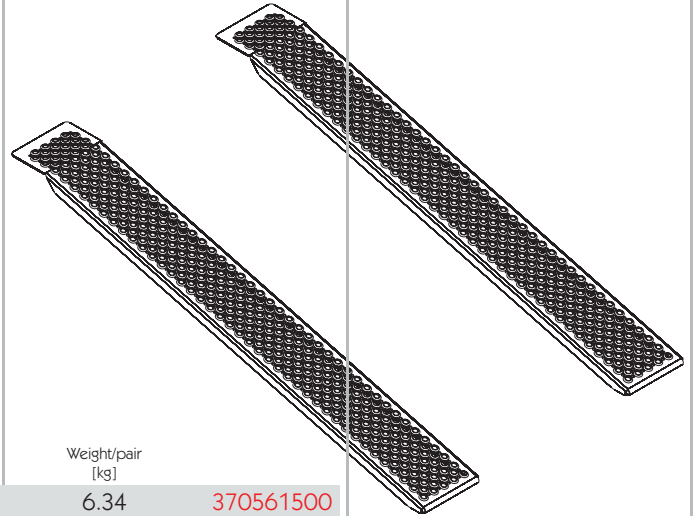


Expanded metal grating
Manufactured from 2 mm galvanized steel, warehouse lengths 3000 mm.

Width [mm]	Height [mm]	Weight [kg/m]	
190	40	5.0	370561361
250	40	5.9	370561362
310	40	6.9	370561363
370	40	7.9	370561364
430	40	8.9	370561365

Supplied in pairs only, other lengths and profiled variants on request.

Aluminium channel ramps



Aluminium channel ramps
TÜV- and GS tested.

Ramp length [mm]	Width [mm]	Perm. wheel width [mm]	Rise [mm]	Load capacity [kg/pair on wheels]	Weight/pair [kg]	
1500	200	180	405-500	400	6.34	370561500
2000	200	180	550-681	400	9.02	370561501
1500	260	240	405-500	1000	11.40	370561502
2000	260	240	550-681	1000	14.76	370561503
2500	260	240	700-862	1000	18.75	370561504
3000	260	240	850-1043	1000	22.55	370561505

Steps

Stirrup tread plate

Height 240 mm, o/a width 405 mm, zinc plated steel, weight 1.30 kg.

108131502

1501

Tread plate 160 x 150 mm (w x d), zinc plated steel, weight 1.2 kg.

125131518

116

Tread plate 160 x 150 mm (w x d), zinc plated steel, weight 0.89 kg.

Primer painted 215131921

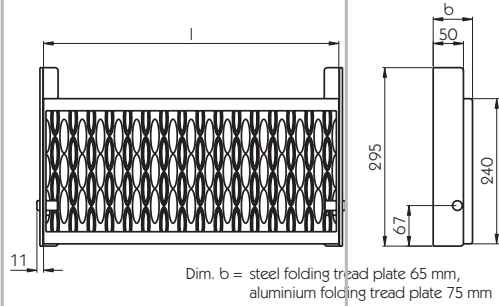
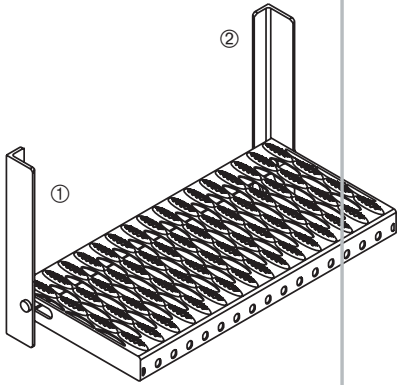
Zinc plated 215131373

Recessed folding tread plate

For 25/30 mm aluminium side board profile, tread plate 160 x 150 mm (w x d), zinc plated steel, weight 1.3 kg.

104131519





Dim. b = steel folding tread plate 65 mm,
aluminium folding tread plate 75 mm

Folding tread plate

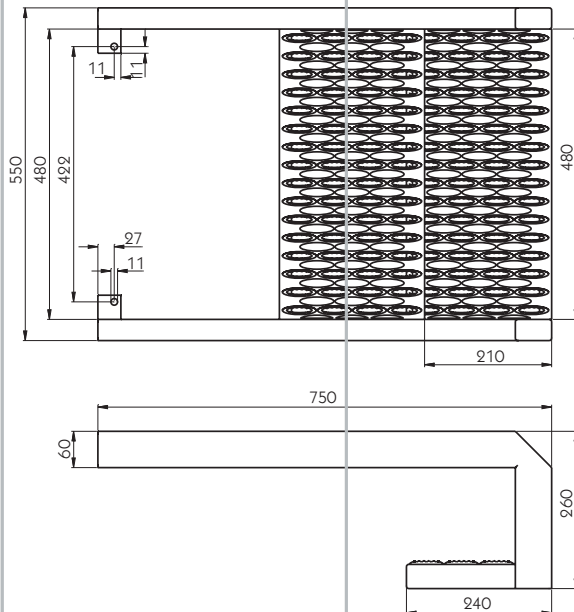
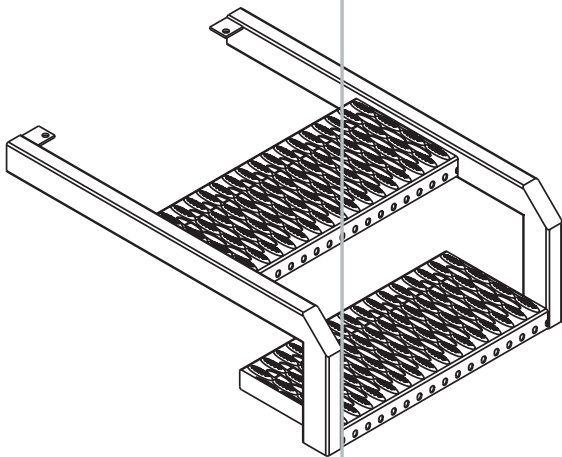
Please order mounting brackets separately.

Description	Dim. l [mm]	Weight [kg]	
Steel folding tread plate	480	3.40	105131609
Steel folding tread plate	630	4.20	105131610
Steel folding tread plate	750	4.95	105131611
Mounting bracket, left ①, galvanised steel		1.00	105131615
Mounting bracket, right ②, galvanised steel		1.00	105131616

Folding tread plate

Please order mounting brackets separately.

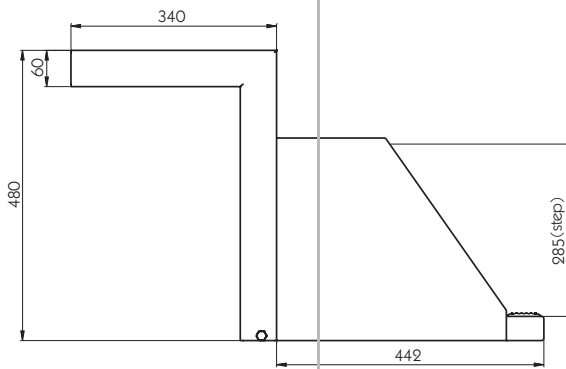
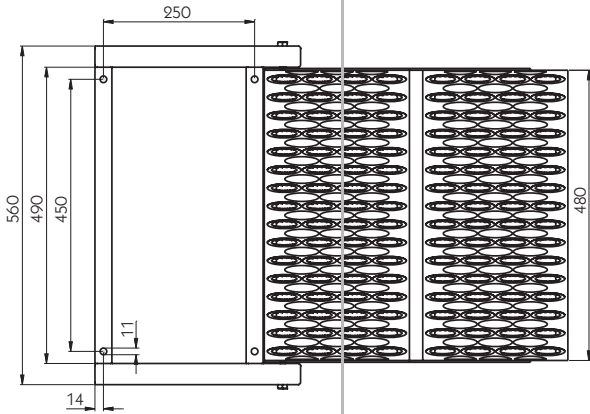
Description	Dim. l [mm]	Weight [kg]	
Aluminium folding tread plate	480	1.85	105131612
Aluminium folding tread plate	630	2.35	105131613
Aluminium folding tread plate	750	2.70	105131614
Mounting bracket, left ①, galvanised steel		1.00	105131854
Mounting bracket, right ②, galvanised steel		1.00	105131855



Pull-out steps

2-rung, without safety, steel zinc plated, weight 10 kg.

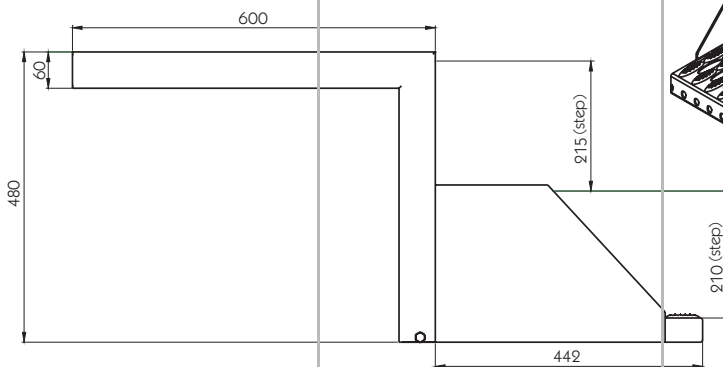
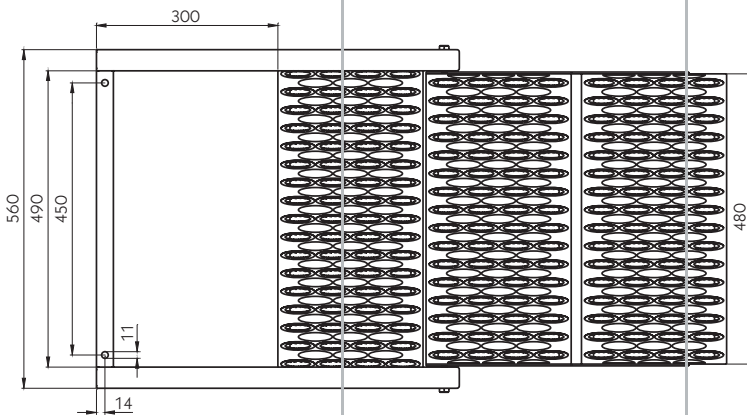
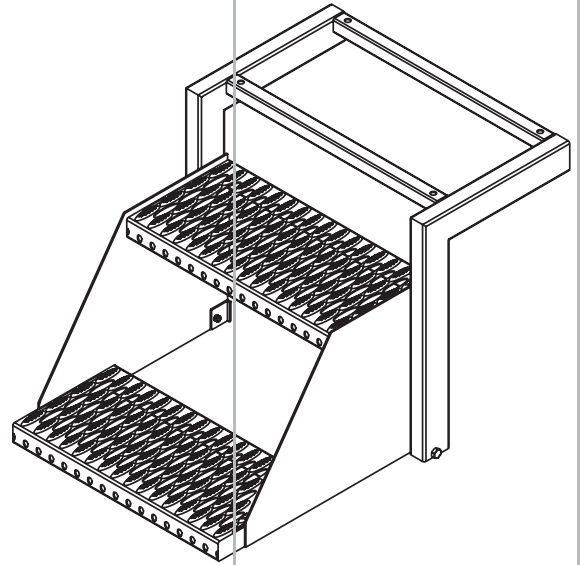
105131737



Folding tread plate
2-rung, without safety, steel zinc
plated, weight 16 kg.

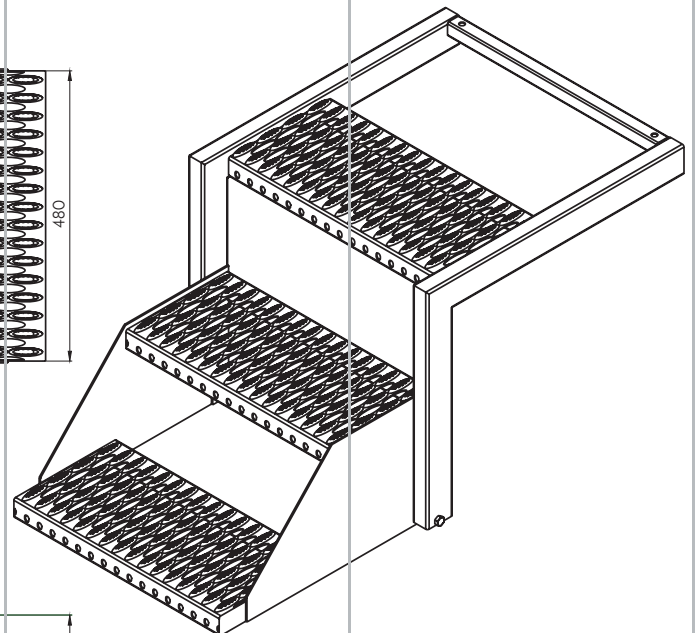
105131675

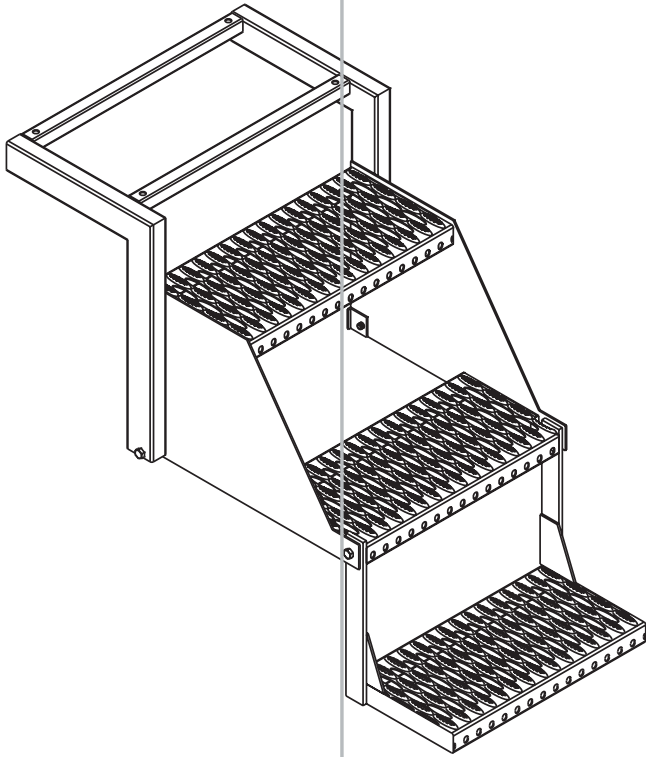
Illustrated drawing: unfolded.



Folding tread plate
3-rung, without safety, steel zinc
plated, weight 20 kg.

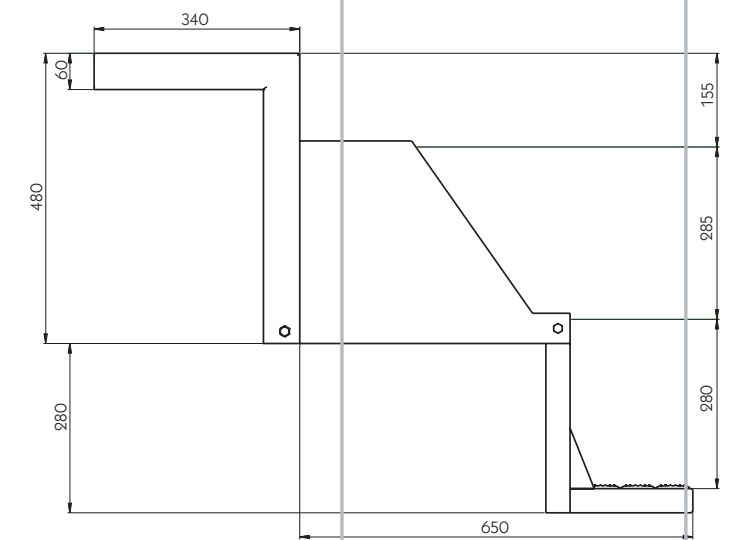
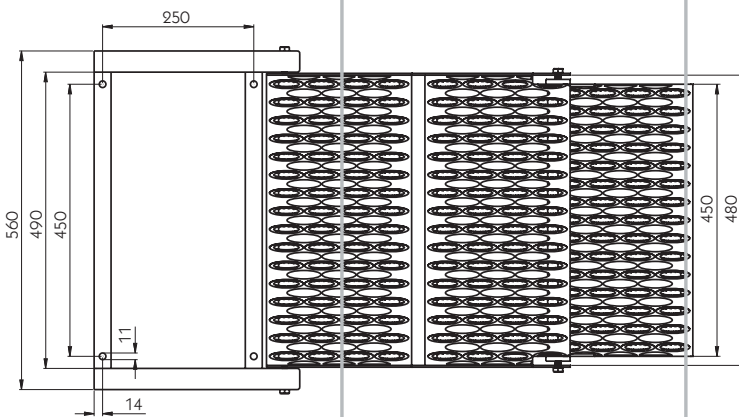
105131770





Folding tread plate
Twice-folding, 3-rung, without safety,
steel zinc plated, weight 24 kg.

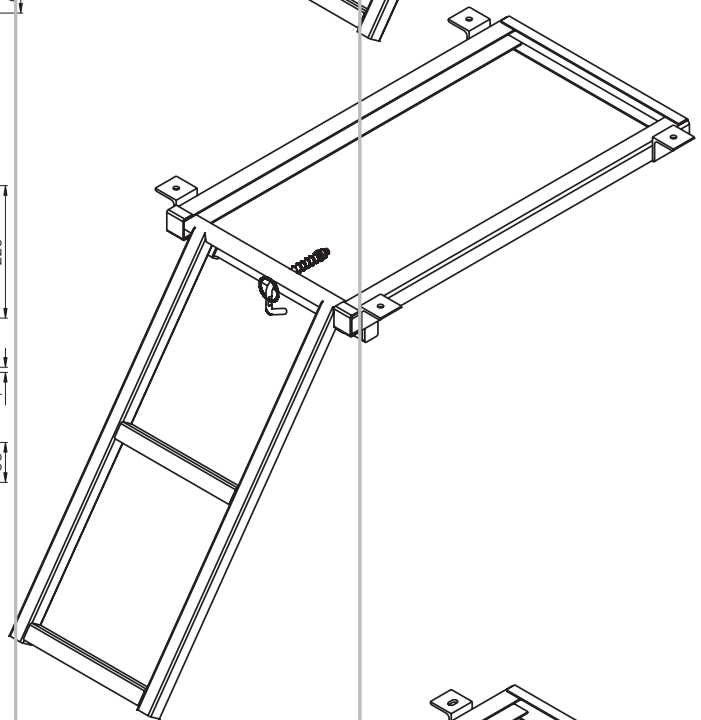
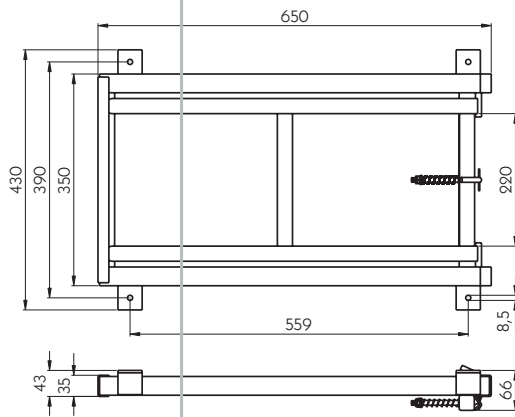
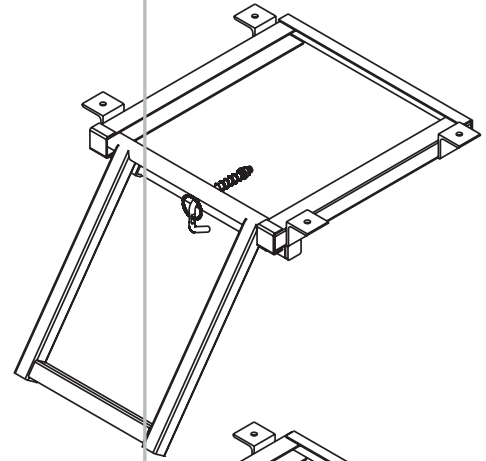
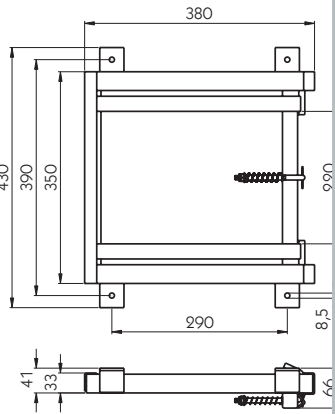
105131761



Illustrated drawing: unfolded.

Pull-out step ladder
single rung, secured with spring
bolt, zinc plated steel, weight
3.97 kg.

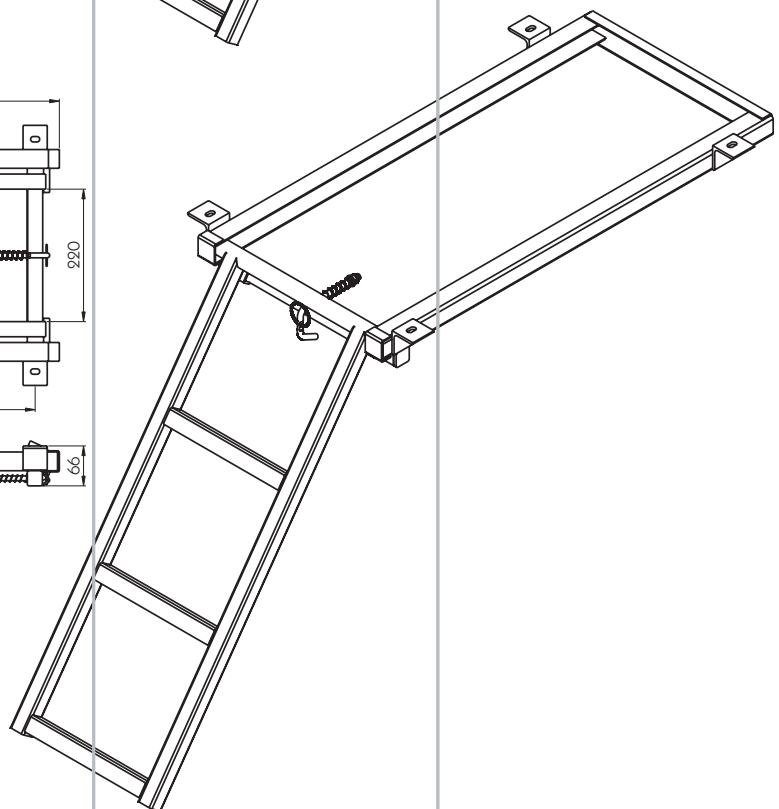
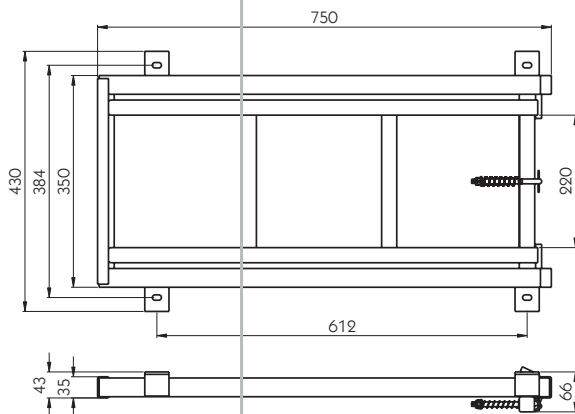
300131740



Pull-out step ladder
2-rung, secured with spring bolt,
zinc plated steel, weight 6.0 kg.

300131741

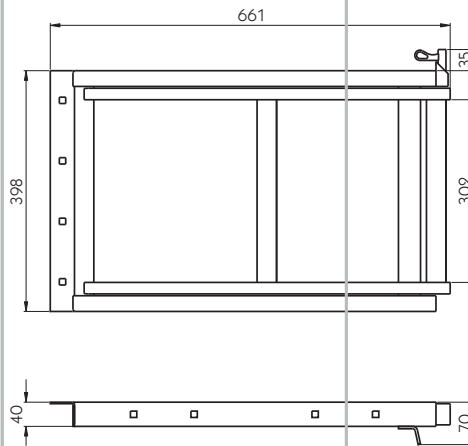
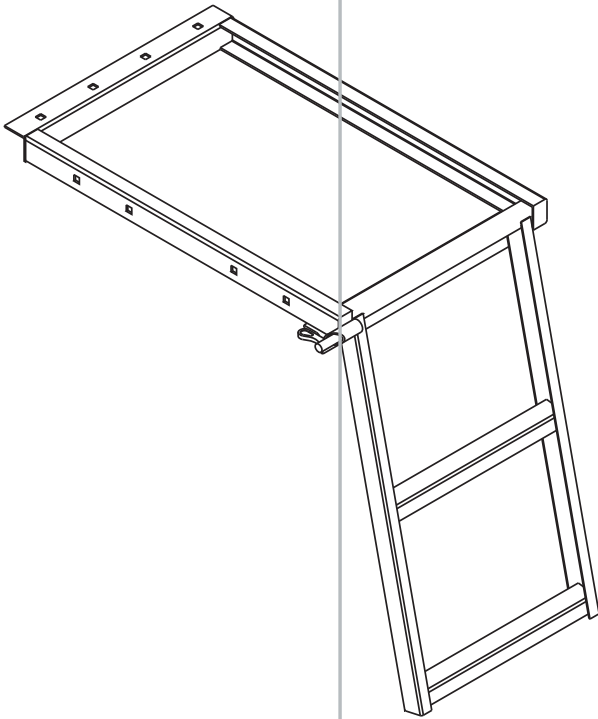
No longer
available



Pull-out step ladder
3-rung, secured with spring bolt,
zinc plated steel, weight 6.67 kg.

300131798

No longer
available

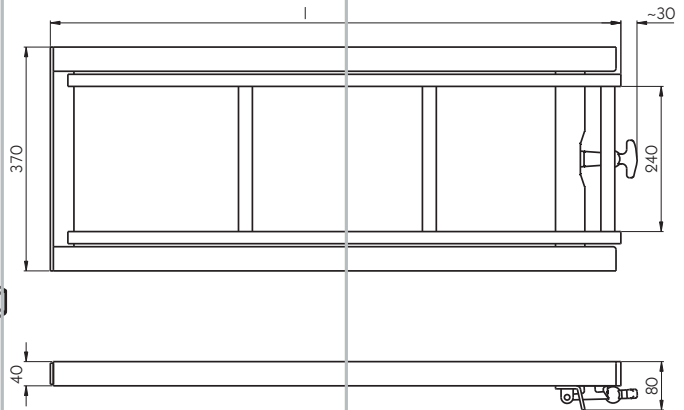
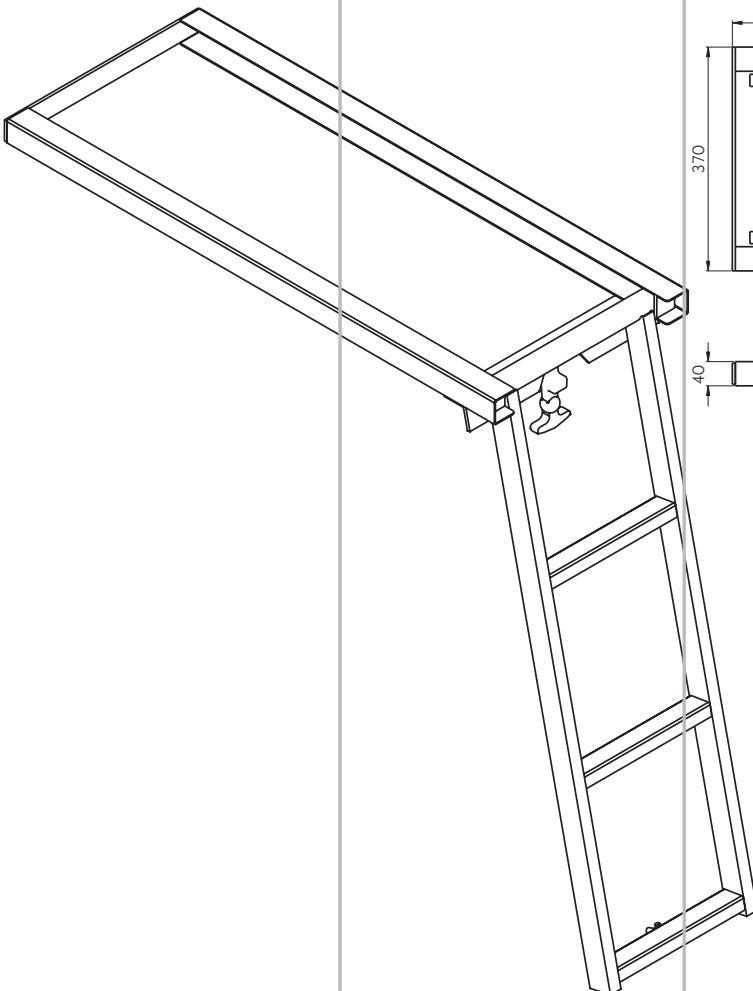


Pull-out step ladder

2-rung, secured with spring bolt, KTL-coated steel, weight 6.12 kg.

125131501

No longer available



Pull-out step ladder

3-rung, dim. l = 650 mm, secured with bonnet fastener, steel zinc plated, weight 9.32 kg.

125131571

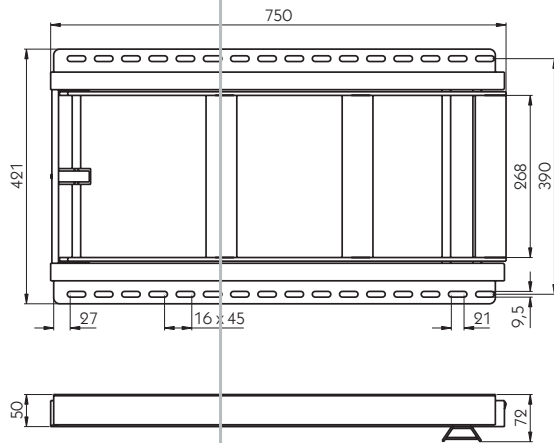
No longer available

Pull-out step ladder

3-rung, dim. l = 950 mm, secured with bonnet fastener, steel zinc plated, weight 9.58 kg.

125131572

No longer available

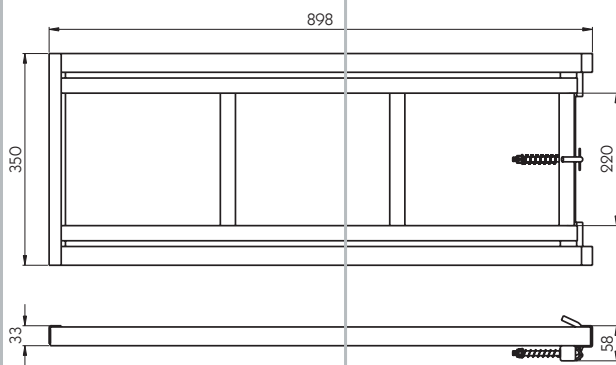
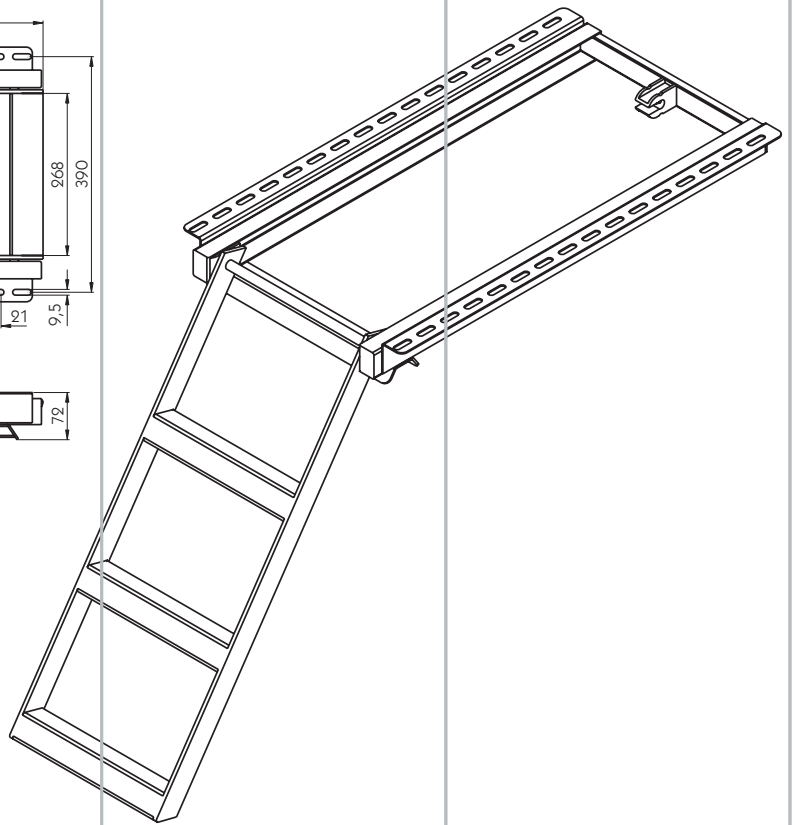


Pull-out step ladder

3-rung, clamp safety device, zinc plated steel, weight 9.47 kg.

128131640

No longer available

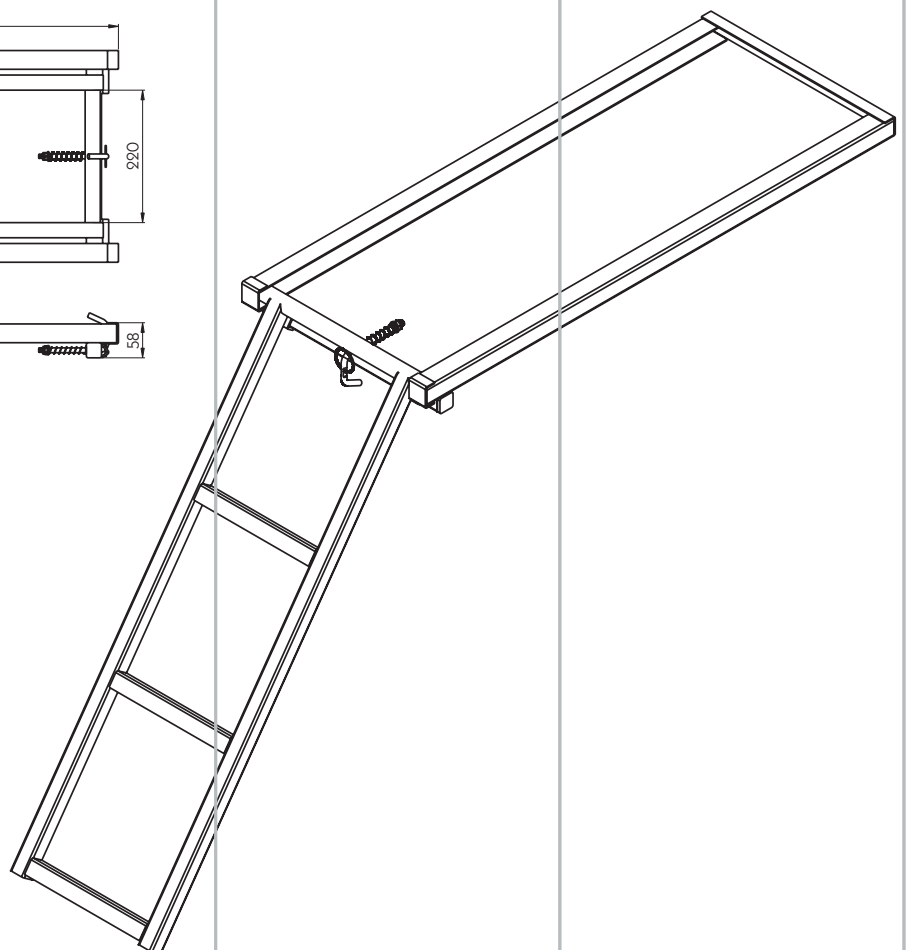


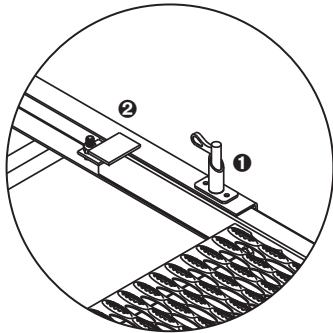
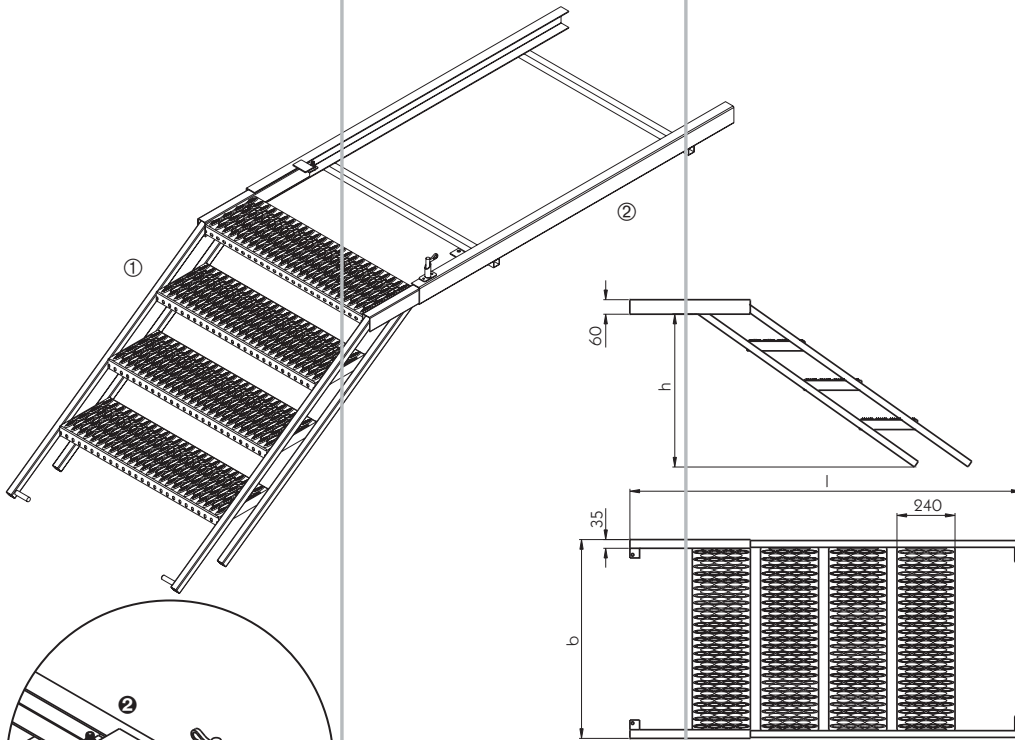
PWP pull-out step ladder

3-rung, secured with spring bolt, zinc plated steel, weight 6.78 kg.

105131703

No longer available

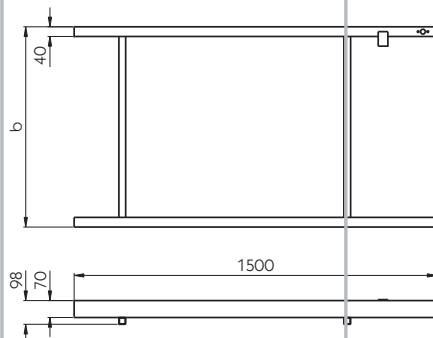




Supply of the mounting frame includes a loose ① spring bolt for securing the retracted steps. This can be fitted above or below the mounting frame. For securing the steps in the frame, stop plates ② are provided for the safety pins (e.g. screws).

① PWP pull-out steps
Zinc plated steel, without mounting frame.

Description	Dim. h [mm]	Dim. b [mm]	Dim. l [mm]	No. of steps [Pcs.]	Weight [kg]	
912-707	1100-1250	705	2470	7	44	105131576
912-706	950-1100	705	2185	6	38	105131545
912-705	800-950	705	1900	5	32	105131577
912-704	650-800	705	1615	4	26	105131578
912-807	1100-1250	825	2470	7	48	105131579
912-806	950-1100	825	2185	6	42	105131514
912-805	800-950	825	1900	5	35	105131580
912-804	650-800	825	1615	4	29	105131581



② Mounting frame for pull-out PWP steps
Zinc plated.

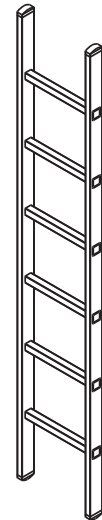
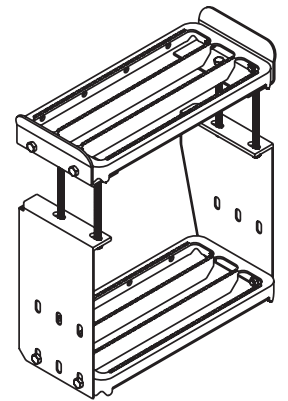
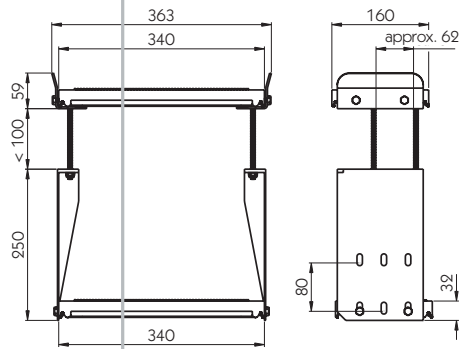
Width [mm]	Weight [kg]	
710	19	105131583
830	20	105131584

The double side step is clamped between upright tubes or similar (dimension max. 62 x 100 mm).

Double side step

2-tread, zinc coated steel, weight 4.68 kg.

215131555

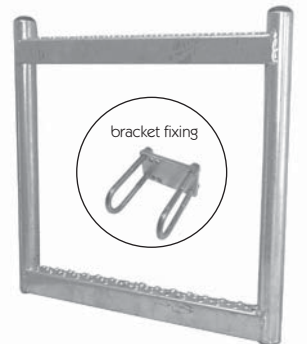
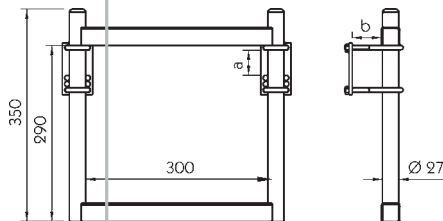


Ladders

Stringer ends fitted with rubber feet.

Rungs [no. of]	Material	Length o/a [mm]	Weight [kg]	
6	aluminium	1940	3.23	300131515
6	steel	1940	6.85	300131516
8	aluminium	2290	3.60	300131648

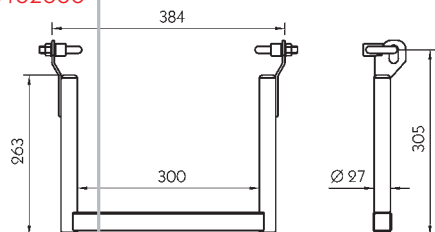
Supply includes the forked drawbar step and the fixing brackets consisting of 4 U-bolts with nuts and 2 backing plates. All parts zinc plated.



Forked drawbar step

Access ladders to UVV 3.2 Par. 3, (German accident prevention law).

	Dim. a [mm]	Dim. b [mm]	Weight [kg]	
Size 1	50 - 100	max. 75	2.6	853401000
Size 2	40 - 60	max. 50	2.6	853402000



Supply includes the fold-away add on rung and the U-bolt brackets for fitting to one of the steps. All parts zinc plated.

Fold-away add on rung

Weight 1.7 kg.
853403000

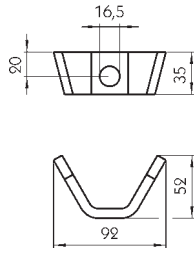
Ladder rung

Dimensions approx.: 30 x 30 x 317 mm (w x h x l), steel, self colour, weight 0.36 kg.

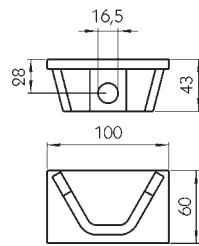
853410000



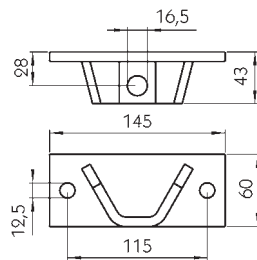
Mounting brackets and U-bolts



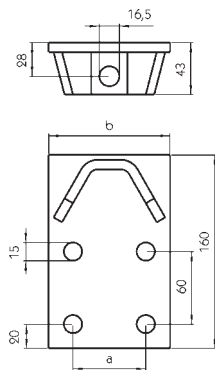
653
Self colour, weight 0.24 kg.
125141394



650
Primer finish, weight 0.64 kg.
125141390

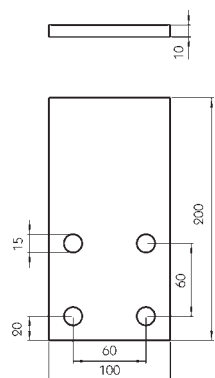


650 L
Zinc plated, weight 0.79 kg.
125141391



651
Zinc plated.

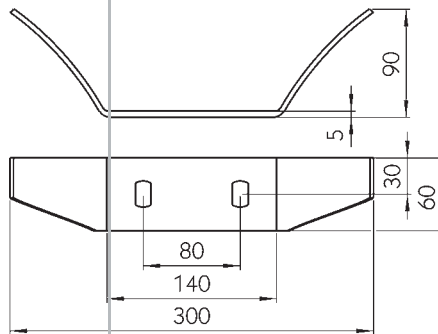
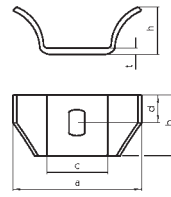
Dim. a [mm]	Dim. b [mm]	Weight [kg]	
60	100	1.21	125141392
80	140	1.25	125141603



652
Zinc plated, weight 1.44 kg.
125141393

Brackets
Self colour.

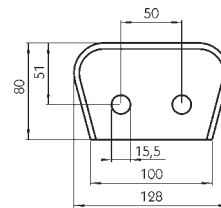
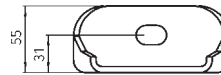
Dim. a [mm]	Dim. b [mm]	Dim. c [mm]	Dim. d [mm]	Dim. h [mm]	Dim. t [mm]	Elongated hole [mm]	Weight [kg]	
106	50	50	27	40	5	21.5 x 13	0.23	125141102
155	60	70	29	69	6	25 x 17	0.59	125141103
155	60	70	29	73	8	25 x 17	0.79	125141200



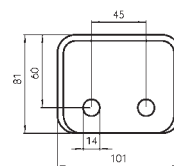
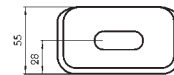
MAN compatible
Elongated holes 30 x 15 mm, self colour, weight 0.90 kg.
125141314

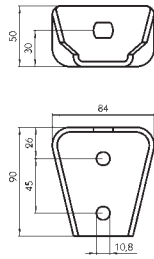
Bracket for MB Actros
Elongated hole 25 x 16 mm, weight 0.66 kg.

Self colour	125141585
Primer	125141586
Zinc plated	215141626



Bracket
Elongated hole 40 x 15 mm, self colour, weight 0.55 kg.
108071567

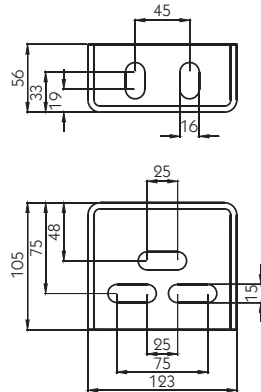




Bracket

Elongated hole 16 x 13 mm, zinc plated, weight 0.36 kg.

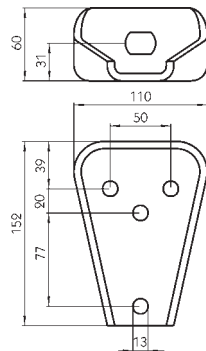
105141561



Bracket

Zinc plated, weight 0.80 kg.

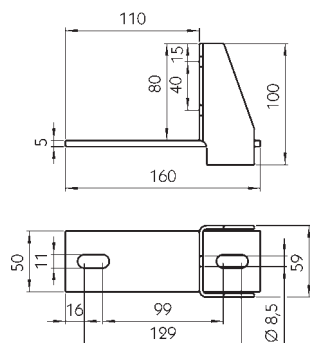
605646000



Bracket

Elongated hole 25 x 18 mm, zinc plated, weight 0.97 kg.

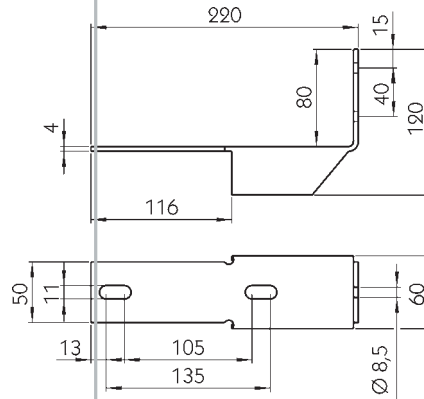
105141570



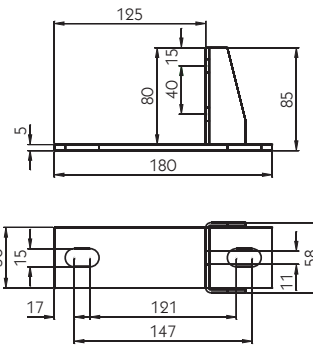
Bracket for MB Sprinter

Galvanised, weight 0.56 kg.

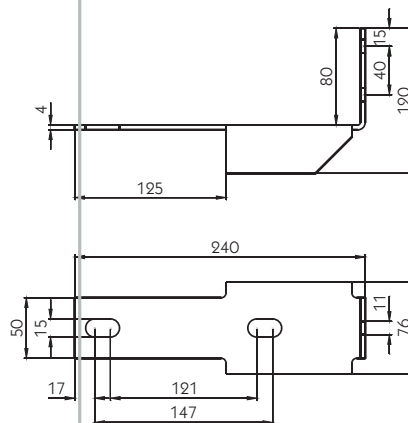
105141475



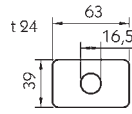
Bracket for MB Sprinter
For the twin tyres areas, galva-
nised, weight 0.64 kg.
105141476



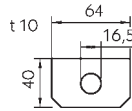
Bracket for MB Sprinter
and VW Crafter - type
2006
Galvanised, weight 0.55 kg.
105141715



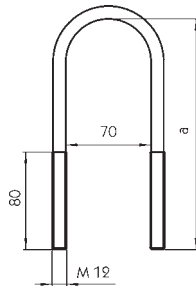
Bracket for MB Sprinter
and VW Crafter - type
2006
For the twin tyres areas, galva-
nised, weight 0.74 kg.
105141716



Rubber pad
Weight 0.07 kg.
105141588



Pad
Galvanised, weight 0.18 kg.
105141604



U-bolts
Without nuts, self colour.

	Dim. a [mm]	Weight [kg]	
U-bolt	320	0.48	125141087
U-bolt	360	0.54	125141090
U-bolt	420	0.61	125141093
U-bolt	540	0.84	125141099

No longer available

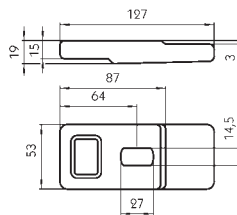


No longer available

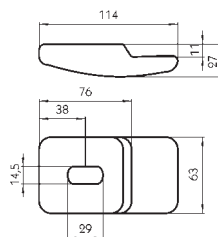
U-bolt bracket
Accessory for U-bolt, self colour, weight 0.32 kg.
125141101

Finger clamps for box bodies

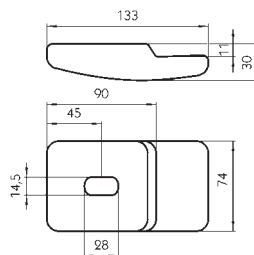
Finger clamp
For light bodies, thickness 3 - 6 mm, zinc plated, weight 0.62 kg.
108071057



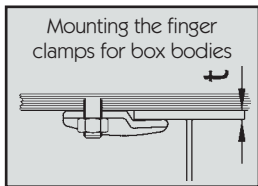
Finger clamp
For medium weight bodies, thickness max. 10 mm, zinc plated, weight 0.56 kg.
108071058



Finger clamp
For heavy bodies, thickness max. 10 mm, zinc plated, weight 0.96 kg.
108071053

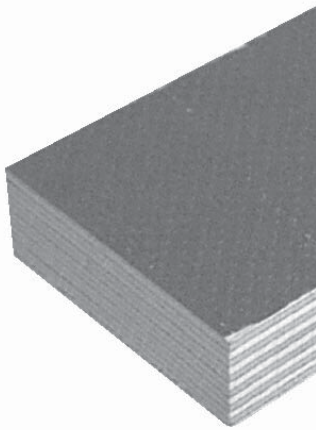


Spacer plate 2 mm
For underbody bracket **108071053**, zinc plated, weight 0.06 kg.
108071055



No longer available

Phenolic plywood boards



All phenolic plywood boards have textured film surface.

Medium format

Finnish birch, approx. 1250 x 2500 mm.

Thickness [mm]	Layers [per board]	Weight [kg/m ²]	
9	7	6.08	360713100
12	9	8.32	360713101
15	11	10.20	360713102
18	13	12.48	360713103
21	15	14.40	360713104
24	17	16.64	360713105
27	19	18.88	360713106
30	21	20.08	360713107

Special format

Finnish birch, approx. 1500 x 2500 mm.

Thickness [mm]	Layers [per board]	Weight [kg/m ²]	
9	7	6.08	360713108
12	9	8.32	360713109
15	11	10.20	360713110
18	13	12.48	360713111
21	15	14.40	360713112
24	17	16.64	360713113
27	19	18.88	360713114
30	21	20.08	360713115

Large format

Finnish birch, approx. 1500 x 3000 mm.

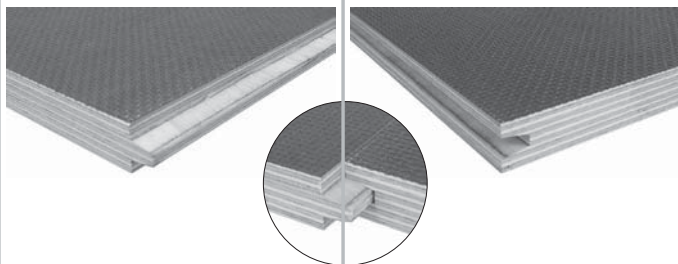
Thickness [mm]	Layers [per board]	Weight [kg/m ²]	
9	7	6.08	360713116
12	9	8.32	360713117
15	11	10.20	360713118
18	13	12.48	360713119
21	15	14.40	360713120
24	17	16.64	360713121
27	19	18.88	360713122
30	21	20.08	360713123

Phenolic plywood boards with tongue and groove

Finnish combi plywood, special format approx. 1500 x 2500 mm, floor size 1490 x 2500 mm.

Thickness [mm]	Layers [per board]	Weight [kg/m ²]	
21	15	13.10	360713089
24	17	14.80	360713090
27	19	16.60	360713091

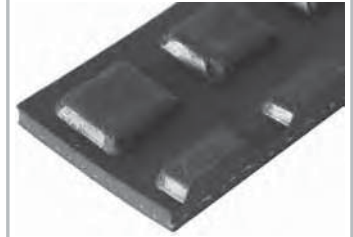
No longer available



Studded rubber matting

Studded rubber matting
Black, with fabric inlay, patterned fabric underside, 8 mm thick, 1.000 mm wide, roll length 10 m, weight 9.2 kg/m.

498551117



Chemical products
Seam sealant

Cartridge supplied with screw-on nozzle.

Area of application:
Properties:

Usage:

Safety:

Solvent and cleaning agent:

Technical data:

Körapop 216

One-component seam sealant based on POP copolymer, solvent-containing, humidity-hardening. Seam sealing for chassis, container and vehicle building.

Elastic, good resistance to dampness, atmospheric conditions and temperatures from -40 to +80 °C (short periods to +120 °C), good bonding to glass, many metals (zinc, aluminium, steel), paints and primers, wood materials, Duroplast and thermoplastics (except PE, PP, PS, PC, PMMA, PTFE) and mineral bases. Can immediately be spray coated with many paints.

Paste-like thixotropic, can be worked with a spray gun. Working temperature +5 to +30 °C.

See safety data sheet.

Körasolv CR.

Density [g/cm ³]	Touch dry time [mins at 20 °C]	Full curing [mm after 24h]	Shore A hardness	Rupture elongation [%]	Tensile strength [N/mm ²]	Tear-growth resistance [N/mm]
1.48	25	3	40	270	1.6	6.0

Product type	Delivery form	Container size [ml]
Körapop 216, colour grey	Cartridge	310

636683060

Adhesive and sealant

Cartridges supplied with one screw-on nozzle each

One-component adhesive and sealant based on POP copolymer, solvent-free, humidity-hardening.

Area of application:

Körapop 225

Adhesive and sealant for chassis, container and vehicle building, ventilation and air conditioning as well as metalworking, ship and boatbuilding etc.

Properties:

Elastic, good stability, good resistance to dampness, atmospheric conditions and temperatures from -40 to +90 °C (short periods to +120 °C), good bonding to glass, many metals (zinc, aluminium, steel), paints and primers, wood materials, Duroplast and thermoplastics (except PE, PP, PTFE) and mineral bases. Can immediately be spray coated with many paints.

Usage:

Paste-like, can be worked with spatula, adhesive gun. Working temperature +5 to +30 °C.

Safety:

See safety data sheet.

Solvent and cleaning agent:

Körasolv CR or Körasolv GL.

Technical data:

Density [g/cm ³]	Touch dry time [mins at 20 °C]	Shore A hardness	Rupture elongation [%]	Tensile strength [N/mm ²]	Tear-growth resistance [N/mm]
1.44	25	42	500	3.0	20.0

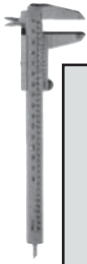
Product type	Delivery form	Container size [ml]
Körapop 225, colour white	Cartridge	310
Körapop 225, colour black	Cartridge	310
Körapop 225, colour white	Tube	600
Körapop 225, colour black	Tube	600

636683033

636683078

636683034

636683079



Shore A hardening guide Körapop 225/2K	
2 hours	11/8
4 hours	22/20
8 hours	29/27
1 day	25/33
2 days	37/35
7 days	39/37
14 days	40/38
28 days	40/38

Tandem cartridge is supplied without mixing nozzle [636683045](#). Please order this separately.

Körapop 225/2K

Two-component adhesive and sealant based on POP copolymer, solvent-free.

Area of application:

Adhesive and sealant for chassis, container and vehicle building, ventilation and air conditioning, metalworking, ship and boatbuilding etc.

Properties:

Elastic, good stability, good resistance to dampness, atmospheric conditions and temperatures from -40 to +90 °C (short periods to +120 °C), good bonding to glass, many metals (zinc, aluminium, steel), paints and primers, wood materials, Duroplast and thermoplastics (except PE, PP, PTFE) and mineral bases.

Usage:

Paste-like, can be worked with spatula, special machinery or with MKC pistol. Working temperature +5 to +30 °C.

Safety:

See safety data sheet.

Solvent and cleaning agent:

Körasolv CR or Körasolv GL.

Technical data:

Density [g/cm ³]	Pot life [mins at 20 °C]	Shore A hardness	Rupture elongation [%]	Tensile strength [N/mm ²]	Tear-growth resistance [N/mm]
1.44	20	42	500	2.6	20.0

Product type	Delivery form	Container size [ml]
Körapop 225 - 2K, colour black and white	Tandem cartridge	220 636683035

Cartridges supplied with one screw-on nozzle each.

Körapop 235

One-component adhesive and sealant based on POP copolymer, solvent-free, humidity-hardening.

Area of application:

Adhesive and sealant for chassis, container and vehicle building, ventilation and air conditioning as well as metalworking, etc.

Properties:

Elastic, good resistance to dampness, atmospheric conditions and temperatures from -40 to +90 °C (short periods to +120 °C), good bonding to glass, many metals (zinc, aluminium, steel), paints and primers, wood materials, Duroplast and thermoplastics (except PE, PP, PTFE) and mineral bases.

Usage:

Paste-like, can be worked with spatula, adhesive gun. Working temperature +5 to +30 °C.

Safety:

See safety data sheet.

Solvent and cleaning agent:

Körasolv CR or Körasolv GL.

Technical data:

Density [g/cm ³]	Touch dry time [mins at 20 °C]	Full curing [mm after 24h]	Shore A hardness	Rupture elongation [%]	Tensile strength [N/mm ²]	Tear-growth resistance [N/mm]
1.44	10	3	50	550	3.3	24.0

Product type	Delivery form	Container size [ml]
Körapop 235, colour white	Cartridge	310 636683066
Körapop 235, colour black	Cartridge	310 636683073
Körapop 235, colour white	Tube	600 636683062

Cartridges supplied with one screw-on nozzle each.

Körapop 330

One-component adhesive and sealant based on silane terminated polymer, humidity hardening.

Area of application:

Rapid hardening, elastic adhesive and sealant with particularly high initial adhesion for chassis, container and vehicle building, ventilation and air conditioning as well as metalworking etc.

Properties:

Elastic, good resistance to dampness, atmospheric conditions and temperatures from -40 to +80 °C (short periods to +120 °C), good bonding to glass, many metals (zinc, aluminium, steel), paints and primers, wood materials, Duroplast and thermoplastics (except PE, PP, PTFE) and mineral bases.

Usage:

Paste-like, can be worked with spatula, adhesive gun. Working temperature +5 to +30 °C.

Safety:

See safety data sheet.

Solvent and cleaning agent:

Körasolv CR.

Technical data:

Density [g/cm ³]	Touch dry time [mins at 20 °C]	Full curing [mm after 24h]	Shore A hardness	Rupture elongation [%]	Tensile strength [N/mm ²]	Tensile transverse resistance [N/mm ²]
1.60	10	3	58	200	2.3	1.3

Product type

Delivery form

Container size [ml]

Körapop 330, colour white	Cartridge	310	636683089
Körapop 330, colour white	Tube	600	636683083



Prior to using the products, it is imperative that the manufacturer's product information and safety data sheet relating to the article are read through carefully as these contain important information on usage. You can find the corresponding data sheets on the manufacturer's home-page: www.koe-chemie.de.

Cartridges supplied with one screw-on nozzle each.

Körapur 125 - Suerflex

One-component adhesive and sealant based on polyurethane, humidity hardening.

Area of application:

Adhesive and sealant for primed and painted metals, aluminium, wood materials and Duroplast. For chassis, container and vehicle building, metalworking, ship and boatbuilding as well as ventilation and air conditioning.

Properties:

Elastic, good resistance to dampness, atmospheric conditions and temperatures from -40 to +90 °C (short periods to +120 °C), good stability, can be painted after curing.

Usage:

Paste-like, can be worked with spatula, adhesive gun. Working temperature +5 to +35 °C.

Safety:

See safety data sheet.

Solvent and cleaning agent:

Körasolv CR.

Technical data:

Density [g/cm ³]	Touch dry time [mins. at 20°C]	Volume change [%]	Shore A hardness	Rupture elongation [%]	Tensile strength [N/mm ²]	Tear-growth resistance [N/mm]
1.20	45	6	45	450	2.0	9.0

Product type

Delivery form

Container size [ml]

No longer available

Körapur 125, colour black	Cartridge	310	636683020
Körapur 125, colour grey	Cartridge	310	636683021
Körapur 125, colour white	Cartridge	310	636683022
Körapur 125, colour black	Tube	600	636683023
Körapur 125, colour grey	Tube	600	636683024
Körapur 125, colour white	Tube	600	636683025
Körapur 125, colour brown	Tube	600	636683068

Körapur 128

Area of application: Properties: Usage: Safety: Solvent and cleaning agent: Technical data:	One-component adhesive and sealant based on polyurethane, humidity hardening. Adhesive and sealant for primed and painted metals, aluminium, wood materials and Duroplast. For chassis, container and vehicle building, metalworking as well as ventilation and air conditioning. Elastic, good resistance to dampness, atmospheric conditions and temperatures from -40 to +90 °C (short periods to +120 °C). Fluid, can be applied by spatula, or mastic gun somewhat flowing. Can be painted after curing. Working temperature +5 to +35 °C. See safety data sheet. Körasolv CR.
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Density [g/cm ³]	Touch dry time [mins. at 20°C]	Volume change [%]	Shore A hardness	Rupture elongation [%]	Tensile strength [N/mm ²]	Tear-growth resistance [N/mm]	
1.20	35	9	45	450	2.0	6.0	
Product type						Delivery form	Container size [ml]
Körapur 128, colour white						Tube	600
							636683032



Prior to using the products, it is imperative that the manufacturer's product information and safety data sheet relating to the article are read through carefully as these contain important information on usage. You can find the corresponding data sheets on the manufacturer's home-page: www.koe-chemie.de.

Cartridges supplied with one screw-on nozzle each.

Körapur 140

Area of application: Properties: Usage: Safety: Solvent and cleaning agent: Technical data:	One-component adhesive based on polyurethane, humidity-hardening. Adhesive for primed and painted metals, aluminium, wood materials and Duroplast. For chassis, container and vehicle building. Elastic, good stability, good resistance to dampness, atmospheric conditions and temperatures from -40 to +90 °C (short periods to +120 °C). For rapid curing, even at low humidity or obstructed access to humidity a hardener (Köracur 100) can be used. Paste-like, can be worked with spatula or adhesive gun, can be painted over after curing. Working temperature 5 - 35 °C. See safety data sheet. Körasolv CR.
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Density [g/cm ³]	Touch dry time [mins. at 20°C]	Volume change [%]	Shore A hardness	Rupture elongation [%]	Tensile strength [N/mm ²]	Transverse resistance at 2 mm layer thickness [N/mm ²]	Tear-growth resistance [N/mm]
1.20	45	7	55	400	4.0	3.0	7.0
Product type						Delivery form	Container size [ml]
Körapur 140, colour black						Cartridge	310
Körapur 140, colour grey						Cartridge	310
Körapur 140, colour white						Cartridge	310
Körapur 140, colour black						Tube	600
Körapur 140, colour grey						Tube	600
Körapur 140, colour white						Tube	600

No longer available

Reaction adhesive

Körapur 643

Two-component reaction adhesive based on polyurethane, solvent-free.

Area of application:

Reaction adhesive for gluing PVC, PUR and PS foam, chipboard, MDF or plywood boards with rigid PVC, GRP, melamine resin board, steel and aluminium sheet facings. For example, manufacturing composite elements for the building industry, container and vehicle building. Also suitable as casting compound.

Properties:

Hard and tough, good resistance to dampness and atmospheric conditions, very good bonding properties.

Coverage:

300 g/m², depending on substrate.

Usage:

Thin fluid, can be applied with spatula, working temperature +15 to +25°C.

Safety:

See safety data sheet.

Solvent and cleaning agent:

Körasolv CR.

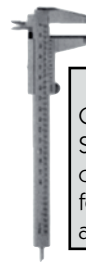
Technical data:

Density [g/cm ³]	Pot life [mins. at 20°C]	Final strength [after hrs.]	Mixing ratio [by weight]	Viscosity [mPas]
1.38	55	24	3:1	2500

Product type	Delivery form	Container size [kg]	
Körapur 643 A+B (resin only), colour beige	Bucket	30	636683074
Köracur TH 650 (hardener only)	Bottle	1	636683015
Köracur TH 650 (hardener only)	Tin	10	636683016



The hardener Köracur TH 650 can be used in place of Köracur TH 240. Curing takes place more quickly with this hardener and the pot life reduces to about 110 minutes.

**Substrate**

Coverage (depending on substrate) means: Substrate = Material/joint components according to which materials are to be glued. PUR foam for example soaks up more adhesive than aluminium sheet.

Körapur 648

Two-component reaction adhesive based on polyurethane, solvent-free.

Area of application:

Reaction adhesive for gluing rigid PVC, GRP, steel and aluminium sheet to PUR, PVC and PS rigid foam. For example, manufacturing composite elements for the building industry, container and vehicle building.

Properties:

Tough and hard, good resistance to dampness and atmospheric conditions.

Usage:

Thin fluid, can be applied with roller and spatula. Working temperature +15 to +25 °C.

Safety:

See safety data sheet.

Solvent and cleaning agent:

Körasolv CR.

Technical data:

Density [g/cm ³]	Pot life [mins. at 20°C]	Wet life [h bei 20 °C]	Final strength [after hrs.]	Mixing ratio [by weight]	Viscosity [mPas]
1.42	120	3	48	3.5:1	1400

Product type	Delivery form	Container size [kg]	
Körapur 648 A (resin only), colour beige	Bucket	30	636683018
Köracur TH 240 (hardener only)	Bottle	1	636683072
Köracur TH 240 (hardener only)	Tin	10	636683017
Köracur TH 650 (hardener only)	Bottle	1	636683015
Köracur TH 650 (hardener only)	Tin	10	636683016

Mixing cartridge supplied without accessory **636683048**. Please order this separately.

Körapur 666

Two-component reaction adhesive based on polyurethane, solvent-free.

Area of application:

Reaction adhesive for gluing metal with particularly good bonding to aluminium, wood, rigid PVC and GRP. For example, for gluing aluminium corner angles and profiles in window, container and vehicle building or for manufacturing core composite elements with PS, PUR or PVC rigid foam cores.

Properties:

Tough and hard, good resistance to dampness and atmospheric conditions. Very good bonding properties and damp tolerance.

Usage:

Paste-like, can be worked with spatula. Working temperature +15 to +25 °C. Adding drops of accelerator (Körapur PU) can influence the reactivity.

Safety:

See safety data sheet.

Solvent and cleaning agent:

Körasolv CR.

Technical data:

Density [g/cm ³]	Working time [mins. at 23 °C]	Final strength [after hrs.]	Mixing ratio [by weight]	Viscosity [mPas]
1.63	90	36	6:1	50000

Product type	Delivery form	Container size [kg]	
Körapur 666 A+B (resin + hardener), colour beige	Mixing cartridge	0.35	636683009
Körapur 666 A+B (resin + hardener), colour beige	Mixing unit	1	636683008
Körapur 666 (resin only)	Tin	6	636683010
Körapur 666 (resin only)	Tin	30	636683011
Köracur TH 650 (hardener only)	Tin	1	636683015
Köracur TH 650 (hardener only)	Tin	10	636683016



Pot life/working time

Pot life is the time after which an adhesive mixture, e.g. Körapur 672, can no longer be worked. Körapur 672 has a pot life of around 50 minutes, i.e. when components A + B have been mixed, there are still approx. 50 minutes remaining in which to join the materials to be glued (substrates) together.

Why is this information approximate?

The pot life with two-component products is heavily dependant on temperature. With Körapur 672 this is 50 mins. (at 20 °C), at 30 °C it would only be 25 mins. and at 10 °C it would be approx. 100 mins.

Körapur 672

Two-component reaction adhesive based on polyurethane, solvent-free.

Area of application:

For gluing various core materials such as PVC, PUR and PS foam, chipboard, MDF or plywood boards with rigid PVC, GRP, melamine resin board, steel and aluminium sheet facings. For manufacturing core composite elements for the building industry, vehicle and container building.

Properties:

Hard and tough, good resistance to damp and atmospheric conditions, relatively impervious to wood moisture content, relatively broad bonding spectrum.

Coverage:

300 g/m², depending on substrate.

Usage:

Fluid, can be brushed, worked with spatula or applied with squeegee or roller, working temperature 15 - 20 °C.

Safety:

See safety data sheet.

Solvent and cleaning agent:

Körasolv CR.

Technical data:

Density [g/cm ³]	Pot life [mins. at 20°C]	Final strength [after hrs.]	Mixing ratio [by weight]	Viscosity [mPas]
1.56	50	24	5:1	8000

Product type	Delivery form	Container size [kg]	
Körapur 672 (resin only), colour beige	Bucket	30	636683019
Köracur TH 650 (hardener only)	Tin	1	636683015
Köracur TH 650 (hardener only)	Tin	10	636683016

Tandem cartridge is supplied with one mixing nozzle.

Area of application:

Usage:

Flammable liquid ordinance

(VbF) category:

Safety:

Solvent and cleaning agent:

Technical data:

Körapur 784

Two-component reaction adhesive with different pot life settings based on polyurethane, solvent-free. Gluing different plastics such as ABS, rigid PVC, GRP etc., as well as steel and aluminium in the building and automotive industries.

Can be applied with spatula or squeegee

Contains no hazardous substances in amounts requiring statutory labelling.

See safety data sheet.

Körasolv CR.

Resin density [g/cm ³]	Hardener density [g/cm ³]	Pot life [mins. at 20°C]	Final strength [after hrs.]	Mixing ratio [by weight]	Resin viscosity [mPas]	Hardener viscosity [mPas]	
1.2	1.6	30/5/1	24	1:1.3	40000	20000	
Product type						Delivery form	Container size [ml]
Körapur 784 A+B (resin + hardener)						Tandem cartridge	50 636683050



Prior to using the products, it is imperative that the manufacturer's product information and safety data sheet relating to the article are read through carefully as these contain important information on usage. You can find the corresponding data sheets on the manufacturer's home-page: www.koe-chemie.de.

Mixing cartridge supplied without accessory **636683048**. Please order this separately. Tandem cartridge is supplied with one mixing nozzle.

Area of application:

Properties:

Coverage:

Usage:

Flammable liquid ordinance

(VbF) category:

Safety:

Solvent and cleaning agent:

Technical data:

Körapur 840

Two-component reaction adhesive based on polyurethane, solvent-free.

As assembly adhesive in automobile building, good bonding to powder coatings.

Stable in thin coating, flexible when cold, good impact toughness.

60 - 100 g/m².

Can be applied with spatula, working temperature +15 to +25 °C.

Contains no hazardous substances in amounts requiring statutory labelling.

See safety data sheet.

Körasolv CR.

Resin density [g/cm ³]	Hardener density [g/cm ³]	Pot life [mins. at 20°C]	Final strength [after hrs.]	Mixing ratio [by weight]	Viscosity [mPas]		
1.55	1.23	45	24	5:1	40000		
Product type						Delivery form	Container size [kg]
Körapur 840 A+B (resin + hardener), colour beige						Mixing cartridge	0.36 636683012
Körapur 840 A+B (resin + hardener), colour beige						Tandem cartridge	0.54 636683013
Körapur 840 (resin only)						Tin	5 636683014
Köracur TH 650 (hardener only)						Tin	1 636683015
Köracur TH 650 (hardener only)						Tin	10 636683016

Solvent/cleaner



In the Kömmerling product information, Körasolv PU is specified as the solvent and cleaning agent for the majority of adhesives and sealants. This has been found to be too aggressive for manual automotive work which is why Suer Nutzfahrzeugtechnik has deleted it from their product range. We recommend Körasolv CR as a paint-friendly alternative.

Körasolv CR

Area of application:

Organic solvent mixture, toluene-free.
Cleaner and thinner for Körapur, Körapox and Köratac adhesives corresponding to the specifications in the product information.

Properties:

Density approx. 0.77 kg/l, colourless, transparent.

Safety:

See safety data sheet.

Product type

Delivery form

Container size

[l]

Körasolv CR	Tin	1	631683005
Körasolv CR	Canister	5	631683067

Körasolv GL

Area of application:

Organic solvent mixture, toluene-free.
For cleaning and degreasing various plastic, metal and glass surfaces, as pre-treatment for the following gluing applications with Kömmerling adhesives.

Properties:

Density approx. 0.79 kg/l, colourless, transparent.

Safety:

See safety data sheet.

Product type

Delivery form

Container size

[l]

Körasolv GL	Bottle	1	631683065
-------------	--------	---	-----------

Körasolv WL

Area of application:

Organic solvent mixture, toluene-free.
For cleaning greasy and wax-containing surfaces, as pre-treatment for gluing with Körapur, Körapox and Köratac adhesives as specified in the product information.

Properties:

Density approx. 0.76 kg/l, colourless, transparent.

Safety:

See safety data sheet.

Product type

Delivery form

Container size

[l]

Körasolv WL	Tin	1	631683006
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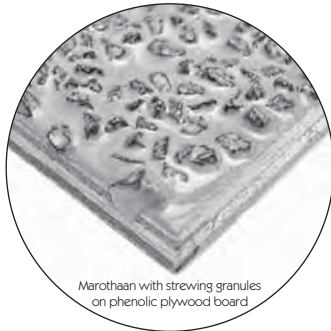
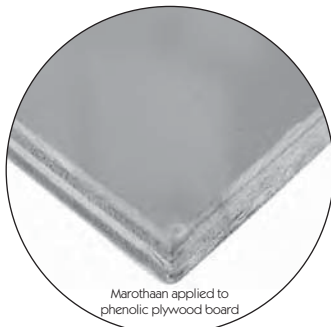
Prior to using the products, it is imperative that the manufacturer's product information and safety data sheet relating to the article are read through carefully as these contain important information on usage. You can find the corresponding data sheets on the manufacturer's home-page: www.koe-chemie.de.

Area of application: Properties: Coverage: Usage: Safety: Solvent and cleaning agent: Product type	Adhesion-promoting cleaner and primer Körabond HG 74 E Primer based on synthetic resin, solvent-containing. or pre-treating absorbent surfaces such as wood or concrete. For use with the following gluing applications with one-component Körapur or one-component Körapop adhesives and sealants. Also applied as clear lacquer for sealing decorative floor surfaces (Körapur 689). Density 1 g/cm ³ , light yellow transparent. 100 g/m ² . Can be brush or roller applied, working temperature: +10 to +35 °C. See safety data sheet. Körasolv CR.	Delivery form	Container size [l]	
Körabond HG 74 E		Tin	1	631683063
Area of application: Properties: Coverage: Usage: Safety: Solvent and cleaning agent: Product type	Körabond HG 77 Primer based on synthetic resin, solvent-containing. For pre-treatment of rigid PVC and ABS. For use with the following gluing applications, e.g. with polyurethane (Körapur) and silane modified polymers (Körapop). Bonding agent for fully cured Körapop prior to painting over. Density 0.92 g/cm ³ , low viscosity. 20 - 80 g/m ² . Can be brush or roller applied, working temperature: +10 to +25 °C. See safety data sheet. Körasolv CR, PU.	Delivery form	Container size [l]	
Körabond HG 77		Tin	1	631683076
Area of application: Properties: Coverage: Working temperature: Safety: Solvent and cleaning agent: Product type	Körabond HG 79 One-component adhesion-promoting cleaner based on synthetic resin, solvent-containing. For pre-treating non-absorbent surfaces such as metals (untreated aluminium, steel, VA steel) for the following gluing applications with two-component Körapur. Density 0.88 g/cm ³ , colourless to light yellowish, low viscosity. 20 - 80 g/m ² . +10 bis +35 °C. See safety data sheet. Körasolv CR, PR	Delivery form	Container size [l]	
Körabond HG 79		Tin	0.5	631683084
Körabond HG 79		Canister	4.5	631683085
Area of application: Properties: Coverage: Working temperature: Safety: Solvent and cleaning agent: Product type	Körabond HG 81 One-component adhesion-promoting cleaner based on synthetic resin, solvent-containing. For pre-treating non-absorbent surfaces such as metals (aluminium, steel, VA steel, brass, zinc, tin plate), plastics (ABS, rigid PVC, PA 6.6, GRP, SMC, PUR), painted surfaces, enamels, ceramic, coated glass for the following gluing applications with 1-comp. Körapur and 1-comp. Körapop. Density 0.80 g/cm ³ , colourless to brownish, transparent. 20 - 40 g/m ² . +10 bis +35 °C. See safety data sheet. Körasolv WL oder Körasolv CR.	Delivery form	Container size [l]	
Körabond HG 81		Tin	1	631683007

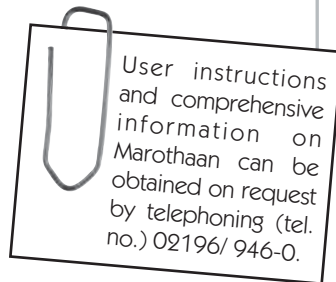
Floor coatings

Marothaan

Smooth, elastic, odourless and solvent-free polyurethane based floor finish suitable for wood, steel, aluminium and polyester.



Product	Unit size [kg/tin]	
Marothaan grey	10	630681001
Marothaan grey	5	630681004
Marotop grey	2.2	630681009
Hardener 4300 B	1.17	630681007
Primer 209 A	5	630681011
Primer 60 D	5	630681013



Körapur 689

Two-component floor coating based on polyurethane, solvent-free, humidity hardening. Approved for food contact, physiologically harmless.

Area of application:

For coating floors of commercial vehicles, containers, sales vehicles, caravans, mobile homes etc., on polyester, aluminium, primed steel sheet and wood. Particularly with refrigerated services, meat, fish and freezer vehicles (tested to -30 °C).

Properties:

Tough and hard, good scuff resistance, tested to EN 438. Test certificate available. Colour grey, RAL 7037.

Usage:

Self-flowing mass, can be spread with spatula. Working temperature +20 to +22°C.

Coverage:

One mixed unit of Körapur 689 = 15 kg which corresponds to approx. 3 m² of floor area 3 – 4 mm coating depth.

Safety:

See safety data sheet.

Solvent and cleaning agent:

Körasolv PR.

Technical data:

Mixing ratio [by weight]	Pot life [mins. at 20°C]	Density [g/cm ³]	Viscosity [mPas]
4:1	40	1.45	3600

Product type	Delivery form	Container size [kg]
Körapur 689 A+B (resin + hardener)	Bucket	15

Körapur 690

Containing quartz sand, two-component sealant for floor coatings based on polyurethane, humidity-hardening. Approved for food contact, physiologically harmless (test certificate available), solvent-containing.

Area of application:

For anti-slip sealing of coated floors (for example Körapur 689) in commercial vehicles, containers, sales vehicles, caravans, motor-homes etc., particularly in refrigerated service, meat, fish and freezer vehicles (tested to -30 °C).

Properties:

Colour grey, RAL 7037, good UV resistance.

Usage:

Application with Moltopren roller. Working temperature +20 to +25 °C.

Coverage:

Approx. 600 – 800 g/m² depending on structure required.

Safety:

See safety data sheet.

Solvent and cleaning agent:

Körasolv PR.

Technical data:

Mixing ratio [by weight]	Wet life [mins. at 20°C]	Pot life [mins. at 20°C]	Final strength [after hrs.]	Density [g/cm ³]	Viscosity [mPas]
3:1	30	120	48	1.50	35000


Product type	Delivery form	Container size [kg]
Körapur 690 A+B (resin + hardener)	Bucket	6

<p>Area of application:</p> <p>Properties:</p> <p>Usage:</p> <p>Coverage:</p> <p>Safety:</p> <p>Solvent and cleaning agent:</p> <p>Technical data:</p>	<p>Körapox BS 85</p> <p>Two-component primer and sealer based on epoxy resin, solvent-containing. As commercial vehicle floor sealant for permanent bonding of the strewing granules into the base coating. Priming and sealing of concrete and cement-plastered surfaces. For increasing the working hardness and barrier of the base against water, salt, oil and petrol. Bonding agent and corrosion protection on sand-blasted iron components.</p> <p>Colour grey, RAL 7037, good UV resistance.</p> <p>Fluid, easily rolled, applied with lambswool roller. Working temperature +15 to +25 °C.</p> <p>Approx. 250-400 g/m².</p> <p>See safety data sheet.</p> <p>Körasolv PR.</p>								
<table border="1"> <thead> <tr> <th>Mixing ratio [by weight]</th> <th>Pot life [h bei 20 °C]</th> <th>Final strength [after hrs.]</th> <th>Density [g/cm³]</th> </tr> </thead> <tbody> <tr> <td>4:1</td> <td>8</td> <td>18</td> <td>1.14</td> </tr> </tbody> </table>	Mixing ratio [by weight]	Pot life [h bei 20 °C]	Final strength [after hrs.]	Density [g/cm ³]	4:1	8	18	1.14	
Mixing ratio [by weight]	Pot life [h bei 20 °C]	Final strength [after hrs.]	Density [g/cm ³]						
4:1	8	18	1.14						

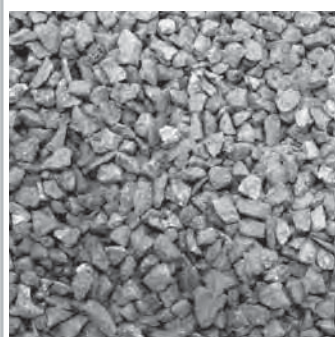
Product type	Delivery form	Container size [kg]	
Körapox BS 85 A+B (resin + hardener)	Bucket	5	631683004

<p>Area of application:</p> <p>Properties:</p> <p>Usage:</p> <p>Coverage:</p> <p>Safety:</p> <p>Solvent and cleaning agent:</p> <p>Technical data:</p>	<p>Körapox BS 90</p> <p>Containing quartz sand, two-component, anti-slip sealant based on epoxy resin, solvent-containing. Körapox BS 90 saves one process step and is distinguished by its very even visual appearance. For anti-slip sealing of GRP or smooth aluminium floors in commercial vehicles, containers, sales vehicles, caravans, motor-homes etc., particularly refrigeration services, meat, fish and freezer vehicles (tested to -30 °C).</p> <p>Colour dark grey, RAL 7015.</p> <p>Fluid, easily rolled, applied with Moltopren roller. Working temperature +15 to +25 °C.</p> <p>Approx. 800-1000 g/m².</p> <p>See safety data sheet.</p> <p>Körasolv PR.</p>								
<table border="1"> <thead> <tr> <th>Mixing ratio [by weight]</th> <th>Wet life [mins. at 20 °C]</th> <th>Final strength [after hrs.]</th> <th>Density [g/cm³]</th> </tr> </thead> <tbody> <tr> <td>7:1</td> <td>30</td> <td>48</td> <td>1.55</td> </tr> </tbody> </table>	Mixing ratio [by weight]	Wet life [mins. at 20 °C]	Final strength [after hrs.]	Density [g/cm ³]	7:1	30	48	1.55	
Mixing ratio [by weight]	Wet life [mins. at 20 °C]	Final strength [after hrs.]	Density [g/cm ³]						
7:1	30	48	1.55						

Product type	Delivery form	Container size [kg]	
Körapox BS 90 A+B (resin + hardener)	Bucket	8	631683075



Prior to using the products, it is imperative that the manufacturer's product information and safety data sheet relating to the article are read through carefully as these contain important information on usage. You can find the corresponding data sheets on the manufacturer's home-page: www.koe-chemie.de.

<p>Type</p>	<p>Mandurax</p> <p>Strewing granules for floor coatings.</p>																
<table border="1"> <thead> <tr> <th>Type</th> <th>Granule size [mm]</th> <th>Container size [kg/tin]</th> <th></th> </tr> </thead> <tbody> <tr> <td>Mandurax strewing granules, coarse</td> <td>2.5 - 4.0</td> <td>25</td> <td>630681014</td> </tr> <tr> <td>Mandurax strewing granules, medium</td> <td>2.0 - 3.0</td> <td>25</td> <td>630681015</td> </tr> <tr> <td>Mandurax strewing granules, fine</td> <td>1.0 - 2.0</td> <td>25</td> <td>630681016</td> </tr> </tbody> </table>	Type	Granule size [mm]	Container size [kg/tin]		Mandurax strewing granules, coarse	2.5 - 4.0	25	630681014	Mandurax strewing granules, medium	2.0 - 3.0	25	630681015	Mandurax strewing granules, fine	1.0 - 2.0	25	630681016	<div style="border: 1px solid red; display: inline-block; padding: 2px; margin-bottom: 5px;">No longer available</div> 
Type	Granule size [mm]	Container size [kg/tin]															
Mandurax strewing granules, coarse	2.5 - 4.0	25	630681014														
Mandurax strewing granules, medium	2.0 - 3.0	25	630681015														
Mandurax strewing granules, fine	1.0 - 2.0	25	630681016														

Delivery forms:

- ① Mixing cartridge (310 ml)
- ② Cartridge (310 ml)
- ③ Tandem cartridge
- ④ Tube (600 ml)
- ⑤ Canister
- ⑥ Tin
- ⑦ Bucket
- ⑧ Bottle

Double-decker containers are mostly 2 buckets which are delivered on top of each other in one pack. This form only occurs with 2-component products. Please note that with the delivery forms tandem cartridge, canister, tin, bucket and bottle there are also other forms than those illustrated depending on the container size.



Sealant

Ködiplast CS

One-component sealant based on butyl rubber, solvent-containing.

Plastic sealant for sealing and grouting joints, cracks and intersections in concrete, wood, metal, glass, many Duroplastic synthetics and other materials. Can be used as a sealant in caravans, motor-homes, commercial vehicles, ship and equipment building. Not suitable for expansion joints.

Density 1.34 g/cm³, dry content approx. 85%, temperature resistance range -30 to +80 °C and good resistance to atmospheric conditions. Ködiplast CS is not resistant to oils, solvents or fuels.

Paste-like, can be worked with spatula, adhesive gun. Working temperature +15 to +25 °C.

See safety data sheet.

For cleaning the working equipment and for removing fresh stains: Körasolv PU.

For cleaning the surfaces to be bonded, in particular glass, metal, plastics: Körasolv GL.

Cartridge supplied with screw-on nozzle.

Area of application:

Properties:

Usage:

Safety:

Solvent and cleaning agent:

Product type

Delivery form

Container size
[ml]

Ködiplast CS, colour grey

Cartridge

310

636683086

Ködiplast CT

One-component sealant based on butyl rubber, solvent-containing.

Plastic sealant for sealing and grouting joints, cracks and intersections in concrete, brickwork, asbestos cement, wood, metal, glass, many Duroplastic synthetics and other materials. Can be used as sealant in caravans, motor-homes, commercial vehicles, ship and equipment building. Not suitable for expansion joints.

Density 1.42 g/cm³, spraying volume 120 sec/20 grams, temperature resistance range -30 to +80 °C and good resistance to atmospheric conditions. Ködiplast CT is not resistant to oils, solvents or fuels.

Paste-like, can be worked with spatula, adhesive gun. Working temperature +15 to +25 °C.

See safety data sheet.

For cleaning the working equipment and for removing fresh stains: Körasolv CR. For cleaning the surfaces to be bonded, in particular glass, metal, plastics: Körasolv GL.

Area of application:

Properties:

Usage:

Safety:

Solvent and cleaning agent:

Product type

Delivery form

Container size
[ml]

Ködiplast CT, colour grey

Tube

600

636683054

Cartridges supplied with one screw-on nozzle each.					
Area of application:		Ködisil N One-component, neutral cross-linked silicon rubber (Oxim system), solvent-free, humidity curing. Filling, sealing and grouting joints, cracks and intersections in concrete, brickwork, fibre cement, mortar, stone, ceramic, glass, steel, aluminium, Duroplastics and many thermoplastics (except PMMA), wood and other materials. Not suitable for vehicle construction.			
Properties:		Fungicide, neutral with low odour, movement absorption up to 25%. The through-vulcanised mass is temperature resistant in the range -40 to +160 °C, good resistance to atmospheric conditions and aging.			
Usage:		Paste-like, stable, can be worked with adhesive gun. Working temperature also below 0 °C.			
Safety:		See safety data sheet.			
Solvent and cleaning agent:		Körasolv GL.			
Technical data:					
Colour	Touch dry time [min]	Density [g/cm ³]	Shore A hardness		
Transparent	5	1.02	19		
White	5	1.27	23		
Product type				Delivery form	Container size [ml]
Ködisil N, colour transparent				Cartridge	310 636683036
Ködisil N, colour white				Cartridge	310 636683037
Contact adhesive					
Area of application:		Köräpren FU 35 One-component contact adhesive based on polychloroprene, solvent-containing. For gluing wood, wood materials, aluminium, steel and various plastics. Not suitable for expanded polystyrene (Styrofoam).			
Properties:		FFluid, very high contact adhesion, good dampness resistance. Heat resistance to 130 °C.			
Coverage:		250 - 300 g/m ² .			
Usage:		Can be sprayed, working temperature > 12 °C.			
Safety:		See safety data sheet.			
Solvent and cleaning agent:		Körasolv CR.			
Technical data:					
Density [g/cm ³]	Viscosity [mPas]	Solids [%]	Wet life [min]		
0.86	400	21	30		
Product type				Delivery form	Container size [kg]
Köräpren FU 35, colour light yellowish transparent				Bucket	10 636683058
Area of application:		Köräpren FU 2030 One-component contact adhesive (veneer glue) based on polychloroprene, solvent-containing. Adhesive for universal contact adhesive applications, e.g. decorative synthetic laminate panels on wood (chipboard, plywood), PVC and rubber profiles, also on mineral bases and metal. Not suitable for gluing rigid polystyrene foam (Styrofoam).			
Properties:		Tough and elastic, conditionally resistant to dampness.			
Coverage:		250 - 300 g/m ² .			
Usage:		Can be applied with brush and spatula. Working temperature > 12 °C.			
Safety:		See safety data sheet.			
Solvent and cleaning agent:		Körasolv CR.			
Technical data:					
Density [g/cm ³]	Viscosity [mPas]	Solids [%]	Heat resistance [°C]		
0.86	3000	23	70		
Product type				Delivery form	Container size [kg]
Köräpren FU 2030, colour beige transparent				Tin	0.65 636683057

Area of application: Properties: Coverage: Usage: Safety: Solvent and cleaning agent: Technical data:	Solvent welding compound Köratac DF 841 One component PVC solvent welding compound based on synthetic resin. For solvent welding or gluing flexible PVC (tank safety, pond and roof sheeting etc.). Strongly etching and distending. 60 - 100 g/m ² . Thin fluid, can be brushed. Working temperature +15 to +25 °C. See safety data sheet. Körasolv HF.			
	Density [g/cm ³] Working time [min] Setting time [h]	0.90 <1 24		
Product type	Köratac DF 841, colour transparent	Delivery form Tin	Container size [kg] 0.90	636683059

Accessories



Mixing nozzles/Mixing tips
White plastic.

Colour	Length [mm]	
For Körapop 225 - 2K	171	636683045
For Körapur 840/45	225	636683046



Accessories for Mixing cartridges

2-part, consisting of mixing rod and screw-on nozzle. White plastic.

636683048



Nozzle tip

For working with tubes in hand operated or compressed air pistols. White plastic.

635682023

The Moltopren roller is not suitable for working with solvent-containing substances for longer periods. Körapur 690 is, however, only slightly solvent-containing and the roller is generally used only as a disposable "one-time" tool.

Moltopren roller

For structuring floor sealing Körapur 690, Ø 45 x 250 mm, pore diameter approx. 3.5 mm CFC-free polyester foam.

631683049

Toothes spreader

Metal with wooden grip, dimensions approx. 400 x 145 mm (w x h).

630681017

H600

Hand operated pistol for working with tubes.

636683039

PPM

Hand operated pistol for the Körapur 840/45 tandem cartridge.

636683043

D310

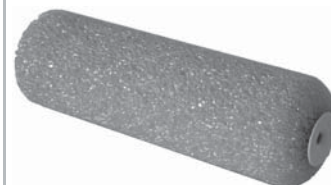
Pneumatic pistol for working with cartridges.

636683040

D600

Pneumatic pistol for working with tubes.

636683041





MKC

Pneumatic gun for working with the Köräpop 225 - 2K tandem cartridge. Not illustrated.

636683042

PPA

Pneumatic pistol for working with the Körapur 840/45 tandem cartridge.

636683044

Toolboxes

Plastic toolboxes



Stowage box R01

220 x 300 x 645 mm (w x h x l), hinged lid, security lock with 2 keys, black PE, weight 2.8 kg.

390141574



Stowage box R03

220 x 215 x 510 mm (w x h x l), removable lid, security lock with 2 keys, black PE, weight 1.8 kg.

390141595



Pro box

Plastic, 600 x 355 x 255 mm (l x h x w), weight 5 kg.

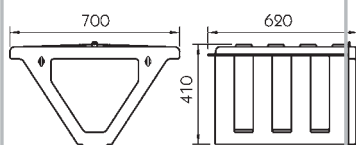
Colour

Black

390141596

Red

390141597

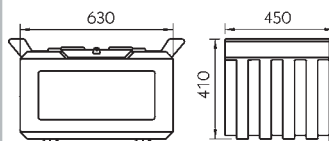


700 MK 1

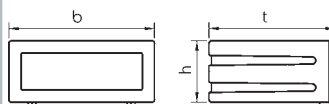
High density PE, weight 9.5 kg.

390141629

600 MK 10
High density PE, weight 7 kg.
390141630



Toolbox
Suitable for wheel brace, black PE.



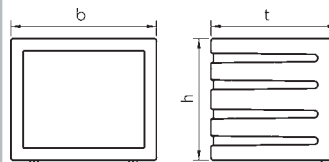
Designation	Dim. b [mm]	Dim. h [mm]	Dim. t [mm]	Weight [kg]	
KVR with tubular locking bar, without carrier	620	360	610	10.2	390141317
KVR with tubular locking bar, carrier mounted	620	360	610	11.0	390141587

Accessories and spare parts
For toolboxes K and KVR.

Carrier bracket HB 1, with mounting kit	390141312
Mounting kit, loose	390141380
Barrel lock, spare part for type K	390141440
Lock cover for barrel lock	390141442
Hinge	390141443

These tool chests are available on request fitted with gas strut supported lids.

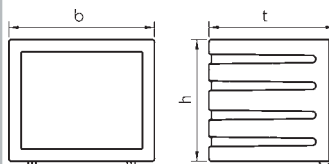
Toolboxes with Tee bar camlock
Black PP, Europlex fastener, lockable.



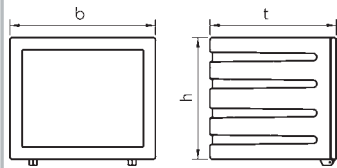
Designation	Dim. b [mm]	Dim. h [mm]	Dim. t [mm]	Weight [kg]	
V 5030	480	400	400	6	128144065
Accessory: V 5091 carrier bracket set					128144097
Spare part: V 9945 Europlex fastener, lockable					128144066

These tool chests are available on request fitted with gas strut supported lids.

Tool boxes with 2 Tee bar fasteners
Black PP, Europlex fasteners, lockable.



Designation	Dim. b [mm]	Dim. h [mm]	Dim. t [mm]	Weight [kg]	
V 5040	630	450	480	9	128144057
Accessory: V 5094 carrier bracket set					128144096
Spare part: V 9945 Europlex fastener, lockable					128144066

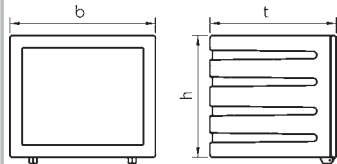


Tool boxes with 3 Tee bar fasteners

Black PP, Europlex fasteners, lockable.

These tool chests are available on request fitted with gas strut supported lids.

Designation	Dim. b [mm]	Dim. h [mm]	Dim. t [mm]	Weight [kg]	
V 5060	1030	500	480	15	128144058
Accessory: V 5094 carrier bracket set					128144096
Spare part: V 9945 Europlex fastener, lockable					128144066



Toolboxes with Tee bar camlock

With barrel lock, without carrier, black PE.

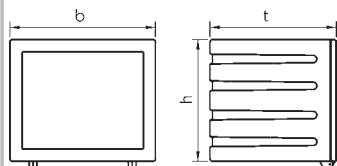
Dim. b [mm]	Dim. h [mm]	Dim. t [mm]	Weight [kg]	
500	250	250	5.0	390141616
600	500	500	11.2	390141624

No longer available

Carrier bracket

Accessories for toolboxes with Tee bar camlock.

Holding bracket for 390141616	390141672
Holding bracket for 390141624	390141670



WK-PE

With additional foam rubber sealing, without carrier, black PE.

Designation	Dim. b [mm]	Dim. h [mm]	Dim. t [mm]	Weight [kg]	
WK-PE 1, with camlock fastener	400	250	440	6.2	390142001
WK-PE 15, with barrel lock	480	565	440	8.0	390142004
WK-PE 3, with camlock fastener	620	360	610	10.5	390142010
WK-PE 3, with barrel lock	620	360	610	10.5	390142011
WK-PE 4, with camlock fastener	620	480	510	10.9	390142013
WK-PE 4, with barrel lock	620	480	510	10.9	390142014
WK-PE 7, with camlock fastener	800	360	460	10.0	390142020

Carrier bracket

Accessories for toolboxes WK-PE.

For WK-PE 1	390142023
For WK-PE 15	390142024
For WK-PE 2 and 3 and 5	390142025
For WK-PE 4	390142026
For WK-PE 7	390142028

Drawers

Accessories for WK-PE toolboxes.

For WK-PE 15	390142029
For WK-PE 3	390142031
For WK-PE 4	390142032

Shelves

Accessories for WK-PE toolboxes.

For WK-PE 1	390142033
For WK-PE 15	390142034
For WK-PE 3	390142036
For WK-PE 4	390142037
For WK-PE 7	390142038

Spare parts

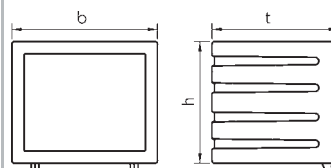
For WK-PE toolboxes.

Camlock fastener	390142039
Key for Camlock fastener	390142040
Barrel lock	390142041
Cover for barrel lock	390142042
Hinge	390142044

Toolboxes

Without carrier, black PE.

Designation	Dim. b [mm]	Dim. h [mm]	Dim. t [mm]	Weight [kg]	
Type 1 with camlock fastener	600	460	500	5.2	390141327
Type 1 with barrel lock	600	460	500	5.2	390141416
Type 1 with swivel handle	600	460	500	5.2	390141417
Type 2 with camlock fastener	650	350	600	5.5	390141308
Type 2 with barrel lock	650	350	600	5.5	390141418
Type 2 with swivel handle	650	350	600	5.5	390141419
Type 6 with camlock fastener	630	545	600	7.0	390141420
Type 6 with barrel lock	630	545	600	7.0	390141421
Type 6 with swivel handle	630	545	600	7.0	390141422
Type 8 with camlock fastener	820	540	600	8.7	390141423
Type 8 with barrel lock	820	540	600	8.7	390141424
Type 8 with swivel handle	820	540	600	8.7	390141425

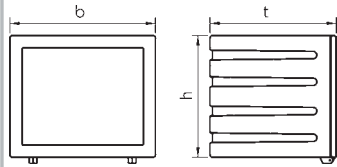


Carrier bracket

For type 1	390141328
For type 2	390141309
For type 6	390141426
For type 8	390141427

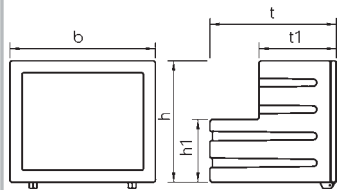
Drawers

Drawers for type 1	390141329
Drawers for type 2	390141310
Drawers for type 6	390141428



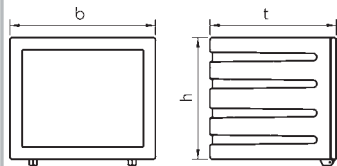
WZK-X
With closing bar, black PE.

Designation	Dim. b [mm]	Dim. h [mm]	Dim. t [mm]	Weight [kg]	
WZK-XM, without carrier	660	500	460	7.5	390141445
WZK-XM HB, carrier mounted	660	500	460	8.0	390141489
WZK-XK, without carrier	660	500	665	9.5	390141446
WZK-XK HB, carrier mounted	660	500	665	10.0	390141492
WZK-XB, without carrier	660	600	460	8.5	390141448



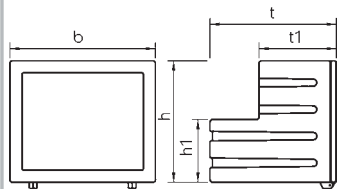
WZK-XL
Stepped, with closing bar, black PE.

Designation	Dim. b [mm]	Dim. h [mm]	Dim. h1 [mm]	Dim. t [mm]	Dim. t1 [mm]	Weight [kg]	
WZK-XL, without carrier	660	500	205	665	460	8.5	390141447
WZK-XL HB, carrier mounted	660	500	205	665	460	9.0	390141495



WZK-XD
With camlock fastener, black PE.

Designation	Dim. b [mm]	Dim. h [mm]	Dim. t [mm]	Weight [kg]	
WZK-XDM, without carrier	660	500	460	9.5	390141578
WZK-XDM HB, carrier mounted	660	500	460	10.0	390141631
WZK-XDK, without carrier	660	500	665	9.5	390141477
WZK-XDK HB, carrier mounted	660	500	665	10.0	390141632



WZK-XDL
Stepped, with camlock fastener, black PE.

Designation	Dim. b [mm]	Dim. h [mm]	Dim. h1 [mm]	Dim. t [mm]	Dim. t1 [mm]	Weight [kg]	
WZK-XDL, without carrier	660	500	205	665	460	9.5	390141478
WZK-XDL HB, carrier mounted	660	500	205	665	460	10.0	390141633

Carrier bracket
Accessories for WZK toolboxes, including mounting kit.

HB 12, for WZK-XM, -XDM, -XK, -XDK, -XL, -XDL	390141449
HB 13, for WZK-XB	390141450
Mounting kit, loose	390141380

Drawers

Accessories for WZK toolboxes.

	Width [mm]	Height [mm]	Depth [mm]	Weight [kg]	
SF-X1, for WZK-XM, -XB, -XL, -XDM, -XDL	575	50	390	1.3	390141451
SF-X2, for WZK-XK, -XL, -XDK, -XDL	575	50	600	1.8	390141452

Spare parts

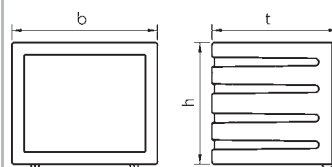
For WZK toolboxes.

Camlock, without key	390141433
Key for camlock	390141434
Barrel lock	390141435
Cover for barrel lock	390142042

WK-PE/HP

With snap fastener, without carrier, black PE.

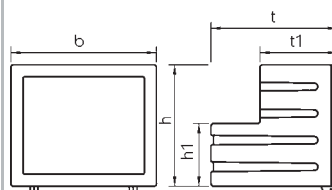
Designation	Dim. b [mm]	Dim. h [mm]	Dim. t [mm]	Weight [kg]	
WK-HP 40	620	475	510	11.9	390142047
WK-PE 60	620	600	610	15.1	390142049
WK-HP 70	800	360	460	11.8	390142050
WK-HP 80	950	500	500	15.3	390142051



WK-FS 50

Stepped, with snap fastener, without carrier, black PE.

Designation	Dim. b [mm]	Dim. h [mm]	Dim. h1 [mm]	Dim. t [mm]	Dim. t1 [mm]	Weight [kg]	
WK-FS 50	605	475	250	620	400	12.1	390142048



Carrier bracket

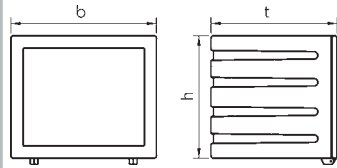
Accessories for WK toolboxes.

For WK-HP 40	390142026
For WK-FS 50	390142052
For WK-PE 60	390142027
For WK-HP 70	390142028
For WK-HP 80	390142053

Snap fastener

Spare part for WK toolboxes, loose.

390142054



JBX

With camlock fastener, without carrier, black PE.

Designation	Dim. b [mm]	Dim. h [mm]	Dim. t [mm]	Weight [kg]	
JBX 65	650	500	480	8.0	390144045
JBX 80	800	500	480	10.0	390144047
JBX 100	1000	500	480	12.0	390144049
JBX 120, with 2 locks	1200	500	480	15.0	390144076

No longer available

The JBX toolboxes can also be produced with your company logo; logo surface approx. 390 x 190 mm, positioned on the lid.

Carrier bracket

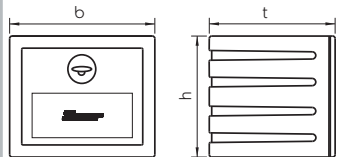
Accessories for JBX toolboxes.

For JBX 65	390144046
For JBX 80	390144048
For JBX 100	390144050
For JBX 120	390144077

Twist handle

Spare part for JBX toolboxes, with key.

390144061



Magic Box

Black.

Designation	Dim. b [mm]	Dim. h [mm]	Dim. t [mm]	Weight [kg]	
Magic Box 40	400	350	370	4.0	390141698
Magic Box 50	500	400	370	6.0	390141697
Magic Box 60 S	600	400	450	9.0	390141696
Magic Box 60	600	450	470	9.0	390141695
Magic Box 70	700	500	600	11.5	390141694
Magic Box 80 S	800	400	490	11.1	390141693
Magic Box 80	800	500	490	12.0	390141692
Magic Box 100 S	1000	400	490	12.1	390141691
Magic Box 100	1000	500	490	14.1	390141690

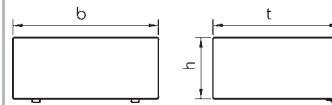
Carrier bracket kit

Accessories for Magic Box toolboxes.

For Magic Box 40	390141672
For Magic Box 50	390141672
For Magic Box 60 S	390141671
For Magic Box 60	390141700
For Magic Box 70	390141699
For Magic Box 80 S	390141669
For Magic Box 80	390141668
For Magic Box 100 S	390141667
For Magic Box 100	390141666

Sheet steel toolboxes

Toolbox with swivel handle fastener
With carrier, sendzimir zinc plated.



Designation	Dim. b [mm]	Dim. h [mm]	Dim. t [mm]	Weight [kg]	
Size 1	400	180	420	6.5	395141166
Size 2	400	180	620	8.0	395141165
Size 3	600	300	600	13.8	395141164
Size 4	600	400	500	14.2	395141169
Size 5	600	450	500	15.7	395141228
Size 5, with drawer compartment	600	450	500	19.2	395141229
Size 5*, with partition	600	450	500	18.3	395141230
Size 6	600	400	600	17.5	395141234
Size 6, with drawer compartment	600	400	600	20.0	395141235
Size 6*, with partition	600	400	600	18.6	395141236

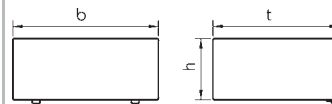
* The partition divides the box vertically with 400/200 mm spacing.

Lid
Spare part for toolbox with swivel handle fastener.

For size 3	395141250
For size 4 and 6	395141252
For size 5	395141254



Toolbox with sash fastener
With carrier, sendzimir zinc plated.

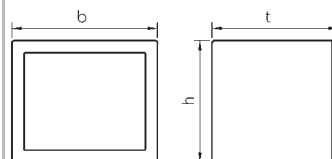


Designation	Dim. b [mm]	Dim. h [mm]	Dim. t [mm]	Weight [kg]	
WK 1	400	180	420	6.5	395141605
WK 2	400	180	620	8.0	395141606
WK 3	600	300	600	13.8	395141607
WK 4	600	400	500	14.2	395141609
WK 5	600	450	500	15.7	395141610
WK 5, with drawer compartment	600	450	500	19.2	395141611
WK 5*, with partition	600	450	500	18.3	395141612
WK 6	600	400	600	17.5	395141613
WK 6, with drawer compartment	600	400	600	20.0	395141614
WK 6*, with partition	600	400	600	18.6	395141615

* The partition divides the box vertically with 400/200 mm spacing.

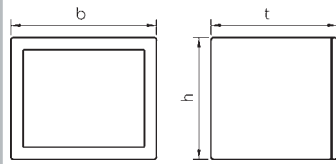
This tool chest is available on request fitted with gas strut supported lids.

Toolbox with Tee bar cam-lock fastener
Nirosta, Europlex fastener, lockable



Designation	Dim. b [mm]	Dim. h [mm]	Dim. t [mm]	
V 3020	600	400	500	128144071
Spare part: V 9940 Europlex fastener, lockable				128144078

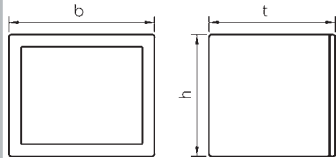
The tool chests on this page are available on request with gas strut supported lids.



Toolboxes with 2 Tee bar camlock fasteners
Nirosta, Europlex fasteners, lockable.

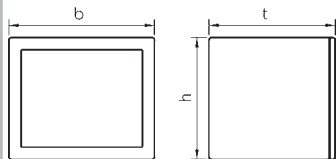
Designation	Dim. b [mm]	Dim. h [mm]	Dim. t [mm]	
V 3025	800	500	500	128144072
V 3027	800	500	600	128144080
V 3032	960	500	600	128144079
V 3031	1000	600	500	128144073
V 3035	1200	500	500	128144074
Spare part: V 9940 Europlex fastener, lockable				128144078

No longer available



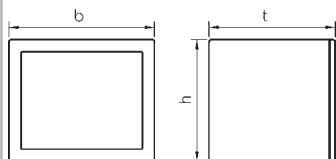
Toolboxes with 2 Tee bar camlock fasteners
Nirosta, Euro inox fasteners, lockable.

Designation	Dim. b [mm]	Dim. h [mm]	Dim. t [mm]	
V 3540	1450	500	500	128144075
Spare part: V 9920 Euro inox fastener, lockable, with hole				128144102
Spare part: V 9925 Euro inox fastener, lockable				128144103



Toolboxes with Tee bar camlock fastener
Nirosta, Europlex fastener, lockable

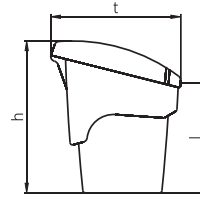
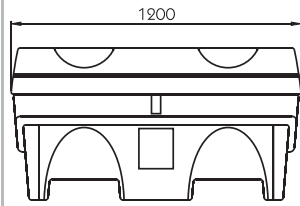
Designation	Dim. b [mm]	Dim. h [mm]	Dim. t [mm]	
V 1520	600	400	470	128144068
Spare part: V 9935 Europlex fastener, lockable				128144104



Toolboxes with 2 Tee bar camlock fasteners
Nirosta, Europlex fasteners, lockable.

Designation	Dim. b [mm]	Dim. h [mm]	Dim. t [mm]	
V 1525	800	500	470	128144069
V 1532	960	500	600	128144070
Spare part: V 9935 Europlex fastener, lockable				128144104

Transport chests



Mega box

Transport box for mounting on flatbeds for carrying tools and equipment. The transport box can be quickly and securely fixed down using the mounting kit **390141722**. Fork guides for stacker trucks, lockable with padlock. Made from impact-resistant PVC.

Description	Colour	Dim. h [mm]	Dim. t [mm]	Dim. l (loading edge) [mm]	Weight [kg]	
Megabox 200 l	light grey	625	540	450	12	390141719
Megabox 200 l	black	625	540	450	12	390141721
Megabox 400 l	light grey	805	775	540	20	390141718
Megabox 400 l	black	805	775	540	20	390141720

Mounting kit

Accessory for the Megabox transport chest, including screw materials, zinc coated steel, weight 1.48 kg.

390141722

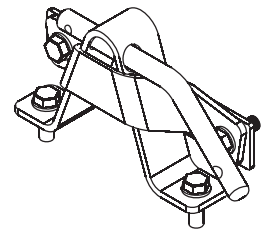
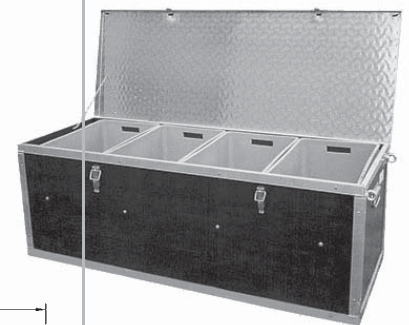
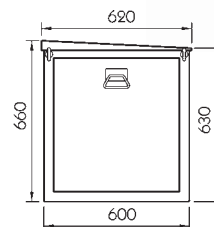
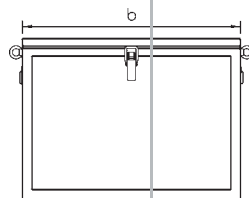


Illustration: Mounting kit, only the left side is shown

When the tool chest and the appropriate containers are ordered together, the steel holding frame for the containers is already pre-fitted into the tool chest.



Illustrations: above: WK 60; below: WK 63
The containers are not included, please order separately.

XM tool and transport chests

Aluminium frame with waterproof phenolic plywood walls. Aluminium lid with Quintett enhanced surface finish 2.5/4 mm, with slope. Tension fastener lockable with padlock. Side handles and eye bolts to DIN 580. Interior fixing points for anchoring to the vehicle floor. Rubbing strips on the box bottoms.

Designation	Dim. b [mm]	Tension fasteners pcs.	Weight [kg]	
WK 63	900	1	26	395141648
WK 60	1700	2	42	395141645





Containers

Accessories for XM tool and transport chests. Grey plastic containers incl. galvanised steel holding frame for fitting into XM tool and transport chests. Inside dimensions approx. 230 x 365 x 560 mm, outside dimensions approx. 250 x 395 x 590 mm (both h x w x l), weight approx. 1.12 kg.

Designation	For tool chest	Containers pcs.	
WK 64	WK 63	2	395141649
WK 61	WK 60	4	395141646

Rubber fitting inlay

Accessory for XM tool and transport chests for use in conjunction with containers. Non-slip, precise fitting rubber inlay prevents any tools, machinery or parts from sliding around inside the chest. Supply includes inlays for the containers and the floor of the chest. Not illustrated,

Designation	For tool chest	Total inlay pcs.	
WK 65	WK 63	3	395141650
WK 62	WK 60	5	395141647

Plastic document cases/tubes



Document case

Complies with customs regulations, lockable by utilising a padlock, 270 x 360 x 76 mm (w x h x d), black PE, weight 0.55 kg.

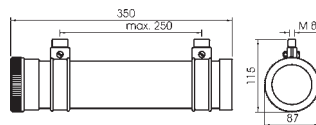
~~390511398~~

No longer available

Document tube

Screw-on lid, with screw clips, grey, plastic, weight 0.39 kg.

498511270



Fire extinguisher chests



Fire extinguisher chest

For 9 kg fire extinguisher, incl. fitting materials, 355 x 740 x 260 mm (w x h x d), red lid, black housing, weight 4.3 kg.

390144092



The fire extinguisher chest **390144107** is provided with a field 146 x 38 mm in size for your own company logo, see also circled illustration. Article number, price and delivery of the logo on request.



Example logo on **390144108**



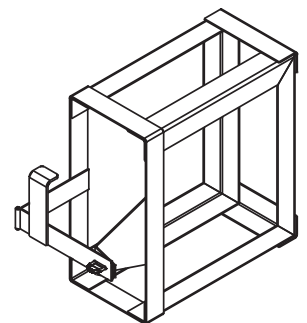
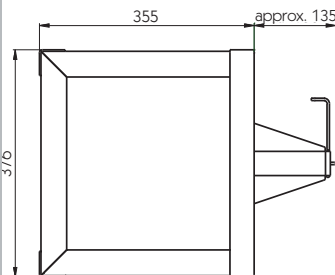
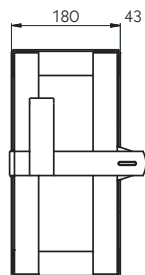
Illustration: **390144108**

Fire extinguisher chest
Incl. tether, plastic, red lid, black housing.

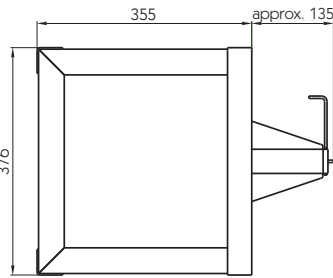
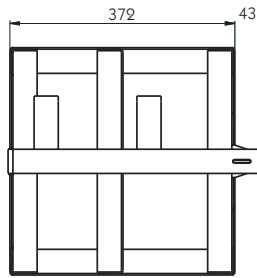
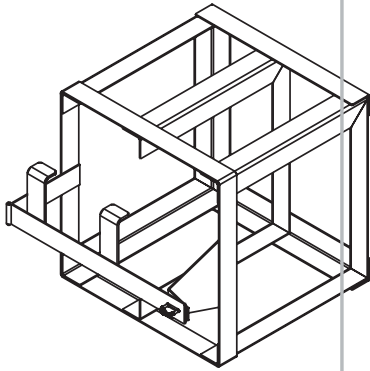
Type	Width [mm]	Height [mm]	Depth [mm]	Weight [kg]	
For 6+9 kg fire extinguishers	300	675	260	3.72	390144108
For 6+9 kg fire extinguishers, as for 390144108 , but for customer logo					390144107
With 6 kg fire extinguisher, fire extinguisher chest as for 390144108					390149017

Fuel canister and canister holder

20 litre fuel canister
To DIN 7274, steel, weight 4.5 kg.
105141581



Canister holder
For a 20 litre canister to DIN 7274, weight 5.3 kg.
105141627



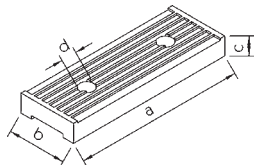
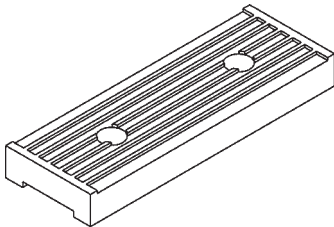
Canister holder
For two 20 litre canisters to DIN 7274, weight 7.8 kg.

105141582



No provision for securing the locking lever is supplied with the canister holder. We recommend using the padlock **105161167**. This must be ordered separately.

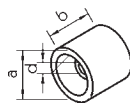
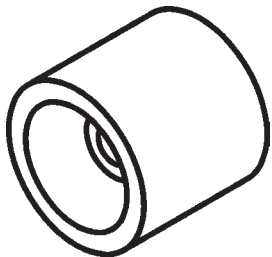
Boat trailer accessories



Bow pads

Rubber.

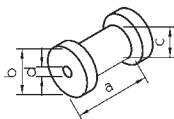
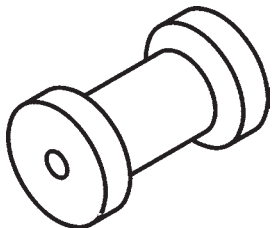
Dim. a [mm]	Dim. b [mm]	Dim. c [mm]	Dim. d [mm]	Weight [kg]	
300	100	30	11	2.40	355161283
120	100	30	11	1.05	355161284



Bow rollers

Rubber.

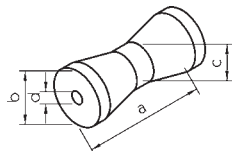
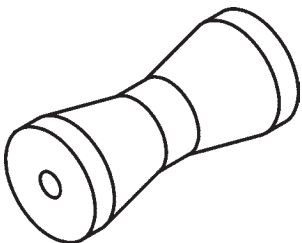
Dim. a [mm]	Dim. b [mm]	Dim. d [mm]	Weight [kg]	
120	75	17	1.1	355161122
75	75	17	0.9	355161123



Keel rollers

Rubber.

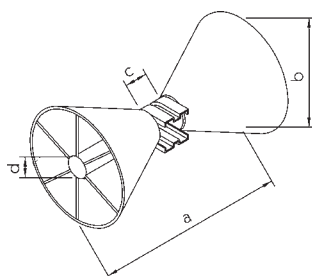
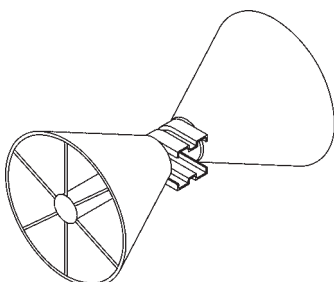
Dim. a [mm]	Dim. b [mm]	Dim. c [mm]	Dim. d [mm]	Weight [kg]	
200	75	45	17	1.8	355161120
130	70	45	15	1.2	355161121



Tapered keel rollers

Rubber.

Dim. a [mm]	Dim. b [mm]	Dim. c [mm]	Dim. d [mm]	Weight [kg]	
200	85	60	21	1.8	355161124



Trumpet rollers

Plastic.

Dim. a [mm]	Dim. b [mm]	Dim. c [mm]	Dim. d [mm]	Weight [kg]	
320	180	50	17	0.75	355161125

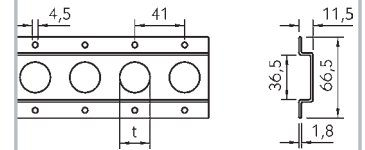
Anchor tracks

**Round hole anchor track
1805**

For vertical and horizontal wall mounting, also under the roof. For light goods. Suitable for all telescopic shoring poles, garment rails and tie-down straps with end fitting 1821. Zinc plated steel, length 3000 mm, weight 2.8 kg.

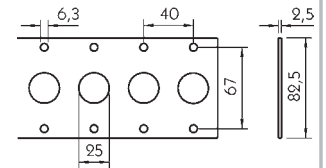
Dim. t
[mm]

20	122138004
25	122138002


**Round hole anchor track
1805-FL**

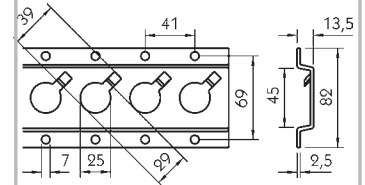
For horizontal and vertical flush or wall mounting. For light and medium weight goods. Suitable for all telescopic shoring poles, garment rails, and tie-down straps with end fitting 1821. High-strength zinc plated steel, length 3000 mm, weight 4.4 kg.

122138003


**Round hole anchor track
1806**

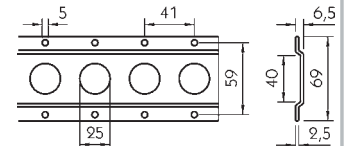
For vertical and horizontal wall mounting. For medium weight goods. Suitable for all telescopic shoring poles, clothing rails, decking beam brackets 1804 and 1844, also tie-down straps with end fittings 1823, 1827 and 1828, zinc plated steel, length 3000 mm, weight 4.5 kg.

122138005


**Round hole anchor track
3002**

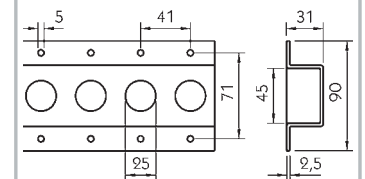
For floor mounting. For heavy goods. Suitable for all telescopic shoring poles. Zinc plated steel, length 2993 mm, weight 3.6 kg.

122138011


Floor track 3005

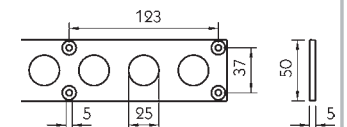
For floor mounting directly onto beams/frame. For heavy goods. Suitable for all telescopic shoring poles. Zinc plated steel, length 3000 mm, weight 9.0 kg.

122138013


**Round hole anchor track
3004-AL**

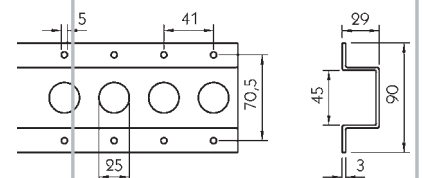
For floor mounting. For heavy goods. Suitable for all telescopic shoring poles. Aluminium self colour, length 3000 mm, weight 1.8 kg/m.

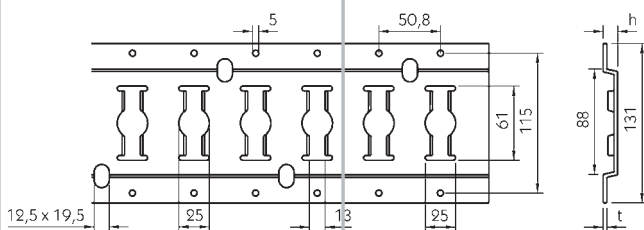
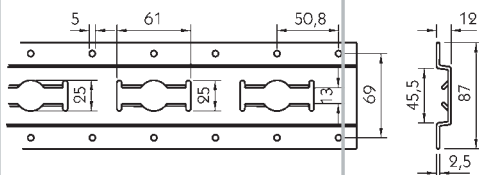
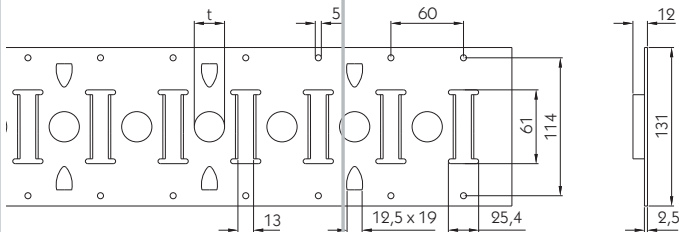
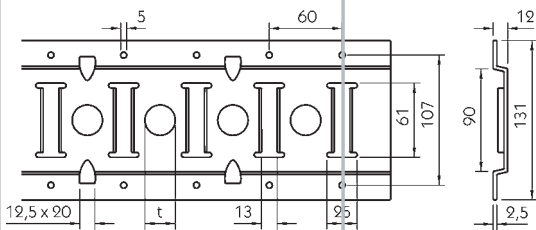
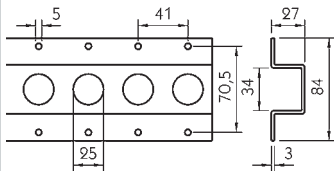
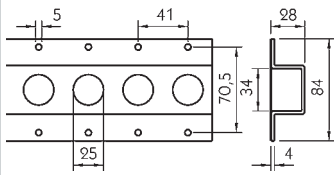
122138012


**Round hole anchor track
3006**

For mounting under the roof. For medium weight and heavy goods. Suitable for all telescopic shoring poles. Zinc plated steel, length 3000 mm, weight 6.7 kg.

122138014





Round hole anchor track 3010

For floor mounting directly onto beams/frame. For heavy goods. Suitable for all telescopic shoring poles. Zinc plated steel, length 3000 mm, weight 9.3 kg.

122138027

Round hole anchor track 3011

For mounting under the roof. For heavy goods. Suitable for all telescopic shoring poles. Zinc plated steel, length 3000 mm, weight 7.3 kg.

122138028

Slot-hole-slot anchor track 3008

For horizontal wall mounting. For medium weight and heavy goods. Suitable for all telescopic shoring poles, decking beam brackets 1845 and 1846, decking beams, garment rails and tie-down straps with end fittings 1825, 1826 and FE 8264-1. Zinc plated steel, length 3000 mm, weight 7.9 kg.

Dim. t [mm]

20

122138021

25

122138022

Slot-hole-slot anchor track 3008-FL

For horizontal flush wall mounting. Suitable for all telescopic shoring poles, decking beam brackets 1845 and 1846, decking beams, garment rails and tie-down straps with end fittings 1825, 1826 and FE 8264-1. Zinc plated steel, length 3000 mm, weight 6.5 kg.

Dim. t [mm]

20

122138025

25

122138026

Combi anchor track 2010

For vertical wall mounting. For medium weight and heavy goods. Suitable for all telescopic shoring poles, decking beam brackets 1845 and 1846, decking beams, garment rails and tie-down straps with end fittings 1825, 1826 and FE 8264-1. High-strength zinc plated steel.

Length [mm]

2440

Weight [kg]

4.1

122138009

3048

5.1

122138008

Combi anchor track 3009

For horizontal wall mounting. For medium weight goods. Suitable for all telescopic poles, decking beam brackets 1845 and 1846, decking beams, garment rails and tie-down straps with end fittings 1825, 1826 and FE 8264-1. Steel.

Material surface

Zinc plated

Length [mm]

3048

Dim. t [mm]

2.5

Dim. h [mm]

11.5

Weight [kg]

7.1

122138016

Zinc plated

3048

3.0

12.0

8.1

122138015

Zinc galvanised

6096

2.5

12.0

15.9

122138289

Zinc galvanised

3048

2.5

11.5

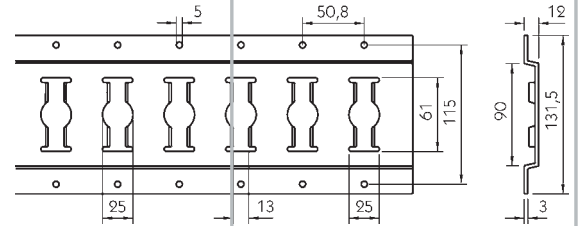
7.2

122138017

Combi anchor track 3009-AL

For horizontal wall mounting. For medium weight goods. Suitable for all telescopic shoring poles, decking beam brackets 1845 and 1846, decking beams, garment rails and tie-down straps with end fittings 1825, 1826 and FE 8264-1. Aluminium self colour, length 3048 mm, weight 3.0 kg.

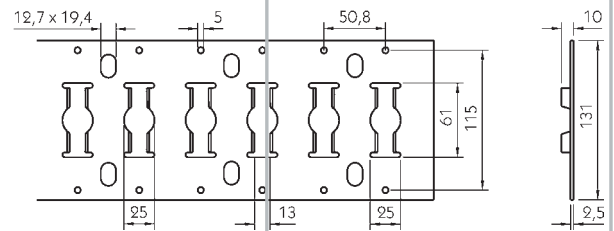
122138019



Combi anchor track 3009-FL

For horizontal flush wall mounting. For medium weight and heavy goods. Suitable for all telescopic shoring poles, decking beam brackets 1845 and 1846, garment rails and tie-down straps with end fittings 1825, 1826 and FE 8264-1. Zinc plated steel, length 3048 mm, weight 6.5 kg.

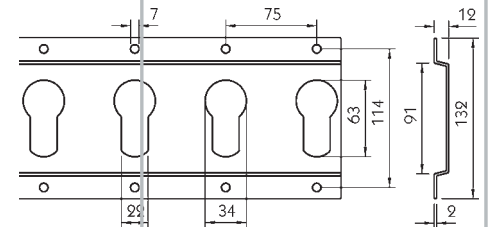
122138020



Keyhole anchor track 1803

For horizontal wall mounting. For medium weight goods. Suitable for garment rails, shoring poles, decking beam brackets 1845 and 1846 and tie-down straps with end fittings 1825, 1826 and FE 8264-1. High-strength zinc plated steel, length 3000 mm, weight 5.7 kg.

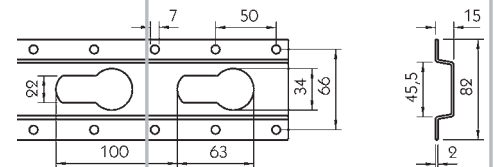
122138001



Keyhole anchor track 1803

For vertical wall mounting. For medium weight goods. Suitable for garment rails, shoring poles, decking beam brackets 1845 and 1846 and tie-down straps with end fittings 1825, 1826 and FE 8264-1. High-strength zinc plated steel, length 3000 mm, weight 3.9 kg.

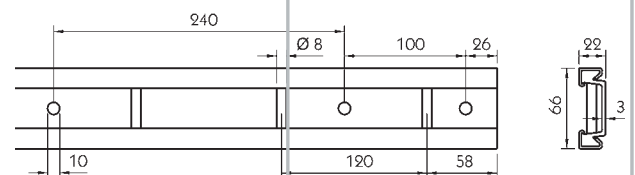
122138000



Lashing rail 3115

For horizontal wall mounting. For light goods. Suitable for all established strap types and ropes, plus components with end fitting 1099. Aluminium self colour, rubber coated (especially suitable for furniture vehicles).

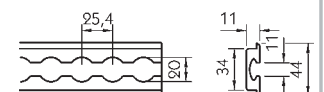
Length [mm]	Weight [kg]	
3000	3.1	122138254
6000	6.2	122138269

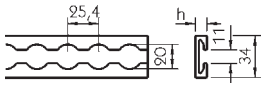


Airline profile anchor track 5004

For floor mounting. For medium weight and heavy goods. Suitable for tie-down straps with end fittings 5012, FE 8379-1 and FE 200744, special end fittings available for fastening seats. Also suitable for securing wheelchairs. Aluminium self colour, length 3000 mm, weight 2.6 kg/m.

122138034

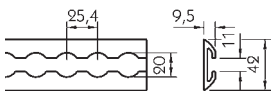




Airline profile anchor track 5002

For vertical and horizontal wall and floor mounting. For medium weight and heavy goods. Suitable for tie-down straps with end fittings 5012, FE 8379-1 and FE 200744, special end fittings available for fastening seats. Also suitable for securing wheelchairs, aircraft or public address industry. Aluminium self colour, length 3000 mm.

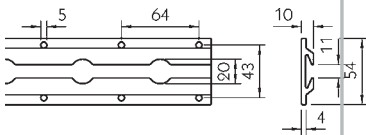
Dim. h [mm]	Weight [kg]	
9.5	2.2	122138032
13	2.4	122138033



Airline profile anchor track 5001

For floor mounting. For medium weight and heavy goods. Suitable for tie-down straps with end fittings 5012, FE 8379-1 and FE 200744. Aluminium self colour, length 3000 mm, weight 2.2 kg.

122138031

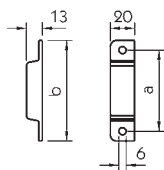
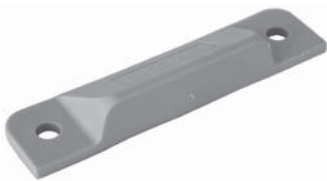


Airline profile anchor track 5008

For horizontal wall mounting. For medium weight and heavy goods. Suitable for tie-down straps with end fitting 5012. Captive track for access secure end fittings. Aluminium self colour, length 3000 mm, weight 2.2 kg/m.

122138035

Accessories for anchor tracks



End piece for 2106 for round hole anchor track 1806, end piece 2109 for all surface mounted anchor track types 3009 and 3008.

Anchor track end pieces Plastic.

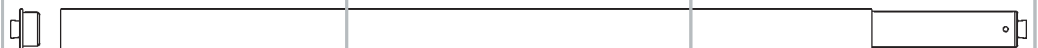
Designation	Dim. a [mm]	Dim. b [mm]	Weight [kg]	
2106	66	83	0.005	122138006
2109	115	131	0.009	122138018

Telescopic shoring poles



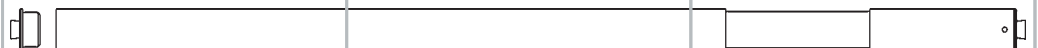
Round telescopic shoring pole
Diameter \varnothing 42 mm.

Designation	Plug \varnothing [mm]	Inside dim. vehicle [mm]	Extended sprung length [mm]	Material	Perm. load [kg]	Weight [kg]	
1813	19	2000 - 2100	2155	zinc plated steel	400	7.5	122138054
1813	24	2000 - 2100	2155	zinc plated steel	400	7.5	122138055
1814	19	2100 - 2200	2255	zinc plated steel	390	7.5	122138056
1814	24	2100 - 2200	2255	zinc plated steel	390	7.5	122138057
1815	19	2200 - 2300	2355	zinc plated steel	390	7.5	122138058
1815	24	2200 - 2300	2355	zinc plated steel	390	7.5	122138059
1816	19	2300 - 2400	2455	zinc plated steel	380	8.0	122138060
1816	24	2300 - 2400	2455	zinc plated steel	380	8.0	122138061
1818	19	2380 - 2480	2525	zinc plated steel	380	8.0	122138062
1818	24	2380 - 2480	2525	zinc plated steel	380	8.0	122138063
1818-EL	19	2460 - 2560	2615	zinc plated steel	375	8.0	122138064
1818-EL	24	2460 - 2560	2615	zinc plated steel	375	8.0	122138275



Round telescopic shoring pole
Can be shortened, with separate end plug.

Designation	Plug \varnothing [mm]	Inside dim. vehicle [mm]	Extended sprung length [mm]	Material	Perm. load [kg]	Tube \varnothing [mm]	Weight [kg]	
1819	19	up to 3100	3150	zinc plated steel	350	42	10.0	122138065
1819	24	up to 3100	3150	zinc plated steel	350	42	10.0	122138066
2818-EL	19	up to 2550	2568	zinc plated steel	450	35	5.5	122138069
2818-EL	24	up to 2550	2568	zinc plated steel	450	35	5.5	122138070
2819	19	up to 2950	3000	zinc plated steel	450	35	6.0	122138071



Round telescopic shoring pole for roll containers
Can be shortened, with separate end plugs.

Designation	Plug \varnothing [mm]	Inside dim. vehicle [mm]	Extended sprung length [mm]	Material	Perm. load [kg]	Tube \varnothing [mm]	Weight [kg]	
2810	19	up to 3200	3300	zinc plated steel	450	35	6.5	122138067
2810	24	up to 3200	3300	zinc plated steel	450	35	6.5	122138068



Round telescopic shoring pole, adjustable
Diameter \varnothing 45 mm.

Designation	Plug \varnothing [mm]	Inside dim. vehicle [mm]	Extended sprung length [mm]	Material	Perm. load [kg]	Weight [kg]	
1808-AL	19	2250 - 2650	2320 - 2665	aluminium	375	5.0	122138036
1808-AL	24	2250 - 2650	2320 - 2665	aluminium	375	5.0	122138037
1809-AL	24	2750 - 3150	2825 - 3160	aluminium	350	6.0	122138040
1811	19	2000 - 2400	2085 - 2485	zinc plated steel	450	9.8	122138044
1811	24	2000 - 2400	2085 - 2485	zinc plated steel	450	9.8	122138045
1811-EL	19	2360 - 2760	2445 - 2845	zinc plated steel	450	10.0	122138046
1811-EL	24	2360 - 2760	2445 - 2845	zinc plated steel	450	10.0	122138047



Round telescopic shoring pole, adjustable
For lashing rail, diameter \varnothing 45 mm.

Designation	Inside dim. vehicle [mm]	Extended sprung length [mm]	Material	Perm. load [kg]	Weight [kg]	
1808-AL	2250 - 2650	2320 - 2665	aluminium	375	4.6	122138038



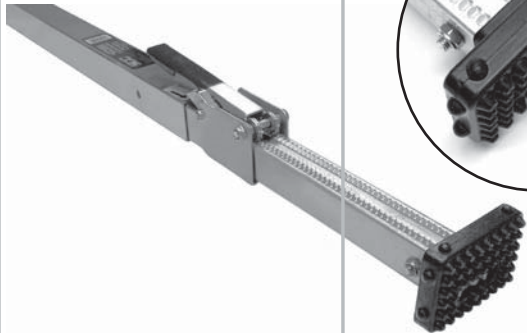
Rectangular telescopic shoring pole, adjustable

Designation	Plug \varnothing [mm]	Inside dim. vehicle [mm]	Extended sprung length [mm]	Material	Perm. load [kg]	Tube \square [mm]	Weight [kg]	
1812	19	2250 - 2650	2345 - 2665	zinc plated steel	400	40	8.5	122138048
1812	24	2250 - 2650	2345 - 2665	zinc plated steel	400	40	8.5	122138049
1812-HD	19	2250 - 2650	2345 - 2680	zinc plated steel	675	50	10.1	122138052
1812-HD	24	2250 - 2650	2345 - 2680	zinc plated steel	675	50	10.1	122138053

Clamping bars



BabyBar
Adjustable Range 1120 - 1980 mm, \square tube 25 x 25 mm, zinc plated steel, weight 2.3 kg.
295131814



SmartBar
Adjustment range 1220 - 2740 mm, integrated kit for using with slotted-hole anchor rails. Made from square section tube 45 x 45 mm, steel parts zinc plated, weight 6.0 kg.
295131813



Kargo Keeper
With spring, aluminium.

Designation	Adjustable range [mm]	Tube \varnothing [mm]	Weight [kg]	
1867-WS	2275 - 2665	38	4.0	122138088
1867-WS-EL	2575 - 2965	38	4.5	122138090
1867-WS-HD	2100 - 2470	42	5.0	122138296
1867-WS-HD	2275 - 2665	42	5.3	122138089

Kargo Keeper Goldbar
Extra strong steel tube variant,
with spring, yellow zinc plated.

Designation	Adjustable range [mm]	Tube Ø [mm]	Weight [kg]	
1867-WS-ST	2275 - 2665	38	6.5	122138285

No longer available

1867-HP
Frame set (2 pieces) for increasing the load support area of the Kargo Keeper to 600 x 740 mm (h x w). Only for Kargo Keeper with tube Ø 38 mm, from 25 mm zinc plated steel tube, Kargo Keeper itself not included, weight 6.0 kg.

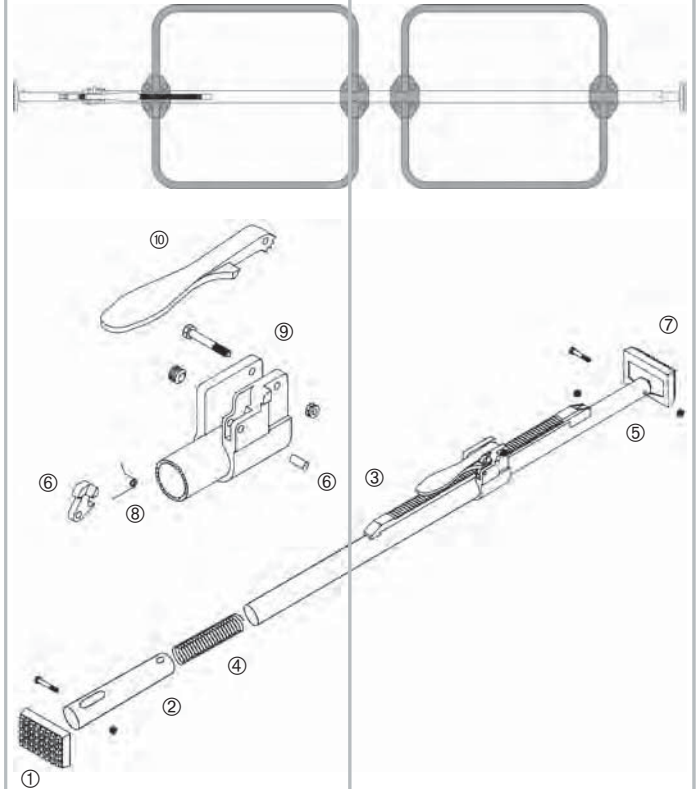
122138099

Kargo Keeper spare parts

Item description

① End foot, large 1867-1	122138091
② Aluminium end tube 1867-10	122138293
③ Rack 1867-11	122138098
④ Spring 1867-12	122138291
⑤ Inner tube, without rubber foot 1867-14	122138292
⑥ Pawl 1867-2	122138092
⑦ End foot, small 1867-3	122138093
⑧ Spring 1867-4	122138094
⑨ Housing 1867-5	122138095
⑩ Hand lever 1867-9	122138097

Accessories and spare parts for Kargo Keeper



Roll container safety shoring poles

The roll container safety shoring pole can be hooked into all Kombi anchor track types 3009, 3009-AL and 3009-FL.

Roll container safety shoring poles FE 8090-41

Clamping dimensions 610 x 834 mm, max. Load 540 kg, painted steel tube, end piece plastic coated steel, weight 1.8 kg.

122138105

No longer available



Garment rail

The garment rails can be hooked into all keyhole anchor tracks of the types 1803.

Please state the inside vehicle dimensions when ordering.

Garment rail LMS-1803

Carrier tube Ø 35 mm with flip-up top rail □ 15 mm and velcro fastener, max. load 300 kg, zinc plated steel tube, weight 7.0 kg.

122138125

Our warehouse currently stocks the garment rail for a body inside dimension of 2400 - 2500 mm. Garment rails are also available for almost every other established anchor tracks, GTS or keyhole metal panel system on the market. Please ask your technical sales representative.



Shoring plank fasteners



Shoring plank fastener

Shoring plank fastener, anti-slip, clamping range 23 - 32 mm, zinc plated steel, weight 2.36 kg.

385102144



Extendable shoring plank fastener

Shoring plank fastener with anti-slip and fitted aluminium profiles, inside length 2400-2700 mm, weight 10.12 kg.

295622144



Shoring plank pocket

For 25 mm side planks or side boards, zinc plated steel, weight 1.22 kg.

106121353

No longer available

Second deck loading



These decking beams can be hooked into all Kombi anchor track types 2010, 3009, 3009-AL and 3009-FL, also into all keyhole anchor track type 1803.

Decking beams

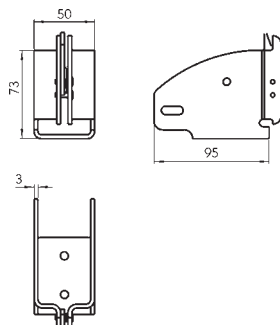
Aluminium, with extendable steel end pieces, tube \square 66 x 84 mm (w x h).

Designation	Inside dim. vehicle [mm]	Perm. horizontal load* [kg]	Perm. vertical load** [kg]	Weight [kg]
1839	2400 - 2670	900	1000	10.0
1839-HD	2400 - 2670	1125	1350	10.0

122138073

122138074

*Horizontal load = shoring load
**Vertical load = decking load



Decking beam bracket 1845

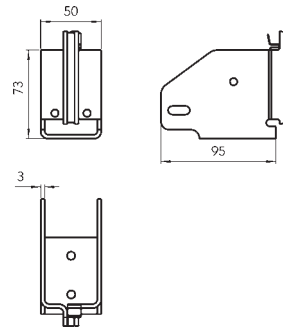
Weight 1.8 kg.

122138085

The decking beam brackets can be utilised to create extra demountable loading levels or combined with 70 x 40 mm beams.

No longer available

Decking beam bracket
1846
Weight 1.8 kg.
122138086

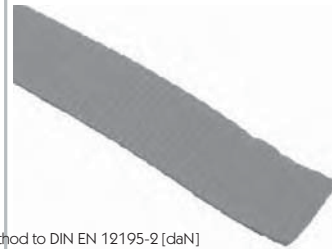


Tie-down straps

BoardClamp
Tie-down strap 50 mm for clamping loads to side boards or similar. Grip adjustment range 10 - 45 mm, overall length 3500 mm.
295136073



Endless tie-down strap
With cam buckle, webbing width 25 mm.



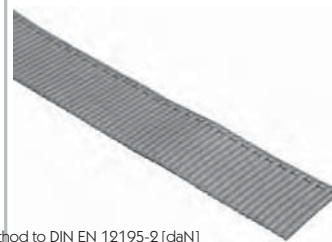
Illustrations:
Cam buckle and belt end

Perm. load relative to slinging method to DIN EN 12195-2 [daN]

Length [mm]	125	250
5000		

295136064

Endless tie-down strap
Cam buckle 803, webbing width 25 mm.



Illustrations:
Cam buckle 803 and strap end

Perm. load relative to slinging method to DIN EN 12195-2 [daN]

Length [mm]	150	300
2350		

122138255

Designation

803/2.35

Endless tie-down strap
With ratchet 906, webbing width 25 mm.

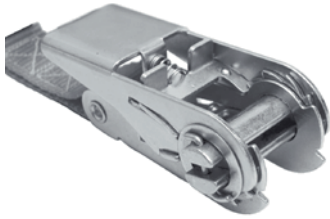


Illustrations:
Ratchet and belt end

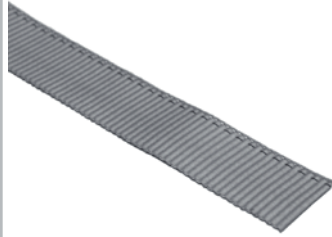
Perm. load relative to slinging method to DIN EN 12195-2 [daN]

Length [mm]	250	500
6000		

295136065

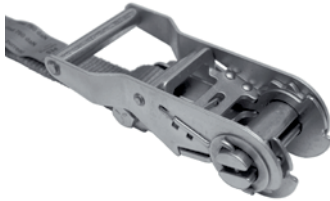


Illustrations:
Ratchet 906 and strap end

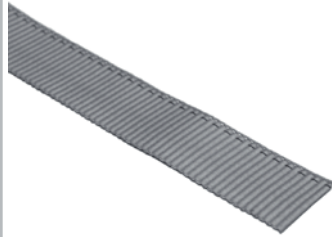


Endless tie-down strap
Ratchet 906, webbing width 25 mm.

Designation	Length [mm]	Perm. load relative to slinging method to DIN EN 12195-2 [daN]		
		300	600	
906/4	4000	300	600	122138203
906/8	8000	300	600	122138205

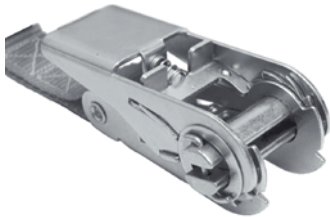


Illustrations:
Strap end and ratchet 909 WH



Endless tie-down strap
Ratchet 909 WH, webbing width 25 mm.

Designation	Length [mm]	Perm. load relative to slinging method to DIN EN 12195-2 [daN]		
		750	1500	
909 WH/4	4000	750	1500	122138206
909 WH/6	6000	750	1500	122138207
909 WH/8	8000	750	1500	122138208



Illustrations:
S-hook 1202 and ratchet P/N 906



Tie-down strap
Ratchet P/N 906, S-hook 1202, webbing width 25 mm.



Plastic coating makes the S-hook ideal for use with car trailers.

Designation	Length [mm]	Perm. load relative to slinging method to DIN EN 12195-2 [daN]		
		300	600	
P/N 906	2000	300	600	122138301



Illustrations:
Flat hook 1213 and ratchet 909 WH



Tie-down strap
Ratchet 909 WH, flat hook 1213, webbing width 25 mm.

Designation	Length [mm]	Perm. load relative to slinging method to DIN EN 12195-2 [daN]		
		300	600	
909 WH/1213/4	4000	300	600	122138256



Illustrations:
Double wire J hook 1002 and ratchet 909 WH



Tie-down strap
Ratchet 909 WH, double wire J hook 1002, webbing width 25 mm.

Designation	Length [mm]	Perm. load relative to slinging method to DIN EN 12195-2 [daN]		
		750	1500	
909 WH/1002/4	4000	750	1500	122138209
909 WH/1002/6	6000	750	1500	122138210
909 WH/1002/8	8000	750	1500	122138211

Tie-down strap
Ratchet 917, flat hook 1099,
webbing width 35 mm.



Illustrations:
Flat hook 1099 and ratchet 917

Designation	Length [mm]	Perm. load relative to slinging method to DIN EN 12195-2 [daN]		
		1	2	3
917/1099/3	3000	500	1000	122138287
917/1099/5	5000	500	1000	122138288

Tie-down strap
With ratchet and double wire J
hook, webbing width 35 mm.



Illustrations:
Ratchet and double wire J hook

Designation	Length [mm]	Perm. load relative to slinging method to DIN EN 12195-2 [daN]		
		1	2	3
	6000	1000	2000	295136066

Tie-down strap
Ratchet 908, single wire J hook
1013, webbing width 35 mm.



Illustrations:
Ratchet 908 and single wire J hook 1013

Designation	Length [mm]	Perm. load relative to slinging method to DIN EN 12195-2 [daN]		
		1	2	3
908/1013/4	4000	1500	3000	122138219
908/1013/6	6000	1500	3000	122138220

Tie-down strap
Ratchet 908, snap hook 1207,
webbing width 35 mm.



Illustrations:
Ratchet 908 and snap hook 1207

Designation	Length [mm]	Perm. load relative to slinging method to DIN EN 12195-2 [daN]		
		1	2	3
908/1207/4	4000	1500	3000	122138221
908/1207/6	6000	1500	3000	122138222



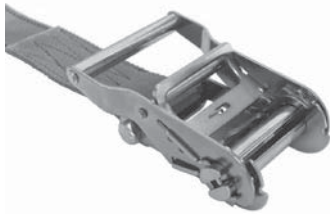
Illustrations:
Ratchet 916 WH and end fitting 1823



Tie-down strap

Ratchet 916 WH, anchor fitting 1823 for anchor track type 1806, webbing width 45 mm.

Designation	Length [mm]	Perm. load relative to slinging method to DIN EN 12195-2 [daN]		Part No.
		50%	100%	
916 WH/1823/3	3000	500	1000	122138235
916 WH/1823/4	4000	500	1000	122138236
916 WH/1823/5	5000	500	1000	122138237



Illustrations:
End fitting 1826 and ratchet 916 WH



Tie-down strap

Ratchet 916 WH, end fitting 1826 for anchor track types 1803, 3009 and 2010, webbing width 45 mm.

Designation	Length [mm]	Perm. load relative to slinging method to DIN EN 12195-2 [daN]		Part No.
		50%	100%	
916 WH/1826/3	3000	1000	2000	122138223
916 WH/1826/4	4000	1000	2000	122138224
916 WH/1826/5	5000	1000	2000	122138225



Illustrations:
End fitting 1821 and ratchet 916 WH



Tie-down strap

Ratchet 916 WH, end fitting 1821 for anchor track type 1805, webbing width 45 mm.

Designation	For hole Ø [mm]	Length [mm]	Perm. load relative to slinging method to DIN EN 12195-2 [daN]		Part No.
			50%	100%	
916 WH/1821-19/3	20	3000	500	1000	122138229
916 WH/1821-19/4	20	4000	500	1000	122138230
916 WH/1821-19/5	20	5000	500	1000	122138231
916 WH/1821-24/3	25	3000	500	1000	122138232
916 WH/1821-24/4	25	4000	500	1000	122138233
916 WH/1821-24/5	25	5000	500	1000	122138234



Illustrations:
End fitting 1825 and ratchet 916 WH



Tie-down strap

Ratchet 916 WH, end fitting 1825 for anchor track types 1803, 3009 and 2010, webbing width 45 mm.

Designation	Length [mm]	Perm. load relative to slinging method to DIN EN 12195-2 [daN]		Part No.
		50%	100%	
916 WH/1825/3	3000	1000	2000	122138226
916 WH/1825/4	4000	1000	2000	122138227
916 WH/1825/5	5000	1000	2000	122138228

No longer available

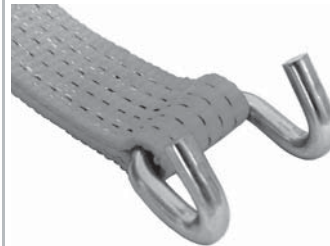
Tie-down strap
Ratchet 811, double wire J hook
1006, webbing width 50 mm.



Illustrations:
Ratchet 811 and double wire J hook 1006

Designation	Length [mm]	Perm. load relative to slinging method to DIN EN 12195-2 [daN]		
		2500	5000	122138238
811/1006/6	6000	2500	5000	122138238
811/1006/8	8000	2500	5000	122138239
811/1006/10	10000	2500	5000	122138240

Tie-down strap
Ratchet 811, wire claw hook
1065, webbing width 50 mm.



Illustrations:
Ratchet 811 and claw hook 1065

Designation	Length [mm]	Perm. load relative to slinging method to DIN EN 12195-2 [daN]		
		2500	5000	122138241
811/1065/6	6000	2500	5000	122138241
811/1065/8	8000	2500	5000	122138242
811/1065/10	10000	2500	5000	122138243

Tie-down strap
Ratchet 811, snap hook 1210,
webbing width 50 mm.



Illustrations:
Ratchet 811 and snap hook 1210

Designation	Length [mm]	Perm. load relative to slinging method to DIN EN 12195-2 [daN]		
		2500	5000	122138244
811/1210/6	6000	2500	5000	122138244
811/1210/8	8000	2500	5000	122138245
811/1210/10	10000	2500	5000	122138246

Accessories and spare parts for tie-down straps

Edge protector
PVC flexible tube, for webbing
width max. 45 mm, length approx.
500 mm.

295134114



Edge protector
PVC, weight 0.09 kg.

295161091





CargoGuard

Flexible edge protection for tie-down straps with 50 mm strap width, weight 0.03 kg.

295136074



Adapter

Anchor end fitting 1826 to D-ring 3018, webbing width 45 mm, usable length approx. 400 mm.

122138294



Snap hook

For tie-down straps with webbing width 50 mm, zinc plated steel.

295134019

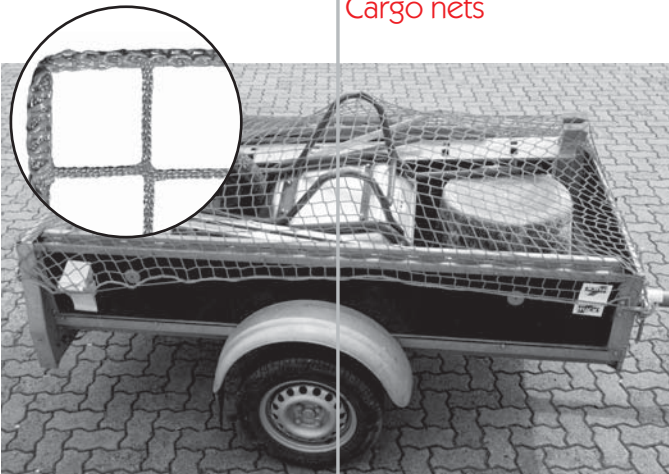


Claw hook

For tie-down straps with webbing width 50 mm, zinc plated steel.

295161093

Cargo nets



Cargo nets for car trailers and flatbeds

Mesh 45 mm, edge finisher Ø 5 - 7 mm. With circumferential rubber stretch cord Ø 6 mm. Made from green polypropylene.

Width x length
[m]

2.5 x 3.5

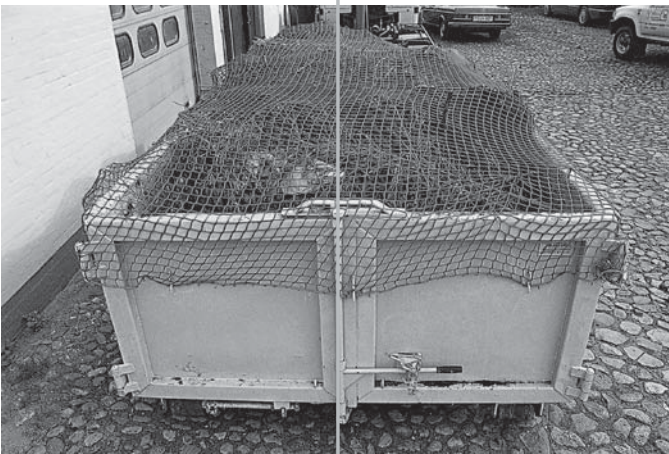
295136070

3.0 x 3.5

295136069

3.0 x 4.0

295136071



Cargo nets for containers

Mesh 45 mm with circumferential edge cord. Made from green PPM multifilament polypropylene.

Width x length
[m]

3.5 x 5.0

295136067

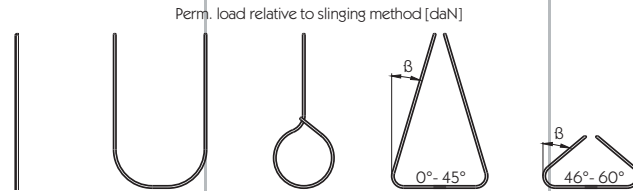
3.5 x 6.0

295136068

Round slings and belt slings

Round slings

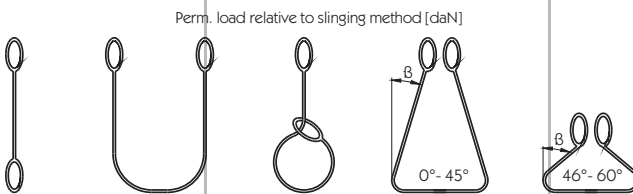
To Pr EN 1492-1, with compliance declaration, tonnage stripe identification and sewn-in load capacity label.
From 100 % polyester fibre.



	Length [mm]	Colour [Euro std.]	Tonnage stripes						
LL 10	1000	purple	1	1000	2000	800	1400	1000	122138169
LL 10	2000	purple	1	1000	2000	800	1400	1000	122138170
LL 10	4000	purple	1	1000	2000	800	1400	1000	122138172
LL 20	1000	green	2	2000	4000	1600	2800	2000	122138176
LL 20	2000	green	2	2000	4000	1600	2800	2000	122138177
LL 20	3000	green	2	2000	4000	1600	2800	2000	122138178
LL 20	4000	green	2	2000	4000	1600	2800	2000	122138179
LL 20	6000	green	2	2000	4000	1600	2800	2000	122138181
LL 30	1000	yellow	3	3000	6000	2400	4200	3000	122138183
LL 30	2000	yellow	3	3000	6000	2400	4200	3000	122138184
LL 30	3000	yellow	3	3000	6000	2400	4200	3000	122138185
LL 30	4000	yellow	3	3000	6000	2400	4200	3000	122138186
LL 30	6000	yellow	3	3000	6000	2400	4200	3000	122138188
LL 40	1000	grey	4	4000	8000	3200	5600	4000	122138190
LL 40	2000	grey	4	4000	8000	3200	5600	4000	122138191

Belt slings

To Pr EN 1492-1, with compliance declaration, tonnage stripe identification and sewn-in load capacity label.
From 100 % polyester fibre.

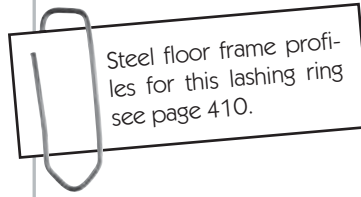
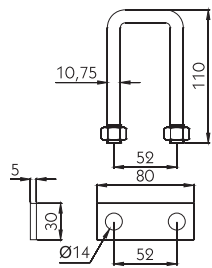


	Length [mm]	Colour [Euro std.]	Tonnage stripes						
PS 30	2000	purple	1	1000	2000	800	1400	1000	122138136
PS 30	3000	purple	1	1000	2000	800	1400	1000	122138137
PS 30	4000	purple	1	1000	2000	800	1400	1000	122138138
PS 60	2000	green	2	2000	4000	1600	2800	2000	122138142
PS 60	3000	green	2	2000	4000	1600	2800	2000	122138143
PS 60	4000	green	2	2000	4000	1600	2800	2000	122138144
PS 60	5000	green	2	2000	4000	1600	2800	2000	122138145
PS 90	4000	yellow	3	3000	6000	2400	4200	3000	122138150
PS 120	5000	grey	4	4000	8000	3200	5600	4000	122138158
PS 150	5000	red	5	5000	10000	4000	7000	5000	122138165

Lashing rings, recess plates and pockets

All load values, unless otherwise stated, are in accordance with DIN EN 12640.

2 hex. nuts DIN 985 M 12-8 are included in the supply.

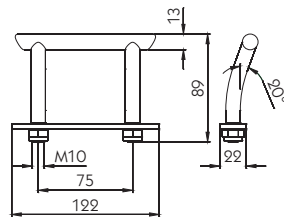


Lashing ring

Loading 800 daN, zinc plated, please order all parts separately.

	Weight [kg]	
① Lashing ring	0.20	295131663
② Plate	0.08	295131664

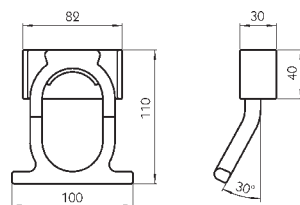
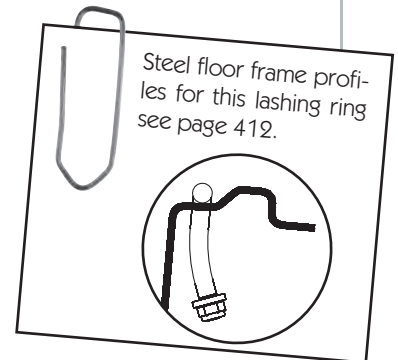
Weight [kg]



Lashing ring

Loading 2000 daN, zinc plated, weight 0.33 kg.

295131824



Lashing ring

Loading 2000 daN, please order all parts separately.

	Finish	Weight [kg]	
① Lashing ring	zinc plated	0.37	295132672
① Lashing ring	self colour	0.37	295131672
② Weld-in pocket	self colour	0.19	295131698

Finish

Weight [kg]

All load values, unless otherwise stated, are in accordance with DIN EN 12640.

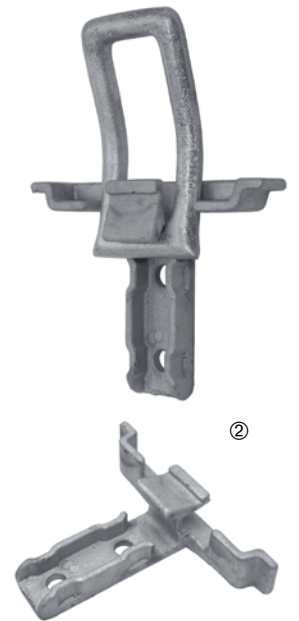
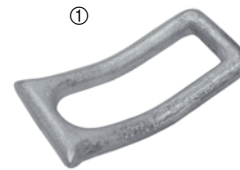
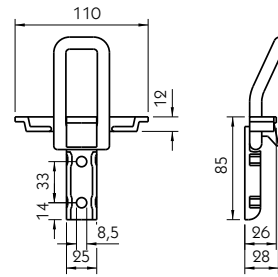


The holder **105131659** can be welded into the floor frame profile or screwed, making it particularly suitable for aluminium floor frame profiles. We use this lashing ring as standard on our **Cargotrail®** aluminium flatbed body.

PWP lashing ring

Loading 2000 daN, please order all parts separately.

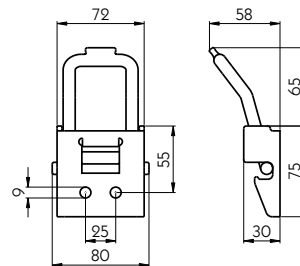
	Finish	Weight [kg]	
① Lashing ring	zinc plated	0.17	105131660
② Holder	zinc galvanised	0.19	105131659



PWP Pinguin lashing ring

Loading 2000 daN, certified according to DIN-EN 12640, please order all parts separately.

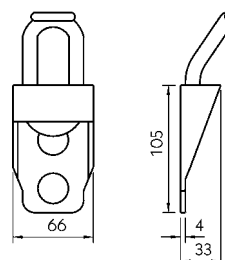
	Finish	Weight [kg]	
① Lashing ring	zinc plated	0.20	105131809
② Pocket	self colour	0.22	105131810
② Pocket	zinc plated	0.22	105131811

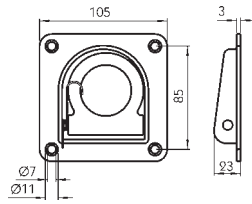


Lashing ring

Loading 2500 daN, primer, weight 0.62 kg.

295131743

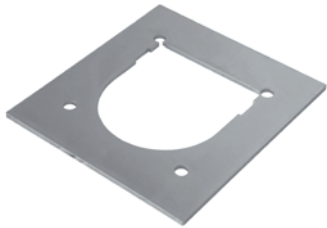




Recessed lashing ring
Loading 800 daN, zinc plated,
weight 0.46 kg.

295131563

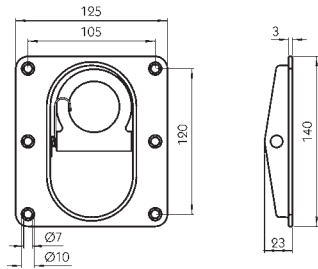
Nicht mehr
lieferbar.



Reinforcing plate

For recessed lashing ring
295131563. 133 x 143 x 3 mm,
zinc plated, weight 0.29 kg.

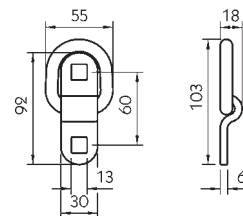
295131794



Recessed lashing ring

Loading 1000 daN, zinc plated,
weight 0.60 kg.

295131562



Lashing ring/recess plate

Loading 2000 daN, all parts zinc
plated, please order all parts
separately.

① Lashing ring

Weight
[kg]

0.10

125131657

② Bracket

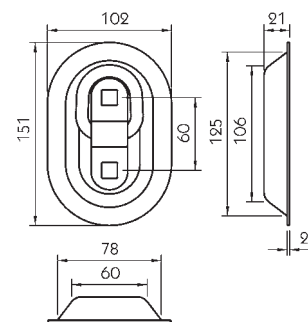
0.11

125131658

③ Recess plate

0.24

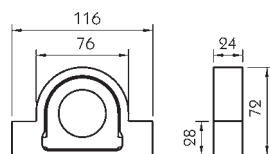
125131559



Recessed lashing ring

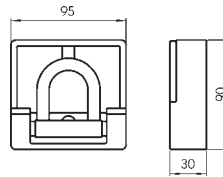
Loading 2000 daN, self colour,
weight 0.63 kg.

105131557

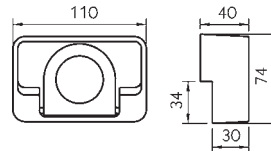


All load values, unless otherwise stated, are in accordance with DIN EN 12640.

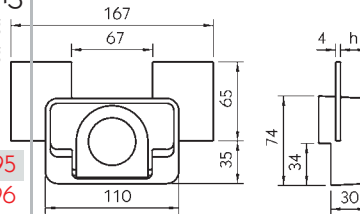
Recessed lashing ring
Loading 2500 daN, self colour, weight 0.94 kg.
295131560



PWP recessed lashing ring
Loading 2500 daN, self colour, weight 0.79 kg.
105131590



PWP recessed lashing ring
With floor support, loading 2500 daN, certified according to DIN-EN 12640 self colour.



Dim. h
[mm]

22

30

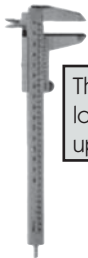
Weight
[kg]

0.94

0.97

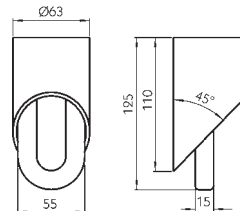
105131595

105131596

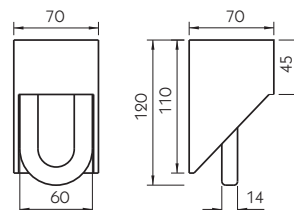


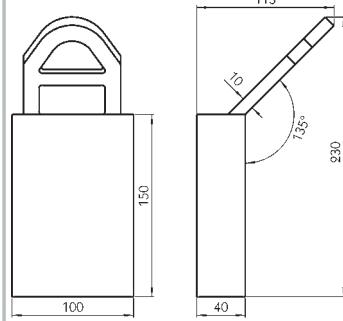
The lashing pocket **295131739** is designed for "bi-directional" loading. A design for vehicles whose body width is exploited up to the last millimetre.

Lashing ring pocket
Loading 2500 daN, primer, weight 0.63 kg.
295131739

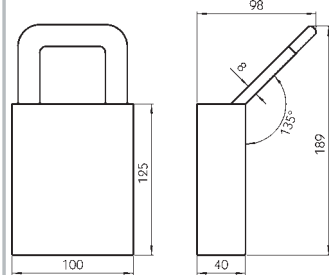
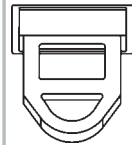


Rectangular lashing ring pocket
Loading strain 2500 daN to DIN EN 12640, reaking strain, vertical: 7000 daN, primer, weight 1.20 kg.
295131746

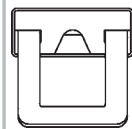





Lashing ring pocket
Loading strain 6500 daN, primer,
weight 1.82 kg.
295131543

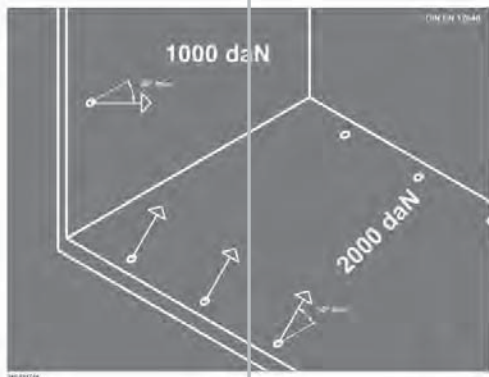


Lashing ring pocket
Load capacity 3000 daN, primer,
weight 1.17 kg.
295131544

The lashing pockets **295131543** and **295131544** are not tested in accordance with DIN EN 12640. They may not be used in Germany as a load restraining device in accordance with the BG (German professional trade association) guidelines for vehicle operating. The stated load ratings are the manufacturer's values.

Lashing point signs



Lashing point information
sign to DIN EN 12640
Adhesive film, 210 x 160 mm.

Type

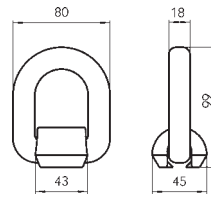
800 daN	345551746
1000 daN	345551747
2000 daN	345551748

Miscellaneous lashing rings/anchorings

Anchor rings

Quality class 8, with weld-on lug, load capacity 3.15 t, weight 0.68 kg.

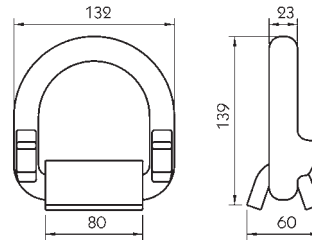
295134121



Lashing rings for RoRo ships

Compliant with EN 29367-2, load capacity max. 20 t, forged steel, zinc plated ring, weld-on part self colour, weight 1.87 kg.

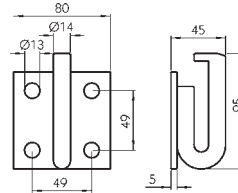
295131709



Anchor plate

Failure strength 3.5 t, primer, weight 0.47 kg.

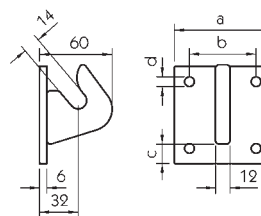
295134135



Chain hook

Welded to rectangular steel plate, self colour.

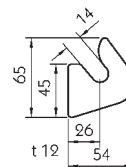
Dim. a [mm]	Dim. b [mm]	Dim. c [mm]	Dim. d [mm]	Weight [kg]	
80 x 80	55	12	8	0.50	125131005
90 x 90	65	15	10	0.55	125131006



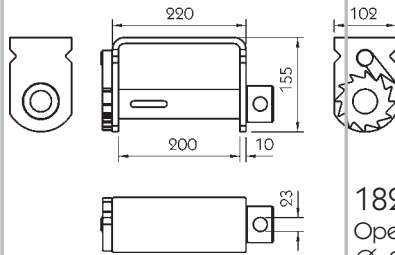
Chain hook

Self colour, weight 0.18 kg.

215131004



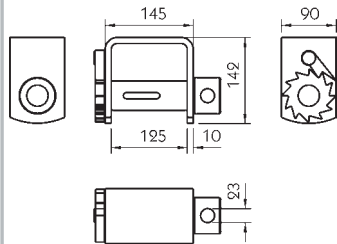
Cable and belt winches



1820

Operated by e.g., round bar \varnothing 22 mm, for tie-down straps max. 50 x 8 mm, anthrazit primer, weight 4.86 kg.

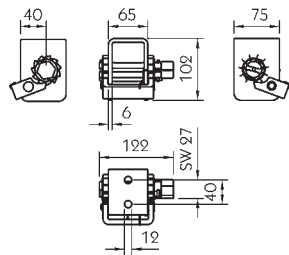
122138110



1860

Operated by e.g., round bar \varnothing 22 mm, for tie-down straps max. 50 x 8 mm, red primer, weight 4.08 kg.

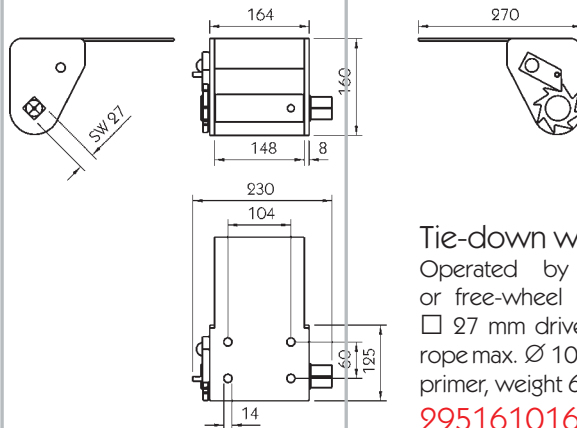
122138111



1880

With spring operated backlash safety device, operated e.g., 28 a/f spanner, for tie-down straps max. 50 x 6 mm, zinc plated/painted, weight 1.66 kg.

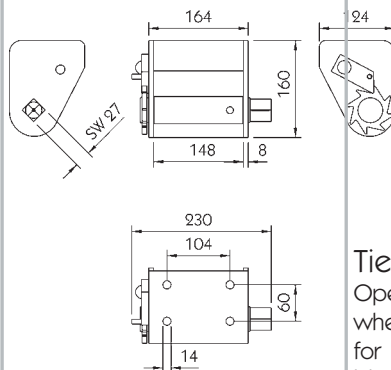
122138113



Tie-down winch

Operated by reversing or free-wheel pawl with \square 27 mm drive, for wire rope max. \varnothing 10 mm, black primer, weight 6.10 kg.

295161016



Tie-down winch

Operated by reversing or free-wheel pawl with \square 27 mm drive, for wire rope max. \varnothing 10 mm, black primer, weight 5.44 kg.

295161090



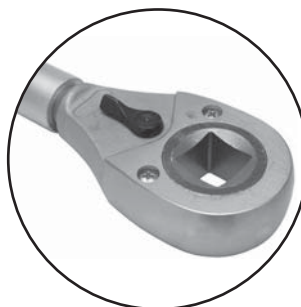
All tie-down winches on this page are not certified by the German professional trade association for vehicle operating. Thus there are no stated load values for these winches. They may not be used in Germany.

Reversible ratchet wrench

□ 27 mm

Fortie-downwinches **295161016** and **295161090**, overall length 625 mm, weight 2.45 kg.

295161017



Free-wheel ratchet wrench

□ 27 mm

Fortie-downwinches **295161016** and **295161090**, overall length 380 mm, weight 0.98 kg.

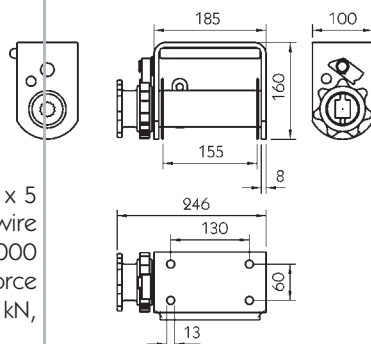
295161049



2622

For tie-down straps max. 50 x 5 mm, length 3000 mm or wire rope max. Ø 8 mm, length 9000 mm, permissible straining force 20 kN, pre-tension load 5 kN, painted black, weight 6.01 kg.

295161107



In conjunction with the attachable gearbox 4504, article no. **295161108**, the tie-down winch 2622, article no. **295161107**

complies with German professional trade association requirements. This combination has been awarded the GS sign for certified safety.

4504

Attachable gearbox for tie-down winch 2622, torque 150 Nm, painted black, weight 3.15 kg.

295161108

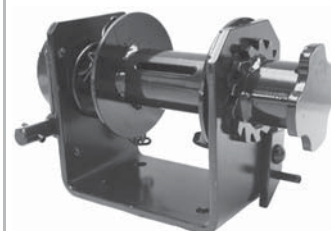
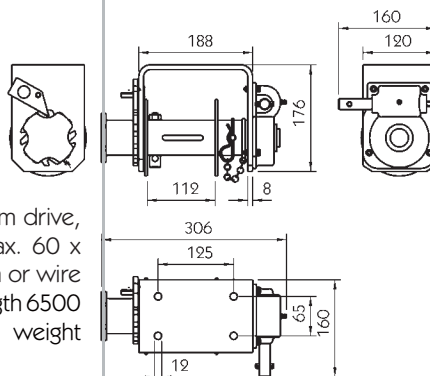


The belt winch **295161103** is not certified by the German professional trade association for vehicle operating. Thus there are no specified load ratings for this winch. It may not be used in Germany.

ZW - 500

With backlash-free worm drive, for tie-down straps max. 60 x 8 mm, length 2500 mm or wire rope max. Ø 8 mm, length 6500 mm, painted black, weight 9.49 kg.

295161103





Hand crank

For tie-down winch ZW-500, painted black, overall length 290 mm, weight 0.91 kg.

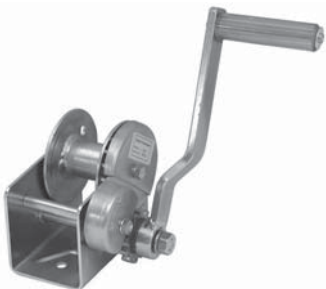
295161110



Worm drive

Spare part for tie-down winch ZW-500.

295161258



Type 1

For boats up to max. 450 kg weight. For 4 mm steel cable, zinc plated steel.

Technical specifications:

Straining force, 1st cable layer: 2400 N. Straining force, outer cable layer: 1200 N. 6 cable layers, max. cable length 16 m. Cable winch dimensions without hand crank approx.:

155 x 150 x 130 mm (l x w x h), weight 2.98 kg.

355161230



Type 2

For boats up to max. 650 kg weight. For 4 mm steel cable, zinc plated steel.

Technical specifications:

Straining force, 1st cable layer: 4200 N. Straining force, outer cable layer: 1400 N. 10 cable layers, max. cable length 39 m. Cable winch dimensions without hand crank approx.:

155 x 150 x 130 mm (l x w x h), weight 4.17 kg.

355161231



530

With fixed hand crank, for 5 mm steel cable or belting up to max. 40 mm wide, zinc plated steel.

Technical specifications:

Straining force, 1st cable layer: 5300 N. Straining force, outer cable layer: 1800 N, max. cable length 20 m. Cable winch dimensions without hand crank approx.:

230 x 180 x 155 mm (l x w x h), weight 4.66 kg.

355161323



All cable winches on this page are provided with the CE mark and comply with the EC Machinery Directive 89/392/EEC.

The type 1 and 2 cable winches comply additionally with UVV VBG 1 and VBG 8 as well as DIN 15020 Part 1.

They are provided with the GS mark.

530 A

With detachable hand crank, for 5 mm steel cable or belting up to max. 40 mm wide, zinc plated steel. Technical specifications:

Straining force, 1st cable layer: 5300 N. Straining force, outer cable layer: 1800 N, max. cable length 20 m. Cable winch dimensions without hand crank approx.: 230 x 180 x 155 mm (l x w x h), weight 4.80 kg.

355161324**Type 3**

For boats up to max. 1000 kg weight. For 5 mm steel cable, zinc plated steel. Technical specifications:

Straining force, 1st cable layer: 5400 N. Straining force, outer cable layer: 2500 N. 7 cable layers, max. cable length 23 m. Cable winch dimensions without hand crank approx.: 220 x 170 x 160 mm (l x w x h), weight 5.70 kg.

355161232**Type 4**

For boats up to max. 1400 kg weight. For 6 mm steel cable, zinc plated steel. Technical specifications:

Straining force, 1st cable layer: 7200 N. Straining force, outer cable layer: 3300 N. 5 cable layers, max. cable length 15 m. Cable winch dimensions without hand crank approx.: 155 x 150 x 130 mm (l x w x h), weight 6.06 kg.

355161233**PD 20**

For 6 mm steel cable, zinc plated steel. Technical specifications:

Straining force, 1st cable layer: 7200 N. Straining force, outer cable layer: 3300 N. 5 cable layers, max. cable length 15 m. Cable winch dimensions without hand crank approx.: 155 x 150 x 130 mm (l x w x h), weight 4.33 kg.

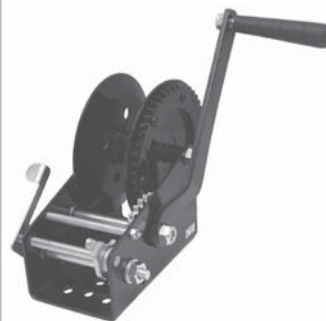
355161304**351**

For 4 mm steel cable or belting up to max. 50 mm wide, zinc plated steel. Technical specifications:

Straining force, 1st cable layer: 3500 N. Straining force, outer cable layer: 1500 N. 6 cable layers, max. cable length 15 m. Minimum breaking strain for tie-down belting: 2450 daN, max. tie-down belting length 3 m. Winch dimensions without hand crank approx. 165 x 145 x 118 mm (l x w x h), weight 2.72 kg.

355161213

All cable winches on this page are provided with the CE mark and comply with the EG Machinery Directive 89/392/EEC. The type 3, 4 and 351 cable winches also comply with UVV VBG 1 and VBG 8 as well as DIN 15020 Part 1. They are provided with the GS mark



No longer
available



All cable winches on this page are provided with the CE mark and comply with the EC Machinery Directive 89/392/EEC.

The cable winches type 501, 651, 901 and 901 A comply additionally with UVV VBG 1 and VBG 8 as well as DIN 15020 Part 1. They are provided with the GS mark.



501

For 5 mm steel cable or belting up to max. 40 mm wide, zinc plated steel.

Technical specifications:

Straining force, 1st cable layer: 5000 N. Straining force, outer cable layer: 1700 N. 7 cable layers, max. cable length 20 m. Minimum breaking strain for tie-down belting: 3500 daN, max. tie-down belting length 3.5 m. Winch dimensions without hand crank approx.: 220 x 185 x 155 mm (l x w x h), weight 4.74 kg.

355161214



651

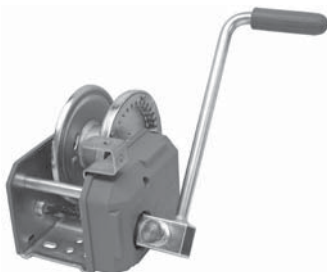
For 6 mm steel cable or belting up to max. 40 mm wide, zinc plated steel.

Technical specifications:

Straining force, 1st cable layer: 6500 N. Straining force, outer cable layer: 2300 N. 7 cable layers, max. cable length 20 m. Minimum breaking strain for tie-down belting: 4550 daN, max. tie-down belting length 5 m. Winch dimensions without hand crank approx.: 255 x 210 x 190 mm (l x w x h), weight 7.45 kg.

355161215

No longer available



901/901 A

For 7 mm steel cable or belting up to max. 50 mm wide, removable hand crank, zinc plated steel.

Technical specifications:

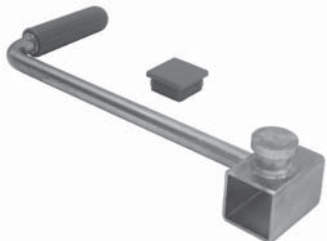
Straining force, 1st cable layer: 9000 N. Straining force, outer cable layer: 3300 N. 6 cable layers, max. cable length 20 m. Minimum breaking strain for tie-down belting: 6300 daN, max. tie-down belting length 6 m. Winch dimensions without hand crank approx.: 255 x 255 x 190 mm (l x w x h), weight 8.57 kg.

901

355161216

901 A, with automatic roll-up

355161217



Hand crank

Spare part for winches 901/901 A.

355161266



950

With fixed hand crank, for 7 mm steel cable or belting up to max. 50 mm wide, zinc plated steel.

Technical specifications:

Straining force, 1st cable layer: 9500 N. Straining force, outer cable layer: 3500 N, max. cable length 25 m. Winch dimensions without hand crank approx.:

255 x 210 x 200 mm (l x w x h), weight 8.43 kg.

355161325

950 A

With detachable hand crank, for 7 mm steel cable or belting up to max. 50 mm wide, zinc plated steel. Technical specifications:

Straining force, 1st cable layer: 9500 N. Straining force, outer cable layer: 3500 N, max. cable length 25 m. Winch dimensions without hand crank approx.:

255 x 210 x 200 mm (l x w x h), weight 8.53 kg.

355161326



All cable winches on this page are provided with the CE mark and comply with the EC Machinery Directive 89/392/EEC.



Electric cable winches

T 25 RS-12V

Electric cable winch with automatic motor braking, splash protection (IP 44), low maintenance. Included in the supply:


Cable winch with steel cable 5.0 mm, cable length approx. 7.6 m and safety latch hook. Relay cable remote control (illustration ②), cable length approx. 2900 mm, relay box (illustration ①) with mounting bracket and fixing materials, relay box dimensions approx. 200 x 75 x 115 mm (l x w x h), 2 connecting cables to relay box and winch, cable length approx. 825 mm and 2 battery connecting cables with 80 A bi-metallic heat relay, cable length approx. 1550 mm.

Technical specifications:

Straining force, 1st cable layer: 680 daN. Straining force, outer cable layer 350 daN. 3 cable layers. Cable winch dimensions approx.: 350 x 150 x 135 mm (l x w x h), weight 15.20 kg.

355161276





The electric winches itemised here are purely for vehicle recovery. They may not be utilised:

- for personnel transport
- in hazardous goods areas
- for lifting
- for load securing

V 33 R-12V

Electric cable winch with automatic motor braking and freewheel, splash protection (IP 44) and low maintenance.

Included in the supply:

Cable winch with steel cable 6.3 mm, cable length approx. 13.7 m, and safety latch hook. Relay cable remote control (illustration ②), cable length approx. 2900 mm, relay box (illustration ①) with mounting bracket and fixing materials, relay box dimensions approx. 200 x 75 x 115 mm (l x w x h), 2 connecting cables to relay box and winch, cable length approx. 825 mm and 2 battery connecting cables with 80 A bi-metallic heat relay, cable length approx. 1550 mm.

Technical specifications:

Straining force, 1st cable layer: 900 daN. Straining force, outer cable layer 450 daN. 5 cable layers. Cable winch dimensions approx.: 370 x 150 x 135 mm (l x w x h), weight 16.00 kg.

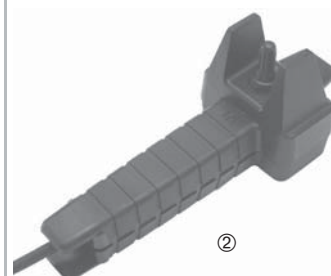
355161277



Illustration left:

① Relay box and ② cable remote control.

The cable remote control is connected to the relay box via a socket. It can be removed when not in use.





V 60 R-12V

Electric cable winch with automatic motor braking and free-wheel, splash protection (IP 44) and low maintenance. Included in the supply:

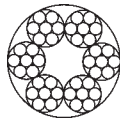
Cable winch with steel cable 6.3 mm, cable length approx. 13.7 m, and safety latch hook. Relay cable remote control (illustration ②), cable length approx. 2900 mm, relay box (illustration ①) with mounting bracket and fixing materials, relay box dimensions approx. 200 x 75 x 115 mm (l x w x h), 2 connecting cables to relay box and winch, cable length approx. 825 mm and 2 battery connecting cables with 100 A bi-metallic heat relay, cable length approx. 1550 mm.

Technical specifications:

Straining force, 1st cable layer: 2045 daN. Straining force, outer cable layer 1000 daN. 5 cable layers. Cable winch dimensions approx.: 400 x 150 x 135 mm (l x w x h), weight 18.20 kg.

355161278

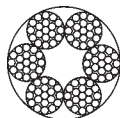
Cable and accessories Steel wire ropes



Round strand cable 6 x 7

With fibre inlay, DIN 3055, zinc plated.

Cable Ø [mm]	Cable length [m]	Minimum breaking strain [kN]	Weight [kg/m]	
3	30	5.29	0.03	271151081
4	30	9.41	0.06	271151082
5	30	14.70	0.09	271151083
8	10	37.60	0.23	271151085
10	10	58.80	0.36	271151086
12	30	84.70	0.52	271151087
14	30	115.00	0.70	271151088
16	30	151.00	0.92	271151089



Round strand cable 6 x 19

With fibre inlay, DIN 3060, zinc plated.

Cable Ø [mm]	Cable length [m]	Minimum breaking strain [kN]	Weight [kg/m]	
6	30	19.6	0.13	271153084
6	50	19.6	0.13	271155084
8	30	34.8	0.22	271153085
8	50	34.8	0.22	271155085
10	30	54.4	0.35	271153086
10	50	54.4	0.35	271155086



Steel cable for cable winches

With safety latch hooks. Compliant with DIN 3060, certified to DIN 15020 part 1, zinc plated.

Cable Ø [mm]	Cable length [m]	Weight [kg]	
4	15	1.00	355161218
5	10	1.02	355161327
5	20	1.88	355161219
6	20	2.63	355161220
7	12.5	2.35	355161328
7	20	3.58	355161133

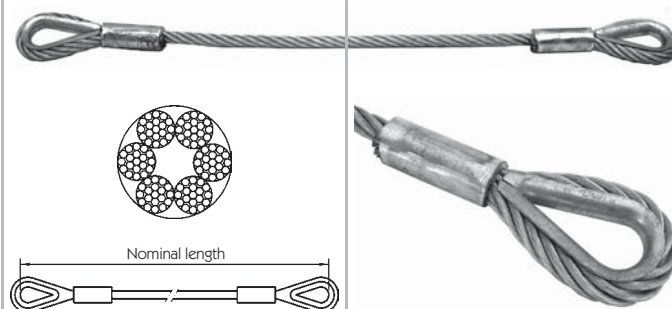
No longer available

All tipper cables on this page are from round strand cable 6 x 19 with fibre inlay, DIN 3060.

Nominal length [mm]	Weight [kg]	
600	0.33	270151264
700	0.36	270151145
750	0.38	270151146
800	0.41	270151148
865	0.43	270151120
900	0.44	270151151
940	0.46	270151152
1000	0.48	270151154
1050	0.50	270151122
1100	0.52	270151155
1300	0.60	270151123

Tipper cables \varnothing 10 mm
Both ends with A 9 thimble, DIN 6899, for pin \varnothing 20 mm.
Minimum breaking strain 4920 kN, zinc plated.

Tipper cables

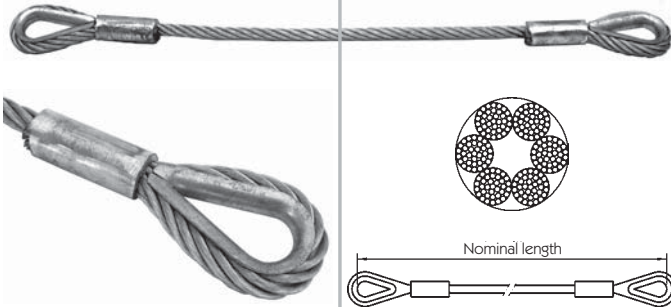


Nominal length [mm]	Weight [kg]	
620	0.76	270151156
700	0.81	270151157
800	0.88	270151159
840	0.90	270151160
865	0.92	270151162
900	0.94	270151163
950	0.98	270151126
1000	1.00	270151127
1050	1.04	270151166
1100	1.07	270151128
1150	1.10	270151129
1200	1.14	270151167
1250	1.16	270151130
1300	1.20	270151168
1350	1.22	270151131
1400	1.26	270151169

Tipper cable \varnothing 13 mm
Both ends with A 12 thimble, DIN 6899, for pin \varnothing 26 mm.
Minimum breaking strain 8310 kN, zinc plated.

Nominal length [mm]	Weight [kg]	
870	1.40	270151132
900	1.41	270151170
950	1.45	270151171
1000	1.50	270151133
1050	1.54	270151266
1100	1.59	270151134
1200	1.67	270151135
1300	1.76	270151172
1350	1.80	270151136
1400	1.85	270151173

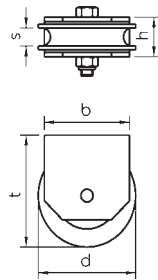
Tipper cable \varnothing 16 mm
Both ends with A 15 thimble, DIN 6899, for pin \varnothing 32 mm.
Minimum breaking strain 12600 kN, zinc plated.



Tipper cable \varnothing 20 mm
 Round strand cable 6 x 37 with fibre inlay, DIN 3066. Both ends with A 18 thimbles DIN 6899 for pin \varnothing 40 mm. Nominal length 1250 mm.
 Minimum breaking strain 209 kN, zinc plated.

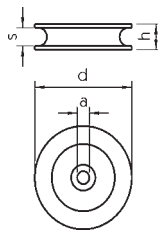
270151139

Cable accessories



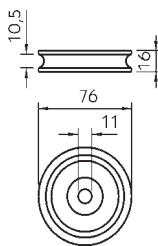
Cable pulley with mount
 Self colour.

Dim. d [mm]	Dim. b [mm]	Dim. h [mm]	Dim. s [mm]	Dim. t [mm]	Weight [kg]	
60	50	28	11	79	0.36	270151143
80	70	31	13	87	0.58	125151117



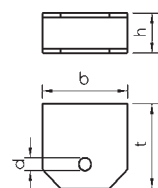
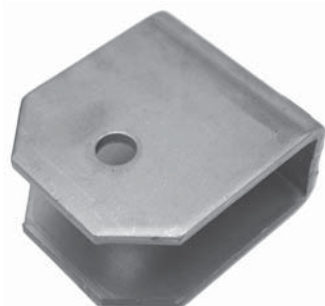
Cable pulley
 Self colour.

Dim. d [mm]	Dim. a [mm]	Dim. h [mm]	Dim. s [mm]	Weight [kg]	
60	8	18	11	0.17	215151114
70	8.5	21	13	0.26	215151142
80	10	21	13	0.28	215151115



Cable pulley \varnothing 76 mm
 Plastic, weight 0.04 kg.

215151260



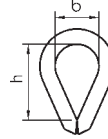
Pulley mount
 Self colour.

Dim. b [mm]	Dim. d [mm]	Dim. h [mm]	Dim. t [mm]	Weight [kg]	
50	8.5	28	56	0.17	270151144
70	10	31	65	0.28	125151118

Thimbles

Similar to DIN 6899 B, zinc plated.

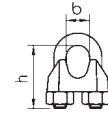
Nominal size [mm]	Dim. b [mm]	Dim. h [mm]	Weight [kg]	
3	12	19	0.005	270151090
4	13	21	0.008	270151091
5	14	23	0.010	270151092
6	16	25	0.016	270151093
8	20	32	0.030	270151094
10	24	38	0.047	270151095
12	28	45	0.068	270151096
14	32	51	0.100	270151097
16	36	58	0.145	270151098
20	45	72	0.290	270151100
24	56	90	0.470	270151140



Wire rope clamps

Similar to DIN 741, zinc plated.

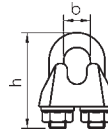
Nominal size [mm]	Dim. b [mm]	Dim. h [mm]	Weight [kg]	
3	4	20	0.007	270151101
5	6	24	0.015	270151102
6	8	28	0.019	270151103
8	9	34	0.032	270151104
10	11	42	0.066	270151105
11	12	44	0.071	270151106
13	14	55	0.125	270151107
14	15	57	0.140	270151108
16	17	63	0.205	270151109
19	20	75	0.308	270151110



Wire rope clamps

DIN 1142, zinc plated.

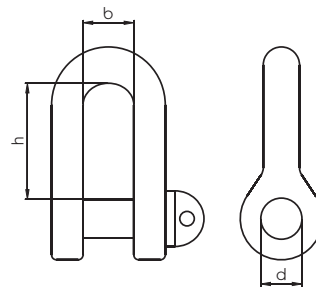
Nominal size [mm]	Dim. b [mm]	Dim. h [mm]	Weight [kg]	
5	7	25	0.021	270151188
6.5	8	32	0.040	270151189
8	10	41	0.082	270151190
10	12	46	0.092	270151191
13	15	64	0.275	270151192
16	18	76	0.430	270151193
19	22	83	0.490	270151194
22	24	96	0.680	270151195
26	26	111	1.170	270151196



Shackles

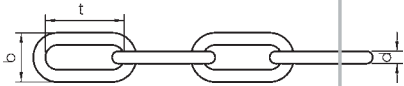
DIN 82101, form A, with threaded pin form G 4, zinc plated.

Dim. d [mm]	Dim. b [mm]	Dim. h [mm]	Perm. load [kN]	Weight [kg]	
5	7	15.5	1.0	0.013	215131073
6	8	18	1.6	0.024	215131074
8	11	24	2.5	0.045	215131075
10	14	30	4.0	0.090	215131076
12	17	36	6.3	0.17	215131077
16	21	49	10.0	0.36	215131078
20	27	61	16.0	0.75	215131079
22	30	67	20.0	1.00	215131080
24	33	73	25.0	1.32	215131081
27	38	83.5	31.5	1.80	215131082
30	42	91	40.0	2.40	215131083
36	47	111	50.0	3.90	215131084
39	53	119.5	63.0	5.30	215131085
45	60	139.5	80.0	7.90	215131086
48	66	147	100.0	10.00	215131087

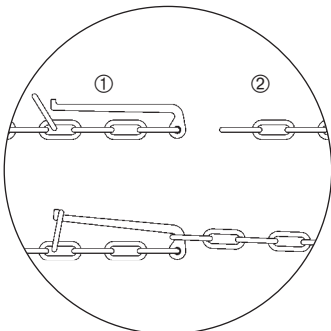
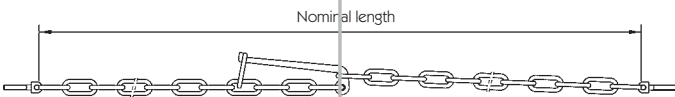
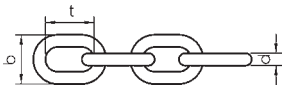


Chains and accessories

Chains



Round steel chain to DIN 5685 are not tested for strength and therefore may not be used as a load bearing, slinging or transporting medium. The given breaking strains are only calculated values.



Straight C-link chain

DIN 5685, zinc plated.

Dim. d [mm]	Dim. b [mm]	Dim. t [mm]	~ Braking strain [N]	Packed length [m]	Weight [kg/m]	
2	8	22	1250	30	0.06	271151198
2.5	10	24	2000	30	0.10	271151199
3	12	26	2800	30	0.15	271151200
4	16	32	5000	10	0.27	271152202
4	16	32	5000	30	0.27	271151202
5	20	35	7750	10	0.43	271152204
5	20	35	7750	30	0.43	271151204
6	24	42	11500	10	0.63	271152206
6	24	42	11500	30	0.63	271151206
7	28	49	15000	30	0.86	271151208
8	32	52	20000	10	1.10	271152209
8	32	52	20000	30	1.10	271151209
10	40	65	31000	30	1.75	271151211
13	52	82	53000	30	2.95	271151214

Straight A-link chain

DIN 5685, zinc plated.

Dim. d [mm]	Dim. b [mm]	Dim. t [mm]	~ Braking strain [N]	Packed length [m]	Weight [kg/m]	
2	8	12	1250	10	0.07	271152229
2	8	12	1250	30	0.07	271151229
2.5	10	14	2000	30	0.11	271151230
3	12	16	2800	30	0.17	271151231
4	16	19	5000	30	0.30	271151233
5	20	21	7750	30	0.50	271151235
6	24	24	11500	30	0.73	271151237
7	28	28	15000	30	1.00	271151239
8	32	32	20000	10	1.30	271152240
8	32	32	20000	30	1.30	271151240
10	40	40	31000	30	2.05	271151242
13	52	52	53000	30	3.45	271151245

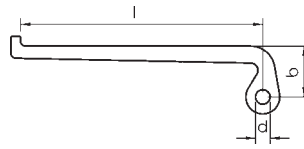
Tensioning chains DIN 691

Chain to DIN 763 with form A tensioning lever and form C eye bolt. Consisting of individual parts: chain part with tensioning lever and chain part with lever link eye. Nominal length with 6 mm links = 2300 mm, nominal length with 8 mm links = 2500 mm.

	Link thickness [mm]	Finish	Weight [kg]	
Chain part with tension lever ①	6	self colour	0.90	270151077
Chain part with lever link eye ②	6	self colour	0.70	270151078
Chain part with tension lever ①	6	zinc plated	0.90	270152077
Chain part with lever link eye ②	6	zinc plated	0.70	270152078
Chain part with tension lever ①	8	self colour	1.66	270151079
Chain part with lever link eye ②	8	self colour	1.23	270151080
Chain part with tension lever ①	8	zinc plated	1.66	270152079
Chain part with lever link eye ②	8	zinc plated	1.23	270152080

Chain tensioning levers

DIN 691 form A, spare part for tensioning chains DIN 691, self colour.



For link thickness [mm]	Dim. d [mm]	Dim. b [mm]	Dim. l [mm]	Weight [kg]	
6	10	32	160	0.13	215131056
8	12	42	200	0.23	215131057



Eye bolt M 10 x 40

DIN 691 form C, spare part for chain tensioner DIN 691, olive green zinc plated, weight 0.051 kg.

215131745



Chain quick-repair links

Chain quick-repair links

Zinc plated.

Nominal thickness [mm]	Weight [kg]	
3	0.004	270151174
4	0.008	270151176
5	0.015	270151178
6	0.024	270151180
7	0.040	270151182
8	0.055	270151183
9	0.076	270151184
10	0.094	270151185
12	0.200	270151186



No longer available

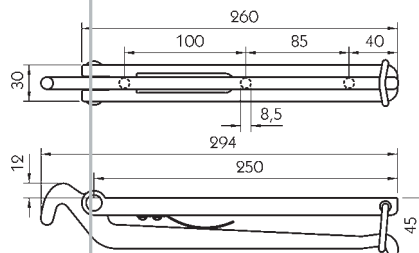
Chain quick-repair links

With threaded sleeve, zinc plated.

Nominal thickness [mm]	Weight [kg]	
6	0.036	848110000
8	0.077	848111000
10	0.145	848112000
12	0.237	848113000



Chain tensioners

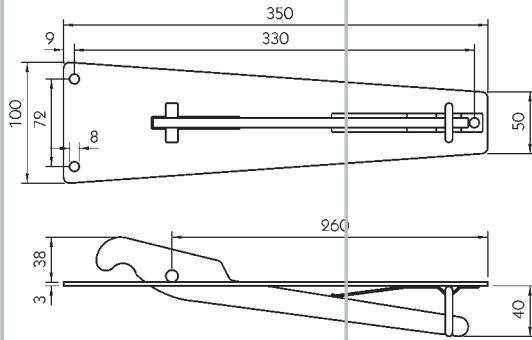


Chain tensioner

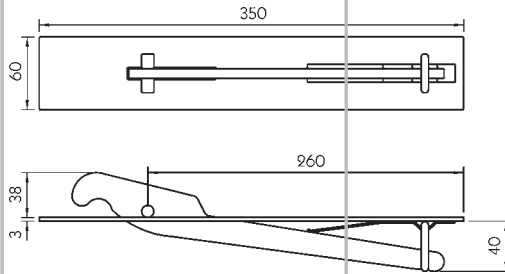
Weight 0.73 kg.

Self colour	103131045
Zinc plated	103131538
Spring, spare part for chain tensioner	103131046

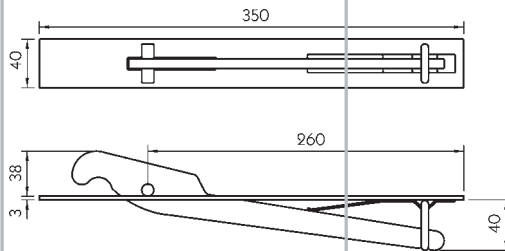




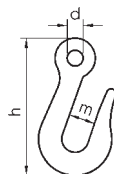
Chain tensioner
Grain tight, screw-on, for wooden side boards, primer, weight 1.09 kg.
215131417



Chain tensioner
Grain tight, weld-on, for steel side boards, primer, weight 0.97 kg.
215131418



Chain tensioner
Grain tight, weld-on, for steel side boards, primer, weight 0.81 kg.
215131419



Chain hooks
Drop forged, self colour.

Nominal size	Dim. h [mm]	Dim. d [mm]	Dim. m [mm]	Weight [kg]	
50	55	8	11	0.04	215131009
60	69	9.5	15	0.06	215131010
70	78	11	18	0.11	215131011
80	90	12	18	0.13	215131012
100	113	13	20	0.30	215131014
120	120	15	20	0.33	215131015

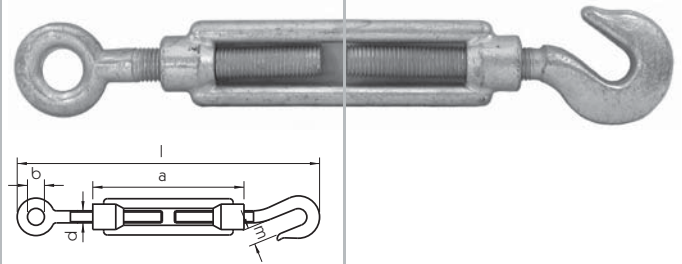
Illustrations of the chain tensioner show both the front and back sides.

Turnbuckles

Turnbuckles

DIN 1480 form A, with hook and eye, zinc plated.

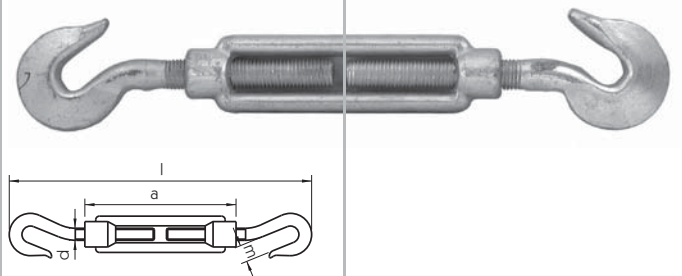
Dim. d [mm]	Dim. a [mm]	Dim. b [mm]	Dim. l [mm]	Dim. m [mm]	Weight [kg]	
M 6	110	9	172 + 80	8.5	0.10	215131457
M 8	110	10	182 + 75	10	0.17	215131458
M 10	125	14	213 + 85	13.5	0.29	215131459
M 12	125	16	238 + 80	15.5	0.43	215131460
M 16	170	22	320 + 110	19	0.92	215131461
M 20	200	24	367 + 130	20.5	1.63	215131462
M 24	255	27	447 + 170	26	3.00	215131463



Turnbuckles

DIN 1480 form B, with 2 hooks, zinc plated.

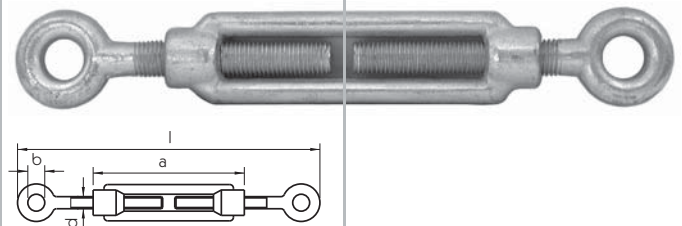
Dim. d [mm]	Dim. a [mm]	Dim. m [mm]	Dim. l [mm]	Weight [kg]	
M 6	110	8.5	180 + 80	0.09	215131471
M 8	110	11	195 + 75	0.17	215131472
M 10	125	13.5	230 + 85	0.30	215131473
M 12	125	15.5	250 + 80	0.44	215131474
M 16	170	19	320 + 110	0.95	215131475
M 20	200	20.5	400 + 130	1.75	215131476
M 24	255	26	490 + 170	3.22	215131477



Turnbuckles

DIN 1480 form C, with 2 eyes, zinc plated.

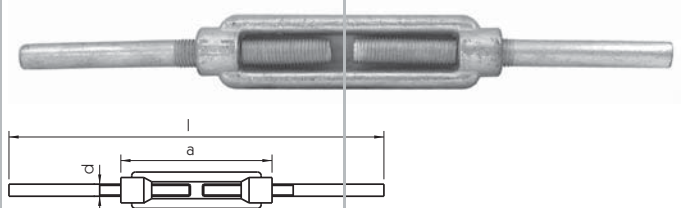
Dim. d [mm]	Dim. a [mm]	Dim. b [mm]	Dim. l [mm]	Weight [kg]	
M 6	110	9	167 + 80	0.09	215131464
M 8	110	10	179 + 75	0.16	215131465
M 10	125	14	210 + 85	0.27	215131466
M 12	125	16	230 + 80	0.41	215131467
M 16	170	22	330 + 110	1.00	215131468
M 20	200	24	335 + 130	1.54	215131469
M 24	255	27	420 + 170	2.70	215131470



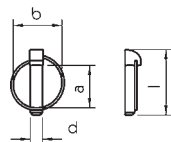
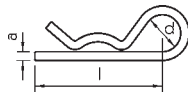
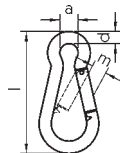
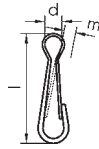
Turnbuckles

DIN 1480 form D, with 2 weldable ends, zinc plated.

Dim. d [mm]	Dim. a [mm]	Dim. l [mm]	Weight [kg]	
M 6	110	240 + 80	0.09	215131450
M 8	110	240 + 75	0.14	215131451
M 10	125	300 + 85	0.28	215131452
M 12	125	300 + 80	0.40	215131453
M 16	170	400 + 110	0.89	215131454
M 20	200	440 + 130	1.60	215131455
M 24	255	520 + 170	2.82	215131456



Miscellaneous accessories for chains and cables



Simplex hooks

DIN 5287, nickel plated.

Dim. d [mm]	Dim. l [mm]	Dim. m [mm]	Weight [kg]	
5.5	25	3.5	0.001	215131426
6	30	4.5	0.002	215131427
6.5	35	5	0.003	215131428
7	40	5.5	0.004	215131429
8	45	6	0.006	215131430
9	50	6.5	0.007	215131431
10	60	7.5	0.012	215131432
11	70	9	0.019	215131433
12	80	10	0.028	215131434
14	90	11	0.039	215131435

Carbine hooks

DIN 5299, form C, zinc plated.

Dim. d [mm]	Dim. l [mm]	Dim. a [mm]	Dim. m [mm]	Weight [kg]	
5	50	--	--	--	215131689
6	60	9	8	0.027	215131420
7	70	10	8	0.043	215131421
8	80	10	9	0.064	215131422
10	100	15	11	0.126	215131423
11	120	18	16	0.194	215131424
12	140	20	19	0.260	215131425

Spring cotters

Plain, zinc plated.

Dim. a [mm]	Dim. d [mm]	Dim. l [mm]	Qty.	Weight [kg]	
3	16	60	250	0.009	215141007
4	20	60	100	0.016	215141008
5	24	87	100	0.034	215141009
6	30	105	50	0.062	215141010
7	30	105	25	0.084	215141011
8	29	110	25	0.114	215141012

Spring cotters

Double coil, zinc plated.

Dim. a [mm]	Dim. d [mm]	Dim. l [mm]	Qty.	Weight [kg]	
3	16	64	250	0.012	215141013
4	23	80	100	0.030	215141014
5	26	90	50	0.053	215141015
6	30	120	25	0.093	215141016
7	30	133	25	0.135	215141017
8	30	130	25	0.176	215141018

Linchpins

Zinc plated.

Dim. d [mm]	Dim. a [mm]	Dim. b [mm]	Dim. l [mm]	Qty.	Weight [kg]	
4.5	30	40	48	100	0.013	215141001
6	36	47	52	100	0.024	215141002
8	36	48	53	100	0.029	215141003
9.5	34	49	54	100	0.038	215141004
10	36	49	54	100	0.039	215141005
11	35	47	54	100	0.046	215141006

Eye bolt with ring
Ring \varnothing 10 x 50 mm, bolt DIN 691-C M 10 x 55, zinc plated, weight 0.18 kg.
215131380



Eye bolt
Eye (inside) \varnothing 13mm, M 10 x 45, self colour, weight 0.08 kg.
215131028

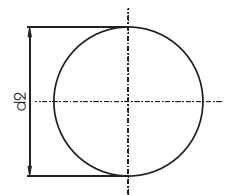
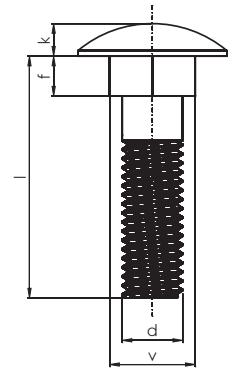


Screws

Mushroom head square neck bolts

Mushroom head square neck bolts
DIN 603, zinc plated, product class C, uncoloured passivated, with hex-nut.

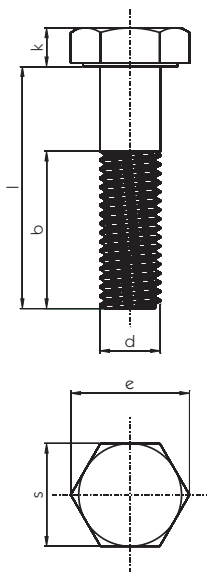
Dim. d x l [mm]	Dim. d2 [mm]	Dim. v [mm]	Dim. f [mm]	Dim. k [mm]	Qty. [piece]	
M 6 x 20	16.55	6.48	4.60	3.88	200	981961021
M 6 x 25	16.55	6.48	4.60	3.88	200	981961022
M 6 x 30	16.55	6.48	4.60	3.88	200	981961023
M 6 x 35	16.55	6.48	4.60	3.88	200	981961024
M 6 x 40	200	6.48	4.60	3.88	200	981961025
M 6 x 45	16.55	6.48	4.60	3.88	200	981961026
M 6 x 50	16.55	6.48	4.60	3.88	200	981961027
M 6 x 55	16.55	6.48	4.60	3.88	200	981961028
M 6 x 60	16.55	6.48	4.60	3.88	200	981961029
M 6 x 65	16.55	6.48	4.60	3.88	200	981961030
M 6 x 70	16.55	6.48	4.60	3.88	200	981961031
M 6 x 80	16.55	6.48	4.60	3.88	200	981961032
M 6 x 90	16.55	6.48	4.60	3.88	100	981961033
M 6 x 100	16.55	6.48	4.60	3.88	100	981961034
M 6 x 120	16.55	6.48	4.60	3.88	100	981961036
M 8 x 20	20.60	8.58	5.60	4.88	200	981961041
M 8 x 25	20.60	8.58	5.60	4.88	200	981961042
M 8 x 30	20.60	8.58	5.60	4.88	200	981961043
M 8 x 35	20.60	8.58	5.60	4.88	200	981961044
M 8 x 40	20.60	8.58	5.60	4.88	200	981961045
M 8 x 45	20.60	8.58	5.60	4.88	200	981961046
M 8 x 50	20.60	8.58	5.60	4.88	200	981961047
M 8 x 55	20.60	8.58	5.60	4.88	200	981961048
M 8 x 60	20.60	8.58	5.60	4.88	200	981961049
M 8 x 65	20.60	8.58	5.60	4.88	200	981961050
M 8 x 70	20.60	8.58	5.60	4.88	200	981961051
M 8 x 80	20.60	8.58	5.60	4.88	200	981961052
M 8 x 90	20.60	8.58	5.60	4.88	100	981960941
M 8 x 100	20.60	8.58	5.60	4.88	100	981960942
M 8 x 110	20.60	8.58	5.60	4.88	100	981960743
M 8 x 120	20.60	8.58	5.60	4.88	100	981960744



Hexagon head bolts



Hexagon head bolts
DIN 931 8.8, zinc plated, uncoloured passivated.



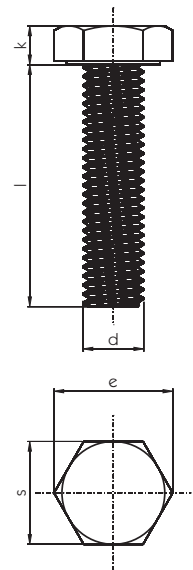
Dim. d x l [mm]	Dim. s [mm]	Dim. e [mm]	Dim. k [mm]	Dim. b [mm]	Qty. [piece]	
M 6 x 40	10.0	11.05	4.0	18	200	960970301
M 6 x 50	10.0	11.05	4.0	18	200	960970303
M 6 x 60	10.0	11.05	4.0	18	200	960970304
M 6 x 70	10.0	11.05	4.0	18	200	960970306
M 6 x 80	10.0	11.05	4.0	18	200	960970308
M 8 x 40	13.0	14.38	5.3	22	200	960970310
M 8 x 45	13.0	14.38	5.3	22	200	960970311
M 8 x 50	13.0	14.38	5.3	22	200	960970312
M 8 x 60	13.0	14.38	5.3	22	200	960970314
M 8 x 70	13.0	14.38	5.3	22	200	960970316
M 8 x 80	13.0	14.38	5.3	22	200	960970318
M 8 x 90	13.0	14.38	5.3	22	100	960970320
M 8 x 100	13.0	14.38	5.3	22	100	960970449
M 8 x 120	13.0	14.38	5.3	22	100	960970451
M 10 x 45	17.0	18.9	6.4	26	100	960970322
M 10 x 50	17.0	18.9	6.4	26	100	960970323
M 10 x 60	17.0	18.9	6.4	26	100	960970325
M 10 x 70	17.0	18.9	6.4	26	100	960970327
M 10 x 80	17.0	18.9	6.4	26	100	960970329
M 10 x 90	17.0	18.9	6.4	26	100	960970332
M 10 x 100	17.0	18.9	6.4	26	100	960970331
M 10 x 110	17.0	18.9	6.4	26	50	960970333
M 10 x 120	17.0	18.9	6.4	26	50	960970334
M 10 x 140	17.0	18.9	6.4	32	50	960970456
M 12 x 50	19	21.1	7.5	30	100	960970336
M 12 x 60	19	21.1	7.5	30	100	960970338
M 12 x 70	19	21.1	7.5	30	50	960970340
M 12 x 80	19	21.1	7.5	30	50	960970342
M 12 x 90	19	21.1	7.5	30	50	960970343
M 12 x 100	19	21.1	7.5	30	50	960970344
M 12 x 110	19	21.1	7.5	30	50	960970345
M 12 x 120	19	21.1	7.5	30	50	960970346
M 12 x 130	19	21.1	7.5	36	50	960970347
M 12 x 140	19	21.1	7.5	36	50	960970348
M 14 x 50	22	24.49	8.8	34	100	960970350
M 14 x 60	22	24.49	8.8	34	50	960970352
M 14 x 70	22	24.49	8.8	34	50	960970354
M 14 x 75	22	24.49	8.8	34	50	960970355
M 14 x 80	22	24.49	8.8	34	50	960970356
M 14 x 90	22	24.49	8.8	34	50	960970357
M 14 x 100	22	24.49	8.8	34	50	960970359
M 16 x 60	24	26.75	10.0	38	50	960970366
M 16 x 70	24	26.75	10.0	38	25	960970368
M 16 x 80	24	26.75	10.0	38	25	960970370
M 16 x 90	24	26.75	10.0	38	25	960970372
M 16 x 100	24	26.75	10.0	38	25	960970373
M 16 x 110	24	26.75	10.0	38	25	960970374
M 16 x 120	24	26.75	10.0	38	25	960970375
M 16 x 130	24	26.75	10.0	44	25	960970376
M 16 x 140	24	26.75	10.0	44	25	960970377
M 16 x 150	24	26.75	10.0	44	25	960970378
M 16 x 160	24	26.75	10.0	44	25	960970379



Hexagon head screws

Hexagon head screws
DIN 933 8.8, zinc plated, uncoloured passivated.

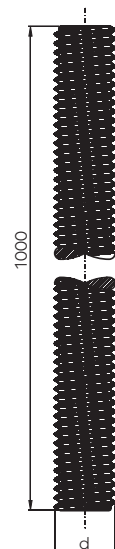
Dim. d x l [mm]	Dim. s [mm]	Dim. e [mm]	Dim. k [mm]	Qty. [piece]	
M 6 x 16	10	11.05	4.0	100	960970001
M 6 x 20	10	11.05	4.0	100	960970002
M 6 x 25	10	11.05	4.0	100	960970003
M 6 x 30	10	11.05	4.0	100	960970004
M 8 x 16	13	14.38	5.3	200	960970005
M 8 x 20	13	14.38	5.3	200	960970006
M 8 x 25	13	14.38	5.3	200	960970007
M 8 x 30	13	14.38	5.3	200	960970008
M 8 x 35	13	14.38	5.3	200	960970009
M 10 x 20	17	18.9	6.4	200	960970013
M 10 x 25	17	18.9	6.4	200	960970014
M 10 x 30	17	18.9	6.4	200	960970015
M 10 x 35	17	18.9	6.4	100	960970016
M 10 x 40	17	18.9	6.4	100	960970017
M 12 x 25	19	21.1	7.5	100	960970022
M 12 x 30	19	21.1	7.5	100	960970023
M 12 x 35	19	21.1	7.5	100	960970024
M 12 x 45	19	21.1	7.5	100	960970026
M 14 x 30	22	24.49	8.8	100	960970030
M 14 x 35	22	24.49	8.8	100	960970031
M 14 x 40	22	24.49	8.8	100	960970032
M 14 x 45	22	24.49	8.8	50	960970033
M 16 x 30	24	26.75	10.0	50	960970038
M 16 x 35	24	26.75	10.0	50	960970039
M 16 x 40	24	26.75	10.0	25	960970040
M 16 x 45	24	26.75	10.0	25	960970041
M 16 x 50	24	26.75	10.0	25	960970042



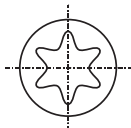
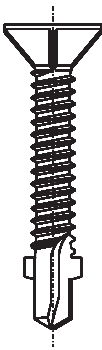
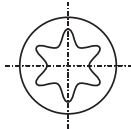
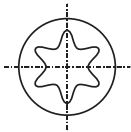
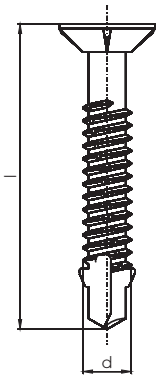
Threaded rods

Threaded rods
DIN 975 - 4.6 and DIN 975 - 8.8,
zinc plated, ST 37, rolled thread.

Dim. d [mm]	Strength	
	Strength 4.6	Strength 8.8
M 6	966960024	966960060
M 8	966960025	966960061
M 10	966960026	966960062
M 12	966960027	966960063
M 14	966960028	966960064
M 16	966960029	966960065
M 18	966960030	966960066
M 20	966960031	966960067
M 22	966960032	966960069
M 24	966960033	966960068



Self drilling fastener



Self drilling fastener

Zinc plated, TORX drive, cross recess, for wood and steel.

Dim. d x l [mm]	Qty. [piece]	
5.5 x 38	100	973963650
5.5 x 45	100	973963651
5.5 x 50	100	973963652
5.5 x 55	100	973963653
6.3 x 45	100	973963660
6.3 x 50	100	973963661
6.3 x 55	100	973963662
6.3 x 60	100	973963663
6.3 x 65	100	973963664
6.3 x 70	100	973963665
6.3 x 80	100	973963666

Self drilling fastener wood to aluminium with TORX T30 drive

Attaching softwood to 3-5 mm aluminium crossmembers. Max. thickness of all materials fastened 36 mm, size 6.3 x 50 mm, zinc plated, qty. 100 pieces.

973963675

Self drilling fastener wood to aluminium with TORX T30 drive

Attaching semi-hardwood or hardwood to 3-5 mm aluminium crossmembers. Max. thickness of all materials fastened 36 mm, size 6.3 x 50 mm, Durocoat coated, qty. 100 pieces.

973963676

Self drilling fastener wood
to aluminium with TORX
T40 drive

Attaching semi-hardwood or hard-
wood to 5-10 mm aluminium
crossmembers. Max. thickness of
all materials fastened 38 mm, size
8.3 x 65 mm, Durocoat coated,
qty. 100 pieces.

973963677

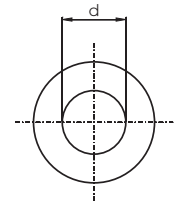
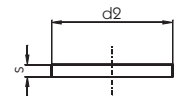
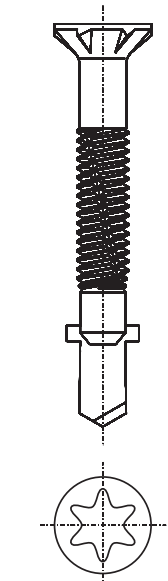


Washers

DIN 125, zinc plated, 104 HV.

Dim. d [mm]	For thread	Dim. d2 [mm]	Dim. s [mm]	Qty. [piece]	
5.3	M5	10	1.0	1000	965987030
6.4	M6	12	1.6	1000	965987031
8.4	M8	16	1.6	1000	965987032
10.5	M10	20	2.0	1000	965987033
13	M12	24	2.5	500	965987034
15	M14	28	2.5	500	965987035
17	M16	30	3.0	250	965987036
21	M20	37	3.0	200	965987037
25	M24	44	4.0	100	965987038

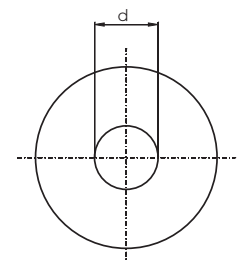
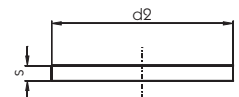
Washers and spring lock
washers
Washers



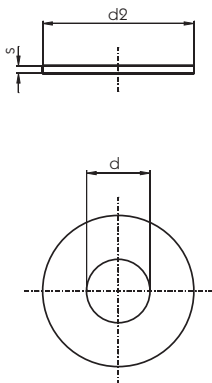
Washers

DIN 9021 A, zinc plated, 100 HV.

Dim. d x d2 [mm]	For thread	Dim. s [mm]	Qty. [piece]	
5.3 x 15	M5	1.2	250	965987264
6.4 x 18	M6	1.6	250	965987265
8.4 x 24	M8	2	100	965987266
10.5 x 30	M10	2.5	100	965987267
13 x 37	M12	3	100	965987268
15 x 44	M14	3	100	965987269
17 x 50	M16	3	100	965987270
22 x 50	M20	4	100	965987272



Mudguard washers

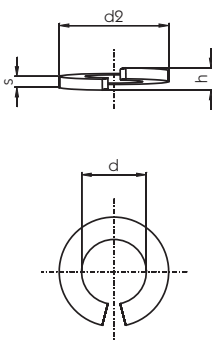


Mudguard washers
Tolerance DIN 522 c, zinc plated,
chafed, uncoloured passivated.



Dim. d x d2 x s [mm]	Qty. [piece]	
5.3 x 20 x 1.25	200	965987128
5.3 x 25 x 1.25	200	965987129
6.4 x 20 x 1.25	200	965987131
6.4 x 25 x 1.25	200	965987132
6.4 x 30 x 1.25	200	965987133
6.4 x 35 x 1.25	200	965987145
6.4 x 40 x 1.25	200	965987146
8.4 x 20 x 1.25	200	965987134
8.4 x 25 x 1.25	200	965987135
8.4 x 30 x 1.25	200	965987136
8.4 x 35 x 1.25	200	965987137
8.4 x 40 x 1.25	200	965987147
10.5 x 25 x 1.25	200	965987138
10.5 x 30 x 1.25	200	965987139
10.5 x 40 x 1.25	200	965987141
12.5 x 35 x 1.25	200	965987143
12.5 x 40 x 1.25	200	965987144

Spring lock washers



Spring lock washers
DIN 127 A, zinc plated.

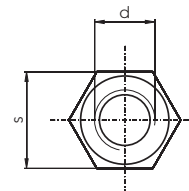
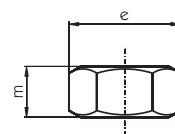


Size	For thread	Dim. d [mm]	Dim. d2 [mm]	Dim. h [mm]	Dim. s [mm]	Qty. [piece]
A5	M5	5.1	9.2	3.2	1.2	1000
A6	M6	6.1	11.8	4.2	1.6	1000
A8	M8	8.1	14.8	5.4	2.0	1000
A10	M10	10.2	18.1	5.9	2.2	1000
A12	M12	12.2	21.1	6.8	2.5	500
A14	M14	14.2	24.1	8.0	3.0	500
A16	M16	16.2	27.4	9.2	3.5	250
A20	M20	20.2	33.6	10.4	4.0	100
A24	M24	24.5	40.0	13.0	5.0	100

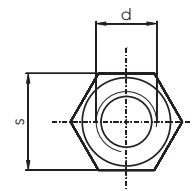
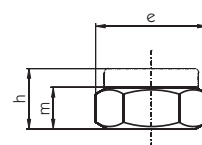
Nuts


 Hexagon nuts
 DIN 934-8, zinc plated.

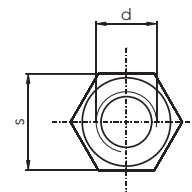
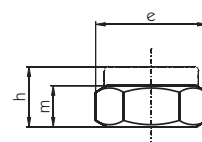
Dim. d [mm]	Dim. s [mm]	Dim. e [mm]	Dim. m [mm]	Qty. [piece]	
M5	8.0	8.79	4.0	1000	964970501
M6	10.0	11.05	5.0	1000	964970502
M8	13.0	14.38	6.5	1000	964970503
M10	17.0	18.90	8.0	500	964970504
M12	19.0	21.10	10.0	500	964970505
M14	22.0	24.49	11.0	250	964970506
M16	24.0	26.75	13.0	200	964970507
M20	30.0	32.95	16.0	100	964970508
M24	36.0	39.55	19.0	50	964970509


 Prevailing torque type
 hexagon nuts
 DIN 980-8, zinc plated, Form V,
 uncoloured passivated.

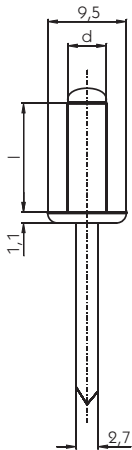
Dim. d [mm]	Dim. s [mm]	Dim. e [mm]	Dim. m [mm]	Dim. h [mm]	Qty. [piece]	
M8	13.0	14.38	4.4	8.0	100	964976801
M10	17.0	18.90	5.5	10.0	100	964976802
M12	19.0	21.10	6.6	12.0	100	964976803
M14	22.0	24.49	7.7	14.0	100	964976804
M16	24.0	26.75	8.8	16.0	100	964976805


 Prevailing torque type
 hexagon nuts
 DIN 985-8, zinc plated, uncoloured
 passivated, with non-metallic
 insert.

Dim. d [mm]	Dim. s [mm]	Dim. e [mm]	Dim. m [mm]	Dim. h [mm]	Qty. [piece]	
M 5	8.0	8.79	3.2	5.0	100	964976752
M 6	10.0	11.05	4.0	6.0	100	964976753
M 8	13.0	14.38	5.5	8.0	100	964976754
M 10	17.0	18.90	6.5	10.0	100	964976755
M 12	19.0	21.10	8.0	12.0	100	964976756
M 14	22.0	24.49	9.5	14.0	100	964976757
M 16	24.0	26.75	10.5	16.0	100	964976758
M 20	30.0	32.95	14.0	20.0	50	964976760
M 24	36.0	39.55	15.0	24.0	25	964976762

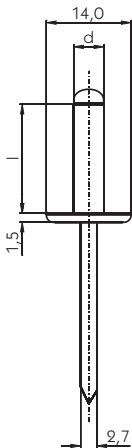


Blind rivets



Blind rivet 5 mm standard
DIN 7337 A, aluminium/steel zinc plated.

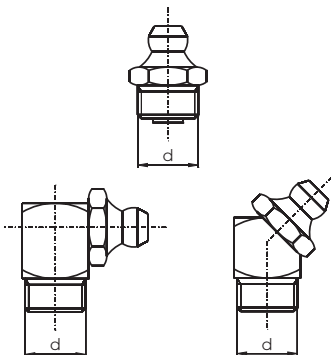
Dim. d x l [mm]	Clamping range [mm]	Qty. [piece]	
5 x 8	2.5 - 5.0	500	978988047
5 x 10	4.5 - 6.5	500	978988048
5 x 12	6.0 - 8.0	500	978988049
5 x 14	7.5 - 10.0	500	978988050
5 x 16	9.5 - 12.0	500	978988051
5 x 18	11.5 - 13.5	500	978988052
5 x 20	13.0 - 15.5	250	978988053
5 x 25	17.0 - 20.5	250	978988054
5 x 30	22.5 - 25.0	100	978988056
5 x 35	24.5 - 30.0	100	978988057
5 x 40	29.5 - 35.0	100	978988058
5 x 45	34.5 - 40.0	100	978988059



Blind rivet 5 mm large flange
Similar DIN 7337 A, aluminium/steel zinc plated.

Dim. d x l [mm]	Clamping range [mm]	Qty. [piece]	
5 x 8	2.0 - 5.0	250	978988075
5 x 10	4.5 - 6.5	250	978988076
5 x 12	6.0 - 8.0	250	978988077
5 x 14	7.5 - 10.0	250	978988078
5 x 16	9.5 - 12.0	250	978988079
5 x 18	11.5 - 13.5	250	978988080
5 x 20	13.0 - 15.5	250	978988081
5 x 25	15.0 - 20.5	250	978988082
5 x 30	20.0 - 25.0	100	978988084

Grease nipples



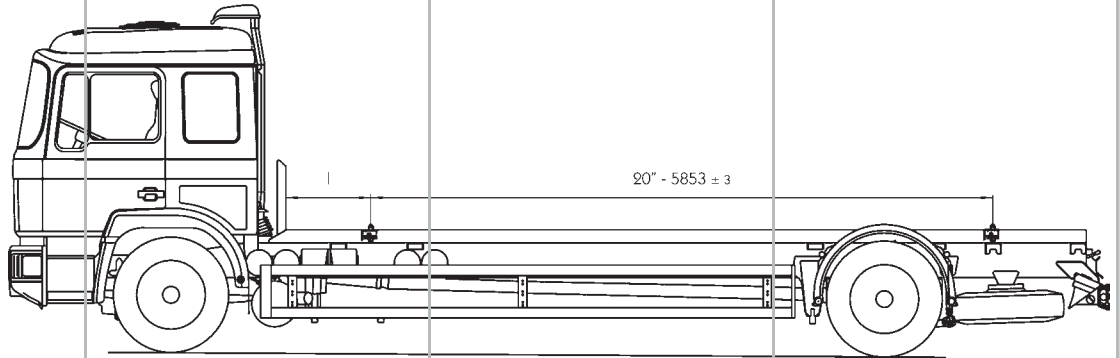
Lubricating Nipples -
Hydraulic Type
DIN 71412 - AM8 x 1, zinc plated.

Type	Dim. d [mm]	Qty. [piece]	
H1 straight	M6 x 1	50	225551078
H1 straight	M8 x 1	50	225551079
H1 straight	M10 x 1	50	225551080
H2 45°	M10 x 1	50	225551083
H3 90°	M6 x 1	50	225551081

Illustration:

Twist locks on standard truck and trailer chassis in accordance with EN 284 or EN 452, or directly comparable designs

Vehicles for transporting swap containers
Attachment dimensions.



Front overhang up to stop bar

Swap container	Dim. l ³ [mm]
C 715	650
C 745	800
C 782	985

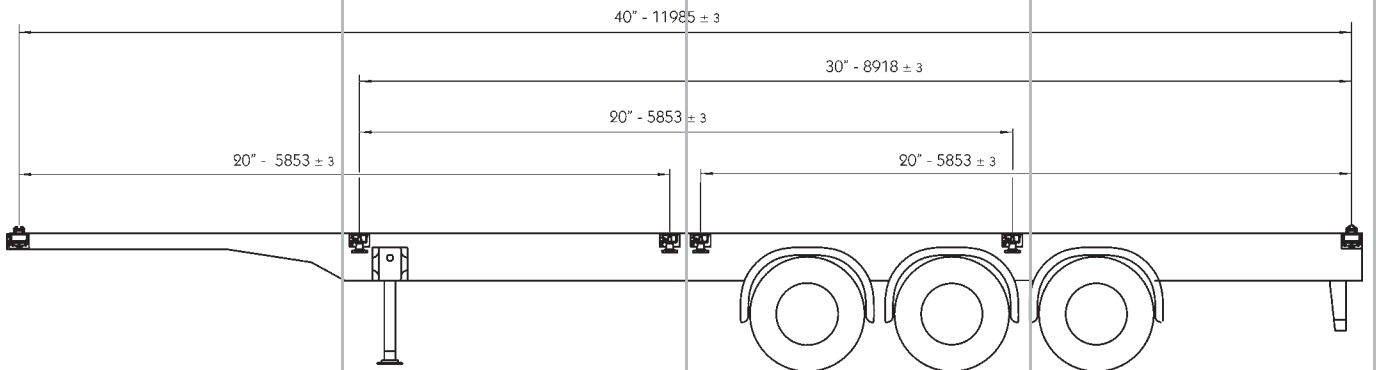


Illustration:

Twist locks on standard container chassis

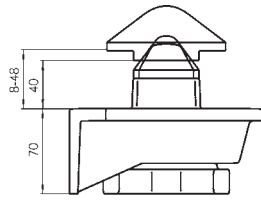
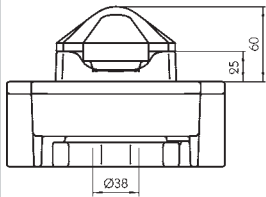
Load values

The load values stated in this catalogue for twist locks and crossmembers are valid for:

- The attachment and transport of standardised interchangeable containers such as freight containers in accordance with ISO 1496, interchangeable containers to EN 284 or EN 452, or directly comparable designs.
- The application of a minimum of four twist locks of the same load rating group per container.
- Approximately equal load distribution (load within the interchangeable container).
- Transport over secure roads.
- The stated load values are not valid for specialist applications such as crane structures or tipper containers etc.

Container twist locks

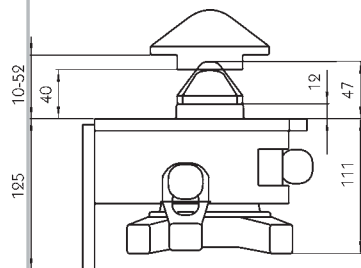
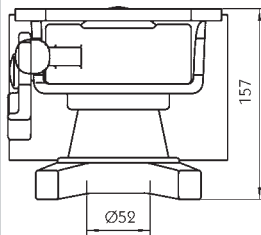
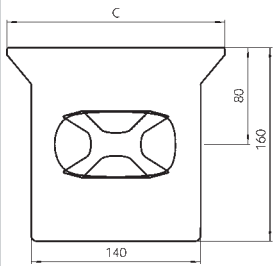
Spare parts for container twist locks see page 517.



F 17 SKA-70 V

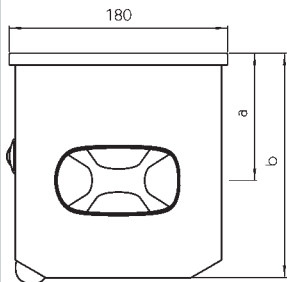
For trucks and semi trailers, up to max. 25.4 t permissible container gross weight, locking pin 38 mm (ISO), can be tightened, non-retractable, cast body, with safety ring, weight 7.0 kg.

107511108



R 404 VAKV

For semi-trailers in middle position, trucks/trailers, up to max. 25.4 t perm. container gross weight, locking pin Ø 52 mm (ISO), can be tightened, retractable, steel plate body.



Designation

Dim. a [mm]

Dim. b [mm]

Weight [kg]

R 404 VAKV

105

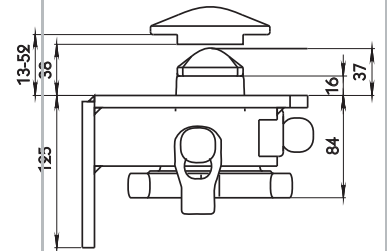
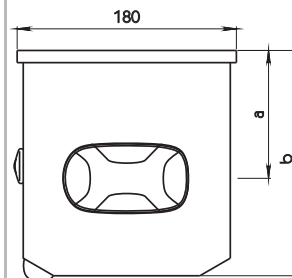
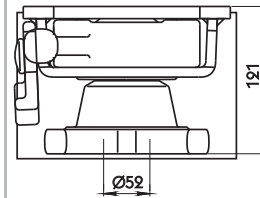
185

13.0

107511313

Spare parts for container twist locks see page 517.

R 405 VAK and R 305 VAV
For semi-trailers in middle position, trucks/trailers, up to max. 25.4 t perm. container gross weight, locking pin \varnothing 52 mm (ISO), can be tightened, retractable, steel plate body, with safety ring.



Designation

Dim. a [mm]

Dim. b [mm]

Weight [kg]

R 405 VAK

105

185

11.0

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R 305 VAV (without backplate)

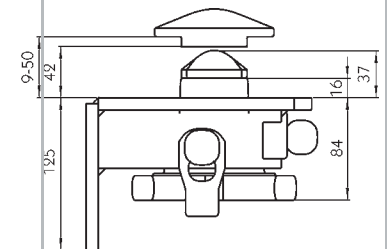
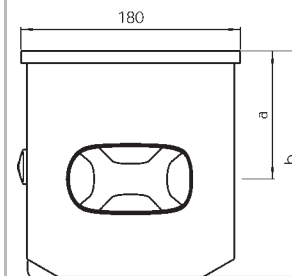
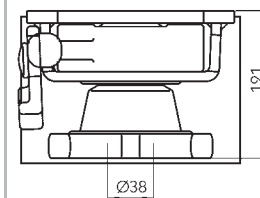
95

175

8.5

107511228

R 406 VAK and R 306 VAV
For trucks/trailers, up to max. 25.4 t permissible container gross weight, locking pin \varnothing 38 mm (ISO), can be tightened, retractable, steel plate body, with safety ring.



Designation

Dim. a [mm]

Dim. b [mm]

Weight [kg]

R 406 VAK

105

185

10.0

107511231

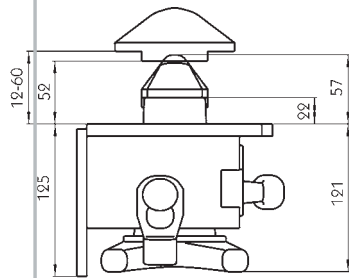
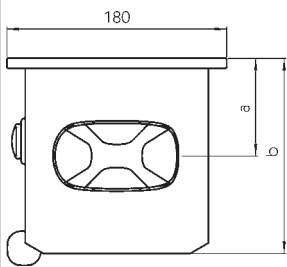
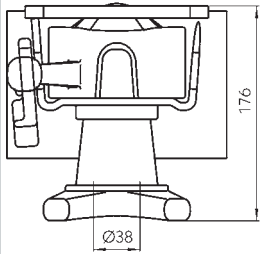
R 306 VAV (without backplate)

95

175

8.5

107511230



Designation

Dim. a
[mm]

Dim. b
[mm]

Weight
[kg]

R 416 VAK

80

160

10.0

107511292

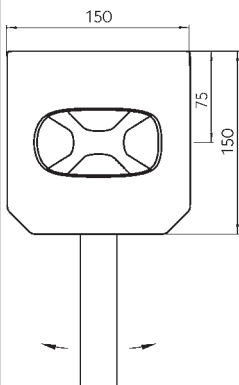
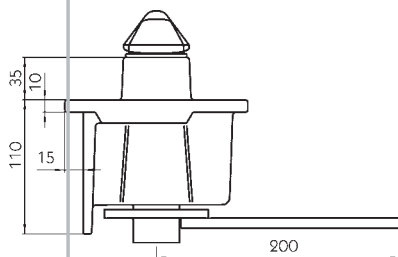
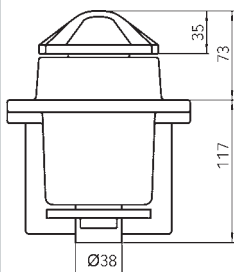
R 316 VA (without backplate)

72

152

8.5

107511178



R 416 VAK and R 316 VA

For semi-trailers in middle position, trucks/trailers, up to max. 25.4 t perm. container gross weight, locking pin Ø 38 mm (ISO), can be tightened, retractable, steel plate body, with safety ring.

Spare parts for container twist locks see page 517.

The twist lock F 26 NS does not comply with the German Federal Traffic Ministry guidelines. It has no authorisation in the German Federal Republic as the locking pin cannot be tightened (export version).

F 26 NS

For semi-trailers up to max. 30.5 t perm. container gross weight, locking pin Ø 38 mm (ISO), can be tightened, non-retractable, cast body, weight 8.5 kg.

No longer available

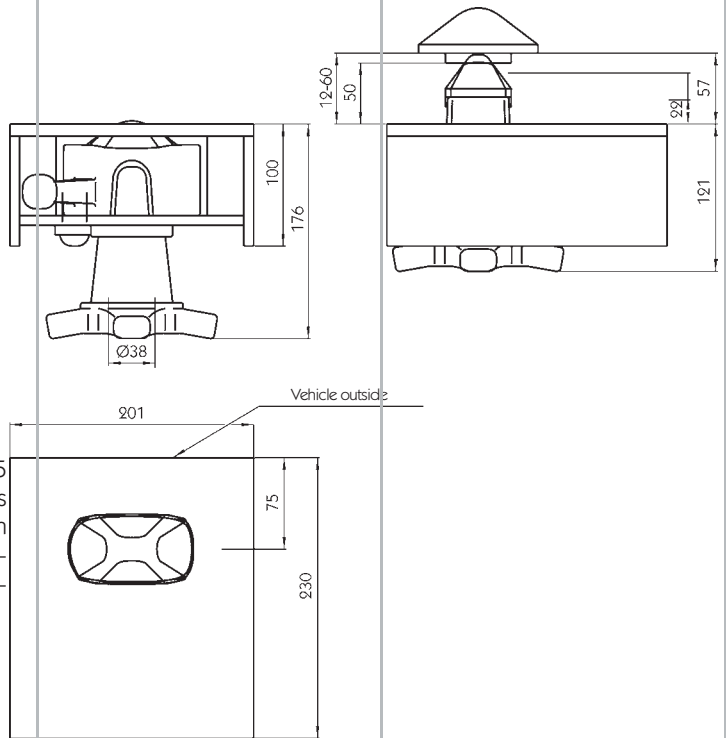
107511327

Spare parts for container twist locks see page 517.

R 316 VAP

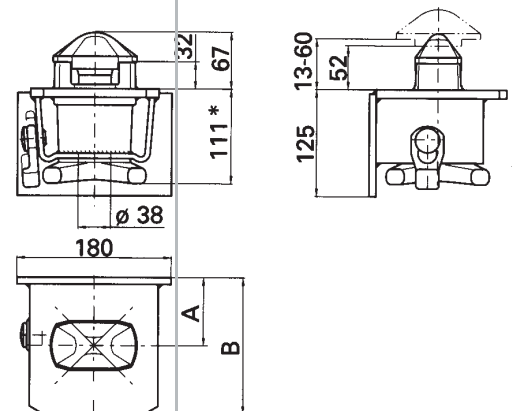
For platforms, up to max. 30.5 t permissible container gross weight, locking pin \varnothing 38 mm (ISO), can be tightened, retractable, steel plate body, with safety ring, weight 13.5 kg.

107511179



R 414 F and R 314 F

For semi-trailers up to max. 30.5 t perm. container gross weight, locking pin \varnothing 38 mm (ISO), can be tightened, non-retractable, steel plate body, with safety ring.



Designation

Dim. A
[mm]

Dim. B
[mm]

Weight
[kg]

R 414 F

80

160

10.5

107511223

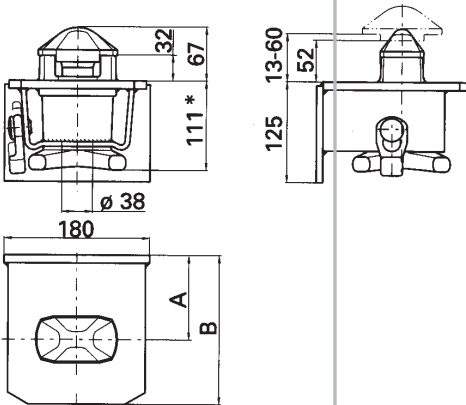
R 314 F (without backplate)

72

152

9.0

107511177

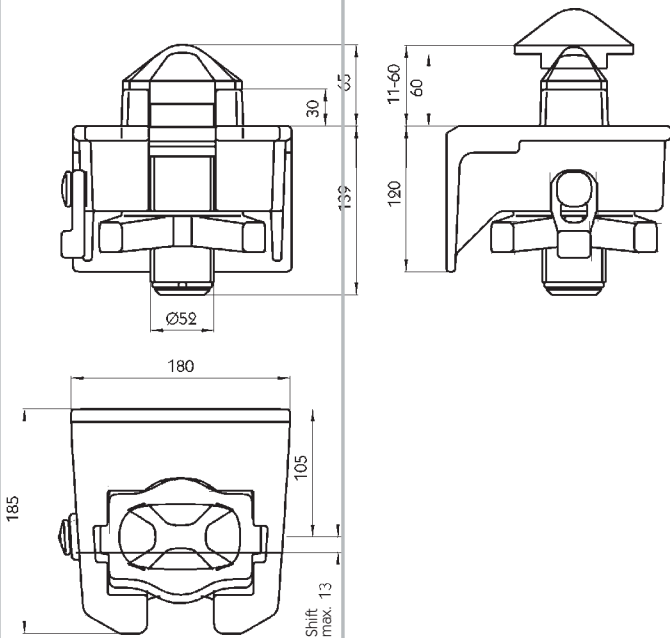


R 434 F

For semi-trailers up to max. 30.5 t perm. container gross weight, locking pin \varnothing 38 mm (ISO), can be tightened, non-retractable, steel plate body, dim. A 105 mm, dim. B 185 mm, with safety ring, weight 10.5 kg.

107511325

Spare parts for container twist locks see page 517.



FD 02 SK-RV

For semi-trailers up to max. 34 t perm. container gross weight, locking pin \varnothing 52 mm (ISO), can be tightened, non-retractable, cast body, with safety ring, weight 14.0 kg.

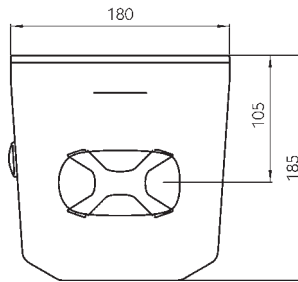
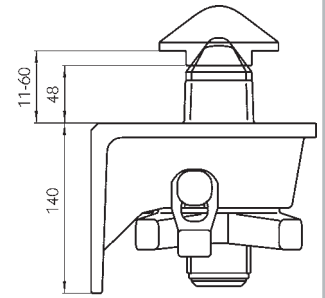
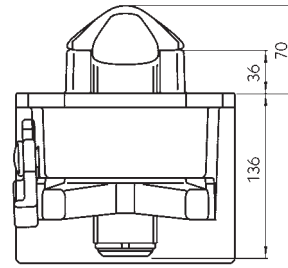
107511322

Spare parts for container twist locks see page 517.

F O2 SK-R

For semi-trailers up to max. 34 t perm. container gross weight, locking pin \varnothing 52 mm (ISO), can be tightened, non-retractable, cast body, with safety ring, weight 13.5 kg.

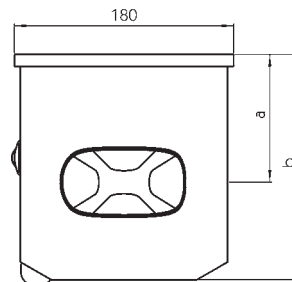
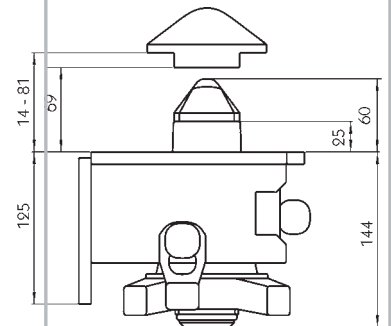
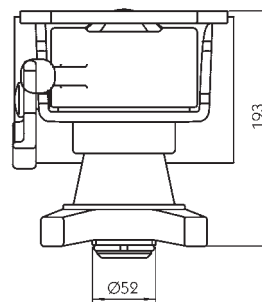
107511101

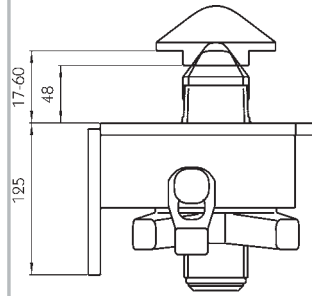
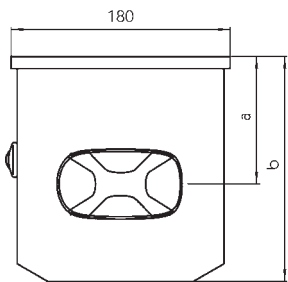
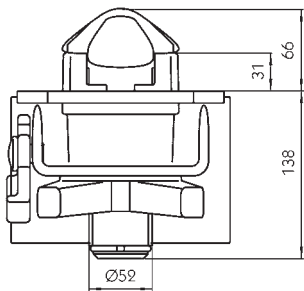


R 401 VAK and R 301 VA
For semi-trailers up to max. 34 t perm. container gross weight, locking pin \varnothing 52 mm (ISO), can be tightened, retractable, steel plate body, with safety ring.

Designation	Dim. a [mm]	Dim. b [mm]	Weight [kg]	
R 401 VAK	105	185	15.5	107511227
R 301 VA (without backplate)	95	175	13.5	107511226

No longer available





Designation

R 402 F-RV, with ring
R 302 F-R, with ring

Dim. a
[mm]

105
95

Dim. b
[mm]

185
175

Weight
[kg]

13.5
12.0

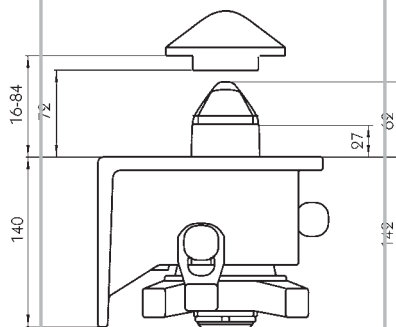
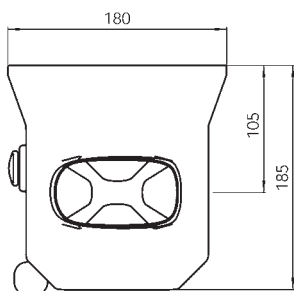
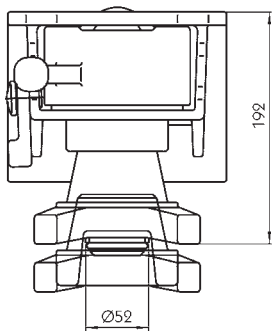
107511221

107511320

R 402 F and R 302 F

For semi-trailers up to max. 34 t perm. container gross weight, locking pin \varnothing 52 mm (ISO), can be tightened, non-retractable, steel plate body, with safety ring.

Spare parts for container twist locks see page 517.



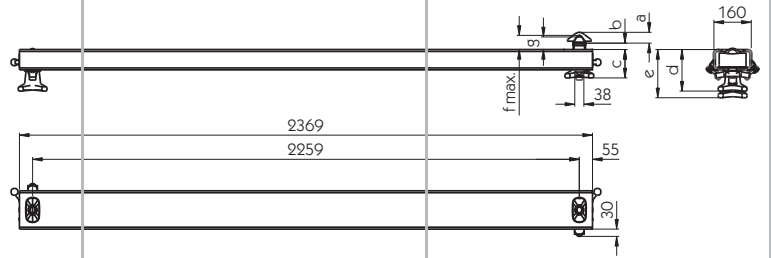
VA 01 SK

For semi-trailers up to max. 34 t perm. container gross weight, locking pin 52 mm (ISO), can be tightened, retractable, cast body, with safety ring, weight 15.0 kg.

107511225

All inner parts of crossmembers are partly supplied loose.

Crossmembers

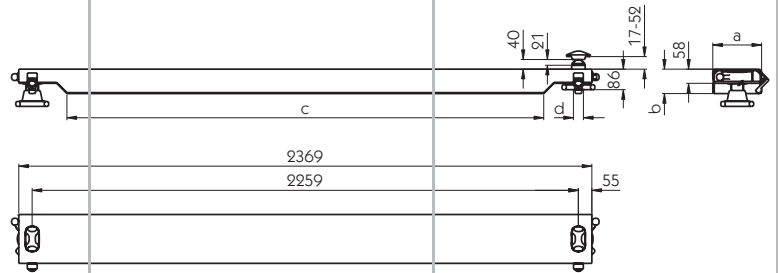


SR 516 VAQV

For swap containers and containers up to max. 18 t perm. gross container weight, open C-profile, twist lock parts fully retractable.

Designation	Dim. a	Dim. b	Dim. c	Dim. d	Dim. e	Dim. f	Dim. g	Dim. h ∅	Twist lock internal parts identical with	Weight
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]		[kg]
SR 516 VAQV	35	24	119	174	~202	56	48	38	VA 16	69

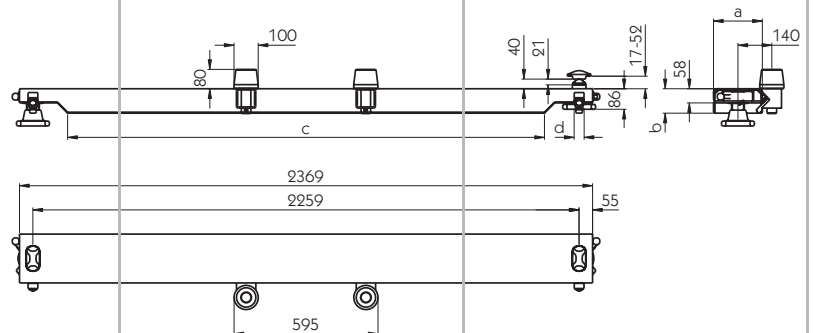
All stated maximum permissible container weights for crossmembers are dependant on longitudinal beam spacing.



QT 160-80 V and QT 200 V

For swap body vehicles and container chassis. Closed box profile, both ends flatted off and welded, retractable twist locks.

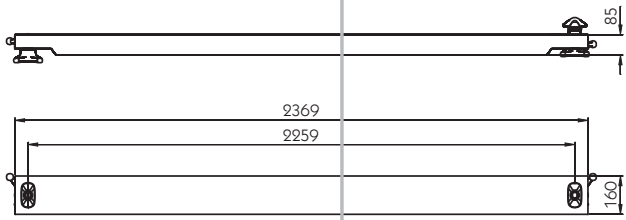
Designation	Max. perm. container gross weight	Dim. a	Dim. b	Dim. c approx.	Dim. d ∅	Twist lock internal parts identical with	Weight
	[t]	[mm]	[mm]	[mm]	[mm]		[kg]
QT 160-80 V	18	160	80	2000	52	R 405 VAK V	67
QT 200 V	32	200	100	1970	52	R 405 VAK	82



QT 160-80 RV and QT 200 RV

For intermodal vehicles. Closed box profile, flatted off and welded at both ends with welded on guide rollers. Retractable twist lock.

Designation	Max. permissible container gross weight	Dim. a	Dim. b	Dim. c approx.	Dim. d ∅	Twist lock internal parts identical with	Weight
	[t]	[mm]	[mm]	[mm]	[mm]		[kg]
QT 160-80 RV	18	160	80	2000	52	R 405 VAK V	78
QT 200 RV	32	200	100	1970	52		94



TR 52

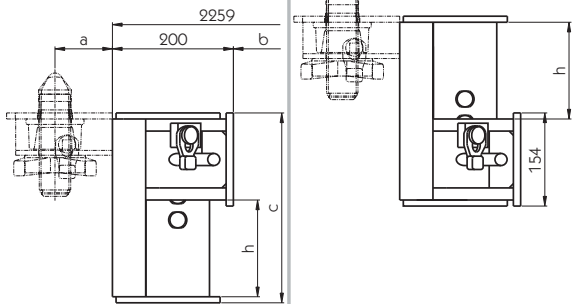
For swap containers and containers up to max. 18 t perm. gross container weight, profile closed, twist lock parts fully retractable.

Designation	Twist lock internal parts identical with	Weight [kg]	
TR 52	TR 52	75	126511450

All inner parts of crossmembers are partly supplied loose.

Accessories

Dim. a: twist lock deflection
Dim. b: blank length of crossmember



Height adjustment unit

Can be combined with any container twist lock, for max. container gross weight 34000 kg (for HVC-120), all others for swap containers for max. container gross weight 18000 kg. Without container twist lock.

	Handing	Dim. c [mm]	Dim. h [mm]	Weight [kg]	
HVC-100 L	left	234	100	34.0	107511442
HVC-100 R	right	234	100	34.0	107511443
HVC-120 L	left	274	120	36.5	107511397
HVC-120 R	right	274	120	36.5	107511396
HVC-160 L	left	314	160	39.5	107511444
HVC-160 R	right	314	160	39.5	107511445
HVC-200 L	left	354	200	40.5	107511437
HVC-200 R	right	354	200	40.5	107511438
HVC-250 L	left	404	250	42.5	107511404
HVC-250 R	right	404	250	42.5	107511405

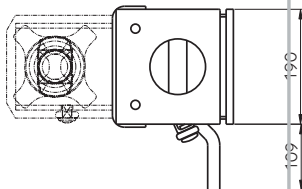
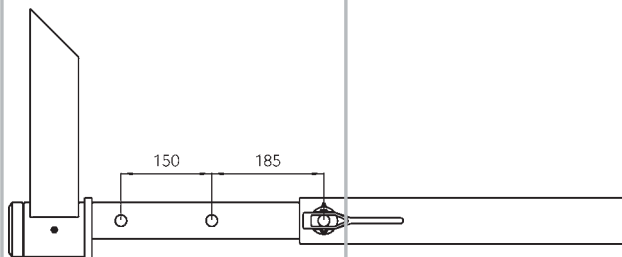


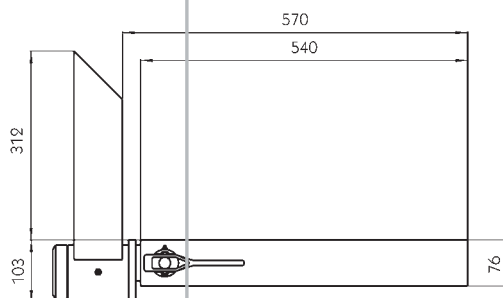
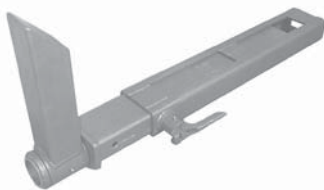
Illustration: right hand



Standard stop bar for swap containers

Primer painted, extendable, for swap containers C 715, C 745 and C 782, rotatable to 2 sides, automatic positioning at 90° angle, weight 23.5 kg.

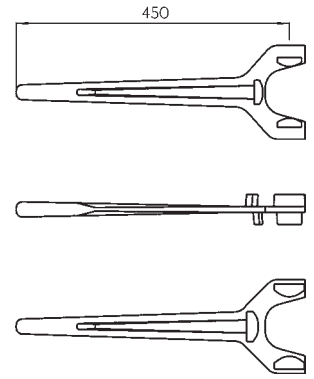
250511421



Universal twist lock wrench

For loosening and tightening the clamp nuts, suitable for all twist locks with the exception of type R 305 VAP/R 316 VAP.

177512938



Twist locks Spare parts

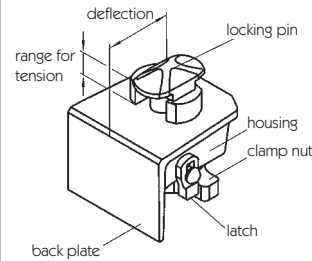


Illustration: twist lock assembly

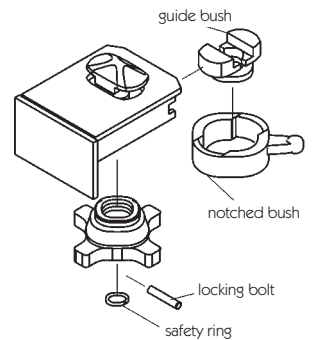
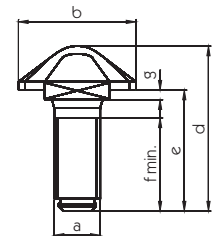


Illustration: individual twist lock part

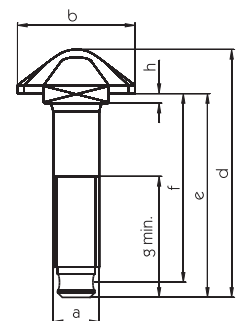
Locking pins With thread limiting ring, zinc plated.

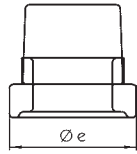
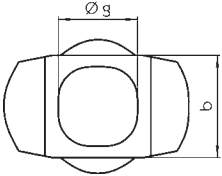
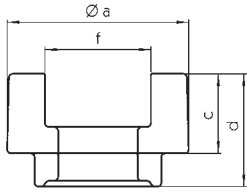
Dim. a	Dim. b Ø [mm]	Dim. c [mm]	Dim. d [mm]	Dim. e [mm]	Dim. f [mm]	Dim. g [mm]	Use for series	
TR 38x4	98	54	121	100	77	8	R 406 VAK•R 306 VA•R 307 VA	177512354
TR 38x4	98	54	125	90	74	8	F 17 SKA-70	177512348
TR 38x4	98	54	155	120	90	8	R 414 F•R 314 F•R 434 F•R 305 VAP	
							R 416 VAK•R 316 VA•VA 16 SNK•SR 516 VAQ	177512344
TR 38x4	98	54	185	156	85	8		177512351
TR 52x5	98	54	123	102	79	12	R 405 VAK•R 305 VA•QT 160•QT 160 V	
							QT 200•QT 200 V•QT 160 E•QT 160 EO	177512353
TR 52x5	98	54	153	118	90	12	R 404 VAK•R 304 VA	177512347
TR 52x5	98	54	204	169	111	12	FD 02 SK-R•F 02 SK-R•R 402 F-R•R 302 F-R	
							R 401 VAK•R 301 VA•VA 01 SK•SR 501 VAQ	
							SR 502 FQ	177512350



Locking pins With locking pin thread limiter, zinc plated.

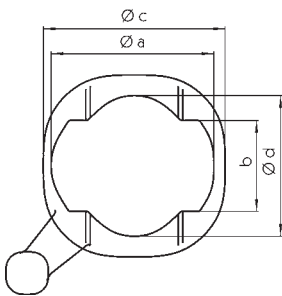
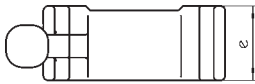
Dim. a	Dim. b Ø [mm]	Dim. c [mm]	Dim. d [mm]	Dim. e [mm]	Dim. f [mm]	Dim. g [mm]	Dim. h	Use for series	
TR 38x4	76	40	160	130	117	110	6	F 10 SK-KN•R 411 VAK-KN	177512343
TR 38x4	98	54	205	170	158	100	8		177512345
TR 52x5	98	54	225	190	173	167	12	F 02 SK-KN•R 402 F-KN•R 302 F-KN	177512342





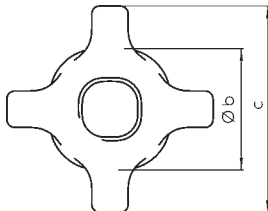
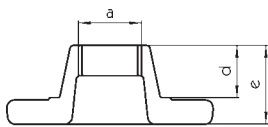
Guide bushes Zinc plated.

Dim. a Ø	Dim. b [mm]	Dim. c [mm]	Dim. d [mm]	Dim. e Ø [mm]	Dim. f [mm]	Dim. g Ø [mm]	Use for series	
100	57	28	49	84	57	53	R 404 VAK•R 304 VA	177512355
100	57	42	83	84	57	53	R 401 VAK•R 301 VA•VA 01 SK•SR 501 VAQ	177512357
98	56	42	60	67	57	40	R 305 VAP•R 416 VAK• R 316 VA•VA 16 SNK SR 516 VAQ•SR 516 VAQ-N	177512358
100	57	29	39	84	57	53	R 405 VAK•R 305 VA•QT 160•QT 160 V QT 200•QT 200 V•QT 160 E•QT 160 EO	177512359
100	57	29	39	84	57	40	R 406 VAK•R 306 VA•R 307 VA	177512360



Notched bushes Zinc plated.

Dim. a Ø	Dim. b [mm]	Dim. c Ø [mm]	Dim. d Ø [mm]	Dim. e [mm]	Use for series	
105	60	120	86	49	R 404 VAK•R 304 VA	177512363
105	60	120	86	65	R 401 VAK•R 301 VA•VA 01 SK	177512365
100	58	112	69	58	R 305 VAP•R 416 VAK• R 316 VA•VA 16 SNK•SR 516 VAQ SR 516 VAQ-N	177512366
105	60	120	86	39	R 405 VAK•R 305 VA•R 406 VAK•R 306 VA•R 307 VA•QT 160 QT 160 V•QT 200•QT 200 V•QT 160 E•QT 160 EO	177512367



Clamp nuts Zinc plated.

Dim. a	Dim. b Ø [mm]	Dim. c [mm]	Dim. d [mm]	Dim. e [mm]	Use for series	
TR 38x4	84	140	---	25	F 10 SK-KN•F 10 SK-R	177512369
TR 38x4	84	140	57	82	R 414 F•R 314 F•R 434 F•R 305 VAP•R 416 VAK• R 316 VA•VA 16 SNK SR 516 VAQ	177512371
TR 38x4	84	130	40	65	F 17 SKA-70•R 307 VA•R 411 VAK-KN•R 411 VAK-R	177512372
TR 38x4	100	170	43	65	R 406 VAK•R 306 VA	177512374
TR 52x5	100	170	46	75	R 401 VAK•R 301 VA•VA 01 SK•R 404 VAK•R 304 VA•SR 501 VAQ•SR 502 FQ	177512368
TR 52x5	100	170	---	29	FD 02 SK-R•F 02 SK-KN•F 02 SK-R•R 402 F-KN•R 402 F-R•R 302 F-KN R 302 F-R	177512370
TR 52x5	100	170	43	65	R 405 VAK•R 305 VA•QT 160•QT 160 V•QT 200•QT 200 V•QT 160 E QT 160 EO	177512373

Safety rings

Use for series	
R 414 F•R 314 F•R 434 F•F 17 SKA-70V•F 10 SK-R•R 316 VAP•R 306 VAV•R 406 VAK•R 416 VAK•R 316 VA	177512388
FD 02 SK-RV•F 02 SK-R•R 402 F-R•R 302 F-R•R 401 VAK•R 301 VA•VA 01 SK•R 305 VAV•R 406 VAK	177512390

Guide rollers

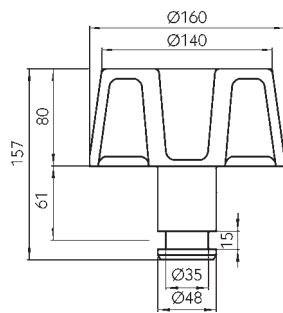


Illustration: 177511264

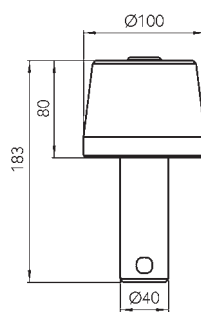


Illustration: 177512500

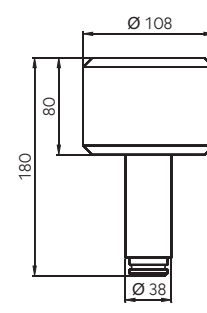


Illustration: 177511218

Guide rollers
Steel.

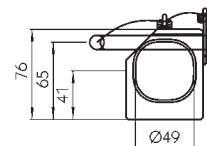
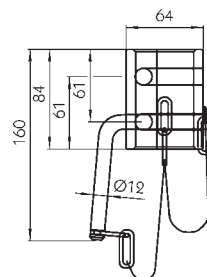
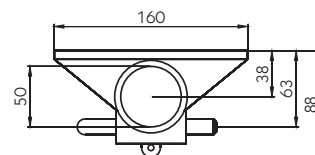
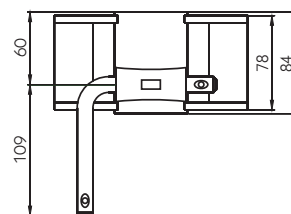
Designation

Weight
[kg]

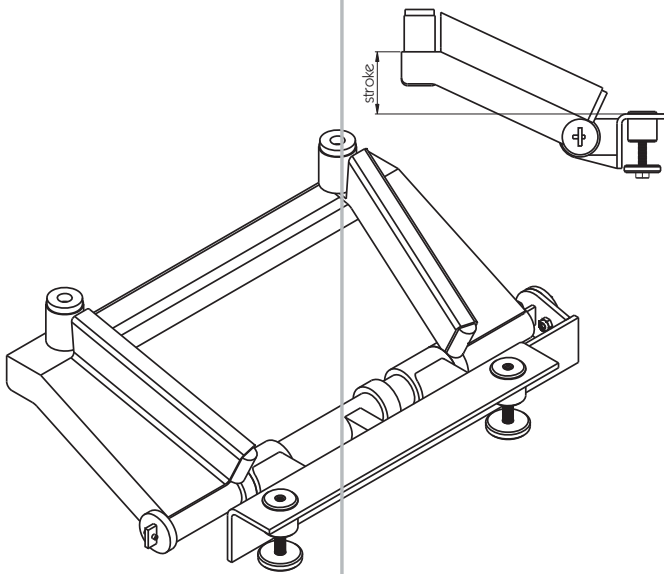
ER 160 GOR, without lip	5.7	177511264
ER 100-85, small guide roller	6.0	177512500
ER 110 SN	3.5	177511218

Guide roller bearing
Seating for guide rollers with Ø 48 mm pin, weight 1.67 kg.
134514029

Guide roller bearing
Seating for guide rollers with Ø 48 mm pin, weight 2.4 kg.
177511126



Guide rockers



Guide rocker properties:

- A captive built-in and adjustable torsion spring for vertically guiding the skids.
- Rocker locking for transporting containers (without tunnel) by means of a simple push-link on the swivel bearing.
- Two centring rollers on the rocker for minimising friction and for noise deadening.
- Large swing angle means exact alignment of the chassis height using air suspension is not necessary.
- Short distance between support arm and centring rollers making it also suitable for aligning A2 support legs (5523 mm).

Guide rocker Primer painted.

Designation	Type	Lift [mm]	Weight [kg]	
Guide rocker	weldable	160	29	250511426
Guide rocker	interchangeable with guide rollers Ø 100 mm	160	33	250511427
Guide rocker	interchangeable with guide rollers Ø 160 mm	160	33	250511428
Guide rocker	weldable	200	31	250511436

Lifting frames

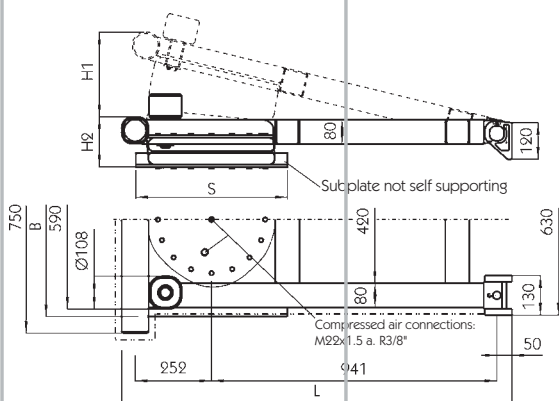


Illustration: 107511168

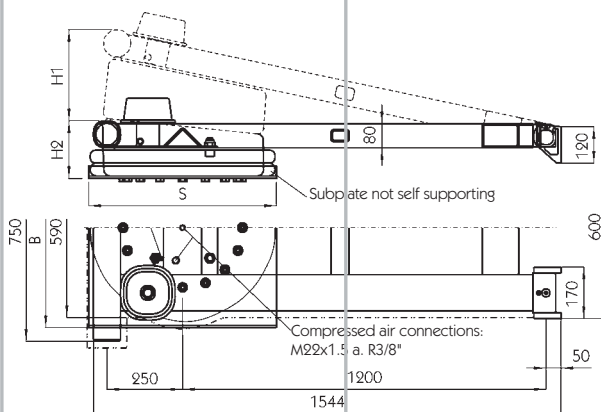


Illustration: 107511124/1257

HS 5000/8000/10000 EO Top mounted guide rollers.

Designation	Lifting capacity [kN]	Lift [mm]	Dim. H1 [mm]	Dim. H2 [mm]	Dim. S [mm]	Dim. L [mm]	Dim. B [mm]	Weight [kg]	
HS 5000 EO	50	280	280	165	500	1288	640	101	107511168
HS 8000 EO	80	300	300	190	620	1560	660	155	107511124
HS 10000 EO	100	400	400	200	710	1605	740	161	107511257

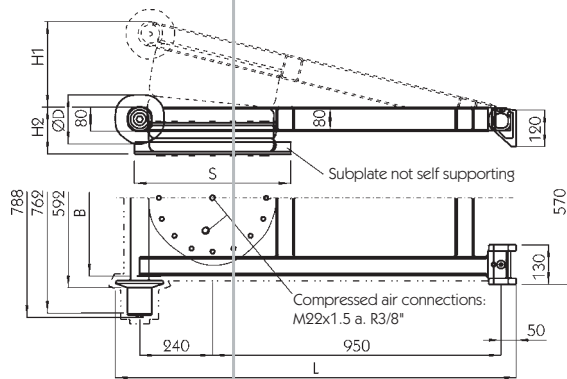


Illustration: 107511262

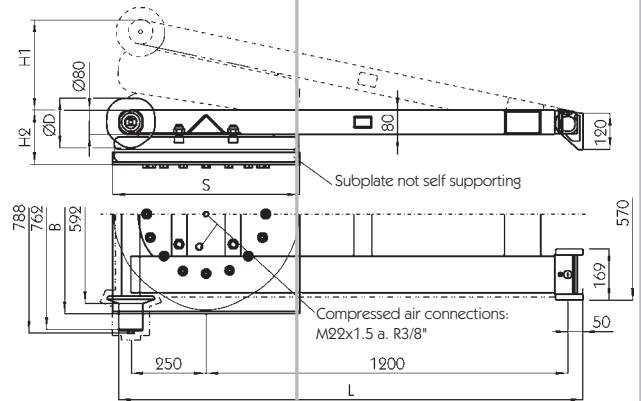


Illustration: 107511254/1258

HS 5000/8000/10000 ES
Side mounted guide rollers.

Designation	Lifting capacity [kN]	Lift [mm]	Dim. H1 [mm]	Dim. H2 [mm]	Dim. S [mm]	Dim. L [mm]	Dim. B [mm]	Dim. D Ø [mm]	Weight [kg]	
HS 5000 ES	50	280	280	155	515	1320	515	160	94	107511262
HS 8000 ES	80	300	300	180	620	1580	660	160	140	107511254
HS 10000 ES	100	400	400	195	710	1605	740	140	147	107511258

No longer available

Minimum 15 mm clearance around moving parts! This is shown by the chain dotted line

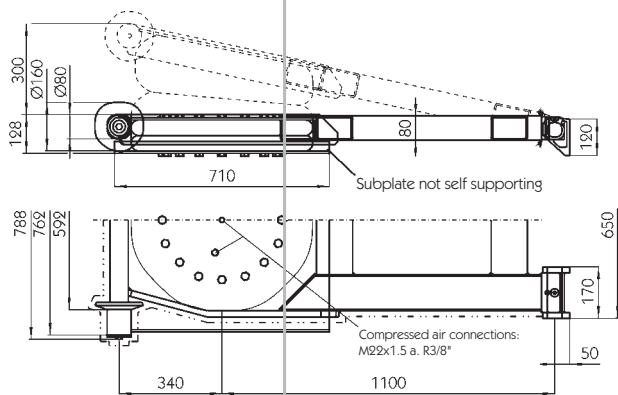


Illustration: 107511256

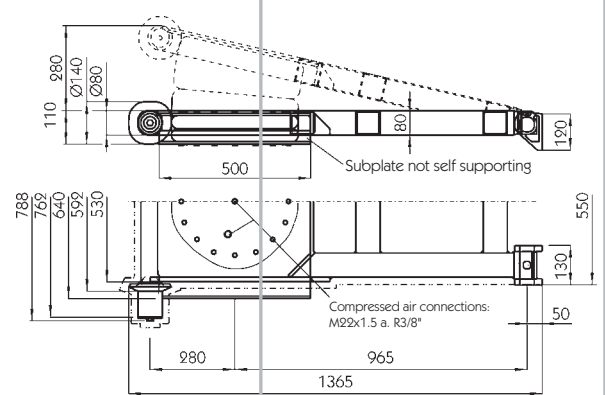


Illustration: 107511263

HS 5000/8000 ESN
Side mounted guide rollers.

Designation	Lifting capacity [kN]	Lift [mm]	Weight [kg]	
HS 5000 ESN	50	280	94	107511263
HS 8000 ESN	80	300	140	107511256

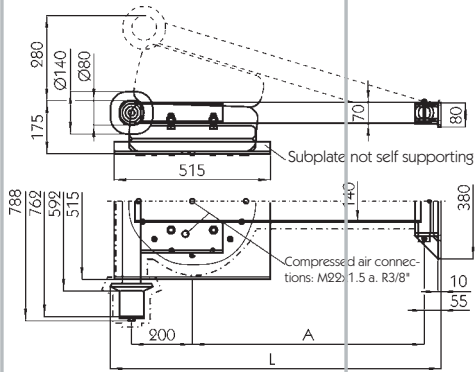


Illustration: 107511331

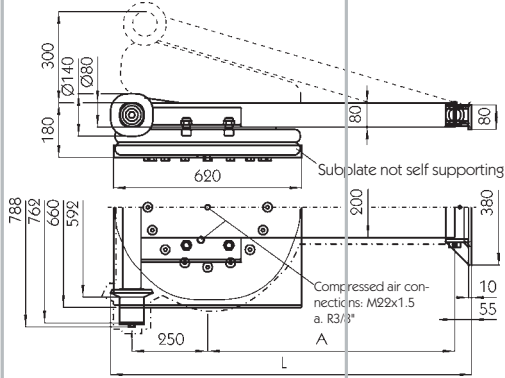


Illustration: 107511333

HS 5280/10300 ES Top mounted guide rollers.

Designation	Lifting capacity [kN]	Lift [mm]	Dim. L [mm]	Dim. A [mm]	Weight [kg]
HS 5280 ES	50	280	1090	765	92
HS 10300 ES	100	300	1575	1200	192

107511331
107511333

No longer available

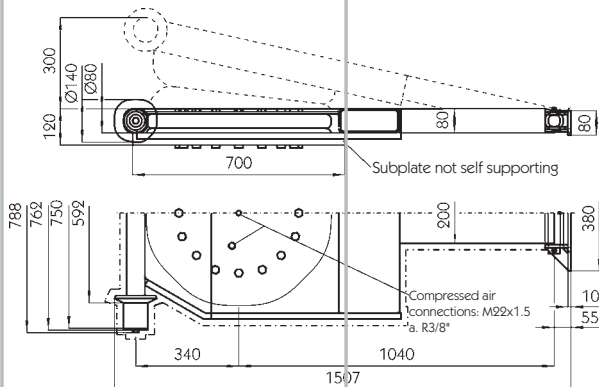


Illustration: 107511335

Minimum 15 mm clearance around moving parts! This is shown by the chain dotted line

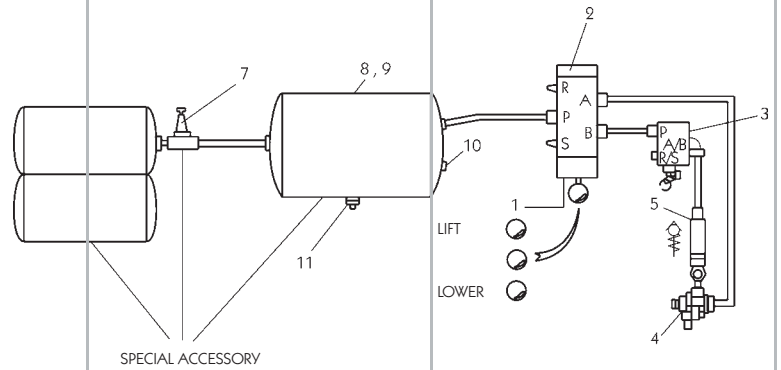
HS 8300 ESN Side mounted guide rollers.

Designation	Lifting capacity [kN]	Lift [mm]	Weight [kg]
HS 8300 ESN	80	300	149

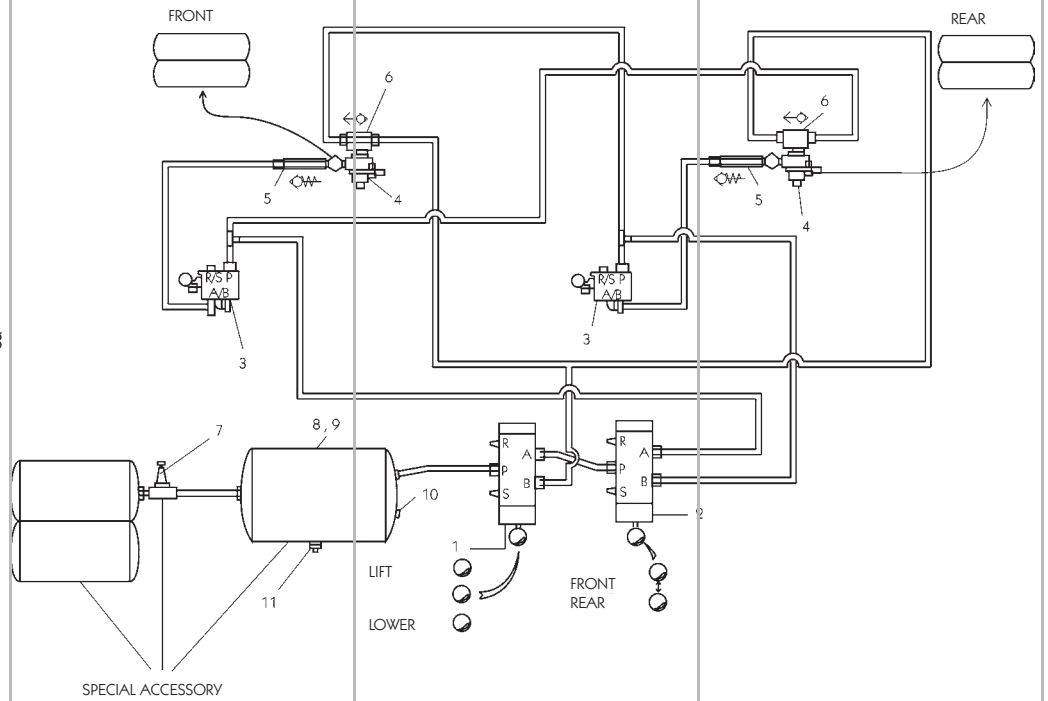
107511335

Control equipment for lifting frames

SSTA 1 HS
Control equipment for 1 lifting frame.
107511336



SSTA 2 HS
Control equipment for 2 lifting frames.
107511337

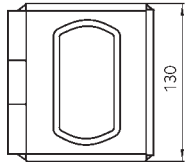
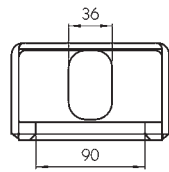
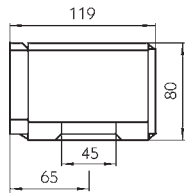


Spare parts and accessories

Parts list
Please order separately.

Designation	Item no.
5/3-way spring return valve	1
5/2-way detent location valve	2
3/2-way roller valve	3
2/2-way valve	4
Non-return valve	5
OR valve	6
Overflow valve	7
60 l pressure vessel in various finishes	8
Clamp band	9
Test point	10
Drain-off valve	11

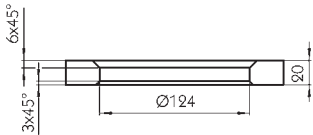
Corner castings



CW 7012

For containers with a max. width of 2390 mm (only for use with twist locks F 10 SK and R 411 VAK), welded steel plate body, weight 3.5 kg.

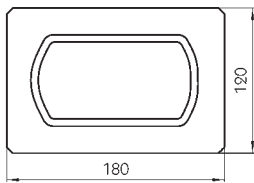
107511311



CC 320

For special swap bodies and containers, cast steel, weight 2.2 kg.

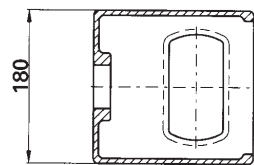
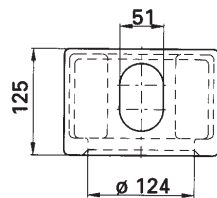
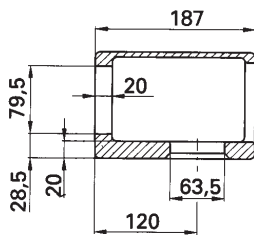
107511181



CC 117

In accordance with DIN EN 284, for swap bodies with a width of 2500 mm, cast steel, weight 9.5 kg.

107511096



If required, material test approval certificate C compliant with EN 10204 can be supplied at extra cost.

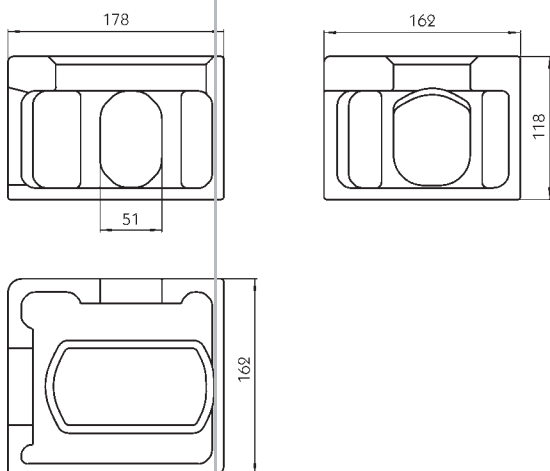


Illustration: 107511240

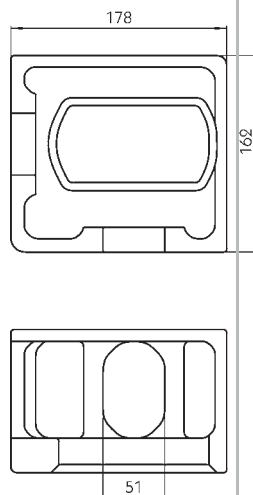


Illustration: 107511242

Corner castings for freight containers
To ISO 1161, cast steel.

Designation	Fitted location	Weight [kg]	
CC 297 TL	left, top	11.5	107511240
CC 298 TR	right, top	11.5	107511241
CC 299 BL	left, bottom	11.5	107511242
CC 300 BR	right, bottom	11.5	107511243

Gripping edges

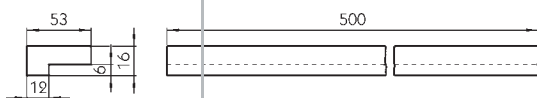


Illustration: 177511305

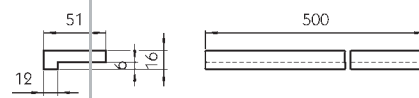


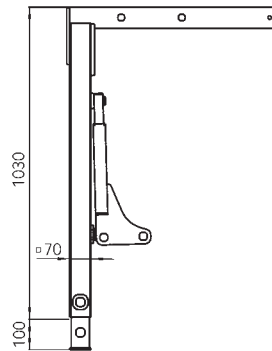
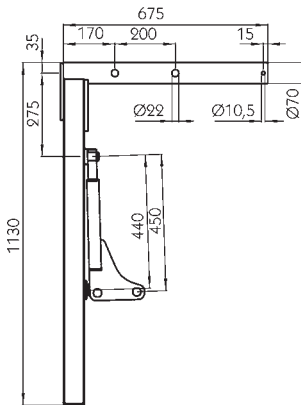
Illustration: 177511306

Profiles/Gripping edges

Type	Weight [kg]	
GK 53	2.3	177511305
GK 35	1.6	177511306

Support legs for swap bodies

All support legs supplied without safety devices. Please order these parts separately.



Designation

RS 7070

For swap containers up to perm. max. container gross weight 3000 kg.

RS 7070 SK, rigid, with standard strut	21.0	107511182
RS 7070 SKB, rigid with safety strut/strut brake	21.0	107511272

Weight [kg]

No longer available

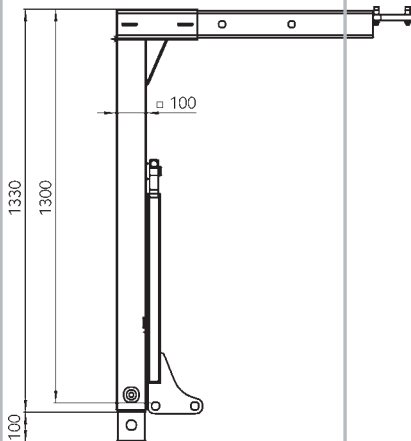


Illustration: 107511288

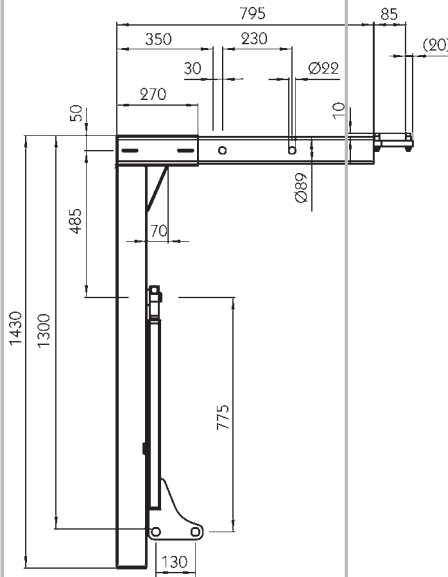


Illustration: 107511281

SS 86, form A2

For swap containers up to perm. gross weight max. 18000 kg, dimensions to DIN EN 284. Federal Railways Certificate 629.

Designation

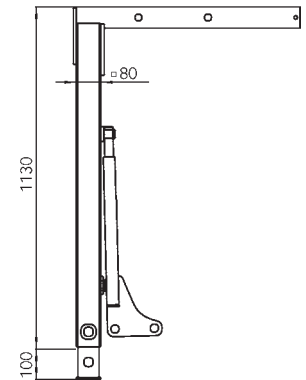
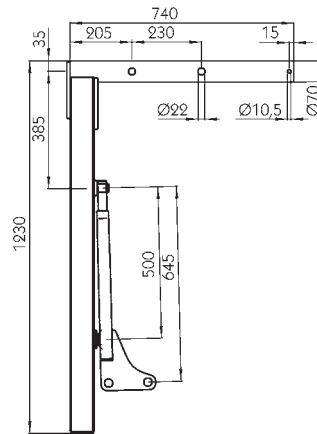
Weight [kg]

SS 86 SKL2, rigid, with 30 mm hole for retaining hook and unhooking safety slide lock	37.0	107511281
SS 86 SKBL2, rigid with safety strut /strut brake, hole for retaining hook and unhooking safety slide lock	37.0	107511282
SS 86 TSKL2, telescopic, with standard strut, hole for retaining hook and unhooking safety slide lock	39.0	107511288
SS 86 TSKBL2, telescopic, with safety strut, hole for retaining hook and unhooking safety slide lock	39.0	107511289
SS 86 TSKXL2, telescopic, with undetachable telescopic part, hole for retaining hook and unhooking safety slide lock	40.0	107511418

All support legs supplied without safety devices. Please order these parts separately.

RS 7080

For swap containers up to perm. max. container gross weight 6000 kg.



Type

Weight [kg]

RS 7080 SK, rigid, with standard strut	25.5	107511183
RS 7080 TSK, telescopic (1 x 100) with standard strut	27.0	107511185
RS 7080 TSKB, telescopic (1 x 100) with safety strut /strut brake	27.0	107511275

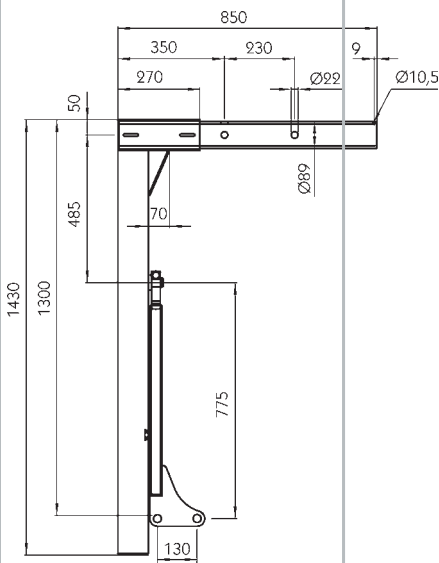


Illustration: 107511277

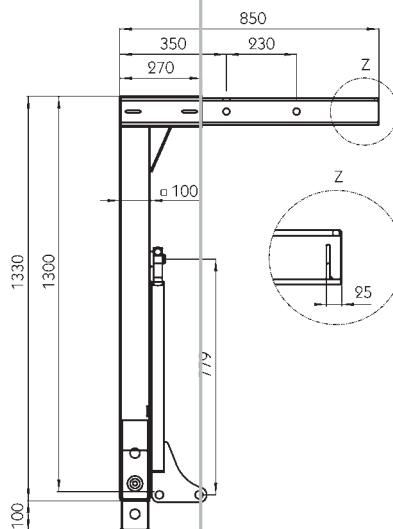


Illustration: 107511284

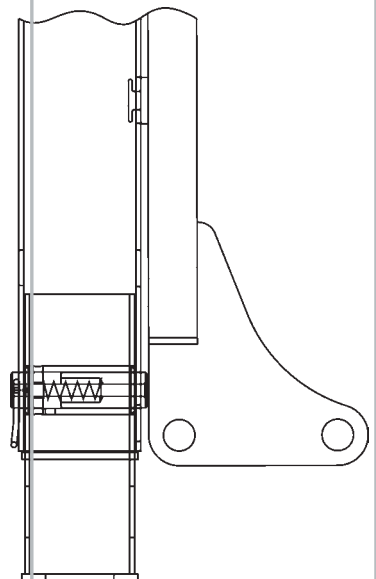


Illustration: 107511378

SS 86, form A1

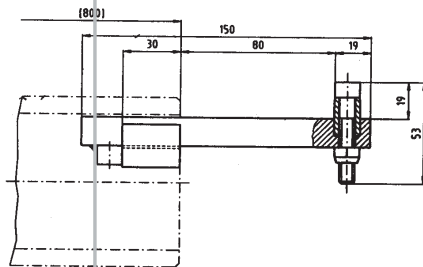
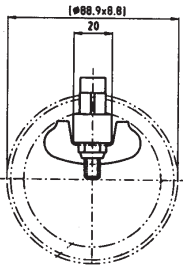
For swap containers up to perm. gross weight max. 18000 kg, dimensions to DIN EN 284. Federal Railways Certificate 629.

Designation

Weight [kg]

SS 86 SKL, rigid, with hole for retaining hook	37.0	107511277
SS 86 SKBL, rigid, with safety strut /strut brake and hole for retaining hook	37.0	107511278
SS 86 TSKL, telescopic, with standard strut and hole for retaining hook	39.0	107511284
SS 86 TSKBL, telescopic, with safety strut and hole for retaining hook	39.0	107511285
SS 86 TSKXL, telescopic, with captive telescoping part and hole for retaining hook	40.0	107511378
SS 86 TSKXBL, telescopic, with captive telescoping part, safety strut /strut brake and hole for retaining hook	40.0	107511379

Safety devices



Pull-out safety device

In accordance with DIN 284, form A2, with shortened cross tube, steel, weight 0.5 kg.

177511294

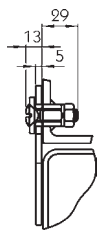


Illustration: 107511189

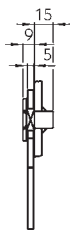


Illustration: 107511117

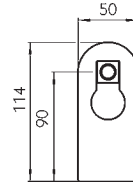


Illustration: catch for the secondary safety device illustrated to the left

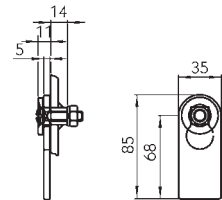


Illustration: 107511252/107511341

Secondary safety devices

Designation		Weight [kg]	
ZS 7003	with screw connection	0.4	107511189
ZS 86 SF	for welding	0.3	107511117
ZS 7006	with guide, without screw connection	0.12	107511252
ZS 7008	with guide, with screw connection	0.4	107511341

Support bearings

Illustration: 107511216

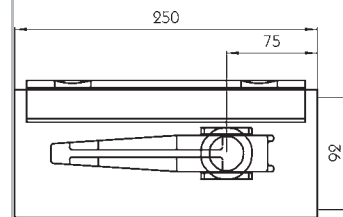
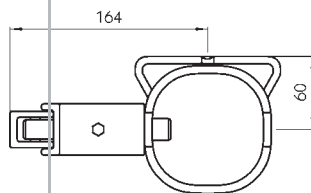
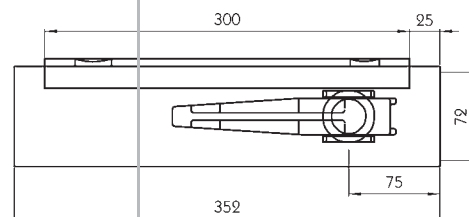
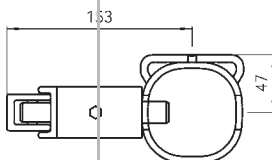


Illustration: 107511292



Support bearing With left/right identification.

Designation	For support legs	Weight [kg]	
TS 93 SNL	RS 7090/SS 86	7.0	107511216
TS 93 SNR	RS 7090/SS 86	7.0	107511217
TS 7350 L	RS 7070/RS 7080	6.5	107511292
TS 7350 R	RS 7070/RS 7080	6.5	107511293

Counter bearings

View X

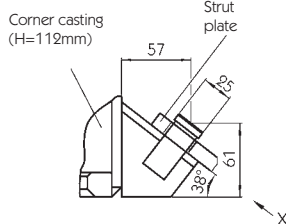
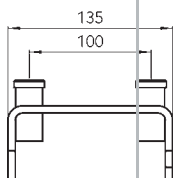


Illustration: 107511296

View X

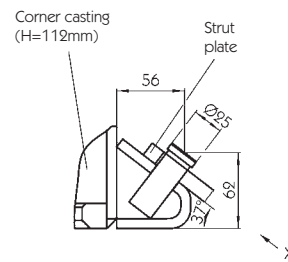
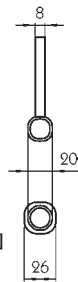
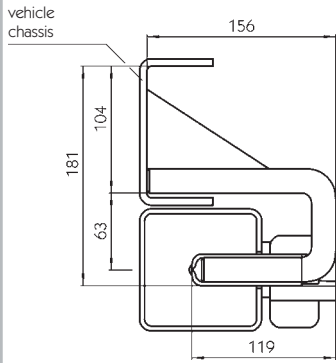


Illustration: 107511297

Counter bearing Steel.

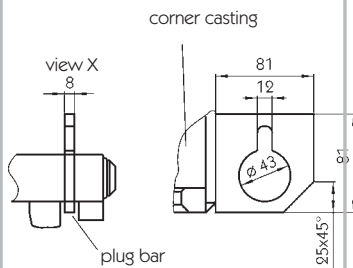
Designation	Body	Weight [kg]	
GS 102	steel	1.0	107511296
GS 103	steel	0.7	107511297



Retaining hook

20 mm round steel bar with gusset plate and elastic covering for sound deadening, weight 0.9 kg.

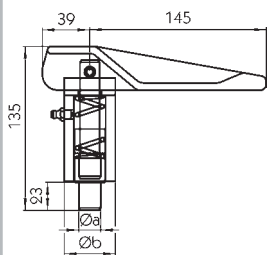
177511295



Counter bearing GS 7001

For the pin bar, weight 0.6 kg.

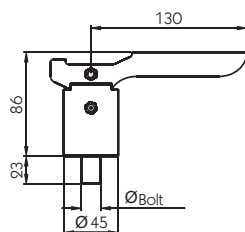
107511298



Spring bolt

Loose support leg securing devices.

Designation	Dim. a Ø [mm]	Dim. b Ø [mm]	Weight [kg]	
FS 97	16	42	1.2	177511088
FS 97	18	42	1.2	177511119
FS 97	20	42	1.2	177511089
FS 97	25	42	1.2	177511090
FS 97	30	42	1.2	177511091
FS 98	32	50	2.0	177511092
FS 98	35	50	2.0	177511093



Spring bolt/support leg securing device

For swap bodies, with grease nipple, self colour, weight 0.82 kg.

Type

16 mm bolt	125511064
18 mm bolt	125511414
30 mm bolt	125511065



6901 Lifting lug

For welding, 70 x 80 x 100 mm (w x h x l), Ø 40 mm, weight approx. 1.29 kg.

498141344

Explanation of symbols and connections

The following symbols are to illustrate which connectors (plug/socket) mate with each other. The letters always relate to the same system. The arrows next to the letters must always coincide, e.g. C↔C.

Cable end:
2-pole connector plug

Cable end:
4-pole connector plug

Cable end:
2-pole ASS1 connector

Cable end:
7-pole ASS1 connector

Cable end:
5-pole bayonet connector

Cable end:
8-pole bayonet connector

Cable end: ASS1
(Cable ends LM20/LM30)

Cable end: ASS3
(Cable ends LP20/LP30)

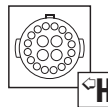
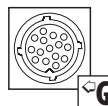
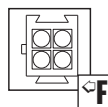
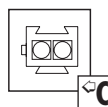
Cable end:
open

Cable end:
with PG

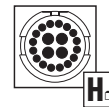
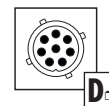
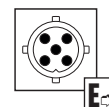
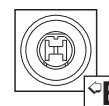
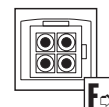
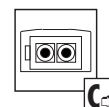
Cable end:
with P&R system

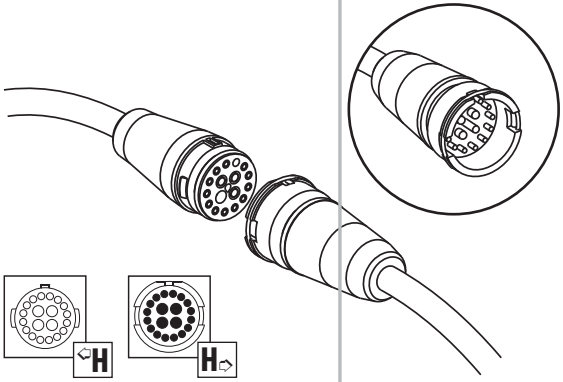
Cable end:
with DC system

Distribution box



Light/Cable

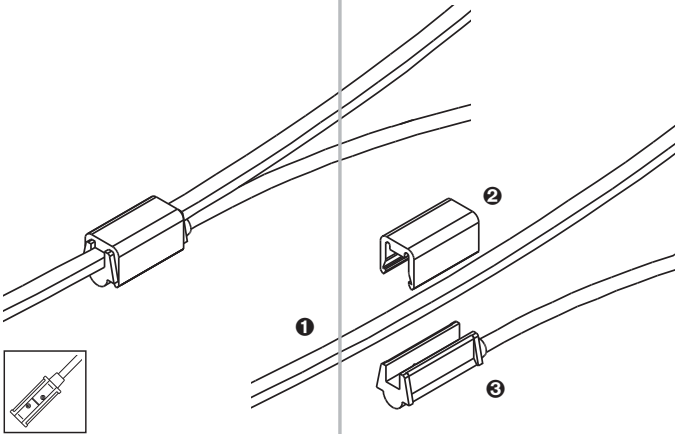




ASS3

ASS3 (LP20/LP30) is a 17-pole connector which replaces the 15-pole connector ASS1 (LM20/LM30). In the ASS3, between 8 and 15 contact pins are allocated depending on cable. The LP30 connector is locked by means of a metal clamp and the connection is sealed by an O-ring.

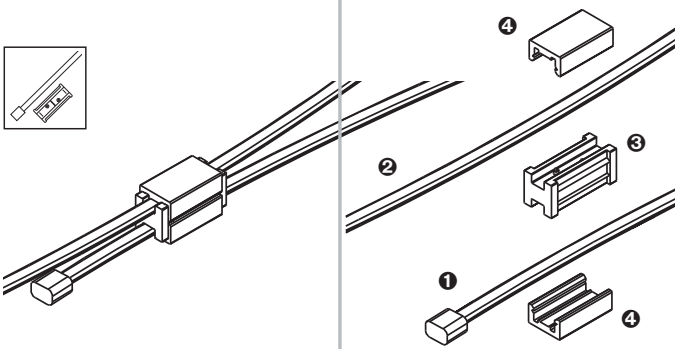
On lights with the P&R system, the flat cable (2 x 1.5 mm²) ❶ is pressed with the aid of the fitting pliers 127551296 between the locking sleeve ❷ and the P&R connector ❸ to form a connection to the distribution box.



P&R system

On lights with the P&R system, the flat cable (2 x 1.5 mm²) ❶ is pressed with the aid of the fitting pliers 127551296 between the locking sleeve ❷ and the P&R connector ❸ to form a connection to the distribution box.

The P&R provides absolutely water-tightness by means of a single core silicon seal and can also be used on vehicles in hazardous goods transport (ADR zone 2).



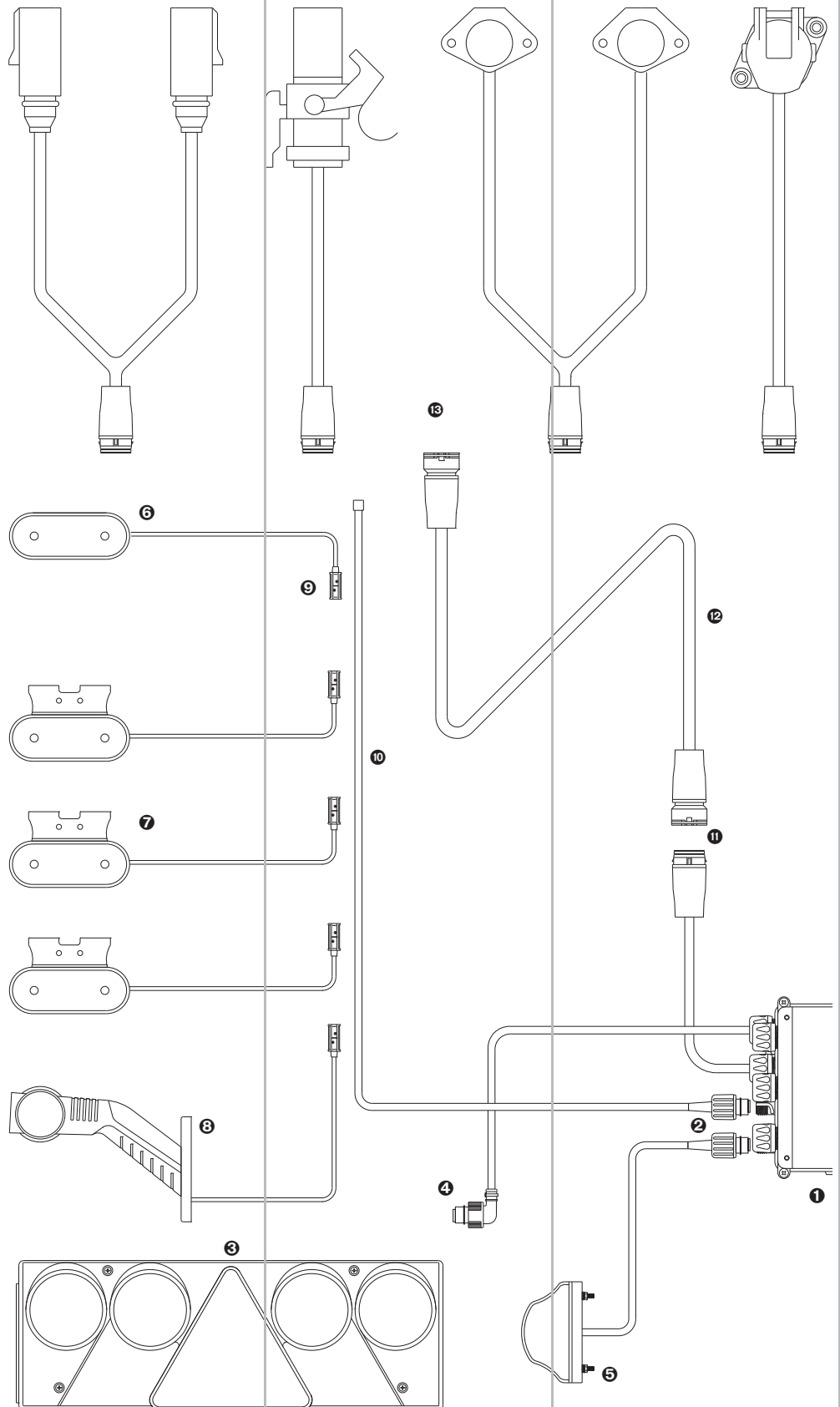
DC-System

On lights with the DC system, the flat cable (2 x 0.75 mm²) ❶ from the light on the one side and the flat cable from the distribution box/supply cable ❷ on the other side, are pressed with the aid of the fitting pliers 127551878 into the DC connector ❸ and between the two fitting sleeves ❹ to form a connection.

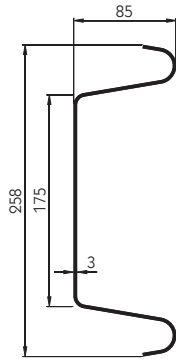
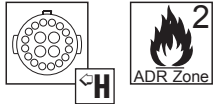
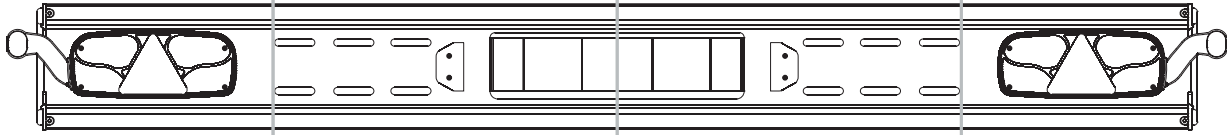
The DC system is only used in the 12 V range.

Lighting systems 24 V
24 V lighting systems
with distribution box -
the principle

Lighting sets with ASS1 junction box are pre-wired and are extremely installation-friendly. The ASS1 junction box ❶ forms the basis of each lighting set. This also has, in addition to the inputs for 2-pole ASS1 plugs (B-) ❷, reserve inputs with coloured sealing plugs in the PG version. The latter inputs can be used for other or additional electrical consumers which have no central connection. The rear lights ❸ are connected directly to the junction box via 7-pole ASS1 plugs (A-) ❹, also called the central connection. The previously mentioned 2-pole ASS1 plug (B-) ❷ on the junction box serves as the connection for the number plate ❺ (as shown in the adjacent illustration) or marker lights. The P&R system ❾ is intended for connecting the position ❻, side marker ❼ and marker lights ❸. With the Press & Ready system a flat cable ❿ is routed to the front, connected via a 2-pole ASS1 plug (B-) ❷ from the junction box. Thus as many side marker lights ❼, additional marker ❻ and outline marker ❸ lights as required can be connected to this flat cable separately for each vehicle side with the P&R system. Routed from the ASS1 junction box, in the case of all lighting sets regardless of whether it's a vehicle, trailer, centre axle trailer or semi-trailer, is a cable with a 17-pole ASS3 connector (~H) ❾ for connecting a main cable ❿ to the front. The advantage of using a main cable is that the vehicle being towed can be converted fairly simply and at any time to the requirements of the towing vehicle, regardless of whether it's from a supply cable with 2 x 7-pole connection to DIN 3731/DIN1185 to a 15-pole connection to ISO 12098 and/or from plug to socket ❿. In this case the 17-pole ASS3 connector is likewise used.



Underrun guards with 24 V lighting equipment



Steel underrun guard with rear light Ecopoint

Included in the supply are:

- 1 underrun guard type 2430, length 2400 mm, with steel end caps (similar RAL 9005). Underrun guard with 15 mm fixing holes for chassis leg spacing 780 - 1400 mm, steel parts powder coated similar to the named RAL-colour, ©*70/221/*97/19*0103*01.
- 1 number plate quick-fitting for plate size 520 mm, number plate holder in black.
- 1 light system includes rear light Ecopoint 24 V with reflector, Superpoint outline marker lights and Regpoint number plate lights. ASS3 (LP 20) distribution box connection to main cable, cable length 1500 mm.

Weight 24.32 kg.

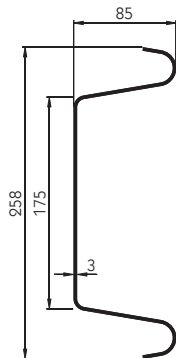
Colour

White
Spare part underrun guard white, pre-drilled for light system

RAL-colour

9010 **204561395**
9010 **380569357**

These underrun guards do not comply with the current edition of the directive 2006/20 EC of the EC directive 70/221/EEC.



Steel underrun guard with rear light Europoint

Included in the supply are:

- 1 underrun guard type 2430, length 2400 mm, with steel end caps (similar RAL 9005). Underrun guard with 15 mm fixing holes for chassis leg spacing 780 - 1400 mm, steel parts powder coated similar to the named RAL-colour, ©*70/221/*97/19*0103*01.
- 1 number plate quick-fitting for plate size 520 mm, number plate holder in black.
- 1 light system includes rear light Europoint 24 V with reflector, Superpoint II outline marker lights and Regpoint number plate lights. ASS3 (LP 20) distribution box connection to main cable, cable length 1500 mm.

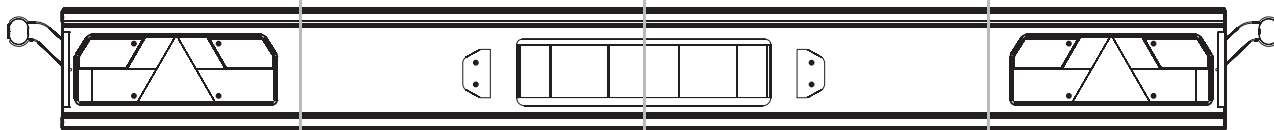
Weight 25.14 kg.

Colour

White
Graphite black
Spare part underrun guard white, pre-drilled for light system
Spare part underrun guard graphite black, pre-drilled for light system

RAL-colour

9010 **204561455**
9011 **204561456**
9010 **380569357**
9011 **380569367**



Aluminium underrun guard **563040** with rear light Europoint

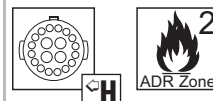
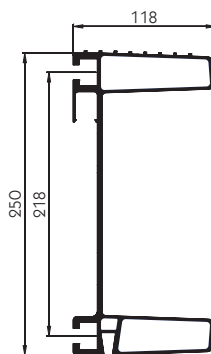
Included in the supply are:

- 1 underrun guard profile **563040** with black plastic end caps, length 2400 mm.
- 1 number plate quick-fitting for plate size 520 mm, number plate holder in black.
- 1 light system includes rear light Europoint 24 V with reflector, Superpoint II outline marker lights and Regpoint number plate lights. ASS3 (LP 20) distribution box connection to main cable, cable length 1500 mm.

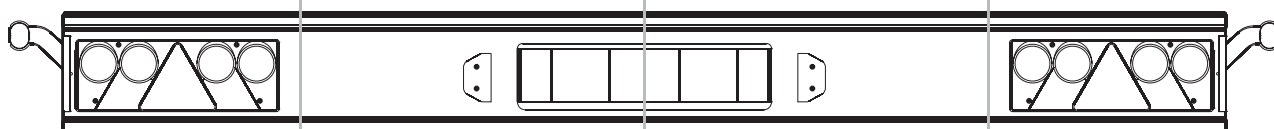
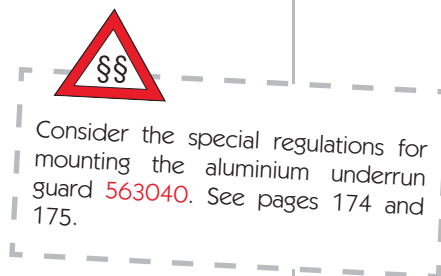
Weight 21.35 kg.

Finish

Anodised



204563060



Aluminium underrun guard **563040** with rear light Europoint II

Included in the supply are:

- 1 underrun guard profile **563040** with black plastic end caps, length 2400 mm.
- 1 number plate quick-fitting for plate size 520 mm, number plate holder in black.
- 1 light system includes rear light Europoint II 24 V with reflector, Superpoint II outline marker lights and Regpoint number plate lights. ASS3 (LP 20) distribution box connection to main cable, cable length 1500 mm.

Weight 24.32 kg.

Finish/colour

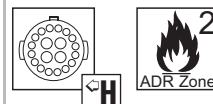
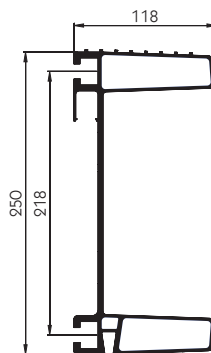
RAL-colour

Anodised

--

White

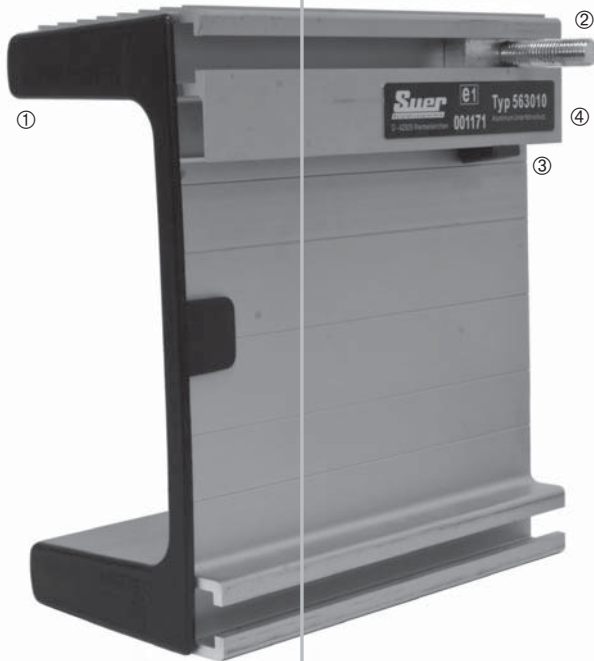
9010



204563061

204563062

Accessories/spare parts for Aluminium underrun guard



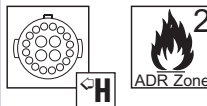
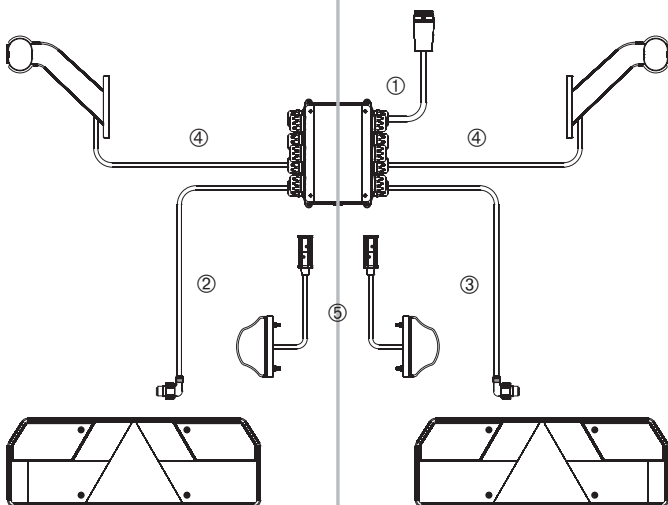
The rectangular T-slot nuts, of which 4 pieces are required, are specified for installing the aluminium underrun guard as they are a stipulated component part of the certification.

The plastic plugs **380563019** allow electric cables to be clamped into the protective channel provided. Using the spacers **380563014** for mounting the distributor box ASS1 dispenses with the need to mill out the protective channel.

Accessories/spare parts for aluminium underrun guard **563040**

	Weight [g]	
① End cap, black plastic	64	380563044
② Rectangular T-slot nut M 12, zinc plated	145	380563041
③ Plastic plug	3	380563012
Spacer, black plastic	5	380563014
④ Name plate with adhesive backing	5	380563043
Underrun guard anodised, pre-drilled		380563048
Underrun guard white (RAL 9010), pre-drilled		380563049

Lighting systems



Basis kit Europoint

Lighting system like it is mounted at Aluminium underrun guard **204563060**.

Included in the supply are:

- 1 distribution box ASS1 with connection LP 20 and 7 additional inputs.
- 2 rear lights Europoint.
- 2 outline marker lights Superpoint II.
- 2 number plate lights Regpoint.

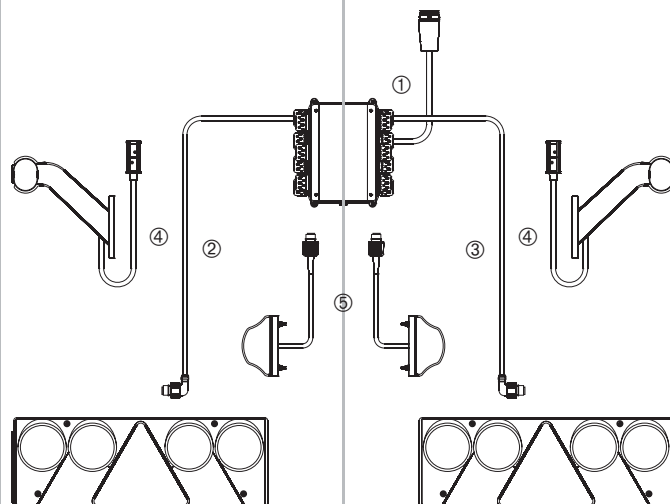
Cable length ① to main cable [mm]	Cable length ② input left [mm]	Cable length ③ input right [mm]	Cable length ④ Superpoint II [mm]	Cable length ⑤ Regpoint [mm]	Inputs occupied
1500	1200	1200	1400	250	2 x 58L/31, 2 x 58R/31

127552069



Basiskit Europoint II
Lighting system like it is mounted at Aluminium underrun guards **204563061** and **204563062**.
Included in the supply are:

- 1 distribution box ASS1 with connection LP 20 and 7 additional inputs.
- 2 rear lights Europoint II.
- 2 outline marker lights Superpoint II.
- 2 number plate lights Regpoint.

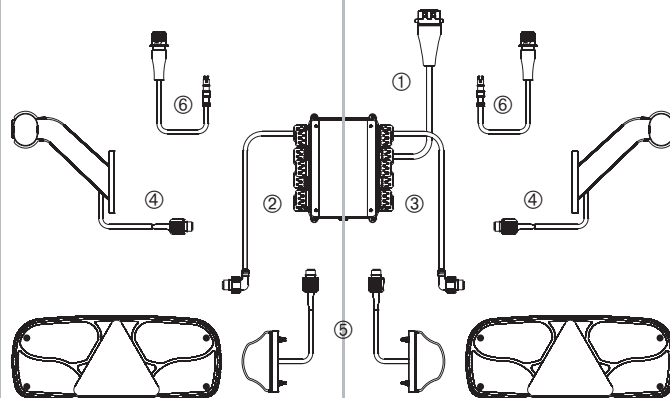


Cable length ① to main cable [mm]	Cable length ② input left [mm]	Cable length ③ input right [mm]	Cable length ④ Superpoint II [mm]	Cable length ⑤ Regpoint [mm]	Inputs occupied	
1500	1300	1300	1250	700	2 x 58L/31, 2 x 58R/31	127552169



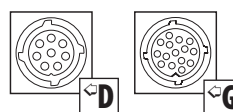
"Wabco TCE"
Lighting system to connect to Wabco TCE.
Included in the supply are:

- 1 distribution box ASS1 with connection Wabco TCE.
- 2 rear lights Ecopoint.
- 2 outline marker lights Superpoint II.
- 2 number plate lights Regpoint.
- 2 adapter TCE system to flat cable.

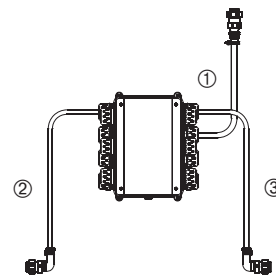


Cable length ① to main cable [mm]	Cable length ② input left [mm]	Cable length ③ input right [mm]	Cable length ④ Superpoint II [mm]	Cable length ⑤ Regpoint [mm]	Cable length ⑥ Adapter [mm]	
7500	1600	1600	1750	1000	1000	127551876

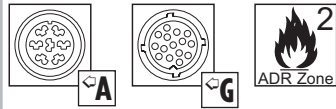
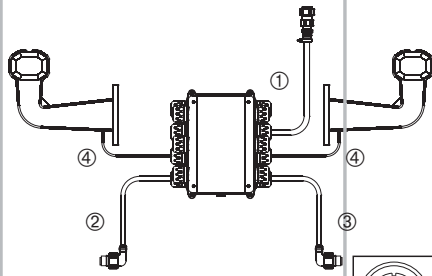
Wired distribution boxes 24 V
Distribution boxes for lighting systems



Distribution box ASS 1
Connection LM 20 to main cable, pre-wired.



Cable length ① to main cable [mm]	Cable length ② input left [mm]	Cable length ③ input right [mm]	Reserve inputs	Inputs occupied	
500	1600	1600	6	2 x 58L/31, 2 x 58R/31, 1 x "S" L/31	127551434

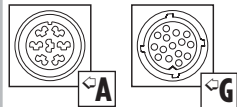
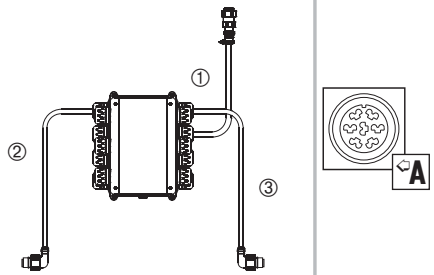


Junction box ASS 1

Connection LM 20 to main cable, with 2 Superpoint outline marker lights to flat cable ④, length 1400 mm, distribution box pre-wired.

Cable length ① to main cable [mm]	Cable length ② entry left [mm]	Cable length ③ entry right [mm]	Spare entries	Entries occupied
1500	1200	1200	7	2 x 58L/31, 2 x 58R/31

127551498

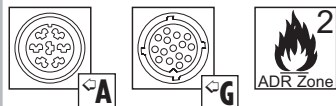
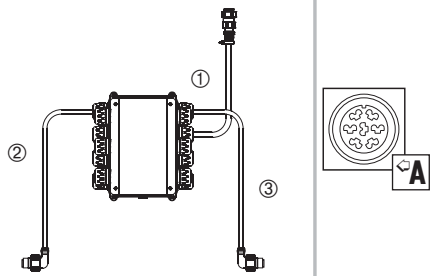


Junction box ASS 1

Connection LM 20 to main cable, pre-wired.

Cable length ① to main cable [mm]	Cable length ② entry left [mm]	Cable length ③ entry right [mm]	Spare entries	Entries occupied
500	2200	2500	7	2 x 58L/31, 2 x 58R/31

127551431



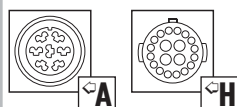
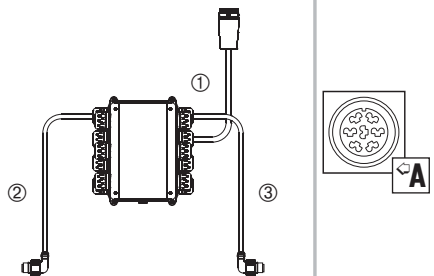
Junction box ASS 1

Connection LM 20 to main cable, pre-wired.

Cable length ① to main cable [mm]	Cable length ② entry left [mm]	Cable length ③ entry right [mm]	Spare entries	Entries occupied
500	2800	3100	6	2 x 58L/31, 2 x 58R/31, 1 x "S" L/31
1500	1300	1300	7	2 x 58L/31, 2 x 58R/31

127551791

127552014

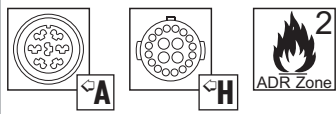
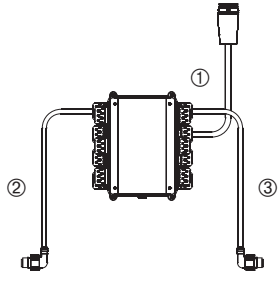

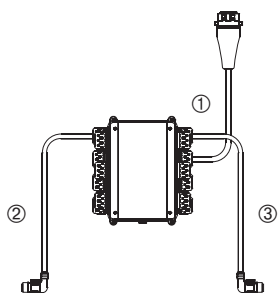
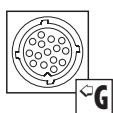
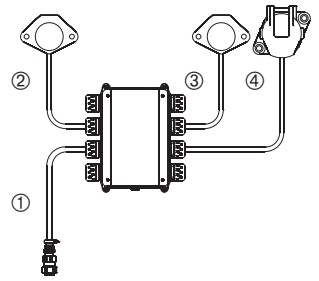

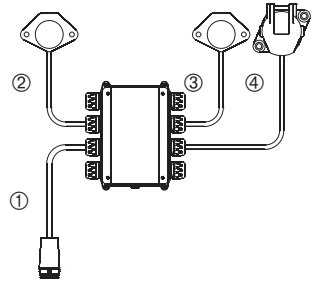


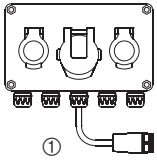
Junction box ASS 1

Connection LM 20 to main cable, pre-wired.

Cable length ① to main cable [mm]	Cable length ② entry left [mm]	Cable length ③ entry right [mm]	Spare entries	Entries occupied
500	2200	2500	7	2 x 58L/31, 2 x 58R/31

127552035

		<p>Junction box ASS 1 Connection LM 20 to main cable, pre-wired.</p>			
Cable length ① to main cable [mm]	Cable length ② entry left [mm]	Cable length ③ entry right [mm]	Spare entries	Entries occupied	
500	2200	2500	11		127552060
1500	1300	1300	7	2 x 58L/31, 2 x 58R/31	127552127
		<p>Junction box ASS 1 Connection Wabco TCE, pre-wired.</p>			
Cable length ① to main cable [mm]	Cable length ② entry left [mm]	Cable length ③ entry right [mm]	Spare entries	Entries occupied	
7500	1600	1600	7	2 x 58L/31, 2 x 58R/31	127552082
		<p>Socket distribution box</p> <p>Socket 1 x 15-pole in accordance with ISO 12098 and 2 x 7-pole in accordance with DIN 3731 and DIN 1185, with plug bar and 6.3 mm interior flat sockets, connection LM 20 to main cable, PVC, weight 1.75 kg.</p>			
Cable length ① to main cable [mm]	Cable length ② socket DIN/ISO 1185 [mm]	Cable length ③ socket DIN/ISO 3731 [mm]	Cable length ④ socket ISO 12098 [mm]	Spare entries	
300	1300	1300	1300	4	127551792
		<p>Socket distribution box</p> <p>Socket 1 x 15-pole in accordance with ISO 12098 and 2 x 7-pole in accordance with DIN 3731 and DIN 1185, with plug bar and 6.3 mm interior flat sockets, connection LP 20 to main cable, PVC, weight 1.75 kg.</p>			
Cable length ① to main cable [mm]	Cable length ② socket DIN/ISO 1185 [mm]	Cable length ③ socket DIN/ISO 3731 [mm]	Cable length ④ socket ISO 12098 [mm]	Spare entries	
300	1300	1300	1300	4	127552204

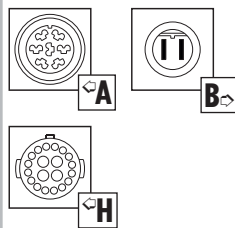
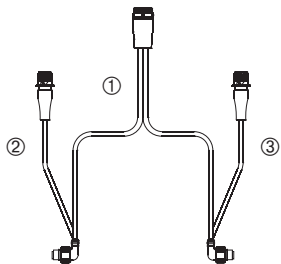


Socket distribution box
 Socket 1 x 15-pole in accordance with ISO 12098 and 2 x 7-pole in accordance with DIN 3731 and DIN 1185, with plug bar and 6.3 mm interior flat sockets, connection LP 20 to main cable, PVC, dimensions box 244 x 144 x 100 (w x h x d), weight 2.00 kg.

Cable length ① to main cable [mm] Spare entries

600 4

127552149



Distribution cable ASS3
 Connection LP 20 to main cable.

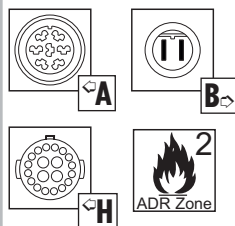
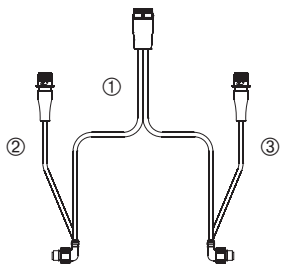
Cable length ① to main cable [mm] Cable length ② to 2-pole plug [mm]

2500 1650 1650

127552115



If you wish to connect additional consumers with the sets **127552115** and **127552116**, you can switch between the junction box cable and the main cable on the ASS3 junction box, article number **127552128**.

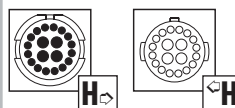
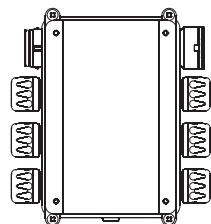


Distribution cable ASS3
 Connection LP 20 to main cable.

Cable length ① to main cable [mm] Cable length ② to 2-pole plug [mm]


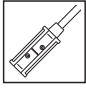
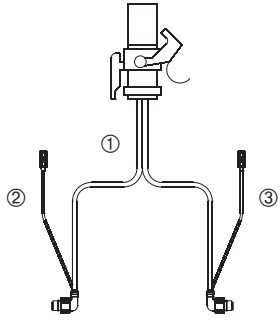
2500 1650 1650

127552116



Distribution box ASS3
 To interconnect distribution cables, with 6 spare entries, pre-wired, weight 0.65 kg.



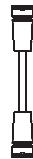


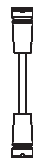


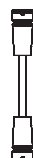



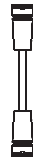
127552128

				 	
Distribution cable Connection 15-pole plug in accordance with ISO 12098, PVC, weight 2.59 kg.					
Cable length ① to plug [mm]	Cable length ② P&R system [mm]	Cable length ③ P&R system [mm]			
10000	500	500			127551856



The 8-pole main cable can be deployed with a straightforward lighting set, the 10-pole main cable with lighting functions + 9 + 12.

Main cable 24 V

				 	
Main cable ASS3 8-pole, connection LP 30.					
Cable length [mm]	Weight [kg]				
9000	2.82			127552103	
				 	
Main cable ASS3 10-pole, connection LP 30.					
Cable length [mm]	Weight [kg]				
5000	1.52			127552174	
9000	2.82			127552095	
12500	3.28			127552096	
15000	4.37			127552097	
				 	
Main cable ASS3 15-pole, connection LP 30.					
Cable length [mm]	Weight [kg]				
4000	1.19			127552037	
10000	2.98			127552039	
13000	3.87			127552038	
				  	
Main cable ASS3 15-pole, connection LP 30.					
Cable length [mm]	Weight [kg]				
9000	2.82			127552101	
10000	2.98			127552040	
12500	3.28			127552102	
13000	3.87			127552036	

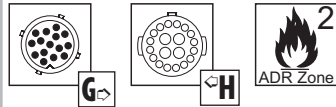
Accessories



Adapter ASS3

One side ASS3-plug LP 30 (cable), other side ASS1-plug LM 20 (distribution box), cable length 300 mm, weight 0.19 kg.

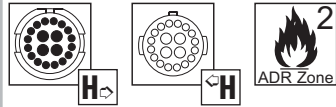
127552065



Adapter ASS3

One side ASS3-plug LP 20 (distribution box), other side ASS1-plug LM 30 (cable), cable length 300 mm, weight 0.18 kg.

127552061

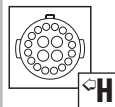
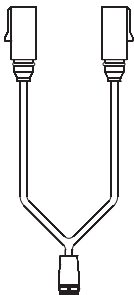


Main cable extension ASS3

15-pole, connection LP 20 and LP 30.

Cable length [mm]	Weight [kg]	
2000	0.72	127552206
9000	2.82	127552205

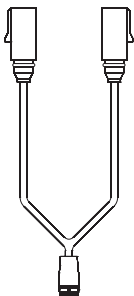
Supply cable 24 V
7-pole in accordance with DIN 3731 and DIN 1185



Supply cable 2 x 7- pole plug

In accordance with DIN 3731 and DIN 1185, connection LP 20.

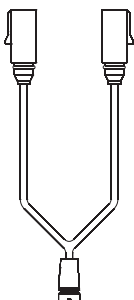
Cable length [mm]	Weight [kg]	
3000	1.14	127552047
6000	2.24	127552112



Supply cable 2 x 7- pole plug

In accordance with DIN 3731 and DIN 1185, connection LP 20.

Cable length [mm]	Weight [kg]	
6000	2.24	127552155

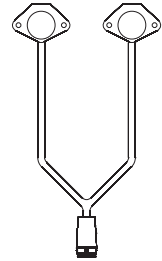
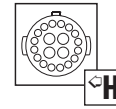


Supply cable 2 x 7- pole plug

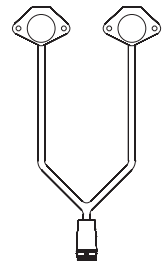
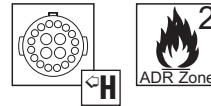
In accordance with DIN 3731 and DIN 1185, connection LP 30.

Cable length [mm]	Weight [kg]	
12000	4.14	127552113

	Supply cable 2 x 7- pole socket In accordance with DIN 3731 and DIN 1185, connection LP 20.
Cable length [mm]	Weight [kg]
6000	2.24
	127552151

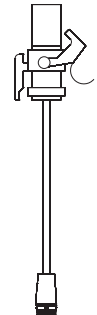
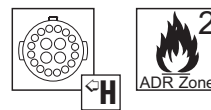


	Supply cable 2 x 7- pole socket In accordance with DIN 3731 and DIN 1185, connection LP 20.
Cable length [mm]	Weight [kg]
600	0.34
	127552117



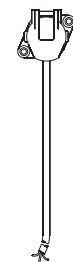
13-pole in accordance with ISO 12098

	Supply cable 13-pole plug In accordance with ISO 11446, connection LP 20.
Cable length [mm]	Weight [kg]
3000	1.12
	127552041

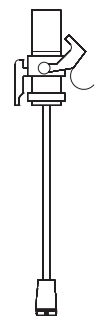
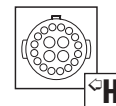


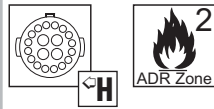
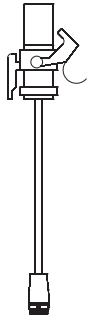
15-pole in accordance with ISO 12098

	Supply cable 15-pole socket In accordance with ISO 12098, connection loose.
Cable length [mm]	Weight [kg]
15000	5.32
	127552159



	Supply cable 15-pole plug In accordance with ISO 12098, connection LP 20.
Cable length [mm]	Weight [kg]
3000	1.12
	127552046

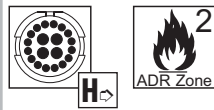
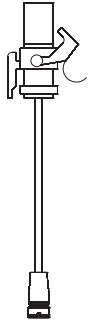




Supply cable 15-pole plug

In accordance with ISO 12098, connection LP 20.

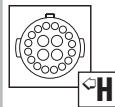
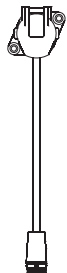
Cable length [mm]	Weight [kg]	
3000	1.12	127552043



Supply cable 15-pole plug

In accordance with ISO 12098, connection LP 30.

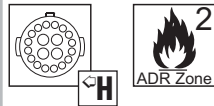
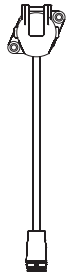
Cable length [mm]	Weight [kg]	
15000	5.52	127552152



Supply cable 15-pole socket

In accordance with ISO 12098, connection LP 20.

Cable length [mm]	Weight [kg]	
6000	2.16	127552126

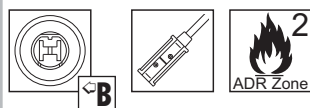


Supply cable 15-pole socket

In accordance with ISO 12098, connection LP 20.

Cable length [mm]	Weight [kg]	
600	0.32	127552124
1000	0.58	127552125

Flat cable 24 V



Flat cable kit P&R system

Included in the supply are 2 flat cable with mounted connection plug and end cap.

Cable length [mm]	ADR-Zone 2	Weight [kg]	
5000		0.33	127551566
9000		0.59	127551342
13000	●	0.84	127551312
13000		0.84	127551340
15000	●	0.97	127551428
15000		0.97	127551341
17000	●	1.10	127551429
17000		1.10	127551358
19000	●	1.23	127551313
19000		1.23	127551427

Rear lights 24 V

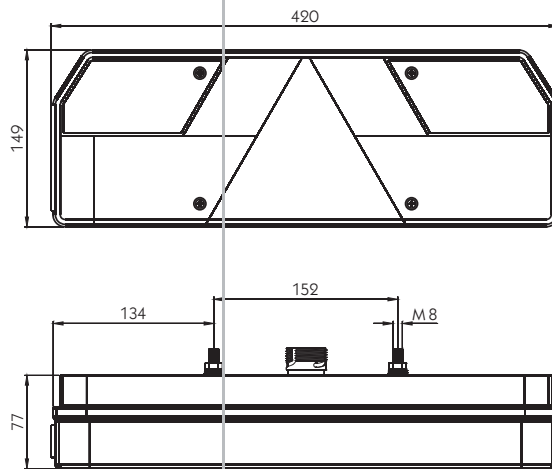
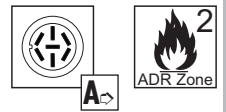


Illustration: left hand



Number plate light below.

Europoint
Rear light 24 V with triangle reflector. Connection ASS1, ©5167, weight 1.30 kg.

Type	Turn signal light	Stop light	Rear fog light	Number plate light	Reverse driving light	Side marker light	Tail	Outline marker light	
Left	●	●	●		●	●	●	●	127551319
Left	●	●	●	●	●	●	●	●	127551553
Right	●	●	●		●	●	●	●	127551320
Right	●	●	●	●	●	●	●	●	127551787

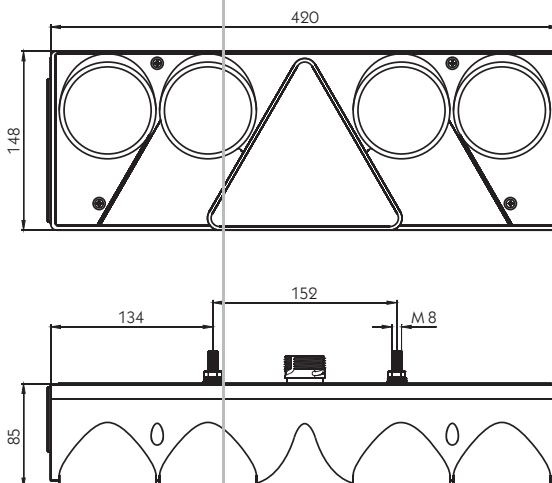


Illustration: left hand



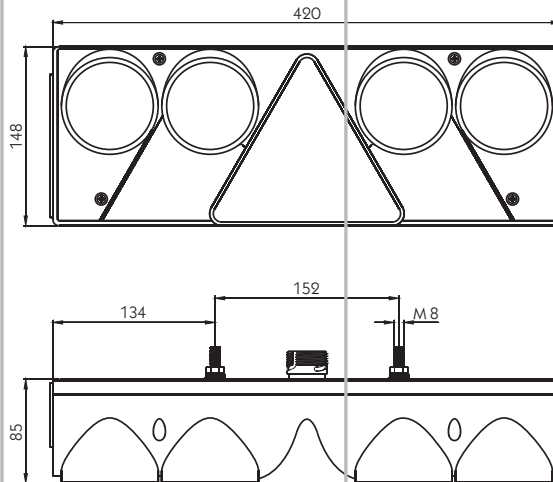
Number plate light below.

Europoint II
Rear light 24 V with triangle reflector. Connection ASS1, ©5497, weight 1.59 kg.

Type	Turn signal light	Stop light	Rear fog light	Number plate light	Reverse driving light	Side marker light	Tail	Outline marker light	
Left	●	●	●		●	●	●	●	127552009
Left	●	●	●	●	●	●	●	●	127552011
Right	●	●	●		●	●	●	●	127552010
Right	●	●	●	●	●	●	●	●	127552207



Illustration: left hand



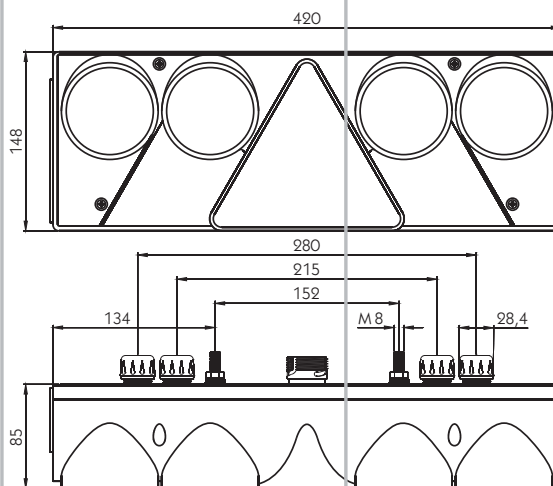
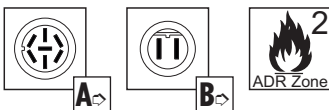
Europoint II LED
Rear light 24 V with triangle reflector. Connection ASS1, €5497, weight 1.59 kg.

1 Tail is equipped with a LED bulb.

Type	Turn signal light	Stop light	Rear fog light	Number plate light	Reverse driving light	Side marker light	Tail	Outline marker light	
Left	●	●	●		●		●	●	127552208
Right	●	●	●		●		●	●	127552209



Illustration: left hand



Europoint II
Rear light 24 V with triangle reflector and 4 x 2-pole central connector. Connection ASS1, €5497, weight 1.60 kg.

The 4 additional 2-pole central connections on the back of the lamps are outputs for 2 x side lights (58 L/31, 58 R/31), brake (54/31) and reversing lamps (8/31).

Type	Turn signal light	Stop light	Rear fog light	Number plate light	Reverse driving light	Side marker light	Tail	Outline marker light	
Left	●	●	●		●	●	●	●	127552079
Right	●	●	●		●	●	●	●	127552080

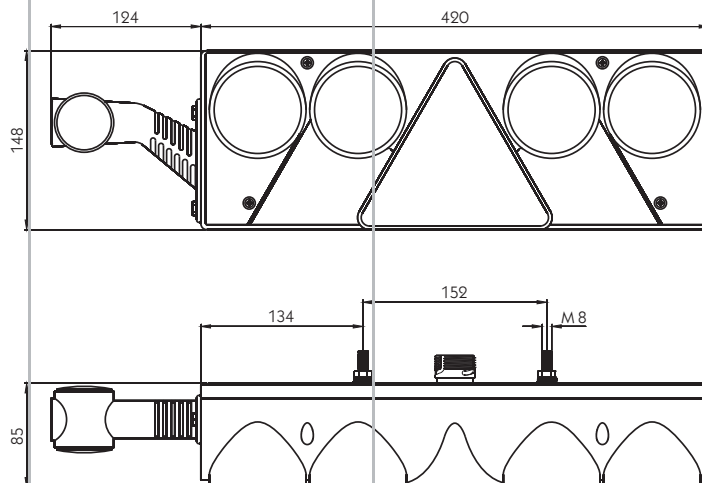
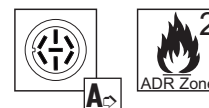


Illustration: left hand



Europoint II
Rear light 24 V with end outline marker black/white/amber and triangle reflector. Connection ASS1, ©5497, weight 1.71 kg.

Type	Turn signal light	Stop light	Rear fog light	Number plate light	Reverse driving light	Side marker light	Tail	Outline marker light	
Left	●	●	●		●	●	●	●	127552119
Right	●	●	●		●	●	●	●	127552120

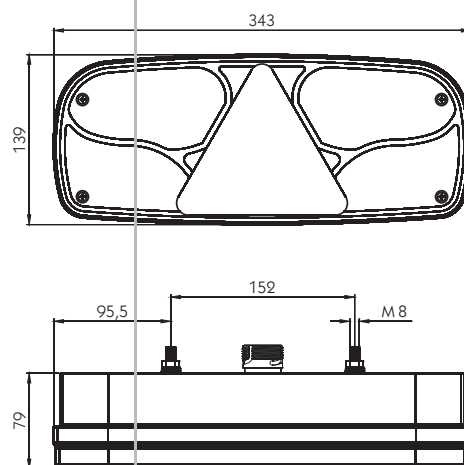


Illustration: left hand



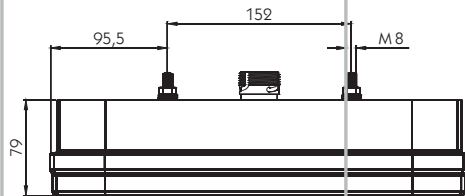
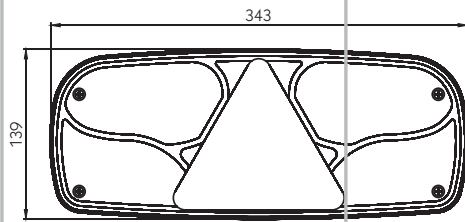
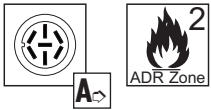
Number plate light below.

Ecopoint
Rear light 24 V with triangle reflector. Connection ASS1, ©5266, weight 1.06 kg.

Type	Turn signal light	Stop light	Rear fog light	Number plate light	Reverse driving light	Side marker light	Tail	Outline marker light	
Left	●	●	●		●		●	●	127551689
Left	●	●	●	●	●		●	●	127551904
Right	●	●	●		●		●	●	127551690



Illustration: left hand



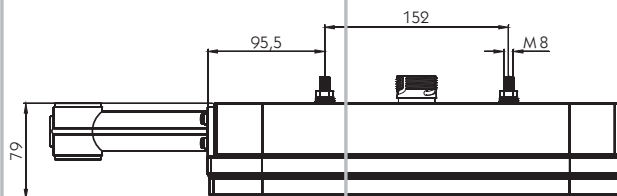
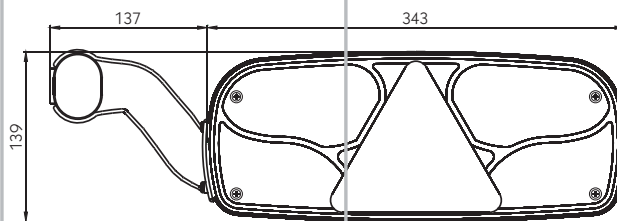
○ Lens LED
○ Number plate light below.

Ecopoint LED
Rear light 24 V with triangle reflector. Connection ASS1, ©5266, weight 1.06 kg.

Type	Turn signal light	Stop light	Rear fog light	Number plate light	Reverse driving light	Side marker light	Tail	Outline marker light
Left	●	○	●		●		○	127551734
Left	○	○	○		○		○	127552066
Left	●	○	●	●	●		○	127551736
Right	●	○	●		●		○	127551735
Right	○	○	○		○		○	127552067



Illustration: left hand.



○ Number plate light below.

Ecopoint
Rear light 24 V with end outline marker red/white/amber and triangle reflector. Connection ASS1, ©5266, weight 1.16 kg.

Type	Turn signal light	Stop light	Rear fog light	Number plate light	Reverse driving light	Side marker light	Tail	Outline marker light
Left	●	●	●		●	●	●	127551691
Left	●	●	●	●	●	●	●	127551905
Right	●	●	●		●	●	●	127551692

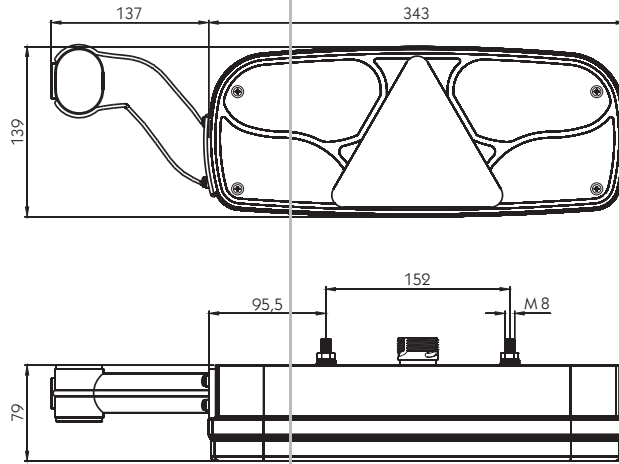


Illustration: left hand.



● Lens LED
Number plate light below.

Ecopoint LED
Rear light 24 V with end outline marker red/white/amber and triangle reflector. Connection ASS1, €5266, weight 1.21 kg.

Type	Turn signal light	Stop light	Rear fog light	Number plate light	Reverse driving light	Side marker light	Tail	Outline marker light	
Left	●	○	●		●	●	○	●	127551737
Left	●	○	●	●	●	●	○	●	127551739
Right	●	○	●		●	●	○	●	127551738

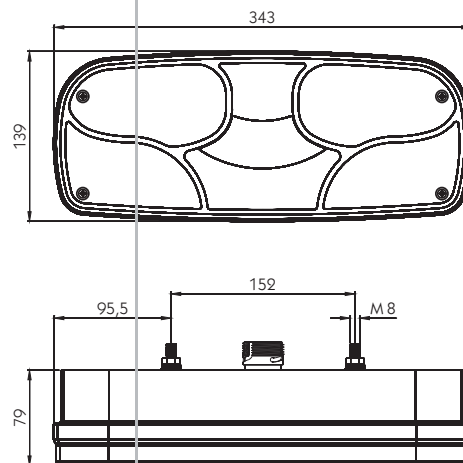


Illustration: left hand.



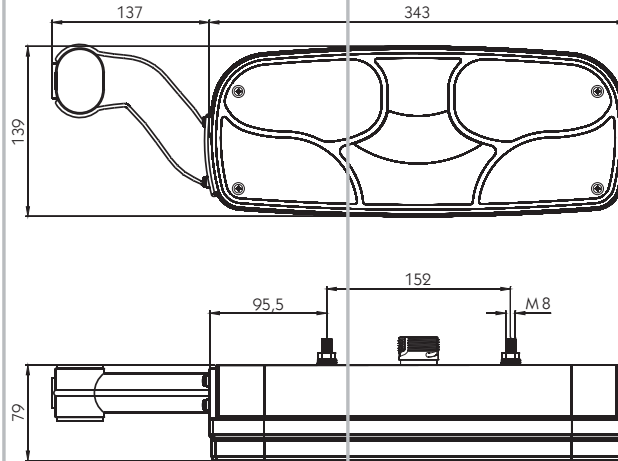
Number plate light below.

Ecopoint
Rear light 24 V, Connection ASS1, €5266, weight 1.00 kg.

Type	Turn signal light	Stop light	Rear fog light	Number plate light	Reverse driving light	Side marker light	Tail	Outline marker light	
Left	●	●	●		●	●	●	●	127551605
Left	●	●	●	●	●	●	●	●	127551607
Right	●	●	●		●	●	●	●	127551606
Right	●	●	●	●	●	●	●	●	127551608



Illustration: left hand.

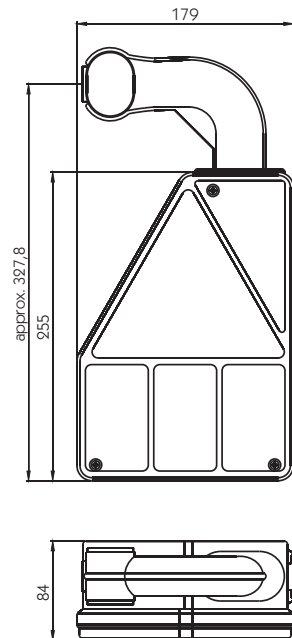


Ecopoint
Rear light 24 V with end outline marker red/white/amber, connection ASS1, ©5266, weight 1.10 kg.

Type	Turn signal light	Stop light	Rear fog light	Number plate light	Reverse driving light	Side marker light	Tail	Outline marker light	
Left	●	●	●		●	●	●	●	127552220
Right	●	●	●		●	●	●	●	127552221



Illustration: left hand.



Earpoint
Rear light 24 V with end outline marker red/white/amber and triangle reflector. Connection ASS1, ©1057, weight 0.95 kg.

Type	Turn signal light	Stop light	Rear fog light	Number plate light	Reverse driving light	Side marker light	Tail	Outline marker light	
Left	●	●	●			●	●	●	127551854
Right	●	●	●		●	●	●	●	127551855

Multipoint
Rear light 24 V with triangle reflector. Connection bajonet, ©5099, weight 0.59 kg.

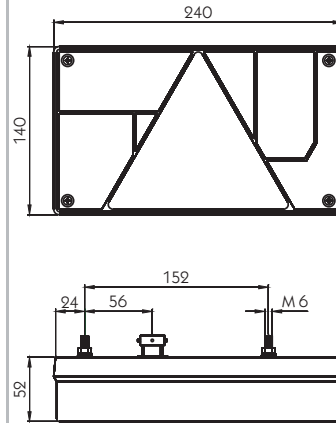
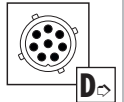


Illustration: left hand.



Type	Turn signal light	Stop light	Rear fog light	Number plate light	Reverse driving light	Side marker light	Tail	Outline marker light	
Left	●	●	●				●		127551545
Right	●	●					●		127551546

These lamps can only be connected to the supply cable 15-pole plug [127551622](#).

Multipoint
Rear light 24 V with triangle reflector. Connection bajonet, ©5099, weight 0.59 kg.

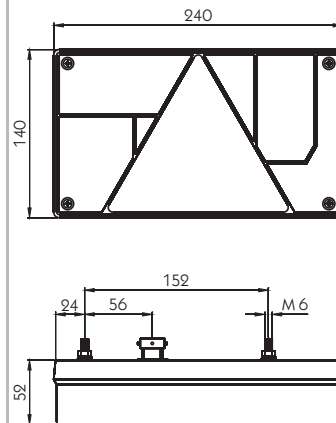
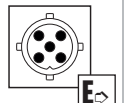


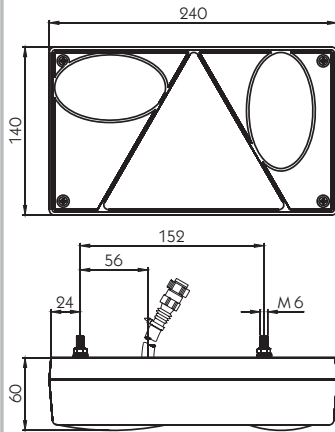
Illustration: left hand.



Type	Turn signal light	Stop light	Rear fog light	Number plate light	Reverse driving light	Side marker light	Tail	Outline marker light	
Left	●	●	●				●		127551580
Right	●	●					●		127551581
Right	●	●			●		●		127551582



Illustration: left hand.



Multipoint LED

Rear light 24 V with triangle reflector. Connection bajonet to cable 1800 mm, €5186, weight 0.91 kg.

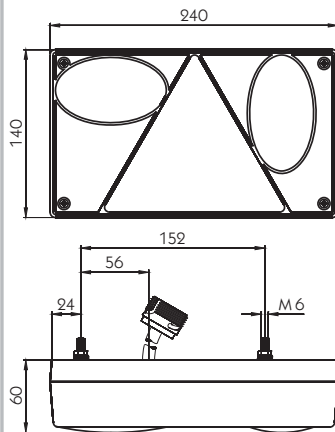
These lamps can only be mounted on a pre-wired bayonet junction box.

● LED bulb.

Type	Turn signal light	Stop light	Rear fog light	Number plate light	Reverse driving light	Side marker light	Tail	Outline marker light	
Left	●	○	●				○		127551799
Right	●	○					○		127551800



Illustration: left hand.



Multipoint LED

Rear light 24 V with triangle reflector. Connection ASS1 to cable 2500 mm, €5186, weight 0.91 kg.

● Lenses LED.

Type	Turn signal light	Stop light	Rear fog light	Number plate light	Reverse driving light	Side marker light	Tail	Outline marker light	
Left	●	○	●				○		127552088
Right	●	○					○		127552089

Number plate light below.

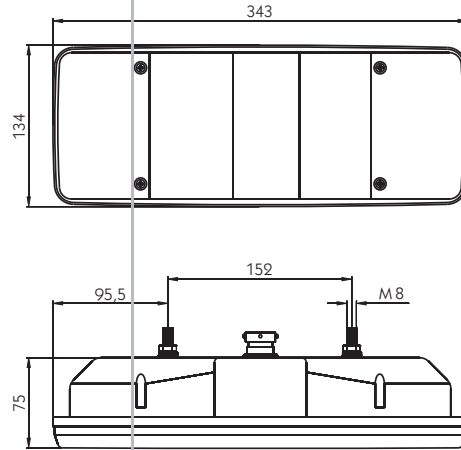
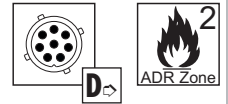


Illustration: left hand.

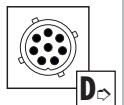
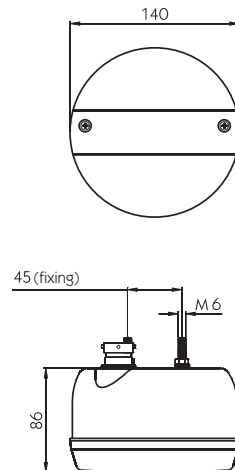


5-chamber light
Rear light 24 V, weight 0.89 kg.

Type	Turn signal light	Stop light	Rear fog light	Number plate light	Reverse driving light	Side marker light	Tail	Outline marker light	
Left	●	●	●		●		●		127551317
Left	●	●	●	●	●		●		127551493
Right	●	●	●		●		●		127551318



This light on its own does not comply with the Road Traffic Regulations. The rear fog light 127552184 and the reversing lamp 127552183 must be fitted in addition.



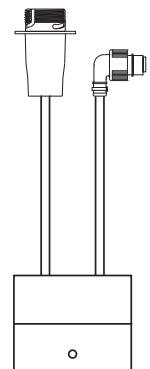
3-chamber light
Rear light 24 V, ©5520, weight 0.42 kg.

Type	Turn signal light	Stop light	Rear fog light	Number plate light	Reverse driving light	Side marker light	Tail	Outline marker light	
Standard	●	●					●		127552191

The LED control equipment is necessary to match the electrical properties of the LED rear lights to the requirements of the towing vehicle. Recommended when using rear lights with LED flasher function. One LED control unit (LCG) is required for each vehicle side

LED Control Indicator (LCG)
Cable length each 650 mm, weight 0.77 kg.
127551994

Accessories



LED inserts



Europoint II LED insert
Function tail, ©5497.
127552111



Europoint II LED inserts
©5497.
Function stop light **127552133**
Function turn signal light **127552134**



Ecopoint LED insert
Function turn signal light, illustration left hand.
127551995



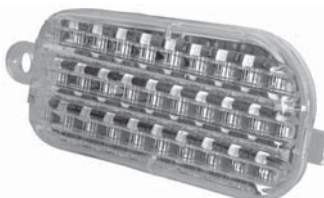
Ecopoint LED insert
Function turn signal light, illustration left hand.
127551996



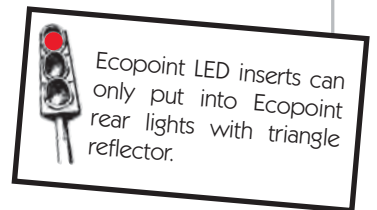
Ecopoint LED insert
Function stand light and stop light, illustration left hand.
127551740



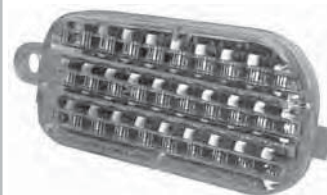
Ecopoint LED insert
Function stand light and stop light, illustration left hand.
127551741



Ecopoint LED insert
Function reverse driving light, illustration left hand.
127552064



Ecopoint LED insert
Function reverse driving light, illustration left hand.
127552068



Ecopoint LED insert
Function rear fog light, illustration left hand.
127552062



Ecopoint LED insert
Function rear fog light, illustration left hand.
127552063



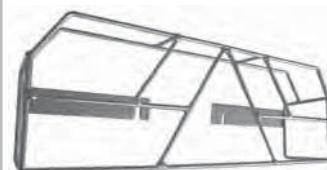
Multipoint LED insert
Only for 24 V Multipoint LED rear lights. Function stand light and stop light.
127552092



Protection grids

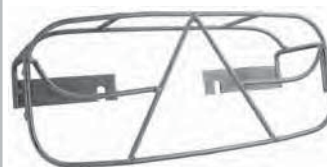
No longer available

Protection grid Europoint
Steel plated, weight 0.69 kg.
204551479



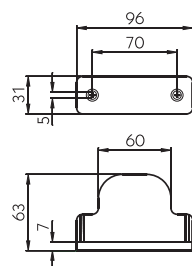
No longer available

Protection grid Ecopoint
Steel plated, weight 0.54 kg.
127552083



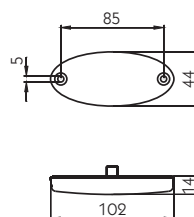
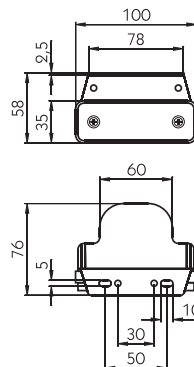
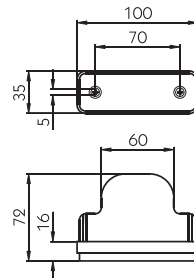
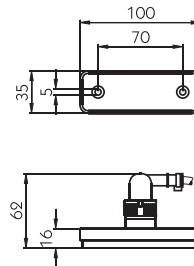
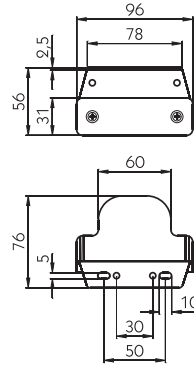
Position lights 24 V

Position light
24 V, recessed version with protection cover, lens white, Ⓜ0484 and Ⓜ9592, connection P&R system.



Cable length [mm]	Weight [kg]	
300	0.03	127551782
500	0.09	127551302
2000	0.51	127551783





Position light

24 V, surface mounted version with fixing bracket, lens white, Ⓢ0484 and Ⓢ9592, connection P&R system.

Cable length [mm]	Weight [kg]	
500	0.10	127551630
1000	0.13	127551559

Flatpoint LED

Position light 24 V, recessed version without protection cover, LED white, Ⓢ5357, connection P&R system.

Cable length [mm]	Weight [kg]	
500	0.09	127551947

Flatpoint LED

Position light 24 V, recessed version with protection cover, LED white, Ⓢ5357, connection P&R system.

Cable length [mm]	Weight [kg]	
500	0.08	127551657
1000	0.12	127551926
1500	0.13	127552021

Flatpoint LED

Position light 24 V, surface mounted version with fixing bracket, LED white, Ⓢ5357, connection P&R system.

Cable length [mm]	Weight [kg]	
500	0.10	127551658
1000	0.13	127551659

Flatpoint II LED

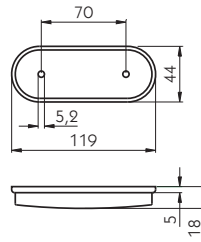
Position light 24 V, recessed version, LED white, Ⓢ5499, connection P&R system.

Cable length [mm]	Weight [kg]	
1500	0.17	127552167

Unipoint LED

Position light 24 V, recessed version, moulded-in cable to enable tight mounted fixing, LED white, ©5409, connection P&R system.

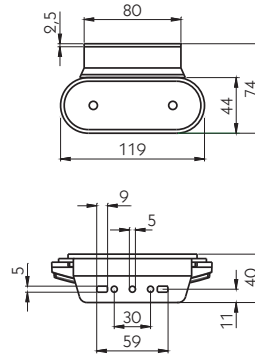
Cable length [mm]	Weight [kg]	
500	0.10	127551981
1500	0.16	127551978



Unipoint LED

Position light 24 V, surface mounted version with fixing bracket, moulded-in cable to enable tight mounted fixing, LED white, ©5409, connection P&R system.

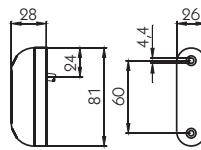
Cable length [mm]	Weight [kg]	
500	0.10	127551988



Posipoint LED

Position light 24 V, surface mounted version, LED white, ©5419, connection P&R system.

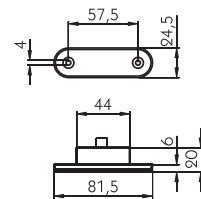
Cable length [mm]	Weight [kg]	
500	0.07	127552057
3500	0.22	127551870



Posipoint II LED

Position light 24 V, surface mounted version, LED white, ©5593, connection P&R system.

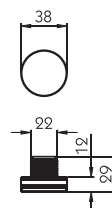
Cable length [mm]	Weight [kg]	
500	0.05	127552185



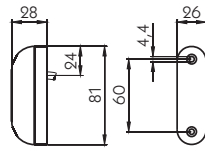
Monopoint II LED

Position light 24 V, surface mounted version, LED white, ©5594, connection P&R system.

Cable length [mm]	Weight [kg]	
500	0.05	127552186



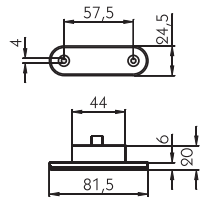
Side position lights 24 V



Posipoint LED

Side position light 24 V, surface mounted version, LED red, Ⓔ5419, connection P&R system.

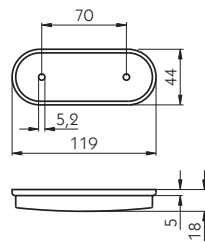
Cable length [mm]	Weight [kg]	
500	0.07	127552058
3500	0.22	127551871



Posipoint II LED

Side position light 24 V, surface mounted version, LED red, Ⓔ5593, connection P&R system.

Cable length [mm]	Weight [kg]	
500	0.05	127552188



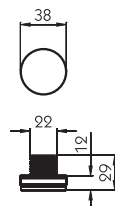
Unipoint LED

Side position light 24 V, recessed version, moulded-in cable to enable tight mounted fixing, lens red, Ⓔ5409, connection P&R system.

Cable length [mm]	Weight [kg]	
3500	0.23	127551987



The Monopoint II LED side position lights have a rubber mounting plug. To fit the light, simply press it into a $\varnothing 21$ mm hole.



Monopoint II LED

Side position light 24 V, surface mounted version, connection P&R system, red, Ⓔ5594.

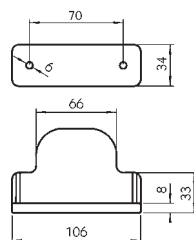
Cable length [mm]	Weight [kg]	
3500	0.19	127552187

Side marker lights 24 V

Flatpoint LED

Side marker light 24 V, recessed version with protection cover, LED amber, ©5247 and ©0006, connection P&R system.

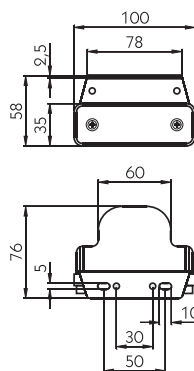
Cable length [mm]	Weight [kg]	
500	0.09	127551527
1000	0.12	127551528
1500	0.15	127551529
2000	0.18	127551759



Flatpoint LED

Side marker light 24 V, surface mounted version with fixing bracket, LED amber, ©5247 and ©0006, connection P&R system.

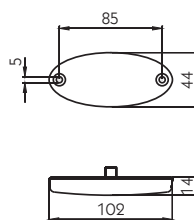
Cable length [mm]	Weight [kg]	
500	0.10	127551530
1000	0.13	127551531
1500	0.16	127551532



Flatpoint II LED

Side marker light 24 V, recessed version, LED amber, ©5499, connection P&R system.

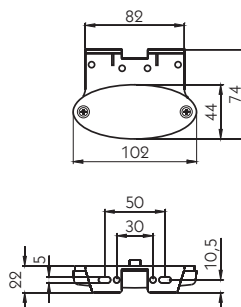
Cable length [mm]	Weight [kg]	
500	0.07	127552165
1500	0.17	127552168

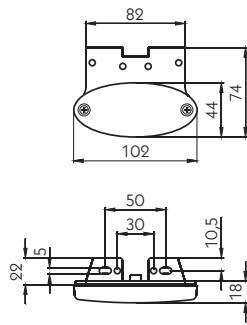


Flatpoint II LED

Side marker light 24 V, surface mounted version with fixing bracket, LED amber, ©5499, connection P&R system.

Cable length [mm]	Weight [kg]	
500	0.08	127552189

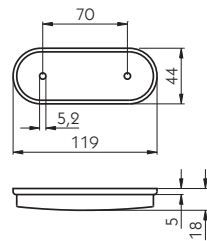




Flatpoint II LED

Side marker light 24 V, surface mounted version with fixing bracket, LED amber, Ⓔ5499 connection P&R system.

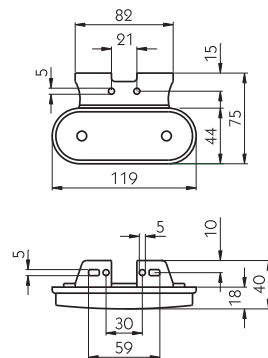
Cable length [mm]	Weight [kg]	
500	0.08	127552166



Unipoint LED

Side marker light 24 V, recessed version, moulded-in cable to enable tight mounted fixing, LED amber, Ⓔ5409, connection P&R system.

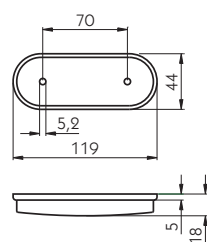
Cable length [mm]	Weight [kg]	
500	0.10	127551949



Unipoint LED

Side marker light 24 V, surface mounted version with fixing bracket, moulded-in cable to enable tight mounted fixing, LED amber, Ⓔ5409, connection P&R system.

Cable length [mm]	Weight [kg]	
500	0.14	127551948
1500	0.17	127552148



Unipoint LED

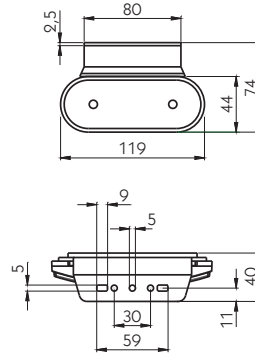
Side marker light 24 V, recessed version, LED amber, Ⓔ5409, connection P&R system.

Cable length [mm]	Weight [kg]	
500	0.10	127551777
1000	0.13	127551821
1500	0.16	127551822
3500	0.28	127552025

Unipoint LED

Side marker light 24 V, surface mounted version with fixing bracket, LED amber, ©5409, connection P&R system.

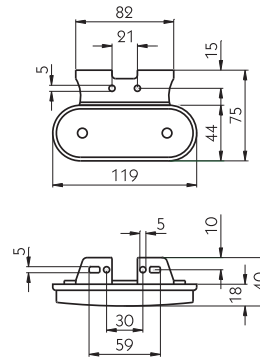
Cable length [mm]	Weight [kg]	
250	0.11	127551957
500	0.13	127551958
1000	0.15	127551959
1500	0.17	127551960



Unipoint LED

Side marker light 24 V, surface mounted version with fixing bracket, LED amber, ©5409, connection P&R system.

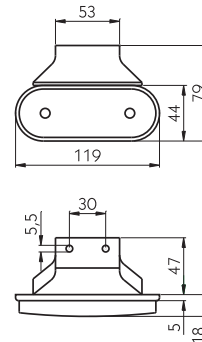
Cable length [mm]	Weight [kg]	
250	0.11	127551778
500	0.13	127551961
1000	0.15	127551916
1500	0.17	127551837
2000	0.28	127551781



Unipoint LED

Side marker light 24 V, surface mounted version with fixing bracket, LED amber, ©5409, connection P&R system.

Cable length [mm]	Weight [kg]	
250	0.11	127551779
1000	0.13	127551780
1500	0.16	127551840

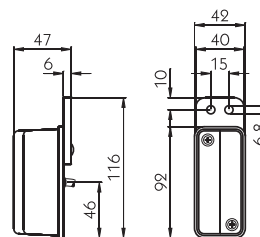


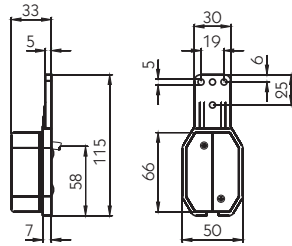
Outline marker lights 24 V

Outline marker light (Hella)

Outline marker light 24 V, lens red/white, ©31407, connection P&R system.

Cable length [mm]	Type	Weight [kg]	
500	left	0.23	127551633
500	right	0.23	127551634
1500	left	0.29	127551687
1500	right	0.29	127551688



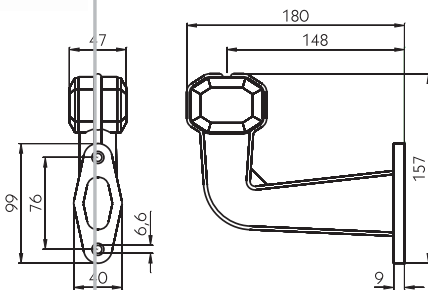
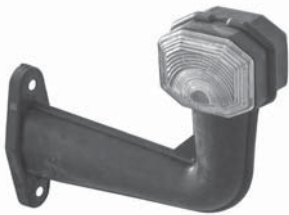


Flexipoint

Outline marker light 24 V, with bracket, lens red/white, ©5332, connection P&R system to cable 500 mm, weight 0.10 kg.

Type

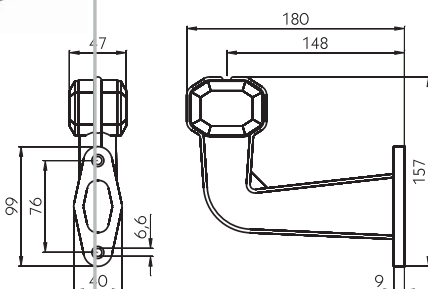
Left	127551849
Right	127551942



Superpoint

Outline marker light 24 V, ©0339, connection ASS1 to cable.

Lens [colour]	Cable length [mm]	Type	Weight [kg]	
Red/white	2000	left	0.28	127551326
Red/white	2000	right	0.28	127551328
Red/white	2500	left	0.31	127551327
Red/white	2500	right	0.31	127551329
Black/white	2000	left	0.28	127551413
Black/white	2000	right	0.28	127551412



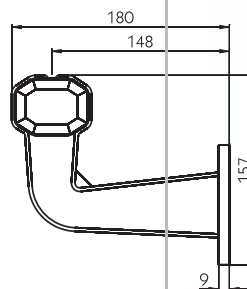
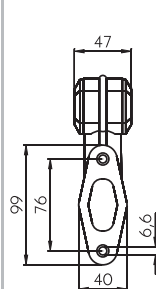
Superpoint

Outline marker light 24 V, ©0339, connection P&R system.

Lens [colour]	Cable length [mm]	Type	Weight [kg]	
Red/white	1250	left	0.23	127551323
Red/white	1250	right	0.23	127551322
Red/white	1750	left	0.26	127551361
Red/white	1750	right	0.26	127551360
Black/white	1250	left	0.23	127551411
Black/white	1250	right	0.23	127551410
Black/white	1750	left	0.26	127551325
Black/white	1750	right	0.26	127551324

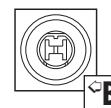
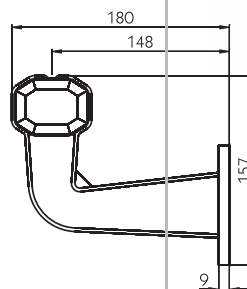
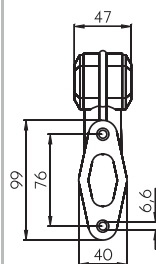
Superpoint LED
Outline marker light 24 V, ©0791,
connection P&R system.

LED [colour]	Cable length [mm]	Type	Weight [kg]	
Black/white	1250	left	0.20	127552071
Black/white	1250	right	0.20	127552070
Red/white	1750	left	0.23	127551771
Red/white	1750	right	0.23	127551770



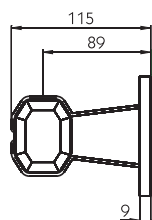
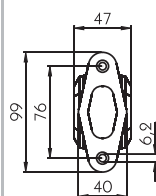
Superpoint LED
Outline marker light 24 V, ©0791,
connection ASS1 to cable.

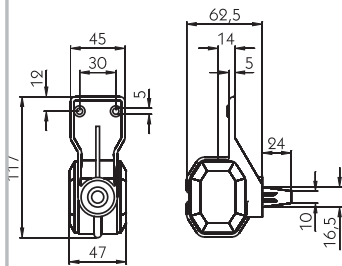
LED [colour]	Cable length [mm]	Type	Weight [kg]	
Red/white	1850	left	0.24	127552073
Red/white	1850	right	0.24	127552074



Superpoint LED
Outline marker light 24 V, short
version, LED red/white, ©0791,
connection P&R system to cable
2000 mm, weight 0.19 kg.

204552018

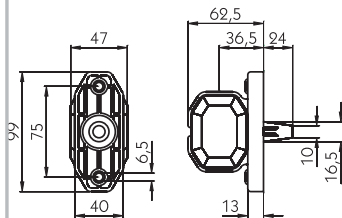




Superpoint LED

Outline marker light 24 V with pendulum holder, LED red/white, Ⓢ0791, connection P&R system to cable 2000 mm, weight 0.17 kg.

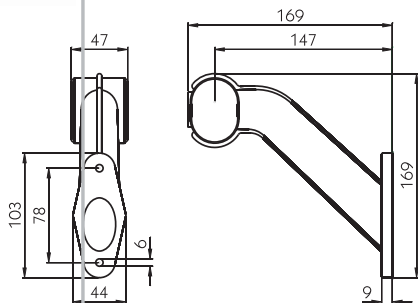
204552019



Superpoint LED

Outline marker light 24 V, surface mounted version, LED red/white, Ⓢ0791, connection P&R system to cable 2000 mm, weight 0.18 kg.

204552020



Superpoint II

Outline marker light 24 V, Ⓢ5315, connection ASS1 to cable.

Lens [colour]	Cable length [mm]	Type	Weight [kg]	
Red/white/amber	1750	left	0.43	127551931
Red/white/amber	1750	right	0.43	127551932
Black/white/amber	1750	left	0.43	127551933
Black/white/amber	1750	right	0.43	127551934



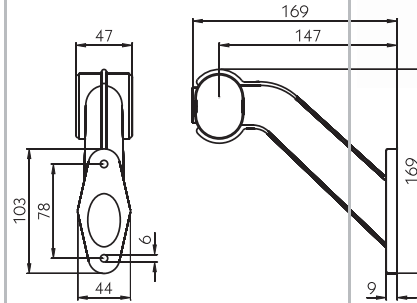
Superpoint II

Outline marker light 24 V, Spar part for Ecopoint rear lights, Ⓢ5315.

Lens [colour]	Type	
Red/white/amber	left	127551965
Red/white/amber	right	127551966

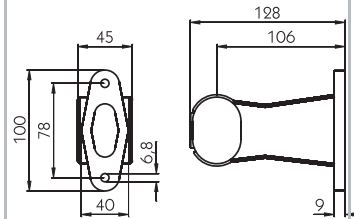
Superpoint II
Outline marker light 24 V, ©5315,
connection P&R system.

Lens [colour]	Cable length [mm]	Type	Weight [kg]	
Red/white/amber	1250	left	0.29	127551711
Red/white/amber	1250	right	0.29	127551710
Black/white/amber	1250	left	0.29	127551935
Black/white/amber	1250	right	0.29	127551936



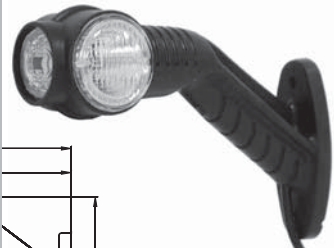
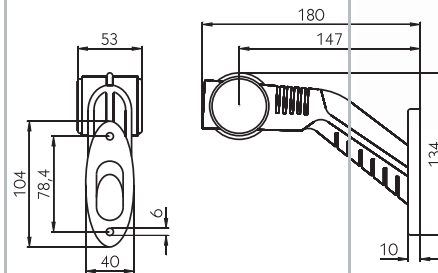
Superpoint II
Outline marker light 24 V, short
version, lens red/white/amber,
©5315, connection P&R system.

Cable length [mm]	Weight [kg]	
500	0.14	127551599
1500	0.20	127551600
2000	0.23	127552131



Superpoint III LED
Outline marker light 24 V, LED red/
white/amber, ©1469, connection
P&R system to cable 1250 mm,
weight 0.21 kg.

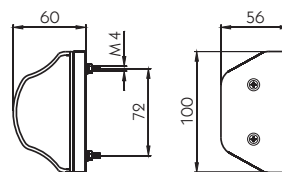
Type	
Left	127552146
Right	127552147

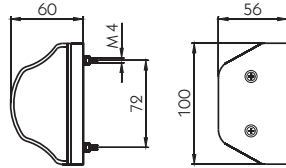


Number plate lights 24 V

Regpoint
Number plate light 24 V, lens
white, ©4127, connection ASS1
to cable.

Cable length [mm]	Weight [kg]	
500	0.11	127551824
2000	0.20	127551927
2500	0.23	127551825





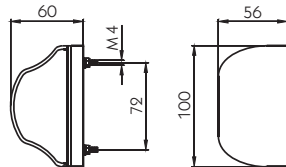
Regpoint

Number plate light 24 V, lens white, Ⓢ4127, connection P&R system.

Cable length [mm]	Weight [kg]
500	0.11
2000	0.20

127551728

127551928



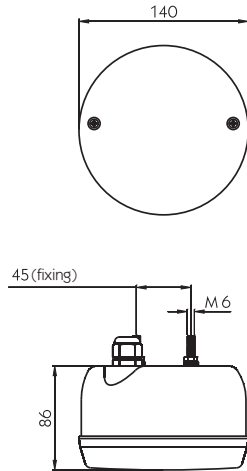
Regpoint LED

Number plate light 24 V, LED white Ⓢ0636, connection ASS1 to cable 500 mm, weight 0.16 kg.

127552236



Rear fog lights 24 V

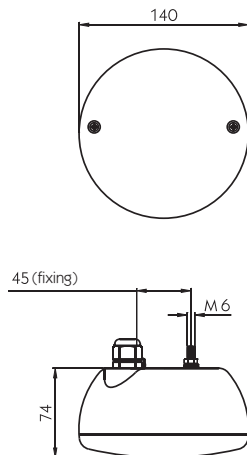


Rear fog light

24 V, connection ASS1 to cable 1200 mm, Ⓢ5520, weight 0.46 kg.

Rear fog light

127552184



Rear fog light LED

24 V, connection ASS1 to cable 1500 mm, Ⓢ1051, weight 0.51 kg.

Rear fog light LED

127552181

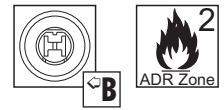
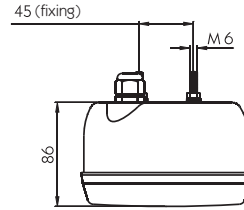
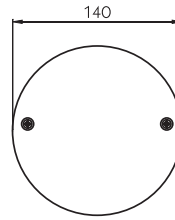


Rear light

Reversing light
24 V, connection ASS1 to cable
1200 mm, €5520, weight
0.46 kg.

127552183

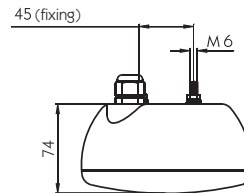
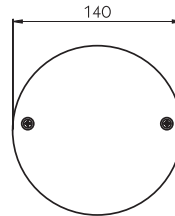
Reversing lights 24 V




Rear light LED

Reversing light LED
24 V, connection ASS1 to cable
1500 mm, €1163, weight
0.52 kg.

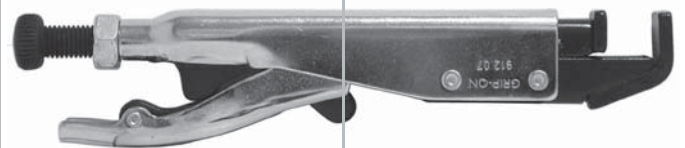
127552182

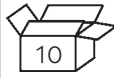
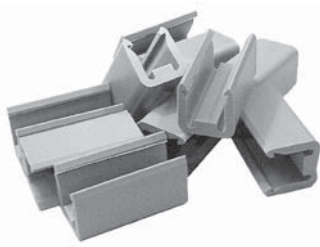


 Suer stringently specifies using these pliers when fitting the P&R system. The clamping action of the pliers is factory set and may not be altered. Claims against the system which arise through incorrect fitting (e.g. not using the pliers), will not be recognised.

Mounting pliers for P&R system
Weight 0.44 kg.
127551296

Accessories 24 V

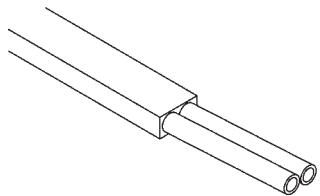




Fitting sleeves for P&R system

Weight 0.005 kg.

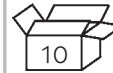
127551384



Flat cable in rolls

For P&R system, PVC cable in roll 200 m, partial ADR-Zone 2, weight 0.06 kg/m.

Wire-Ø [mm ²]	Cable-Ø [mm]	
2 x 1.5	6.6 x 3.9	127551409
2 x 1.5	6.6 x 3.9	127551383



Cable end boot

For sealing cables, including cable tie, weight 0.051.

- ① Cable end boot for flat cable P&R **127551494**
- ② Cable end boot round **127551743**



This supply cable serves to provide extra lighting wired side light 58 L/58 R. Only pin 7 and pin 3 (earth) have been allocated.



Supply cable 7-pole socket

Socket in accordance to DIN 1724.

Cable length [mm]	Weight [kg]	
500	0.25	127551847



Connection cable P&R system

Cable length [mm]	Weight [kg]	
500	0.03	127551846



Extension cable 7-pole bajonet

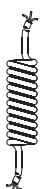
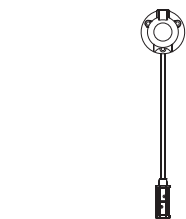
Cable length [mm]	Weight [kg]	
3000	0.37	127552008



Helix cable

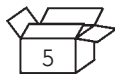
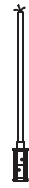
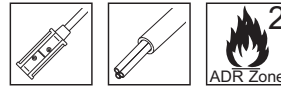
11-pole, without plug, 7 x 1 + 1 x 1.5 + 3 x 2.5 mm.

Cable length [mm]	Weight [kg]	
850	0.82	245511467



2-pole feed cable for P&R system

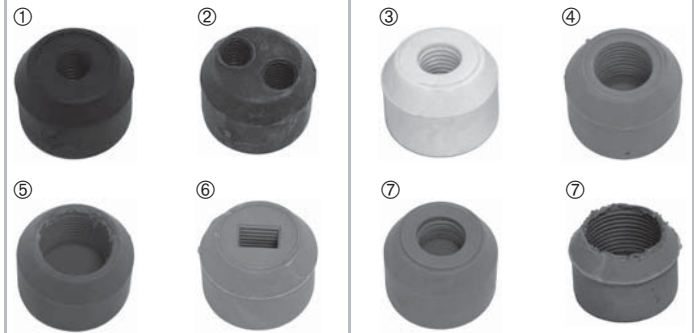
Cable length [mm]	Weight [kg]	
500	0.03	127551310
1500	0.10	127551311
3500	0.22	127551339
5000	0.32	127551426



Sealing plugs
For ASS1 distribution box.

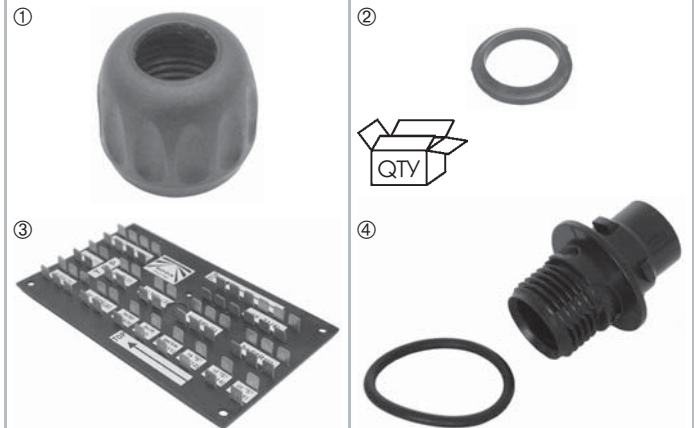
Colour	For cable Ø [mm]	
① Black	6	127551396
② Brown	2 x 6	127551397
③ White	8	127551398
④ Blue	10	127551399
⑤ Red	12	127551400
⑥ Grey, for flat cable P&R		127551685
⑦ Green, for locking		127551681
⑧ Amber	14	127551977

Spare parts for lighting systems and lights 24 V
Spare parts for distribution box ASS1



Spare parts for ASS1 distribution box

Description	Ø [mm]	QTY (per pack)	Illustration	
Gland nut	13	5	①	127551682
Gland nut	14.5	1	①	127551975
Slip ring for cable boot		10	②	127551684
Slip ring for nut		1	②	127551976
Distribution card		1	③	127551683
Rack 2-pole, with O-ring		1	④	127552122
Rack 7-pole, with O-ring		1	④	127552123



Connection cable for ASS1 distribution box
With connection plug LM 20, cable length 500 mm.
127551843



Lighting spare parts box and repair boxes



Spare parts box ASS 1

Included in the supply are:

- 50 cable ties 142 x 3.8 mm
- 1 Test lamp
- 1 distribution card
- 10 slip rings for distribution box cable boots
- 5 each of sealing plugs in green, blue, black and amber
- 5 each of cable boots in grey, brown, white and red
- 1 blind nut set
- 1 PG insert, large
- 5 PG inserts, small
- 5 bayonet inserts, 2-pole
- 5 plug inserts, 2-pole
- 5 cable gland nuts for 7-pole sockets
- 1 each of 7-pole plug body in amber, green, white and black
- 100 female spade connectors 1.0 - 2.5 mm²
- 100 male spade connectors 0.8 - 2.1 mm²
- 100 contact pins 0.5 - 2.1 mm²
- 10 O-rings, small, for distribution box
- 10 O-rings, large, for distribution box
- 5 distribution box lid seals
- 10 distribution box lid screws
- 5 rubber cable boots
- 5 sockets for 2-pole plugs ASS1

- 5 cable boots for 2-pole bayonet connectors
- 5 cable boots for 2-pole connectors with twin output
- 5 slip rings for gland nut
- 5 slip rings for gland nut (7-pole)
- 5 slip rings for gland nut M 34
- 100 contact sockets 0.5 - 2.1 mm²
- 5 boots for 7-pole Europoint connector
- 5 cable gland nuts for 7-pole sockets
- 5 cable gland nuts M 34
- 5 plugs for 7-pole Europoint connector
- 1 bayonet insert, 7-pole, black
- 1 Bayonet insert, 7-pole, white
- 5 backing ring for 15-pole strain relief cable boots
- 5 connectors for 2-pole sockets, black
- 5 connectors for 2-pole pins, black
- 5 connectors for 8-pole sockets, black
- 5 connectors for 8-pole pins, black
- 5 connectors for 15-pole sockets, black
- 5 connectors for 15-pole pins, black
- 5 strain relief boots for 8-pole connectors with single output
- 5 strain relief boots for 15-pole connectors with single output

No longer available

127551502

Repair box side marker lights

Included in the supply are:

- 1 parallel pliers for P&R system
- 1 crimping pliers for all contacts
- 5 repair kit ASS1 for flat and round cable
- 20 female spade connectors with detent
- 20 male spade connectors with detent
- 5 protective cover for Valeo bracket
- 5 bracket, Valeo type
- 10 cable end boot for P&R flat cable
- 50 cable ties
- 20 fitting sleeves for P&R system
- 10 end caps for round cable

- 5 amber lens amber for Flatpoint LED side marker lights, including screws
- 5 Flatpoint LED side marker lights with mounting bracket, in single parts
- 5 Flatpoint LED side marker lights, recessed version, in single parts
- 2 Flatpoint LED position lights, recessed version, in single parts
- 5 2-pole feed cables for P&R system, cable length 500 mm
- 5 2-pole feed cables for P&R system, cable length 1500 mm

127551696

Repair box lighting set

Supply includes (in addition to the complete contents of the repair box SML **127551696**):

- 1 7-pole plug DIN 1185, light alloy
- 1 7-pole plug DIN 3731, light alloy
- 1 15-pole plug ISO 12098, plastic
- 2 lenses, red/white for Superpoint Outline marker light
- 2 lenses, black/white for Superpoint Outline marker light
- 1 lens for Europoint rear light
- 1 Europoint rear light, left, PG version
- 1 Europoint rear light, right, PG version

- 1 Regpoint number plate light, PG version
- 2 2-pole feed cables with bulb holders for side marker, position or outline marker lights, cable length 1000 mm.
- 1 ASS1 junction box, without wiring
- 1 socket distribution box with sockets: 1 x 15-pole to ISO 12098 and 2 x 7-pole to DIN 3731 and DIN 1185, internally wired

127551697

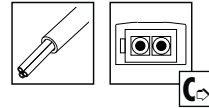
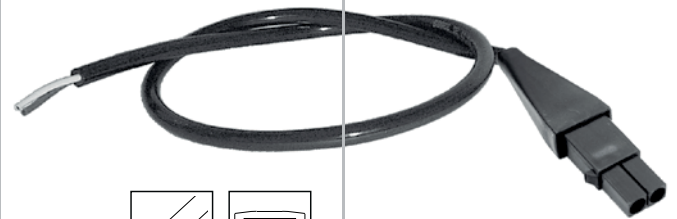


Feed cables

Cable length [mm]	Weight [kg]
800	0.06
2600	0.18

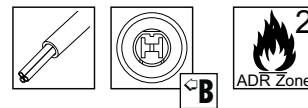
2-pole feed cable with plug connection (12 V)

127551652
127551653



These loose, 2-core feed cables are used e.g. for connecting a reversing lamp to the wired central connector "S"/"N"31 on the ASS1 distribution box. Please note that not all basic kits have this connection.

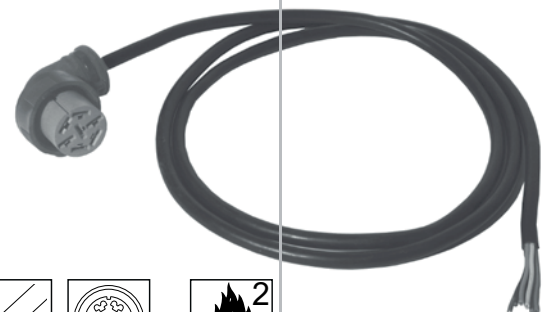
2-pole feed cable for central connector ASS1
Cable length approx. 7000 mm, weight 0.45 kg.
127551486



7-pole feed cable for central connection ASS1

Type	Cable length [mm]	Weight [kg]
Left	3000	0.26
Right	3000	0.26

127551844
127551845



Bulb holders

Bulb holder
Bayonet type with terminals, for outline marker lights Superpoint and Superpoint short.
127551597





Bulb holder

Bayonet type with terminals and 90° boot, for side marker and position lights (filament bulb version) and Starpoint outline marker and position lights.

127551596

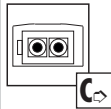


Bulb holder with flying lead

For rear lights with end outline marker Superpoint (filament bulb version), length 490 mm, weight 0.04 kg.

127551722

Socket housings and pin housings



Plug connection, 2-pole
127551615



Socket housing, 2-pole plug ASS1

Union nut with contact socket and boot.

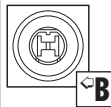
Connection for supply cable from outline marker and number plate lights with central connection for junction box ASS1.

Colour

Amber **127551390**

Green **127551391**

Black **127551392**



Bayonet coupling set socket

127551868

Included in the supply are:
2 sockets, 1 gland nut, 1 locking piece, 1 cable tie, 1 plug body socket and 1 single boot.

Included in the supply are:
2 plugs, 1 gland nut, 1 locking piece, 1 cable tie, 1 plug body plug and 1 single boot.

Bayonet coupling set plug
127551867



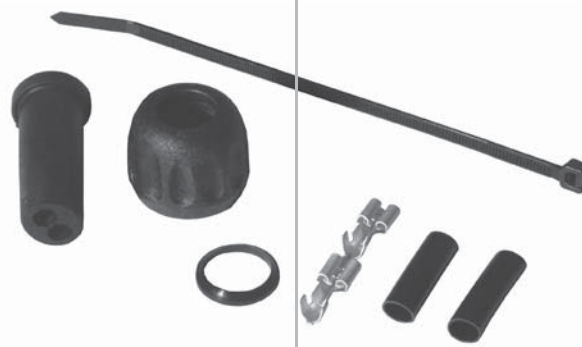
Included in the supply are:
2 female spade connectors, 1 nut, 1 slip ring, 1 cable tie and 1 single boot.

Connecting plug set
With single boot for "Unipoint".
127551872



Included in the supply are:
2 female spade connectors, 1 nut, 1 slip ring, 1 cable tie and 1 double boot.

Connecting plug set
With double boot for "Unipoint".
127551873



Included in the supply are:
2 female spade connectors, 1 nut, 1 slip ring, 1 boot, 1 cable tie and 1 contact housing.

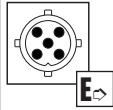
Repair kit for Flatpoint LED light
127551785



Socket housing, 5-pole plug bajonet
Bayonet connector with contact socket and boot.



Colour	
Amber	127551594
Green	127551595
Black	127551631



Pin housing 5-pole plug bajonet

Bayonet connector with pin housing and boot.

127551602

All socket and pin housings as well the holders are supplied not as illustrated, but in a simple to assemble set.



Socket housing, 7-pole plug ASS1

Union nut with contact socket 90° boot.

Colour

Amber **127551393**

Green **127551394**

Black **127551395**



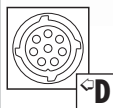
Pin housing 7-pole plug ASS1

Bayonet connector with pin housing and boot.

Colour

Green **127552140**

Amber **127552141**



Socket housing 8-pole plug bajonet

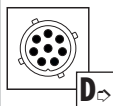
Bayonet connector with contact socket and boot.

Colour Illustration

Amber ① **127551495**

Green ① **127551496**

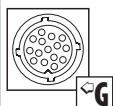
Black ② **127551389**



Pin housing 8-pole plug bajonet

Bayonet connector with pin housing and boot.

127551601



Socket housing 15-pole plug ASS1

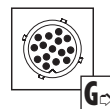
Bayonet connector (LM20) with contact socket and boot.

127551592

**Pin housing, 15-pole plug
ASS1**

Bayonet connector (LM30) with
pin housing and boot.

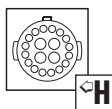
127551593



Included in the supply are:
20 sockets, 2 metal jubilee clips,
1 cable tie, 1 plug body socket
and 4 boots including metal jubi-
lee clips with different openings.

**Socket repair kit ASS3
(LP20).**

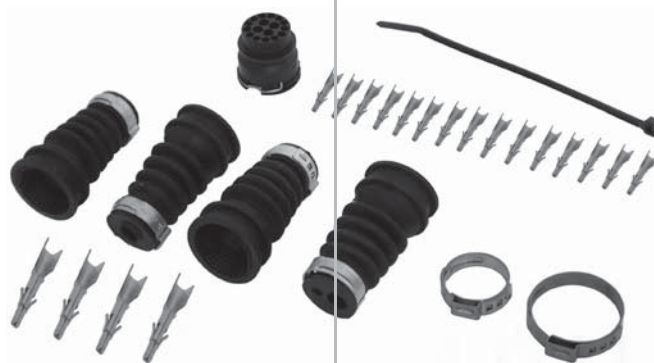
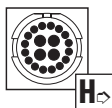
127552153



Included in the supply are:
20 pins, 2 metal jubilee clips,
1 cable tie, 1 plug body pin,
contact lubricant and 4 boots
including metal jubilee clips with
different openings.

**Plug repair set ASS3
(LP30).**

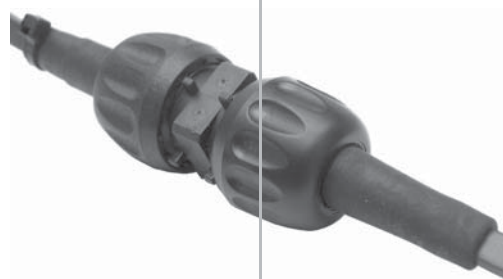
127552154



Connection set/repair set


For connecting 2 2-pole flat and/
or round cables, all parts loose,
weight 0.005 kg.

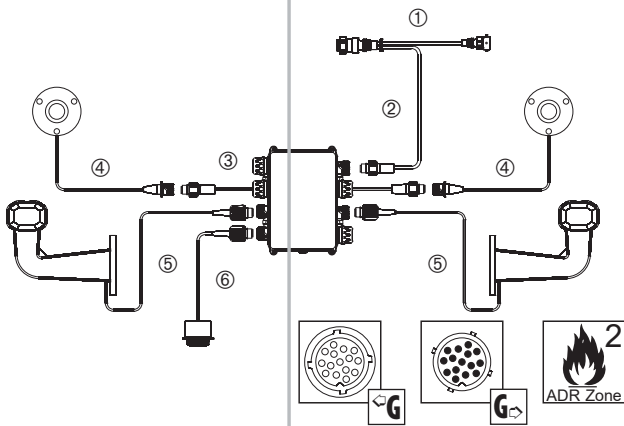
127551680



The connection set is shown assembled in the
illustration.

Ramp distance control 24 V

 The loading ramp approach systems are not reversing systems. They cannot discern objects or persons in the area to the rear. The ultrasonic sensors only recognise solid objects such as docking ramps or buildings which extend over the entire width of the vehicle.



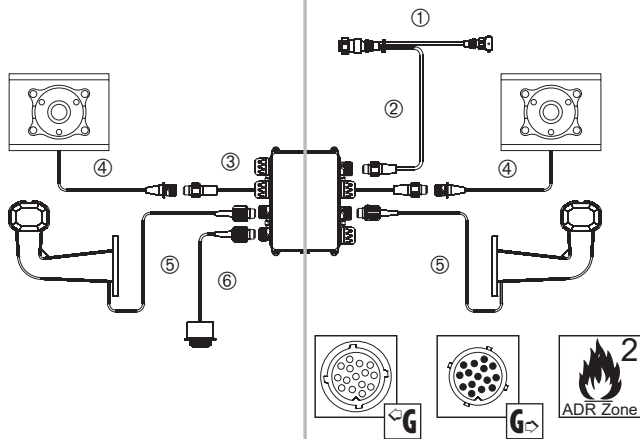
RDC

In lighting systems the ramp distance control system (RDC) has to be mounted between the main cable and the distribution box ASS1.

- The warning system is controlled by 2 ultrasonic sensors, which can be activated by going into reverse.
- Optical warning by 2 Superpoint outline marker lights LED red/white. They start to blink in a distance less than 3 m.
- Acoustic warning signal by a beeper. Through double put in of the reverse gear you activate the night disconnection of the warning signal in 2 seconds.
- EMV-checked.

Cable length ① main cable to distribution box [mm]	Cable length ② RDC to main cable [mm]	Cable length ③ input sensor [mm]	Cable length ④ sensor [mm]	Cable length ⑤ Superpoint LED [mm]	Cable length ⑥ beeper [mm]	Weight [kg]	
200	820	960	1400	2000	4000	2.51	127552003

No longer available



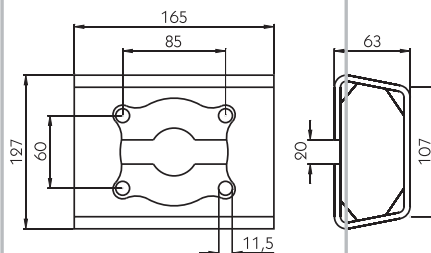
RDC

In lighting systems the ramp distance control system (RDC) has to be mounted between the main cable and the distribution box ASS1.

- The warning system is controlled by 2 ultrasonic sensors, which can be activated by going into reverse. Sensors are protected in steel ram buffers.
- Optical warning by 2 Superpoint outline marker lights LED red/white. They start to blink in a distance less than 3 m.
- Acoustic warning signal by a beeper. Through double put in of the reverse gear you activate the night disconnection of the warning signal in 2 seconds.
- EMV-checked.

Cable length ① main cable to distribution box [mm]	Cable length ② RDC to main cable [mm]	Cable length ③ input sensor [mm]	Cable length ④ sensor [mm]	Cable length ⑤ Superpoint LED [mm]	Cable length ⑥ beeper [mm]	Weight [kg]	
200	820	960	1400	2000	4000	6.75	127552004

Accessories/spare parts

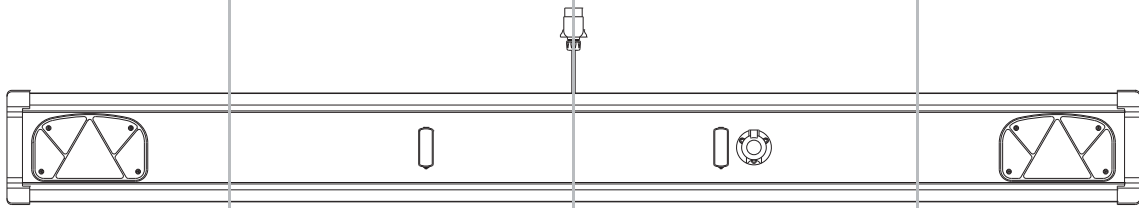


Steel ram buffer

Steel zinc plated, weight 2.12 kg.

127552005

Lighting systems 12 V
Underrun guard with
12 V lighting equipment



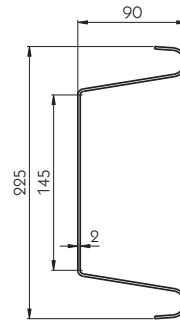
Steel underrun guard with
rear light Multipoint II
Included in the supply are:

- 1 Underrun guard, length 2300 mm, with plastic end caps. Underrun guard zinc plated, with 15 mm fixing holes.
- 1 Rear light Multipoint II without reverse driving light and number plate light. Rear fog light left. Number plate lights Regpoint Small. Connection cable with 7-pole plug and socket in accordance with DIN/ISO 1724.

Weight 17 kg.

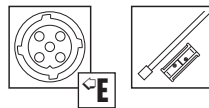
Type

Steel plated



204561394

Lighting systems



Lighting set 12 V

Without carrier.

Included in the supply are:

- 2 Rear lights Multipoint II without reverse driving light and number plate light. Rear fog light left.
- 2 Number plate lights Regpoint Small.
- 1 Connection cable with 7-pole plug and socket in accordance with DIN/ISO 1724.

Cable length ①
Connection cable
[mm]

Cable length ②
Rear light left
[mm]

Cable length ③
Rear light right
[mm]

Cable length ④
DC system
[mm]

Cable length ⑤
Regpoint Small
[mm]

9000

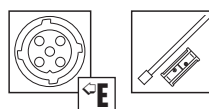
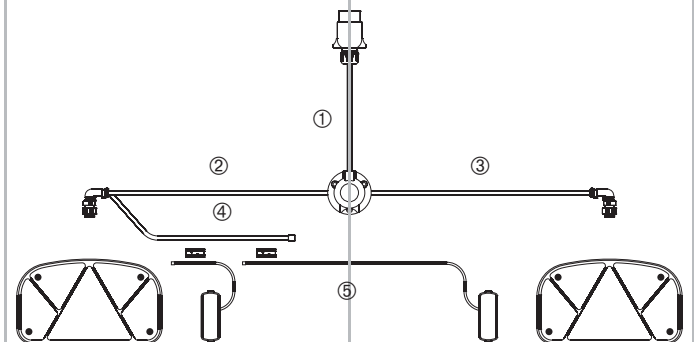
1500

750

250

800

127552130



Lighting set 12 V

Without carrier.

Included in the supply are:

- 2 Rear lights Earpoint III without reverse driving light and number plate light. Rear fog light left.
- 2 Number plate lights Regpoint.
- 1 Connection cable with 13-pole plug in accordance with DIN/ISO 11446.

Cable length ①
Connection cable
[mm]

Cable length ②
DC system
[mm]

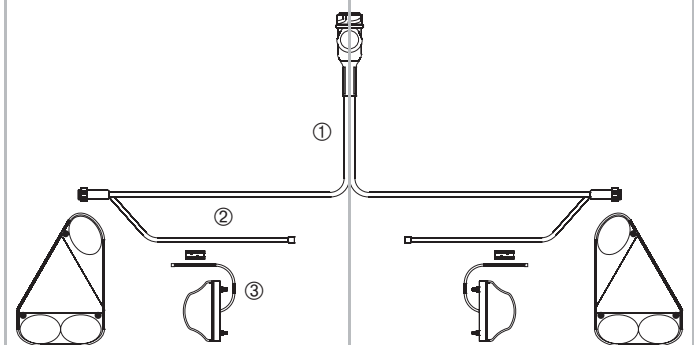
Cable length ③
Regpoint
[mm]

5000

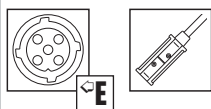
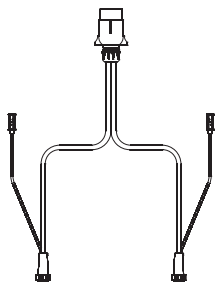
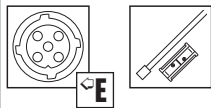
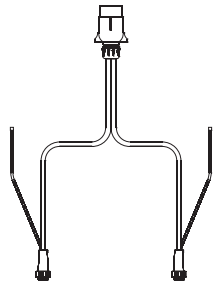
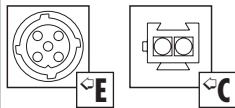
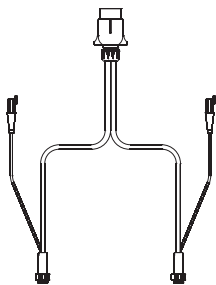
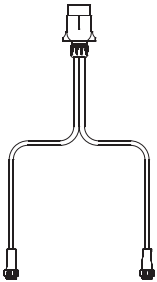
200

800

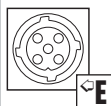
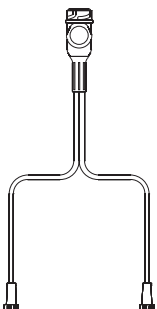
127552180



Supply cable 12 V
7-pole in accordance
with DIN/ISO 1724



13-pole in accordance
with DIN/ISO 11446



Supply cable 7-pole plug
To DIN/ISO 1724.

Cable length [mm]	Weight [kg]	
4000	0.42	127551501
4500	0.45	127551590
5000	0.48	245551232
6000	0.54	127551589
7000	0.61	245551233
8000	0.67	127551591

Supply cable 7-pole plug
To DIN/ISO 1724, with 2 auxiliary
2-pole outputs.

Cable length [mm]	Weight [kg]	
5000	0.49	127551654
7000	0.62	245551291
8000	0.68	245551234

Supply cable 7-pole plug
To DIN/ISO 1724, with 2 auxiliary
DC outputs.

Cable length [mm]	Weight [kg]	
5000	0.49	127551884
7500	0.74	127551885
9500	0.88	127551886

Supply cable 7-pole plug
To DIN/ISO 1724, with 2 auxiliary
P&R outputs.

Cable length [mm]	Weight [kg]	
6000	0.55	127551662
8500	0.83	127551575
10000	0.93	127551663

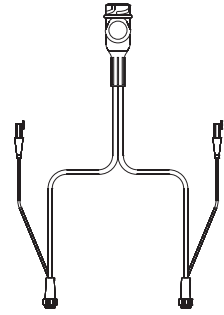
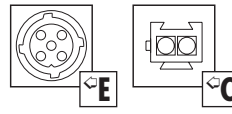
Supply cable 13-pole
plug
To DIN/ISO 11446.

Cable length [mm]	Weight [kg]	
4200	0.49	127552026
5000	0.55	245551235
6100	0.61	127551588
8000	0.85	127551676

No longer available

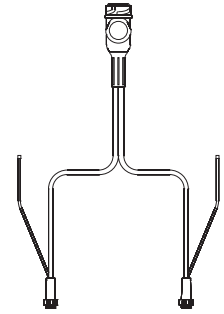
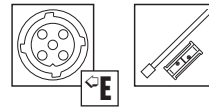
Supply cable 13-pole plug
To DIN/ISO 11446, with 2 auxiliary 2-pole outputs.

Cable length [mm]	Weight [kg]	
7000	0.68	245551236
8000	0.78	127551726



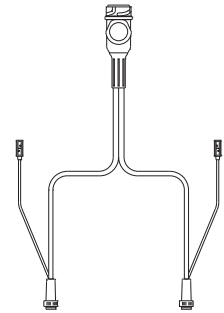
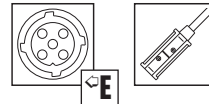
Supply cable 13-pole plug
To DIN/ISO 11446, with 2 auxiliary DC outputs.

Cable length [mm]	Weight [kg]	
8000	0.78	127551887
10000	0.97	127551888



Supply cable 13-pole plug
To DIN/ISO 11446, with 2 auxiliary P&R outputs.

Cable length [mm]	Weight [kg]	
8500	0.83	127551576
11000	1.07	127551664



Rear lights 12 V

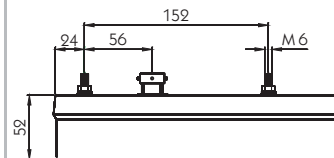
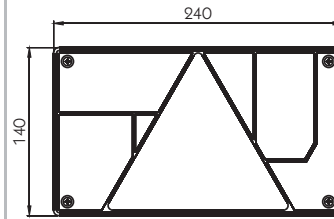
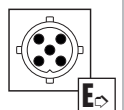


Illustration: left hand



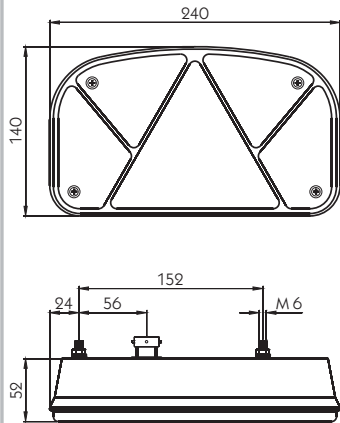
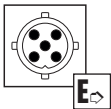
Number plate light inside.

Multipoint
Rear light 12 V with triangle reflector, connection Bajonet, ©5099, weight 0.59 kg.

Type	Turn signal light	Stop light	Rear fog light	Number plate light	Reverse driving light	Side marker light	Tail	Outline marker light	
Left	●	●	●	●			●		204551229
Right	●	●		●			●		204551230
Right	●	●		●	●		●		204551231



Illustration: left hand.



Multipoint II

Rear light 12 V with triangle reflector, connection Bajonet, weight 0.55 kg.

This light is certified several times:

Ⓔ1071, Ⓔ1072, Ⓔ1087, Ⓔ1094.

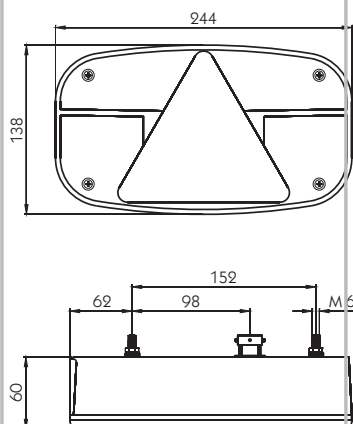
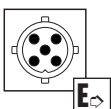
● Number plate light inside.

○ Number plate light below.

Type	Turn signal light	Stop light	Rear fog light	Number plate light	Reverse driving light	Side marker light	Tail	Outline marker light	
Left	●	●	●	●			●		127551715
Left	●	●	●	○			●		127551877
Right	●	●		●			●		127551716
Right	●	●		●	●		●		127551717



Illustration: left hand.



Multipoint III

Rear light 12 V with triangle reflector, connection Bajonet, Ⓔ10661, weight 0.53 kg.

Number plate light inside.

Type	Turn signal light	Stop light	Rear fog light	Number plate light	Reverse driving light	Side marker light	Tail	Outline marker light	
Left	●	●	●	●			●		127552022
Right	●	●		●	●		●		127552023

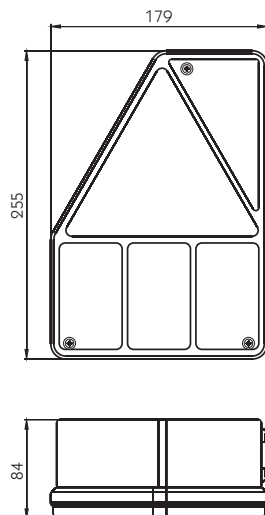


Illustration: left hand.



Earpoint

Rear light 12 V with triangle reflector, connection Bajonet, ©1057, weight 0.75 kg.

Type	Turn signal light	Stop light	Rear fog light	Number plate light	Reverse driving light	Side marker light	Tail	Outline marker light	
Left	●	●	●				●		127551641
Right	●	●					●		127551642
Right	●	●			●		●		127551656

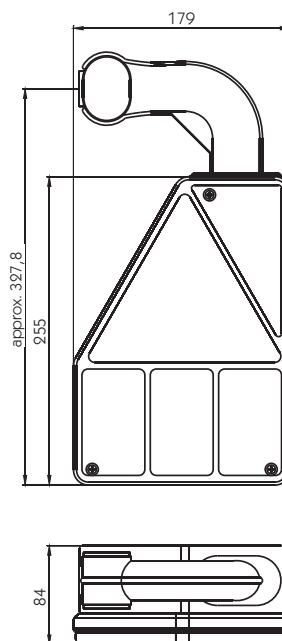
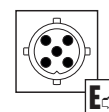


Illustration: left hand.



Earpoint

Rear light 12 V with end outline marker red/white and triangle reflector, connection Bajonet, ©1057, weight 0.95 kg.

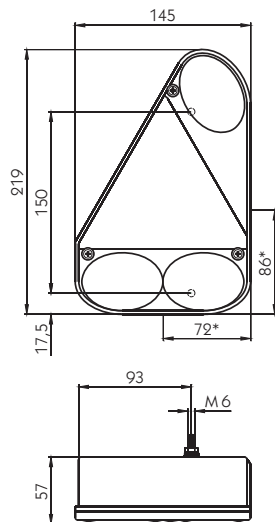
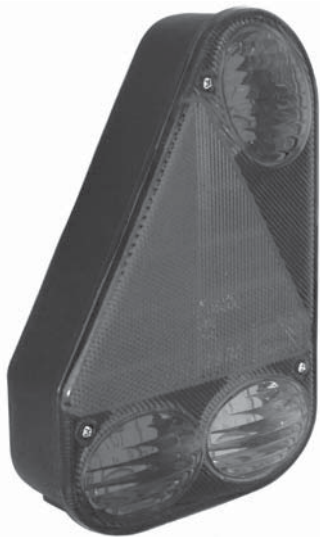
Type	Turn signal light	Stop light	Rear fog light	Number plate light	Reverse driving light	Side marker light	Tail	Outline marker light	
Left	●	●	●			●	●	●	127551643
Right	●	●				●	●	●	127551644
Right	●	●			●	●	●	●	127551714



Mounting rail Earpoint

Top hat profile rail with 2 threaded plates and 2 threaded studs M 6. Length of rail approx. 270 mm, aluminium self colour, weight 0.08 kg.

127551674

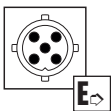


*centre mounting clip

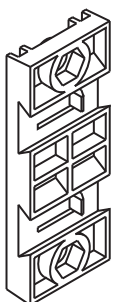
Earpoint III

Rear light 12 V with triangle reflector, ©10434, connection Bajonet, weight 0.41 kg.

Illustration: left hand.



Type	Turn signal light	Stop light	Rear fog light	Number plate light	Reverse driving light	Side marker light	Tail	Outline marker light
Left	●	●	●				●	127552160
Right	●	●					●	127552161
Right	●	●			●		●	127552162



Earpoint III mounting clip

Plastic plate for horizontal and vertical mounting. Outside dimensions approx. 40 x 104 x 12 mm, weight 0.02 kg.

127552072

- Number plate light inside.
- Number plate light below.

Midipoint
Rear light 12 V, connection Bajonet, weight 0.48 kg.

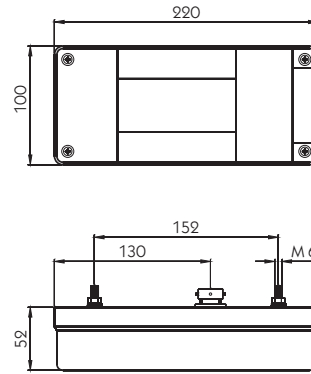
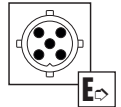


Illustration: left hand.



Type	Turn signal light	Stop light	Rear fog light	Number plate light	Reverse driving light	Side marker light	Tail	Outline marker light	
Left	●	●	●	●			●		127551492
Left	●	●	●	○			●		127551381
Right	●	●		●			●		127551380
Right	●	●		●	●		●		127551509

Number plate light inside.

Midipoint II
Rear light 12 V, Ⓢ000472, connection Bajonet, weight 0.48 kg.

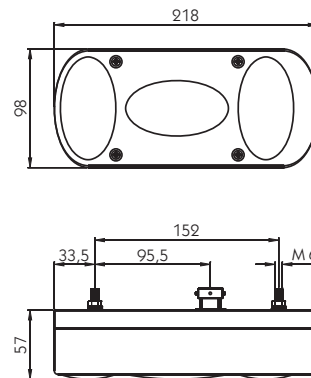
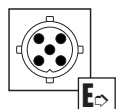


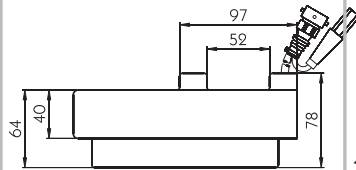
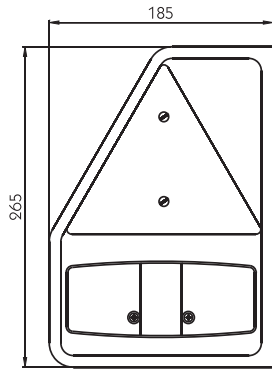
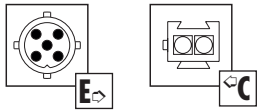
Illustration: left hand.



Type	Turn signal light	Stop light	Rear fog light	Number plate light	Reverse driving light	Side marker light	Tail	Outline marker light	
Left	●	●	●	●			●		127552922
Right	●	●		●	●		●		127552923



Illustration: left hand.



3-chamber light with carrier

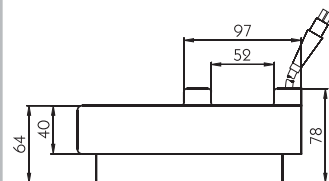
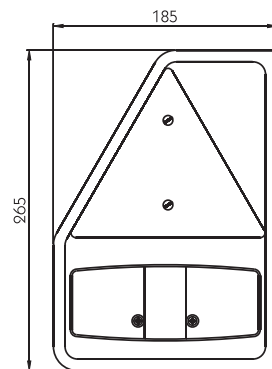
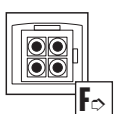
Rear light 12 V with carrier and triangle reflector, connection Bajonet and plug connector to cable 400 mm, weight 0.78 kg.

● This light can be connected with the plug connector.

Type	Turn signal light	Stop light	Rear fog light	Number plate light	Reverse driving light	Side marker light	Tail	Outline marker light	
Left	●	●	○				●		127551539
Right	●	●			○		●		127551540



Illustration: left hand.



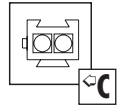
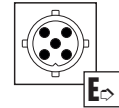
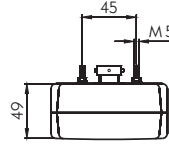
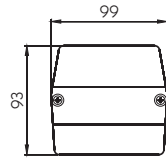
3-chamber light with carrier

Rear light 12 V with carrier and triangle reflector, connection plug connector to cable 1150 mm, weight 0.80 kg.

Type	Turn signal light	Stop light	Rear fog light	Number plate light	Reverse driving light	Side marker light	Tail	Outline marker light	
Left	●	●					●		204551275
Right	●	●					●		204551276

Number plate light below.
● This light can be connected with the plug connector.

Minipoint
Rear light 12 V, connection Bajonet, weight 0.17 kg.



Type	Turn signal light	Stop light	Rear fog light	Number plate light	Reverse driving light	Side marker light	Tail	Outline marker light	
Standard	●	●					●		127551903
Standard	●	●		●			●		127551720
Output NSL	●	●	○	●			●		127551914

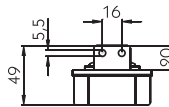
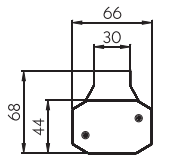
Position lights 12 V

Flexipoint
Position light 12 V, lens white, ©5332, weight 0.08 kg, connection P&R system.

Cable length [mm]

500

127551955



Flatpoint II LED
Position light 12 V, surface mounted version with fixing bracket, LED white, ©5499, connection DC system.

Cable length [mm]

500

Weight [kg]

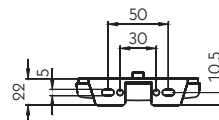
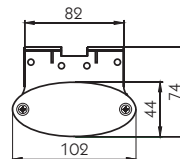
0.08

127552121

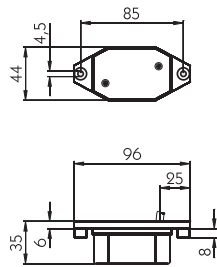
1500

0.18

127552167



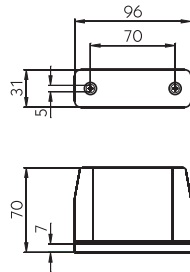
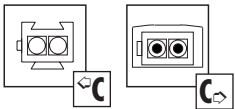
Side marker lights 12 V



Flexipoint

Side marker light 12 V, lens amber, Ⓔ5332, connection DC system

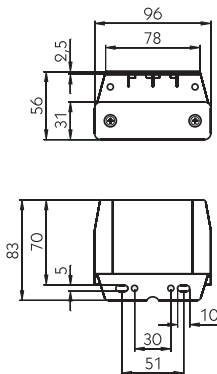
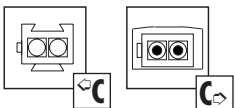
Cable length [mm]	Weight [kg]	
250	0.07	127551879



Side marker light

12 V recessed version with protection cover, lens amber, Ⓔ9592, connection 2-pole plug, weight 0.26 kg.

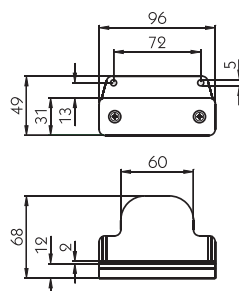
	Cable length input [mm]	Cable length output [mm]	
Side marker light	3000	100	127551508



Side marker light

12 V surface mounted version with fixing bracket, lens amber, Ⓔ9592, connection 2-pole plug, weight 0.27 kg.

	Cable length input [mm]	Cable length output [mm]	
Side marker light	3000	100	127551507



Side marker light LED

12 V, surface mounted version with fixing bracket, lens amber, Ⓔ5247 and Ⓔ0006, connection P&R system.

Cable length [mm]	Weight [kg]	
1000	0.12	127551632

Flatpoint LED

Side marker light 12 V, surface mounted version with fixing bracket, LED amber, ©5247 and ©0006, connection P&R system.

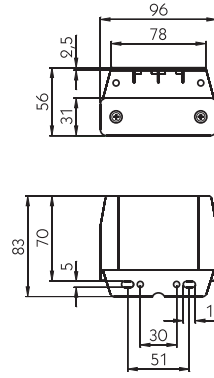
Cable length
[mm]

500

Weight
[kg]

0.09

127551699



Flatpoint II LED

Side marker light 12 V, surface mounted version with fixing bracket, LED amber, ©5499, connection DC system.

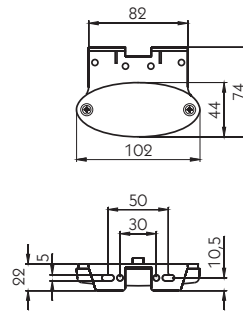
Cable length
[mm]

1000

Weight
[kg]

0.10

127552059



Outline marker lights 12 V

Outline marker light

Outline marker light 12 V, lens red/white, ©31407, connection plug connector to cable.

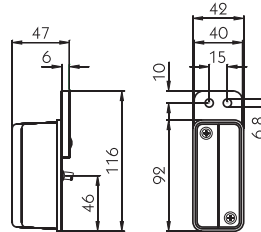
Cable length
[mm]

2000

Weight
[kg]

0.15

127551506



Flexipoint

Outline marker light 12 V, lens red/white, ©5332, weight 0.04 kg, connection P&R system.

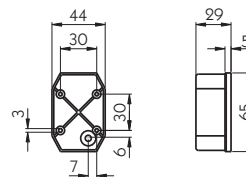
Cable length
[mm]

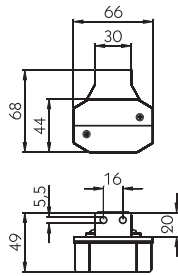
500

Weight
[kg]

0.04

127551703





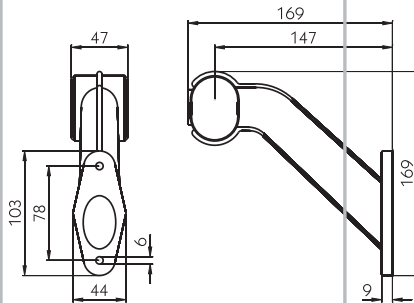
Flexipoint

Outline marker light 12 V, lens red/white, Ⓢ5332, weight 0.08 kg, connection P&R system.

Cable length [mm]

500

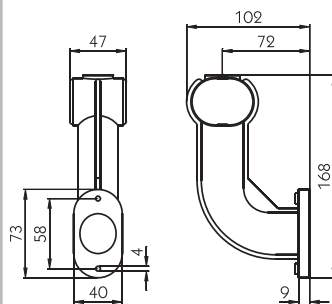
127552076



Superpoint II

Outline marker light 12 V, Ⓢ5315, connection DC system.

Lens [colour]	Cable length [mm]	Type	Weight [kg]	
Red/white/amber	860	left	0.25	127551889
Red/white/amber	860	right	0.25	127551890



Superpoint II

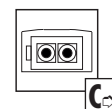
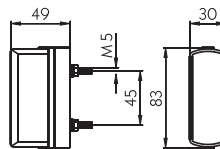
Outline marker light 12 V, version Earpoint, Ⓢ5315, connection DC system.

Lens [colour]	Cable length [mm]	Type	Weight [kg]	
Red/white/amber	900	left	0.14	127551894
Red/white/amber	900	right	0.14	127551893

Number plate lights 12 V

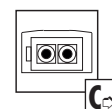
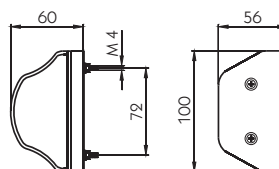
Regpoint Small
Number plate light 12 V, lens white, Ⓢ4127, connection plug connector.

Cable length [mm]	Weight [kg]	
500	0.08	127551665



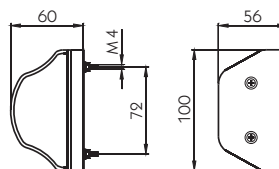
Regpoint
Number plate light 12 V, lens white, Ⓢ4127, connection plug connector.

Cable length [mm]	Weight [kg]	
500	0.11	127551929
1500	0.11	127551930



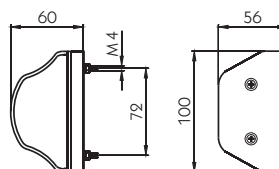
Regpoint
Number plate light 12 V, lens white, Ⓢ4127, connection DC system.

Cable length [mm]	Weight [kg]	
800	0.12	127551883

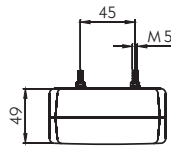
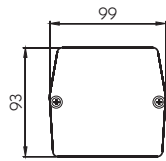
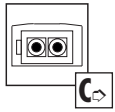


Regpoint
Number plate light 12 V, lens white, Ⓢ4127, connection P&R system.

Cable length [mm]	Weight [kg]	
250	0.10	127551731
500	0.11	127551705
1000	0.15	127551704



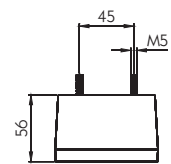
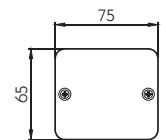
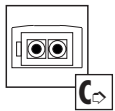
Rear fog lights 12 V



Rear fog light
12 V, with 2-pole plug connector,
lens red.

Cable length [mm]	Weight [kg]
1200	0.25

127551484

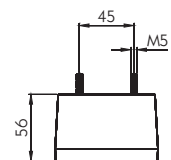
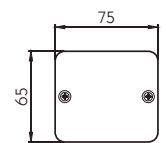
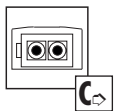


Fogpoint
Rear fog light 12 V, with 2-pole
plug connector, lens red.

Cable length [mm]	Weight [kg]
200	0.13

127551915

Reversing light 12 V

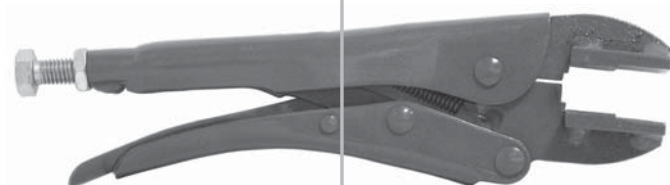


Reversing lamp
12 V, with 2-pole plug connector,
lens white.

Cable length [mm]	Weight [kg]
200	0.13

127551541

Accessories 12 V



Mounting pliers for DC
system

Weight 0.40 kg.

127551878

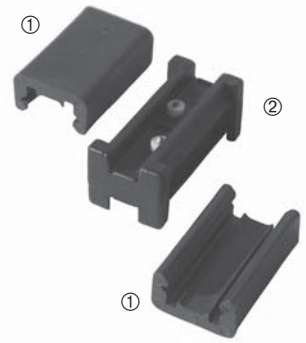


Suer stringently specifies using these pliers when fitting the DC system. The clamping action of the pliers is factory set and may not be altered. Claims against the system which arise through incorrect fitting (e.g. not using the pliers), will not be recognised.

DC connector

Included in the supply are 2 x fitting sleeves and 1 x DC connector, weight 0.06 kg.

127551881

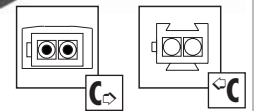
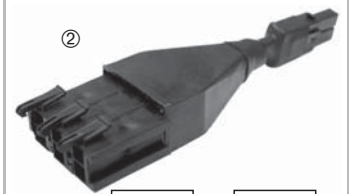
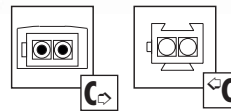
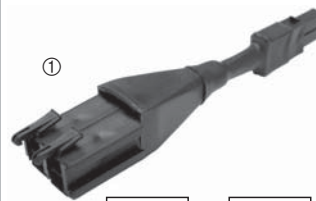


Cable junction box

Accessories to supply cable.

Weight [kg]

From 1 x 2-pole to 2 x 2-pole ①	0.010	127551510
From 1 x 2-pole to 3 x 2-pole ②	0.014	127551511

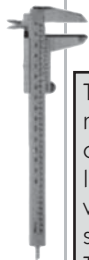
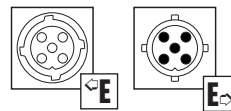


Extension cable 5-pole Bajonet

Cable length [mm]

Weight [kg]

2000	0.17	127552030
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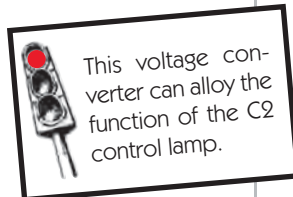
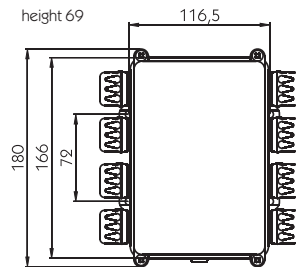


The voltage reduction equipment has been developed for operating trailers with 12 V lighting from a towing vehicle with 24 V on-board power supply. The following is valid only for voltage reduction equipment **127551577**: installation on either the towing vehicle or the trailer - no constant plus necessary. The equipment has automatic voltage recognition i.e., regardless of whether the input voltage is 12 V or 24 V, the output voltage will always be 12 V. Installation should always be on a metal surface in order to achieve the total capacity of 210 W.

Voltage converter 24 V to 12 V

For 7 lighting functions, mounted in a spray water and dust tight junction box, cable length each 900 mm, weight 0.90 kg.

127551577



This voltage converter can allow the function of the C2 control lamp.



Plug with double sleeve

Plastic, centre contact (58L) with contact sleeve, weight 0.08 kg.

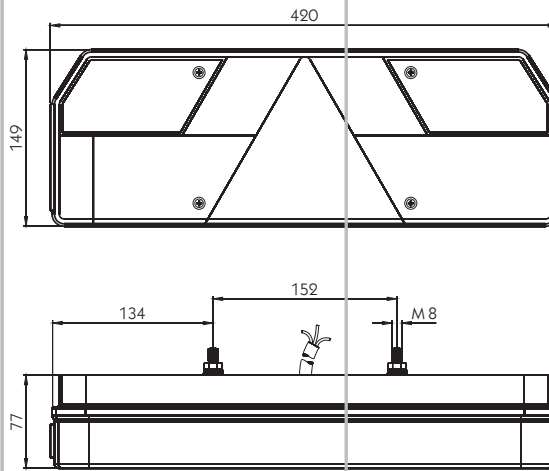
127551668



Individual lights Rear lights



Illustration: left hand.



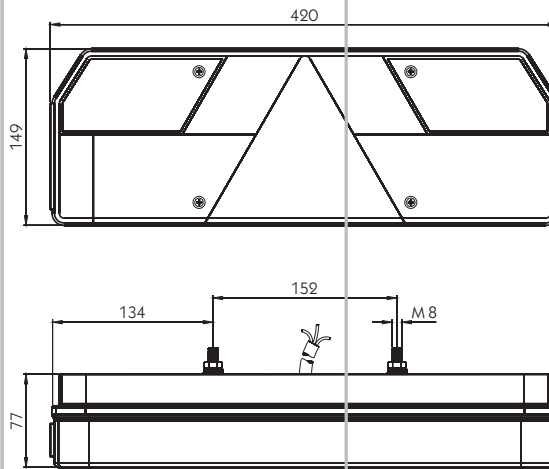
Number plate light below.

Europoint
Rear light 24 V with triangle reflector, connection cable 3000 mm, €5167, weight 1.30 kg.

Type	Turn signal light	Stop light	Rear fog light	Number plate light	Reverse driving light	Side marker light	Tail	Outline marker light	
Left	●	●	●		●	●	●	●	127551303
Left	●	●	●	●	●	●	●	●	127551568
Right	●	●	●		●	●	●	●	127551304



Illustration: left hand.



Europoint
Rear light 24 V with triangle reflector connection cable 3000 mm, €5167, weight 1.30 kg.

Type	Turn signal light	Stop light	Rear fog light	Number plate light	Reverse driving light	Side marker light	Tail	Outline marker light	
Left	●	●	●		●	●	●	●	127551348
Right	●	●	●		●	●	●	●	127551349

Number plate light below, bulbs are not included in the supply.

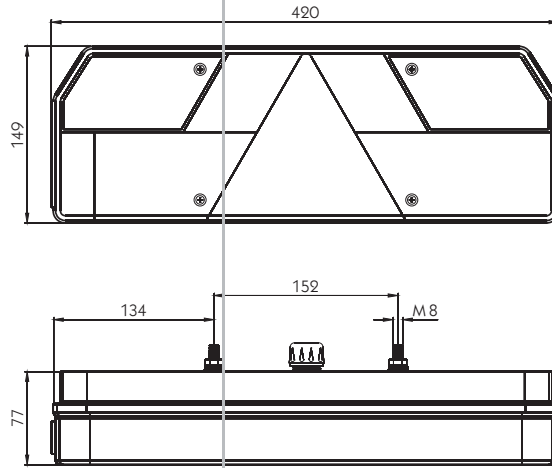


Illustration: left hand.



Europoint
Rear light 24 V with triangle reflector, not wired, connection PG threaded gland, €5167, weight 1.30 kg.

Type	Turn signal light	Stop light	Rear fog light	Number plate light	Reverse driving light	Side marker light	Tail	Outline marker light	
Left	●	●	●		●	●	●	●	127551407
Left	●	●	●	●	●	●	●	●	127551906
Right	●	●	●		●	●	●	●	127551408

Number plate light below, bulbs are not included in the supply.

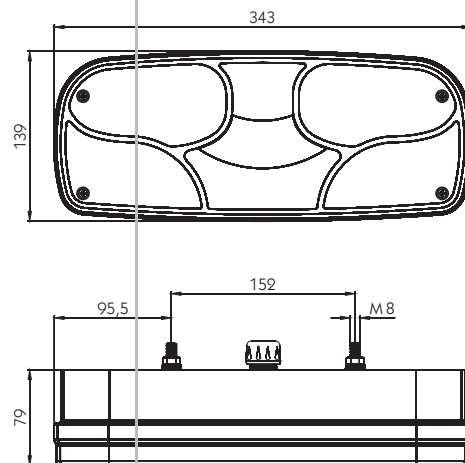


Illustration: left hand.

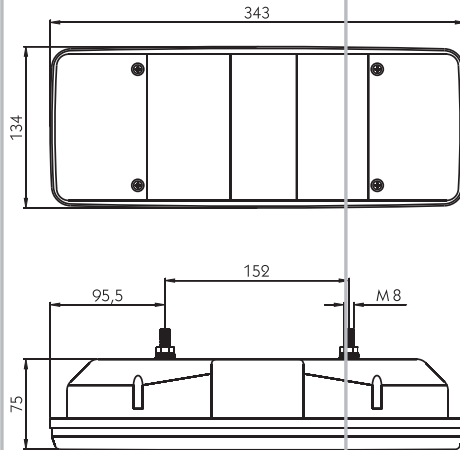


Ecopoint
Rear light 24 V, not wired, connection PG threaded gland, €5266, weight 1.00 kg.

Type	Turn signal light	Stop light	Rear fog light	Number plate light	Reverse driving light	Side marker light	Tail	Outline marker light	
Left	●	●	●		●		●		127551609
Right	●	●	●		●		●		127551610
Right	●	●	●	●	●		●		127551612



Illustration: left hand.

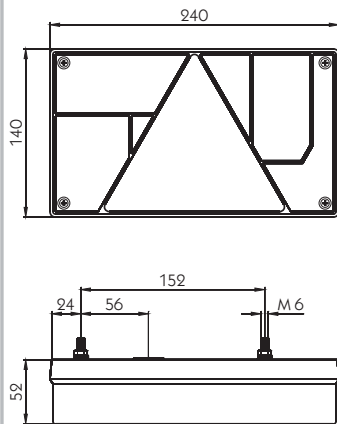


5-chamber light
Rear light with PG threaded gland,
€3178, weight 0.80 kg.

Type	Turn signal light	Stop light	Rear fog light	Number plate light	Reverse driving light	Side marker light	Tail	Outline marker light	
Left	●	●	●		●		●		204551152
Right	●	●	●		●		●		204551153



Illustration: left hand.



Multipoint
Rear light 12 V with triangle reflector, not wired, connection grommet, €5099, weight 0.59 kg.

Number plate light inside.

Type	Turn signal light	Stop light	Rear fog light	Number plate light	Reverse driving light	Side marker light	Tail	Outline marker light	
Left	●	●	●	●			●		127551666
Right	●	●	●	●	●		●		127551667

With LED, without bulbs.

● Lens LED.

Multipoint LED

Rear light 24 V with triangle reflector, not wired, connection PG threaded gland, €5186, weight 0.91 kg.

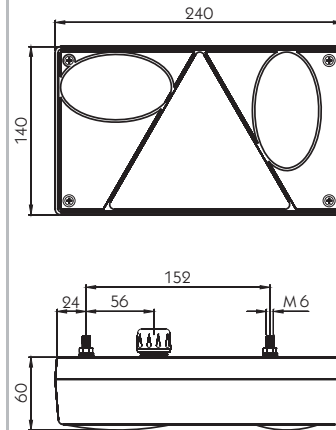


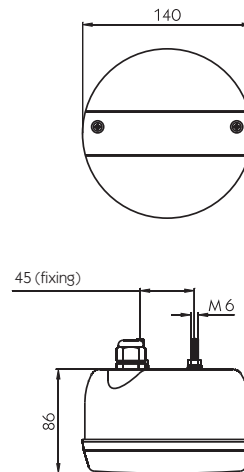
Illustration: left hand.



Type	Turn signal light	Stop light	Rear fog light	Number plate light	Reverse driving light	Side marker light	Tail	Outline marker light	
Left	●	○	●				○		127552032
Right	●	○					○		127552033

3-chamber light

Rear light with PG threaded gland, €5520, weight 0.42 kg.



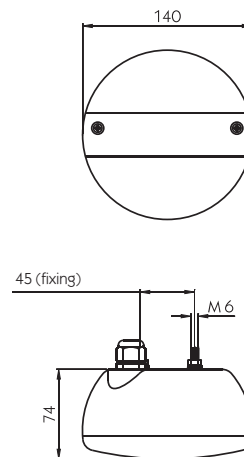
Type	Turn signal light	Stop light	Rear fog light	Number plate light	Reverse driving light	Side marker light	Tail	Outline marker light	
Standard	●	●					●		127552190



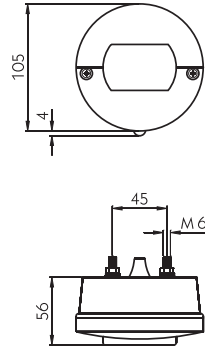
These lights on their own do not comply with the Road Traffic Regulations. The rear fog light 127552181 and the reversing lamp 127552182 must be fitted in addition.

3-chamber light LED

Rear light 24 V with PG threaded gland, €1490, weight 0.38 kg.



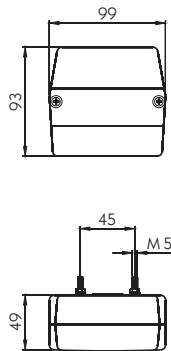
Type	Turn signal light	Stop light	Rear fog light	Number plate light	Reverse driving light	Side marker light	Tail	Outline marker light	
Standard	●	●					●		127553139



3-chamber light

Rear light with connection grommet, ~ K63228, weight 0.09 kg.

Type	Turn signal light	Stop light	Rear fog light	Number plate light	Reverse driving light	Side marker light	Tail	Outline marker light	
Standard	●	●					●		204551006
Standard	●	●		●			●		204551007

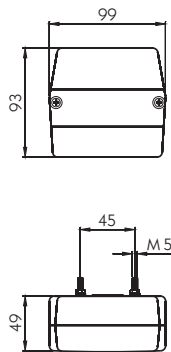


Minipoint

Rear light 12 V with connection grommet, weight 0.17 kg.

Number plate light below.

Type	Turn signal light	Stop light	Rear fog light	Number plate light	Reverse driving light	Side marker light	Tail	Outline marker light	
Standard	●	●					●		204551277
Standard	●	●		●			●		127551723



3-chamber light

Rear light 12 V or 24 V, weight 0.12 kg.

Type	Turn signal light	Stop light	Rear fog light	Number plate light	Reverse driving light	Side marker light	Tail	Outline marker light	
Standard	●	●		●			●		204551241

3-chamber light
Rear light with connection grommet, weight 0.18 kg.

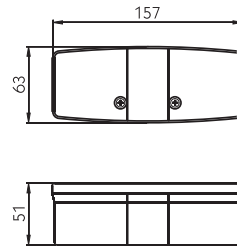
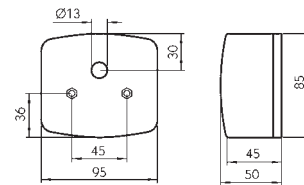


Illustration: left hand

Type	Turn signal light	Stop light	Rear fog light	Number plate light	Reverse driving light	Side marker light	Tail	Outline marker light	
Left	●	●					●		204551273
Right	●	●					●		204551274

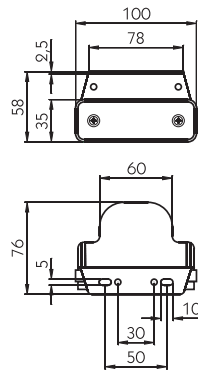
Number plate light below.

2-chamber-rear light
Rear light 12 V or 24 V, weight 0.12 kg.



Type	Turn signal light	Stop light	Rear fog light	Number plate light	Reverse driving light	Side marker light	Tail	Outline marker light	
Left	●	●		●			●		848982003
Right	●	●					●		848982004

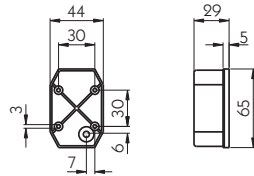
Position lights



Flatpoint LED

Position light 24 V, surface mounted version with fixing bracket, LED white, Ⓔ5357, connection grommet, weight 0.09 kg.

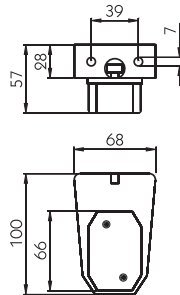
127551660



Flexipoint

Position light, lens white, Ⓔ5332, connection grommet, weight 0.04 kg.

127551917

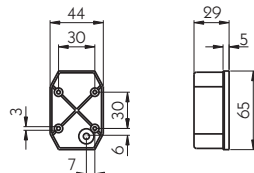


Flexipoint

Position light, lens white, Ⓔ5332, connection grommet, weight 0.08 kg.

127551719

Side position light



Flexipoint

Side position light, lens red, Ⓔ5332, connection grommet, weight 0.04 kg.

127551918

Side marker light	204551212
Lens, spare part for side marker light	204551284
Gland, spare part for side marker light	204551292

Side marker light
For 12 V or 24 V, ADR-Zone 2,
lens amber, weight 0.09 kg.

Side marker light	204551213
Lens, spare part for side marker light	204551284
Gland, spare part for side marker light	204551292

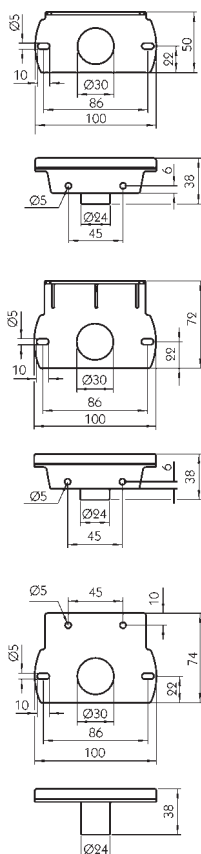
Side marker light
For 12 V or 24 V, ADR-Zone 2,
lens amber, weight 0.09 kg.

Side marker light	204551218
Angle bracket, short	204551257
Angle bracket, long	204551258
Mounting bracket, flat	204551259

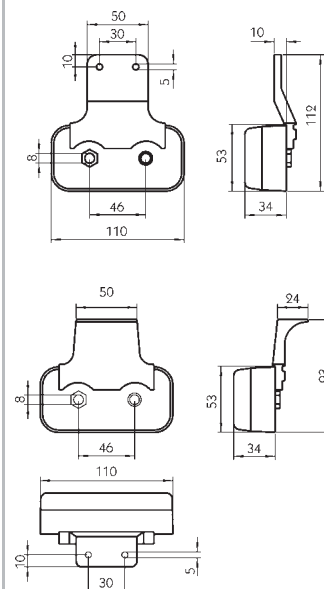
Side marker light
For 12 V or 24 V, the mounting
bracket must be ordered sepa-
rately, ADR-Zone 2, lens amber,
weight 0.05 kg.

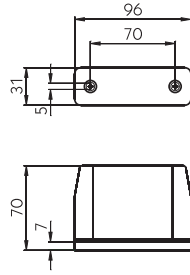
Illustration

The drawings show the side marker lights mounted
on their brackets



Side marker lights

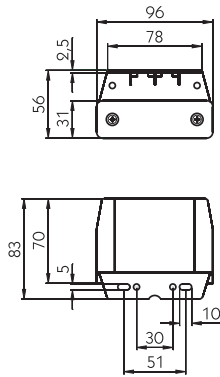




Side marker light

24 V recessed version with protection cover, lens amber, Ⓔ9592, connection Bajonet, weight 0.11 kg.

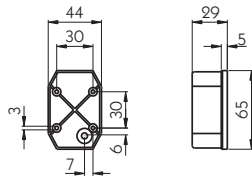
127551405



Side marker light

24 V surface mounted version with fixing bracket, lens amber, Ⓔ9592, connection Bajonet, weight 0.12 kg.

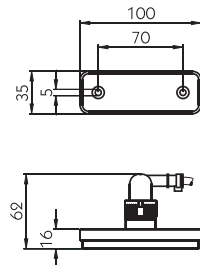
127551404



Flexipoint

Side marker light, lens amber, Ⓔ5332, connection grommet, weight 0.04 kg.

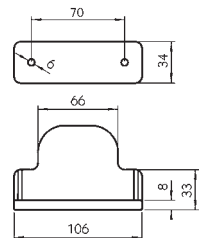
127551919



Flatpoint LED

Side marker light 24 V, recessed version without protection cover, LED amber, Ⓔ5247 and Ⓔ0006, connection Bajonet, weight 0.09 kg.

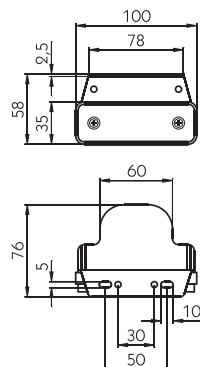
127552118



Flatpoint LED

Side marker light 24 V, recessed version with protection cover, lens amber, Ⓔ5247 and Ⓔ0006, connection Bajonet, weight 0.09 kg.

127551902



Flatpoint LED

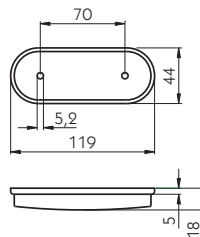
Side marker light 24 V, surface mounted version with fixing bracket, LED amber, Ⓔ5247 and Ⓔ0006, connection Bajonet, weight 0.09 kg.

127551732

Unipoint LED

Side marker light 24 V, recessed version, LED amber, ©5409, connection for union nut with grommet, weight 0.07 kg.

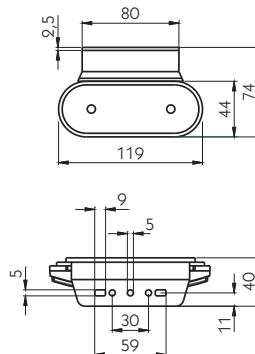
127551874



Unipoint LED

Side marker light 24 V, surface mounted version with fixing bracket, LED amber, ©5409, connection for union nut with grommet, weight 0.08 kg.

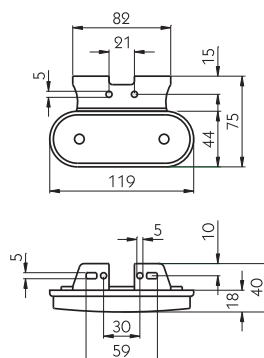
127552087



Unipoint LED

Side marker light 24 V, surface mounted version with fixing bracket, LED amber, ©5409, connection for union nut with grommet, weight 0.08 kg.

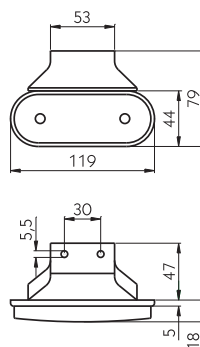
127551900



Unipoint LED

Side marker light 24 V, surface mounted version with fixing bracket, LED amber, ©5409, connection for union nut with grommet, weight 0.08 kg.

127551901

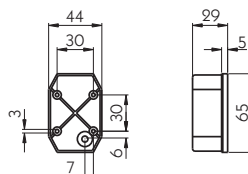


Outline marker lights

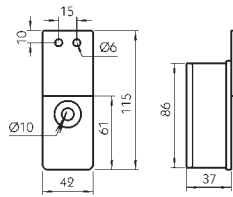
Flexipoint

Outline marker light, lens red/white, ©5332, connection grommet, weight 0.04 kg.

127551920



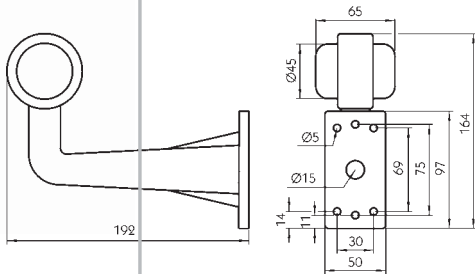
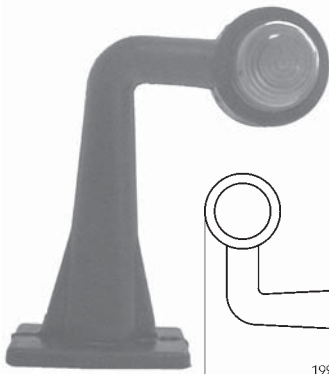
The Unipoint LED lights can only be fitted with the sets for connecting plugs **127551872** or **127551873** available as accessories.



Outline marker light

For 12 V or 24 V, lens red/white, weight 0.02 kg.

204551238

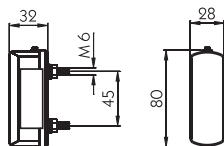


Outline marker light

For 12 V or 24 V, lens red/white, weight 0.23 kg.

204551172

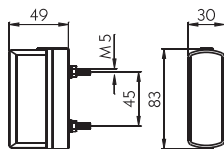
Number plate lights



Number plate light

Lens white, Ⓔ4033, connection grommet, weight 0.03 kg.

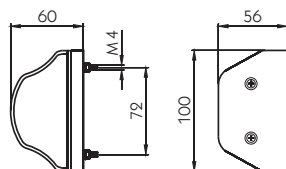
204551016



Regpoint Small

Number plate light, lens white, Ⓔ4127, connection grommet, weight 0.05 kg.

127551624



Regpoint

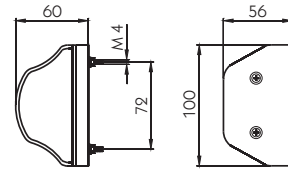
Number plate light, lens white, Ⓔ4127, connection grommet, weight 0.06 kg.

127551713

Regpoint Red

Number plate light with rear light function, red housing ©4059, lens white ©4127, connection grommet, weight 0.10 kg.

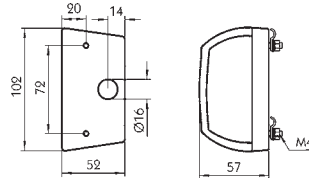
127551907



Number plate light

For 12 V or 24 V, lens white, weight 0.04 kg.

204551209

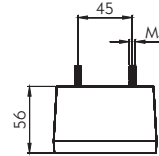
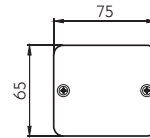


Rear fog lights

Fogpoint

Rear fog light, lens red, connection grommet, weight 0.11 kg.

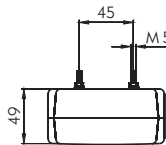
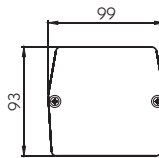
127551721



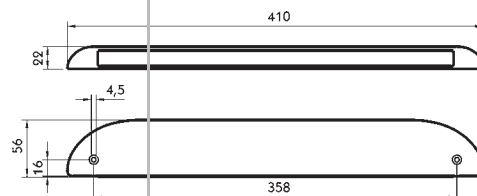
Rear fog light

Lens red, connection grommet, weight 0.12 kg.

204551285



Stop light



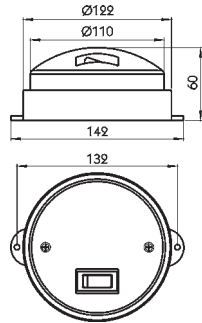
LED stop light

Third stop light for trucks and trailers, pre-assembled and wired, cable length 2000 mm, 24 V bulb fitted, weight 0.30 kg.

127551574



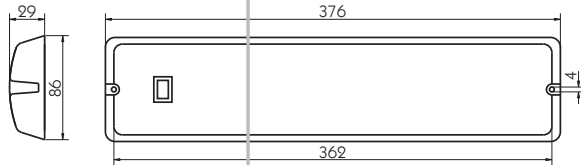
Inside lights



Inpoint Inside light

With on/off switch, 12 V/21 W, weight 0.17 kg.

127551639



Ceiling light Lumo 3C with switch

Plastic housing, including 2 fluorescent lamps T5 (Ø 16 mm), 2 x 8 W, weight 0.4 kg.

Type

12 V

204551774

24 V

204551775



Warning flasher lights



Safety hazard warning light

To § 53a sect. 1 StVZO (German road traffic law), with working light, ADR zone 2, requires 5 1.5 V monocells.

Weight [kg]

Hazard warning light

0.34

204551264

Case for hazard warning light

0.25

204551265



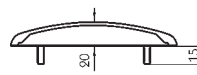
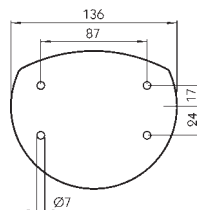
LED hazard warning light

Hazard warning light or continuous light. TÜV tested LED hazard warning lights in accordance with § 53 sect. 1, StVZO (German Road Traffic Law) TA no. 19, GGVS tested, ~ K 452, splash protection to IP 54. Batteries required: 2 x 1.5 V LR 20, dimensions 90 x 206 x 40 (w x h x d), weight 0.2 kg (without batteries).

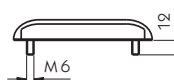
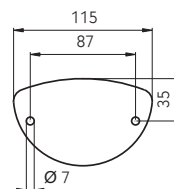
204552094

Hula-Blitz warning flasher lights for tail lifts
24 V individual lights.

	Weight [kg]	
Polycarbonate cover	0.27	204551921
Pressure die cast zinc cover	0.49	204551925

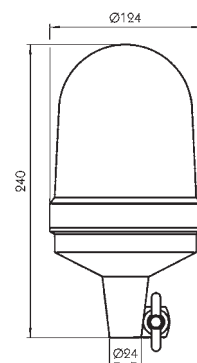


LED warning flasher light for tail lifts
Zinc plated, 24 V, weight 0.27 kg.
204551750

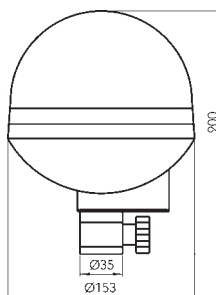


Amber rotary flashing beacons
For adapter mounting, including bulb, weight 0.48 kg.

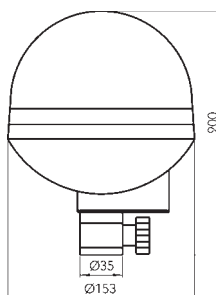
With Halogen bulb		
H1 12 V/55 W		848804000
H1 24 V/70 W		848807000
Spare glass for all itemised rotary flashing beacons		848804002

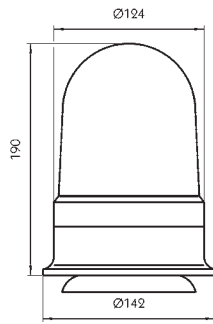


Amber rotary flashing beacon
With flexible base for mounting on adapter, including H1 12 V/55 W bulb, weight 0.61 kg.
848880000



Amber rotary flashing beacon
With flexible base for mounting on adapter, including H1 24 V/70 W bulb, weight 0.61 kg.
848881000





Amber rotary flashing beacons

With magnetic plate and spiral connecting cable for cigarette lighter socket, cable length stretched approx. 2000 mm, weight 0.84 kg.

With Halogen bulb

H1 12 V/55 W

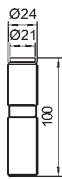
848825000

Spare glass for all itemised rotary flashing beacons

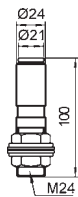
848804002



①



②

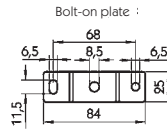
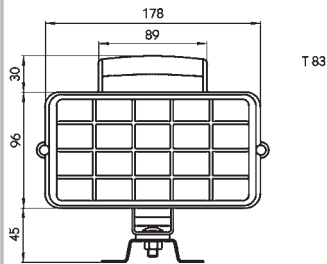


Adapter

With protective cap.

Construction	Fig.	Weight [kg]	
For welding	①	0.17	848805000
For screwing	②	0.18	848806000

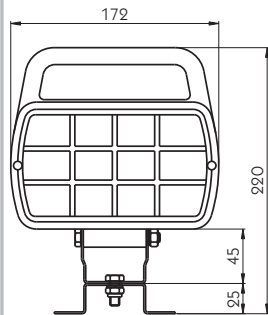
Working and hand held flood lamps



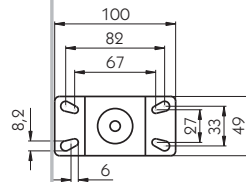
Working flood lamps

H3 12 V/55 W bulb fitted, with on/off switch, weight 0.69 kg.

204551242



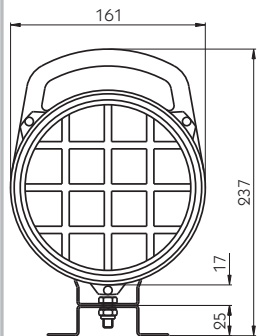
Depth 90



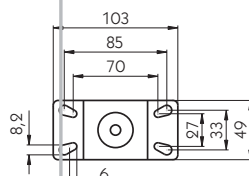
Working flood lamps

H3 12 V/55 W bulb fitted, with on/off switch, weight 0.71 kg.

848801000



Depth 95

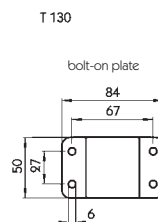
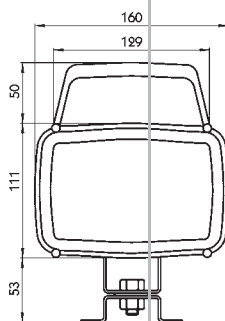


Working flood lamps

H3 12 V/55 W bulb fitted, with on/off switch, weight 0.73 kg.

848802000

Double beam FF
 For H3 12 V/55 W or 24 V/70 W
 bulb, wired, cable length 240 mm,
 weight 0.88 kg.
848809000

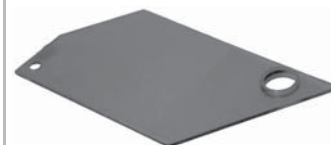


Spare parts for lights
 Lenses for rear lights

Europoint lens
 With triangle reflector, left = right.
127551297



Europoint
 Lens filter amber
127551625



Europoint II lens
 With triangle reflector, left = right.
127552028



Ecopoint lens
 With triangle reflector, left = right.
127551698



Ecopoint lens
 Without triangle reflector, left =
 right.
127551613





Illustration: left hand



Illustration: left hand



Illustration: left hand

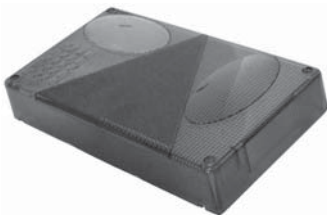


Illustration: left hand



5-chamber lens

Left = right.

204551156

Earpoint lenses

With triangle reflector.

Left hand **127551671**

Right hand **127551672**

Right hand with reverse driving light **127551673**

Earpoint III lenses

With triangle reflector.

Left hand **127552163**

Right hand **127552164**

Right hand with reverse driving light **127552171**

Multipoint lenses

Type	Voltage [V]	
Left hand	12	204551260
Left hand	24	127551891
Right hand	12	204551261
Right hand with reverse driving light	12	204551262
Right hand with reverse driving light	24	127551892

Multipoint LED lens

Left hand **127552090**

Right hand **127552091**

Multipoint II lens

With triangle reflector, left = right.

127551718

Number plate input Multipoint II

Black.

Left hand **127552156**

Right hand **127552157**

Multipoint III lens
With triangle reflector, left = right.
127552024



Midipoint lens

Standard version left = right	127551512
Left hand, with number plate light below	127551514
Right hand with reverse driving light	127551513



Illustration: standard version.

Midipoint II lens

Standard version left = right	127552224
Right hand with reverse driving light	127552225



Illustration: standard version.

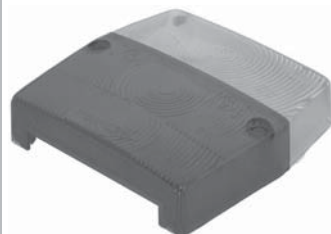
3-chamber lens
With number plate light red and white.

Left hand	204551246
Right hand	204551245

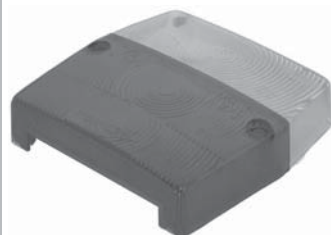


Illustration: left hand

Minipoint lens
With number plate light black and white, left = right.
127551724



3-chamber lens
For **204551241**, left = right.
848946001



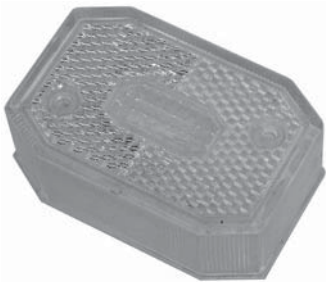
Lenses for position lights



Position light lens
White.
127551406



Flatpoint LED lens
White.
127551661



Flexipoint lens
White.
127551923

Lens for side position light



Flexipoint lens
Red.
127551921

Lenses for side marker lights

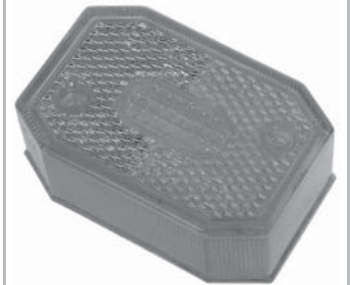


Side marker light lens
Amber.
127551382

Flatpoint LED lens
Amber.
127551533



Flexipoint lens
Amber.
127551922

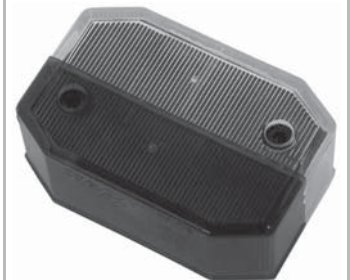


Lenses for outline marker lights

Outline marker light lens
Red/white, left = right.
204551535



Flexipoint lens
Red/white, left = right.
127551924



Superpoint lens

Colour red/white	127551377
Colour black/white	127551378



Lens outline marker light
For outline marker light
204551172.

Colour white	204551250
Colour red	204551251



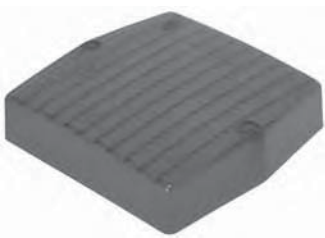


Superpoint II lens

Colour red/white/amber
Colour black/white/amber

127551623
127551956

Lens for rear fog light

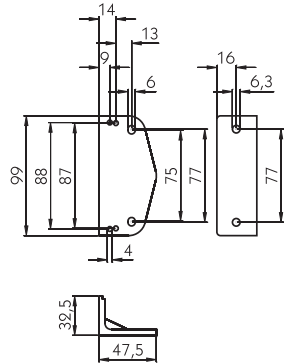


Rear fog light lens

204551286

No longer available

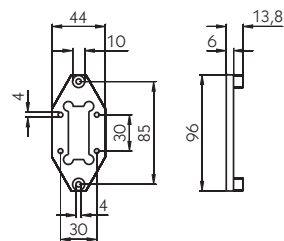
Light brackets



Light bracket

Bracket for Superpoint outline marker lights, weight 0.019 kg.

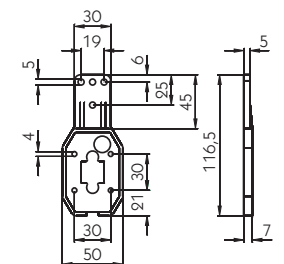
127551534



Light bracket

Turnable flat bracket for Flexipoint, weight 0.012 kg.

127552137

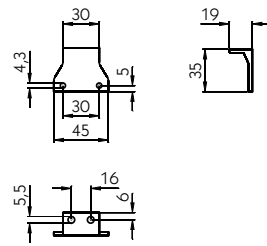


Light bracket

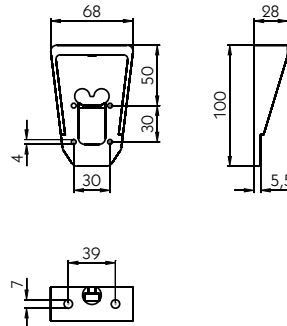
Flexible, straight rubber holder for Flexipoint, weight 0.022 kg.

127552138

Light bracket
Bracket for Flexipoint, weight 0.005 kg.
127552136



Light bracket
Flexible rubber holder for Flexipoint, weight 0.041 kg.
127552135



The lamp carriers are for use with the rear lights **127551539**, **-40**, **204551275** and **-76**.

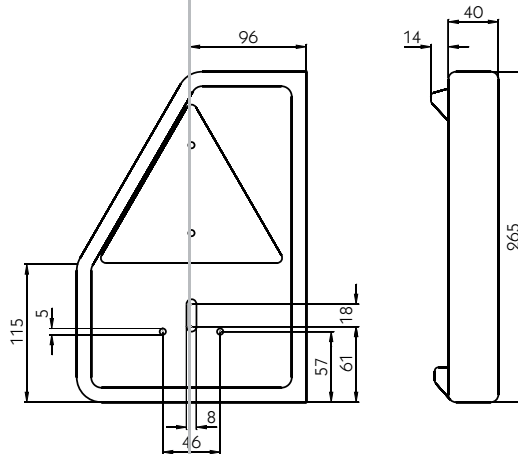


Illustration: left hand

Lamp carrier
Splash-protected housing with removable back. Side inner web is steel plate reinforced for mounting the carrier with self-tapping screws. Black plastic, weight 0.45 kg.

Left hand side **127551555**
Right hand side **127551554**

Miscellaneous

Cover
For Europoint- and Ecopoint-lights.
127551583



Plug connectors

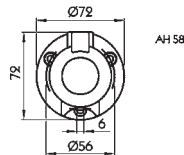
7-pole 12V, to DIN/ISO 1724



Plug
Plastic, centre contact (58L) with contact sleeve, weight 0.08 kg.
245551129



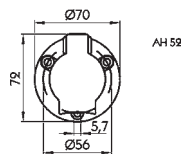
Plug with double boot
Plastic, centre contact (58L) with contact sleeve, weight 0.08 kg.
127551668



Socket
Plastic, centre contact (58L) with contact pin, weight 0.06 kg.
245551130



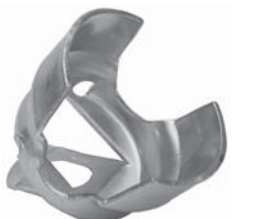
Plug
Light alloy, centre contact (58L) with contact sleeve, weight 0.10 kg.
245551018



Socket
Light alloy, centre contact (58L) with contact pin, weight 0.12 kg.
245551019



Plug
Plastic, with hanger, for fitting to extension cables, weight 0.12 kg.
848824000



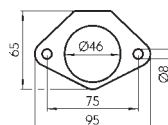
Plug holder
Zinc coated steel, weight 0.04 kg.
285451103

7-pole, 24V to DIN 3731
or DIN 1185

Plug DIN 1185
Plastic, contact 31 with contact
sleeve, weight 0.14 kg.
245551102



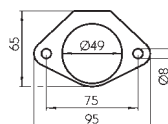
Socket DIN 1185
Plastic, contact 31 with contact
pin, weight 0.11 kg.
245551103



Plug DIN 1185
Light alloy, contact 31 with con-
tact sleeve, weight 0.18 kg.
245551269



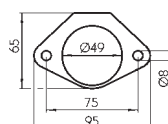
Socket DIN 1185
Light alloy, contact 31 with con-
tact pin, weight 0.20 kg.
245551267



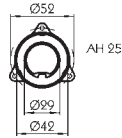
Plug DIN 3731
Light alloy, contact 31 with con-
tact pin, weight 0.18 kg.
245551270



Socket DIN 3731
Light alloy, contact 31 with con-
tact sleeve, weight 0.20 kg.
245551268



13-pole 12V to ISO
11446/ DIN 72570



Plug
Plastic, weight 0.14 kg.
245551205

Plug
Plastic.

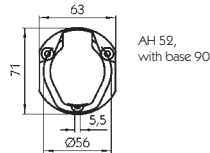
Weight
[kg]

With single boot, with parking holder
With double boot

0.16
0.16

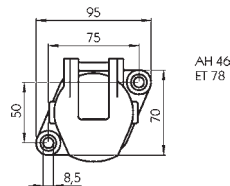
245551618
245551749

No longer
available



Socket
Plastic, weight 0.14 kg.
245551206

15-pole 24V to ISO
12098



Plug
Plastic, with screw connection,
ADR zone 2, weight 0.31 kg.
245552051

Socket
Plastic, with screw connection,
ADR zone 2, weight 0.22 kg.
245552052

ABS 7-pole 24V to ISO 7638

Plug

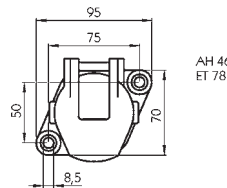
Plastic with screw connection, ADR zone 2, (ABS + EBS), weight 0.25 kg.

245552056

Socket

Plastic, with screw connection, ADR zone 2, (ABS + EBS), weight 0.21 kg.

245552055



Connecting and extension cables

7-pole connecting cables, 12 V, to DIN/ISO 1724

Plug light alloy, cable length approx. 3000 mm, weight 0.87 kg.

848820000



7-pole extension cables, 12 V to DIN/ISO 1724

Plug and socket plastic, cable length approx. 3500 mm, weight 0.95 kg.

848822000



Spiral connecting cable, 7-pole 12 V, to DIN 1724

Plastic plug, cable length stretched approx. 3000 mm, weight 0.72 kg.

848819000



Spiral connecting cable 7-pole, 24 V, to DIN 1185

Light alloy plug, cable length stretched approx. 4000 mm, weight 1.07 kg.

124552031





Spiral connecting cable
15-pole, 24 V, to ISO
12098

Plastic plug with release device,
cable length stretched approx
4000 mm, weight 3.04 kg.

124552044

Short adapters



Mini adapter 7-pole socket
DIN 1724 to 13-pole plug
ISO 11446

12 V, plastic, weight 0.76 kg.

245551727



7-pole socket DIN 1724 to
13-pole plug ISO 11446

12 V, plastic, weight 0.20 kg.

124551204



13-pole socket ISO 11446
to 7-pole plug DIN 1724

12 V, plastic, weight 0.08 kg.

245551637



Mini adapter 2 x 7-pole
sockets DIN 1185 and
3731 to 15-pole plug ISO
12098

24 V, plastic.

Description	Length [mm]	Weight [kg]	
Short	165	0.69	204551587
Extra short	132	0.49	245551712

Illustration: 204551587



Illustration: 245551712

Cable adapters

7-pole socket DIN 1724 to
13-pole plug ISO 11446
12 V, plastic, weight 0.46 kg.
124551203



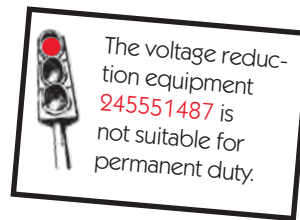
15-pole plug ISO 12098
to 2 x 7-pole plugs DIN
1185 and 3731
24 V, plastic, weight 2.54 kg.
245551279



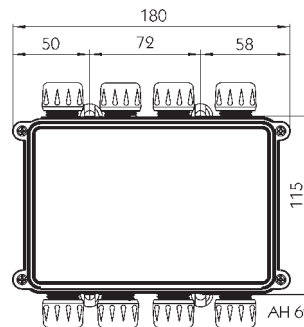
Voltage reduction equip-
ment

The voltage reduction equip-
ment has been developed for
operating trailers with 12 V
lighting from a towing vehicle
with 24 V on-board power
supply.
The following is valid only for
voltage reduction equipment
127551577:
Installation on either the tow-
ing vehicle or the trailer - no
constant plus necessary. The
equipment has automatic vol-
tage recognition i.e., regardless
of whether the input voltage is
12 V or 24 V, the output voltage
will always be 12 V. Installation
should always be on a metal
surface in order to achieve the
total capacity of 210 W.

7-pole plug DIN 1185,
24 V, to 7-pole socket
DIN 1724, 12 V
Plastic, weight 0.28 kg.
245551487

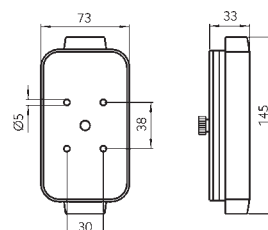


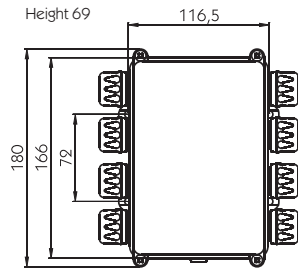
Voltage converter, 24 V
to 12 V
For 7 lighting functions, mounted
in a spray water and dust tight
junction box, weight 0.90 kg.
127551577



Accessories
Cable connectors and
junction boxes

Cable connector,
12-pole
Plastic, weight 0.19 kg.
245551029

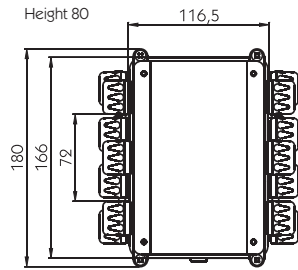




Junction box ASS 1 with shallow lid

Plastic, weight 0.50 kg.

127551350

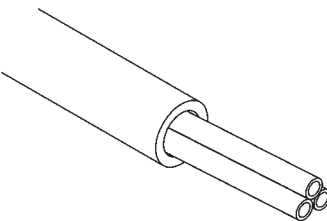


Junction box ASS 1 with deep lid

Plastic, weight 0.59 kg.

127551373

Electric cables



Multiple core electric cables

With plastic sheath.

	Cross section [mm ²]	Material	Quantity/pack [m]	Weight [kg/m]	
2-core	2 x 0.75	PVC	50	0.04	246551614
2-core	2 x 1.5	PVC	50	0.08	246551207
4-core	4 x 1.0	PVC	50	0.08	246551619
7-core	7 x 1.0	PVC	50	0.11	246551208

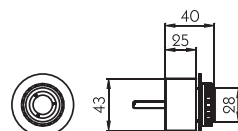
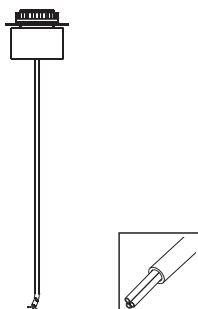
Reverse driving alerter



Reverse driving alerter

Relay for Europoint/Ecopoint.

127552027



Reverse driving alerter

For 12 + 24 V on board power supply voltage, cable length 1200 mm, connection junction box "S"/"N"31 (reverse driving light), weight 0.26 kg.

127551578

Battery cable
Cross section 50 mm², cable lugs both ends, cable length 3000 mm, weight 1.53 kg.
624643030



Cable clips
Zinc plated steel.



12 x 28 mm	245551168
12 x 43 mm	245551169
15 x 48 mm	245551170

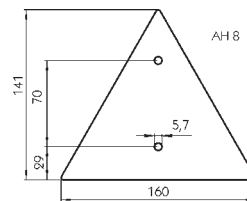
Cable tie assortment
PA 6.6, black (UV resistant).



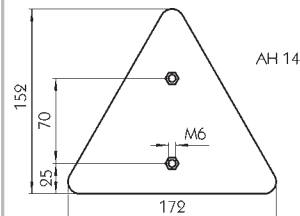
Size [mm]	QTY [piece]	
100 x 2.5	100	245551645
140 x 3.6	100	245551646
295 x 3.6	100	245551647
200 x 4.8	100	245551648
295 x 4.8	100	245551649
360 x 4.8	100	245551650

Warning signs and markings
Reflectors

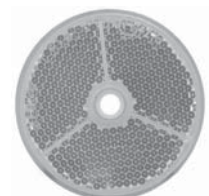
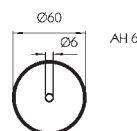
Triangle reflector
Weight 0.06 kg.
204551162



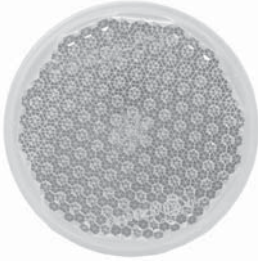
Triangle reflector in rubber housing
Weight 0.29 kg.
204551086



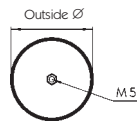
Round reflector
Weight 0.013 kg.



Colour	
Red	204551097
Amber	204551131

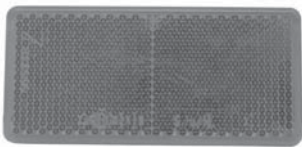


Round reflector 80 mm
Amber, with self adhesive film,
weight 0.028 kg.
204551132

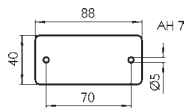


Round reflector in plastic
case
Red, with fixing screw M 5 x 10.

Outside Ø [mm]	Weight [kg]	
68	0.05	204551043
94	0.09	204551044
115	0.19	204551045



Rectangular reflector
95 x 44 mm
Red, with self adhesive film,
weight 0.019 kg.
204551096



Rectangular reflector
Amber, with self adhesive film,
weight 0.018 kg.
204551133

Park warning sign, StVZO
(German road traffic law)
compliant

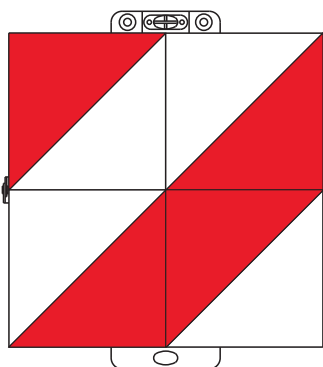
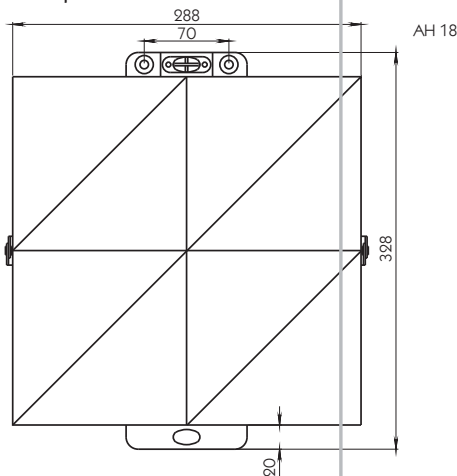
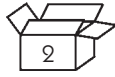


Illustration: PW 180 H

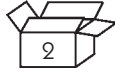


PW 180
Horizontal folding type, alumi-
nium sheet with folding spine for
fixing to the vehicle, wash plant
and high pressure cleaner resi-
stant, weight 0.82 kg.
PW 180 H, rear (left side) **848947000**
PW 180 V, front (right side) **848948000**



Goods vehicle
Aluminium sheet, 565 x 133 mm,
weight 0.23 kg/piece.

345551557



Trailer & semi-trailer
Aluminium sheet, 565 x 198 mm,
weight 0.58 kg/piece.

345551249

Warning sign sets
to ECE 70

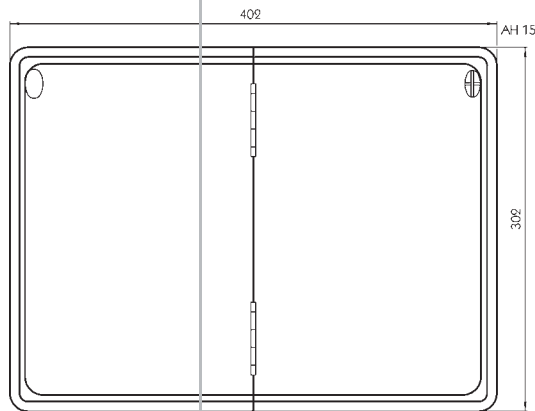


Miscellaneous warning
signs

**Hazardous goods
warning sign**

Vertical folding, orange, with fold-
ing spine, without holder, weight
0.63 kg.

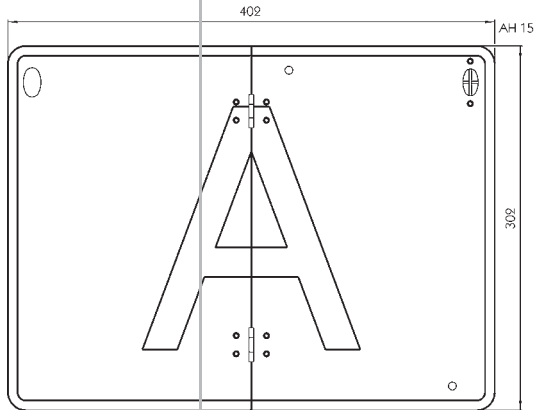
345551263



**Warning sign for garbage
transport**

Vertical folding, white with black
lettering, with folding spine, wit-
hout holder, weight 0.63 kg.

345551628



**Warning chevrons for tail
lifts**

With aluminium carriers, size 250
x 430 mm, weight 0.16 kg.

Left handed
Right handed

345552211

345552212



Illustration: left handed



Warning sign set to DIN 11030 with lighting for distinguishing ancillary agricultural and forestry equipment

Warning marker sets to DIN 11030.

For municipal vehicles, self-adhesive 141 x 9000 mm rolls, 1 roll each left and right sided, weight 0.597 kg/roll.

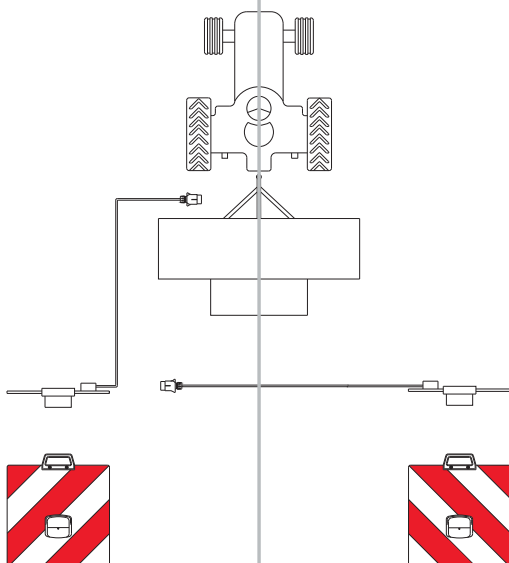
848991000



Warning sign set

2-part, zinc plated sheet metal 423 x 423 mm, adhesive warning film applied to one side to comply with DIN 11030, 2-chamber stop/tail/flasher light with number plate lighting on left (viewed from rear), lights with guards, connecting cable with 7-pole plug to DIN 1724, cable length 4600 mm, connecting cable between the signs, cable length 3300 mm, supplied without fixing materials, weight 4.54 kg. All lights are fitted with 12 V bulbs.

848967000



R 1130/127

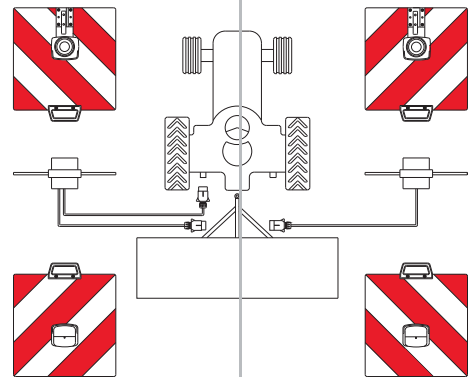
2-part, zinc plated sheet metal 423 x 423 mm with fitted holder for attaching to steel angle iron to DIN 1102, adhesive warning film applied to one side to comply with DIN 11030, to the rear 2-chamber stop/tail/flasher light to the rear with number plate lighting on the left (viewed from rear), lights with guards, connecting cable with 7-pole plug to DIN 1724, cable length 5000 mm, connecting cable between the signs, cable length 4000 mm, loose hand grips for fitting to the warning signs, weight 5.58 kg. All lights are fitted with 12 V bulbs.

848977000

R 1130 B/LR

2-part, zinc plated sheet metal 423 x 423 mm with fitter holder for attaching to steel angle iron to DIN 1102, adhesive warning film applied to both sides to comply with DIN 11030, white position light to the front, 2-chamber stop/tail/flasher light to the rear with number plate lighting on the left (viewed from rear), lights with guards, connecting cable with 7-pole plug to DIN 1724, cable length 5000 mm, connecting cable between the signs, separable by means of 7-pole coupling and plug to DIN 1724, cable length 4000 mm, loose hand grips for fitting to the warning signs, weight 5.66 kg. All lights are fitted with 12 V bulbs.

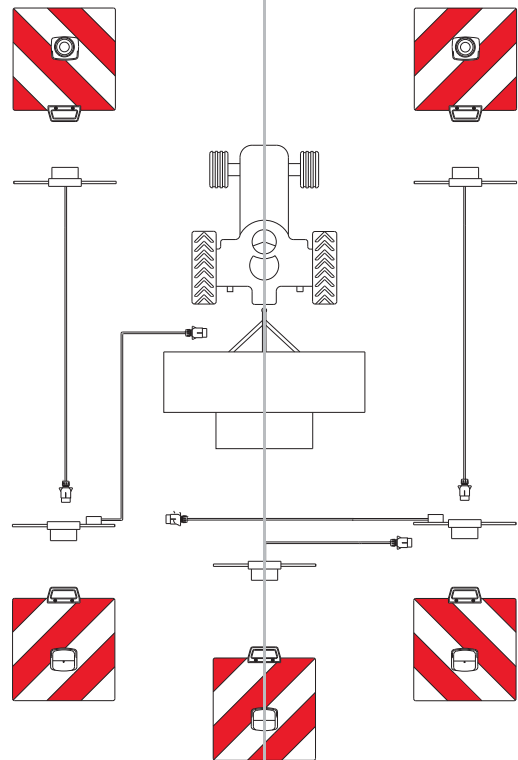
848982000



R 1130/1127

5-part, zinc plated sheet metal 423 x 423 mm with fitted holder for attaching to steel angle iron to DIN 1102, adhesive warning film applied to one side to comply with DIN 11030, white position light to the front, 2-chamber stop/tail/flasher light left and right to the rear with number plate lighting on the left (viewed from rear), 2-chamber stop/tail/flasher light rear centre, lights with guards, connecting cable with 7-pole plug to DIN 1724, cable length 5000 mm, connecting cable between the signs, separable by means of coupling and plug to DIN 1724, cable lengths 4000 mm each, loose hand grips for fitting to the warning signs, weight 12.83 kg. All lights are fitted with 12 V bulbs.

848981000



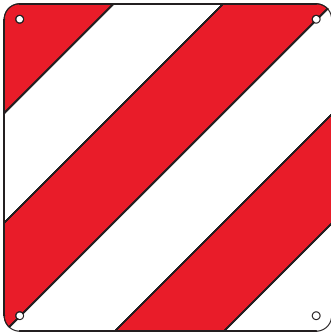
Warning sign to DIN 11030 for distinguishing ancillary agricultural and forestry equipment

Warning sign film

423 x 423 mm, weight 0.08 kg.

848965000





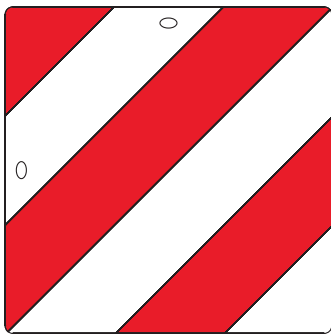
Warning sign

Zinc plated sheet steel 423 x 423 mm, with mounting holes.

Weight [kg]

Warning film applied to one side	1.36	848952000
Warning film applied to both sides	1.44	848953000

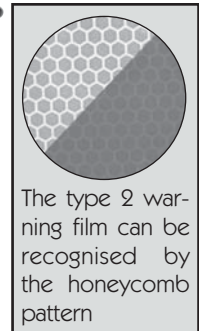
Type certified warning signs for distinguishing ancillary agricultural and forestry equipment, also for goods vehicle over-width to StVZO (German road traffic law)



Warning sign

Aluminium sheet 423 x 423 mm, type 2 adhesive warning film applied to one side, weight 0.66 kg.

848939000



The type 2 warning film can be recognised by the honeycomb pattern

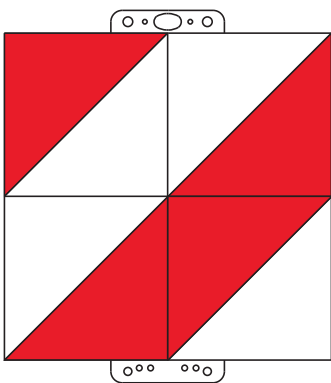
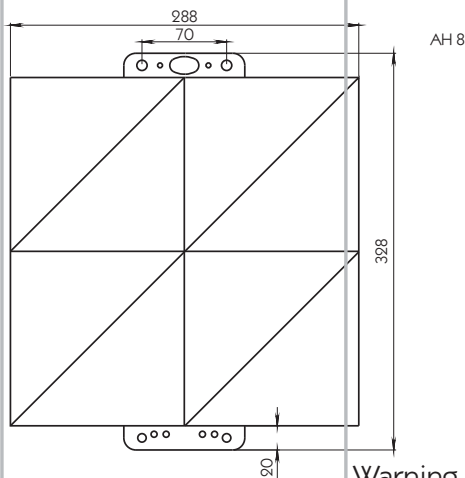


Illustration: LOF 18 L



Warning sign, form B

Zinc plated sheet metal, can be mounted on vehicle using angle bracket, wash plant and high pressure cleaner resistant, weight 1.18 kg.

LOF 18 L, left side	848968000
LOF 18 R, right side	848969000

Reflective safety vest



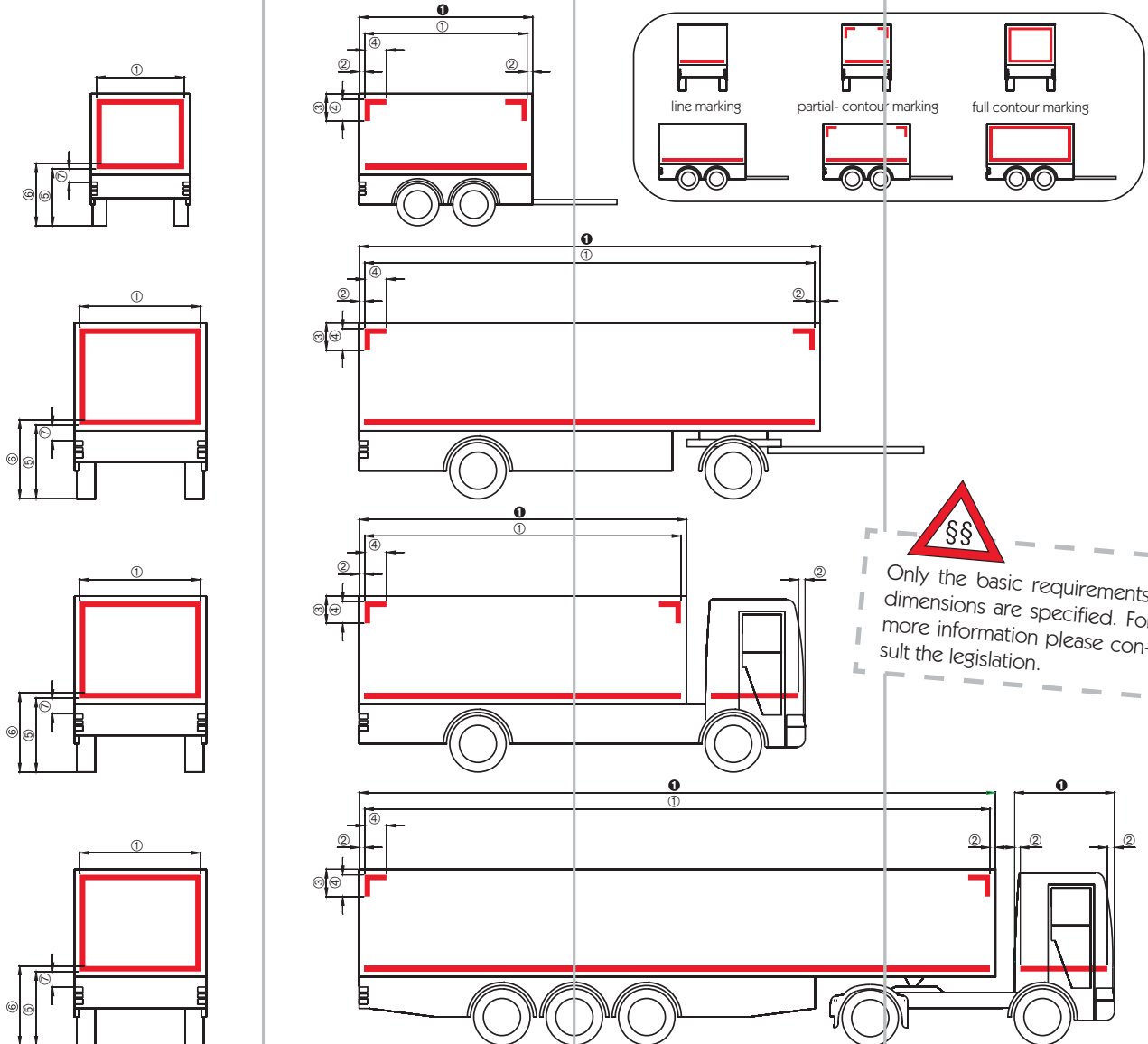
Reflective safety vest

EN 471, polyester, with pocket, weight 0.19 kg.

415139014

Warning marks

To ECE-R 48/ECE-R 104.



Only the basic requirements/
dimensions are specified. For
more information please con-
sult the legislation.

With effect from the 10th October 2007 reflective outline marking has been obligatory for all new commercial vehicle type approvals with an external length (trailers including A-frame drawbar/drawbar/draw tube) of over 6.000 mm and an external width of over 2.100 mm. Vehicles affected are those in class N₂ with a permissible gross weight of over 7.5 tons, class N₃ (except for chassis-cabs, incomplete vehicles and semi trailer tractor units) and class O₃ and O₄ vehicles. Class M₁ and O₁ vehicles may no longer be furnished with marking. Vehicles of classes not specified or vehicles of the listed classes which do not meet the minimum dimensions (width 2.100 mm, length 6.000 mm) may, however, be furnished with marking. Positioning and execution of the contour marking is regulated by ECE-R 48 and ECE-R 104.

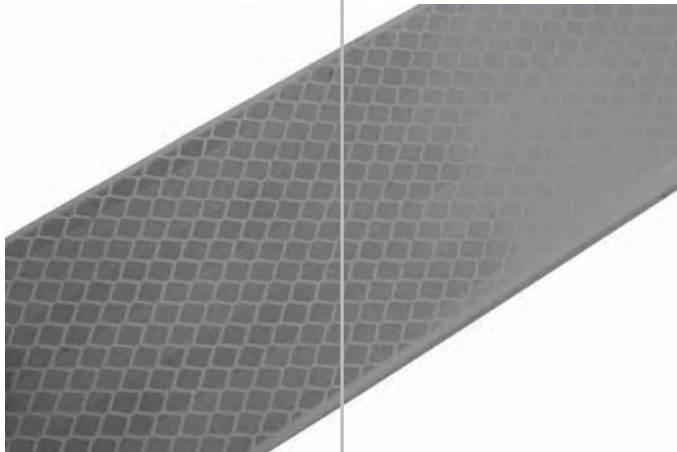
Application regulations in
accordance with ECE-R
48**Rear marking:****Side marking:****Permissible dimensions:**

Yellow or red full contour marking.

White or yellow partial-contour marking.

- ① At least 80% of the width or length of the vehicle respectively. In the case of the length, dimension ① is definitive
- ② Maximum 600 mm
- ③ Maximum 400 mm
- ④ Minimum 250 mm, angle 90°
- ⑤ Minimum 250 mm
- ⑥ Maximum 1500 mm
- ⑦ Minimum 200 mm distance from the regulation brake lights

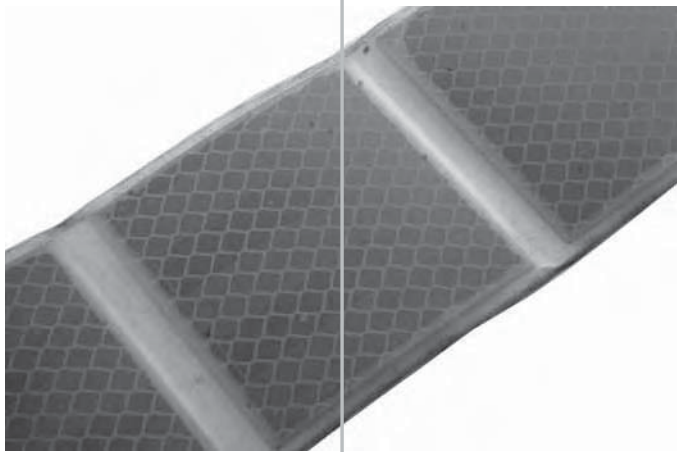
The marking must be applied in a position which is as horizontal and vertical as possible and which is consistent with the form, superstructure, design and operating conditions of the vehicle. A marking is considered continuous if the distances between its adjacent parts are as small as possible and not more than 50% of the shortest length of such a part. If the specified values cannot be complied with (form of superstructure, design or operating conditions), the regulation ECE-R 48 states alternative values. In this case a line marking or partial contour can also be reverted to. A partial contour or full contour marking may be applied instead of a line marking, a full contour marking may be applied instead of a partial contour marking.



Warning contour marking
 Reflective marking for rigid bodywork/stiff surfaces in accordance with ECE-R 104, width 51 mm, in 50 m rolls.

Colour

White	345552254
Amber	345552255
Red	345552256



Warning contour marking
 Reflective marking for curtain bodies in accordance with ECE-R 104, width 51 mm, in 50 m rolls.

Colour

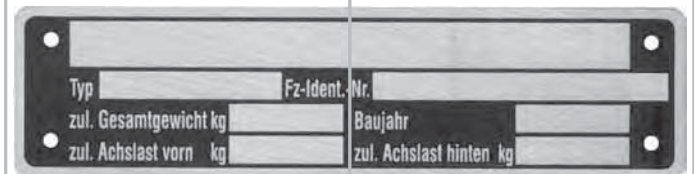
White	345552257
Amber	345552258
Red	345552259

Signs

Speed limit signs
80 km/h, to §58 StVZO, self-adhesive film, Ø200 mm.
345551167



Vehicle type plate
Etched zinc plate, 148 x 38 mm.
215551060



Vehicle type plate to EC standard 76114
Etched zinc plate, 100 x 48 mm.
215551228



Vehicle type plate Suer side collision protection
90 x 18 mm.
500591167



Vehicle type plate Suer aluminium rear underrun protection
118 x 23 mm.



Abbildungen: Oben 380563019, unten 380563018

Type

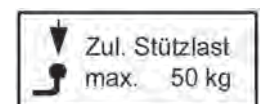
Profile 563040	380563043
Profil 563010	380563019
Profile 563010 (old version)	380563018



Vertical static load plate for car towing hitch
Self-adhesive film, 65 x 30 mm.

Type

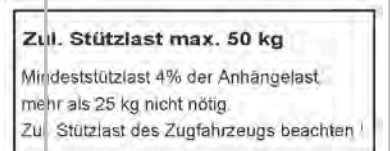
50 kg	215551115
75 kg	215551116



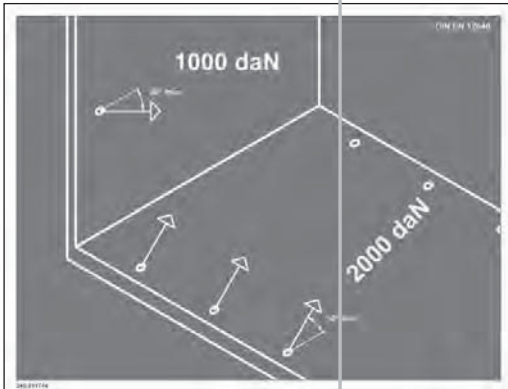
Vertical static load plate for car trailer
Self-adhesive film 100 x 44 mm.

Type

50 kg	215551084
75 kg	215551114
100 kg	215551166



No longer available



Lashing point information sign to DIN EN 12640
Self-adhesive, 210 x 160 mm.

Range	
800 daN	345551746
1000 daN	345551747
2000 daN	345551748



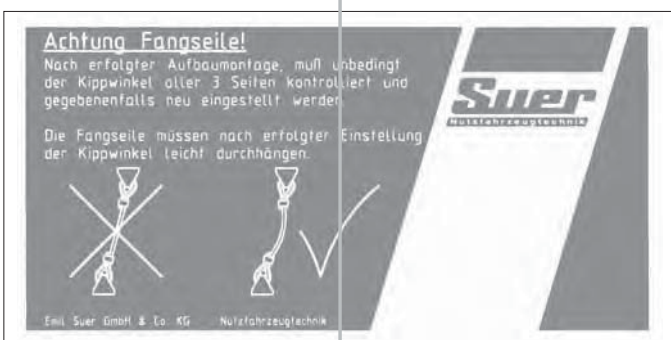
Attention: Due to the European standards applicable since January 2001, the lashing point information signs to DIN 75410 Part 1 are no longer valid. Please use the information signs in accordance with DIN EN12640. The version for 400 daN is excepted as the DIN EN 12640 standard does not provide for an information sign for this size. Please use the usual information signs to DIN 75410 only as spare parts.



Lashing point information sign to DIN 75410
Adhesive film, 200 x 120 mm.

Range	
800 daN	345551191
2000 daN	345551193

No longer available



Information plate
For tipper bodies, self-adhesive film, 202 x 105 mm.
624643096



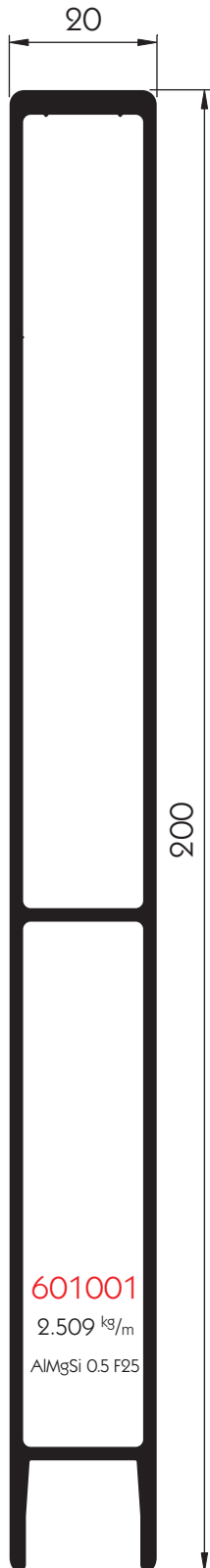
Information plate
For tipper bodies, 210 x 105 mm.
624643097

No longer available

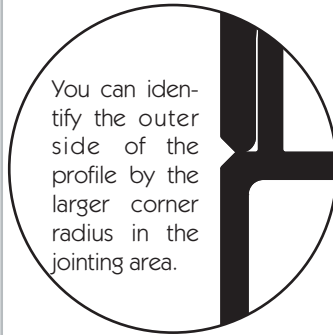
Unless otherwise stated, wall thicknesses are 1.8 ± 0.2 mm.

Side board profiles
20 mm push-in system
Top edge profile and
middle profiles

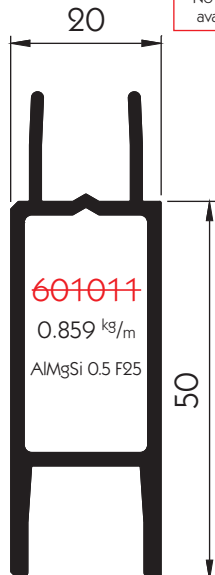
This side of the profile is the inside.



601001
2.509 kg/m
AlMgSi 0.5 F25

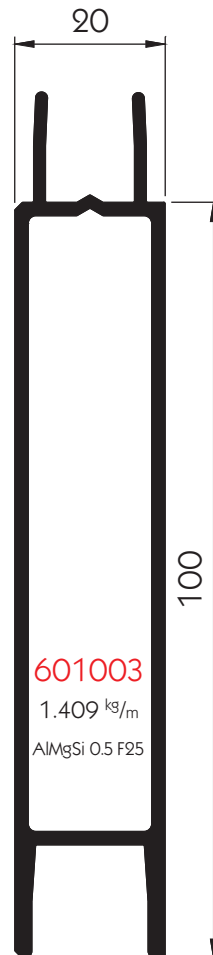


You can identify the outer side of the profile by the larger corner radius in the jointing area.

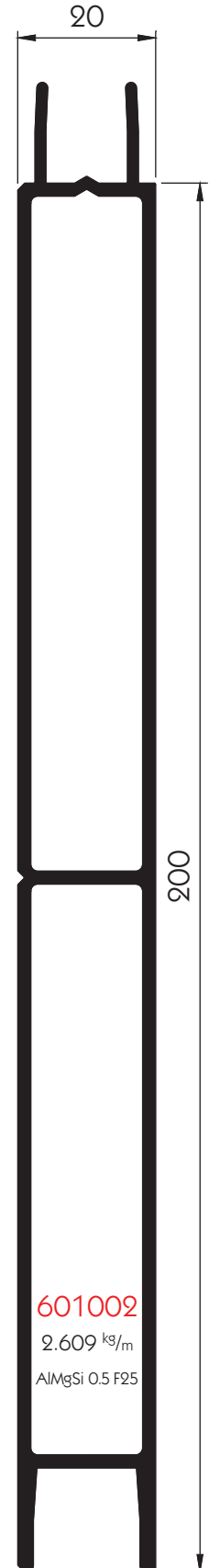


601011
0.859 kg/m
AlMgSi 0.5 F25

No longer available

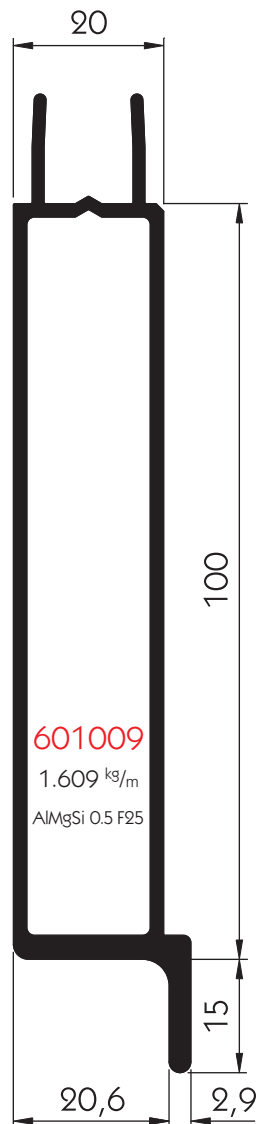
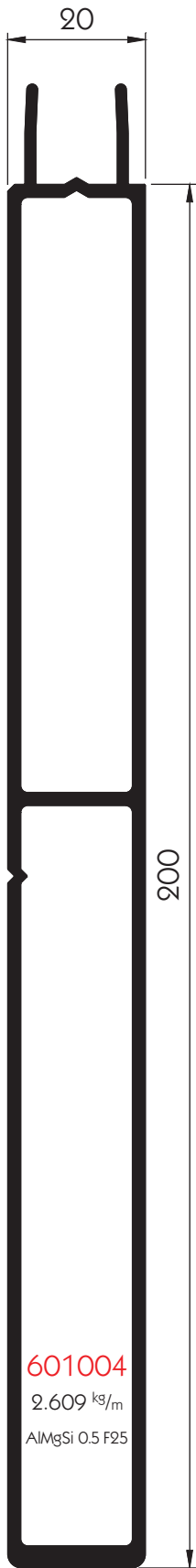


601003
1.409 kg/m
AlMgSi 0.5 F25



601002
2.609 kg/m
AlMgSi 0.5 F25

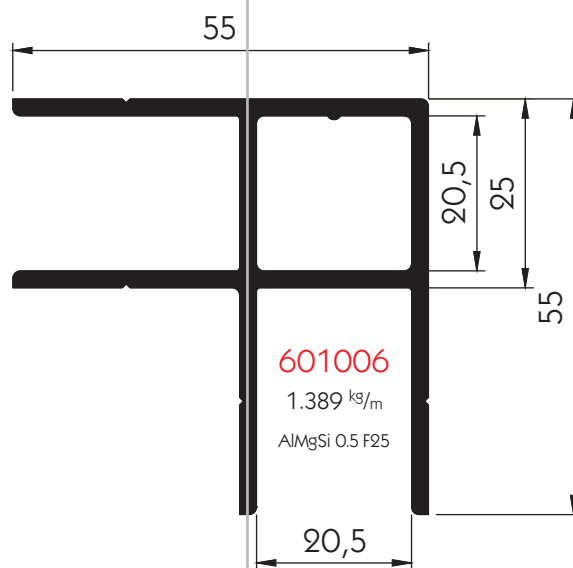
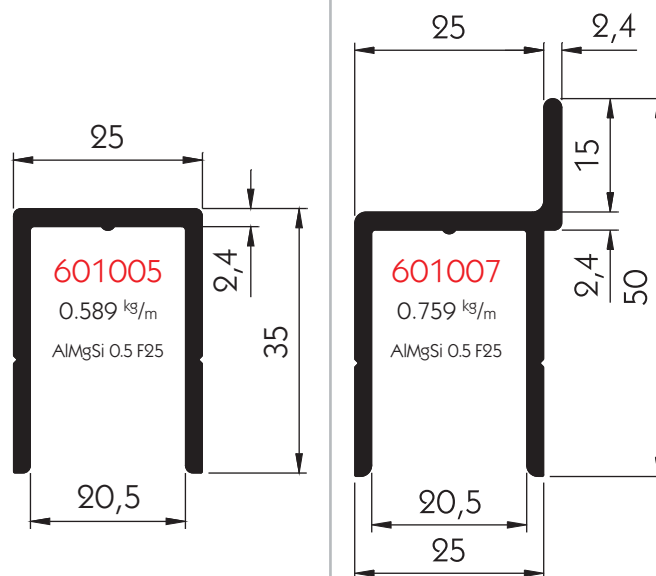
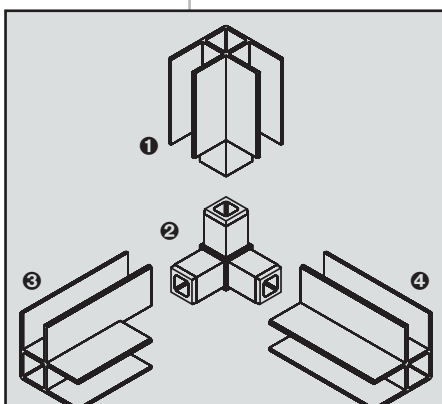
Bottom edge profiles



This side of the profile is the inside.

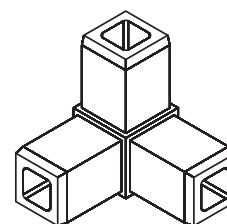
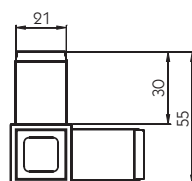
Unless otherwise stated, all wall thicknesses are 1.8 mm.

Side board profiles
20 mm edge surrounds

Using the corner connection piece **2** **500111663**, corners can be constructed from 3 profiles **1/3/4** **601006**, e.g. for a car box trailer or chest. To do this, we recommend notching out the upright profiles (**1**) and one of the horizontal profiles (in this case **3**), as shown.

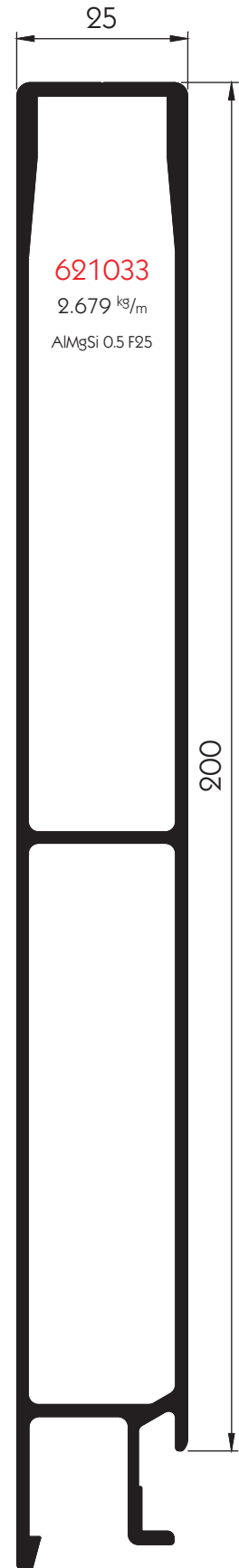
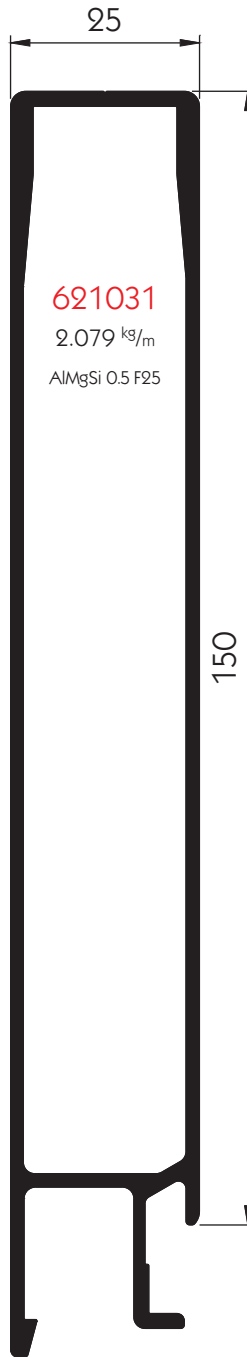
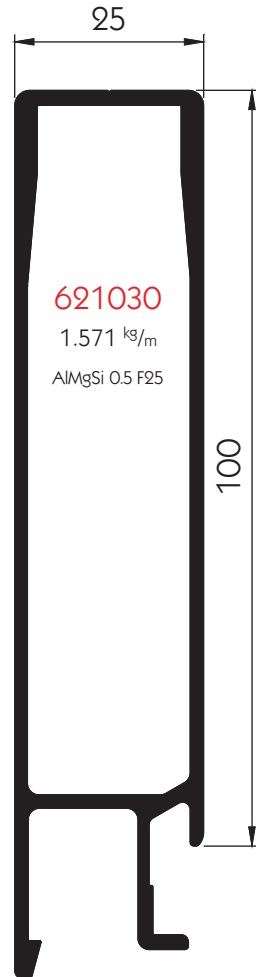
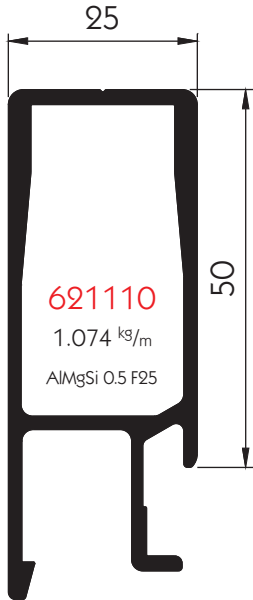
Corner connection piece
For profile **601006**, black plastic,
weight 0.045 kg
500111663



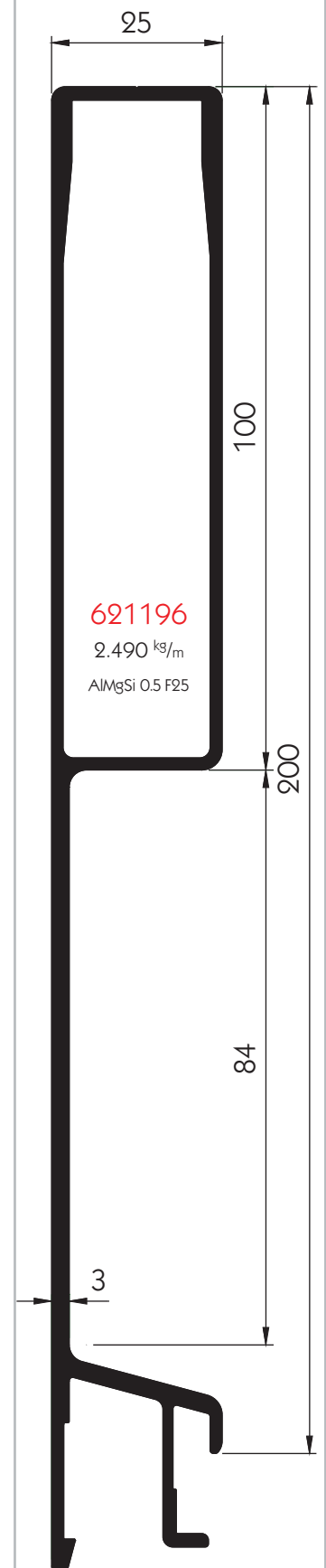
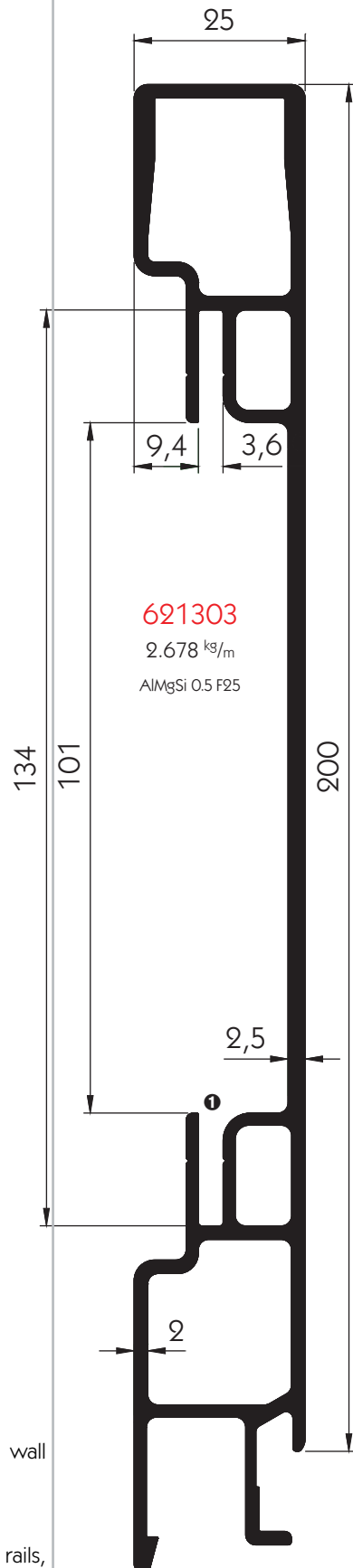
This side of the profile is the inside.

Side board profiles
25 mm snap-lock system
Top edge profiles

Unless otherwise stated, all wall thicknesses are:
inner wall 1.7 mm,
outer wall 1.8 mm.



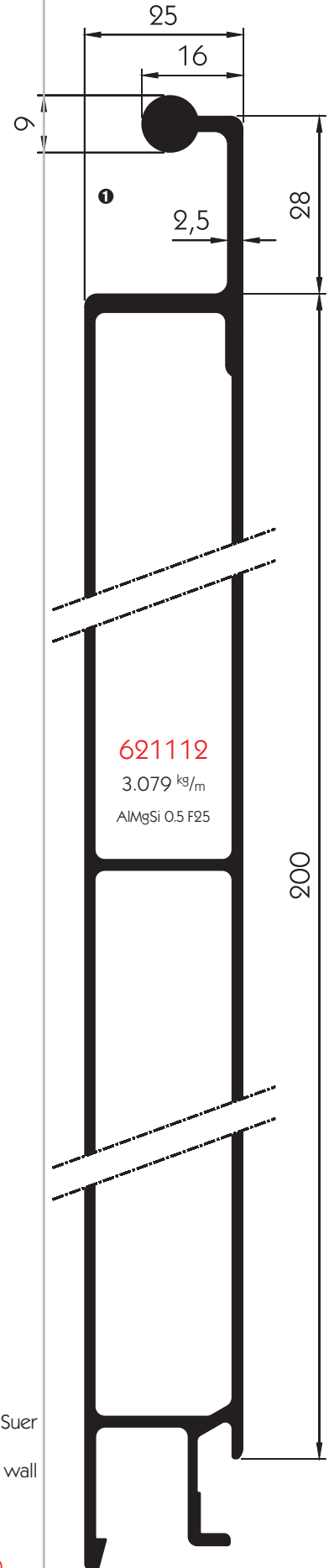
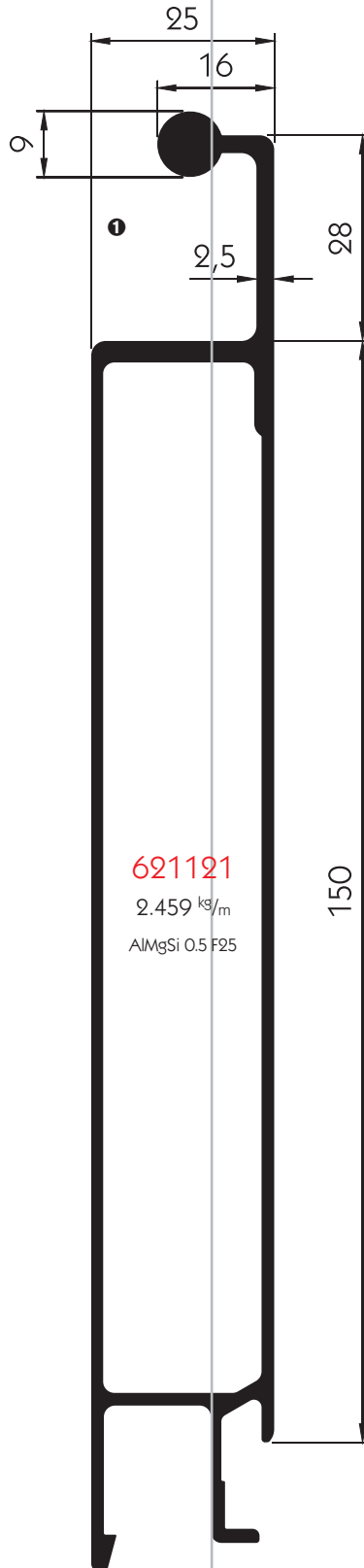
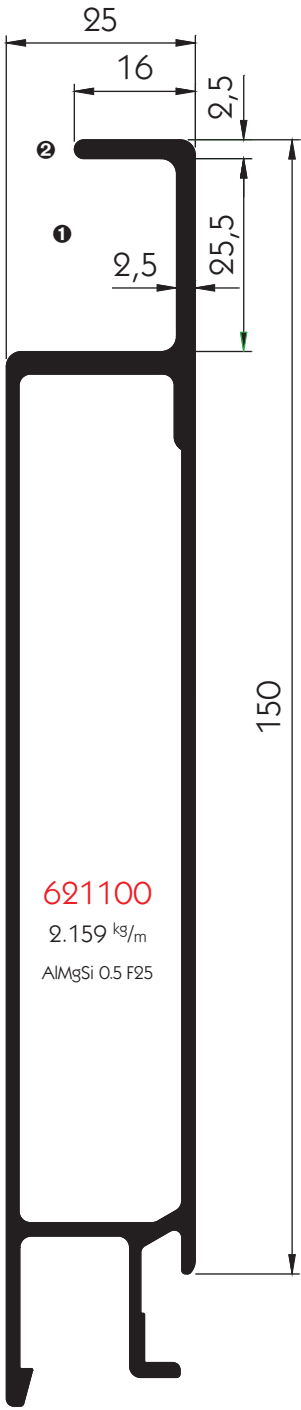
This side of the profile is the inside.



This side of the profile is the inside.

Unless otherwise stated, all wall thicknesses are:
inner wall 1.7 mm,
outer wall 1.8 mm.

① Seating cavity for anchor rails,
e.g. 122138015, 122138016,
122138017 or 122138019.

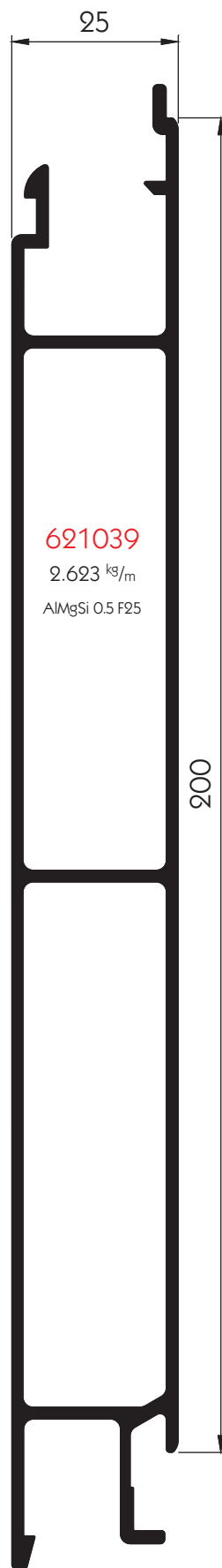
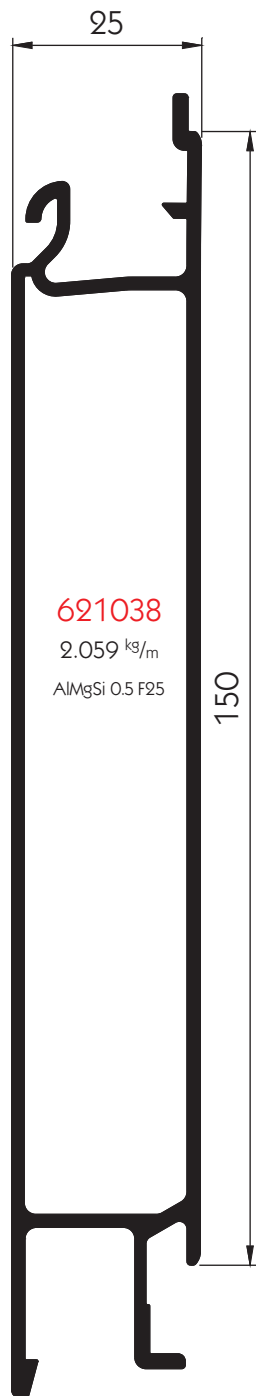
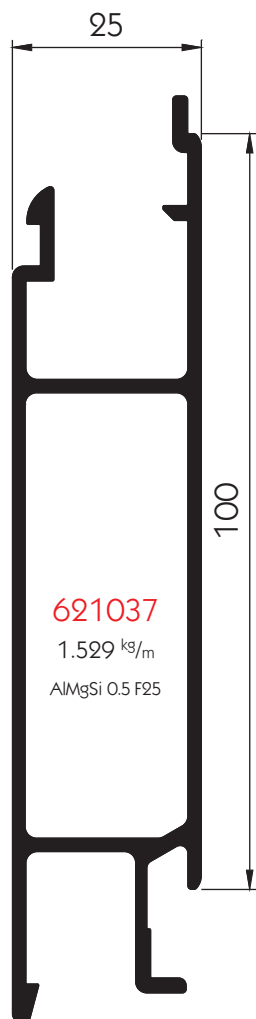


This side of the profile is the inside.

Top lower board profiles for Suer beverage truck bodywork.
Unless otherwise stated, all wall thicknesses are:
inner wall 1.7 mm,
outer wall 1.8 mm.

- ① Cavity for seal 520111810.
- ② Flange for seal 520111701.

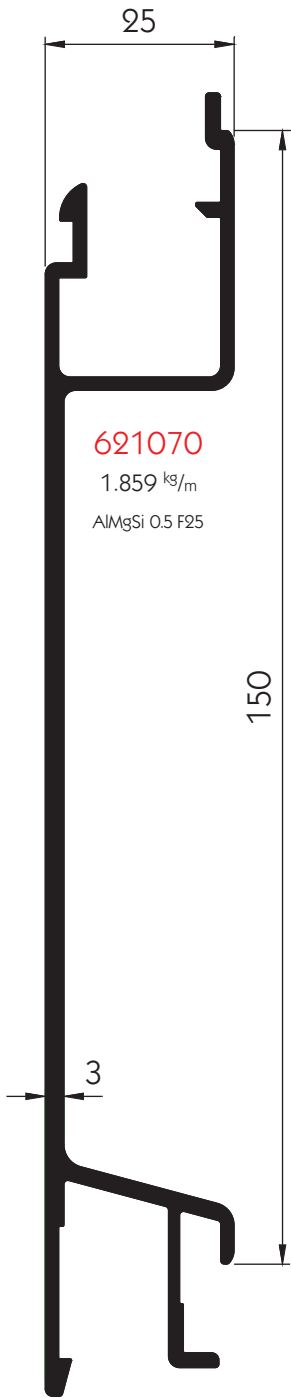
Middle profiles



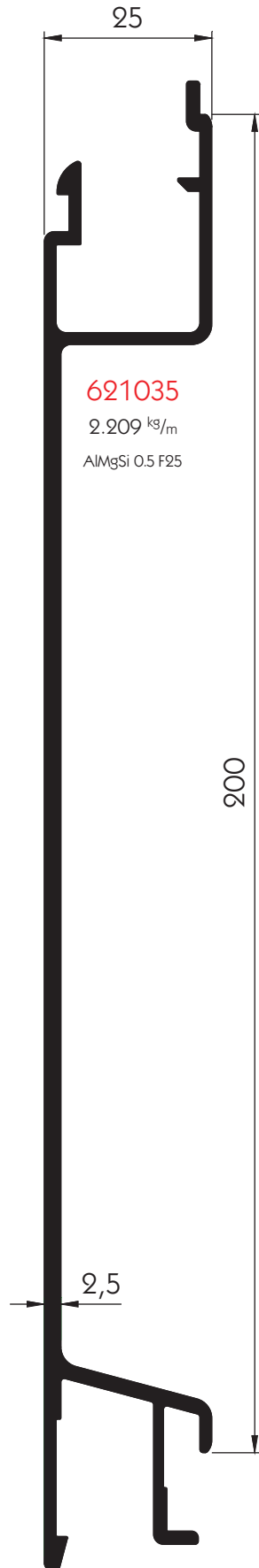
This side of the profile is the inside.

The profile **621038** can accept built-in side board fasteners without the need to mill out the top flange.
Unless otherwise stated, all wall thicknesses are:
inner wall 1.7 mm,
outer wall 1.8 mm.

Tarpaulin eyelet profiles



621070
1.859 kg/m
AlMgSi 0.5 F25

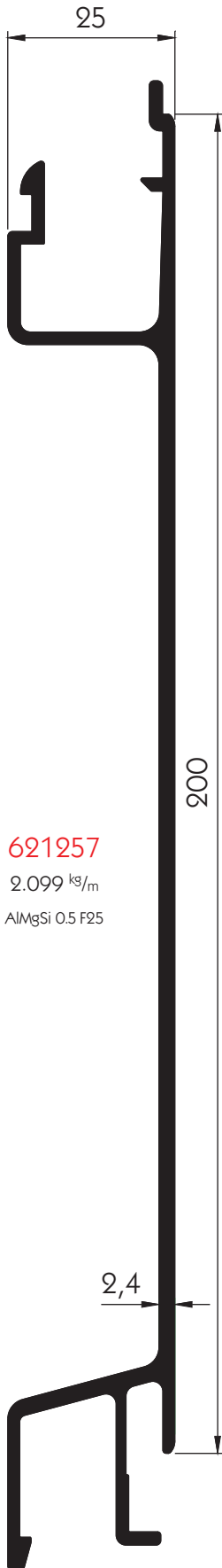


621035
2.209 kg/m
AlMgSi 0.5 F25

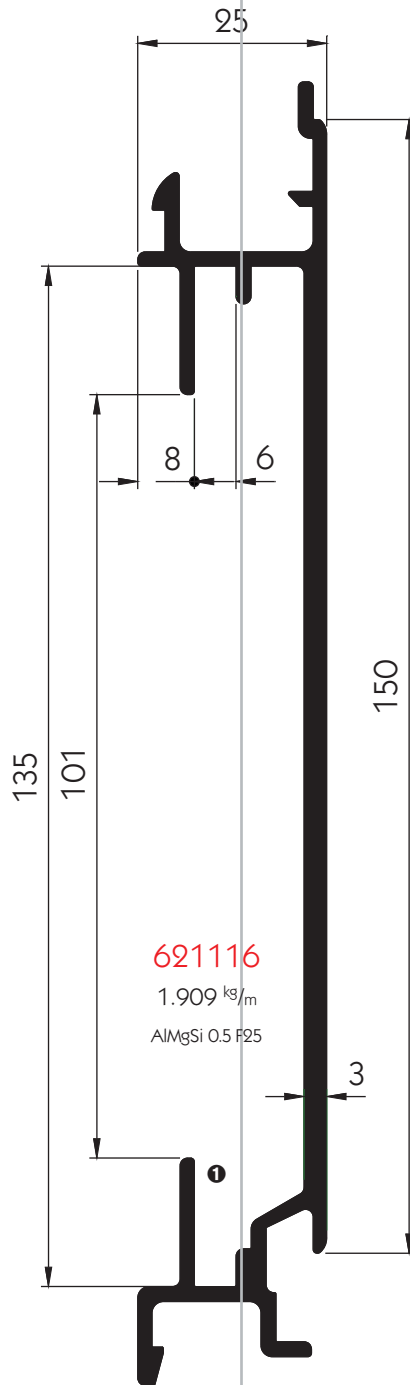
This side of the profile is the inside.

① Seating cavity for anchor rails, e.g. 122138015, 122138016, 122138017 or 122138019.

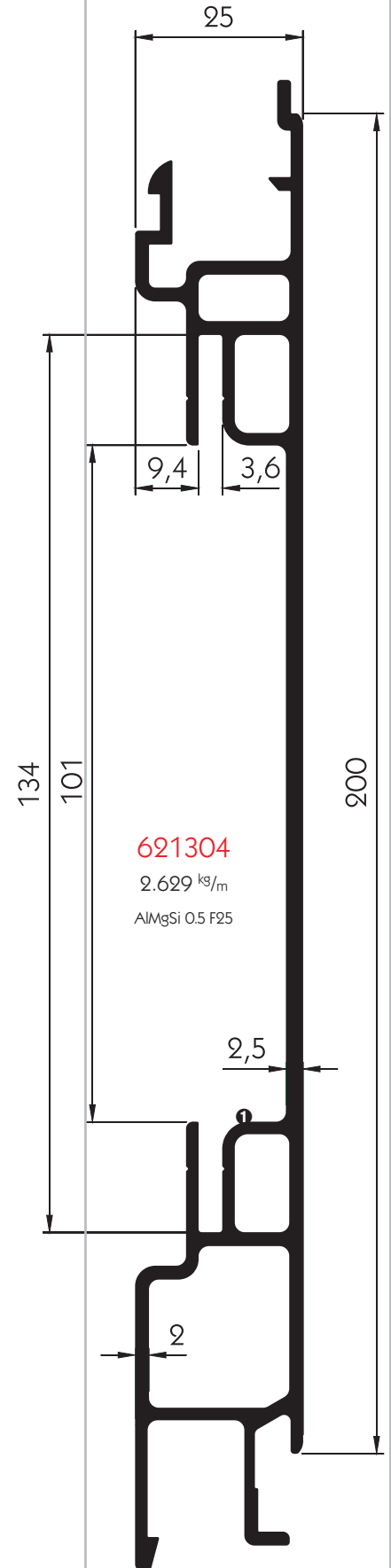
Press-in profile, inner, and press-in profile for anchor rails



621257
2.099 kg/m
AlMgSi 0.5 F25



621116
1.909 kg/m
AlMgSi 0.5 F25



621304
2.629 kg/m
AlMgSi 0.5 F25

This side of the profile is the inside.

By dispensing with the inner wall, profile 621257 achieves a weight saving and thereby a price advantage against a conventional, enclosed profile.

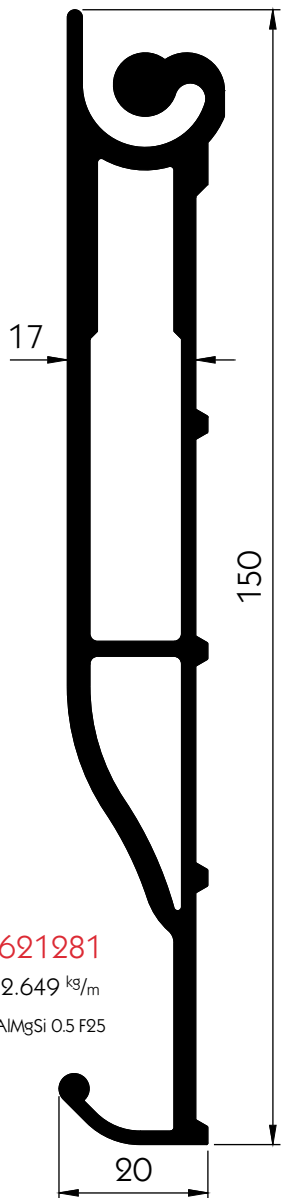
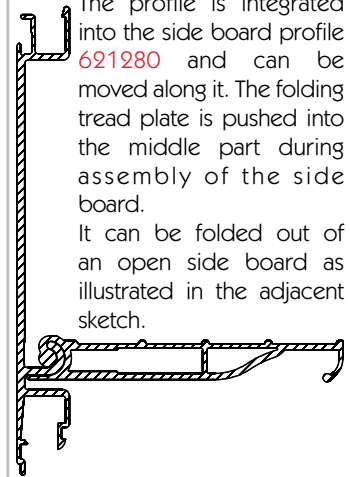
Folding tread plate profile



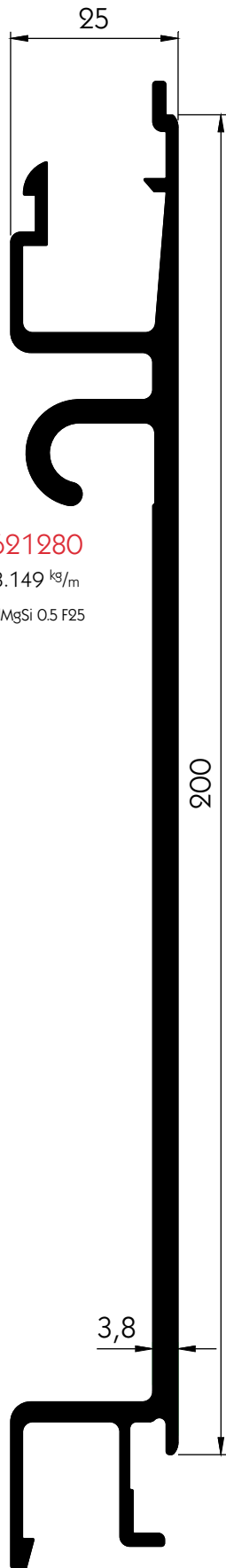
The aluminium tread plate 621281, which complies with the regulations of the German professional trade association, enables the driver to climb aboard the loading platform at any position along the side board area.

The profile is integrated into the side board profile 621280 and can be moved along it. The folding tread plate is pushed into the middle part during assembly of the side board.

It can be folded out of an open side board as illustrated in the adjacent sketch.



621281
2.649 kg/m
AlMgSi 0.5 F25

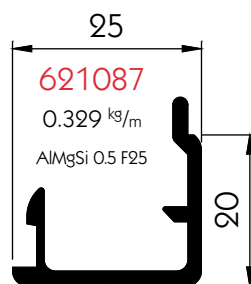
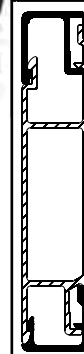


621280
3.149 kg/m
AlMgSi 0.5 F25

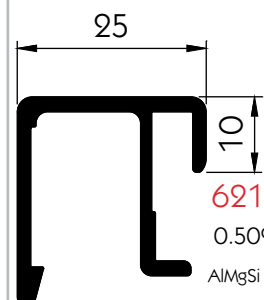
End piece



The edge profiles 621087 and 621088 allow the interlocks on each 25 mm snap-lock system side board profile to be covered. This results in entirely new applications such as transforming middle profiles into side planks.



621087
0.329 kg/m
AlMgSi 0.5 F25

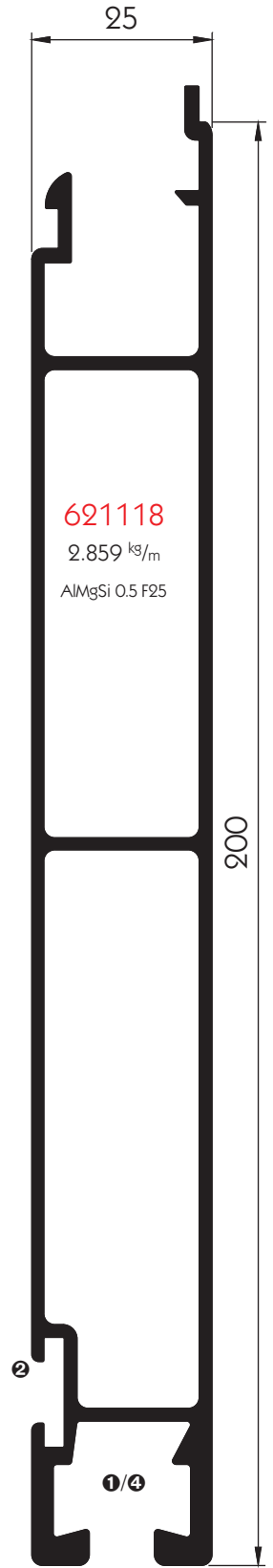
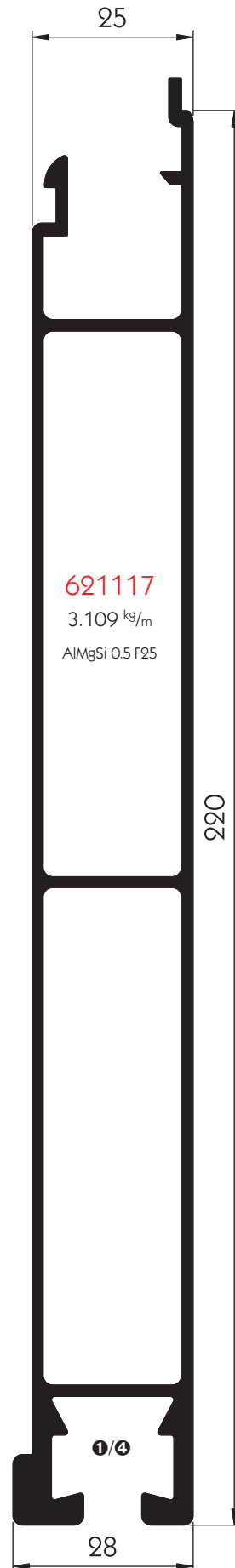
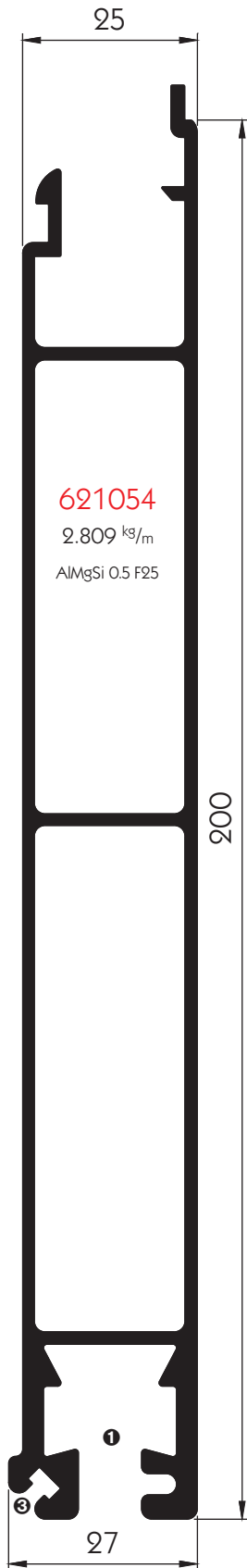
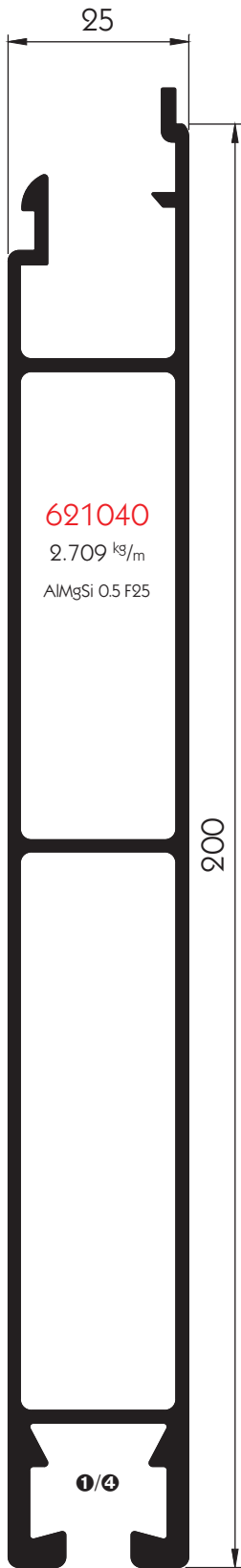


621088
0.509 kg/m
AlMgSi 0.5 F25

This side of the profile is the inside.

- ❶ Cavity for threaded rail.
- ❷ Cavity for seal 520111664.
- ❸ Cavity for seal 520111672.
- ❹ Cavity for seal 520111671.

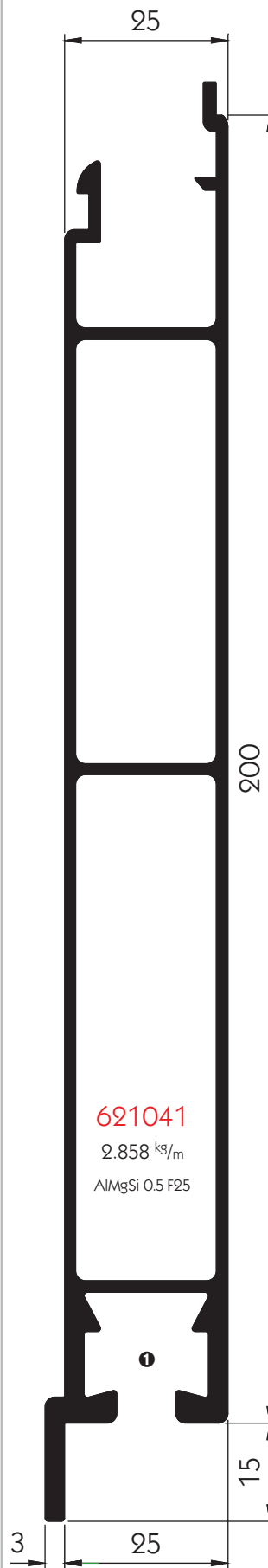
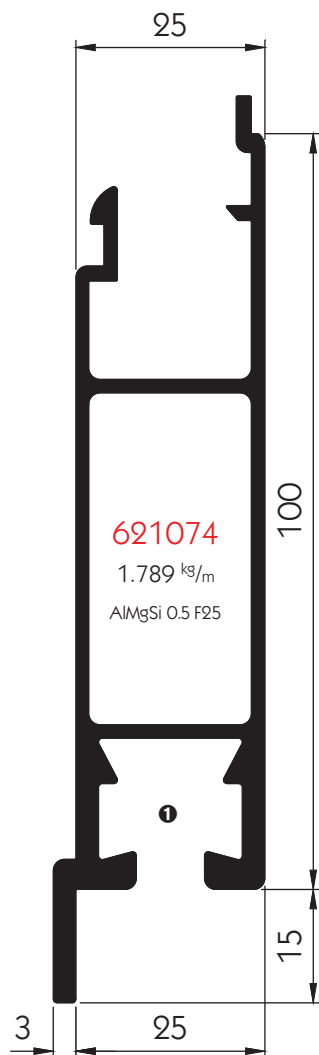
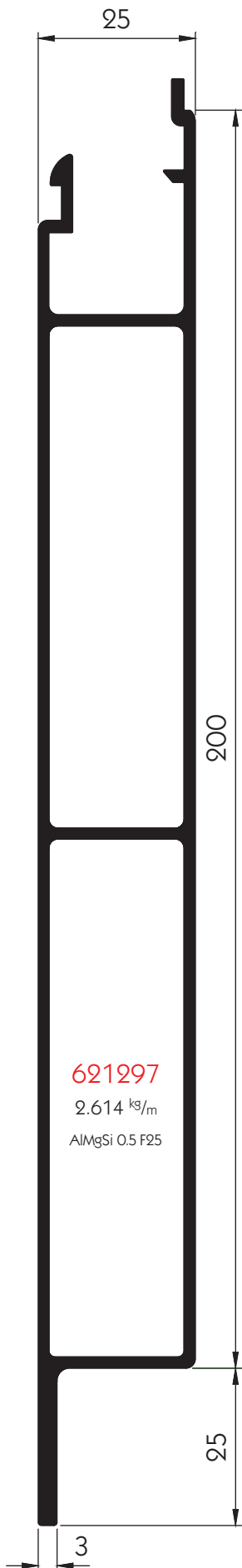
Bottom edge profiles



This side of the profile is the inside.

Unless otherwise stated, all wall thicknesses are 1.9 mm.

This side of the profile is the inside.



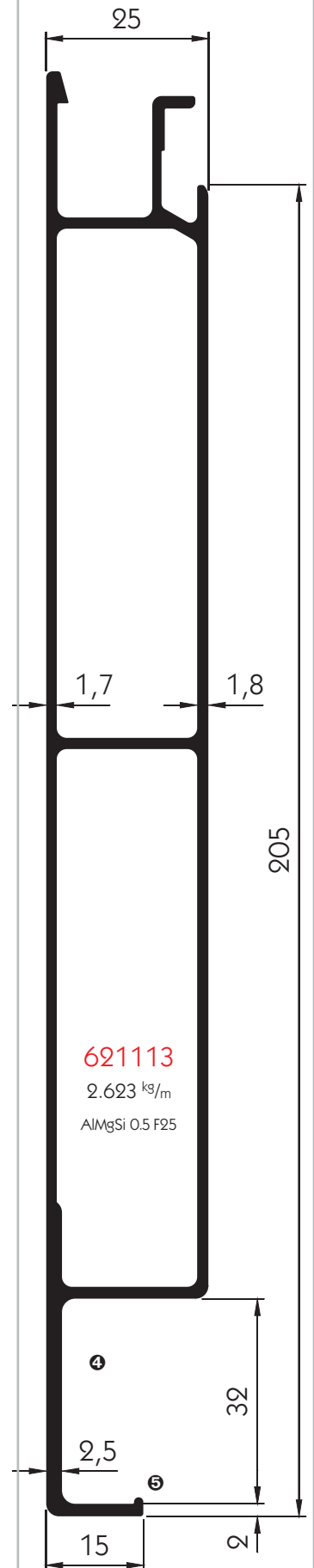
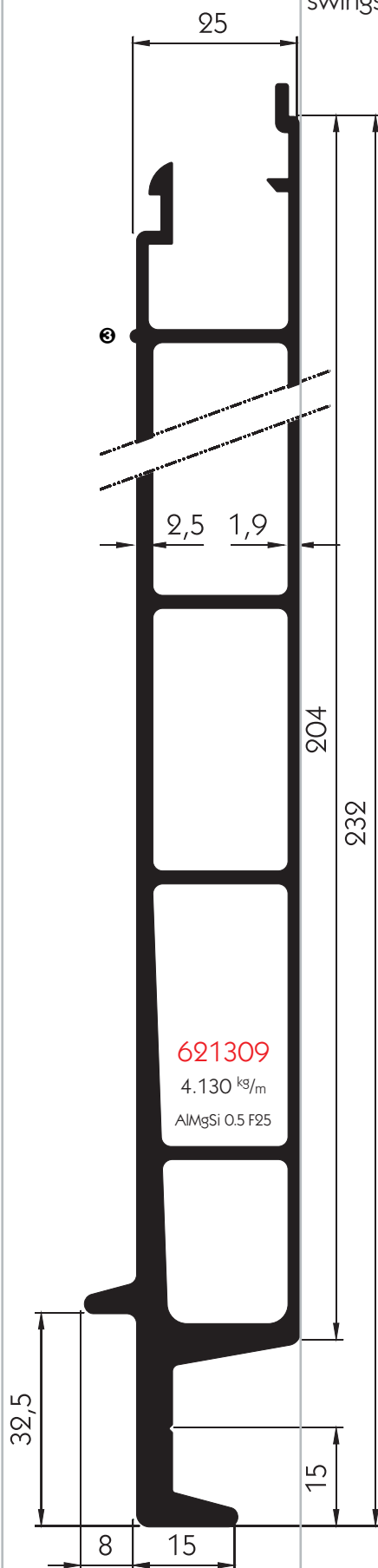
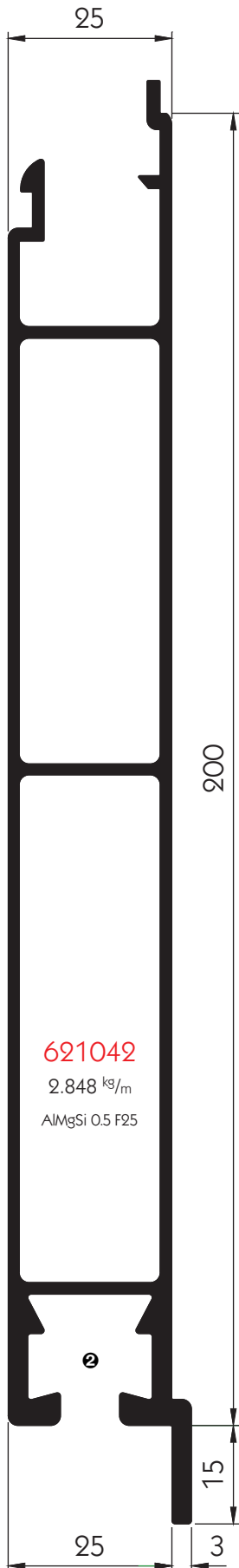
Unless otherwise stated, all wall thicknesses are:
for **6211041** & **621156**:
inner wall 1.7 mm,
outer wall 1.8 mm.
621297: 1.8 mm.
① Cavity for seal **520111671**
and/or ram guard **520111812**
and threaded rail.

Page 643:
Unless otherwise stated, all wall thicknesses are:
inner wall 1.7 mm,
outer wall 1.8 mm.
② Cavity for seal **520111671**
and/or ram guard **520111812**
and threaded rail.
③ Cams without function.
④ Cavity for seal **520111810**.
⑤ Flange for seal **520111701**.

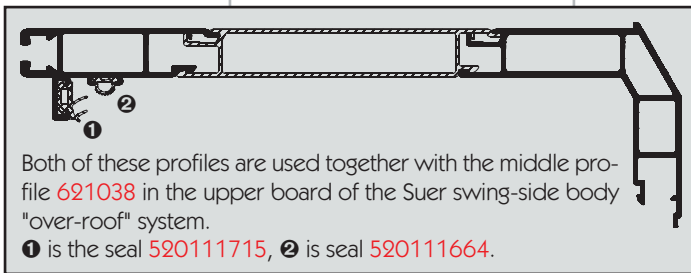
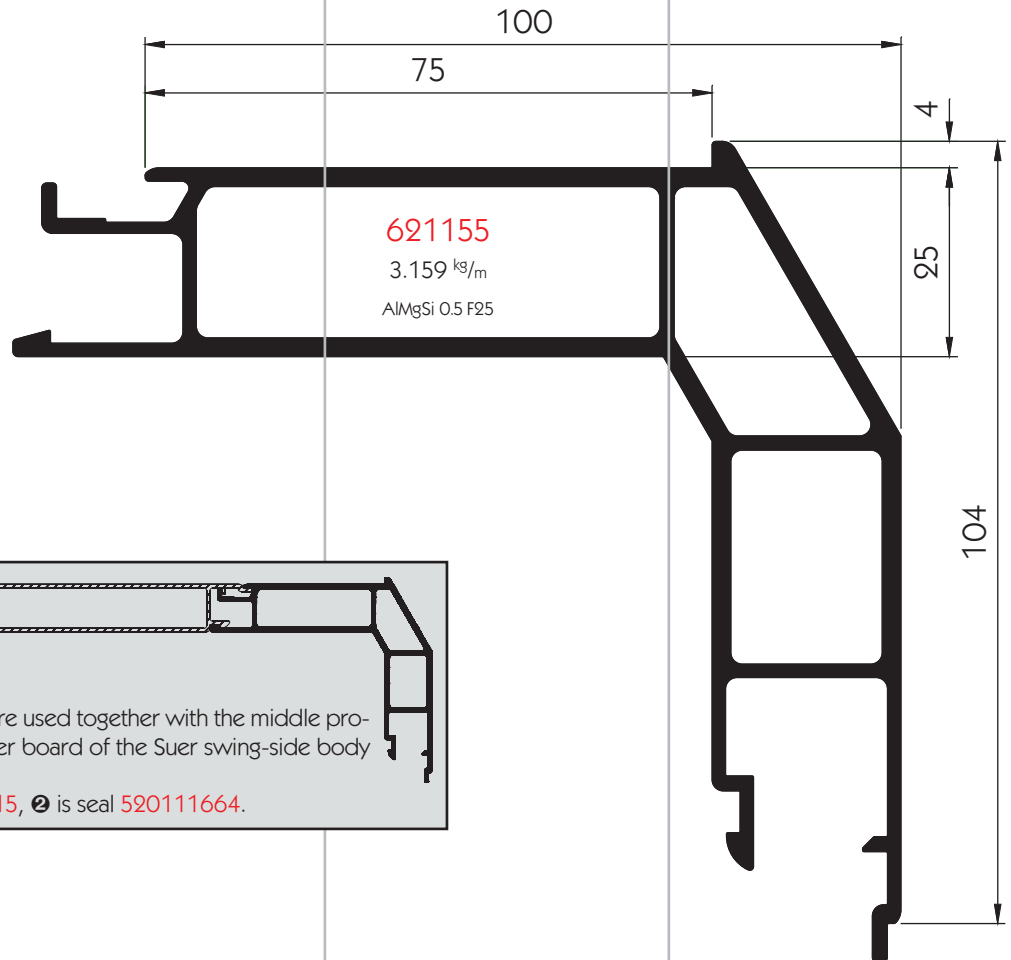
Information see page 642.

Bottom edge profile for the upper boards on swingside bodies

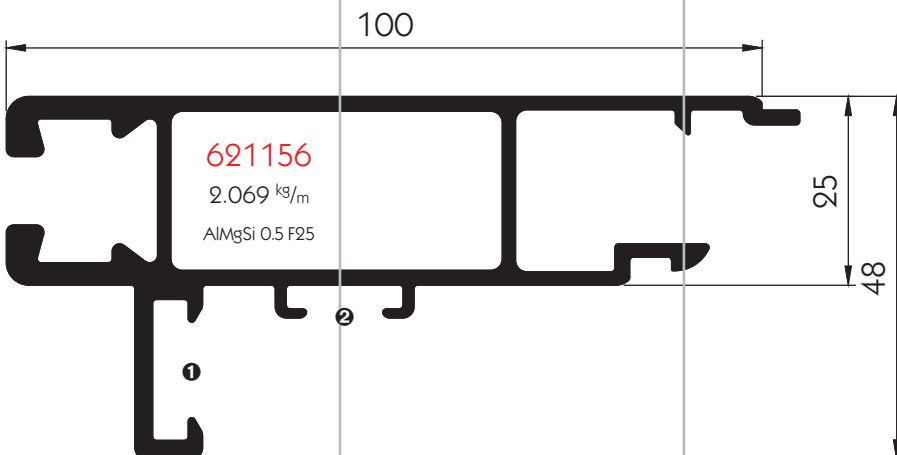
This side of the profile is the inside.



Top edge profiles for upper boards on swing-side bodies



This side of the profile is the inside.



Wall thicknesses:

621155 = 2.5 mm

621156 = 2.0 mm

① Cavity for seal 520111715.

② Cavity for seal 520111664.

Upper board edge profiles for Suer "under-roof" swing-side body systems.

The hitch bearing causes 621294 to be a bottom edge profile.

612910 and 621294 together form an top edge profile with a hinge joint; can be utilised for e.g. adjustable flaps. The profiles have a smooth outer surface, ideally suited as an advertising area. The snug connection between the top edge profile ❶ and the hinge joint seating ❷ dispenses with the need for sealing the flap in this area.

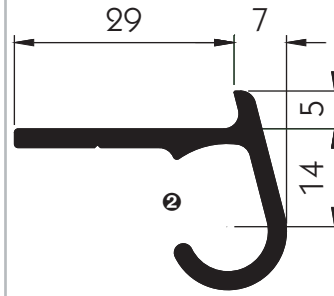
Opening angle maximum 94°.

❸ Cavity for aluminium threaded rails.

612910

0.519 kg/m

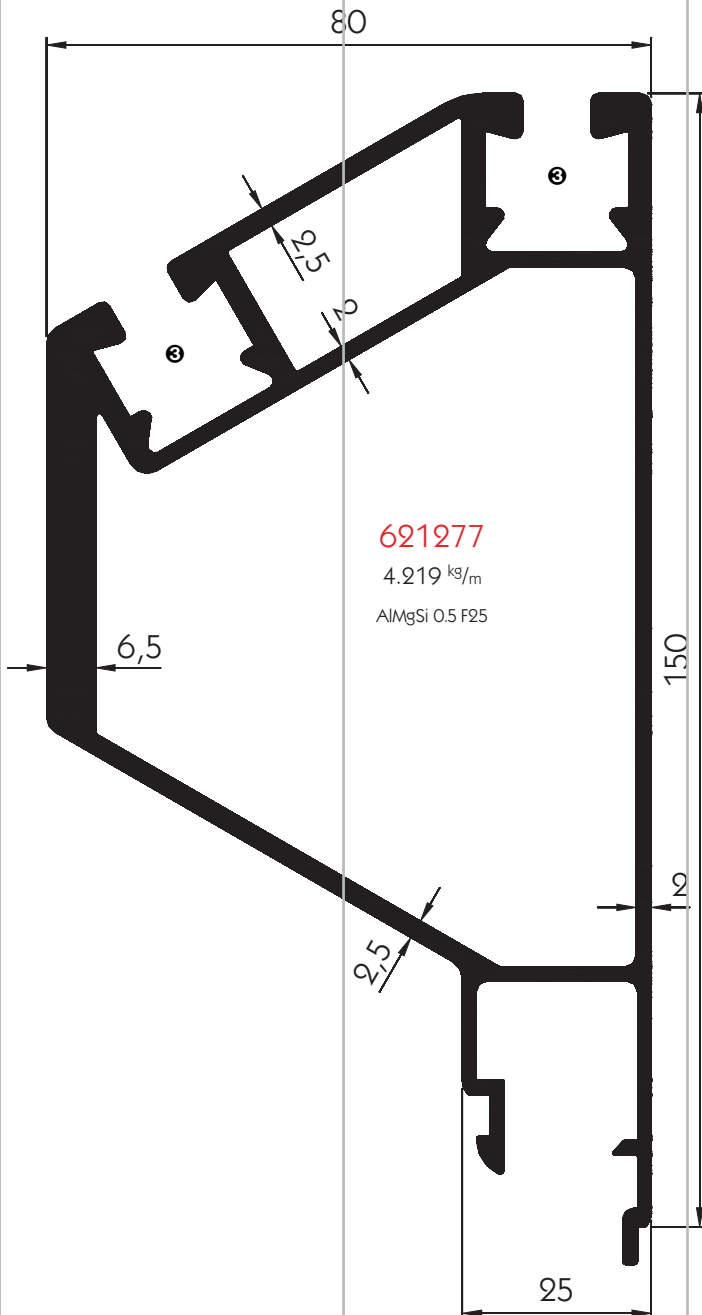
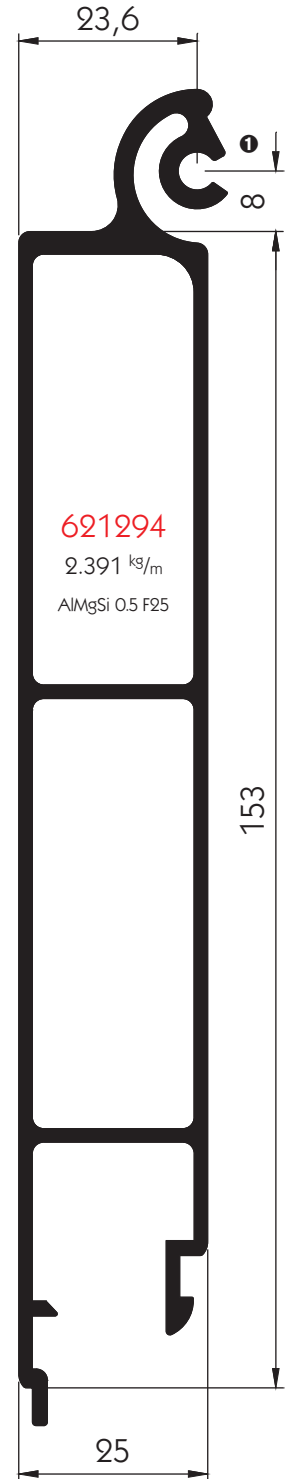
AlMgSi 0.5 F25



621294

2.391 kg/m

AlMgSi 0.5 F25



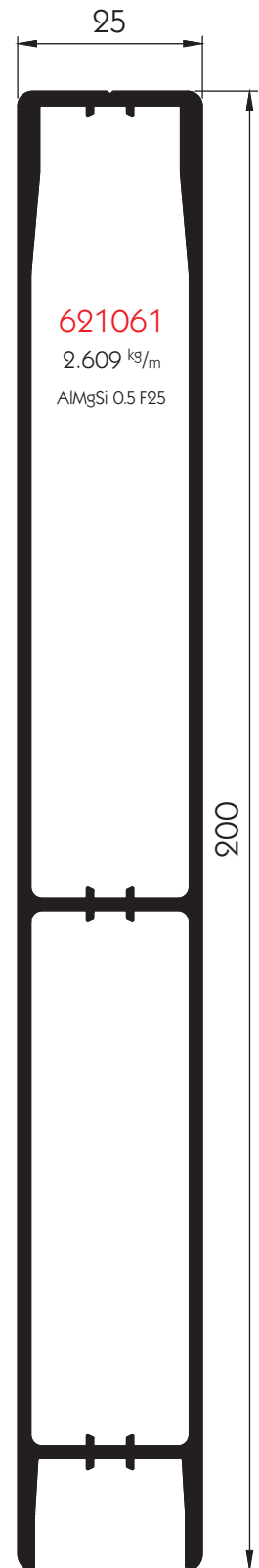
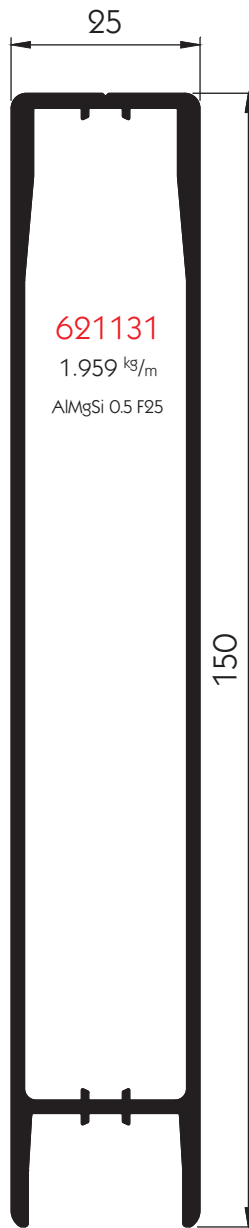
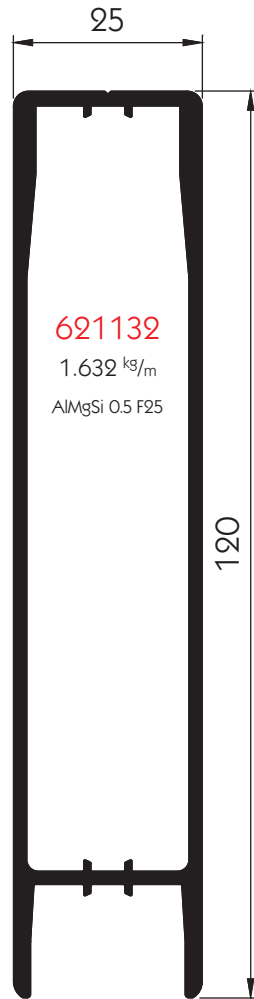
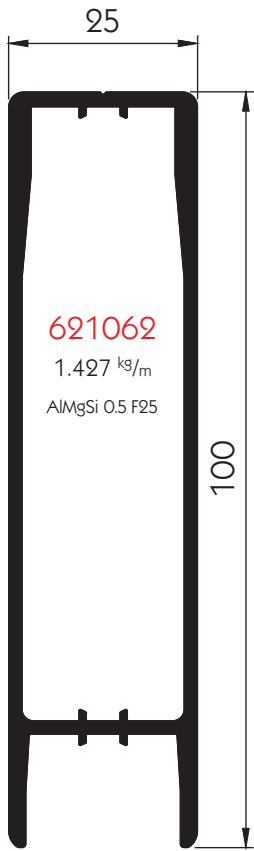
621277

4.219 kg/m

AlMgSi 0.5 F25

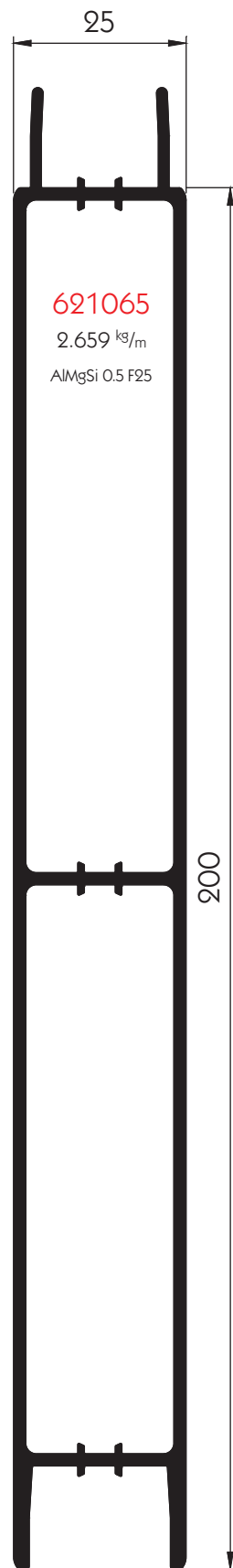
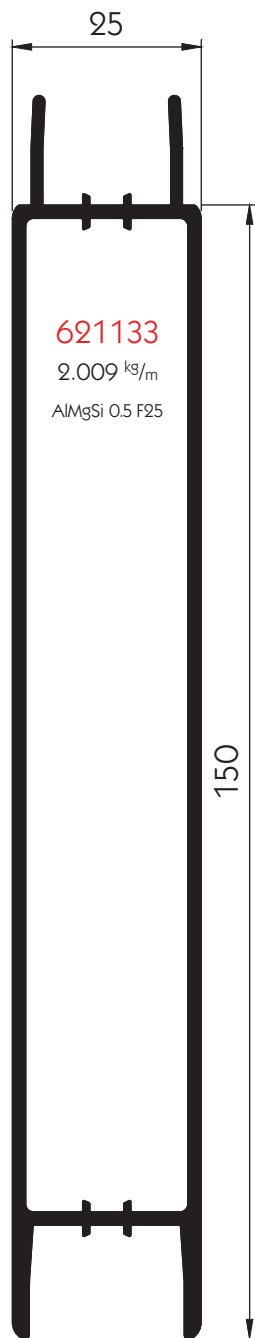
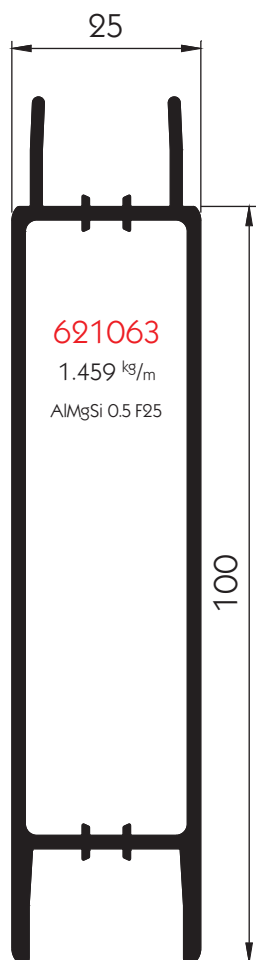
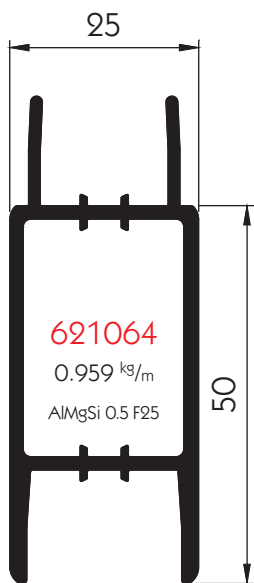
This side of the profile is the inside.

Side board profiles
25 mm push-in system
Top edge profiles



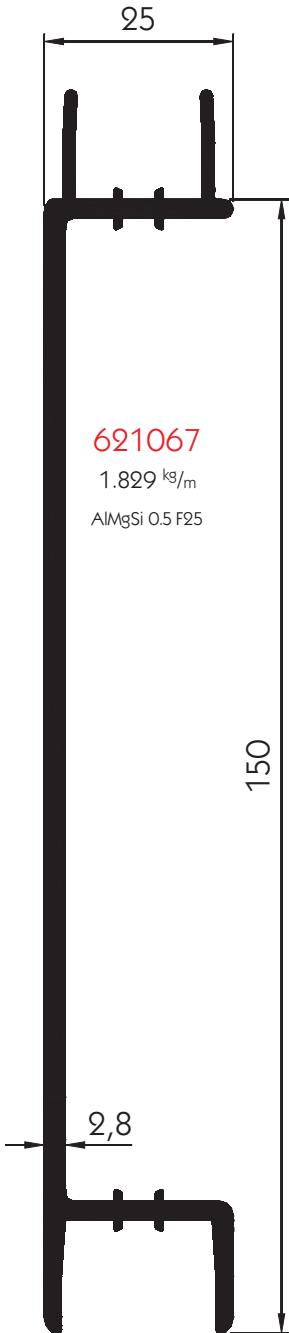
Unless otherwise stated, all wall thicknesses are:
621062 = 1.8 mm
All others = 1.9 mm.

Middle profiles



Unless otherwise stated, all wall thicknesses are:
621063 + 621064 = 1.8 mm
621065 + 621133 = 1.9 mm

Tarpaulin eyelet profiles



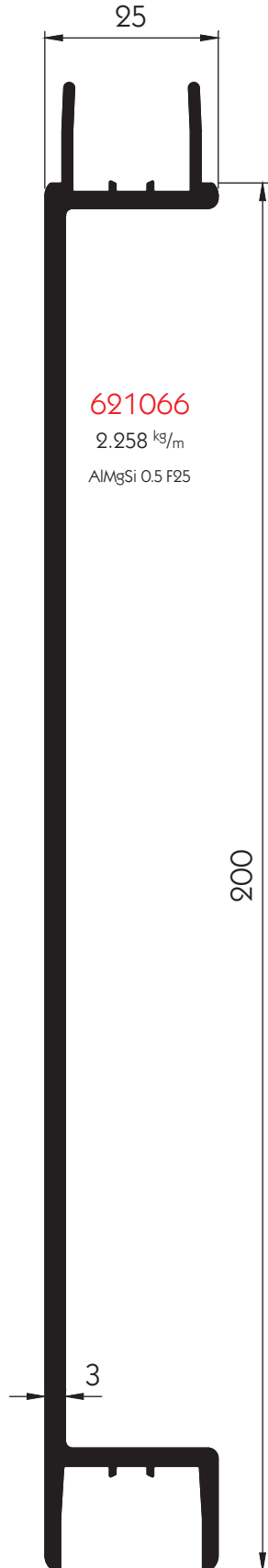
621067

1.829 kg/m

AlMgSi 0.5 F25

150

2,8



621066

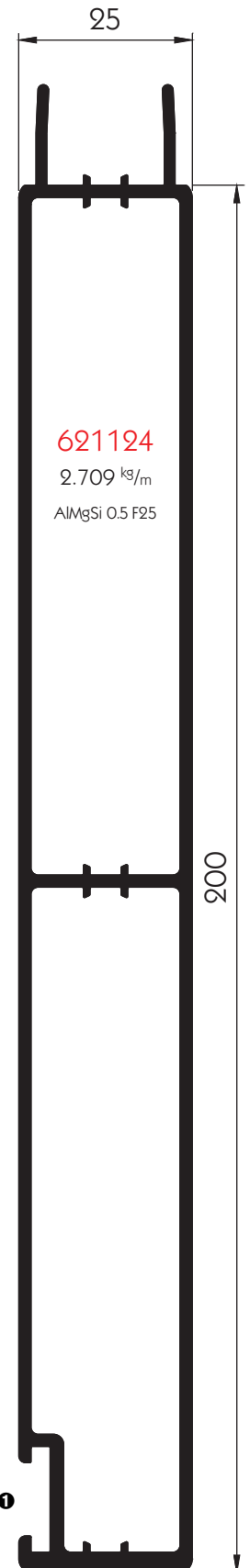
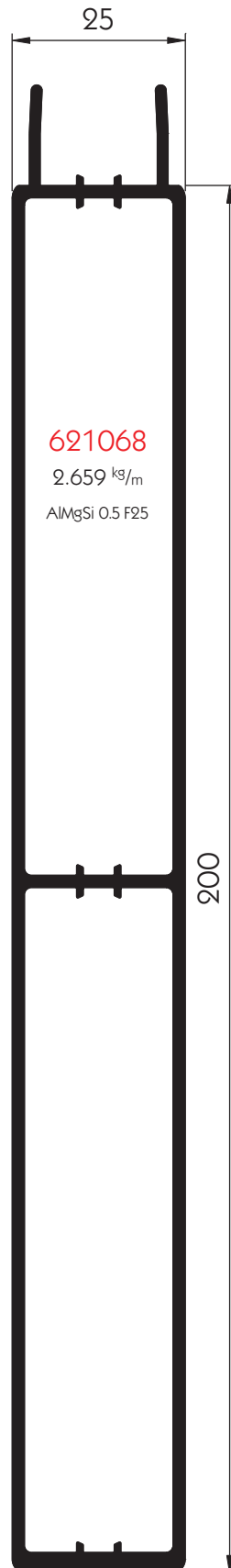
2.258 kg/m

AlMgSi 0.5 F25

200

3

Bottom edge profiles



Unless otherwise stated, all wall thicknesses are:
621068 + 621124 = 1.9 mm
 ❶ Cavity for seal **520111664**.

Unless otherwise stated, all wall thicknesses are:

621083 = 1.8 mm

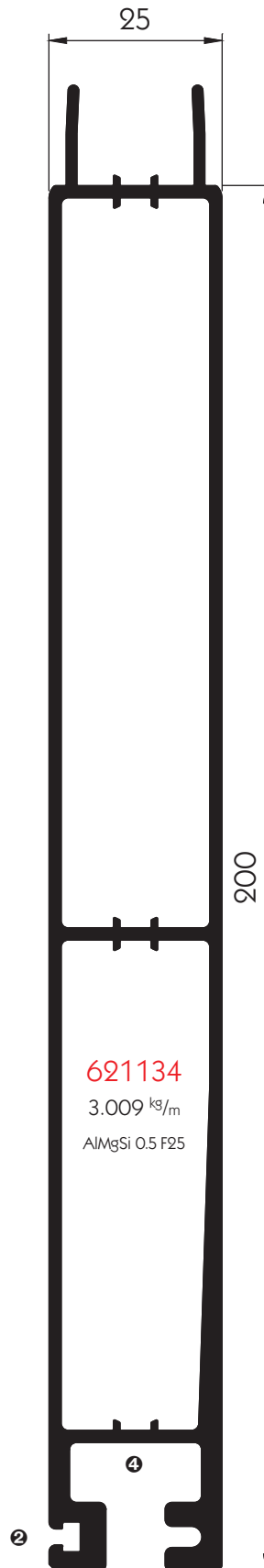
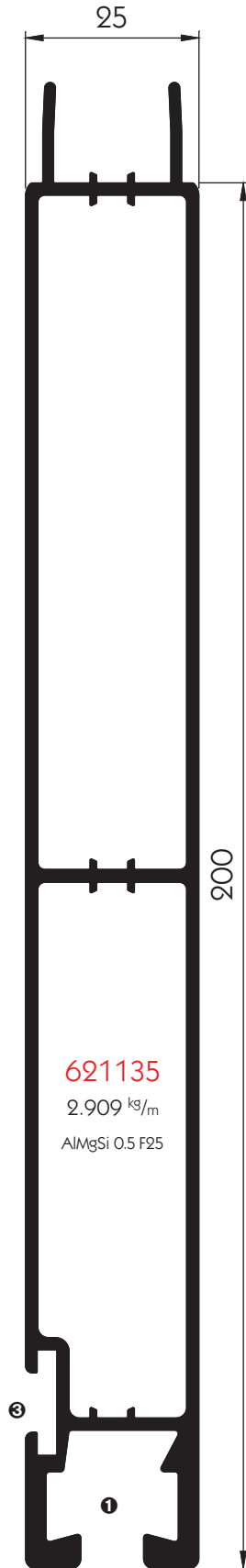
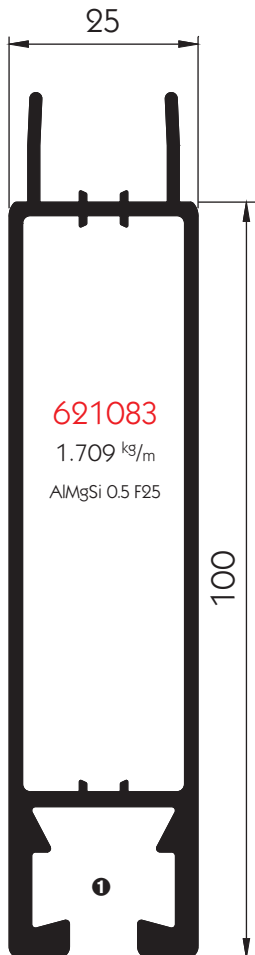
621134 + 621135 = 1.9 mm

① Cavity for seal 520111671 and threaded rail.

② Cavity for seal 520111672.

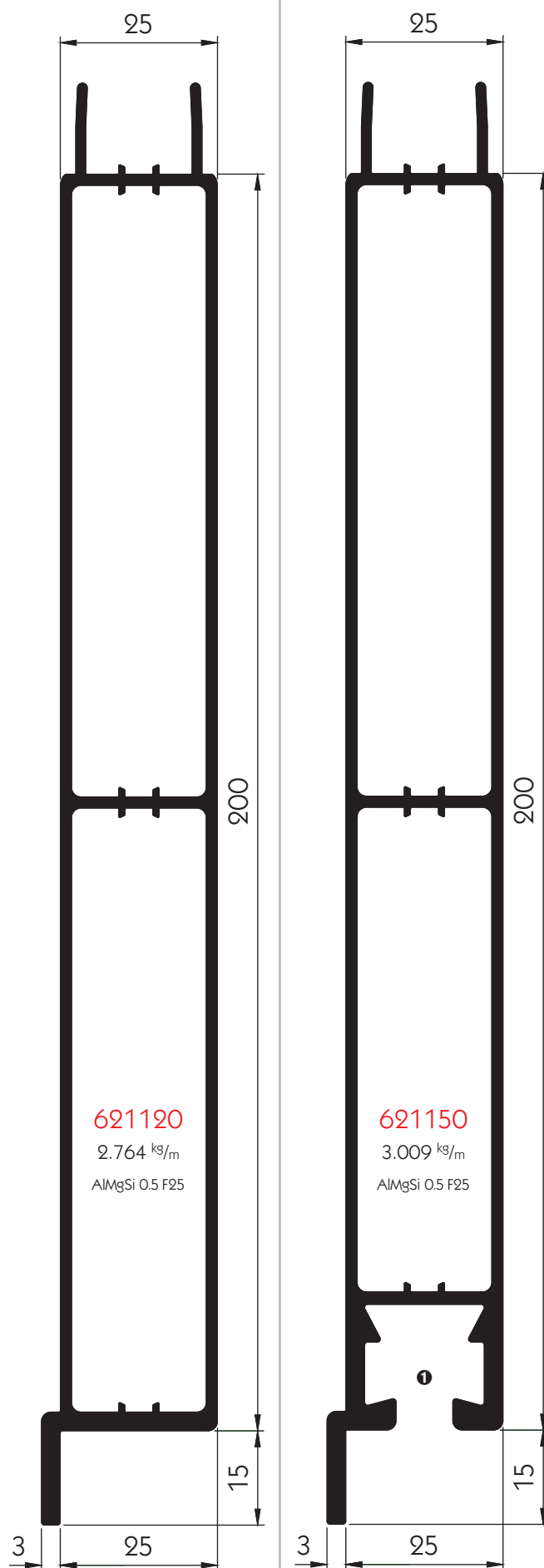
③ Cavity for seal 520111664.

④ Cavity for threaded plates.

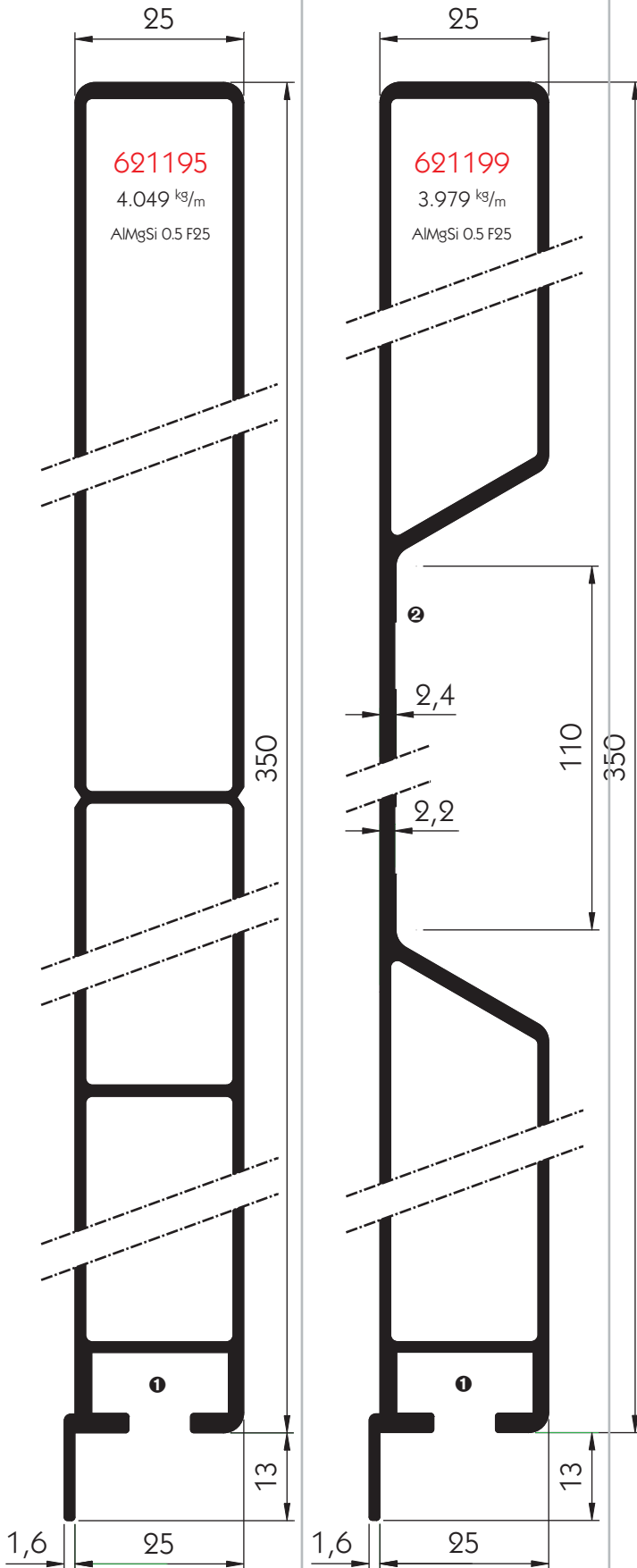


Unless otherwise stated, all wall thicknesses are: 1.8 mm.

❶ Cavity for seal 520111671 and/or ram guard 520111812.



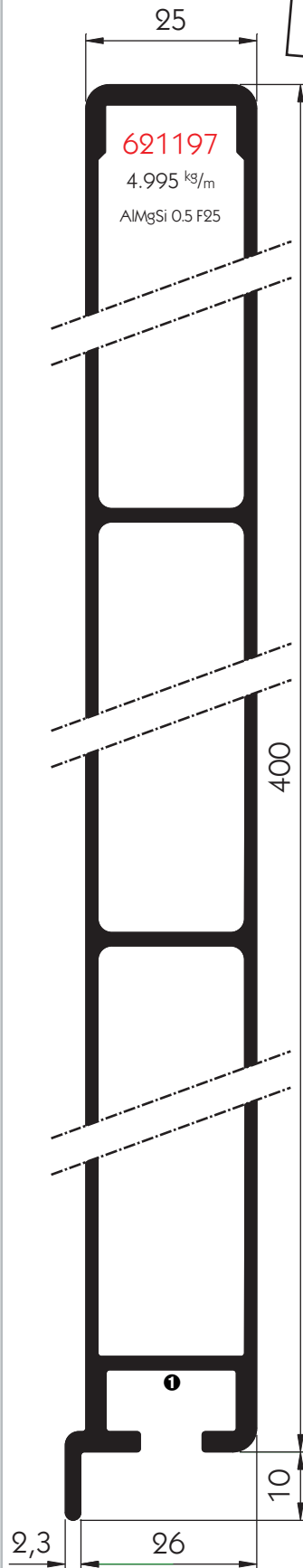
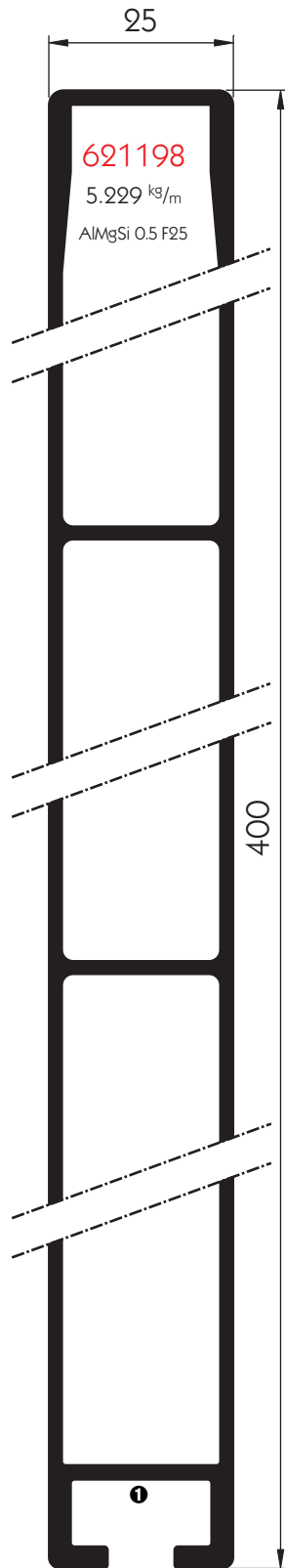
Side board profiles
25 mm, one-piece



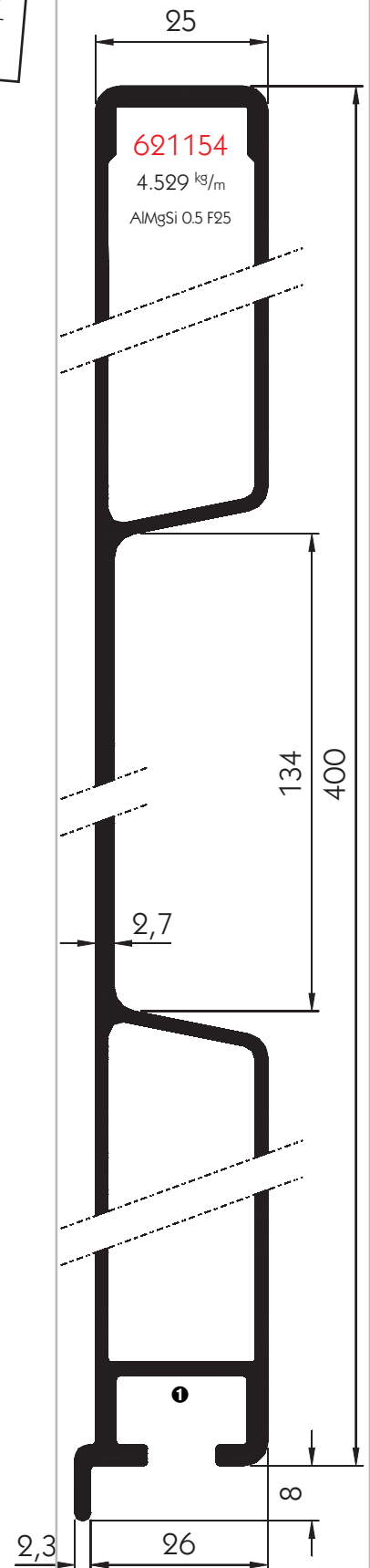
The one-piece side board-profile **621199** is profiled for tarpaulin eyelets in the area **2**.

Unless otherwise stated, all wall thicknesses are 1.6 mm.

1 Cavity for threaded plates.

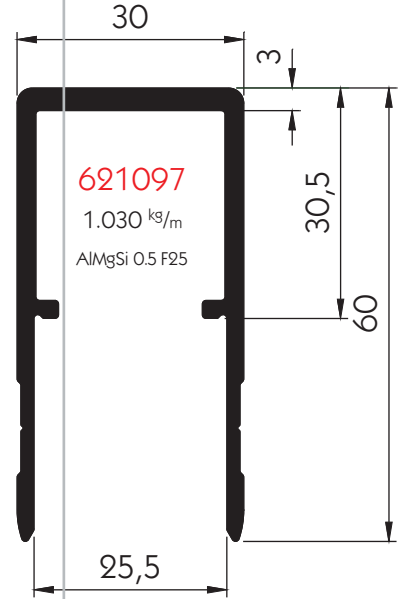
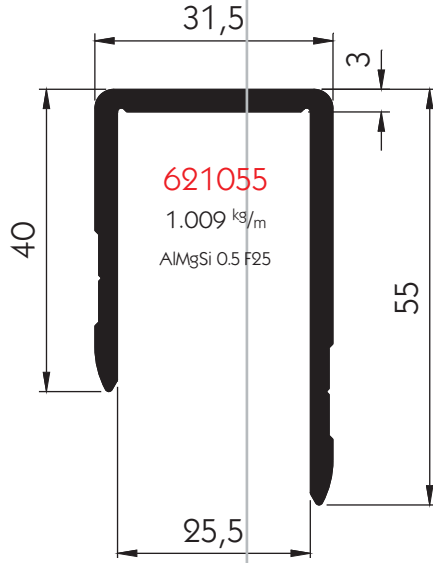
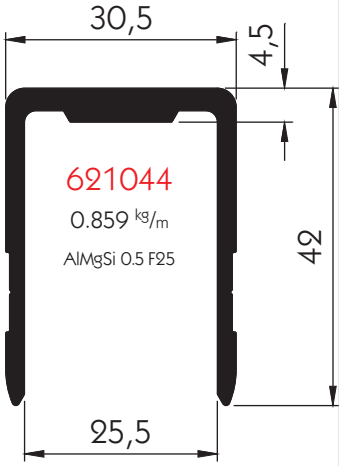


The side board profile **621198** is only available in anodized!

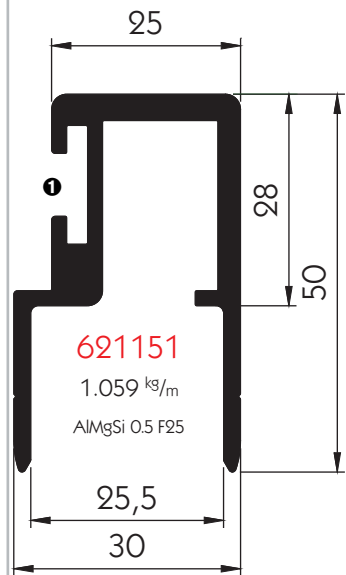
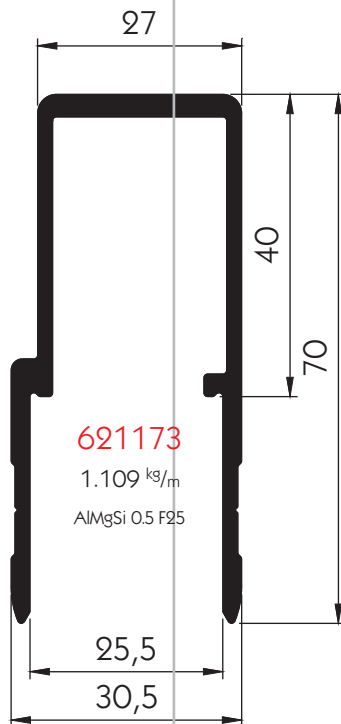
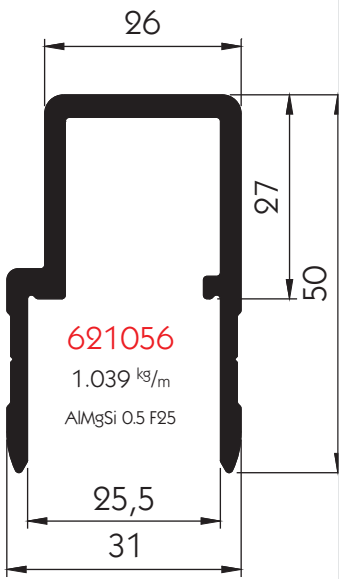


Unless otherwise stated, all wall thicknesses are 1.9 mm.
 1 Cavity for threaded plates.

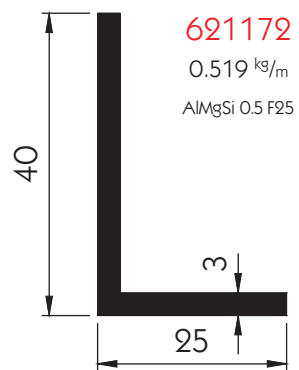
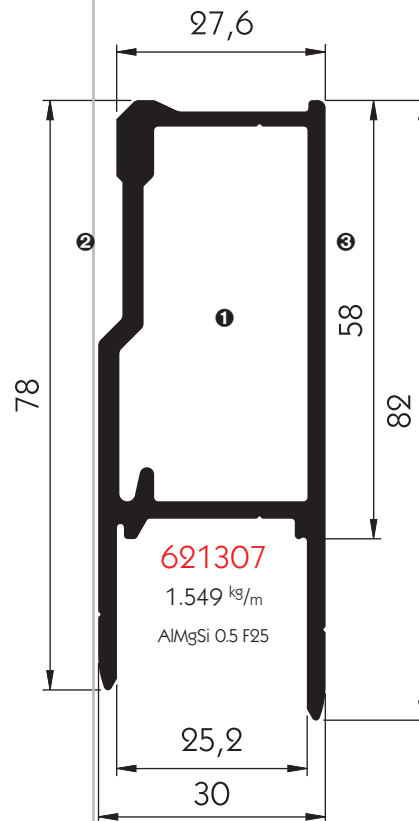
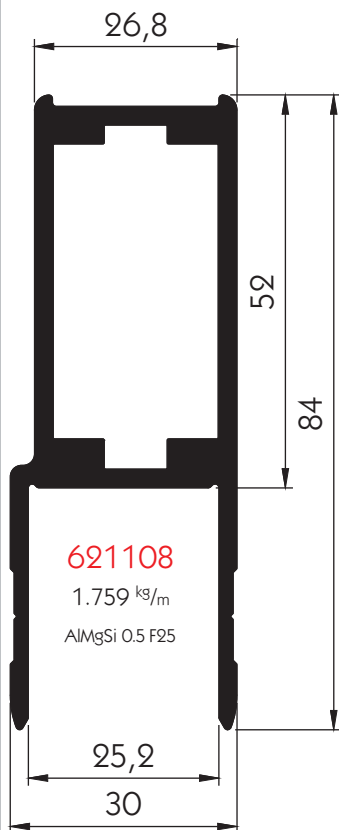
Side board profiles,
25 mm edge surrounds



① Cavity for seal 520111664.

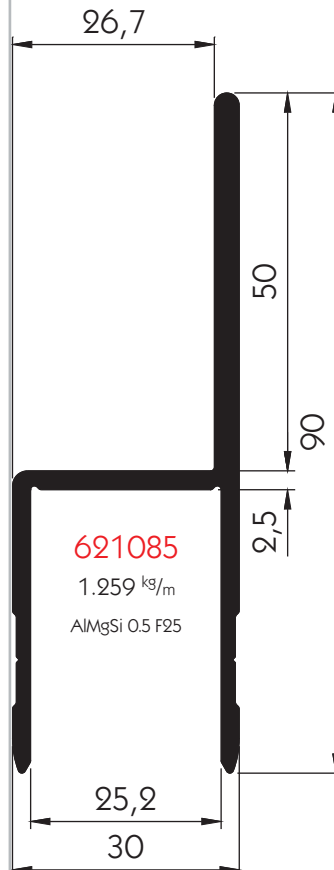
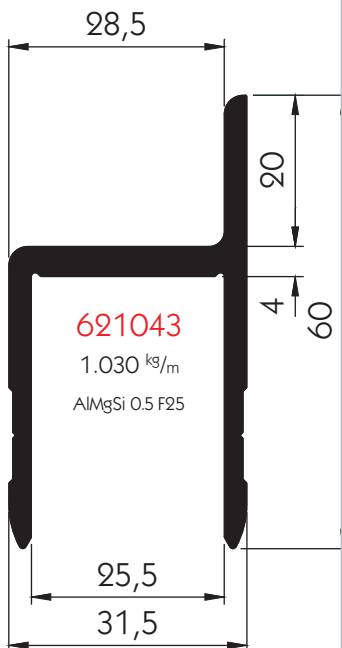
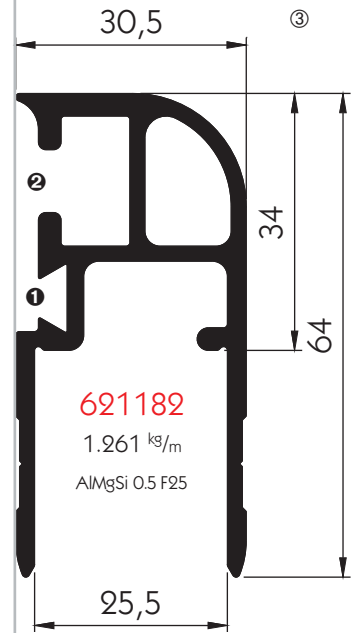
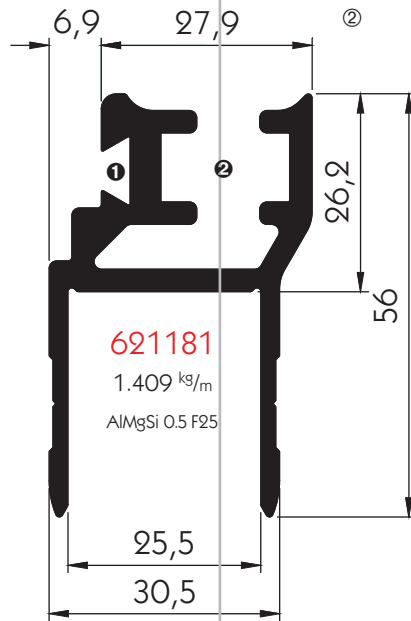
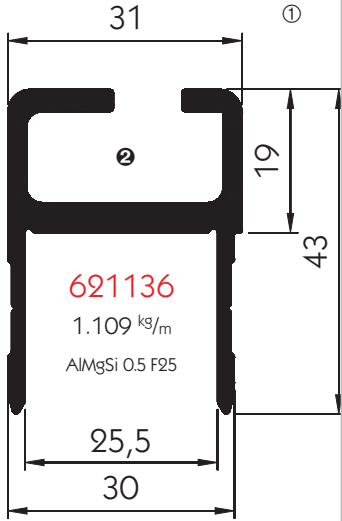


This side of the profile is the inside.



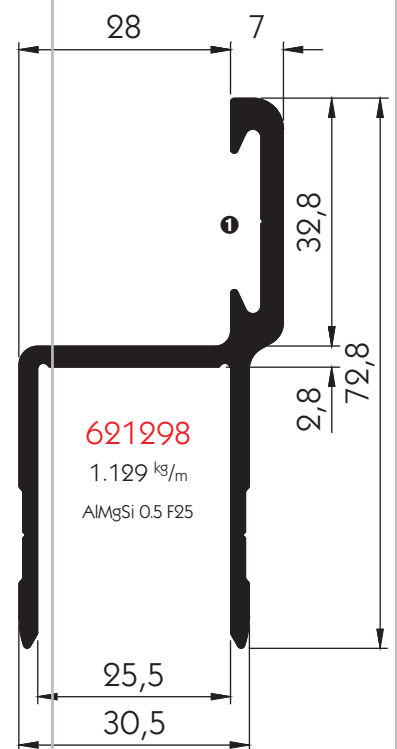
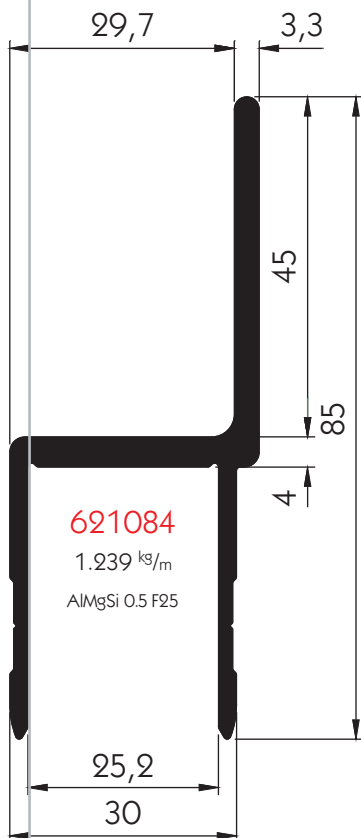
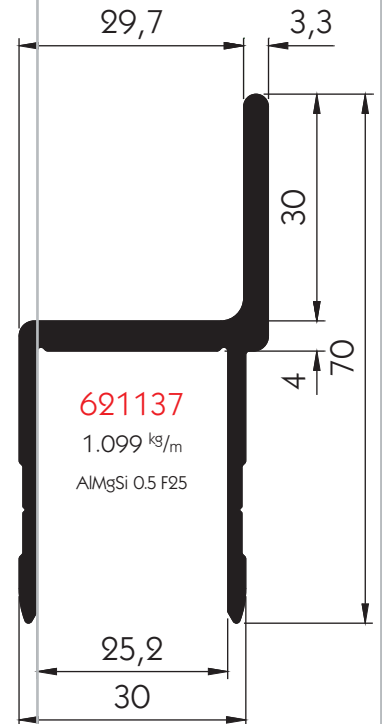
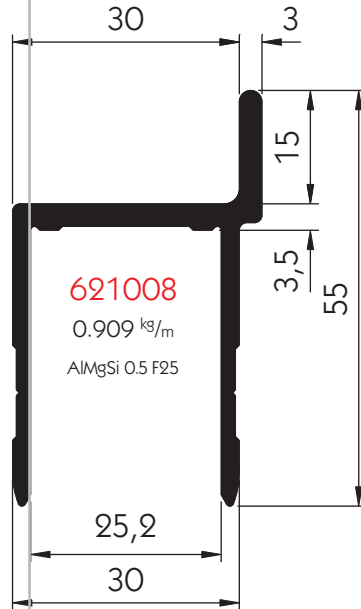
This side of the profile is the inside.

- ❶ Cavity for mounting the long travel bolt fastener 710 or 720. Inside of the profile.
- ❷ Long travel bolt fastener 710.
- ❸ Long travel bolt fastener 720.



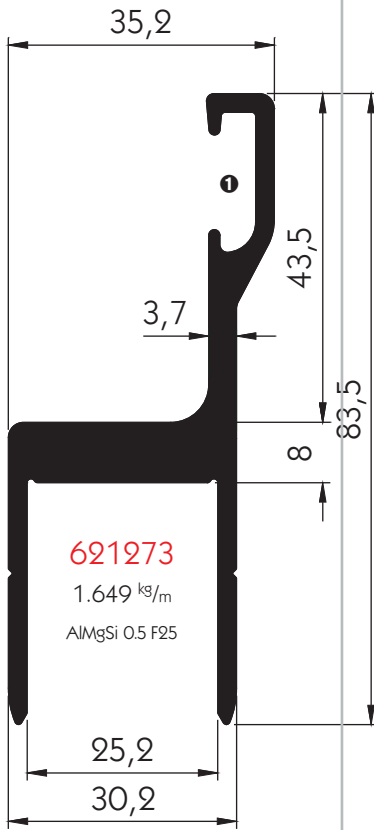
- ① Edge profile for K IV.
- ② Edge profile for K 20.
- ③ Edge profile for K 20, rear corner pillar.
- ❶ Cavity for seal 106121348.
- ❷ Cavity for keeper.

This side of the profile is the inside.



This side of the profile is the inside.

❶ Cavity for seal 520171708.

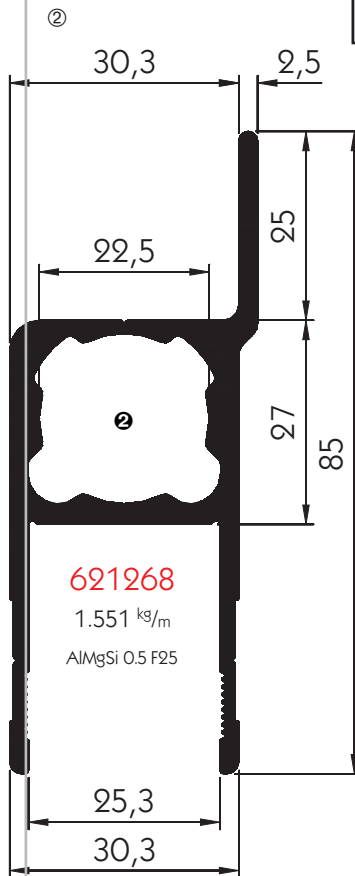
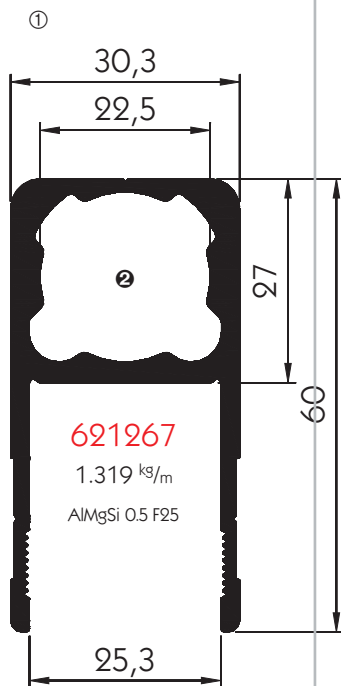


Advantage of brass bushes

For fitting \varnothing 16 mm internal door locking bars in all the edge surround profiles on this page, brass bushes, article no. **612675176**, must be used.

The locking bar is pivoted inside the edge surround in 4 brass bearings; two at the fastener and one each at the locking cam. Being supported in the bushes means that the fastener can also be easily turned after long idle periods and in the worst weather conditions. The bushes are straight knurled and are simply forced into the profile cavity seating.

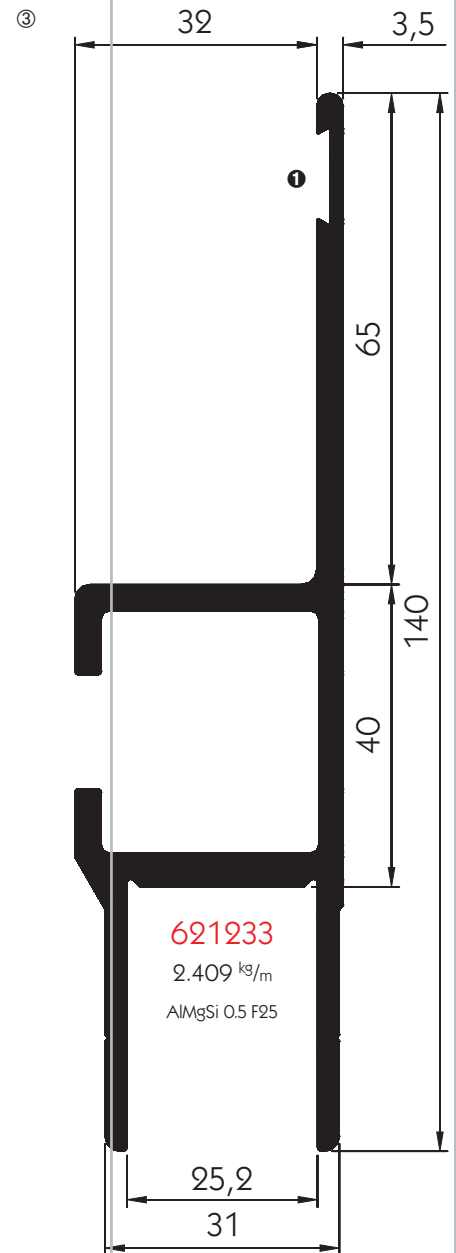
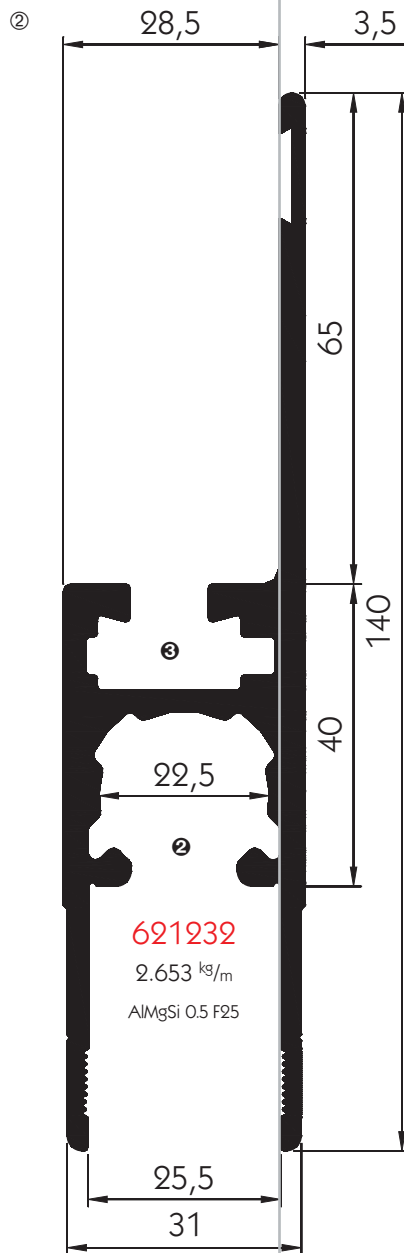
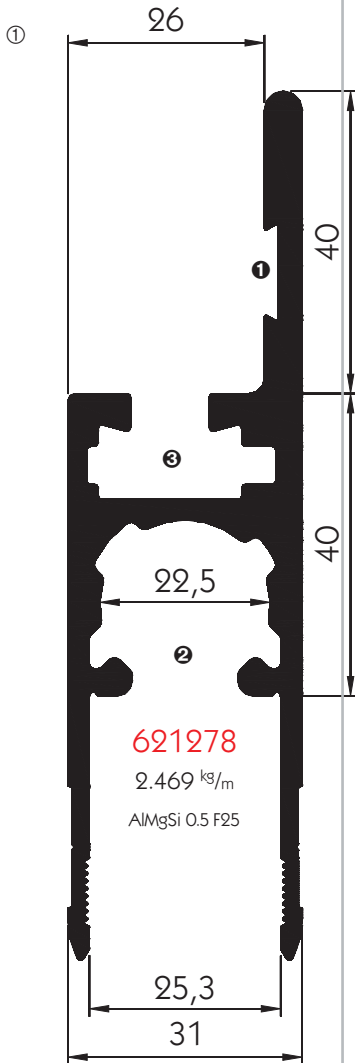
This side of the profile is the inside.



① Cavity for seal **52011715**.

①/② Edge profile for locking bar \varnothing 16 mm.

② Cavity for brass bushing **612675176**.



This side of the profile is the inside.

① The edge surround profile **621278** is fitted to the upper and lower boards of the Suer swing-side body "under-roof" system.

② The edge surround **621232** is fitted to the lower boards of the Suer swing-side body "over-roof" system.

③ The edge surround **621233** is fitted to the lower boards of the Suer swing-side body "over-roof" system.

❶ Cavity for Polyamide strip **617675141**.

❷ Cavity for brass bushing **612675176**.

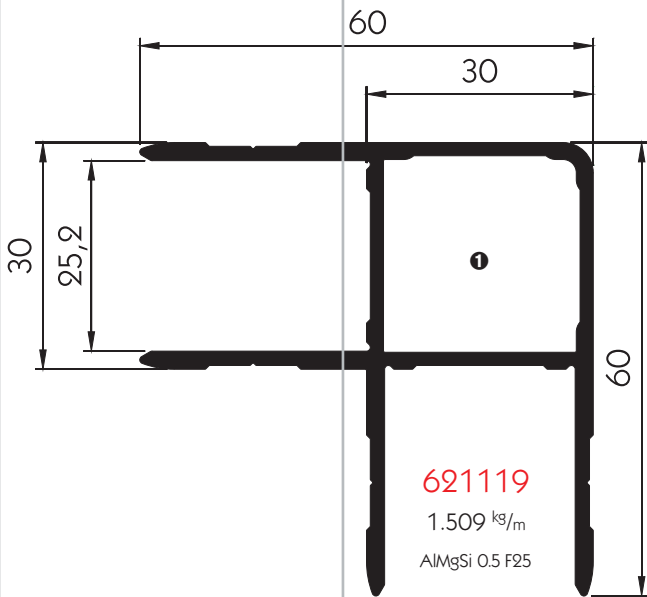
❸ Cavity for threaded yokes.



Polyamide strip

The polyamide strip, article no. **617675141**, is to prevent the paint becoming prematurely damaged by the constant opening and closing of the side board or door around the mating surfaces (edge profile to edge profile or pillar).

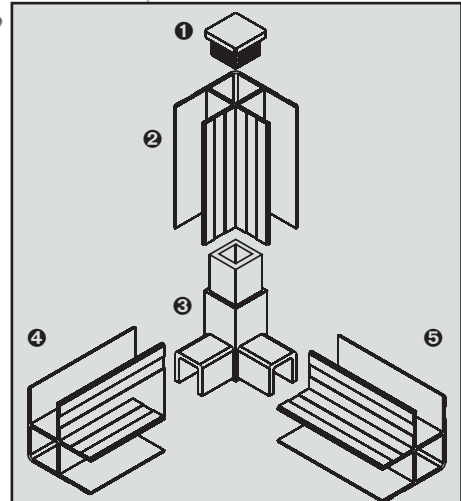
The polyamide strip is pulled into the groove provided and secured, e.g. by staking with a centre punch.



621119

1.509 kg/m

AlMgSi 0.5 F25

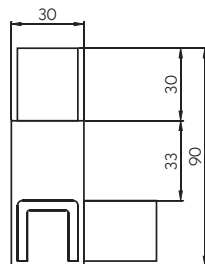
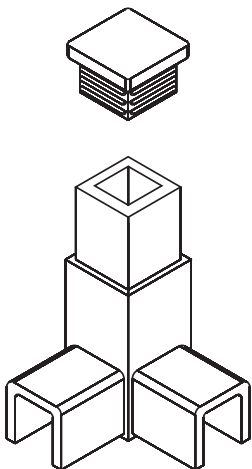


Using the corner connecting piece **3** 604111687, corners can be constructed from 3 profiles **2/4/5** 621119, e.g. for a car box trailer or chest.

To do this, we recommend notching out one of the horizontal profiles (in this case **4**), as shown.

Using the plastic end plugs **1** 604111700, the rectangular cavities within the profile 621119 can be closed off.

This side of the profile is the inside.



Plastic end cap

For profile 621119, black plastic, weight 0.005 kg.

604111700

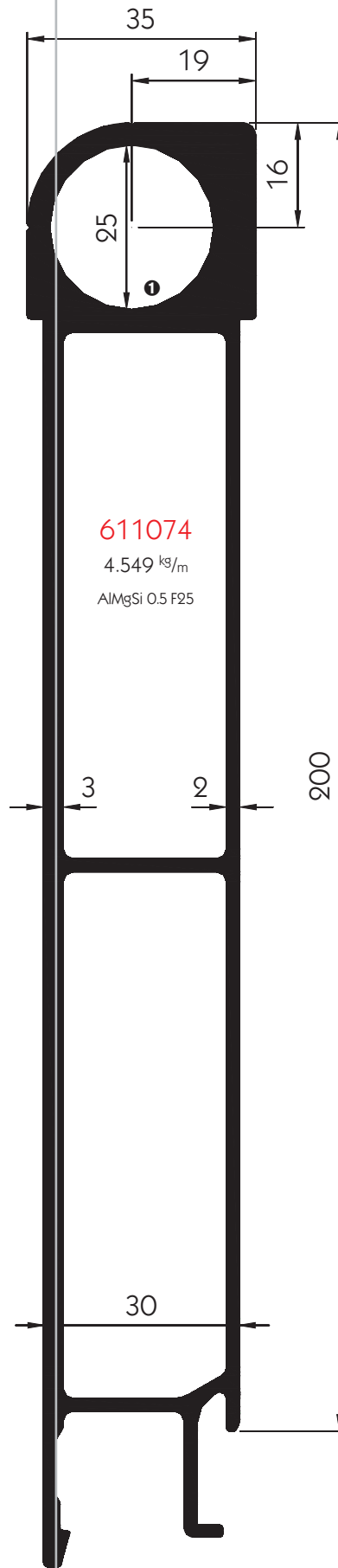
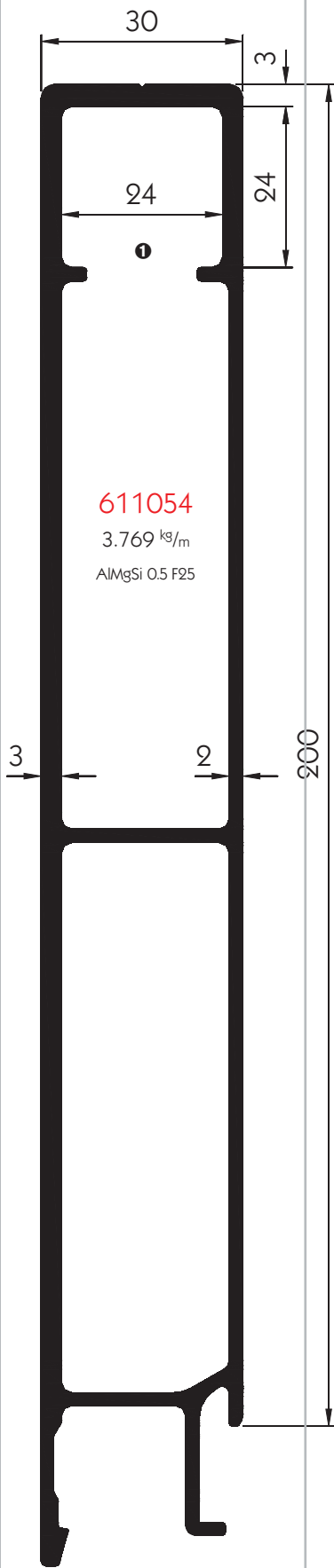
Corner connection piece

For profile 621119, aluminium, weight 0.14 kg.

604111687

1 Cavity for plastic end cap 604111700.

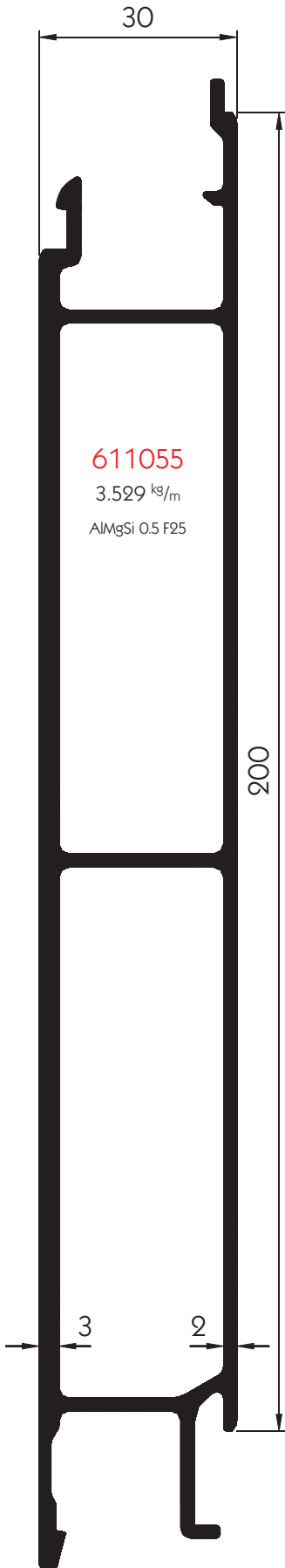
Side board profiles
30 mm snap-lock system
Top edge profiles



This side of the profile is the inside.

① Cavity for swing lugs/ lug pins.

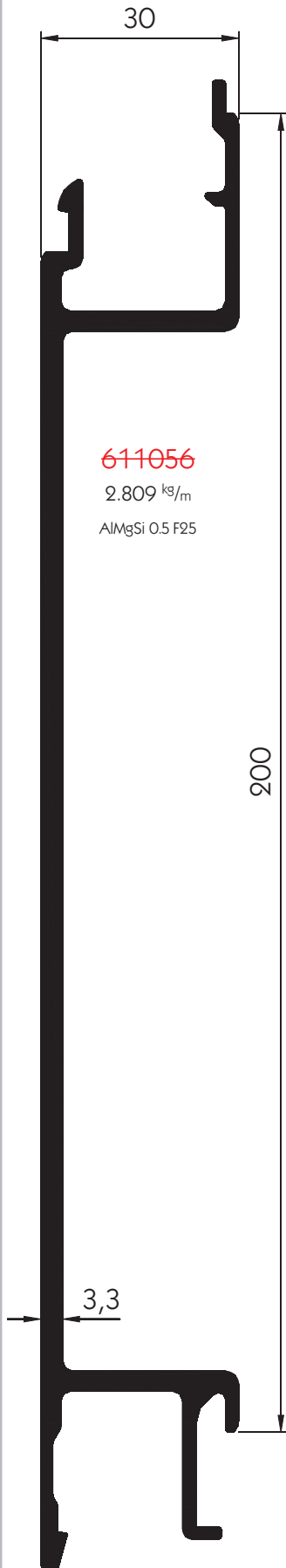
Middle profile and tarpaulin eyelet profile



611055
3.529 kg/m
AlMgSi 0.5 F25

200

This side of the profile is the inside.

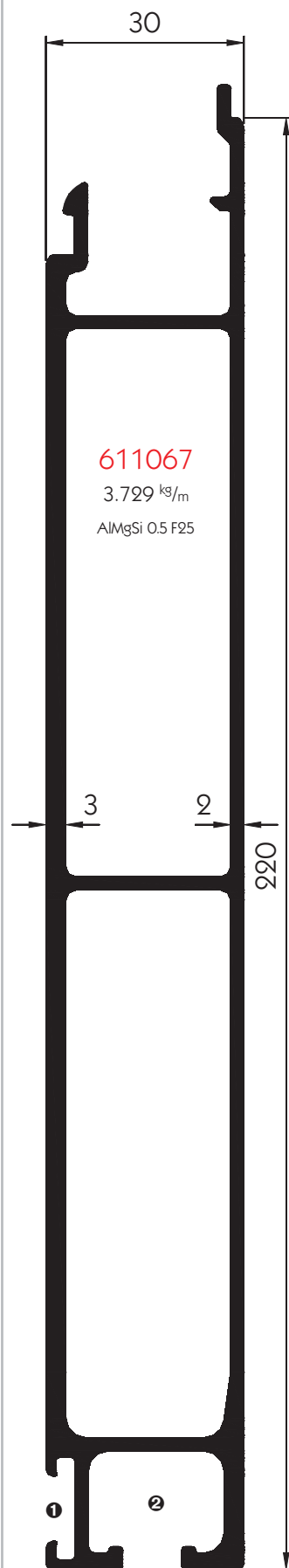
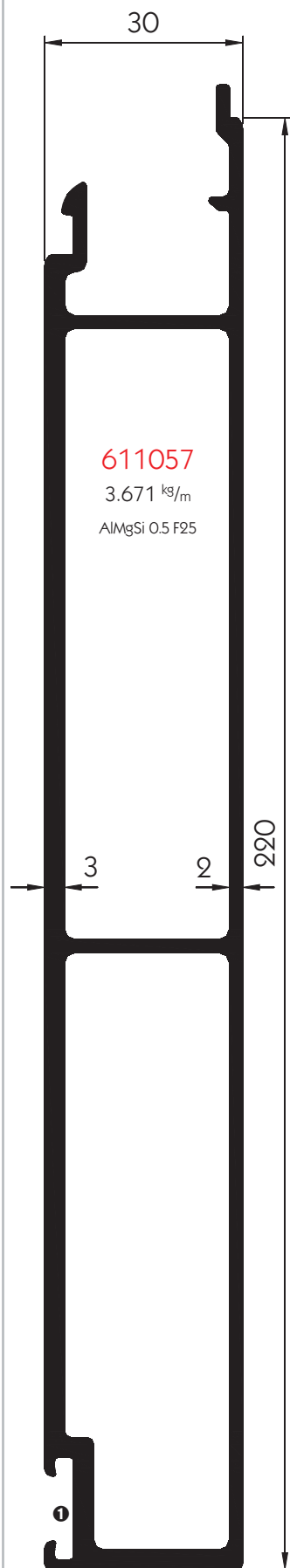


611056
2.809 kg/m
AlMgSi 0.5 F25

200

No longer available

Bottom edge profiles

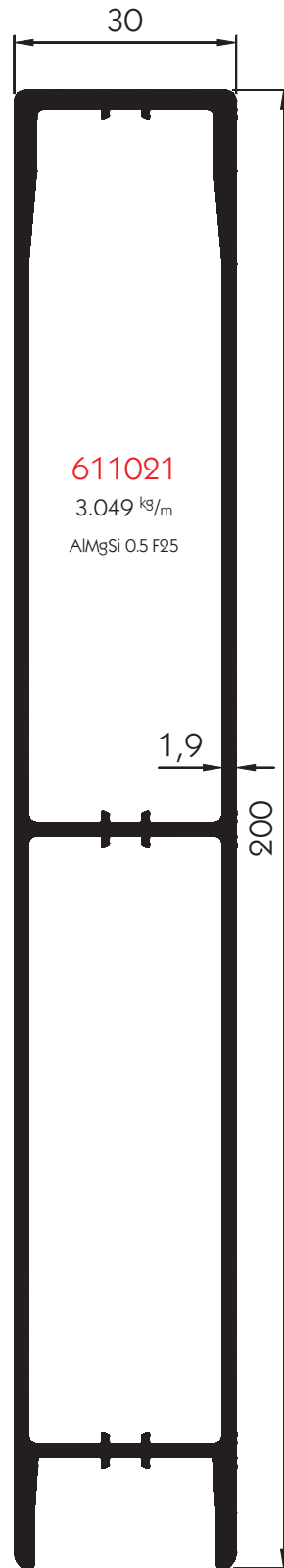
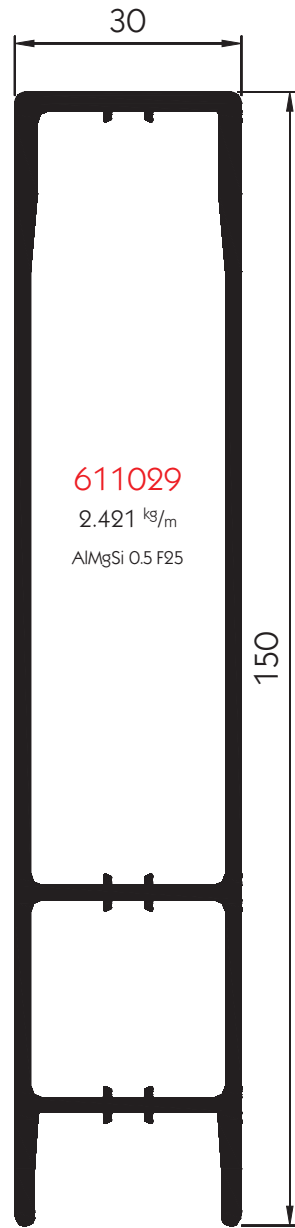
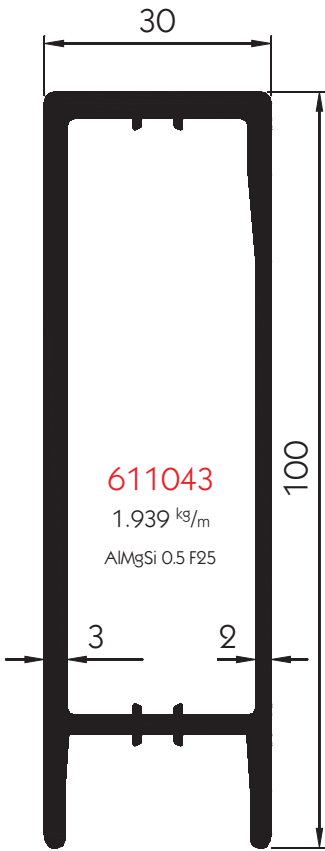


This side of the profile is the inside.

As a hinge for 30 mm profiles, we recommend using the side board hinges 25 /30, which can be obtained for fitting with threaded rails, hinge article no. **10211528**, or for anchor bolts M12, hinge article no. **10211822**.

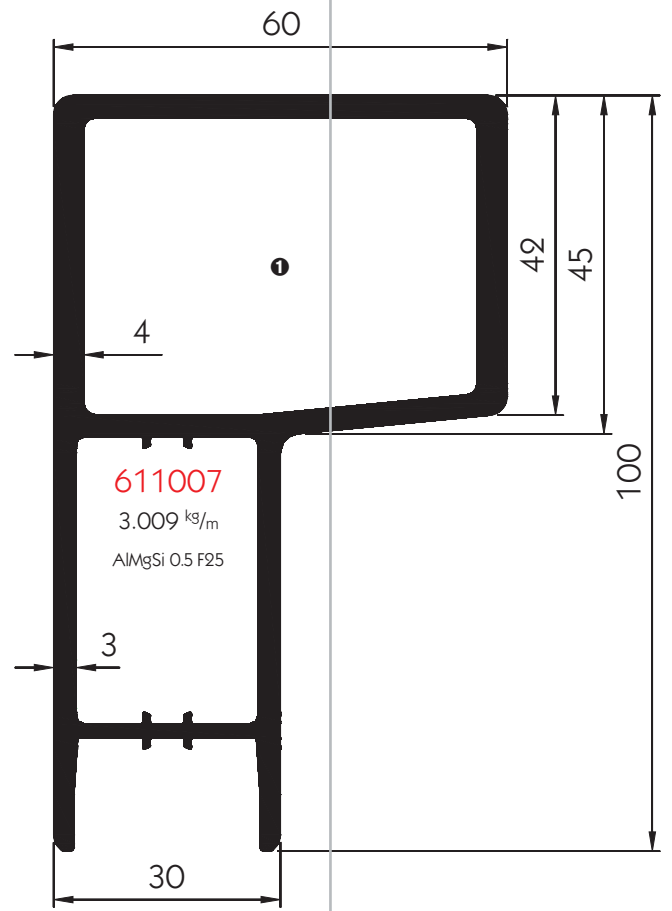
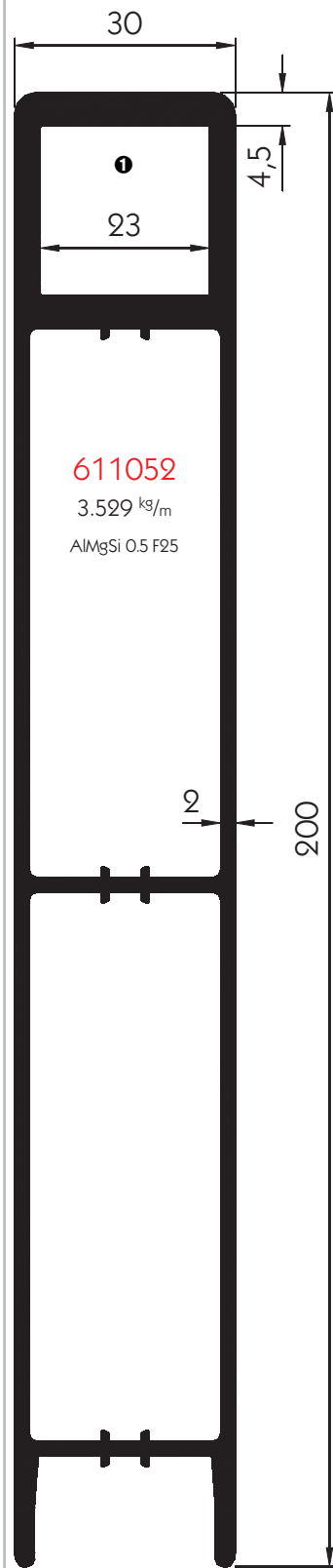
- ❶ Cavity for seal **520111664**.
- ❷ Cavity for threaded rail.

Side board profiles
30 mm push-in system
Top edge profiles



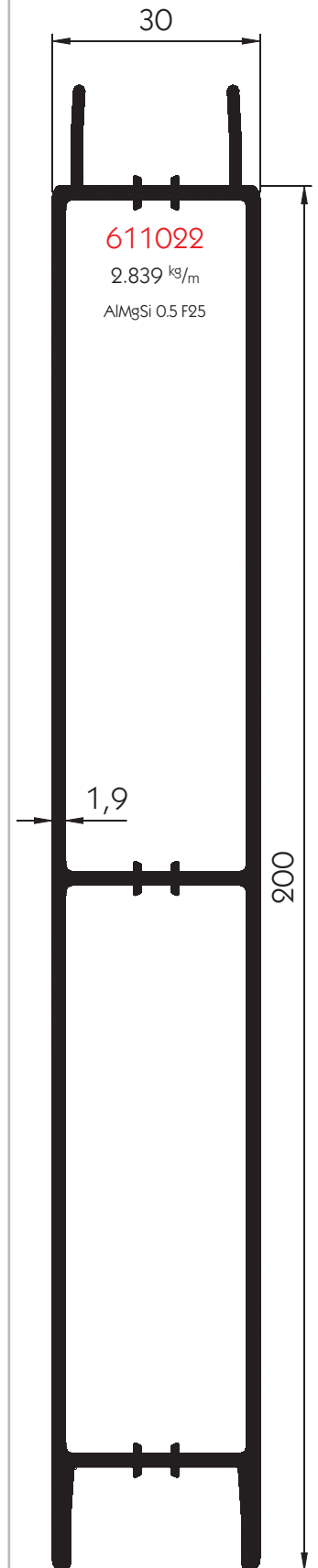
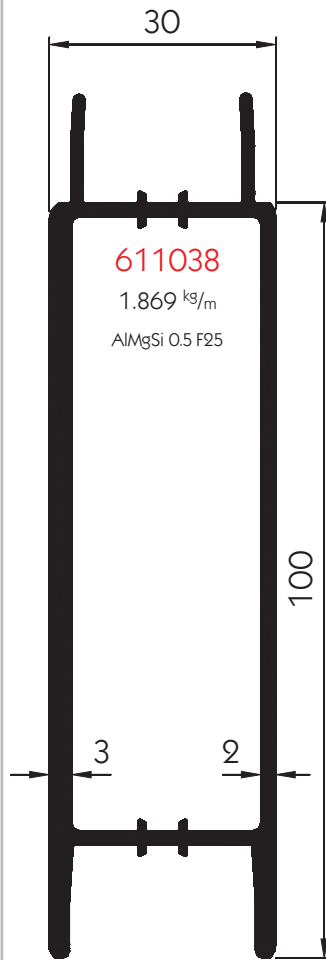
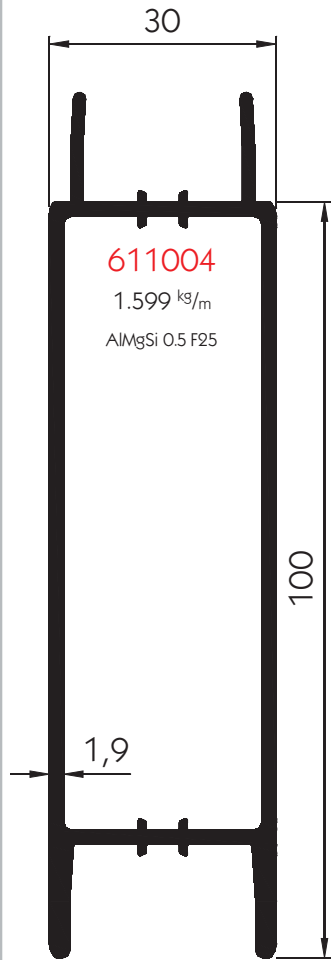
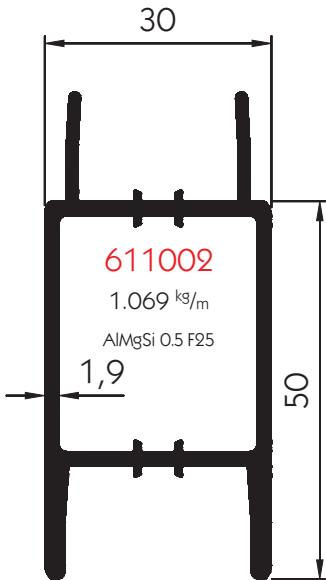
With the push-in system, this side of the profile wall is strengthened on the inside.

Unless otherwise stated, all wall thicknesses are 1.9 mm.



❶ Cavity for swing lug.

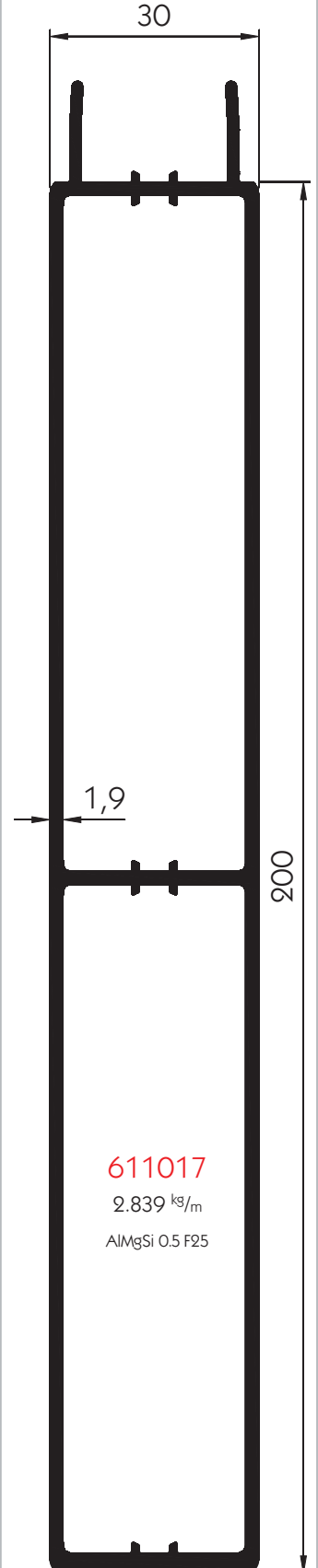
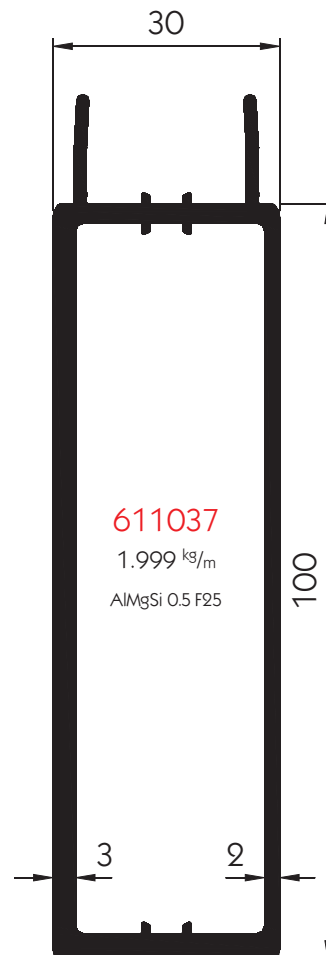
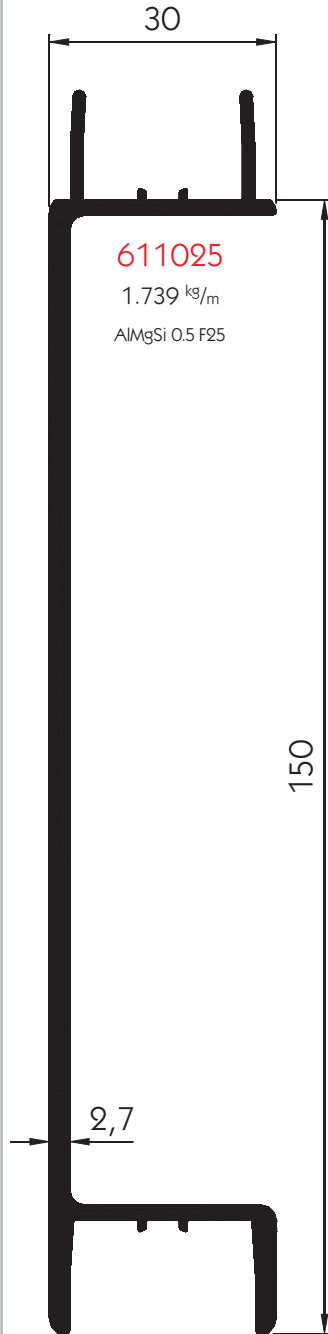
Middle profiles



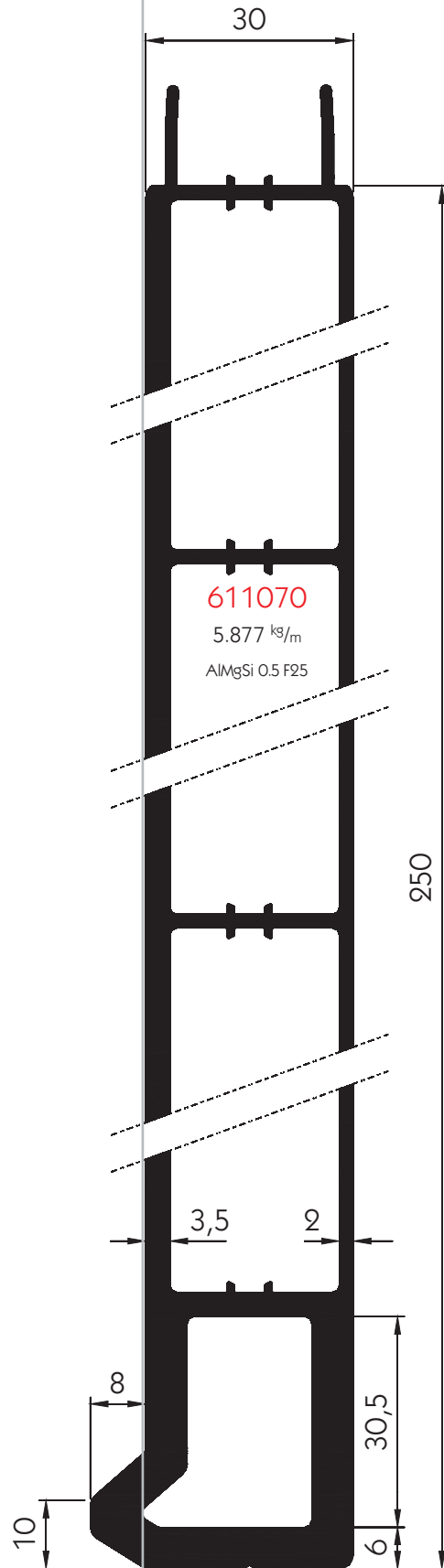
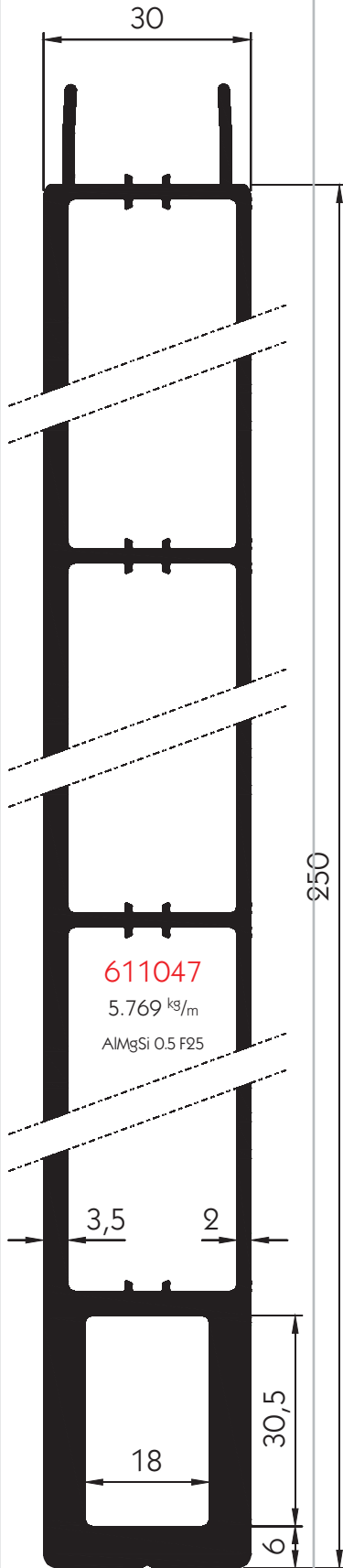
With the push-in system, this side of the profile wall is strengthened on the inside.

Tarpaulin eyelet profile and bottom edge profiles

With the push-in system, this side of the profile wall is strengthened on the inside.

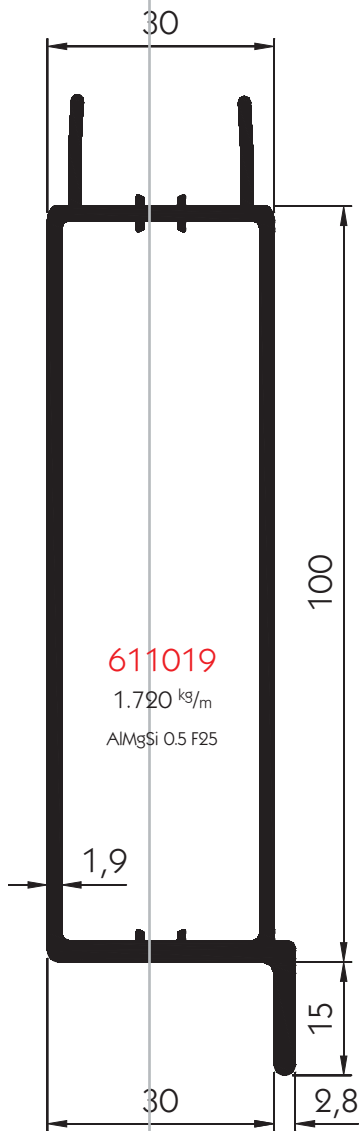


This side of the profile is the inside.



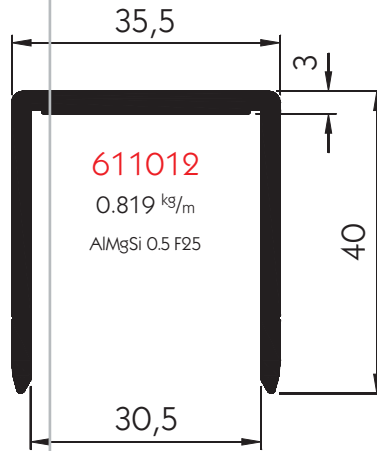
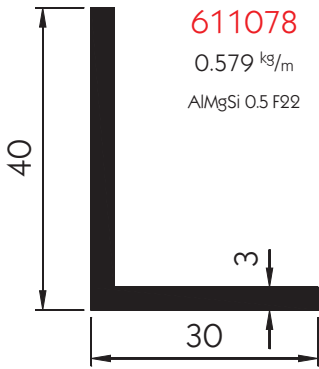
668

Ⓢ The profile 611053 is conceived as a bottom edge profile for a swing-board attachment.

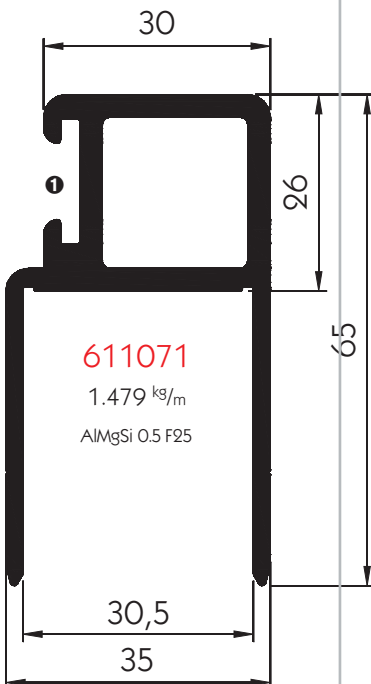


This side of the profile is the inside.

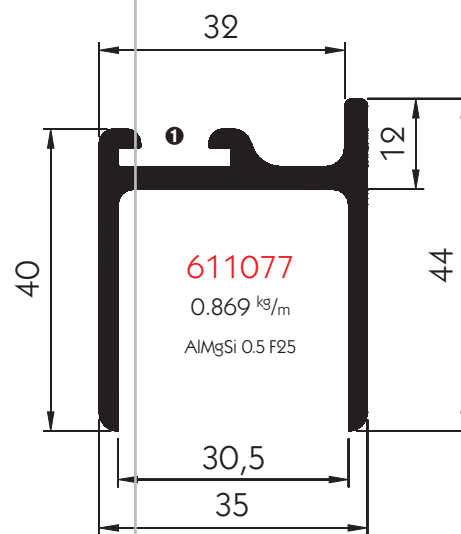
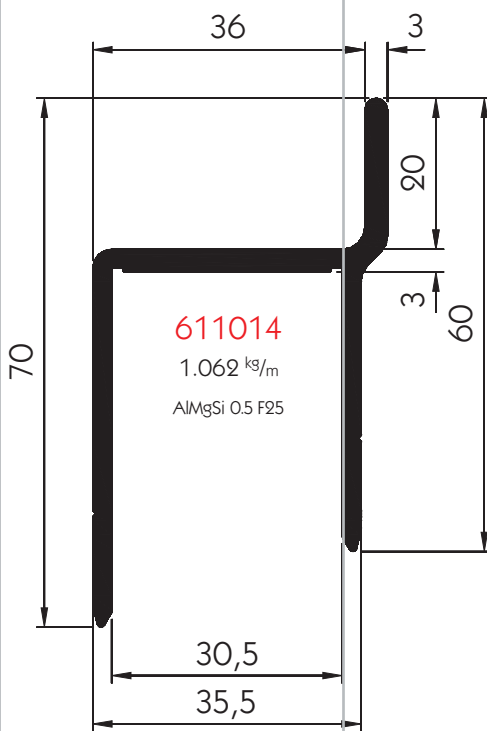
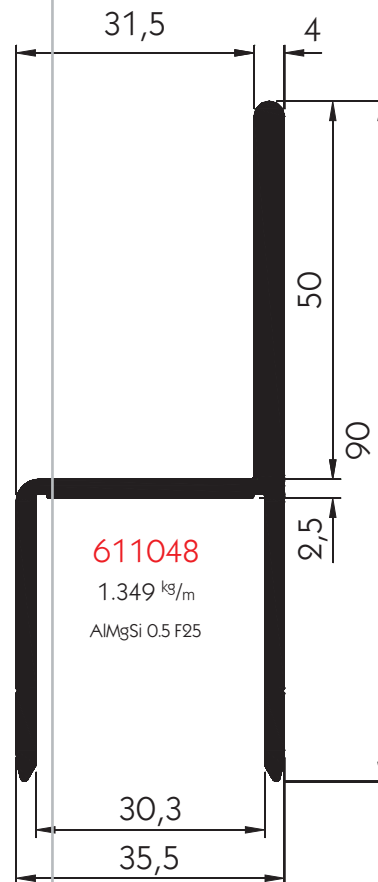
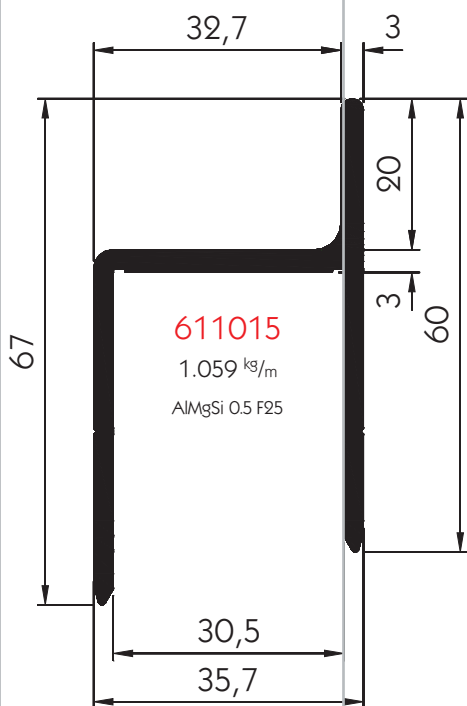
Side board profiles
30 mm edge surrounds



This side of the profile is the inside.



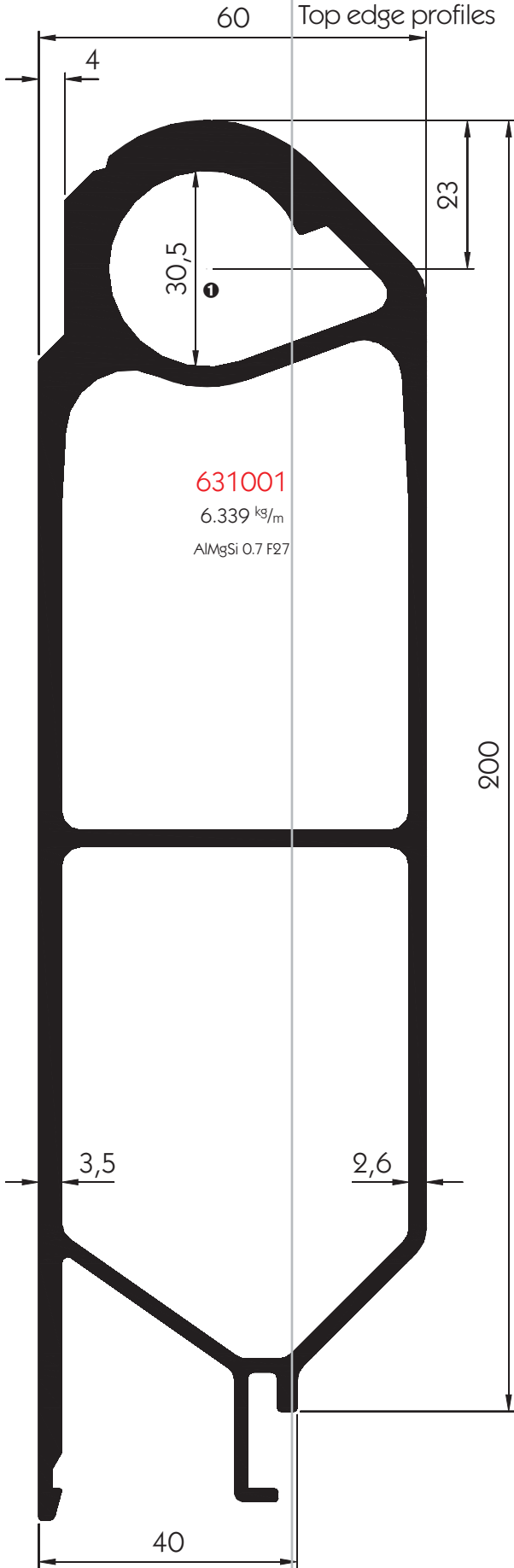
① Cavity for seal **520111664**.



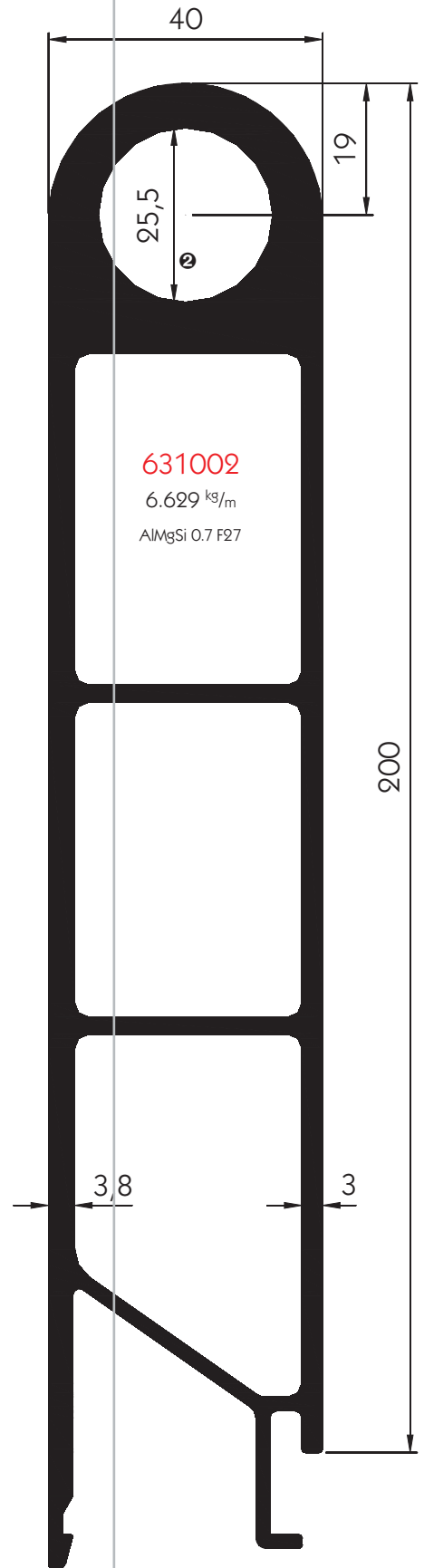
This side of the profile is the inside.

① Cavity for seal 520111664.

Side board profiles
40 mm snap-lock system
Top edge profiles

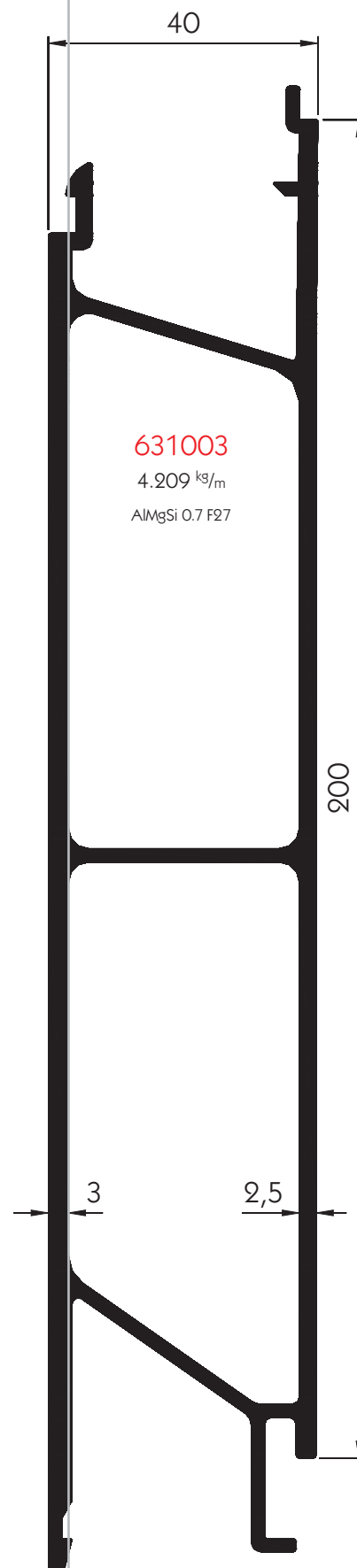


- ① Cavity for swing lug H11, article no. 102102736.
- ② Cavity for swing lug.



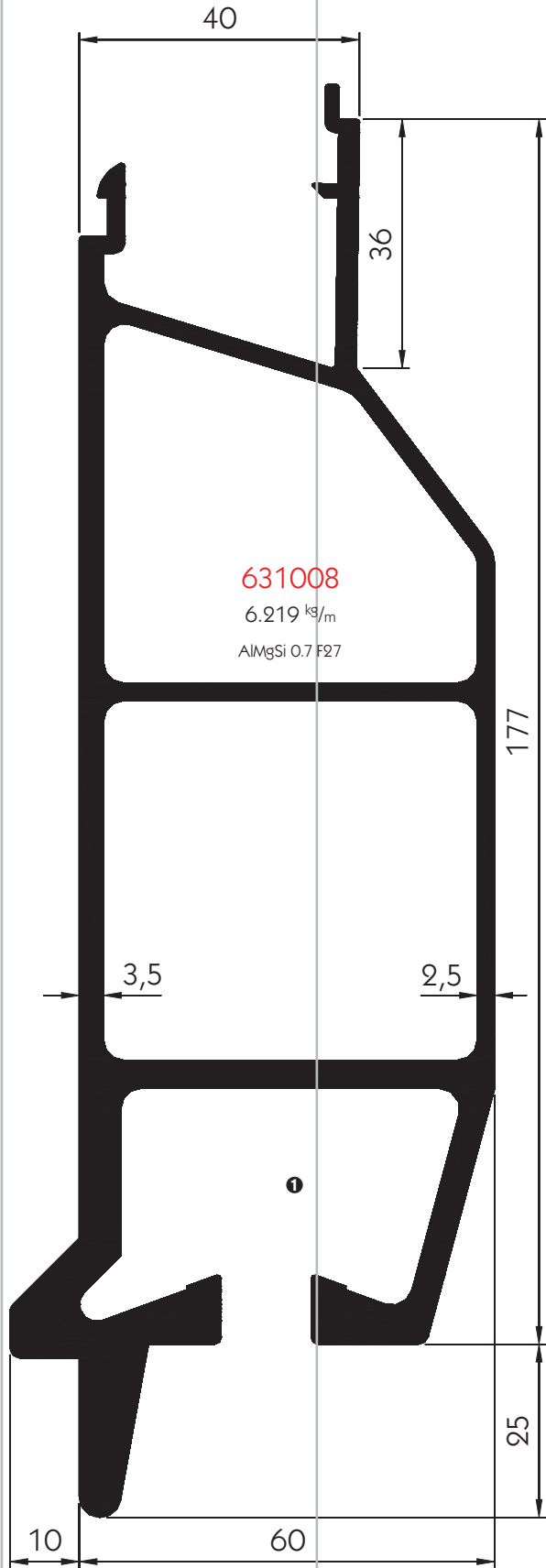
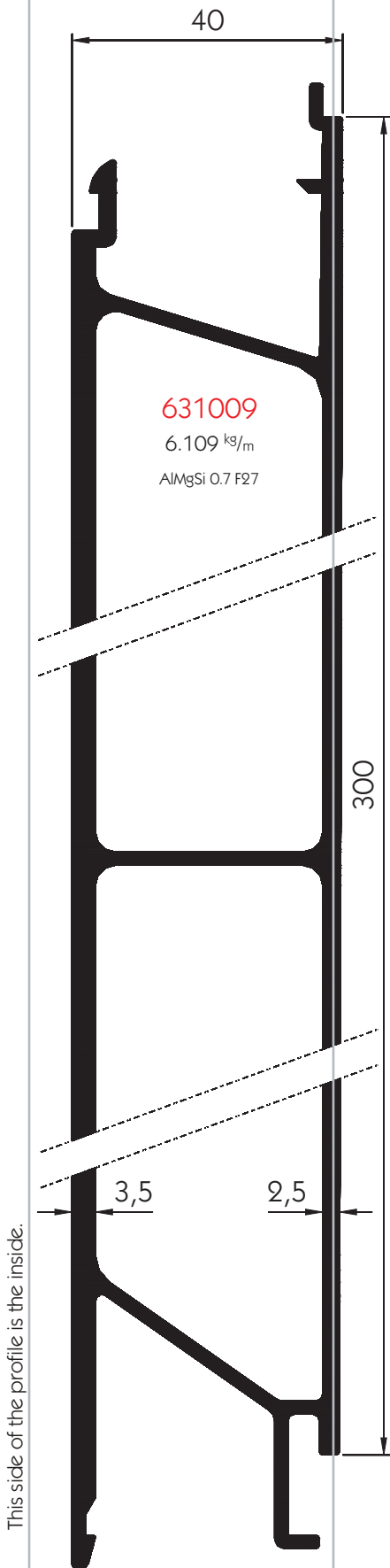
This side of the profile is the inside.

Middle profiles

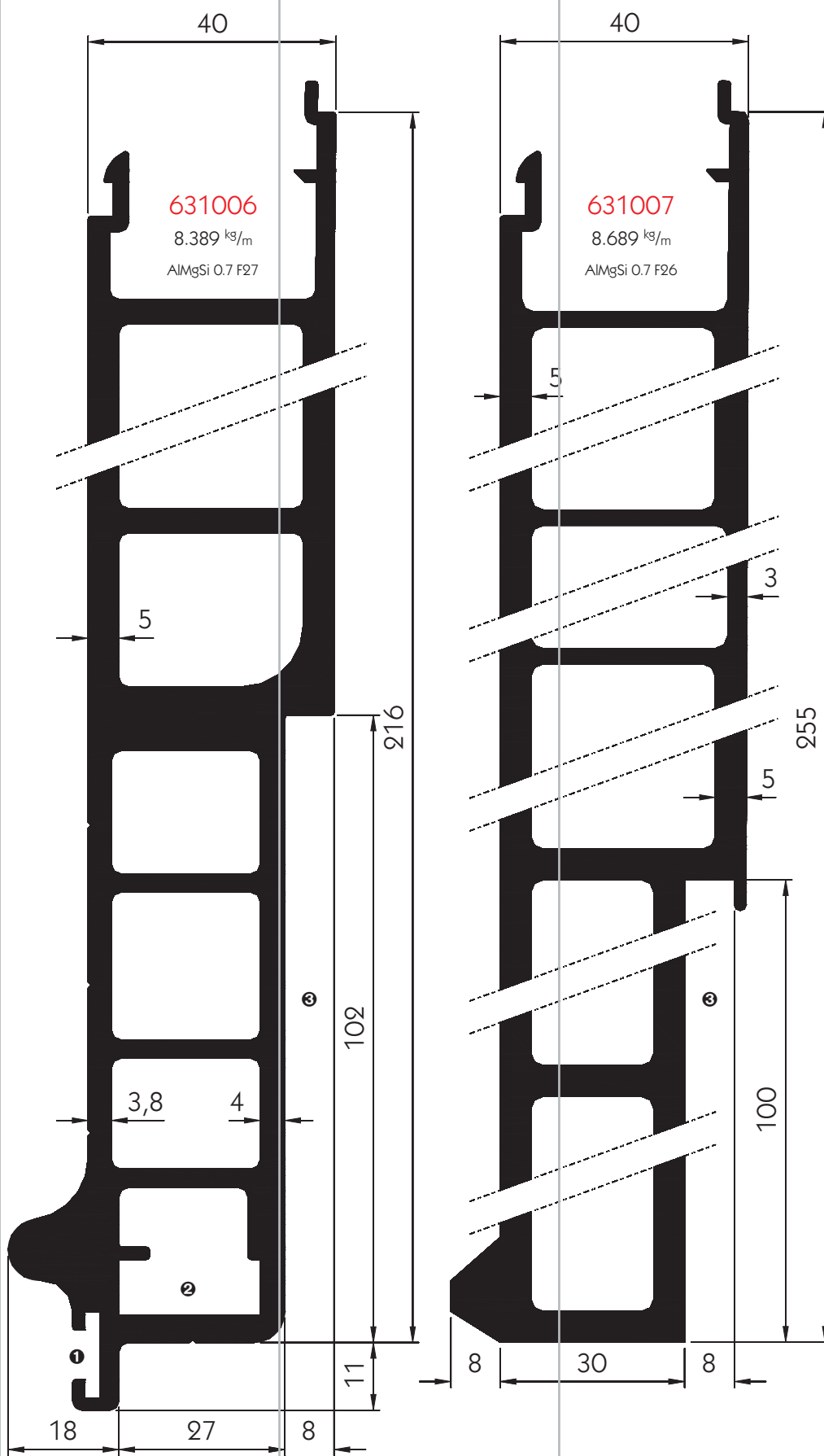


This side of the profile is the inside.

Middle profile and bottom edge profile



① Cavity for threaded rail 500631031 for fitting the side board hinge H 956, article no. 102102734. The locking cam H 955, article no. 102102733 is suitable here.

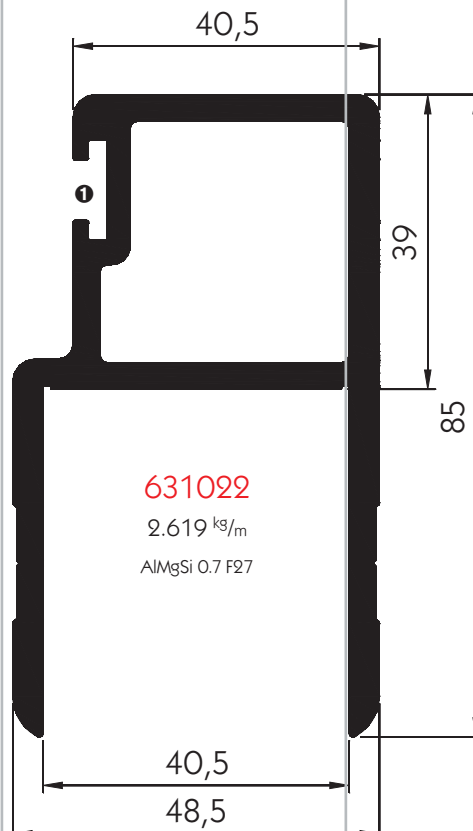
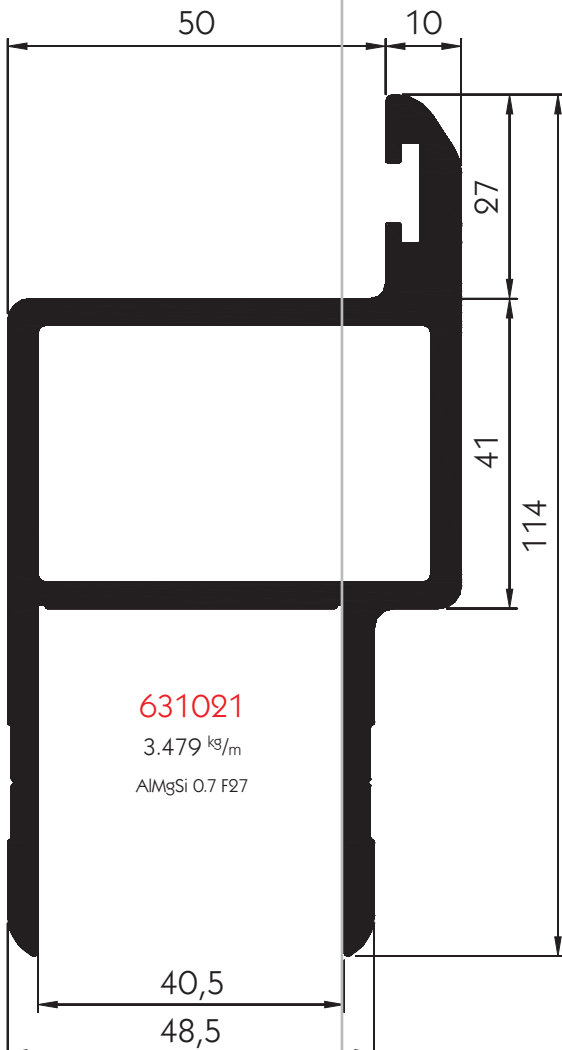
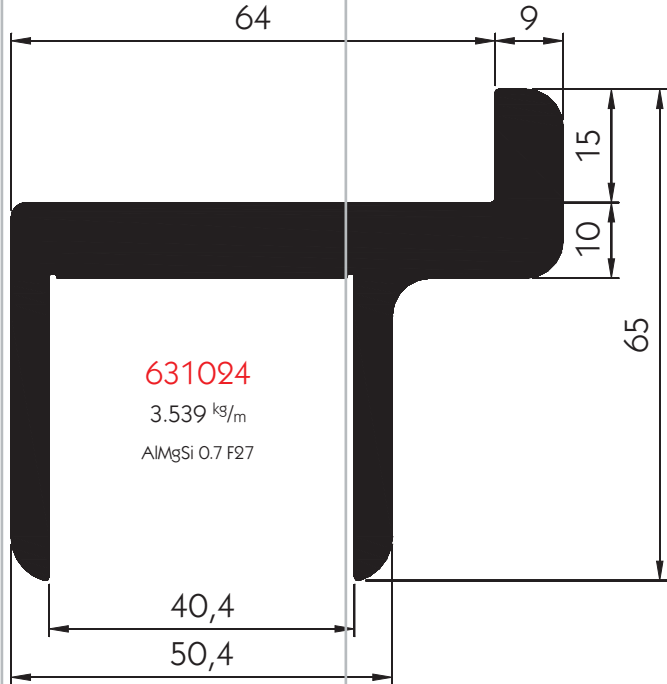
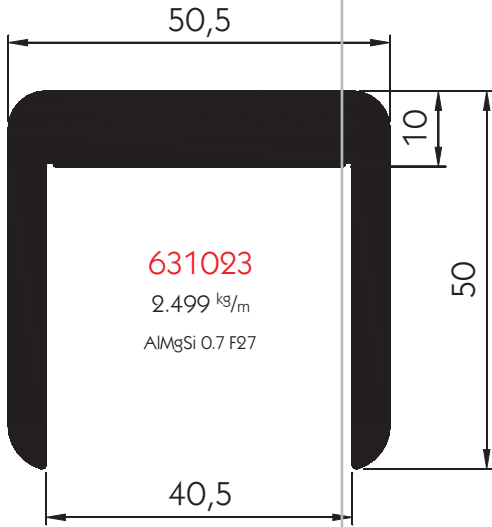


This side of the profile is the inside.

- ❶ Cavity for seal 520111947.
- ❷ Cavity for threaded rail 102102725 with which the sideboard hinges H 955, article no. 102102731 can be fitted. The locking cam H 955, article no. 102102733 is suitable here.
- ❸ Area narrowed for fitting the side board hinge H 955, article no. 102102731.

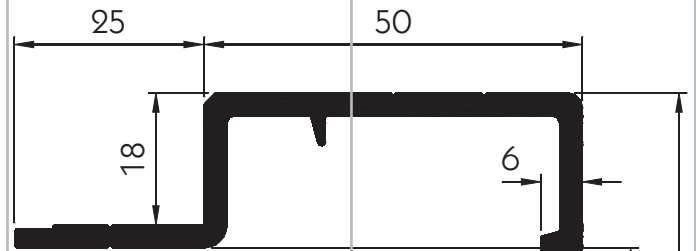
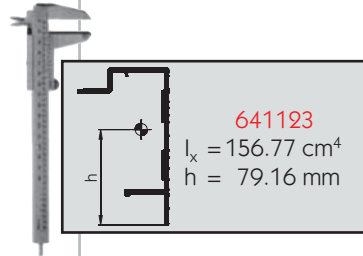
Side board profiles
40 mm edge surrounds

① Cavity for seal 520111947.

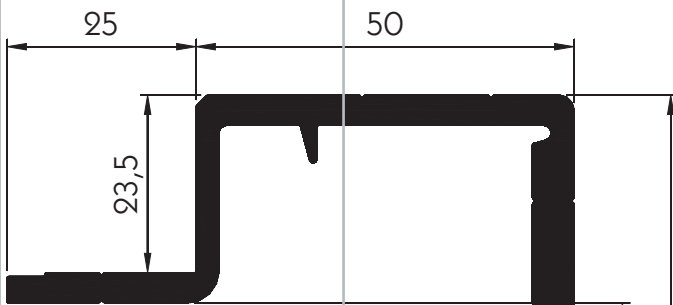
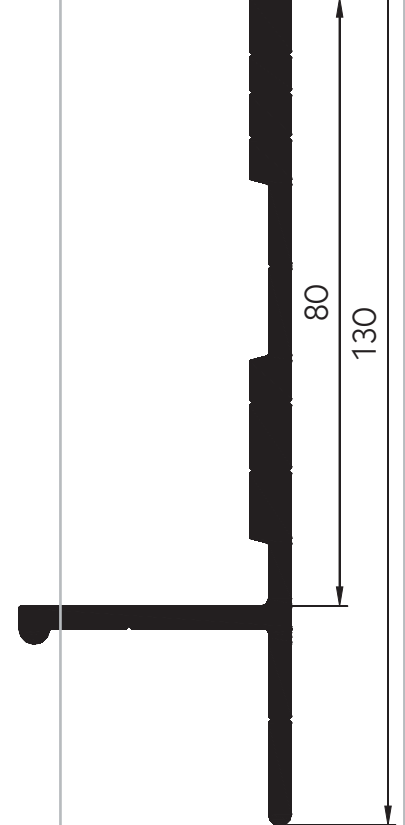


This side of the profile is the inside.

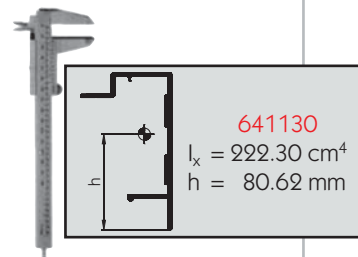
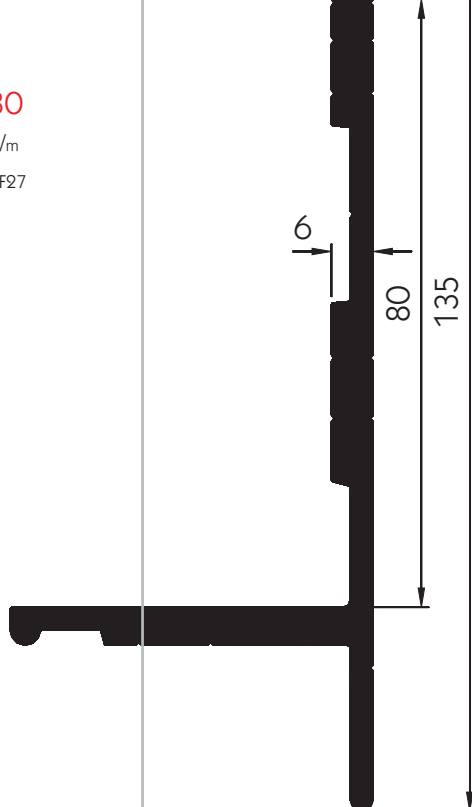
Floor and subframe profiles, accessories
Floor frame profiles

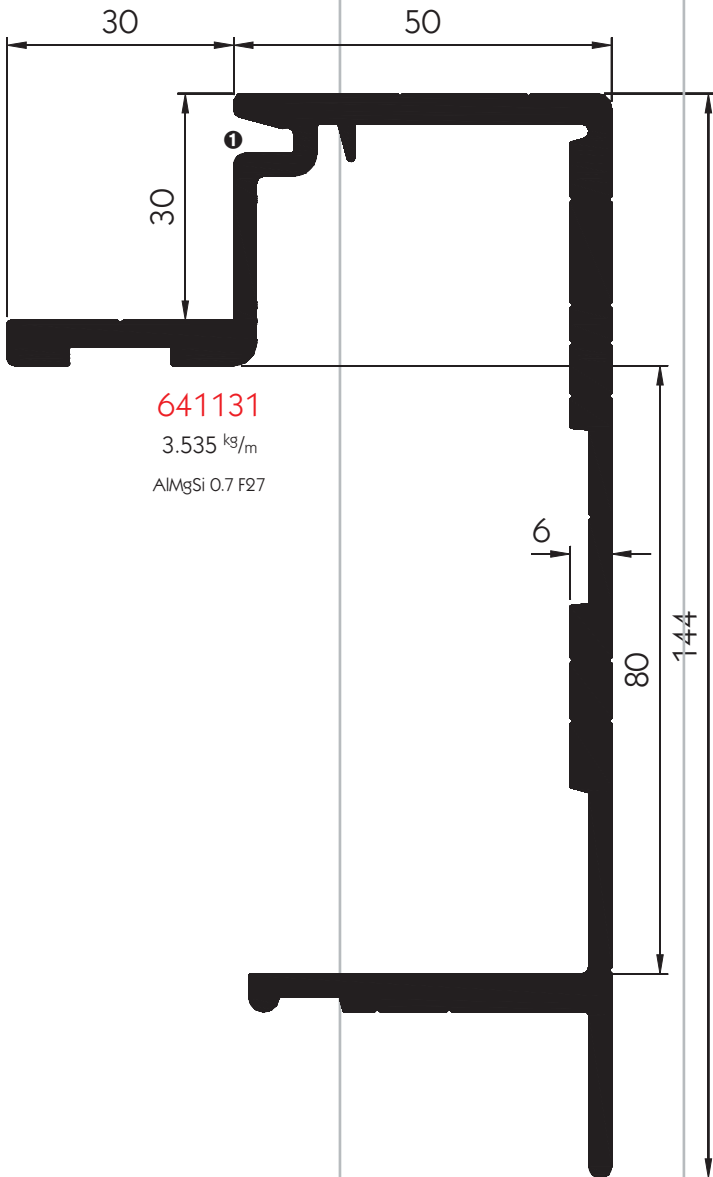


641123
 2.512 kg/m
 AlMgSi 0.7 F27



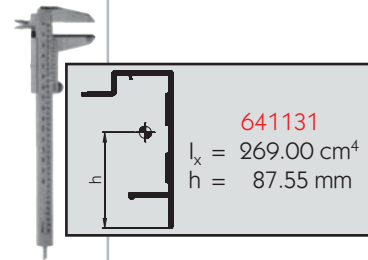
641130
 3.189 kg/m
 AlMgSi 0.7 F27



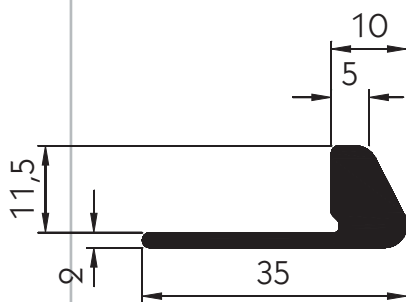


641131
 3.535 kg/m
 AlMgSi 0.7 F27

① Groove for inserting the 30 mm high floor profiles.



Double floor profile



641122
 0.449 kg/m
 AlMgSi 0.5 F25

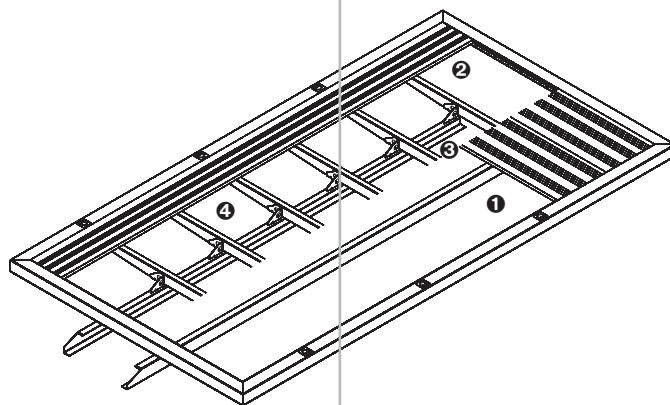
A self-supporting construction results when e.g., between the subframe and outer frame, using transversely laid floor profiles ❶, the platform is built without crossmembers or with longitudinally laid floor profiles between the last crossmember and the outer frame ❷.

A supported construction results when e.g., between the subframe profiles, using transversely laid floor profiles ❸, the platform is built with crossmembers, or with longitudinal floor profiles between the crossmembers ❹.

All given loads are for constant uniform loads, the dimension L is the max. load span/spacing.

We can only give the technical values for other profiles on request.

Floor profiles

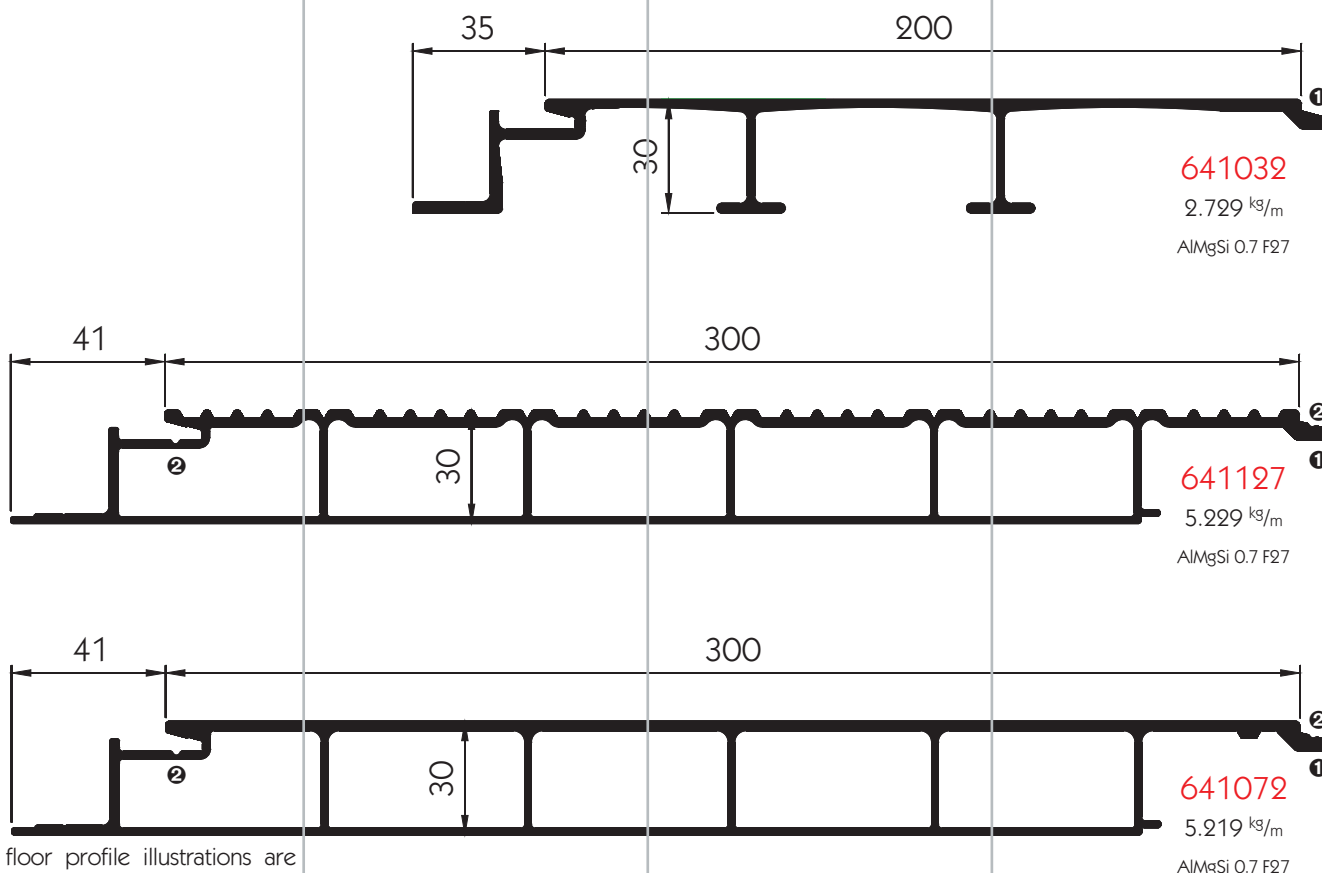


❶ Self-supporting construction

L [mm]	641127 [kg/m ²]	641032 [kg/m ²]	641128 [kg/m ²]	641072 [kg/m ²]	641129 [kg/m ²]
500	1730	1505	2625	1775	5695
600	1200	1045	1820	1230	3955
700	880	765	1340	905	2905
800	675	590	1025	695	2225
900	535	465	810	545	1760
1000	430	375	655	445	1425

❷ Supported construction

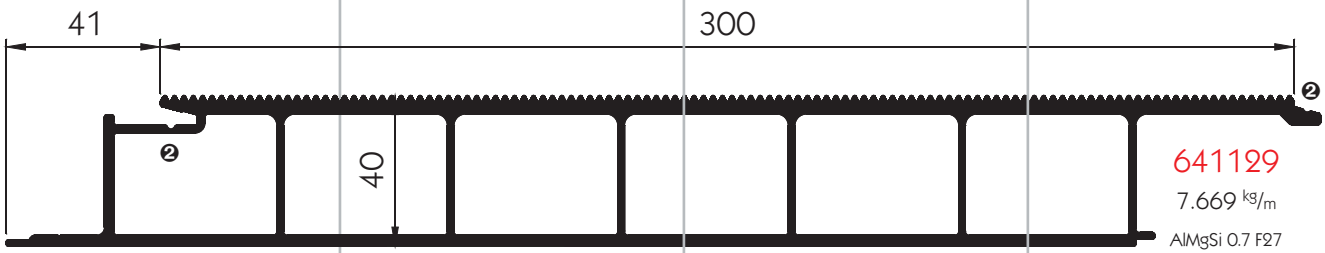
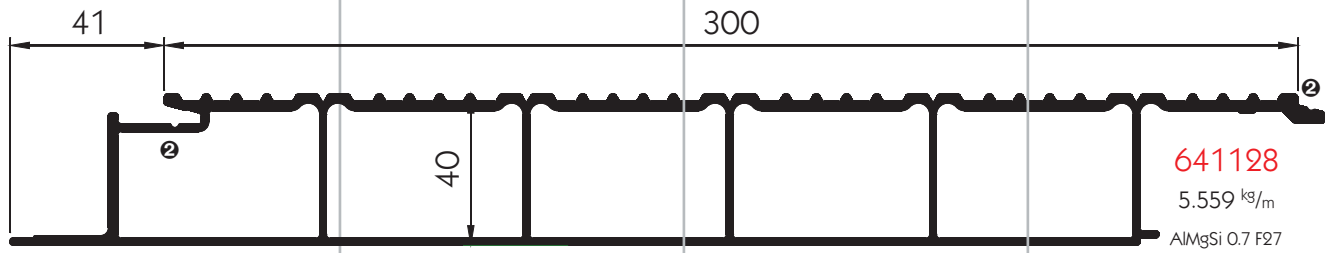
L [mm]	641127 [kg/m ²]	641032 [kg/m ²]	641128 [kg/m ²]	641072 [kg/m ²]	641129 [kg/m ²]
500	6910	6015	10495	7090	22785
600	4800	4180	7290	4925	15820
700	3525	3070	5355	3620	11625
800	2700	2350	4100	2770	8900
900	2135	1855	3240	2190	7030
1000	1730	1505	2625	1775	5695
1100	1430	1245	---	1465	---
1200	1200	1045	---	1230	---



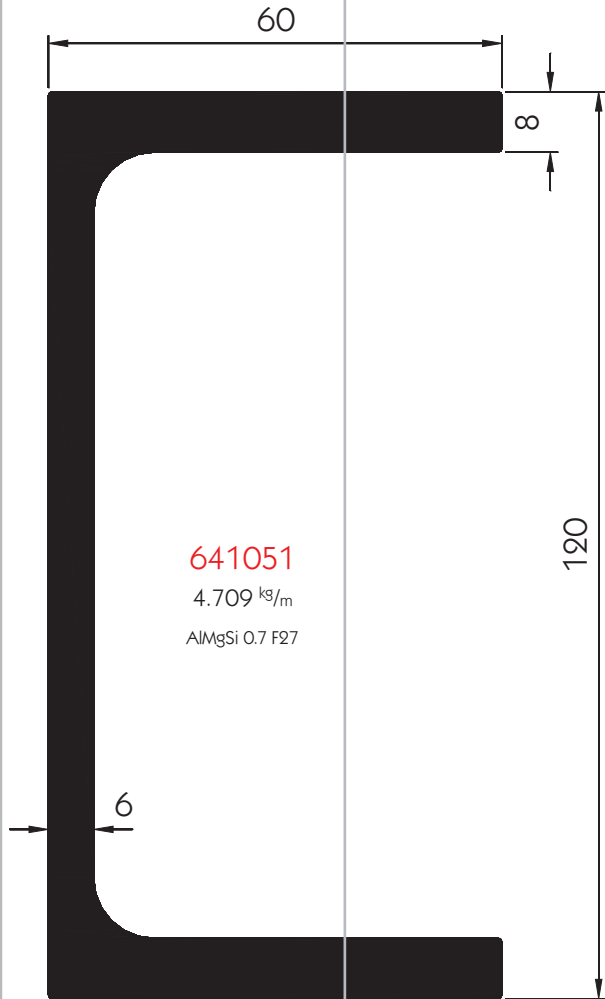
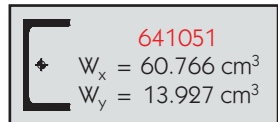
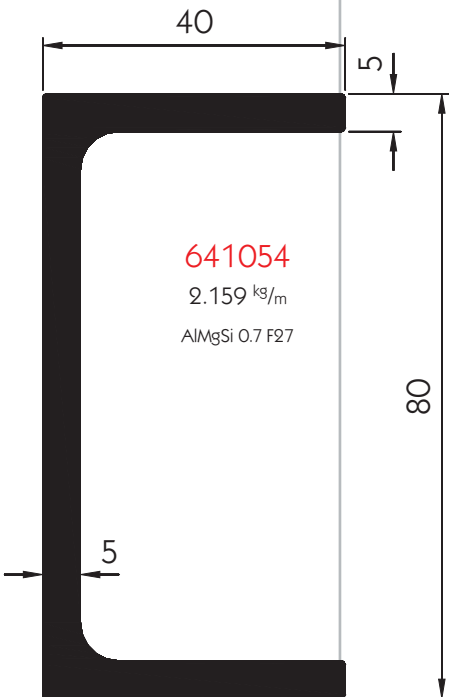
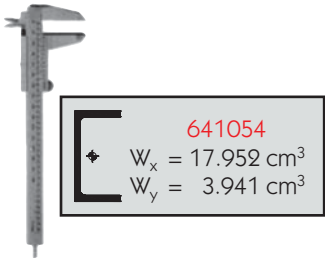
All floor profile illustrations are scaled 1:2.

❶ Tongue for inserting into the groove in the floor profile 641131.


❷ Groove for adhesive or sealant.

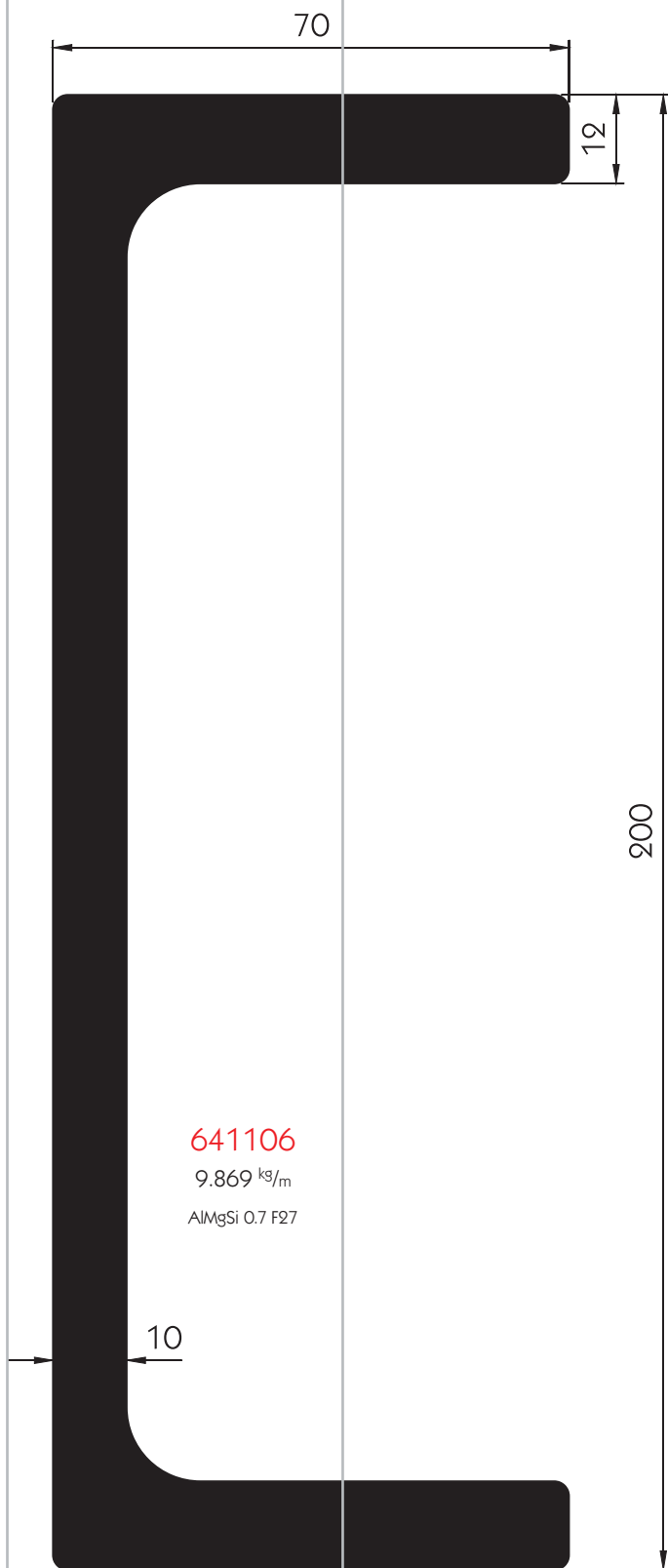


Subframe profiles

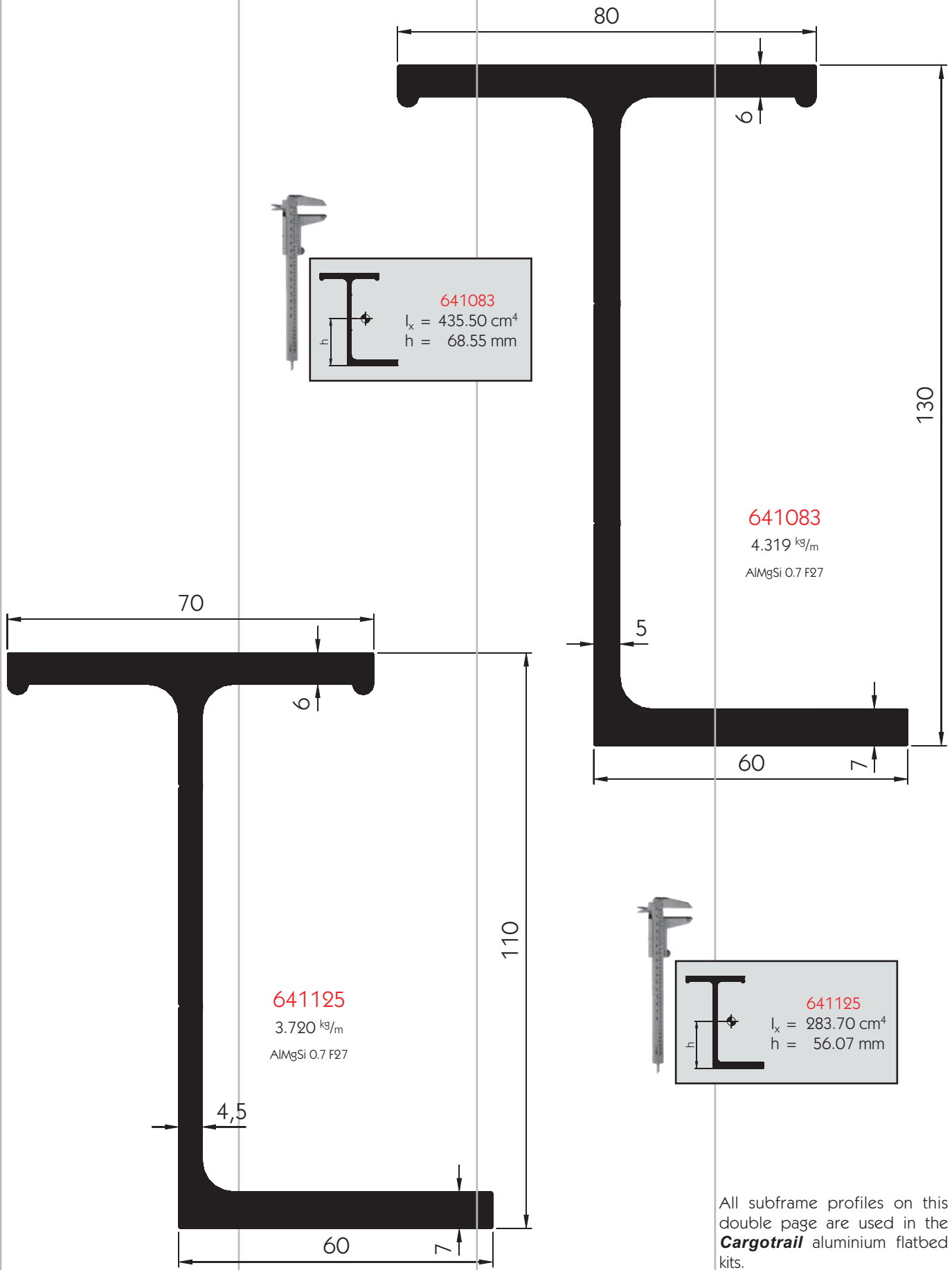




	641106
+	$W_x = 196.760 \text{ cm}^3$
	$W_y = 29.065 \text{ cm}^3$

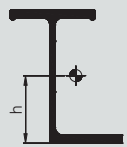


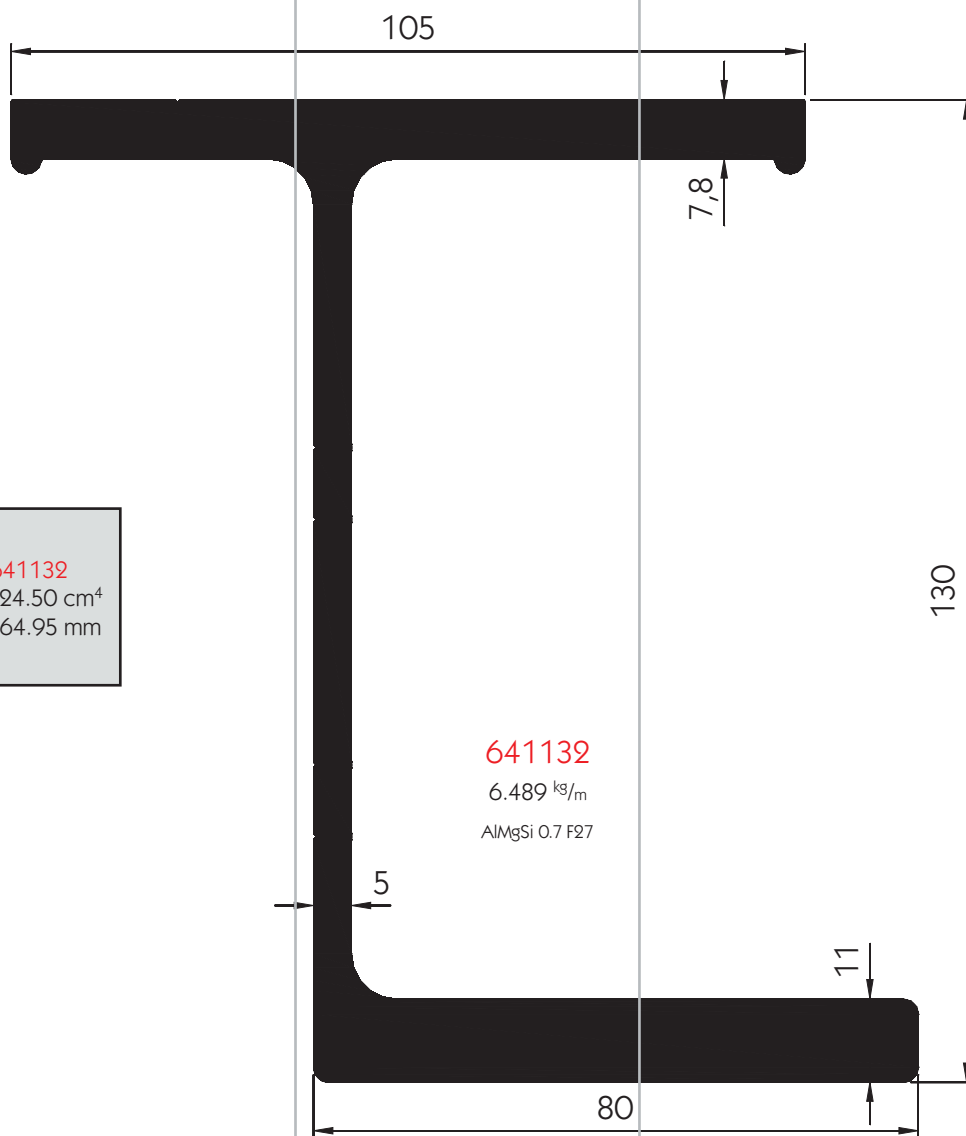
641106
9.869 kg/m
AlMgSi 0.7 F27



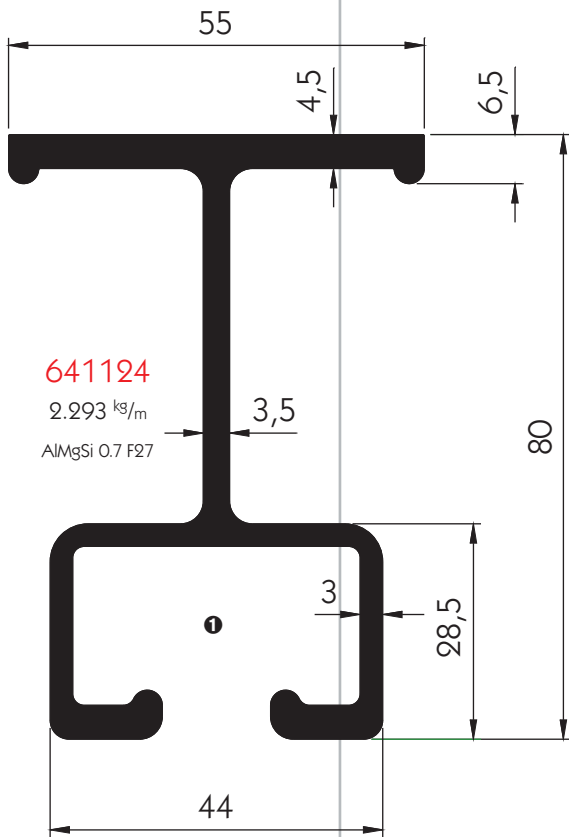
All subframe profiles on this double page are used in the **Cargotrail** aluminium flatbed kits.



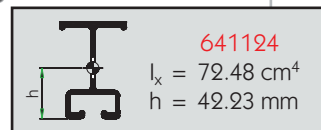
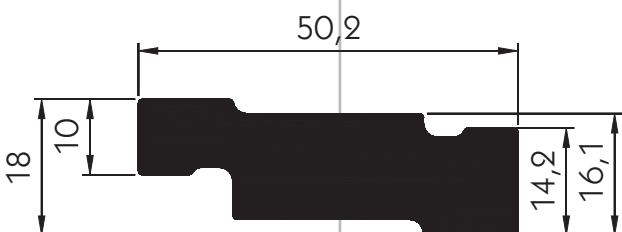
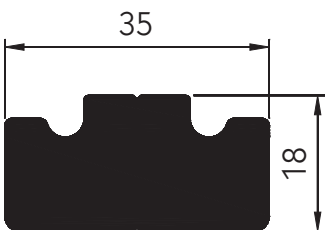
	641132 $I_x = 724.50 \text{ cm}^4$ $h = 64.95 \text{ mm}$
---	--



Crossmember profiles

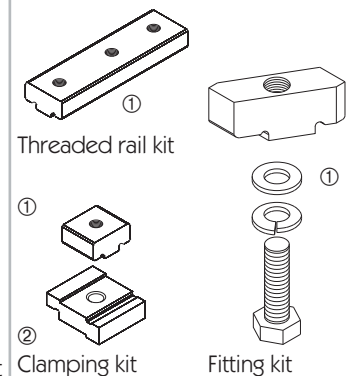


Accessories



The crossmember profile 641124 is used on the **Cargotrail** aluminium flatbed.

① Seating cavity for the threaded yoke 641120.



Threaded yoke 641120

With M 10 x 1 thread, weight 1.549 kg/m.

From clamping kit 605645020

From threaded rail kit

624112001

From fitting kit

605645030

Clamping claw

Length approx. 44 mm, weight 7.569 kg/m.

605645021

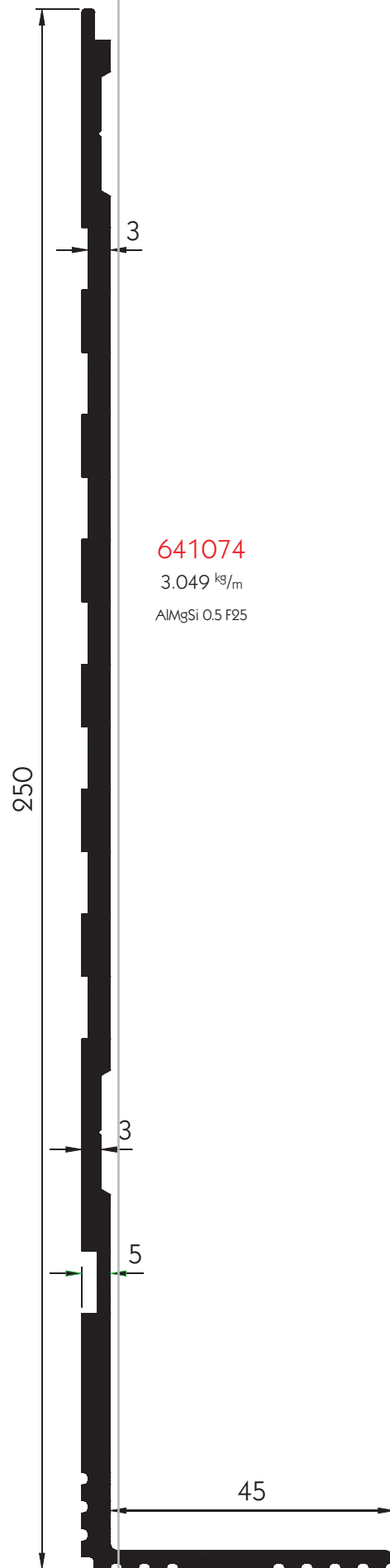
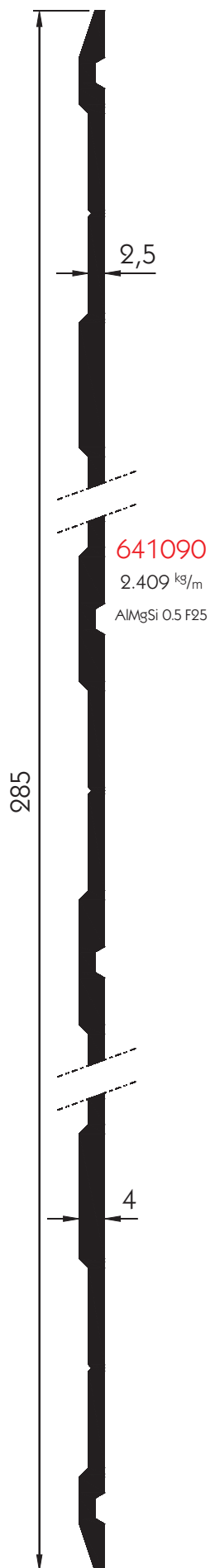
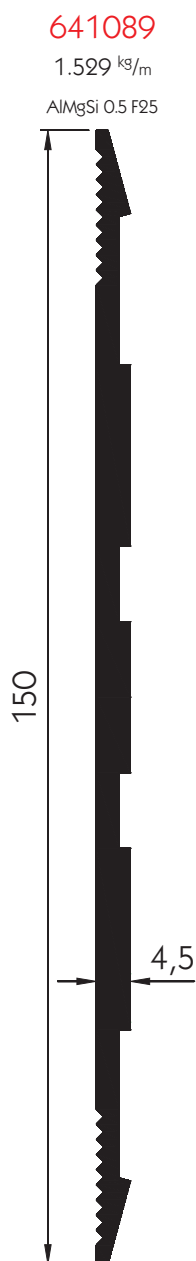
From one threaded yoke profile (profile 641120), various lengths of threaded yoke can be cut.

Using the threaded yoke accessory ① and the clamping claw ②, the **Cargotrail** aluminium flatbed crossmember profile 641124 is clamped to the subframe profiles 641125, 641083 or 641132.

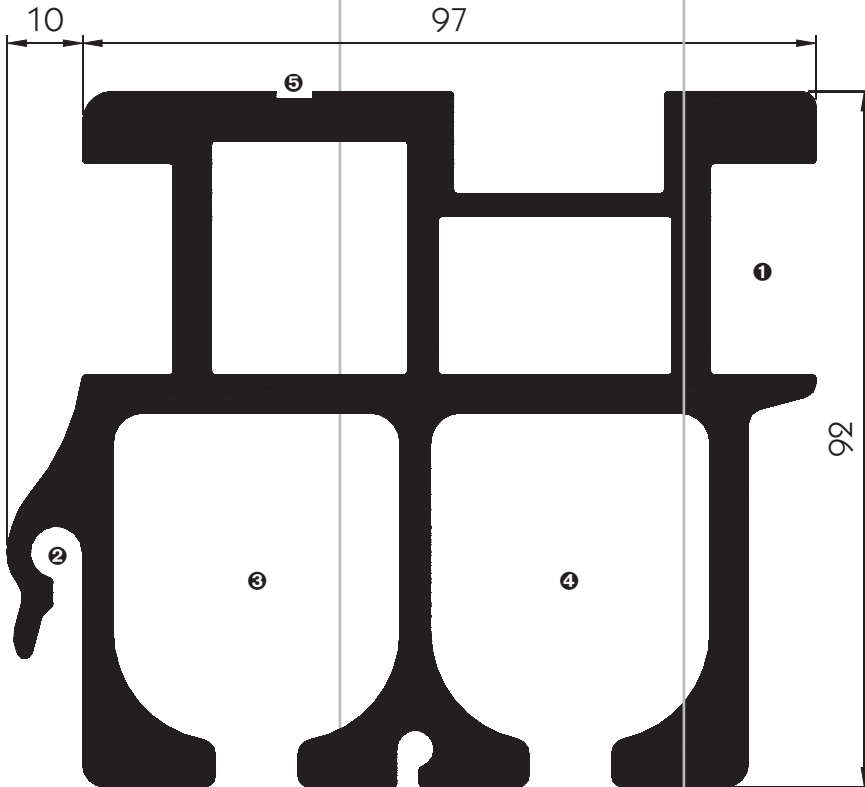
The fixing kit can be used to mount additional components onto the crossmember profile 641124.

The kit consists of: threaded yoke, washer, spring washer and screw M 10 x 1 x 30.

Rubbing strakes
and apron guard
profiles



Curtainsider profiles



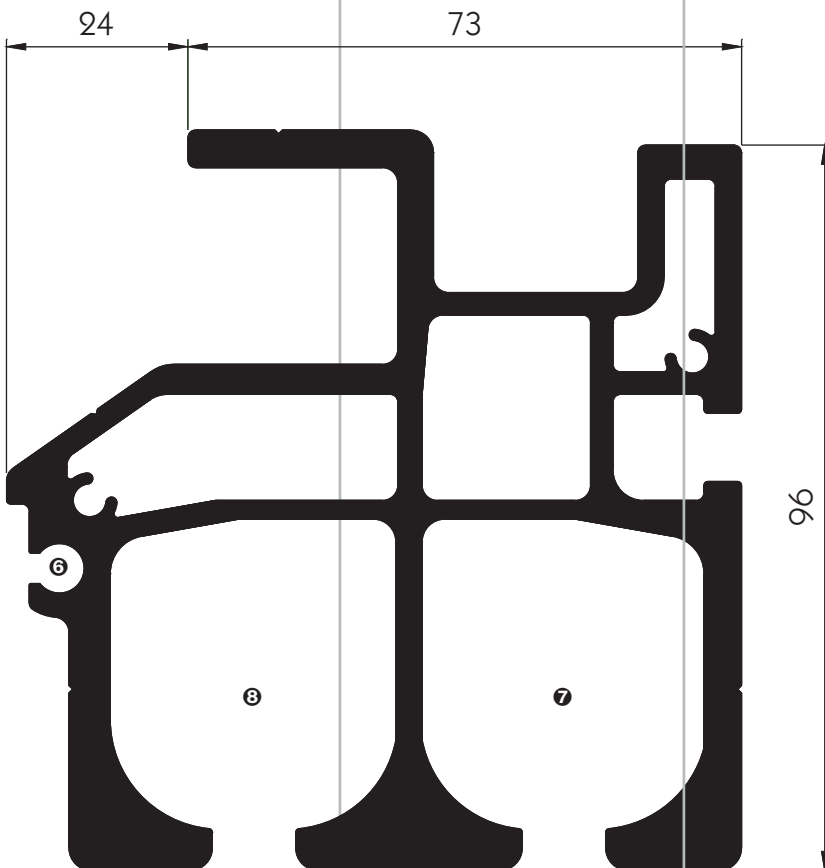
- ❶ Seating channel for the roof connecting profile 660641117.
- ❷ Cavity for PVC seal.
- ❸ Cavity for curtain roller Standard.
- ❹ Cavity for pillar roller Standard.
- ❺ Groove for sealant (on aluminium fixed roofs).

Curtainsider profile 80797

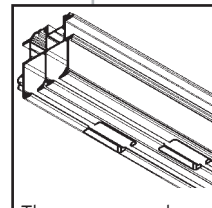
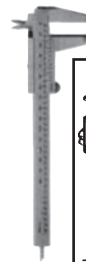
Weight 7.5 kg/m.

Length 13600 mm* 660807973

*profile pre-stressed



- ❻ Cavity for PVC seal.
- ❼ Cavity for curtain roller Standard.
- ❽ Cavity for pillar roller Standard.



The runner channels in the curtainsider profile Mixliner 2004 are pre-milled on one side for inserting the curtain rollers and pillar rollers.

Curtainsider profile Mixliner 2004

Weight 6.5 kg/m.

Length 6500 mm 650000055

Length 7500 mm 650000056

Length 8500 mm 650000057

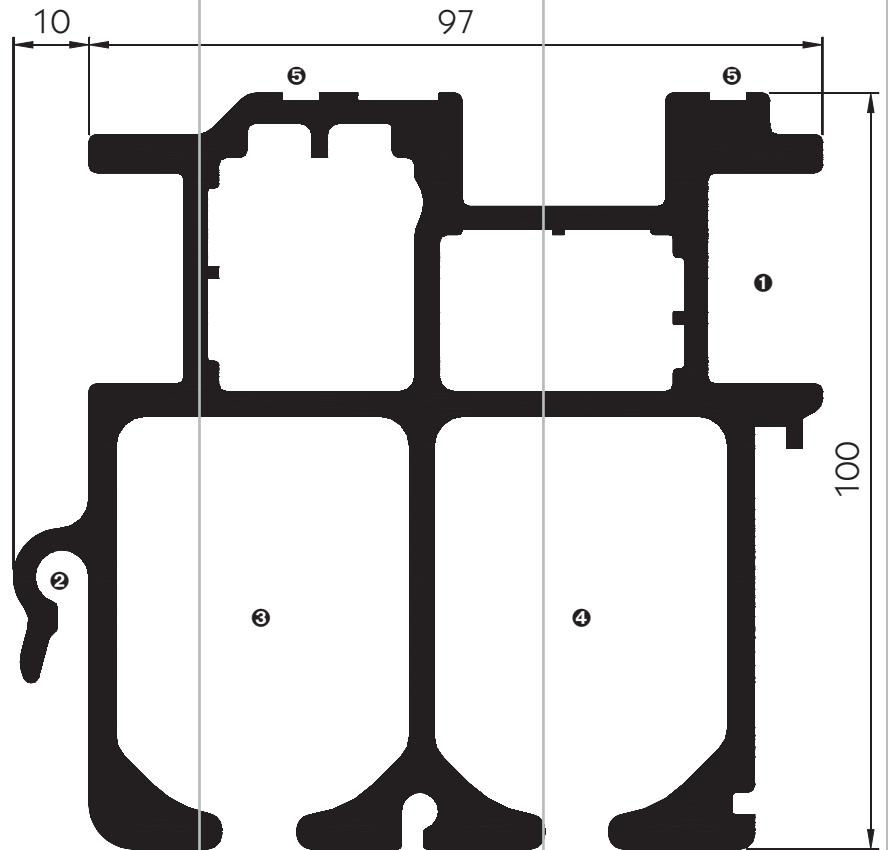
- ❶ Seating channel for the roof connecting profile 660641117.
- ❷ Cavity for PVC seal.
- ❸ Cavity for curtain roller Standard.
- ❹ Cavity for pillar roller Standard.
- ❺ Groove for sealant (on aluminium fixed roofs).

Curtainsider profile
10050

Weight 6.4 kg/m.

Length 6500 mm	660100506
Length 7500 mm	660100501
Length 8500 mm	660100502
Length 9500 mm	660100504
Length 13600 mm*	660100503

*profile pre-stressed



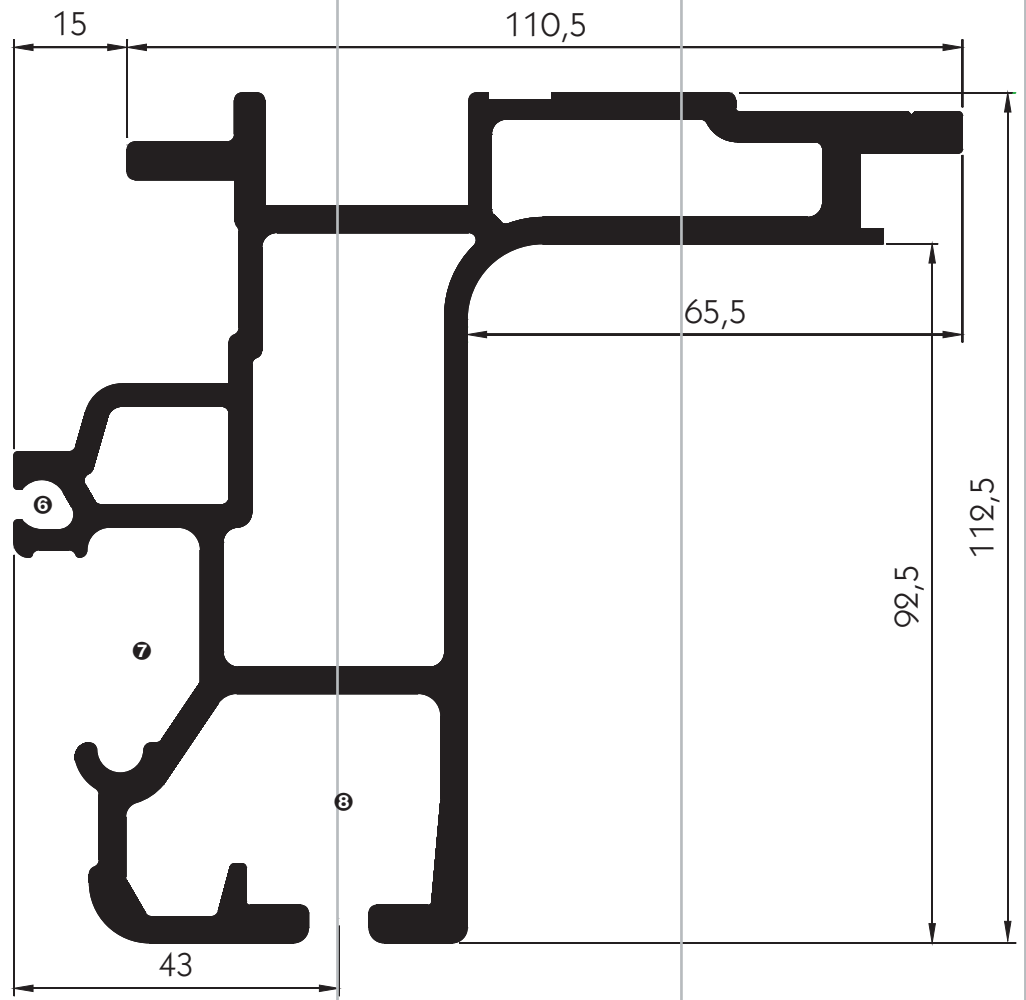
- ❻ Cavity for PVC seal.
- ❼ Cavity for curtain roller Volumen.
- ❽ Cavity for pillar roller Volumen.

Curtainsider profile
Slimliner Medium/
Lite Plus 125

Weight 5.2 kg/m.

Length 6500 mm	660054676
Length 7500 mm	660054671
Length 8500 mm	660054672
Length 9500 mm	660054674
Length 13600 mm*	660054673

*profile pre-stressed



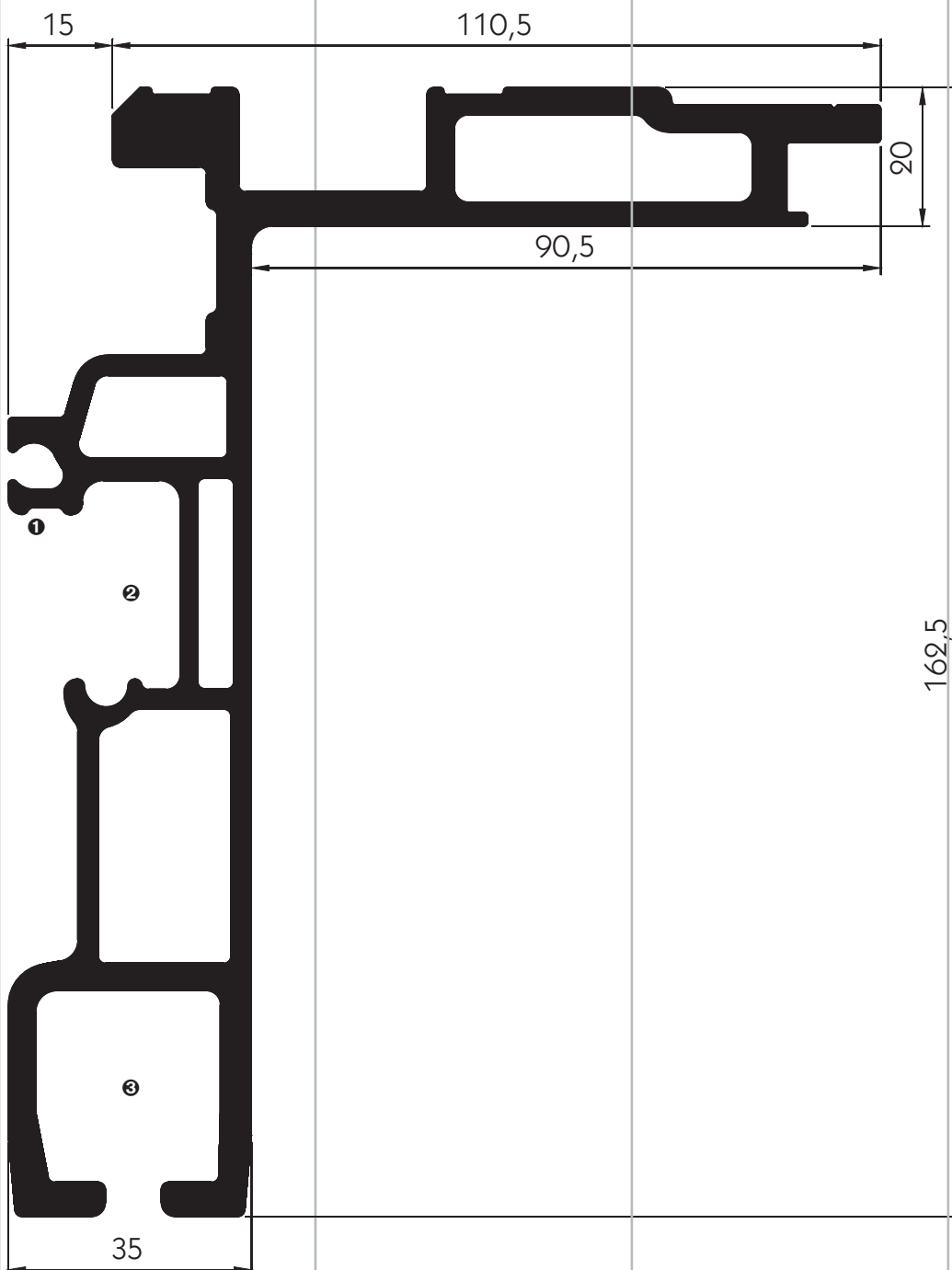
- ❶ Cavity for PVC seal.
- ❷ Cavity for curtain roller Volumen.
- ❸ Cavity for pillar roller.

Curtainsider profile
Slimliner Large/Lite
Plus 175

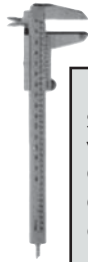
Weight 6.3 kg/m.

Length 6500 mm	660052576
Length 7500 mm	660052571
Length 8500 mm	660052572
Length 9500 mm	660052574
Length 13600 mm*	660052573

*profile pre-stressed

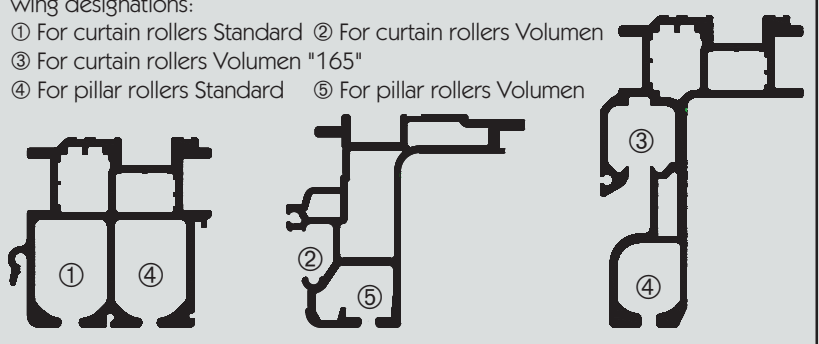
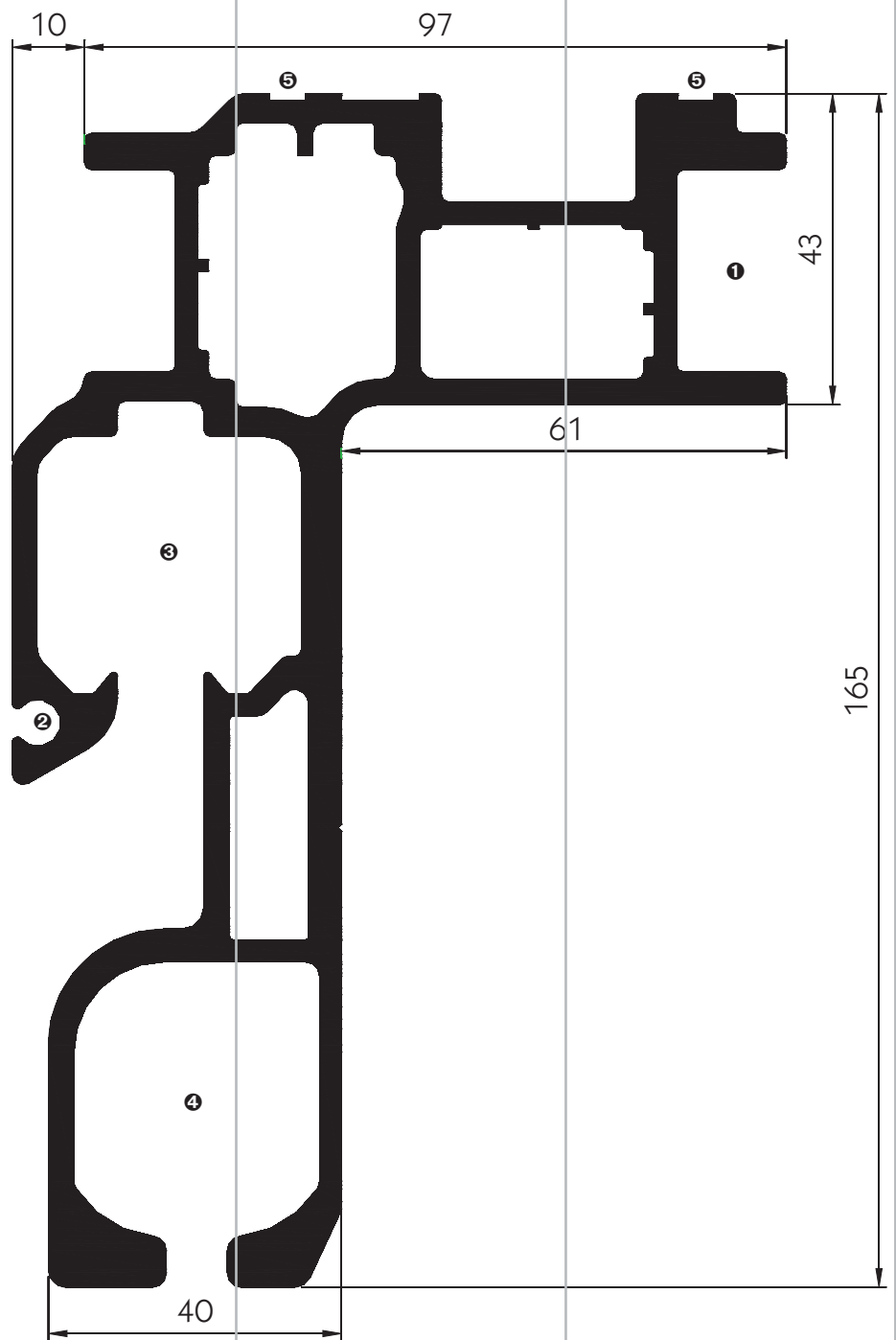


- ❶ Seating channel for the roof connecting profile 660641117.
- ❷ Cavity for PVC seal.
- ❸ Cavity for curtain roller Volumen "165".
- ❹ Cavity for pillar roller Standard.
- ❺ Groove for sealant (on aluminium fixed roofs).



Due to the variety of differently formed chambers within the cant rails we have given the corresponding rollers (for curtain rollers and pillar trolleys) the following designations:

- ❶ For curtain rollers Standard
- ❷ For curtain rollers Volumen
- ❸ For curtain rollers Volumen "165"
- ❹ For pillar rollers Standard
- ❺ For pillar rollers Volumen

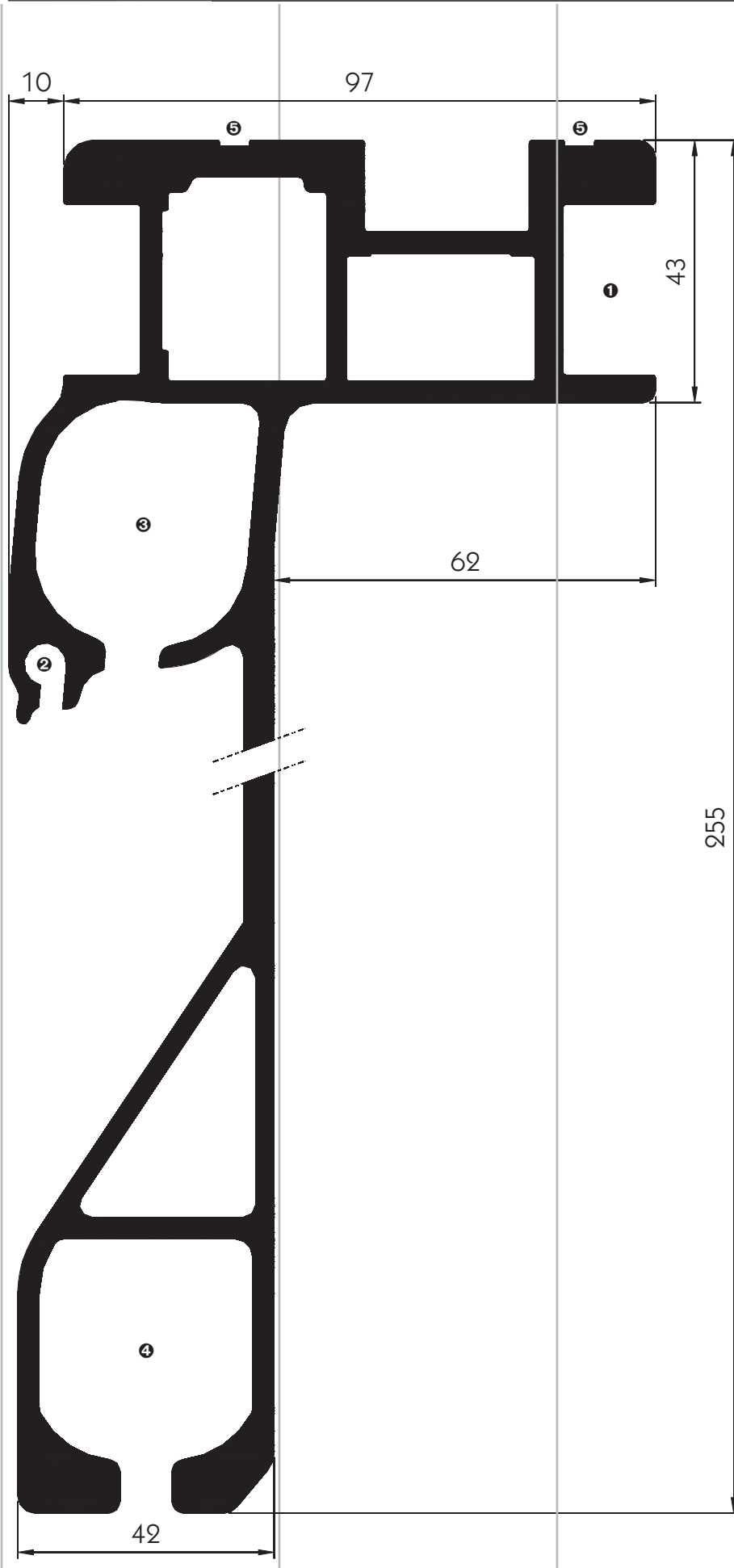



Curtainsider profile
10073

Weight 7.2 kg/m.

Length 13600 mm* **660100733**

*profile pre-stressed



- ❶ Seating channel for the roof connecting profile 660641117.
- ❷ Cavity for PVC seal.
- ❸ Cavity for curtain roller Standard.
- ❹ Cavity for pillar roller Standard.
- ❺ Groove for sealant (on aluminium fixed roofs).

Curtainsider profile

33569

Weight 9.0 kg/m.

Length 7800 mm 660335691

Length 9000 mm 660335699

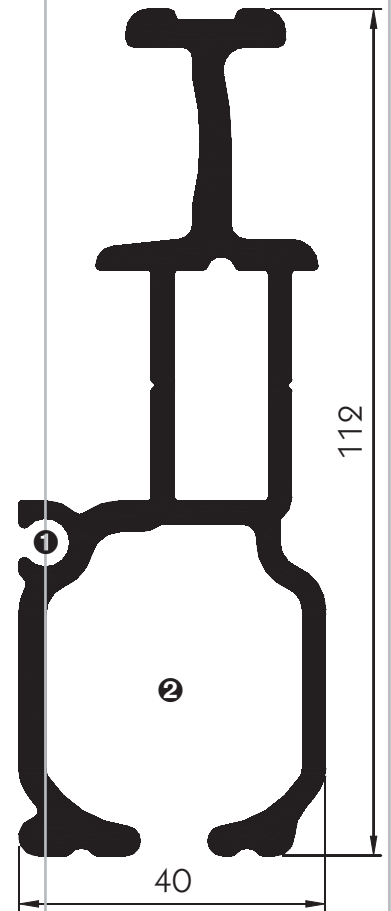
Length 13600 mm* 660335693

*profile pre-stressed

690

- ❶ Cavity for PVC seal.
- ❷ Cavity for curtain roller Standard.

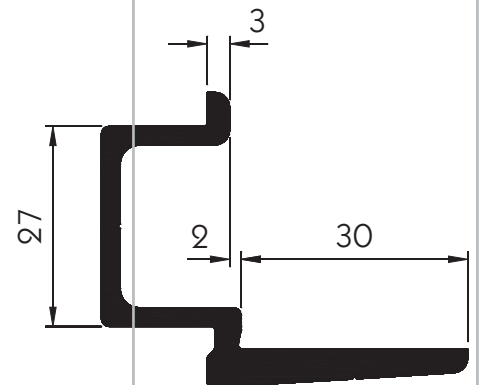
Curtainsider profile
55900
Weight 2.8 kg/m.
Length 8000 mm **660559000**



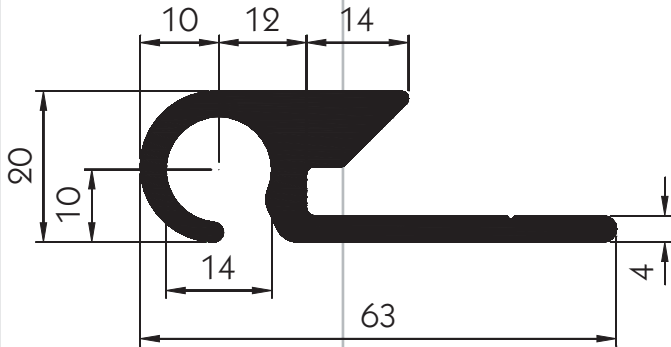
Accessories for curtainsider profiles

The roof connecting profile serves as the support for the roof spars. It fits into a channel on the inside of the curtainsider profile and is riveted to it. Only available in warehouse lengths of 6800 mm.

Roof connecting profile
AlMgSi 0.5 F22, length 6800 mm,
weight 0.889 kg/m.
660641117



Miscellaneous and special profiles
Curtain hooked tensioning poles

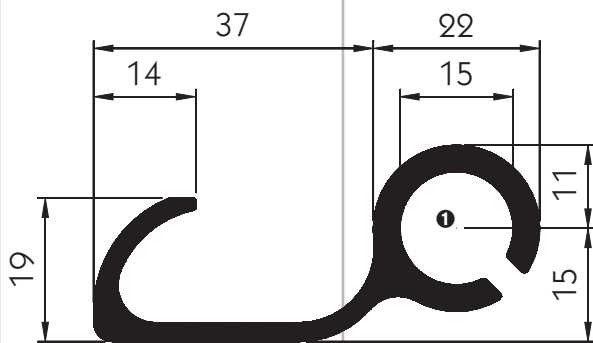


Curtain tensioning poles

AlMgSi 0.5 F25, weight 1.29 kg/m.

Length 3000 mm **670901294**

Length 3300 mm **670901295**



Curtain tensioning poles

AlMgSi 0.5 F25, weight 1.03 kg/m.

Length 3300 mm **670901293**

Curtain tensioning poles



Curtain tensioning pole

Ø 27 mm

AlMgSi 0.5 F25, length 3300 mm, weight 0.76 kg/m.

670900301



Curtain tensioning pole

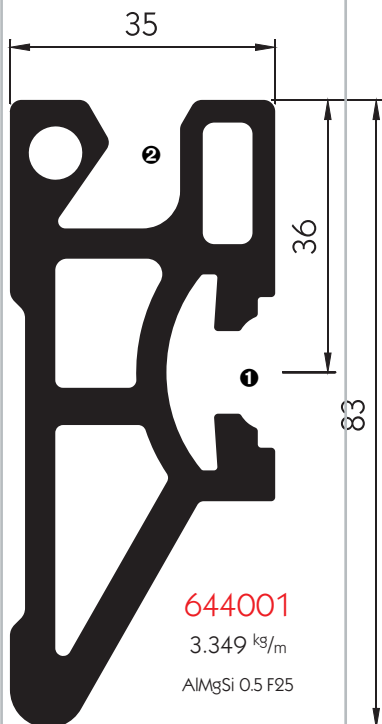
Ø 34 mm

AlMgSi 0.5 F25, weight 1.27 kg/m.

Length 3000 mm **670999925**

Length 3300 mm **670999205**

① Cavity for tarpaulin kader.



644001

3.349 kg/m

AlMgSi 0.5 F25

1 Cavity for carriage bolts M 10, to DIN 603.

2 Seating channel for side planks 621282 and 621223, and also CS centre pillar for combi ram guard.

3 Nose for side planks 621282 and 621223.

1) Various end caps are available for the side plank profile

621045:

1) Plastic insert end cap

320131382.

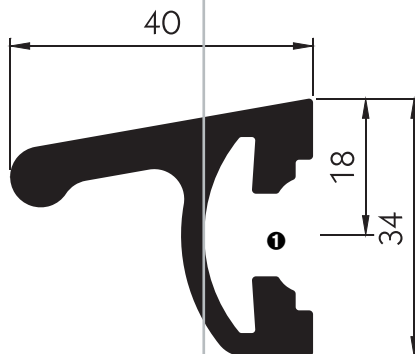
2) PUR insert end cap

215131536.

3) Plastic push-on end cap

320131383.

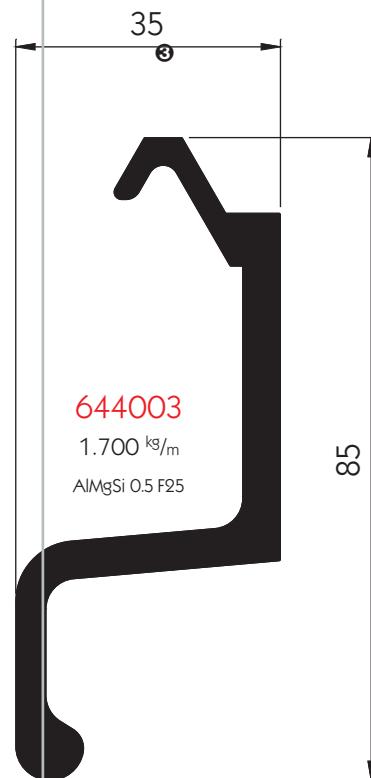
Ram guards



621270

1.189 kg/m

AlMgSi 0.5 F25

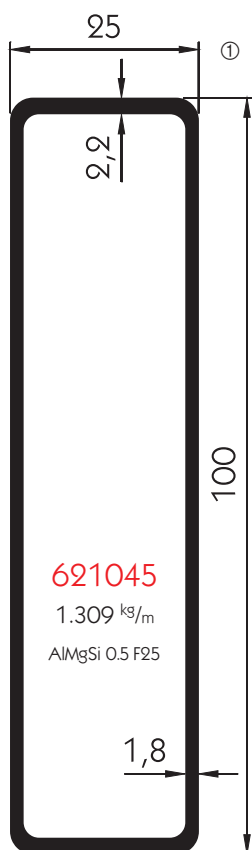


644003

1.700 kg/m

AlMgSi 0.5 F25

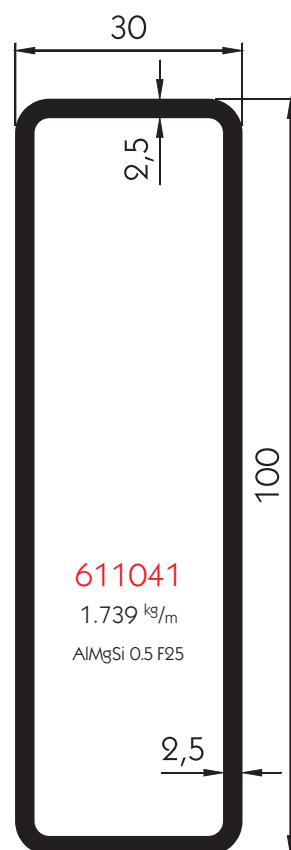
Side planks



621045

1.309 kg/m

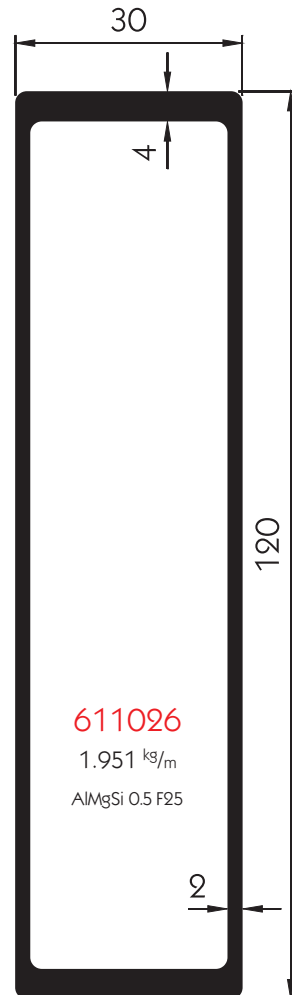
AlMgSi 0.5 F25



611041

1.739 kg/m

AlMgSi 0.5 F25

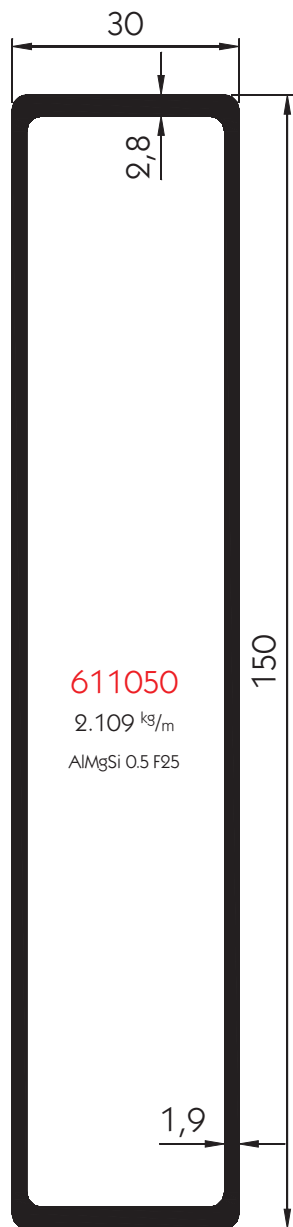
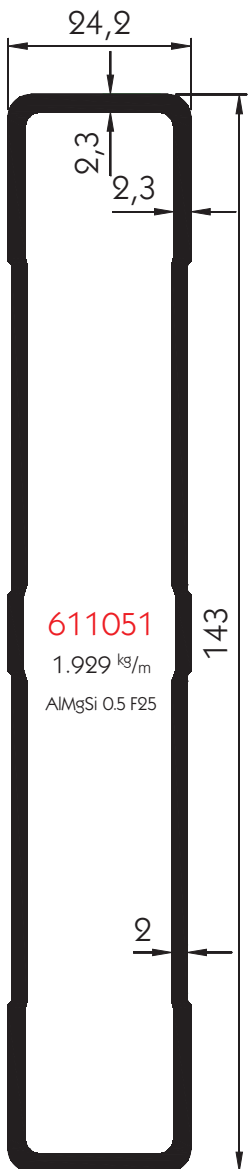


611026

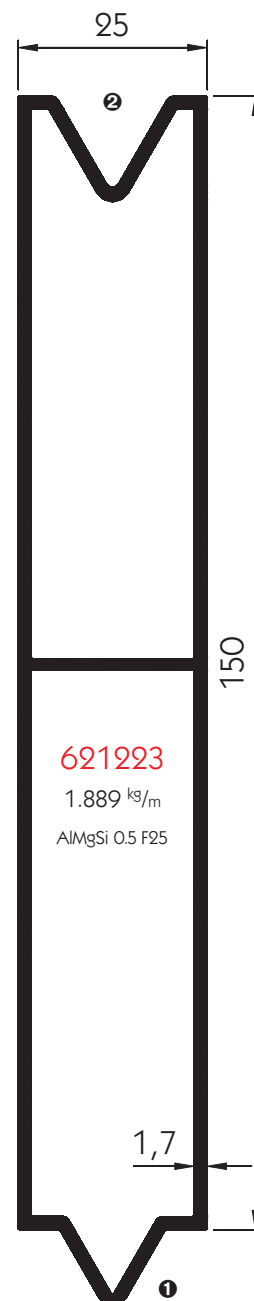
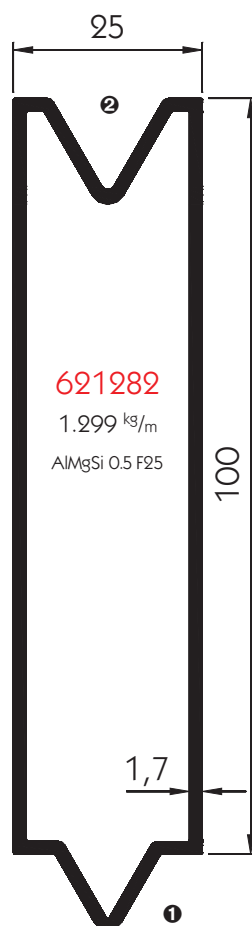
1.951 kg/m

AlMgSi 0.5 F25

Planks for shoring pole fasteners



Side planks/side planks
for combi ram guards



- ❶ Nose for inserting into the seating channel in the combi ram guards **644001** or for inserting into other side planks in seating groove ❷.
- ❷ Seating groove for inserting onto the nose in the ram guard **644003** or the nose ❶ of further side planks.

Flat and U-profiles

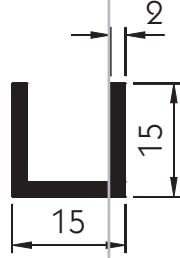
641114

0.359 kg/m
AlMgSi 0.5 F22 P



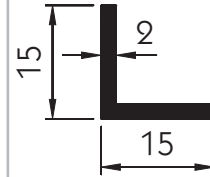
641113

0.239 kg/m
AlMgSi 0.5 F22 P



641067

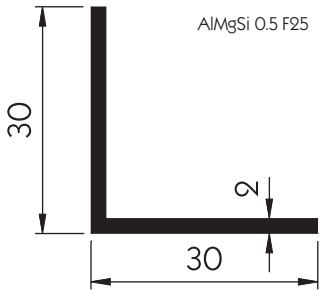
0.159 kg/m
AlMgSi 0.5 F22 P



Angle section profile/
edge surround angle
profile

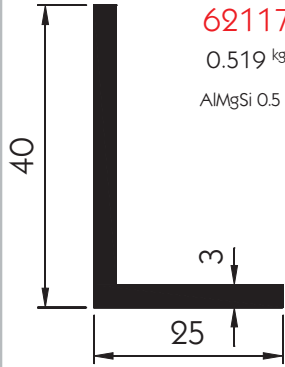
621104

0.329 kg/m
AlMgSi 0.5 F25



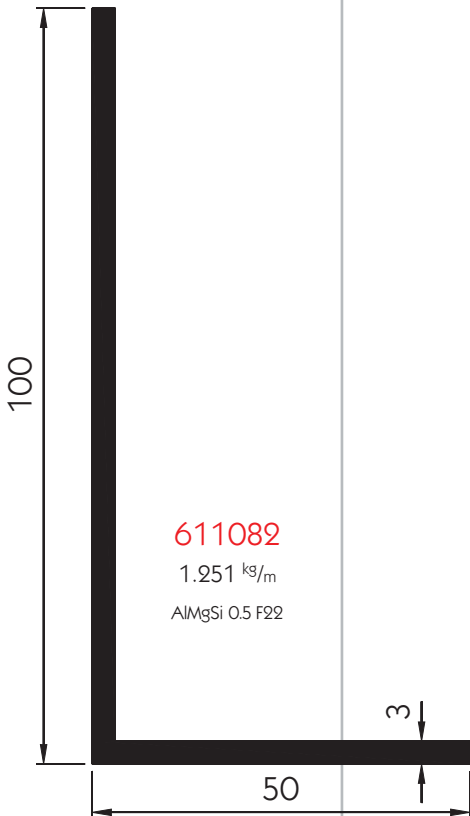
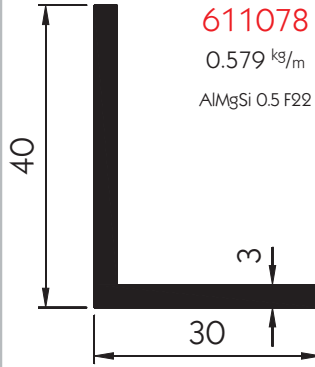
621172

0.519 kg/m
AlMgSi 0.5 F25



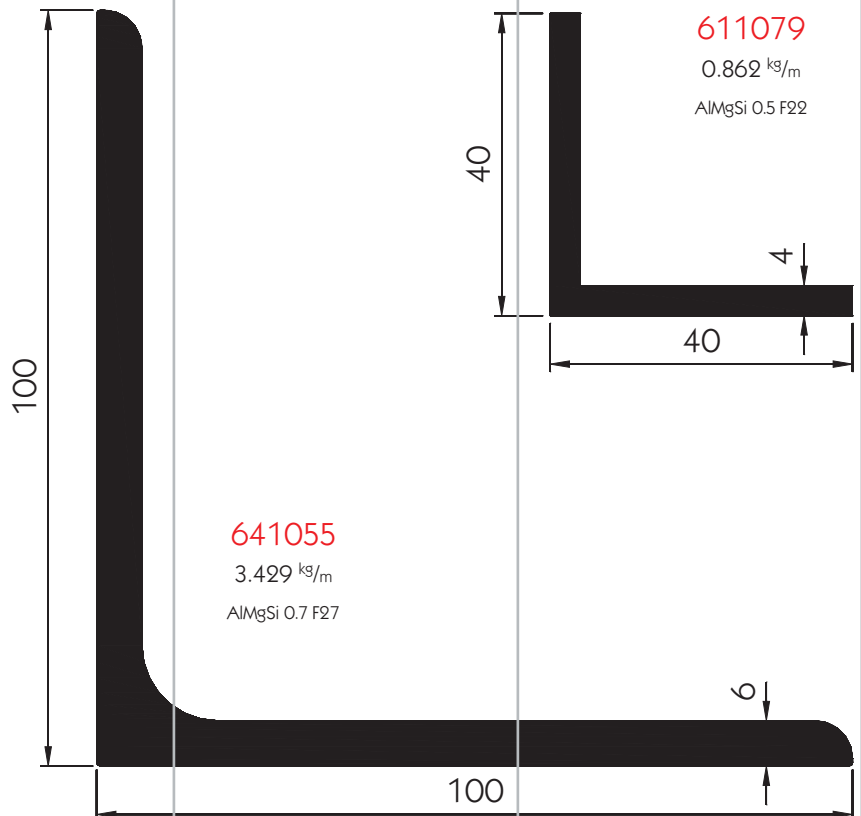
611078

0.579 kg/m
AlMgSi 0.5 F22



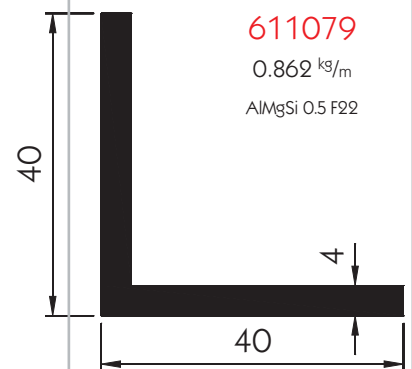
611082

1.251 kg/m
AlMgSi 0.5 F22



641055

3.429 kg/m
AlMgSi 0.7 F27



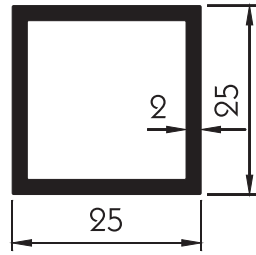
611079

0.862 kg/m
AlMgSi 0.5 F22

Rectangular tubes

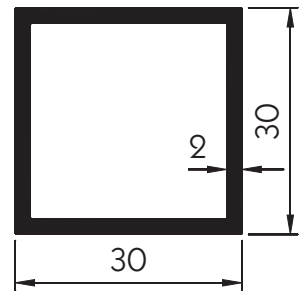
621091

0.522 kg/m
AlMgSi 0.5 F25



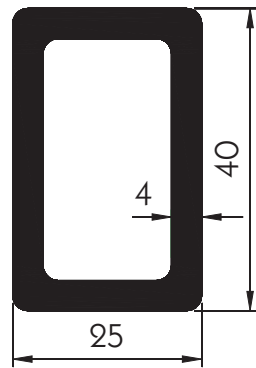
621274

0.659 kg/m
AlMgSi 0.5 F25



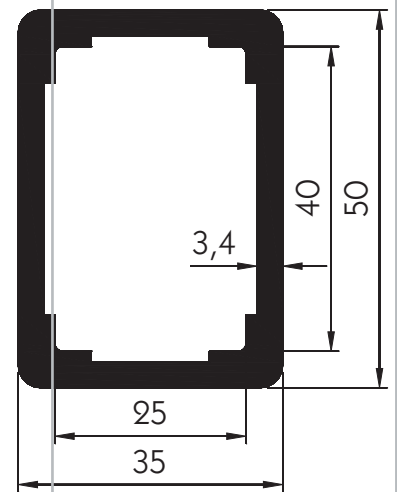
641111

1.319 kg/m
AlMgSi 0.5 F25



641112

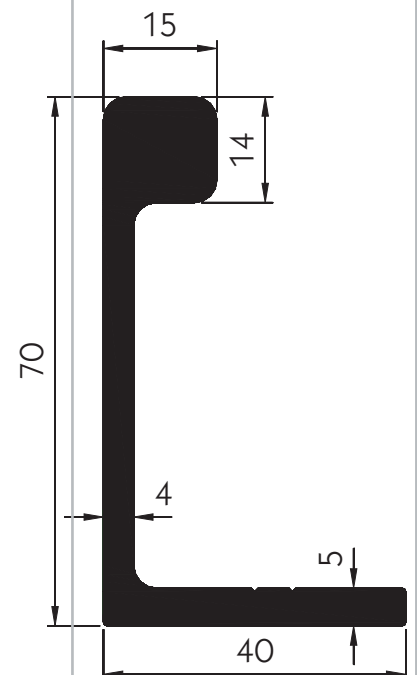
1.709 kg/m
AlMgSi 0.5 F25



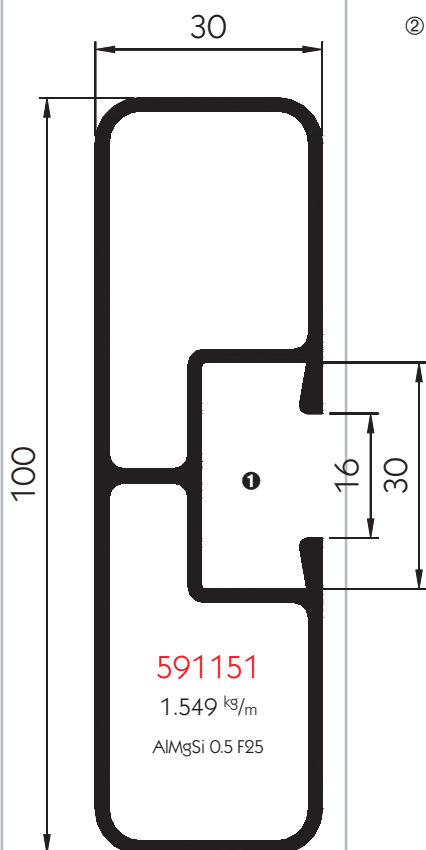
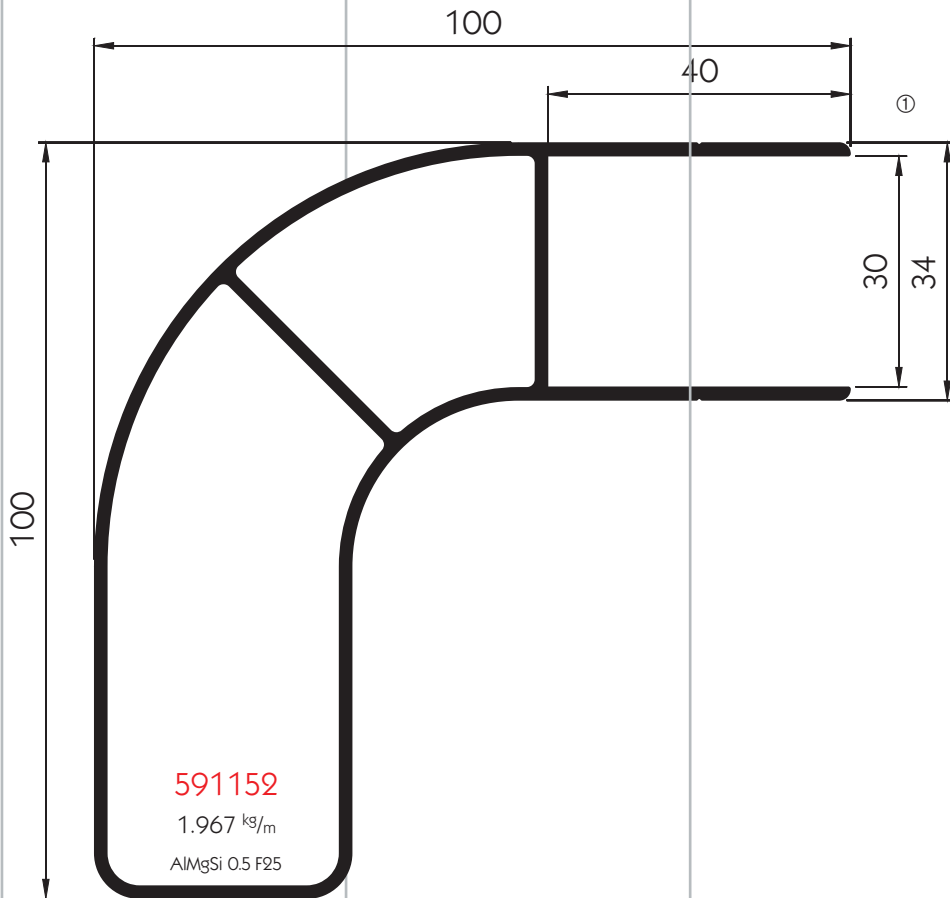
Headboard support/
centre support

641082

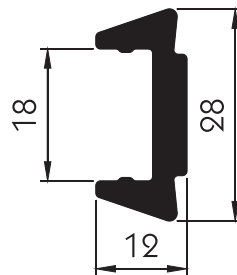
1.749 kg/m
AlMgSi 0.7 F27



Side collision guard



Clamp **591086**
Length 50 mm, weight 0.02 kg.
500591086



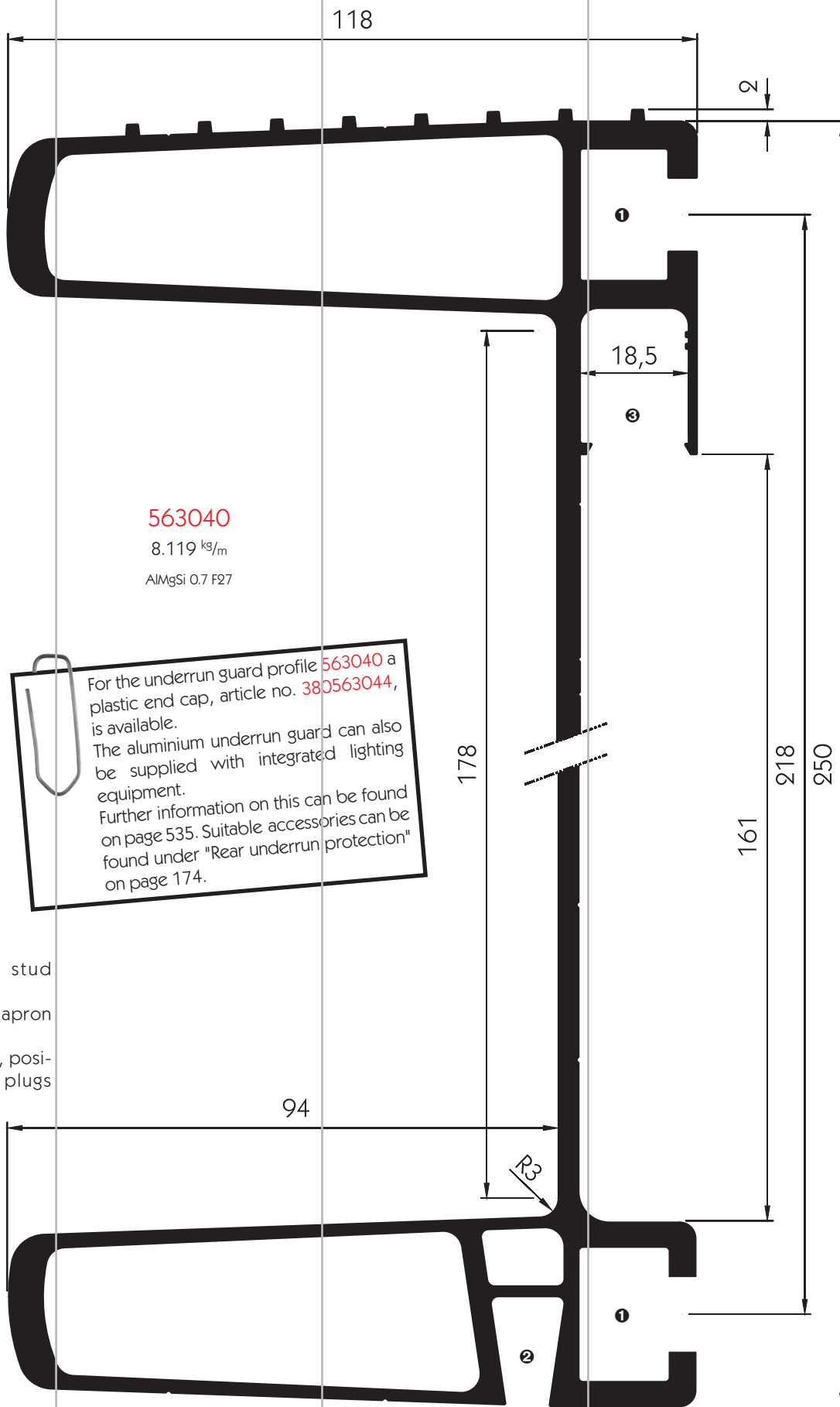
Please note: the mounted aluminium side rail profile **591151** must be labeled with type approval plate **500591167**. The type approval plate (see page 629) has to be riveted on the aluminium side rail profile.

① For the capping finisher profile **591152**, a plastic end cap article no. **380561227**, is available.

② For the side rail profile **591151**, a plastic end cap article no. **380561226**, is available.

❶ Cavity for clamp **590086**, article no. **500591086**.

Rear underrun protection

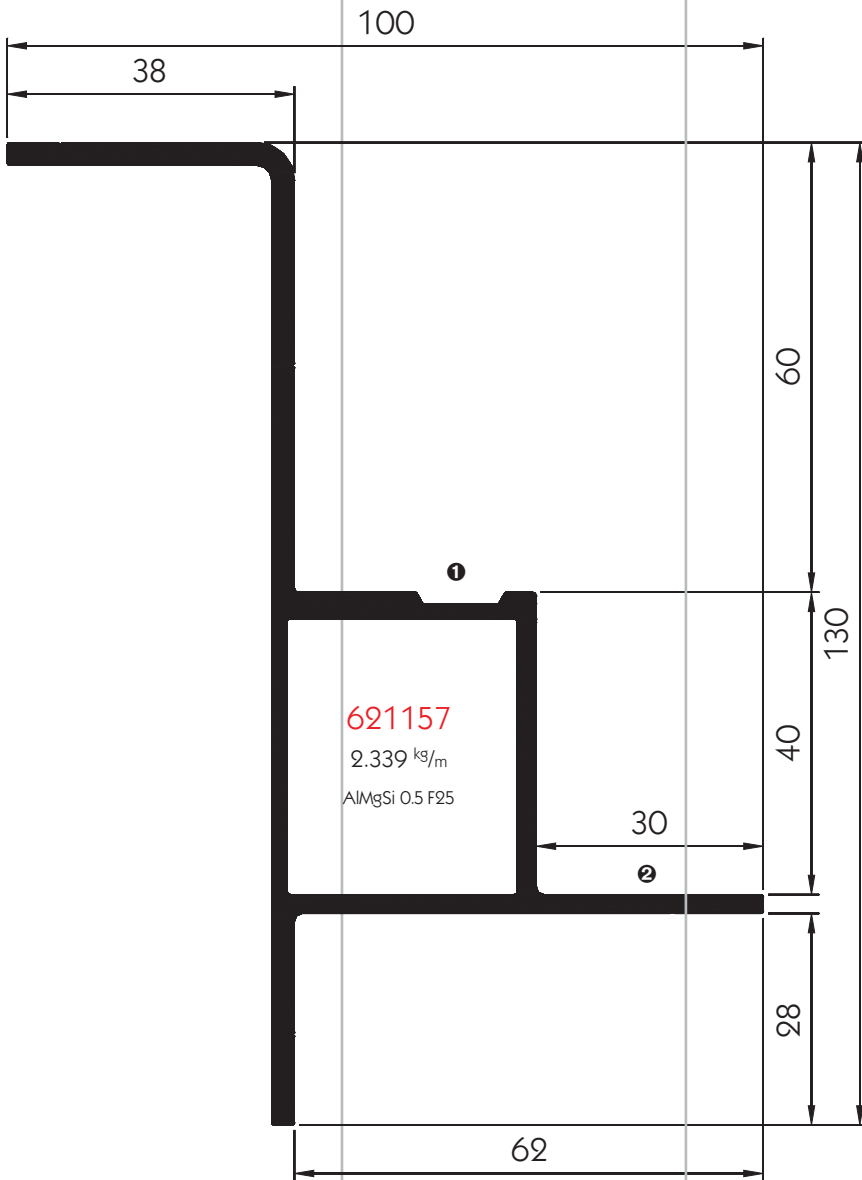


563040
8.119 kg/m
AlMgSi 0.7 F27

For the underrun guard profile **563040** a plastic end cap, article no. **380563044**, is available. The aluminium underrun guard can also be supplied with integrated lighting equipment. Further information on this can be found on page 535. Suitable accessories can be found under "Rear underrun protection" on page 174.

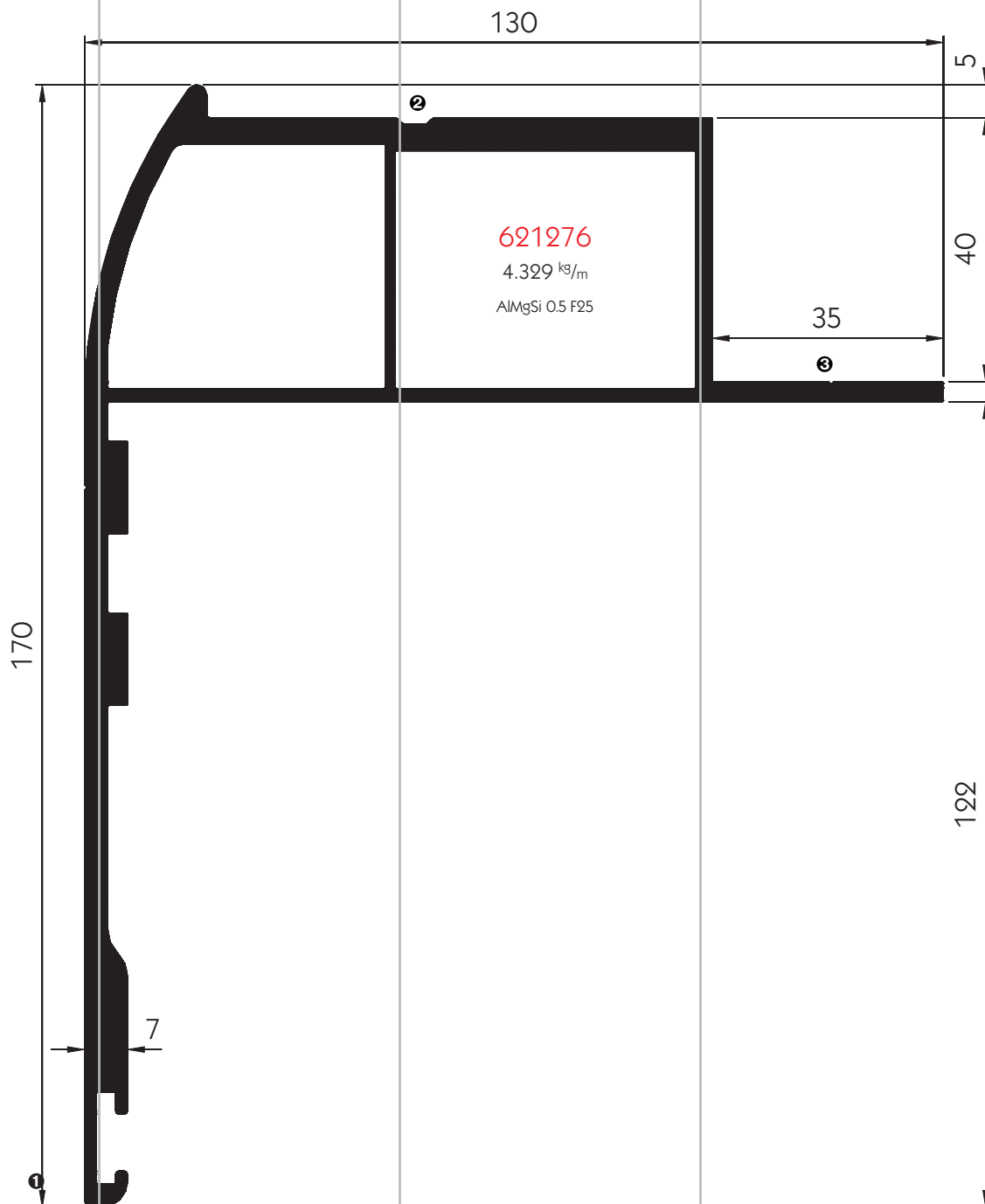
- ❶ Cavity for T-slot stud **380563041**.
- ❷ Cavity for PVC rear apron **350381278**.
- ❸ Duct for lighting cable, positioning using plastic plugs **380563012**.

Roof profiles



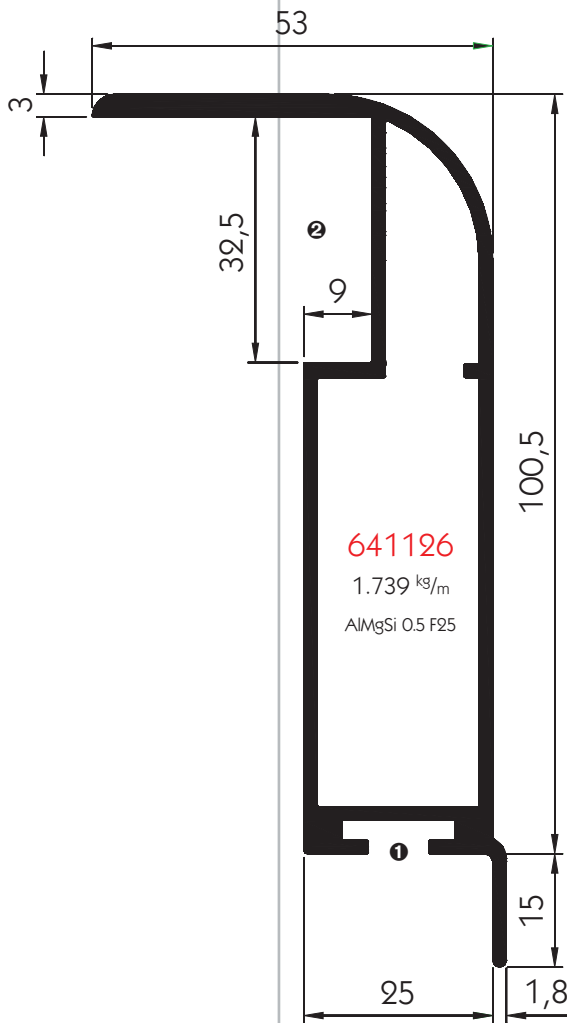
The roof profile 621157 is used as an interface connection between aluminium roof and steel roofing tube on the Suer "over-roof" swing-side body system.

- ❶ Groove for sealing material.
- ❷ Seating for roof spars.



- ① Cavity for seal 520111735.
- ② Groove for sealing material.
- ③ Seating for roof spars.

Lid profile



Profile cutting lengths

For cutting the profile to length, we recommend noting the following dimensional allowances.

Lid profile:

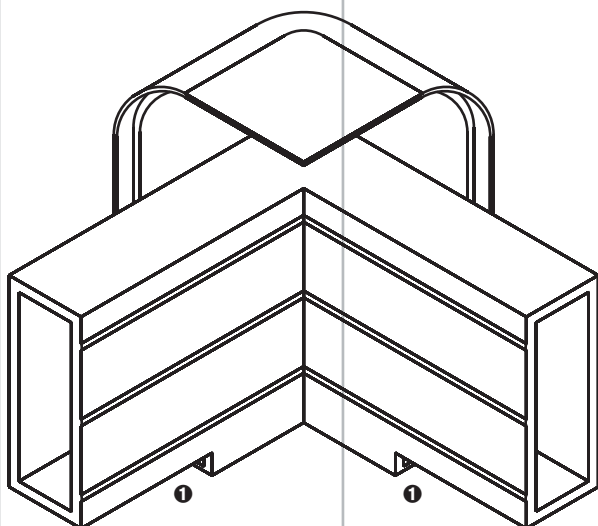
Lid outside width/length = - 51 mm for each lid corner piece

Lid outside width = box outside width + 5 mm

Lid outside length = box outside length + 8 mm

Rectangular tube 621274:

Lid outside width/length = - 34 mm



Lid corner

For profile **641126**, grey plastic, weight approx. 0.13 kg.

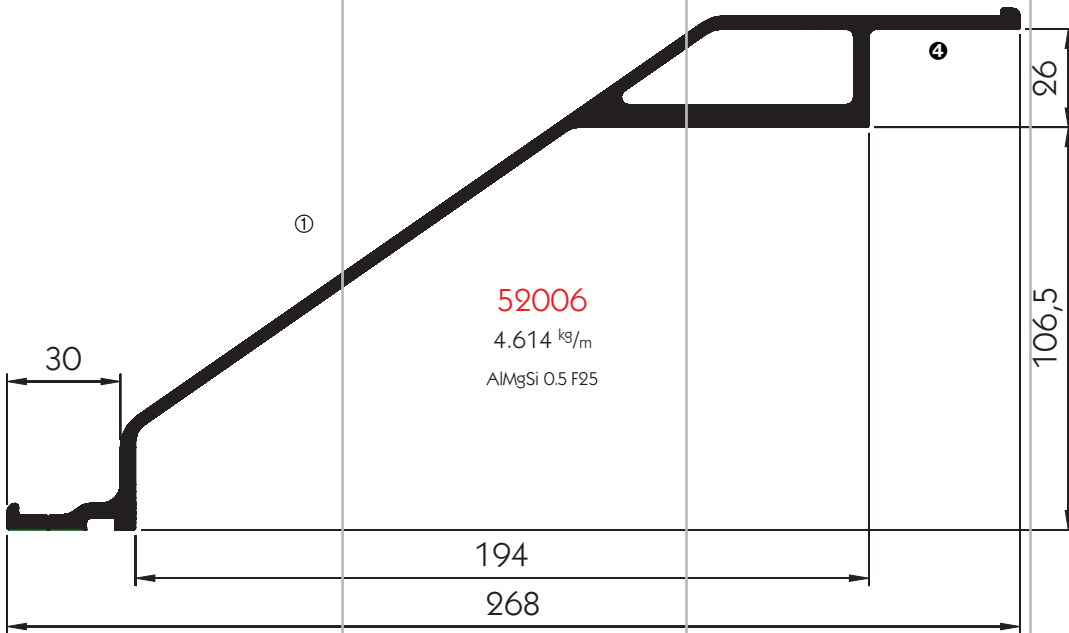

500621275

❶ Cavity for seal **52011947**.

❷ Seating for rectangular tube **621274**.

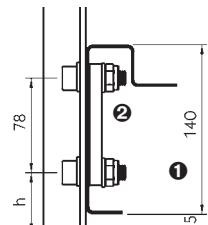
All illustrations are scaled 1:2.

PWP aluminium trailer kit
Corner pillar profiles

Please note that the floor frame profile in the area around the bolted connections ② must be reinforced.

With prepared pillars, the dimension h is 50 mm in the standard version, and 25.5 mm in the **Cargotrail** flatbed kit version.



In the standard version, the mounting holes in the pillars are to suit a floor frame height of 140 mm ①, so that the profile projects 15 mm beyond the bottom edge of the floor frame.

The profiles from the PWP aluminium trailer kit illustrated on the next page are designed especially for curtainsider bodies.

A detailed description of the PWP aluminium trailer kit with order numbers for the processed profiles can be found in the catalogue "Kits".

All profiles are only supplied in anodised finish.

The profile 52006 ①, used in conjunction with the corner pillar profiles 52005 ② or 52010 ③, makes up a front corner pillar for a semi-trailer.

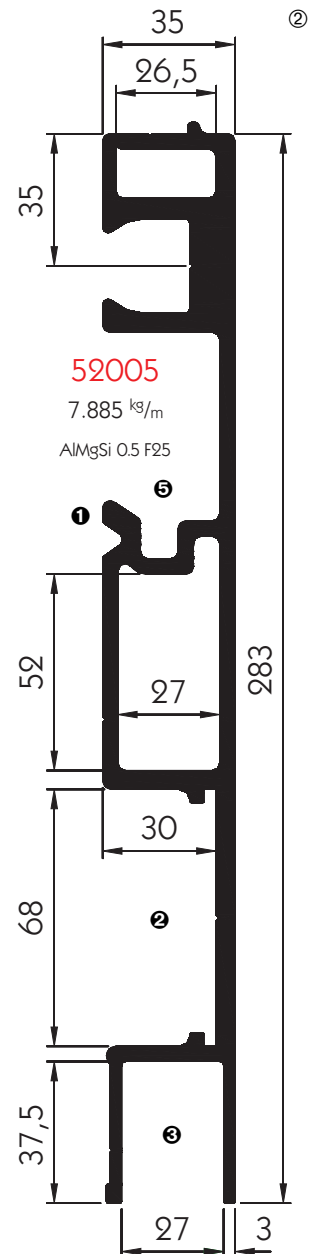
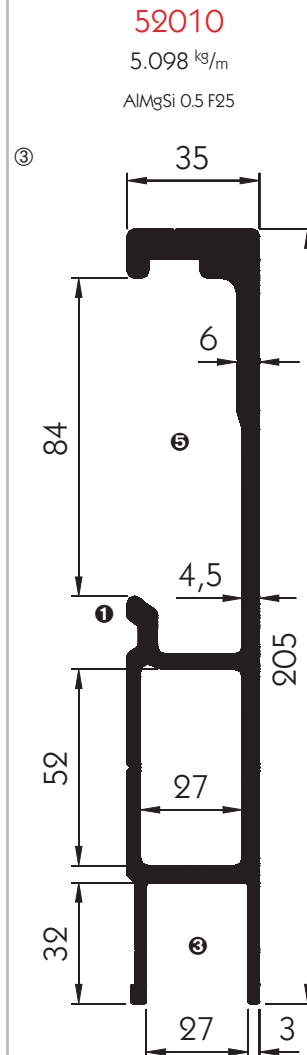
① Nose for aluminium curtain tensioning poles 670901294 and 670901295.

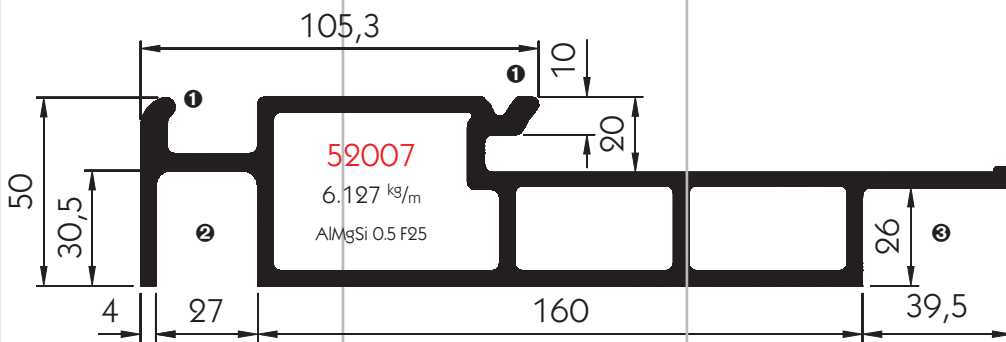
② Cavity, e.g. for Liftmaster 750.

③ Channel for 25 mm side planks, profile 621045, 621282 or 621223.

④ Seating stop for headboard.

⑤ Channel for curtain tensioning pole Ø 27 mm 670900301.

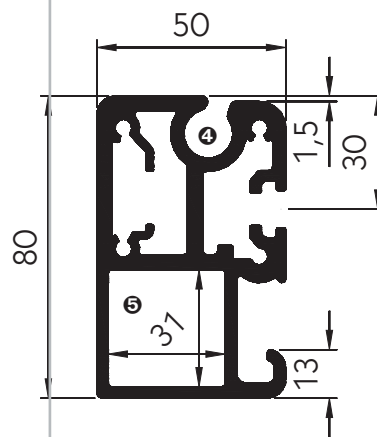
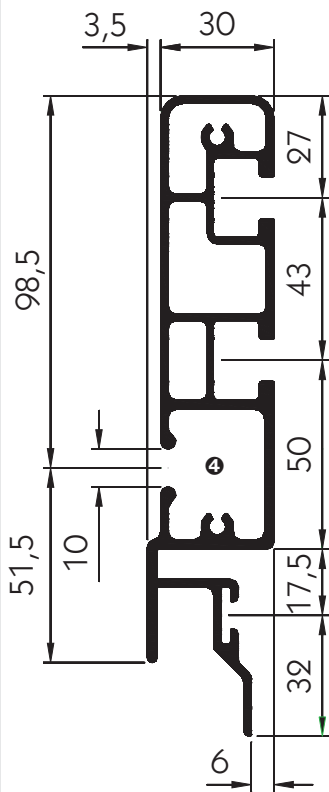




All illustrations on this page are scaled 1:2.

- ❶ Nose for aluminium curtain tensioning poles 670901294 and 670901295.
- ❷ Channel for 25 mm side planks, profile 621045, 621282 or 621223.
- ❸ Seating stop for headboard.

PWP aluminium trailer kit
Crossbar profiles



- ❹ Cavity for tarpaulin keder.
- ❺ Cavity for PWP Contact door sealing system.

All the roof spar profiles illustrated on this page can be fitted to the roof profiles on the previous pages.

Used in conjunction with the roof connecting profile 660641117, and additionally for tarpaulin or aluminium fixed roofs in conjunction with different curtainsider profiles.

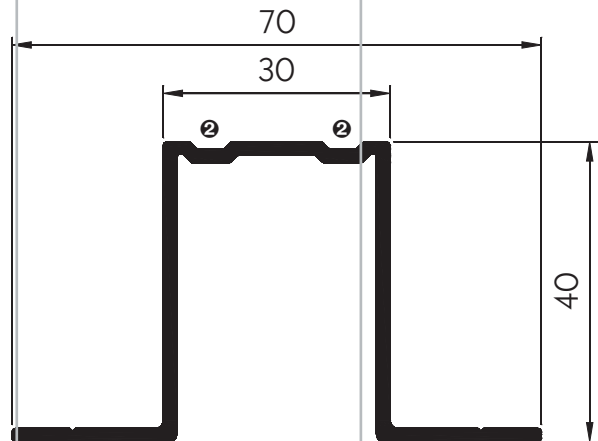
① The roof spar profile 621279 is used on the Suer "under roof" swing-side body system.

- ❶ Cavity for threaded rail.
- ❷ Groove for sealing material.

621288

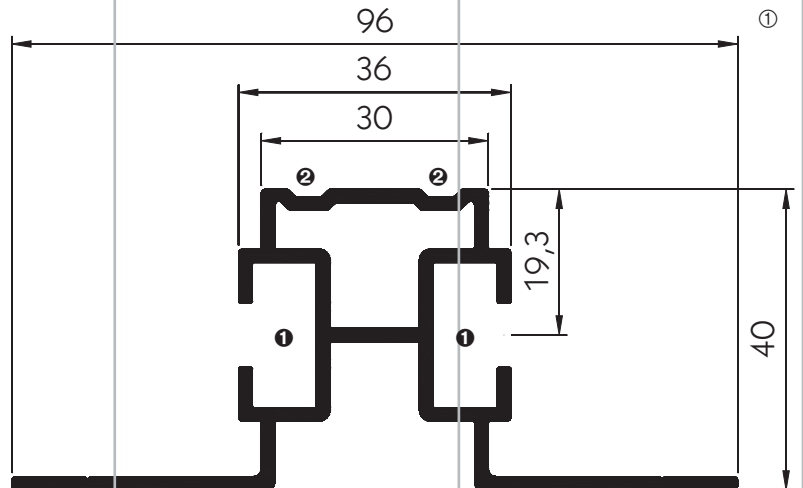
0.759 kg/m
AlMgSi 0.5 F25

Roof spars



621279

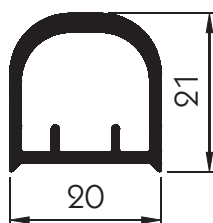
1.258 kg/m
AlMgSi 0.5 F25



Capping tube for Anchor bolt M 12

From profile 591082, length 182 mm, weight 0.07 kg.

Self colour 500621160
Coated 562621160



591082

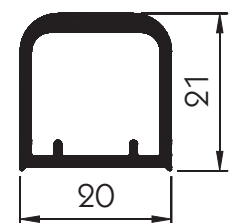
0.369 kg/m
AlMgSi 0.5 F25

Anchor bolt cappings

Capping tube for Anchor bolt M 16

From profile 591182, length 182 mm, weight 0.11 kg.

Self colour 500611073
Coated 562611073

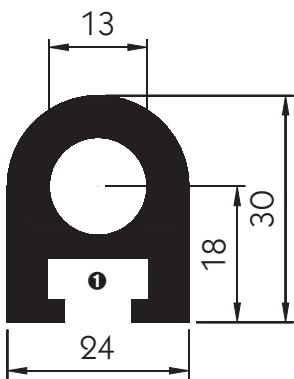
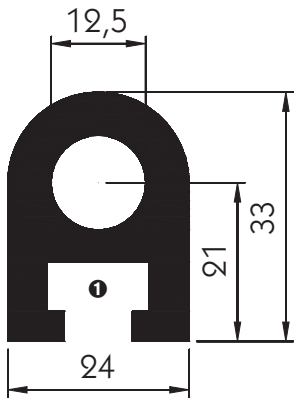


591182

0.355 kg/m
AlMgSi 0.5 F25

No longer available

Hinge housings



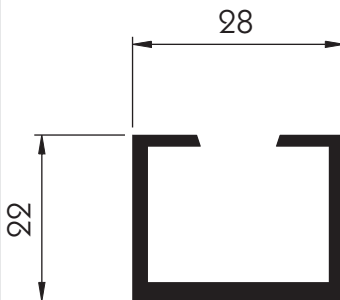
Hinge housing
Length approx. 50 mm, weight 0.07 kg.
500111697

① Cavity for M8 screw heads to DIN-EN-ISO 4014/DIN-EN-ISO 4017. Screw-on gudgeons, zinc plated, article no. **215111696**, or self colour, article no. **215112696**, are available to suit these hinge housings which we use for side board hinges on the Suer aluminium tipper bodies.

Hinge housing
Length approx. 45 mm, weight 0.05 kg.
103111885

① Cavity for M8 screw heads to DIN-EN-ISO 4014/DIN-EN-ISO 4017. Screw-on gudgeons, zinc plated, article no. **103111884**, are available to suit these hinge housings.

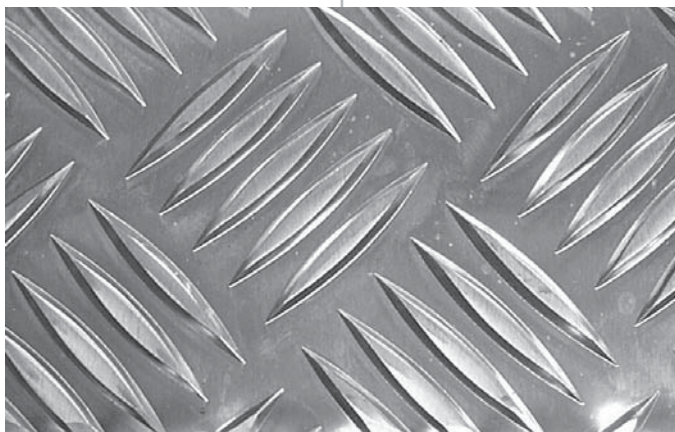
C-profile for glass transporters



C-profile for glass transporter
Length 6 m, weight 2.82 kg.
372561445

The rail with the corresponding overlay profiles **215111665** and **215111666** can be used for building glass transport frames as shown in this example.

Checker plates



Quintett checker plates
Medium format approx. 1250 x 2500 mm.

	Weight [kg]	
2.5/4 mm	25	510592000
3.5/5 mm	32	510592001

Illustration:
Section of plate surface, not to scale.

Seals and edge protection for aluminium profiles

PVC seal

For cant rails 10073, Lite Plus 125/Slimliner Medium (05467), Lite Plus 175/Slimliner Large (05257) and Small CS (55900), weight 0.49 kg/m.

Colour	Length [m]	
Grey	13.7	660059950
Grey	18.5	660059960
Black	13.7	660059970
Black	18.5	660059980

PVC seal

For cant rails 80797, 10050 and 33569, weight 0.49 kg/m.

Colour	Length [m]	
Grey	16	660828216
Grey	28	660828228
Black	16	660828316
Black	28	660854930
Black	33	660758500

PVC seal

For cant rail Mixliner 2004, weight 0.8 kg/m.

Colour	Length [m]	
Grey	9	650000015
Grey	14	650000016
Black	9	650000010
Black	14	650000011
Black	15	650000013
Black	20	650000014
Black	28	650000012

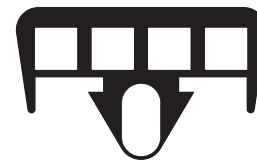
Overlay for C-rail 372561445 for building glass transporter frames.



Solid rubber profile overlay

Length 25 m, weight 9.44 kg.

215111665



Rubber profile overlay extruded cavities

Length 25 m, weight 6.90 kg.

215111666



Seal
Weight 0.08 kg/m.

520111664



Seal
Weight 0.14 kg/m.

520111715



Seal
Weight 0.29 kg/m.

520111671



Seal
Weight 0.05 kg/m.

520111735



Seal
Weight 0.17 kg/m.

520111864



Seal
Weight 0.02 kg/m.

520111947



Seal
Weight 0.10 kg/m.

106121348



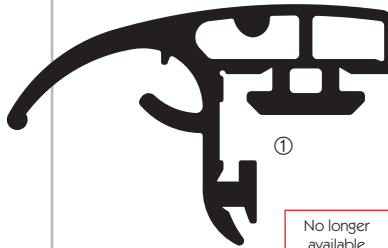
Seal
Weight 0.12 kg/m.

5201171708



Seal
Weight 0.05 kg/m.

520111672



Seal
Weight 0.41 kg/m.

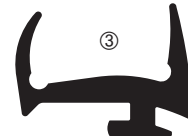
Length 2930 mm **643219290**
Length 3130 mm **643219310**
Length 3330 mm **643219330**

No longer available



Seal
Weight 0.21 kg/m.

643219501



Seal
Weight 0.15 kg/m.

645219530



Seal
Weight 0.18 kg/m.

646389015



Edge protection and sealing profile
Weight 0.15 kg/m.

520111701



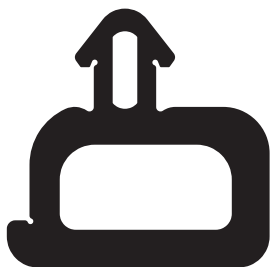
Edge protection and sealing profile
Weight 0.22 kg/m.

520111708



Edge protection and sealing profile
Weight 0.31 kg/m.

520111861



Ram guard profile
Weight 0.82 kg/m.

520111812



Polyamide strip
Length approx. 2000 mm, weight 0.30 kg.

617675141



Foam rubber 10 x 25
Weight 0.10 kg/m.

520111810

Seals for PWP portal doors:
① Door centre joint seal, between two door wings.
② Seal for door surround, side (outer), top and bottom.
③ Seal between two door wing-connected by double jointed hinges (multiple winged doors).
④ Seal for portal door Challenge.

Flatbed kit without corner pillars for chassis up to 7.49 t GVW.

Subframe with clamped crossmembers spaced at maximum 560 mm, total height of subframe and crossmembers without floor, 190 or 210 mm, depending on subframe profile. Floor frame profile with integrated PWP lashing rings to 2000 daN ③ for floor thicknesses of 18 (21), 24 (27) or 30 mm, connected by zinc-plated steel frame corners. Ready-made 400 or 500 mm high boards to the sides and rear with long travel locking bolts 720 ①, without centre pillar.

Board hinges Rapid H 871-KL ④, fixing holes pre-drilled in floor frame profile.

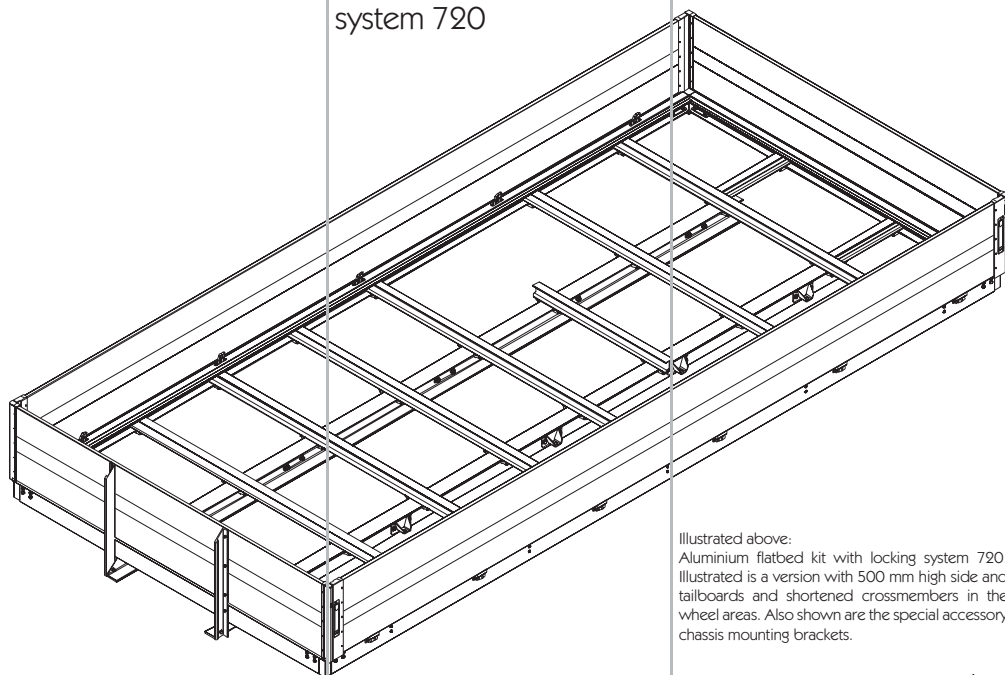
Headboard same height as sideboards with centre supports ②.

Subframe, crossmembers, floor frame profile, headboard, side and tailboards and headboard supports, all aluminium.

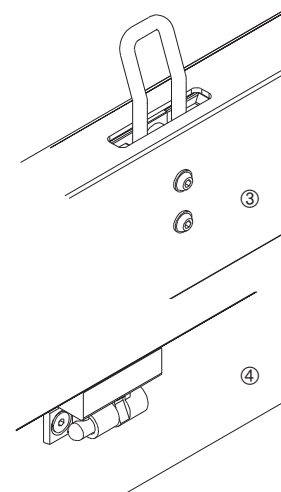
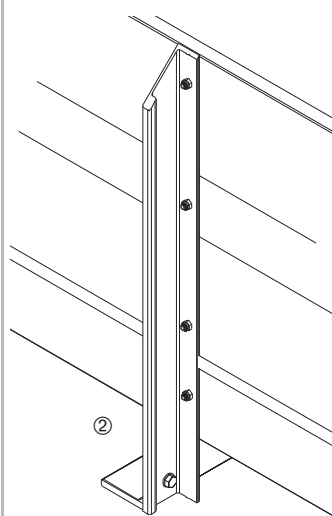
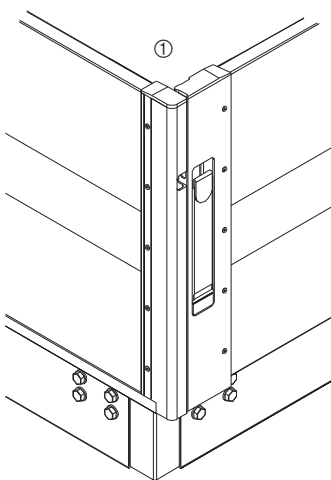
Aluminium parts can be supplied self coloured or anodised (in which case the steel parts are supplied unchanged e.g. zinc plated or KTL coated), all parts optionally powder coated in RAL colour.

The kit is supplied as individual parts with all parts of the floor assembly already pre-bored. The kit also includes the necessary screws and assembly materials.

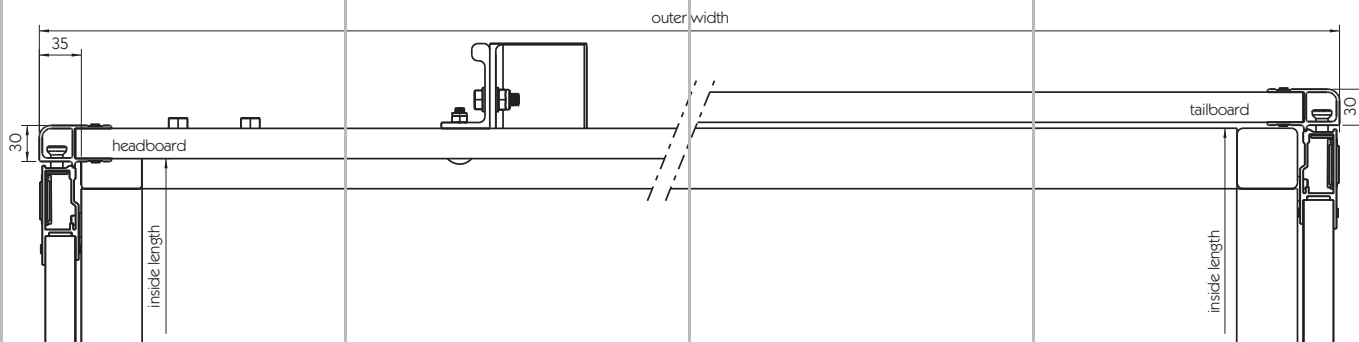
Cargotrail aluminium flatbed kits
Flatbed with locking system 720



Illustrated above: Aluminium flatbed kit with locking system 720. Illustrated is a version with 500 mm high side and tailboards and shortened crossmembers in the wheel areas. Also shown are the special accessory chassis mounting brackets.



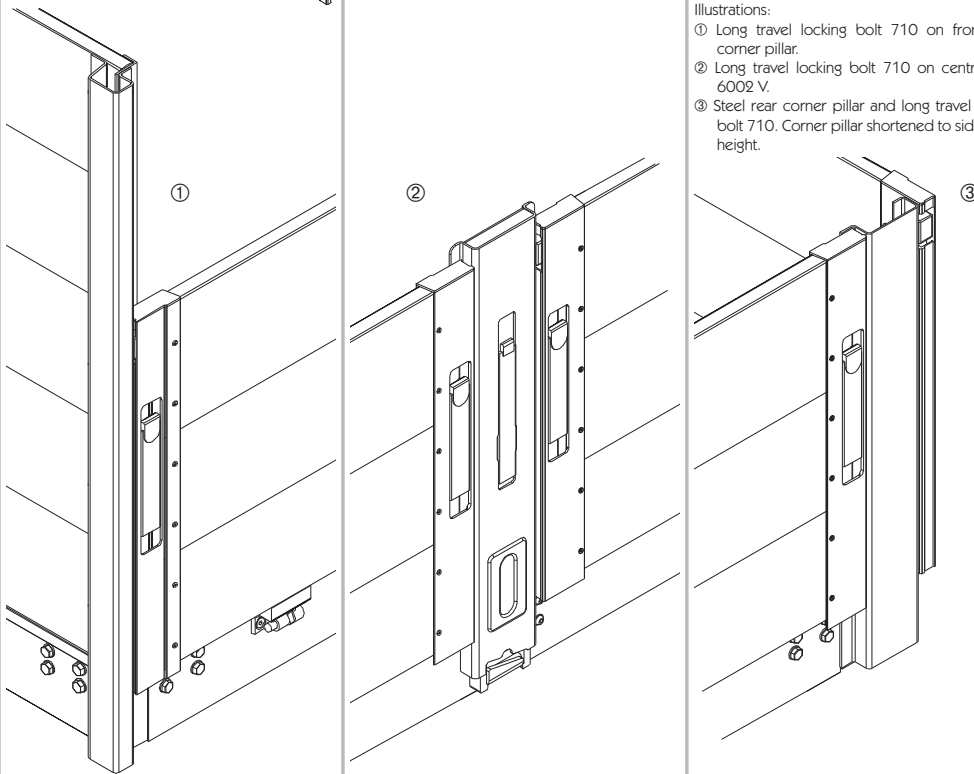
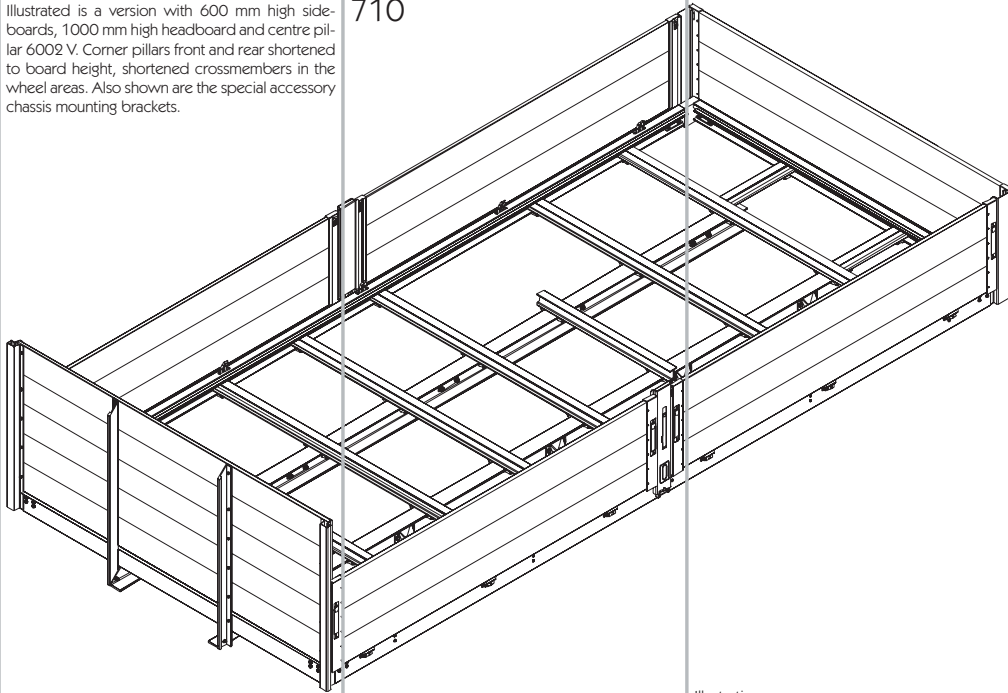
Illustrations:
① Long travel locking bolt 720.
② Headboard centre support 641082.
③ Floor frame integrated PWP lashing rings (shown extended, enlarged illustration).
④ Sideboard hinge Rapid H 571-K (illustrated enlarged).



Cross section of headboard (left) and tailboard (right).

Illustration:
Aluminium flatbed kit with locking system 710. Illustrated is a version with 600 mm high sideboards, 1000 mm high headboard and centre pillar 6002 V. Corner pillars front and rear shortened to board height, shortened crossmembers in the wheel areas. Also shown are the special accessory chassis mounting brackets.

Flatbed with centre pillar 710



Illustrations:
① Long travel locking bolt 710 on front steel corner pillar.
② Long travel locking bolt 710 on centre pillar 6002 V.
③ Steel rear corner pillar and long travel locking bolt 710. Corner pillar shortened to sideboard height.

Flatbed kit with fixed corner pillars for chassis up to 12 t GVW.

Subframe with clamped crossmembers spaced at maximum 560 mm, total height of subframe and crossmembers without floor, 190 (≤ 7.49 t GVW) or 210 mm, depending on subframe profile. Floor frame profiles with integrated PWP lashing rings to 2000 daN for floor thicknesses of 18 (21), 24 (27) or 30 mm, connected by KTL coated steel frame corners with welded-on corner pillars ① + ③.

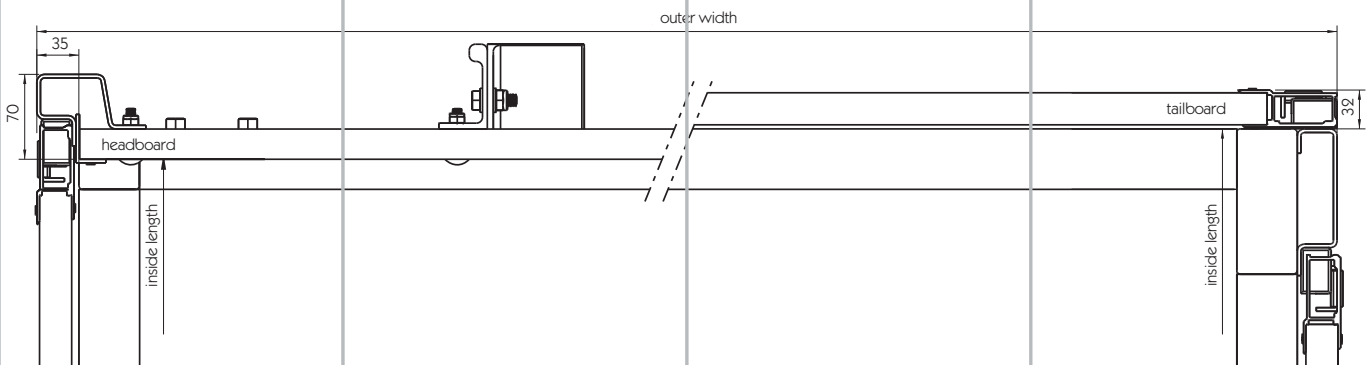
Corner pillar height 2000 mm from top edge of floor. During assembly these can be used, e.g. for building a roof frame, or shortened. Rear corner pillars suitable for tail lifts.

Prefinished sideboards, height from 400 to 1000 mm, in 100 mm steps, as required, side and rear with long travel locking bolts 710 ① - ③, optional centre pillar 6002 V ② or 701.

Board hinges Rapid H 871-KL, fixing holes pre-drilled in floor frame profile.

Headboard, height maximum 2000 mm with centre supports. Subframe, crossmembers, floor frame profile, headboard, side and tail boards and headboard supports, all aluminium.

Aluminium parts can be supplied self coloured or anodised (in which case the steel parts are supplied unchanged e.g. zinc plated or KTL coated), all parts optionally powder coated in RAL colour. The kit is supplied as individual parts with all parts of the floor assembly already pre-bored. The kit also includes the necessary screws and assembly materials.



Cross section of headboard (left) and tailboard (right).

710

Flatbed kit with fixed headboard corner pillars for chassis up to 12 t GVW.

Subframe with clamped crossmembers spaced at maximum 560 mm, total height of subframe and crossmembers without floor, 190 (≤ 7.49 t GVW) or 210 mm, depending on subframe profile. Floor frame profiles with integrated PWP lashing rings to 2000 daN for floor thicknesses of 18 (21), 24 (27) or 30 mm, connected by KTL coated steel frame corners. Front frame corners with welded on corner pillar, rear corners with pillar socket for pillar K 20.

Front corner pillar height 2000 mm from top edge of floor. During assembly these can be used, e.g. for building a roof frame, or shortened. Rear corner pillar K 20, height maximum 1000 mm. Pre-finished side and tailboards, height from 400 to 1000 mm as required on headboard with long travel locking bolt 710, otherwise locking with pillar ③. Optional centre pillar K 20 ②.

Board hinges Rapid H 871-KL, fixing holes pre-drilled in floor frame profile.

Headboard, height maximum 2000 mm, with centre supports. Subframe, crossmember, floor frame profile, headboard, side and tail boards and headboard supports, all aluminium.

Aluminium parts can be supplied self coloured or anodised (in which case the steel parts are supplied unchanged, e.g. zinc plated or KTL coated), all parts optionally powder coated in RAL colour. The kit is supplied as individual parts with all parts of the floor assembly already pre-bored. The kit also includes the necessary screws and assembly materials.

Flatbed with pillar system K 20

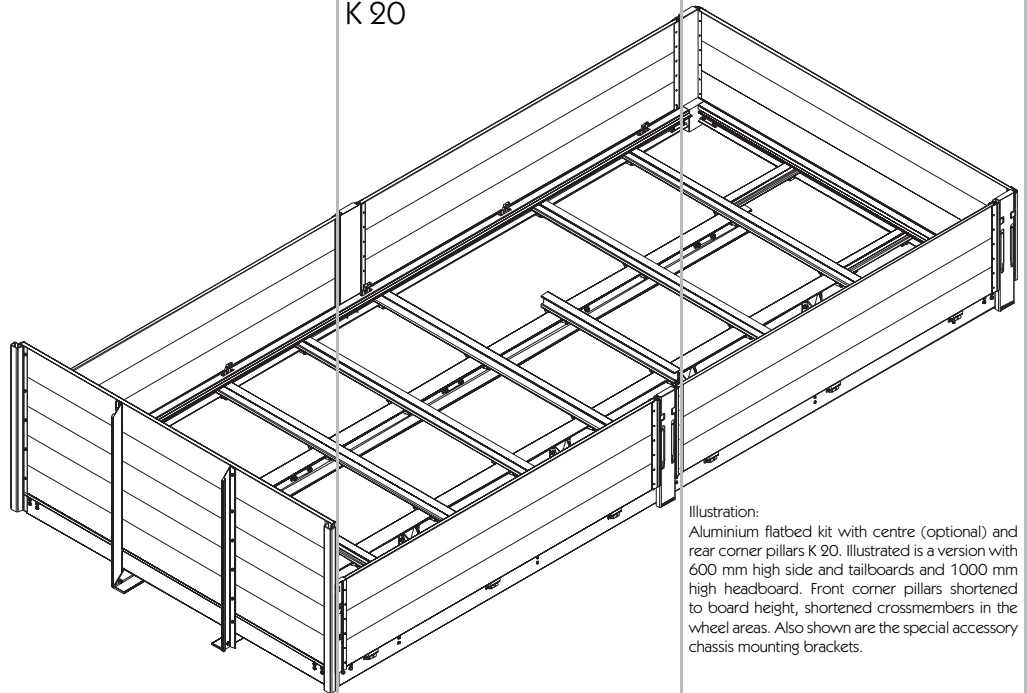
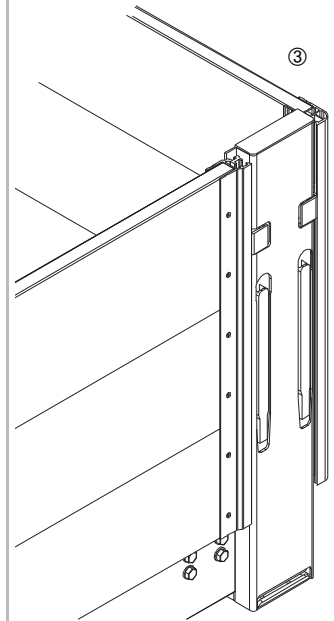
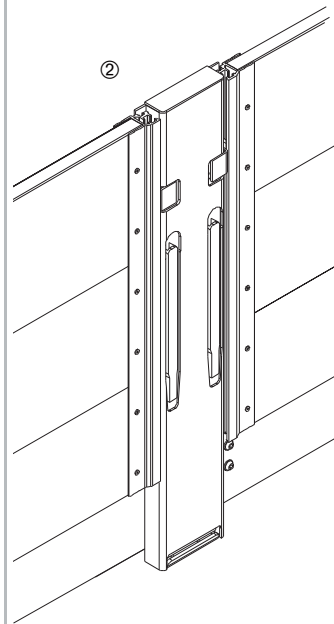
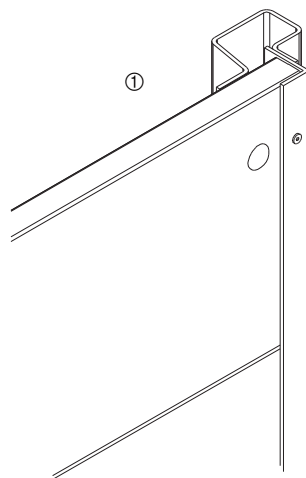
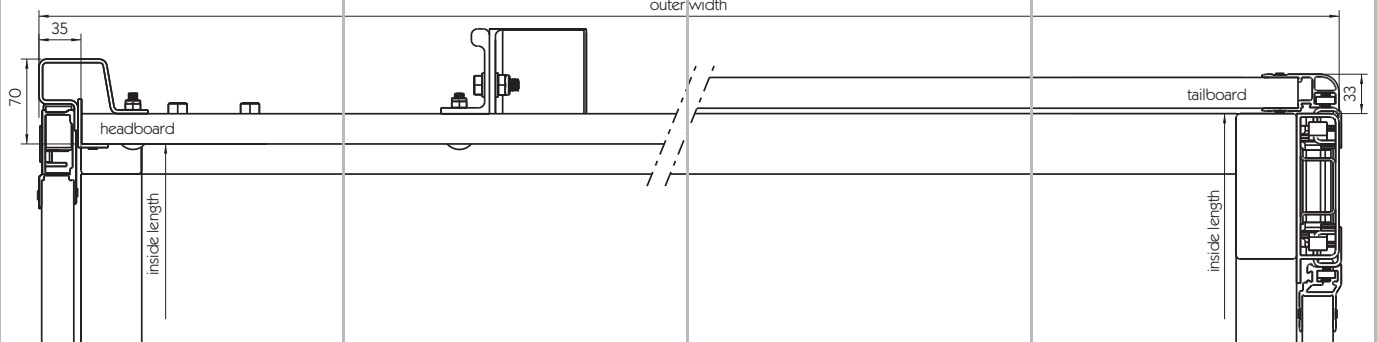


Illustration: Aluminium flatbed kit with centre (optional) and rear corner pillars K 20. Illustrated is a version with 600 mm high side and tailboards and 1000 mm high headboard. Front corner pillars shortened to board height, shortened crossmembers in the wheel areas. Also shown are the special accessory chassis mounting brackets.



Illustrations:
① Headboard with shortened steel corner pillar (illustrated enlarged).
② Centre pillar K 20.
③ Rear corner pillar K 20.



Cross section of headboard (left) and tailboard (right).

Universal floor frame

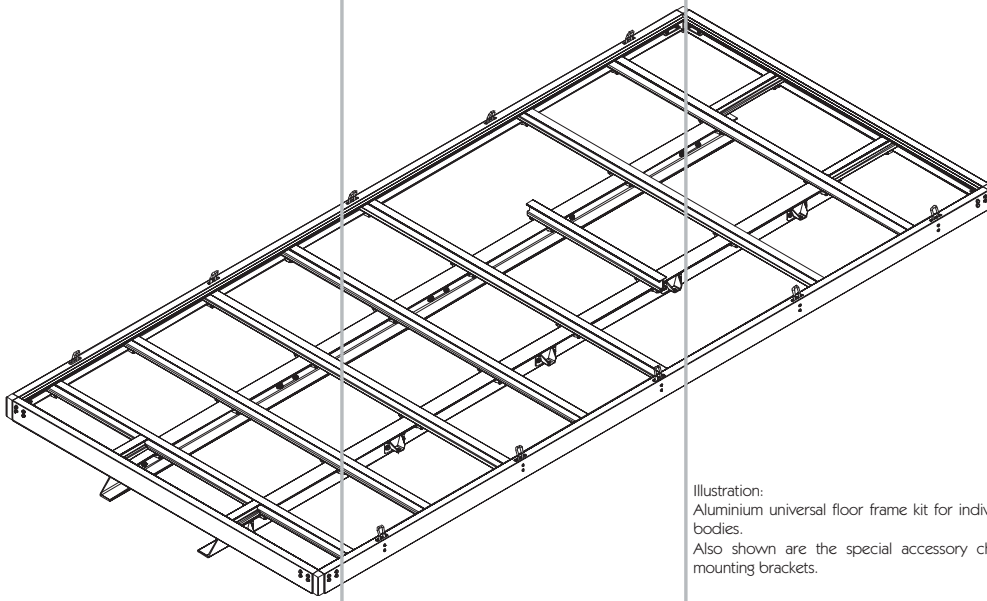


Illustration:
Aluminium universal floor frame kit for individual bodies.
Also shown are the special accessory chassis mounting brackets.

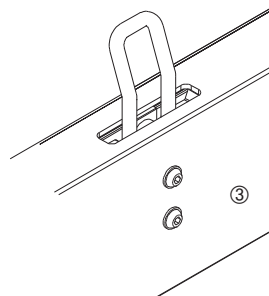
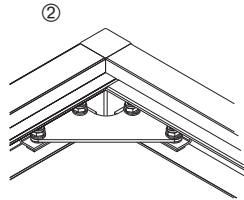
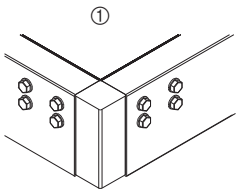
Floor frame kit for mounting a body onto chassis up to 12 t GVW.

Subframe with clamped crossmembers spaced at max. 560 mm intervals, total height of subframe and crossbeams without floor; 190 (≤ 7.49 t GVW) or 210 mm, depending on subframe profile.

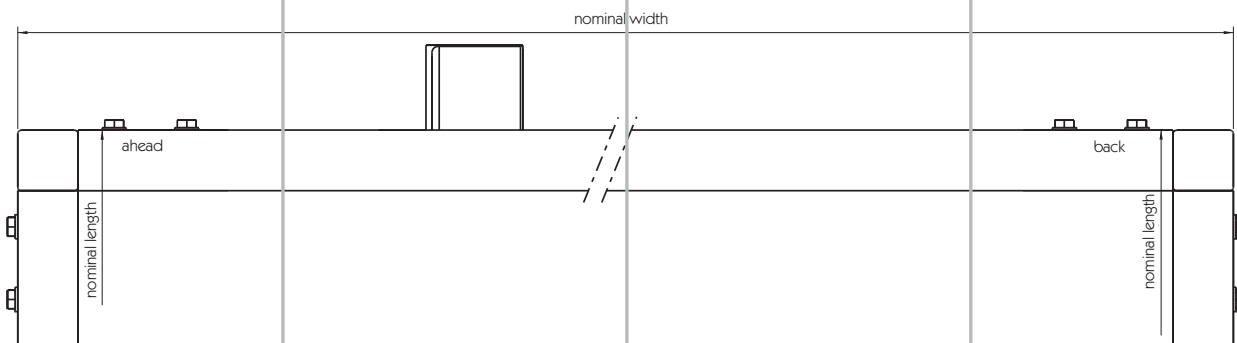
Floor frame profile with integrated PWP lashing rings to 2000 daN ③ for floor thicknesses of 18 (21), 24 (27) or 30 mm, connected with zinc plated steel frame corners ①.

When fitting corner pillars > 2000 mm, we recommend using gusset plates ② for stability. In principle, sideboards > 1000 mm should not be fitted.

Subframe, crossmembers and floor frame profile are aluminium. Aluminium parts can be supplied in self colour or anodised (in which case the steel parts are supplied unchanged e.g. zinc plated or KTL coated), all parts optionally coated in RAL colour. The kit is supplied as individual parts with all parts pre-bored. The kit also includes the necessary screws and assembly materials.



Illustrations:
① Steel frame corner.
② Steel frame corner, viewed from inside, with gusset plate (optional).
③ Floor frame integrated PWP lashing rings (shown extended, enlarged illustration).



Cross section of headboard (left) and tailboard area (right).

Floor frame kit for mounting box bodies onto chassis up to 12 t GVW.

Subframe with clamped crossmembers spaced at max. 560 mm intervals, total height of subframe and crossbeams without floor; 190 (≤ 7.49 t GVW) or 210 mm, depending on subframe profile.

Crossmember with up to 10 mm extendable mounting brackets ② for bolting on box bodies.

Subframe, crossmembers and mounting brackets, all aluminium. Aluminium parts can be supplied in self colour or anodised (in which case the steel parts are supplied unchanged e.g. zinc plated or KTL coated), all parts optionally powder coated in RAL colour.

The kit is supplied as individual parts with all parts pre-bored. The kit also includes the necessary screws and assembly materials.

Floor frame for box bodies

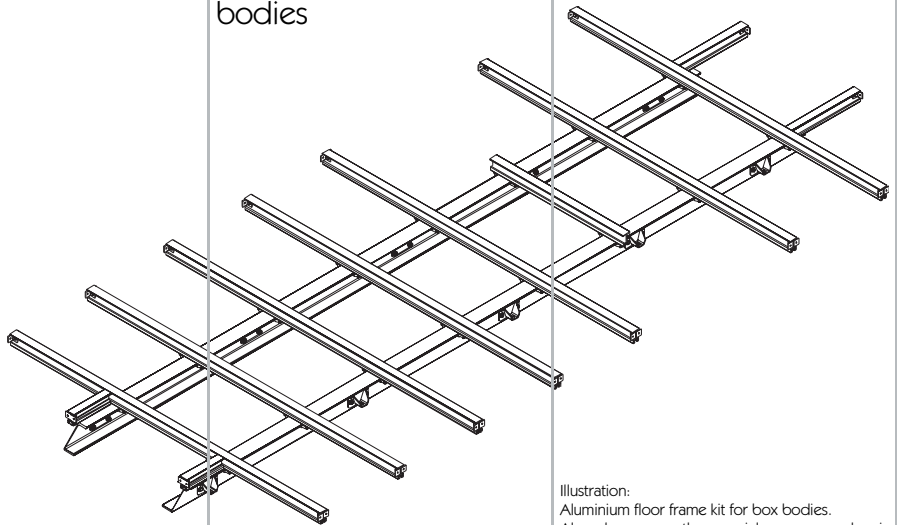
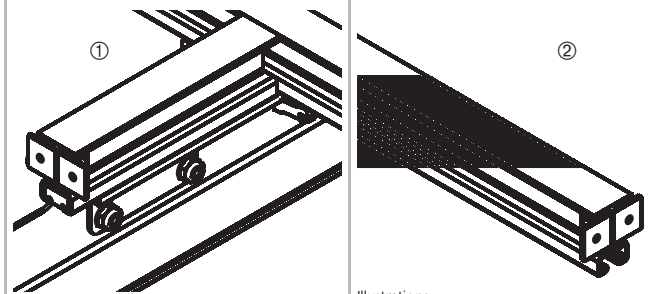
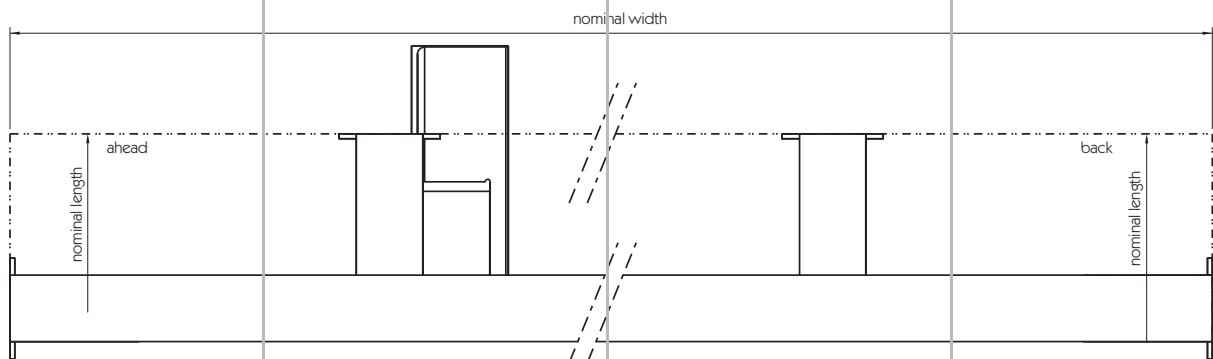


Illustration:
Aluminium floor frame kit for box bodies. Also shown are the special accessory chassis mounting brackets.



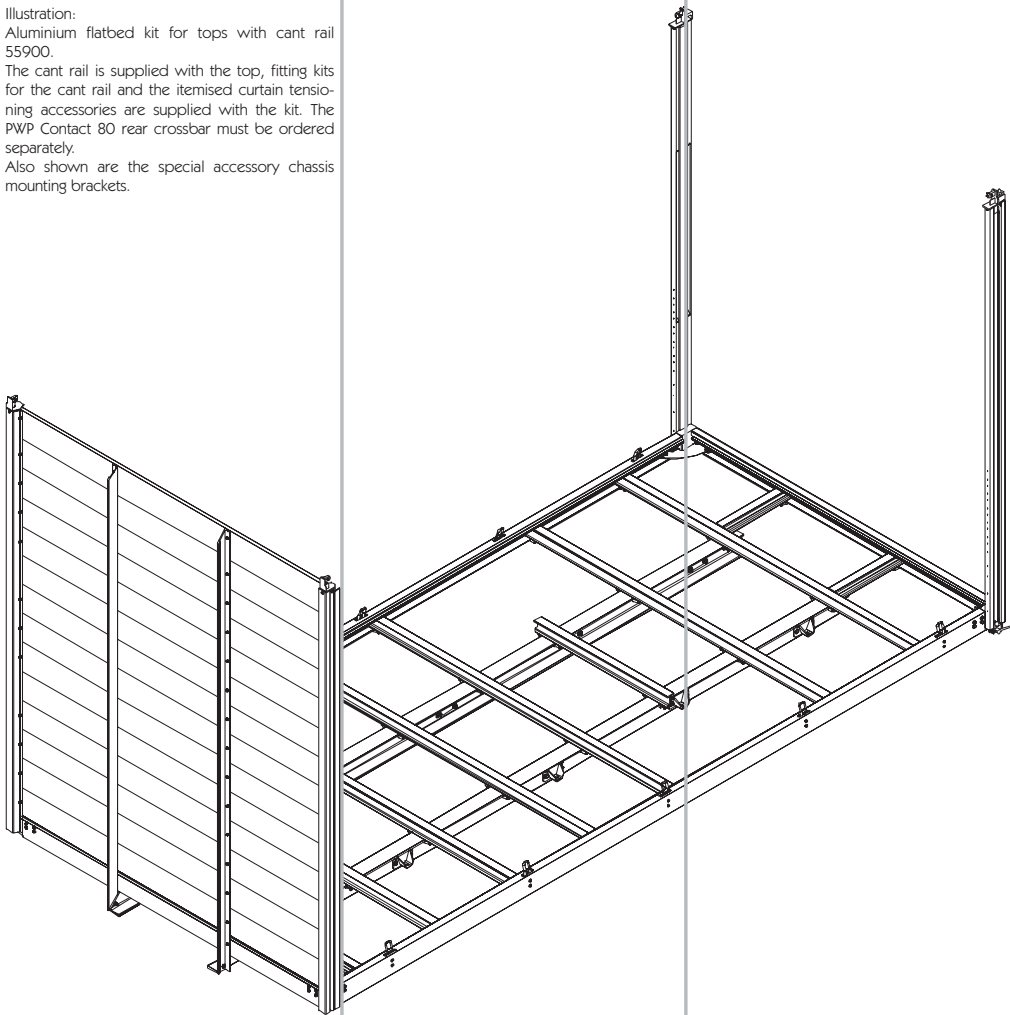
Illustrations:
① Front end of subframe with reinforcing profile onto which the box body headboard is bolted. The chassis mounting bracket can also be seen here.
② Crossmember with extendable mounting brackets (enlarged illustration).



Cross section of headboard (left) and tailboard area (right). The extendable mounting brackets allow the nominal width to be increased by up to 10 mm.

Flatbed curtainsider, light

Illustration:
Aluminium flatbed kit for tops with cant rail 55900.
The cant rail is supplied with the top, fitting kits for the cant rail and the itemised curtain tensioning accessories are supplied with the kit. The PWP Contact 80 rear crossbar must be ordered separately.
Also shown are the special accessory chassis mounting brackets.



Flatbed kit with fixed corner pillars for mounting the cant rail 55900 (curtainsider tops "Small Eco" or "Small CS Lite"), for chassis up to 12 t GVW.

The top limits the inside length of the body to ≤ 4600 mm without, or ≤ 7100 mm with centre pillar (optional).

Subframe with clamped crossmembers spaced at maximum 560 mm, total height of subframe and crossmember without floor, 190 (≤ 7.49 t GG) or 210 mm, depending on subframe profile. Floor frame profile with integrated PWP lashing rings to 2000 daN for floor thicknesses of 18 (21), 24 (27) or 30 mm, connected with KTL coated steel frame corners with welded on corner pillars and gusset plates for stability.

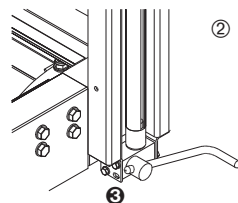
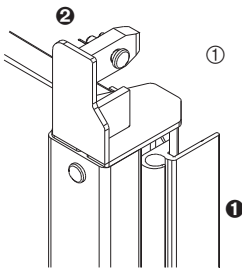
Side loading height to underside of cant rail, ≤ 2850 mm.

Rear corner pillars suitable for tail lift. For the crossbar, it is intended that the PWP Contact 80 is used (must be ordered separately), mounting points are already built in.

Headboard height maximum 2850mm, with centre supports. Supply of curtain tensioning accessories: hook-on curtain poles for corner pillars and Piccolo tensioners with curtain tensioning pole $\varnothing 27$ mm and brass inserts for rear corner pillars 2.

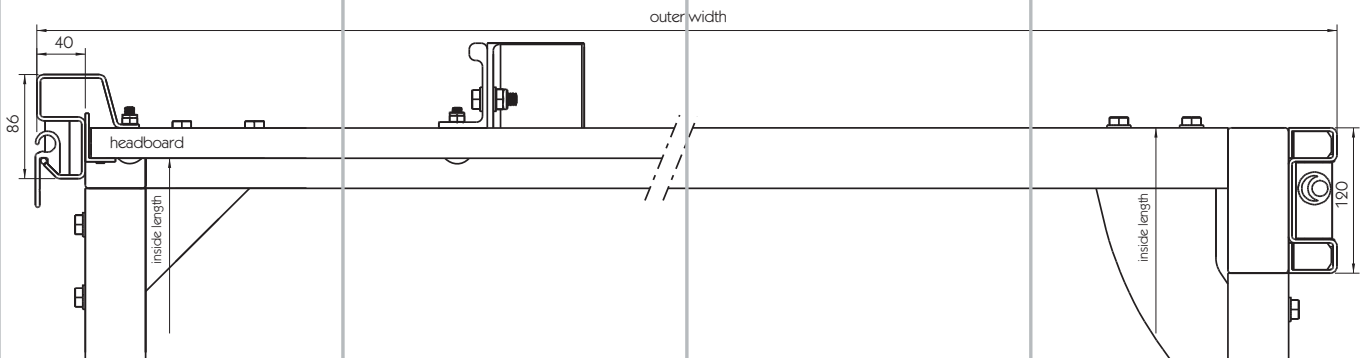
Subframe, crossmembers, floor frame profile, headboard and headboard supports, all aluminium. Aluminium parts can be supplied self coloured or anodised (in which case the steel parts are supplied unchanged e.g. zinc plated or KTL coated), all parts optionally powder coated in RAL colour.

The kit is supplied as individual parts with all parts of the floor assembly already pre-bored. The kit also includes the necessary screws and assembly materials.



Illustrations:

- 1 Front corner pillar showing the hook-on curtain pole 1. Also illustrated is the fitting kit 2 for the cant rail (enlarged illustration).
- 2 Rear corner pillar with curtain tensioning pole $\varnothing 27$ mm and Piccolo tensioner 3, showing hand crank in place.



Cross section of headboard (left) and tailboard area (right).

Floor frame for mounting a PWP aluminium trailer kit on chassis up to 12 t GVW.

Subframe with clamped crossmembers spaced at max. 560 mm intervals, total height of subframe and crossbeams without floor; 190 (\leq 7.49 t GVW) or 210 mm, depending on subframe profile.

Floor frame profiles with integrated PWP lashing rings to 2000 daN for floor thicknesses of 18 (21), 24 (27) or 30 mm, are connected with KTL coated steel frame corners with integrated gusset plates for stability. With these frame corners, the reinforcement normally prescribed by PWP for this floor frame in the area around the bolted connections (see "Traffic light" info on page 726), is not necessary.

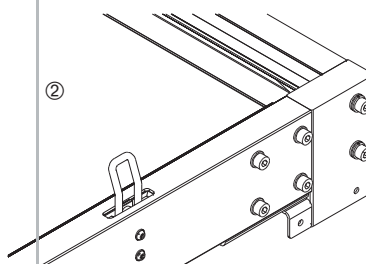
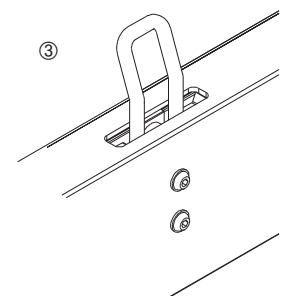
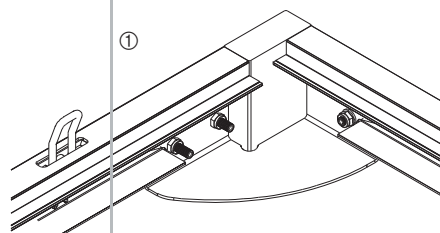
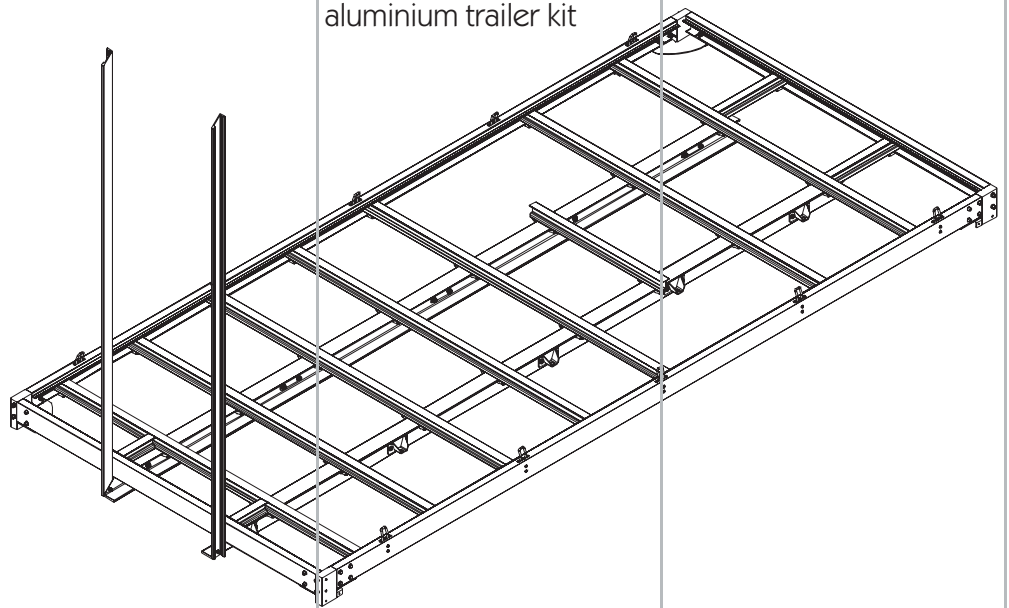
Intermediate supports for the headboard are supplied from aluminium profile 641082.

Subframe, crossmembers, floor frame profiles and headboard supports, all aluminium.

Aluminium parts can be supplied in self colour or anodised (in which case steel parts are supplied unchanged e.g. zinc plated or KTL coated), all parts optionally powder coated in RAL colour.

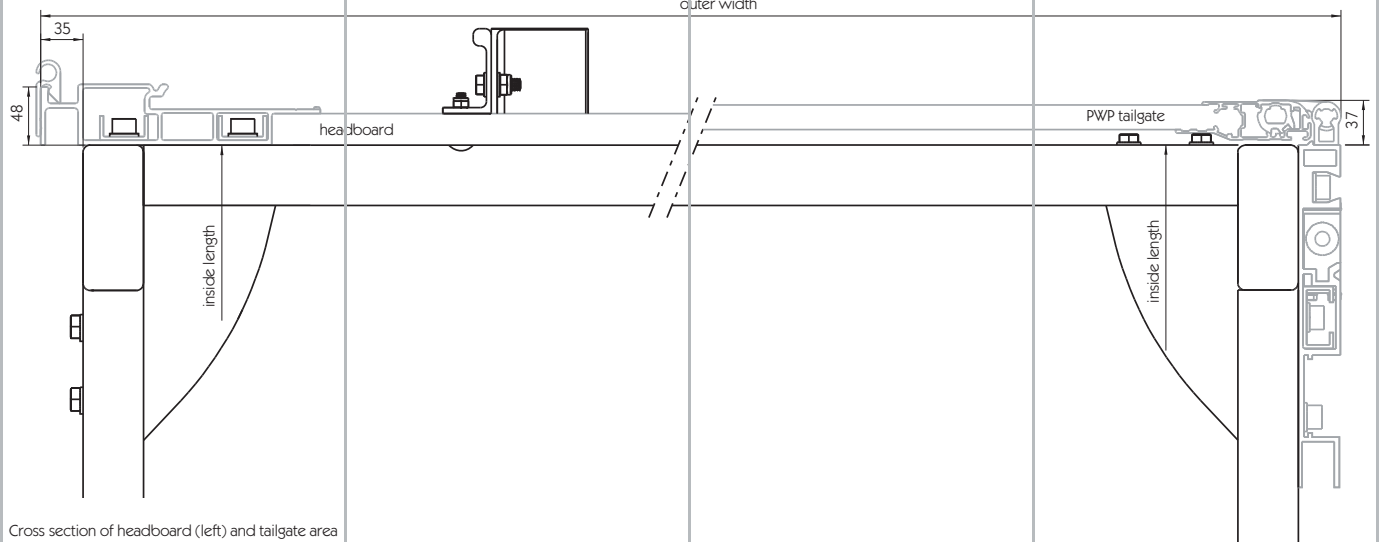
The kit is supplied as individual parts with all parts pre-bored. The kit also includes the necessary screws and assembly materials.

Floor frame for PWP aluminium trailer kit



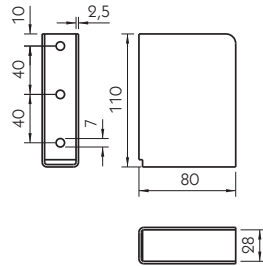
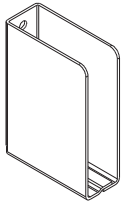
Illustrations:

- ① Steel frame corner piece, viewed from inside, with integrated gusset plate for stability. The bottom flange of the aluminium floor frame is milled out in the area around the frame corner.
- ② Steel frame corner, viewed from outside. The illustrated socket head screws DIN 912 are supplied with the PWP aluminium trailer kit.
- ③ The side view integrated PWP lashing ring (shown extended, enlarged illustration).



Cross section of headboard (left) and tailgate area (right, illustrated is pillar 52005). The PWP aluminium trailer kit and the sketched-in PWP portal door, both drawn in grey, are not supplied with the kit.

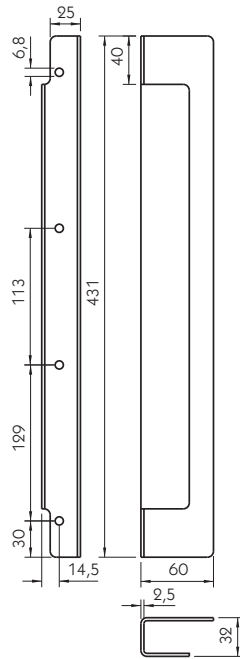
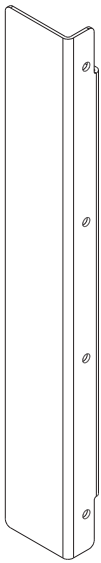
Accessories for **Cargotrail** aluminium flatbed kits



Side plank pocket

Plain, closed, KTL coated steel, weight 0.45 kg.

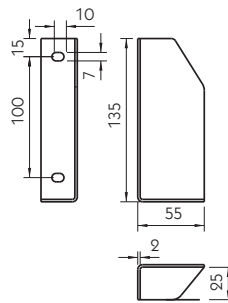
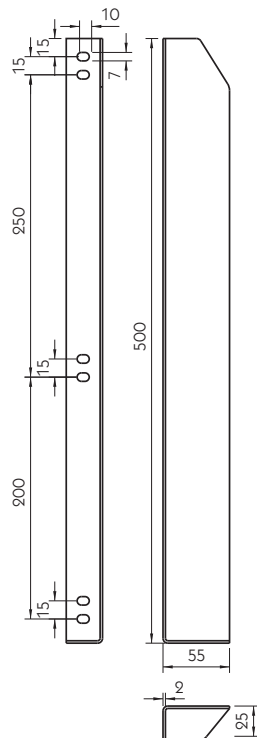
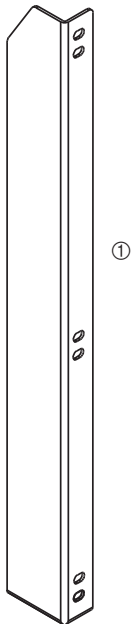
125132026



Side plank pocket

Floor side plank pocket for corner pillars from the curtainsider light kit, KTL coated steel, weight 0.95 kg.

605645051



Side plank pockets

For pillars with stop (inside open), zinc plated steel.

Weight [kg]

② Short pocket, left hand	0.16	660038440
② Short pocket, right hand	0.16	660038450
① Deep pocket, left hand	0.62	660038460
① Deep pocket, right hand	0.62	660038470

Illustration: left hand

PWP Contact 80 crossbar
 For body width 2550 mm, crossbar and filler profile anodised, weight 10.5 kg, for supply details see page 733.

674000020

Mounting brackets
 All parts KTL coated.

	For chassis [≤ t perm. GVW]	Dim. a [mm]	Dim. b [mm]	Weight [kg]	
① Bracket	4.6	33	64	0.58	624643040
① Bracket	7.5	25	54	0.58	605645033
② Backing plate				0.23	605645023

Mounting bracket
 For chassis ≤ 12 t GVW, KTL coated steel.

	Weight [kg]	
① Bracket	0.75	605645052
② Backing plate	0.38	605645053

Fitting kit

This clamping set is intended for add-on items such as mudguards or tool boxes (illustrated) which are mounted on to the finished floor frame. The aluminium threaded yoke ① is a modification of the similarly named variant from the clamping set, but this can be fitted from below on an existing, fitted crossmember profile. Please order all parts separately.

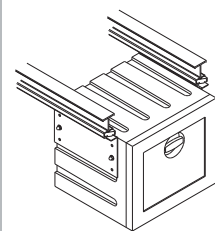
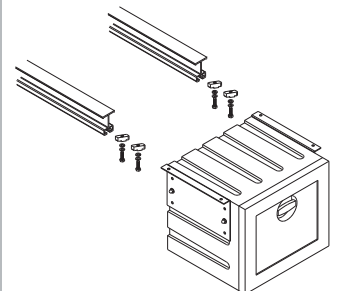
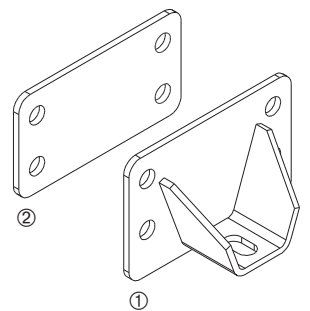
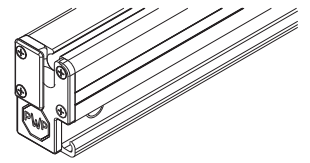
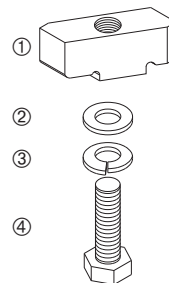
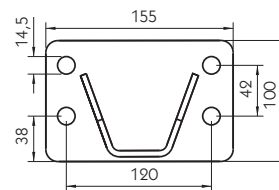
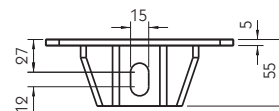
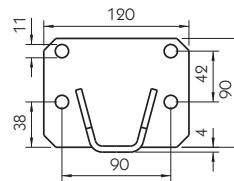
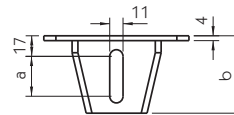
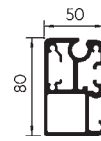
	Weight [kg]	
① Threaded yoke - M 10 x 1	0.014	605645030
③ Washer DIN 125 - B 10.5		965987033
③ Spring washer DIN 127 - A 10		965987333
④ Hex. headed screw DIN 960 - M 10 x 1 x 30		961975804

Cutting the sideboard stop in two results in a left and right hand stop for a 500 mm sideboard height. With unshortened assemblies, a stop must be fitted to the pillars in reverse.

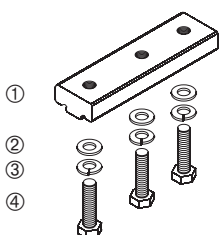
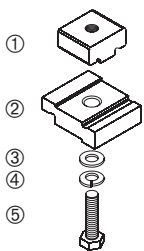
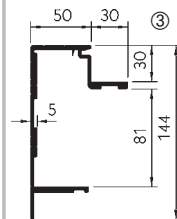
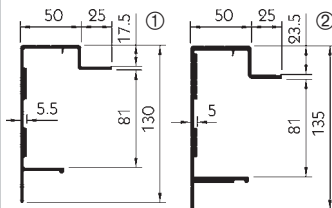
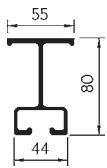
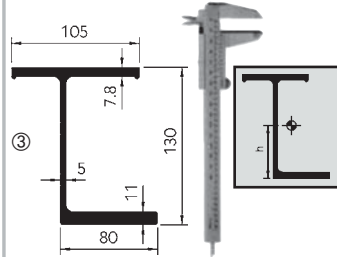
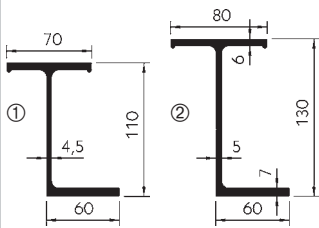
Sideboard stop

For flatbed curtainsider, light. Pre-bored angle iron to DIN 1028, 25 x 3, 1015 mm long, can be used left or right. KTL coated, weight 1.45 kg.

605645050



Individual/spare parts for Cargotrail aluminium flatbed kits



You will find the aluminium profiles from page 682 illustrated in a 1:1 scale.

Subframe profiles

AlMgSi 0.7 F27.

	lx [cm ²]	Dim. h [mm]	Weight [kg/m]	
① ≤ 7.49 t GVW	283.70	56.07	3.720	641125
② ≤ 7.49 t GVW	435.50	68.55	4.319	641083
③ ≤ 12 t GVW	724.50	64.95	6.484	641132

Crossmembers

Also used as reinforcing profiles.

AlMgSi 0.7 F27, weight 2.290 kg/m.

641124

Floor frame profile

AlMgSi 0.7 F27.

	Weight [kg/m]	
① Floor thickness 18/21 mm	2.510	641123
② Floor thickness 24/27 mm	3.189	641130
③ Floor thickness 30 mm	3.535	641131

Clamping set

For mounting the crossmembers on to the subframe profiles or for clamping the floor frame profiles on to the crossmembers or reinforcing profiles. Please order all parts separately.

Number required for mounting the crossmembers on to the subframe profile: 2 sets per crossmember where the inside body length is < 4000 mm. Above this, 4 sets per crossmember.

	Weight [kg]	
① Threaded element 30 mm - M 10 x 1	0.055	605645020
② Clamping claw	0.074	605645021
③ Washer DIN 125 - B 10.5		965987033
④ Spring washer DIN 127 - A 10		965987333
⑤ Hex. head screw DIN 960 - M 10 x 1 x 35		961975805

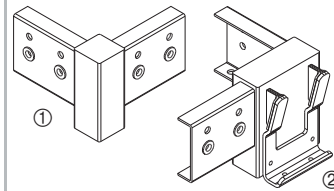
Threaded rail set

For mounting the reinforcing profile on to the subframe profile. Please order all parts separately.

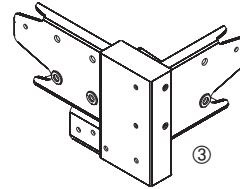
	Weight [kg]	
① Threaded rail 120 mm - M 10 x 1	0.17	624112001
③ Washer DIN 125 - B 10.5		965987033
④ Spring washer DIN 127 - A 10		965987333
⑤ Hex. headed screw DIN 960 - M 10 x 1 x 30		961975804

The KTL coating of **Cargotrail** components is only intended as a primer and cannot be used as a finished surface coating.

① Frame corner
Zinc plated steel, weight 1.18 kg.
605645000



② Frame corner K20
KTL coated steel, weight 2.32 kg.



Left hand (illustrated) **605645001**
Right hand **605645002**

③ Frame corner,
PWP aluminium trailer kit
KTL coated steel, weight 2.15 kg.

Left hand (illustrated) **605645060**
Right hand **605645061**

④ Frame corner for
flatbed with front steel
corner pillar
Corner pillar height 2000 mm
from top edge of floor, KTL coated steel, weight 10.90 kg.

Left hand (illustrated) **605645026**
Right hand **605645027**

⑤ Frame corner for
flat-bed with rear steel
corner pillar
Corner pillar height 2000 mm
from top edge of floor, KTL coated steel, weight 10.80 kg.

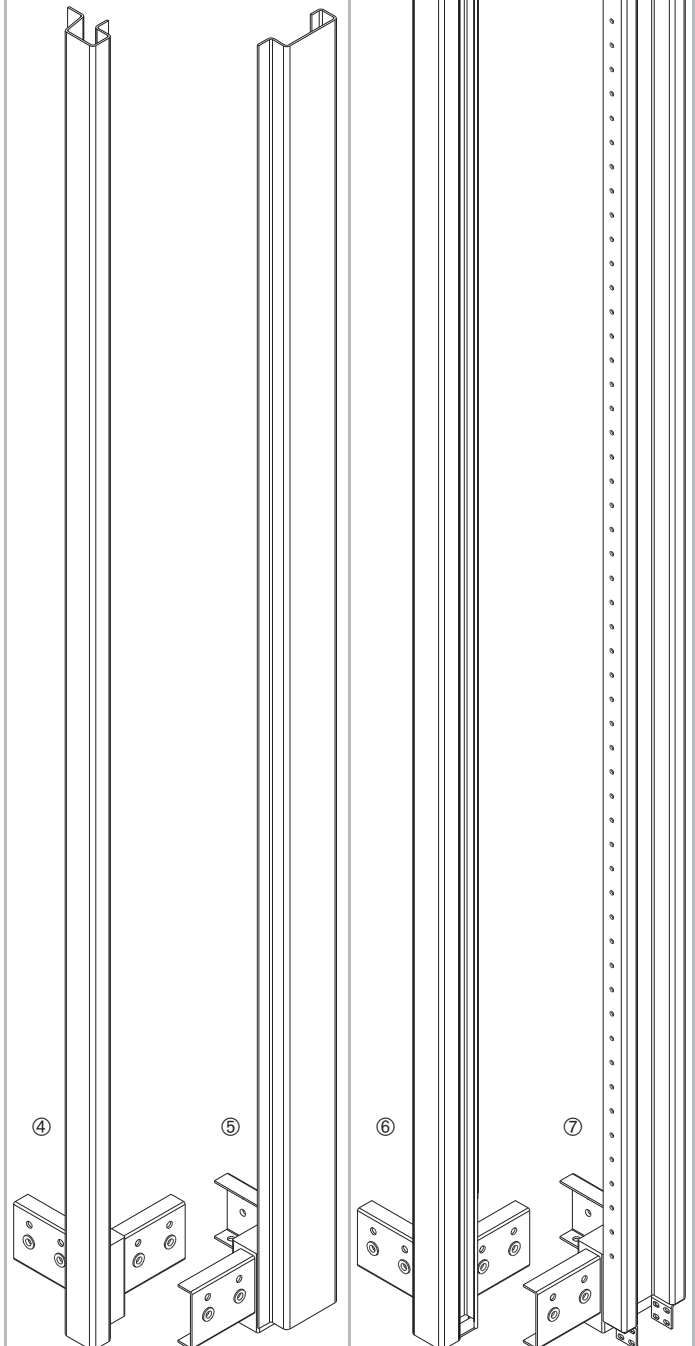
Left hand (illustrated) **605645028**
Right hand **605645029**

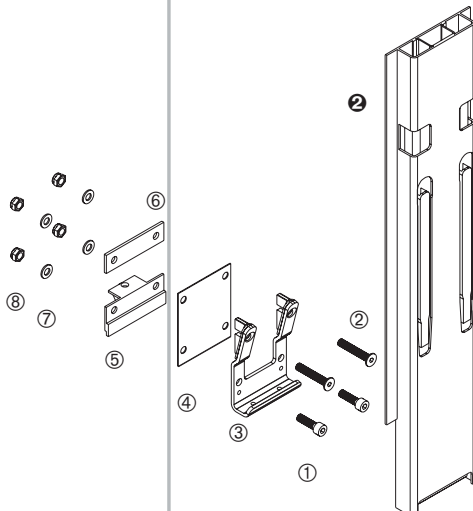
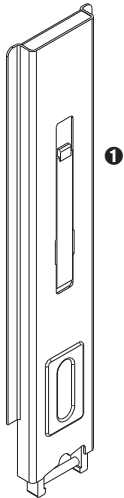
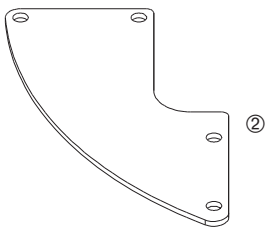
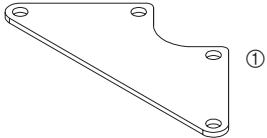
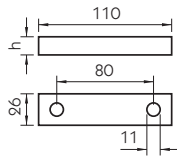
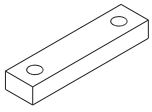
⑥ Frame corner for CS
with front steel corner
pillar
Corner pillar height 2850 mm
from top edge of floor, KTL coated steel, weight 19.40 kg.

Left hand (illustrated) **605645038**
Right hand **605645039**

⑦ Frame corner for CS
with rear steel corner
pillars
With mount for Piccolo tensioner. Corner pillar height 2850 mm
from top edge of floor, KTL coated steel, weight 21.30 kg.

Left hand (illustrated) **605645040**
Right hand **605645041**





Pad

Black plastic.

	Dim. h [mm]	Weight [kg/m]	
For 641130	6	0.016	605645034
For 641131	15	0.039	605645035

Gusset plates

For stabilising the frame corners, KTL coated steel.

	Weight [kg]	
① For square frame corners	0.35	605645048
② For rectangular frame corners	0.60	605645049

⑨ Pivot bearing 6002 V/20

Bolt-on pillar socket for centre pillars 6002 V and 710, with M12 threaded studs, without nuts, KTL coated steel, weight 0.70 kg.

101121451

Pillar socket K20, bolt-on

Consisting of:

- ① 2 x socket head screws DIN 912 - M 10 x 35
- ② 2 x c/sunk screws DIN 7991 - M10 x 60
- ③ 1 x pillar socket
- ④ 1 x spacer plate 1 mm
- ⑦ 4 x washers DIN 125 - A 10.5
- ⑧ 4 x hex. nuts DIN 980 - M 10

Pillar socket self colour, spacer plate inox, other parts zinc plated. Weight 0.82 kg.

105121407

⑤ Support bracket

Steel, KTL coated, weight 0.22 kg.

605645003

⑥ Reinforcing plate

Steel, KTL coated, weight 0.09 kg.

605645022

The pads serve as spacers for bolting the specified floor frame profile to the frame corners.



For reasons of space, only the flatbed specific individual parts are itemised. All available designs of the centre pillars and accessories you can find from page 358. We recommend using only removable pillars with a maximum height of 1000 mm.

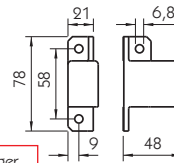


Please note with screw-on keepers:

For a left hand lock, a right hand keeper is required and vice versa. This is other than for the weld-on keepers not itemised here. A weld-on left hand keeper is equivalent to a right hand screw-on keeper.

Keeper, screw-on type
KTL coated, weight 0.20 kg.

Keeper, left hand	101102748
① Keeper, right hand	101102749
② Monobolt blind rivet 6.5 x 2.0 - 15.9	401111686



No longer available

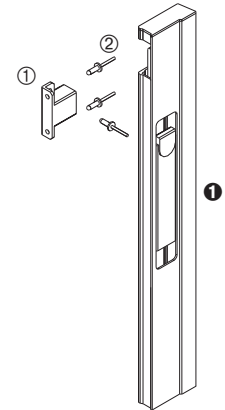


Illustration: Long travel locking bolt 712 ①, left hand, with right hand screw-on keeper.

Rapid H 871-KL

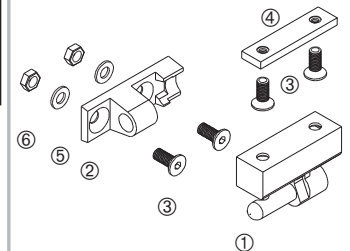
All parts zinc plated. C/sunk screw with locking paste.

	Weight [kg]	
① Gudgeon H 871 KL	0.24	102111959
② Hinge housing H 871 KL	0.15	102111958
③ C/sunk screw DIN 7991 - M 8 x 20		963977348
④ Threaded plate 6 mm	0.06	102111960
⑤ Washer DIN 125 - B 8.4		965987032
⑥ Hex. nut DIN 934 - M 8		964970503



For reasons of space, only the flatbed specific individual parts are itemised.

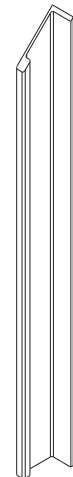
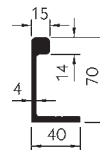
All available designs of the long travel locking bolts ① and their accessories can be found from page 303.



Headboard support/centre support

AlMgSi 0.5 F25, weight 1.749 kg/m.

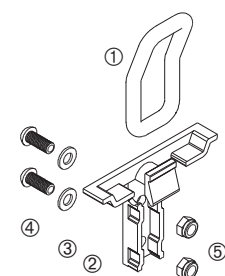
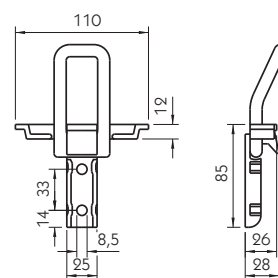
641082

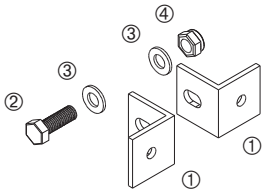


PWP lashing ring

Max. load 2000 daN.

	Finish	Weight [kg]	
① Lashing ring	zinc plated	0.17	105131660
② Holder	galvanised	0.19	105131659
③ Washer DIN 125 - B 8.4			965987032
④ Button head socket screw			DIN ISO 7380 - M 8 x 20
⑤ Hex. nut DIN 980 - M 8			981961015
			964976801





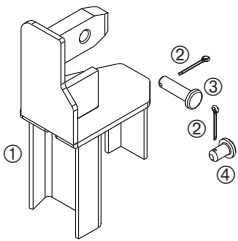
Box body mounting kit

For bolting box bodies on to the crossmembers or reinforcing profile.

Please order all parts separately.

Weight
[kg]

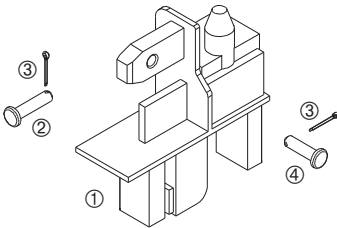
① Mounting bracket	0.02	605645058
② Hex. head screw DIN 933 - M 10 x 30		960970015
③ Washer DIN 125 - B 10.5		965987033
④ Hex. nut DIN 980 - M 10		964976802



Mounting kit, front, for aluminium cant rail 55900

Please order all parts separately. KTL-coated, weight 0.60 kg. DIN parts not available.

① Cant rail connector, front, left hand	605645042
Cant rail connector, front, right hand	605645043
② Splint pin DIN 94 - 2 x 20 St.	
③ Clevis pin DIN EN 22341 - A - 8 x 30 x 2 steel	
④ Clevis pin DIN EN 22341 - A - 8 x 14 x 2 steel	



Mounting kit, rear, for aluminium cant rail 55900

Please order all parts separately. KTL-coated, weight 1.30 kg. DIN parts not available.

① Cant rail connector, rear, left hand	605645044
Cant rail connector, rear, right hand	605645045
② Splint pin DIN EN 22341 - A - 8 x 35 x 2 steel	
③ Clevis pin DIN 94 - 2 x 20 steel	
④ Clevis pin DIN EN 22341 - A - 8 x 30 x 2 steel	

Floor frame kit for mounting a PWP aluminium trailer kit or any other superstructure on chassis up to 26 t perm. GVW. Body length 6150 mm, 7200 mm or 7800 mm internal clearance with a floor frame width of 2480 mm results in an external width of 2550 mm. Subframe with bolted crossmembers spaced at 450 mm, overall depth of subframe and crossmembers without floor is 230 mm. Floor frame profile for floor thicknesses of 21, 24, 27 or 30 mm with integrated mounting points for 2500 daN lashing rings. Lashing rings 295131824 are included in adequate quantity. In the case of the PWP aluminium trailer kit, the specified reinforcement in the area around the bolted connections (see the "traffic light" on page 726) are not necessary. Outer floor frame profiles (side, front and rear) are paint-compatible primed or KTL coated, all other parts galvanised. The optional outer crossmember (set with fixing components) enables the mounting of additional attachments such as tool boxes or similar. Supply of the kit in individual parts with all components being pre-drilled. Supply also includes the necessary screw and fitting material for this.

Cargotrail Steel flatbed kit

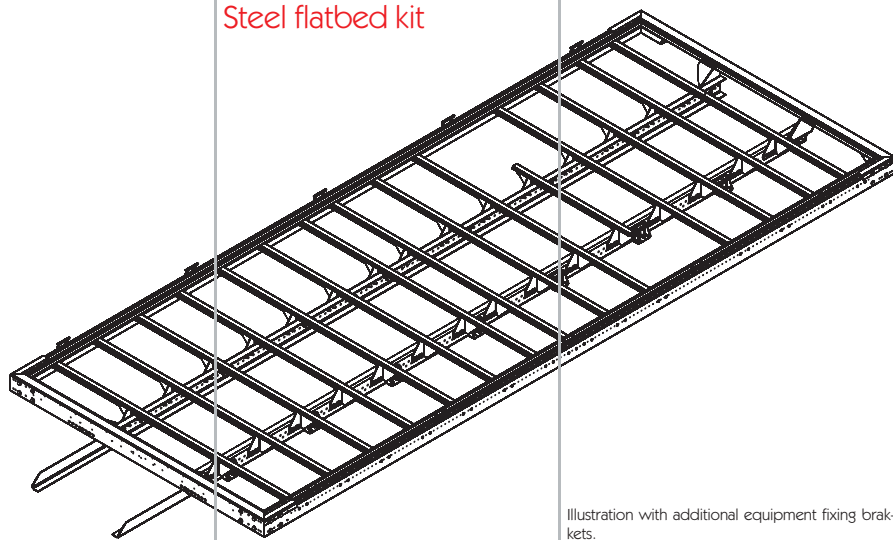
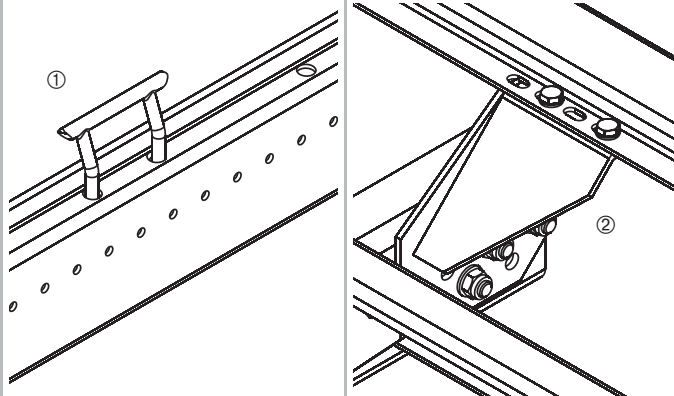
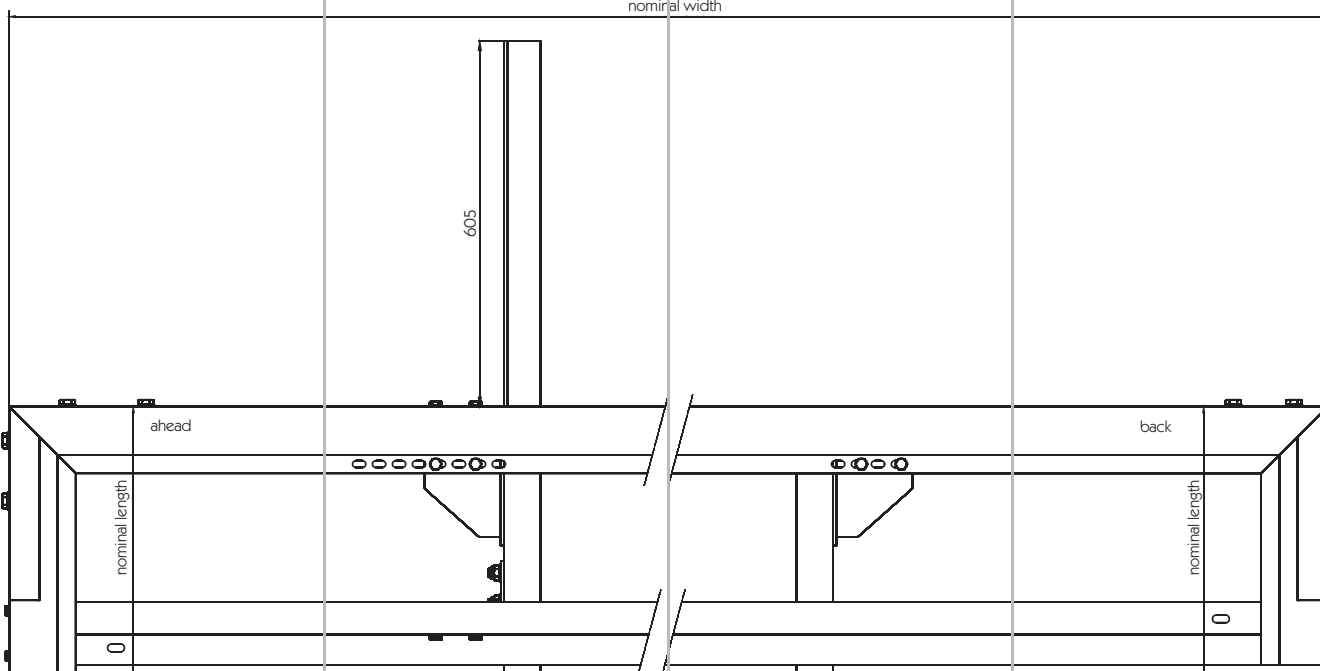


Illustration with additional equipment fixing brackets.



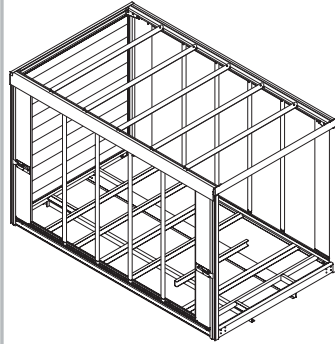
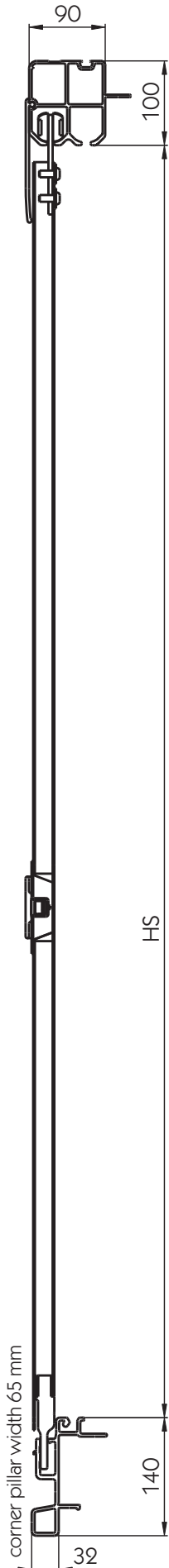
- Illustrations:
- ① Lashing ring 295131824 in the pre-drilled floor frame profile.
 - ② The forces developed through loading are transmitted to the subframe via the support bracket (here on the rear floor frame profile).
 - ③ Optional outer crossmember (set with fixing components) with which additional attachments can be mounted such as mudguards or tool boxes.

nominal width



Cross section of headboard (left) and tailboard area (right).

PWP Slider



Ready-to-assemble kit in anodised aluminium for vehicles up to 7.5t GVW. Maximum dimensions: HS = 2300 mm, length inside body = 7500 mm, body outside width = 2550 mm.

Riveted and bolted construction with all connecting parts, consisting of the following sub-assemblies:

- PWP Slider floor assembly consisting of 2 aluminium (outer) floor frame profiles front and rear, 2 aluminium (outer) rave profiles, aluminium subframe profiles and crossmembers corresponding to the body dimensions, 2 retractable Slider stops in the rave profiles and 4 zinc plated steel frame corners. Rave profiles with integrated channel for guiding the curtain runners, the Slider closing panel and the centre pillar (optional).
- PWP Slider side walls consisting of 4 aluminium corner pillars with integrated seals for the Slider closing panels, 2 Slider closing panels with groove for fixing curtain and integrated adjustable and lockable eccentric locks, curtain runners at approx. 550 mm intervals. The aluminium corner pillars are bolted to the steel frame corners of the Slider floor assembly. All closing panels and curtain runners have rollers suitable for the PWP Slider cant rail profile. The curtain runners impart a smooth, systematic curtain pleat.
- PWP Slider rigid roof consisting of 2 Slider aluminium cant rails, aluminium end beams for front and rear, black PVC pelmet, aluminium top hat profiles and fitting kit. Slider cant rails have integrated running channel for the Slider closing panel, the curtain runners, rollers and the centre pillar (optional).
- PWP Slider headboard consisting of 25 mm aluminium snap-lock profiles and 2 aluminium finishers.
- Rear end can be custom designed for PWP door systems or tail lifts.
- Simple, light and rapid assembly.

Variants:

- Side and/or roof tarpaulins.
- Rear end with tailgate.
- PWP Contact 80 crossbar instead of aluminium end beam at rear.
- PWP 20mm rear portal door for the Contact crossbar.
- Moveable PWP CS centre pillar including pillar trolley.
- Floor frame profile integrated PWP lashing rings.
- Aluminium floor side planks.



Illustration: fully assembled body kit showing the optional extras - curtains, centre pillar, and floor side planks.

PWP aluminium trailer Kit

In accordance with DIN EN 12642 Code XL, appendix A

The PWP aluminium trailer kit with the Cargotrail aluminium floor group complies in its entirety with the current applicable requirements and engineering rules for load securing in accordance with §§ 22, 23 StVO, §§ 30,31 StVZO (German Road Traffic Law), the standards DIN EN 12195-1 and -2 and DIN EN 12642 Code XL, appendix A.

The assembly was certified on 8th August 2006 by DEKRA Automobil GmbH.

Permissible dimensions and weights:

Maximum interior loading length:

7500.00 mm

Maximum exterior body width:

2550.00 mm

Maximum side loading height to underside of cant rail:

2684.00 mm (standard design with "Lite 100" sliding top)

Maximum side loading height to underside of cant rail:

2857.50 mm (tilt roof design with "V-Lite" sliding top)

Maximum load capacity*:

11500 kg

The supply for this body combination includes:

- PWP aluminium headboard frame with standard design aluminium headboard or for tilt roof.
- PWP aluminium rear portal frame, standard design or for tilt roof.
- PWP aluminium rear portal door with sandwich board door filling or aluminium snap-lock profile door filling.
- Sliding top curtainsider "Lite 100" with the standard design or sliding top "V-Lite" curtainsider with the tilt roof design. Associated aluminium cant rails and PVC-seals.
- Kolumbus tilt roof mechanism, integrated into the PWP aluminium headboard and rear portal frame.
- 1 set centre pillars, 2 sets with tilt roof design, optional curtainsider centre pillar Safe TRS LP2 with CS pillar trolleys or curtainsider centre pillar Variomaster 901 Code XL with CS pillar trolleys. Pillar trolleys matching or with the appropriate accessories for standard design body or for tilt roof.
- Cargotrail aluminium floor group with aluminium subframe profiles, aluminium crossmembers and aluminium outer frame. PWP lashing rings integrated into the outer frame, load capacity 2000 daN.
- Aluminium side collision protection for mounting on the outer frame.
- To the side 3 rows of aluminium floor side planks and 3 rows of curtain side planks. Supply of matching pockets in headboard and rear portal frame as well as pocket for the centre pillars.
- Curtain tensioning accessories: PWP Tender tensioning ratchet, aluminium curtain tensioning hook, aluminium curtain tensioning pole \varnothing 27 mm, curtain rollers.
- Steel floor frame reinforcement for centre pillars, steel frame corners and steel reinforcement for the headboard supports. Two additional steel reinforcement carriers.

Options:

- Curtainsider sliding top "Lite 100" with end trolley locking wedge/pull-cord.
- Additional centre pillars.
- Cargotrail floor group with steel subframe profiles.
- Additional floor side planks.
- Additional curtain side planks.
- Mounting brackets.

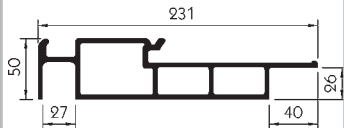
*In the certification, on weighting the actual load capacity is taken as the permissible weight value. Thus this body can be built on conventional HGVs with a permissible gross weight of up to 18000 kg with no objection - because sampling has shown that in this weight grouping there are no HGV chassis which weigh less than 6500 kg including the self-weight of the body.

This is different in the case of trailers. A 2-axle trailer with a self-weight of 4500 kg would have to be weighted to 4500 kg (kerb weight)+ 11500 kg (load capacity)= 16000 kg permissible gross weight.

The PWP aluminium trailer kit is certified for PWP SA, Payerne, and Suer Nutzfahrzeugtechnik GmbH & Co. KG, Wermelskirchen. Separate certification is available for the PWP SA.

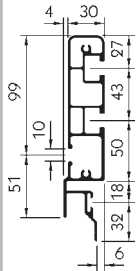


PWP aluminium trailer kits Headboard frame with pillar 52007

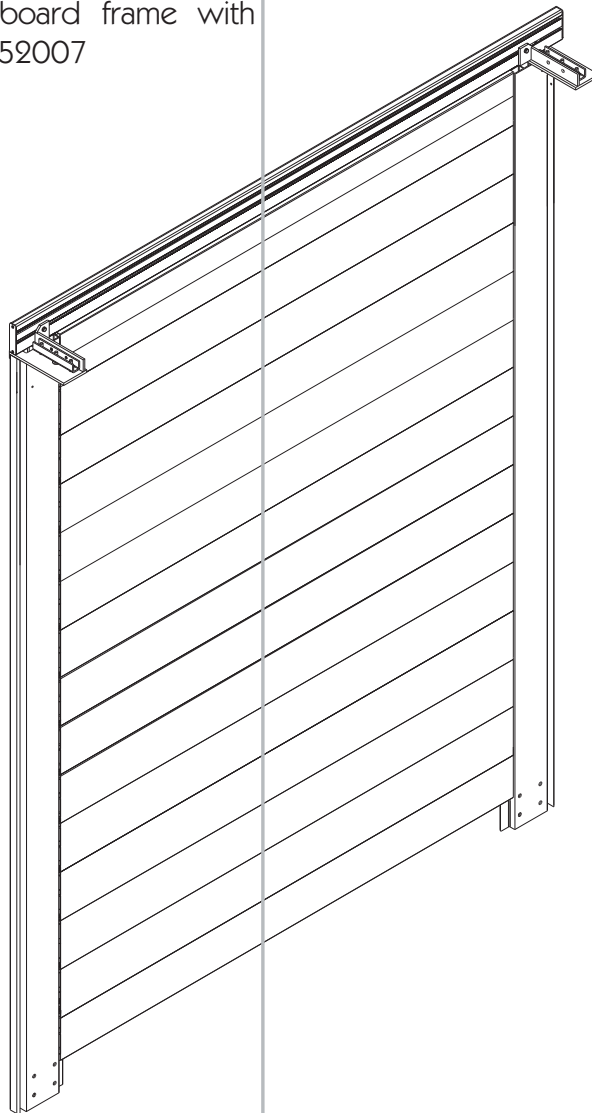


Illustrations: above, cross section of corner pillar 52007.

Below, cross section of Contact 120 crossbar.



Optimum roof sealing in the headboard area with channel for the tarpaulin keder integrated into the Contact 120 crossbar.



Anodised aluminium headboard frame for headboards from aluminium snap-lock profiles or GRP sandwich board.

The frame includes the following parts as itemised on the next page: two aluminium corner pillars 52007, the Contact 120 crossbar and mounting kit with fixture for the aluminium cant rail 10050. Monobolt blind rivets for riveting the mounting kit to the pillars must be ordered separately.

The corner pillars can be optionally equipped with pockets for side planks (accessory pack).

This headboard frame can also be supplied pre-assembled at extra cost.

The weight of this portal frame for a loading height of 2485 mm, including headboard from aluminium snap-lock profiles, is approx. 135 kg.

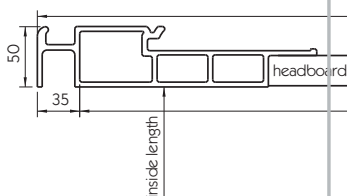
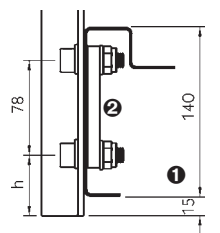
A tilt roof design is described on page 736, headboards can be found from page 738, side plank pockets are included in the accessory pack [674835029](#) (page 739).



Please note that the floor frame profile in the area around the bolted connections ② must be reinforced.

With prepared profiles and profiles supplied with the kit, the dimension h is 50 mm in the standard version, and in the version for **Cargotrail** flatbed kits, h is 25.5 mm.

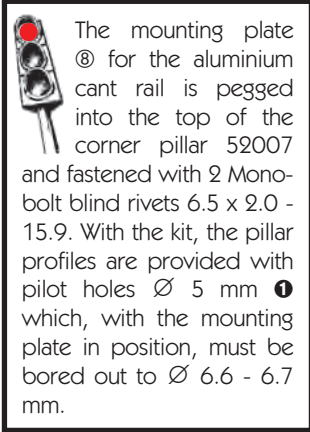
In the standard version, the mounting holes for the pillars are to suit a floor frame height of 140 mm ①, so that the profile projects 15 mm beyond the bottom edge of the floor frame. Zinc plated mounting plates are available on request.



outer width

inside width

Pillar cross section of the PWP aluminium headboard frame.



The mounting plate ⑧ for the aluminium cant rail is pegged into the top of the corner pillar 52007 and fastened with 2 Monobolt blind rivets 6.5 x 2.0 - 15.9. With the kit, the pillar profiles are provided with pilot holes Ø 5 mm ① which, with the mounting plate in position, must be bored out to Ø 6.6 - 6.7 mm.

① Corner pillar 52007

Supplied with kit, pre-cut to required height, all holes pre-drilled. Alternatively, "prepared profiles" can be selected. Weight 6.127 kg/m.

Prepared profiles

Length 3380 mm, with bottom mounting holes. Please note the "traffic light" info on page 726. Surface anodised.

Assembly Version

① Corner pillar 52007	left hand	standard	674052007
Corner pillar 52007	right hand	standard	674007036
Corner pillar 52007	left hand	Cargotrail	674152007
Corner pillar 52007	right hand	Cargotrail	674107036

Contact 120 crossbar

For bodywork width 2550 mm. Anodised aluminium crossbar, self colour aluminium clamping plate, other parts zinc plated steel. Consisting of:

Item

② Contact 120 crossbar, weight 2.953 kg/m
③ Clamping plate
④ Threaded plate
⑤ Socket head screw DIN 7984 - M 8 x 25
⑥ Washer DIN 125 - A 8.4
⑦ C/sunk screw DIN 7500 M - M 5 x 20 Z

674027051

Fitting kit

Pillar reinforcing profile in stainless steel, other parts zinc plated steel. Consisting of:

Item

⑧ Mounting plate for cant rail, left hand (illustrated)
Mounting plate for cant rail, right hand
⑨ Clamp
⑩ Centring boss
⑪ Socket head screw DIN 912 - M 10 x 50 - 12.9
⑫ Socket head screw DIN 912 - M 10 x 30 - 12.9
⑬ Washer DIN 125 - A 10.5
⑭ Pillar reinforcing profile
⑮ Socket head screw DIN 912 - M 12 x 45 - 12.9
⑯ Washer DIN 125 - A 13
⑰ Hex. head nut DIN 985 - M 12

674835026

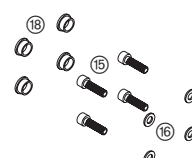
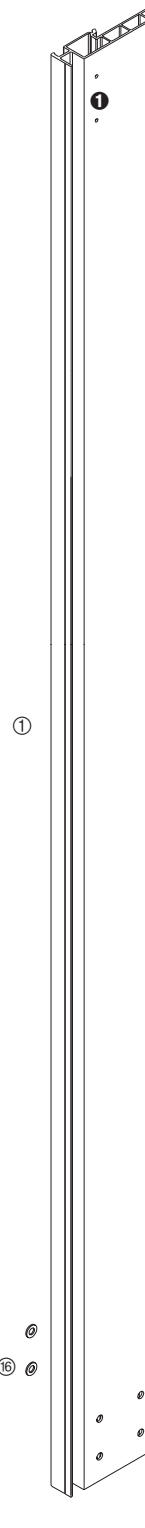
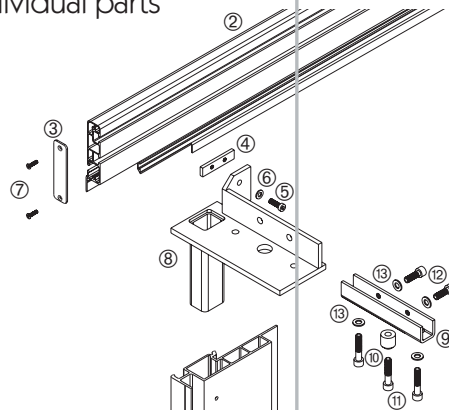
Monobolt blind rivet

6.5 x 2.0 - 15.9
Not illustrated, zinc plated steel.

401111686

The plastic end caps ⑱ are only supplied with complete kits. These are only itemised for descriptive completeness.

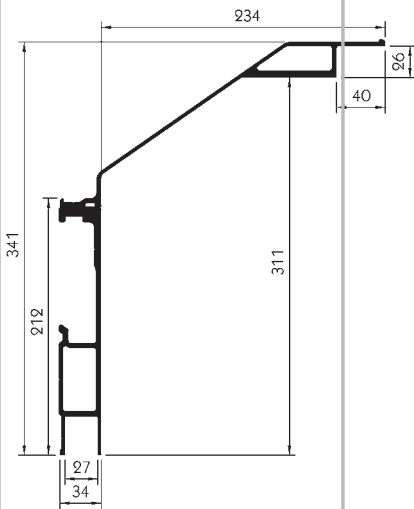
Individual parts



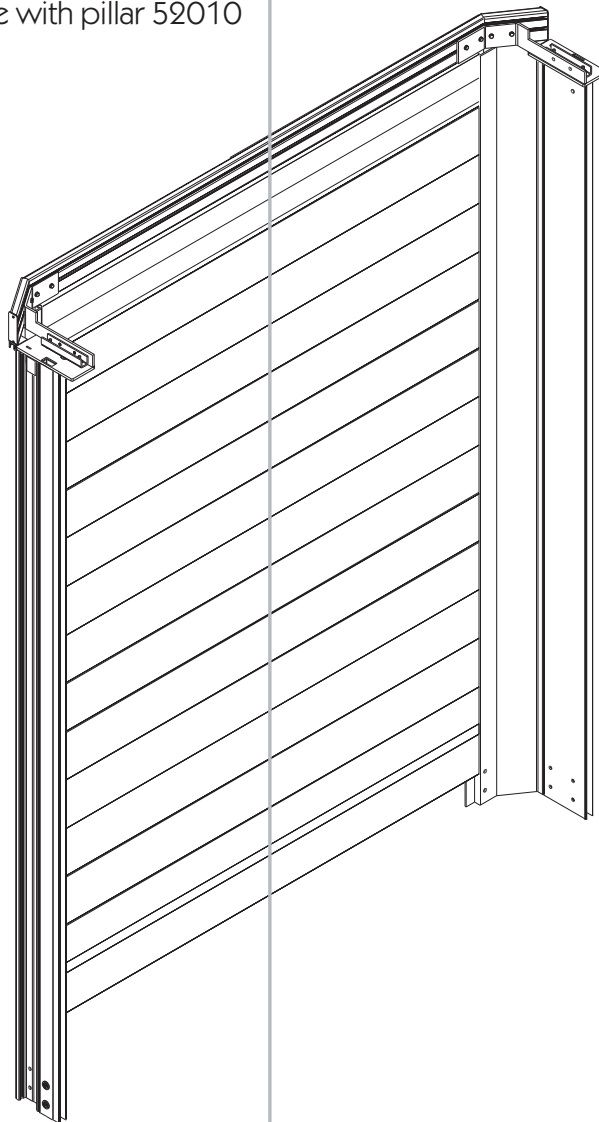
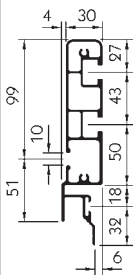
Exploded view of left side (viewed from rear of vehicle). The kit includes parts for both sides of the vehicle.

No longer available

Wrap-round headboard frame with pillar 52010



Illustrations: above, cross section of corner pillar 52010 in combination with offset profile 52006. Below, cross section of Contact 120 crossbar.



Anodised aluminium headboard frame for headboards from aluminium snap-lock profiles or GRP sandwich board.

The frame includes the following parts as itemised on the next page: two aluminium corner pillars 52010, two offset profiles 52006, the crossbar Contact 120 and the mounting kit with fixings for the aluminium cant rail 10050. Monobolt blind rivets for riveting the corner pillars 52010 to the offset profiles 52006 and the mounting kit to the corner pillars must be ordered separately.

When fitting, please note the "traffic light" info on page 726.

The corner pillars can be optionally equipped with pockets for side planks (accessory pack).

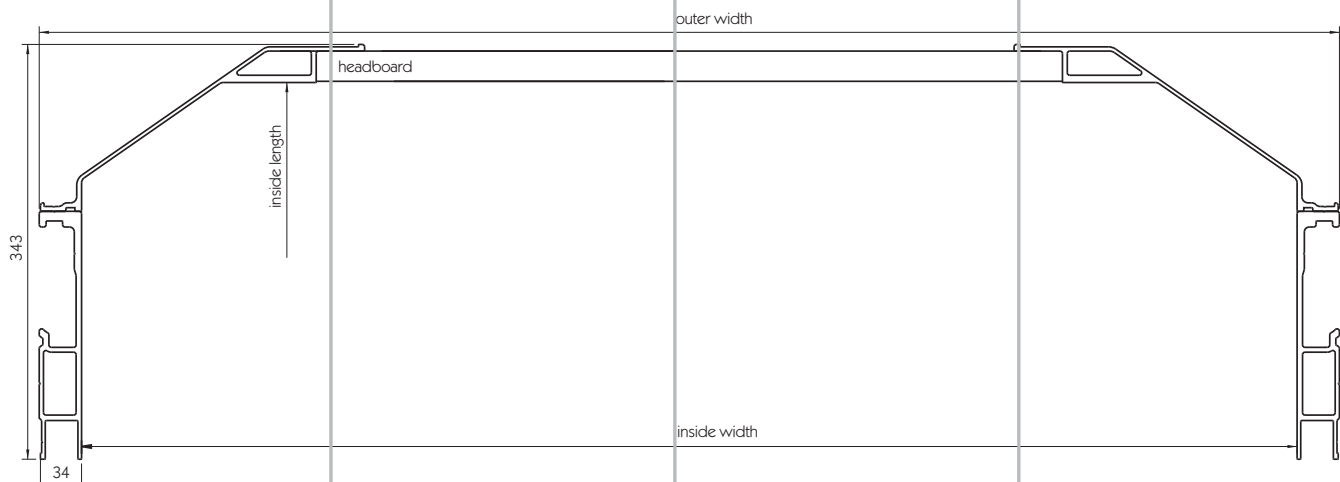
This headboard frame can also be supplied pre-assembled at extra cost.

The weight of this frame for a side loading height of 2485 mm, including headboard from aluminium snap-lock profiles, is approx. 151 kg.

Headboards can be found from page 738, pockets for the side planks are included in accessory pack [674835029](#) (page 739).



The offset profile 52006 must be riveted to the corner pillar profile 52010 with Monobolt blind rivets 6.5 x 2.0 - 15.9 at intervals of approx. 200 mm. The mounting plate [®] (see next page) for the aluminium cant rail is pegged into the top of the corner pillar 52010 and riveted with 3 Monobolt blind rivets 6.5 x 2.0 - 15.9. With the kit, the pillar profiles are provided with pilot holes \varnothing 5 mm **1** which, with the mounting plate in position, must be bored out to \varnothing 6.6 - 6.7 mm.



Pillar cross section of the PWP aluminium headboard frame.

In the kit, the corner pillar profiles are shortened to the required height and all holes pre-bored. Alternatively, "prepared profiles" can be selected.

① Corner pillar 52010
Weight 5.261 kg/m.

② Offset profile 52006
Weight 4.614 kg/m.

Prepared profiles

Length 3380 mm, with bottom mounting holes. Please note the "traffic light" info on page 726. Surface anodised.

	Assembly	Version	
②	Offset profile 52006 left hand	standard	674052006
	Offset profile 52006 right hand	standard	674006036
	Offset profile 52006 left hand	Cargotrail	674152006
	Offset profile 52006 right hand	Cargotrail	674106036
①	Corner pillar 52010 left hand	standard	674052010
	Corner pillar 52010 right hand	standard	674008036
	Corner pillar 52010 left hand	Cargotrail	674152010
	Corner pillar 52010 right hand	Cargotrail	674108036

Contact 120 crossbar

For body width 2550 mm. Anodised aluminium crossbar and crossbar ends, self colour aluminium clamping bracket, other parts zinc plated steel. Consisting of:

Item

- ③ Contact 120 crossbar, weight 2.953 kg/m
- ④ Offset crossbar end, left hand (illustrated)
Offset crossbar end, right hand
- ⑤ Clamping bracket
- ⑥ Threaded plate
- ⑦ Socket head screw DIN 7984 - M 8 x 25
- ⑧ Washer DIN 125 - A 8.4
- ⑨ Button head rivet 4 x 25

674027071

Fitting kit

Pillar reinforcing profile in stainless steel, remaining parts zinc plated steel. Consisting of:

Item

- ⑩ Mounting plate for cant rail, left hand (illustrated)
Mounting plate for cant rail, right hand
- ⑪ Clamp
- ⑫ Centring boss
- ⑬ Socket head screw DIN 912 - M 10 x 50 - 12.9
- ⑭ Socket head screw DIN 912 - M 10 x 30 - 12.9
- ⑮ Washer DIN 125 - A 10.5
- ⑯ Monobolt blind rivet 6.5 x 2.0 - 15.9
- ⑰ Pillar reinforcing profile
- ⑱ Socket head screw DIN 912 - M 12 x 45 - 12.9
- ⑲ Washer DIN 125 - A 13
- ⑳ Hex. head nut DIN 985 - M 12

674834027

Monobolt blind rivet

6.5 x 2.0 - 15.9

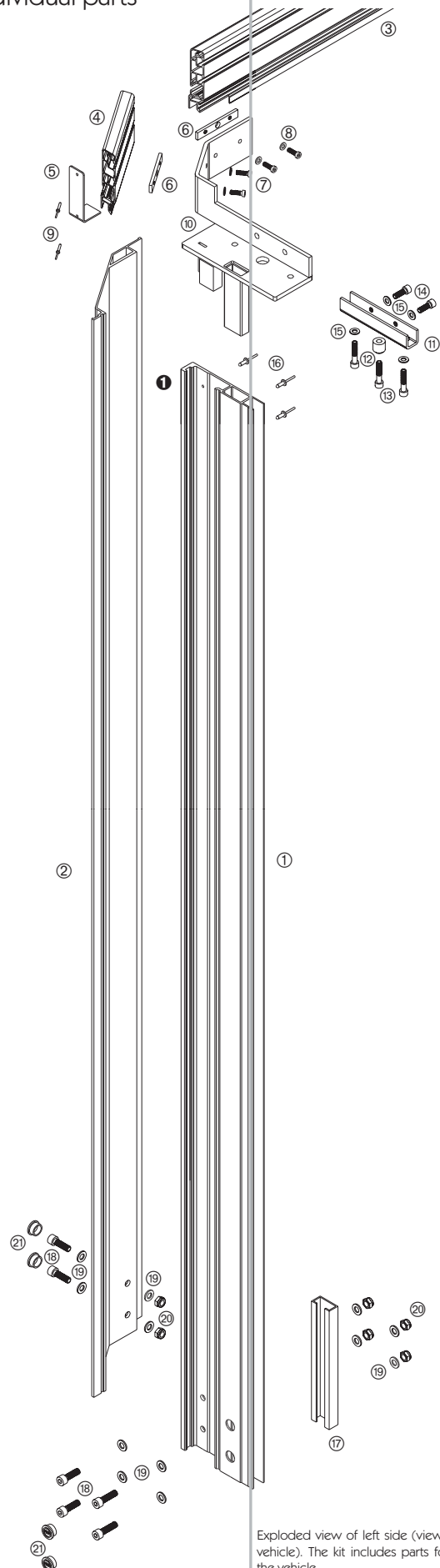
Not illustrated, zinc plated steel.

101111686

No longer available

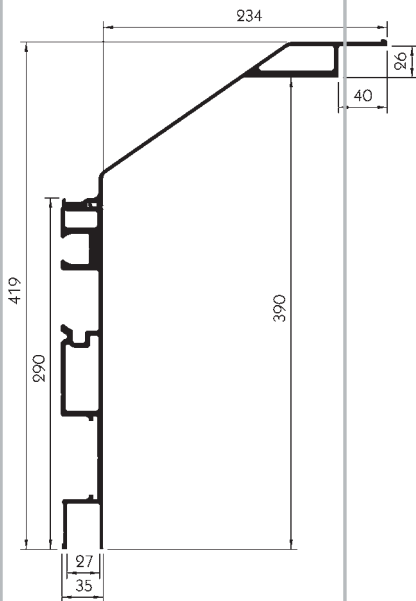
The plastic end caps ⑳ are only supplied with complete kits. These are only itemised for descriptive completeness.

Individual parts

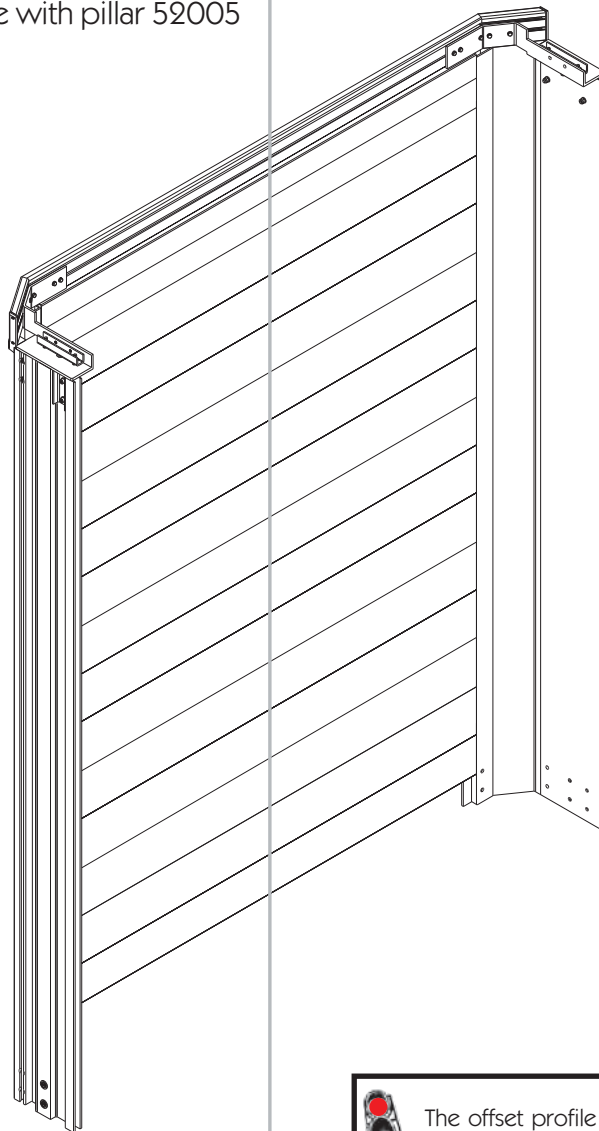
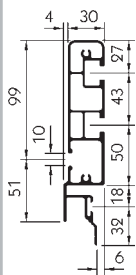


Exploded view of left side (viewed from rear of vehicle). The kit includes parts for both sides of the vehicle.

Wrap-round headboard frame with pillar 52005



Illustrations: above, cross section of corner pillar 52005 in combination with offset profile 52006. Below, cross section of Contact 120 crossbar.



Anodised aluminium headboard frame for headboards from aluminium snap-lock profiles or GRP sandwich board.

The frame includes the following parts as itemised on the next page: two aluminium corner pillars 52005, two offset profiles 52006, the crossbar Contact 120 and the mounting kit with the fixture for the aluminium cant rail 10050. Monobolt blind rivets for riveting the corner pillars 52005 to the offset profiles 52006 must be ordered separately.

When fitting, please note the "traffic light" info on page 726.

The corner pillars can be optionally equipped with pockets for side planks (accessory pack).

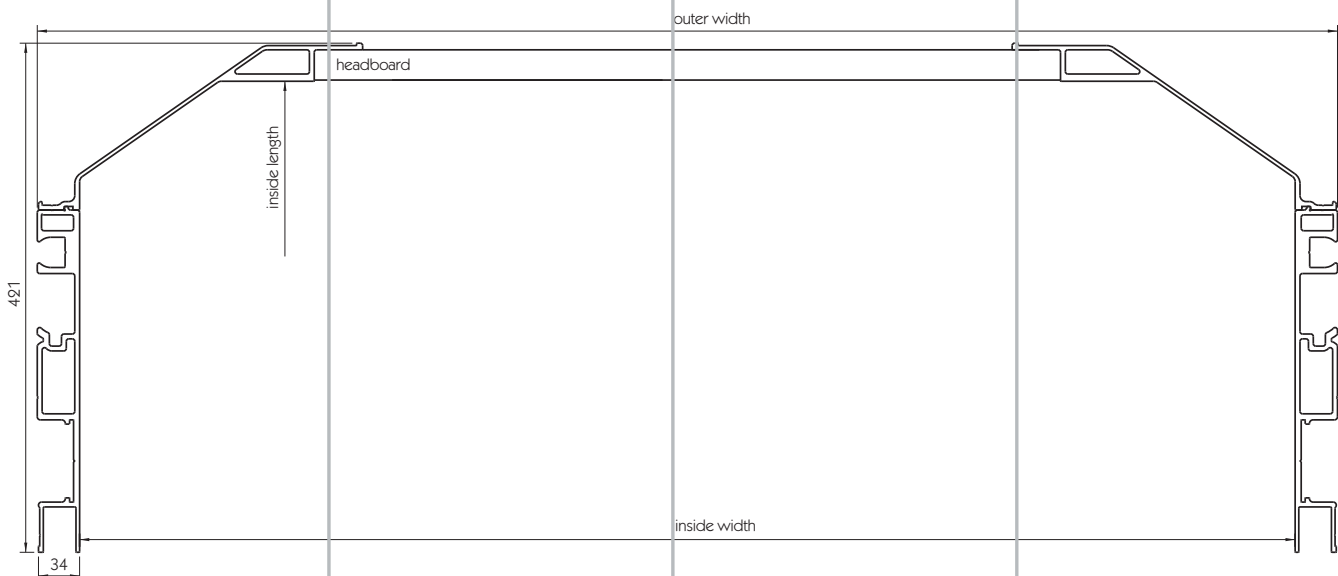
This headboard frame can also be supplied pre-assembled at extra cost.

The weight of this frame for a side loading height of 2485 mm, including headboard from aluminium snap-lock profiles, is approx. 168 kg.

Headboards can be found from page 738, pockets for side planks are included in accessory pack [674835029](#) (page 739).



The offset profile 52006 must be riveted with Monobolt blind rivets 6.5 x 2.0 - 15.9 at intervals of approx. 200 mm onto the corner profile 52005.



Pillar cross section of the PWP wrap-round aluminium headboard frame.

In the kit, the corner pillar profiles are shortened to the required height and all holes pre-bored. Alternatively, "prepared profiles" can be selected.

① Corner pillar 52005
Weight 7.885 kg/m.

② Offset profile 52006
Weight 4.614 kg/m.

Prepared profiles

Length 3380 mm, with bottom mounting holes. Please note the "traffic light" info on page 726. Surface anodised.

	Assembly	Version	
②	Offset profile 52006 left hand	standard	674052006
	Offset profile 52006 right hand	standard	674006036
	Offset profile 52006 left hand	Cargotrail	674152006
	Offset profile 52006 right hand	Cargotrail	674106036
①	Corner pillar 52005 left hand	standard	674052005
	Corner pillar 52005 right hand	standard	674005036
	Corner pillar 52005 left hand	Cargotrail	674152005
	Corner pillar 52005 right hand	Cargotrail	674105036

Contact 120 crossbar

For body width 2550 mm. Anodised aluminium crossbar and crossbar ends, self colour aluminium clamping bracket, other parts zinc plated steel. Consisting of:

Item

- ③ Headboard crossbar, weight 2.953 kg/m
- ④ Offset crossbar end, left hand (illustrated)
Offset crossbar end, right hand
- ⑤ Clamping bracket
- ⑥ Threaded plate
- ⑦ Socket head screw DIN 7984 - M 8 x 25
- ⑧ Washer DIN 125 - A 8.4
- ⑨ Button head rivet 4 x 25

674027071

Fitting kit

Pillar reinforcing profile in stainless steel, remaining parts zinc plated steel. Consisting of:

Item

- ⑩ Mounting plate for cant rail, left hand (illustrated)
Mounting plate for cant rail, right hand
- ⑪ Clamp
- ⑫ Centring boss
- ⑬ Socket head screw DIN 912 - M 10 x 50 - 12.9
- ⑭ Socket head screw DIN 912 - M 10 x 30 - 12.9
- ⑮ Washer DIN 125 - A 10.5
- ⑯ Socket head screw DIN 912 - M 10 x 40 - 12.9
- ⑰ Hex. head nut DIN 985 - M 10
- ⑱ Pillar reinforcing profile
- ⑲ Socket head screw DIN 912 - M 12 x 40 - 12.9
- ⑳ Socket head screw DIN 912 - M 12 x 45 - 12.9
- ㉑ Socket head screw DIN 912 - M 12 x 50 - 12.9
- ㉒ Washer DIN 125 - A 13
- ㉓ Hex. head nut DIN 985 - M 12

674835027

Monobolt blind rivet

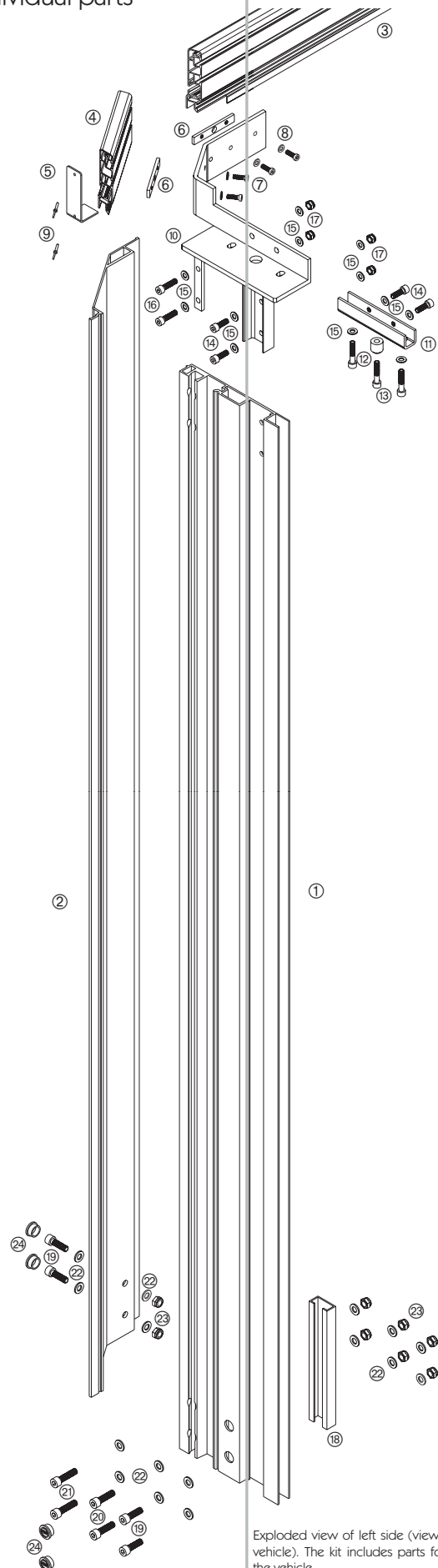
6.5 x 2.0 - 15.9

Not illustrated, zinc plated steel.

101111686

No longer available

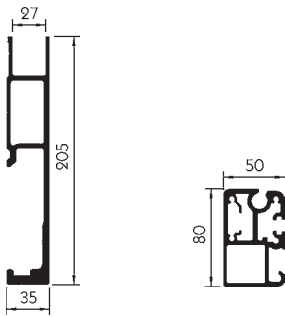
Individual parts



Exploded view of left side (viewed from rear of vehicle). The kit includes parts for both sides of the vehicle.

The plastic end caps ⑳ are only supplied with complete kits. These are only itemised for descriptive completeness.

Rear portal frame with pillar 52010

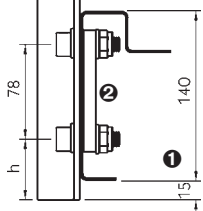


Illustrations:
Left, cross section of corner pillar 52010.
Right, cross section of Contact 80 crossbar.



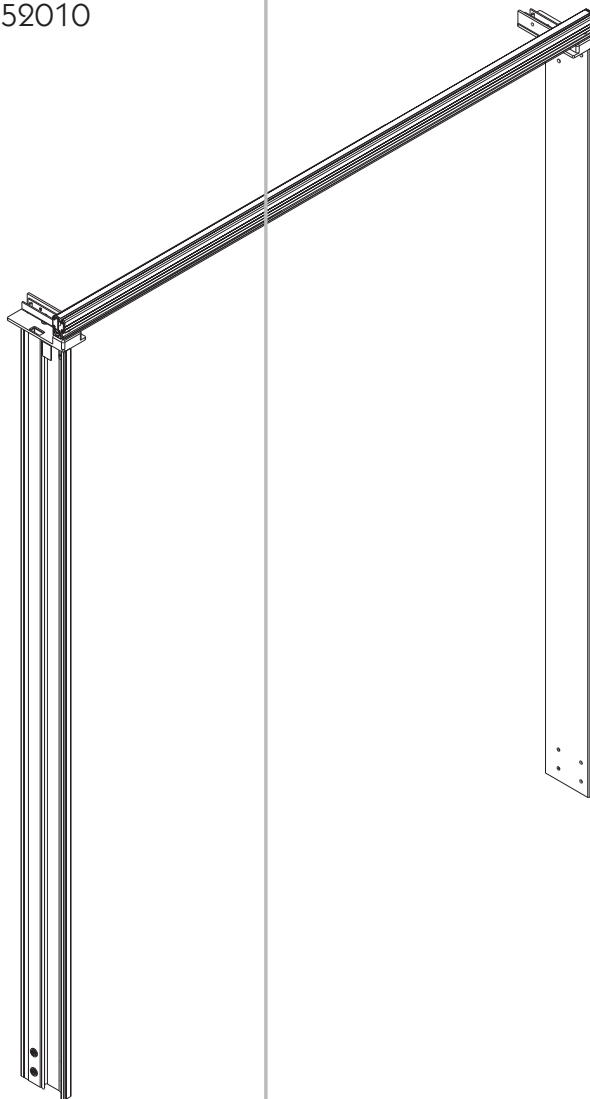
Please note that the floor frame profile in the area around the bolted connections ② must be reinforced.

With prepared pillars and pillars supplied with the kit, the dimension h is 50 mm in the standard version, and 25.5 mm in the **Cargotrail** flatbed kit version.



In the standard version, the mounting holes in the pillars are to suit a floor frame height of 140 mm ①, so that the profile projects 15 mm beyond the bottom edge of the floor frame.

Zinc plated mounting plates are available on request.

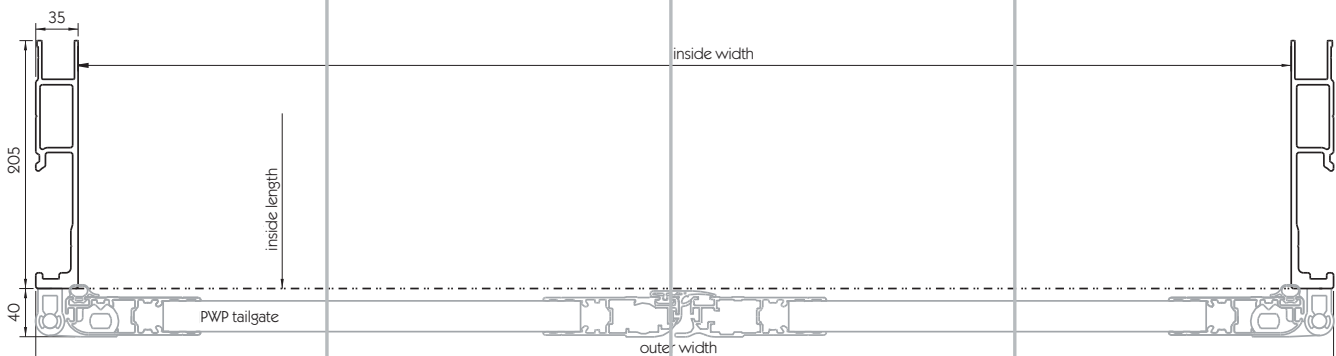


Anodised aluminium rear portal frame for PWP portal doors, suitable for vehicles up to 12 t GVW. The frame includes the following parts as itemised on the next page: two aluminium corner pillars 52010, the Contact 80 crossbar and the mounting kit with the fixture for the aluminium cant rail 10050. Monobolt blind rivets for riveting the mounting kit to the corner pillar must be ordered separately.

The corner pillars can be optionally equipped with pockets for side planks (accessory pack).

The weight of this frame for a side loading height of 2485 mm/rear frame inside height of 2520 mm including PWP portal doors with a total of 4 locks and sandwich board door filling is approx. 146 kg.

Pockets for side planks are contained in the accessory pack [674835029](#) (page 739).



Pillar cross section of the PWP aluminium rear portal frame with PWP-portal doors (optional).

The plastic end caps ⑫ are only supplied with complete kits. These are only itemised for descriptive completeness.



① Corner pillar 52010
Supplied with kit, pre-cut to required height, all holes pre-drilled. Alternatively, "prepared profiles" can be selected. Weight 5.261 kg/m.

Prepared profiles
Length 3380 mm, with bottom mounting holes. Please note the "traffic light" info on page 732. Surface anodised.

	Assembly	Version	
Corner pillar 52010	left hand	standard	674052010
① Corner pillar 52010	right hand	standard	674008036
Corner pillar 52010	left hand	Cargotrail	674152010
Corner pillar 52010	right hand	Cargotrail	674108036

Contact 80 crossbar
For bodywork width 2550 mm. Crossbar and filler profile are anodised aluminium, remaining parts zinc plated steel. Consisting of:

Item
② Contact 80 crossbar, weight 3.892 kg/m
③ Filler profile
④ Cap, left (illustrated) Cap, right
⑤ Clamping plate
⑥ Socket head screw DIN 7991 - M 8 x 35
⑦ C/sunk nut M 8
⑧ C/sunk screw DIN 7500 M - M 5 x 20 Z
⑨ Female threaded rail M 8

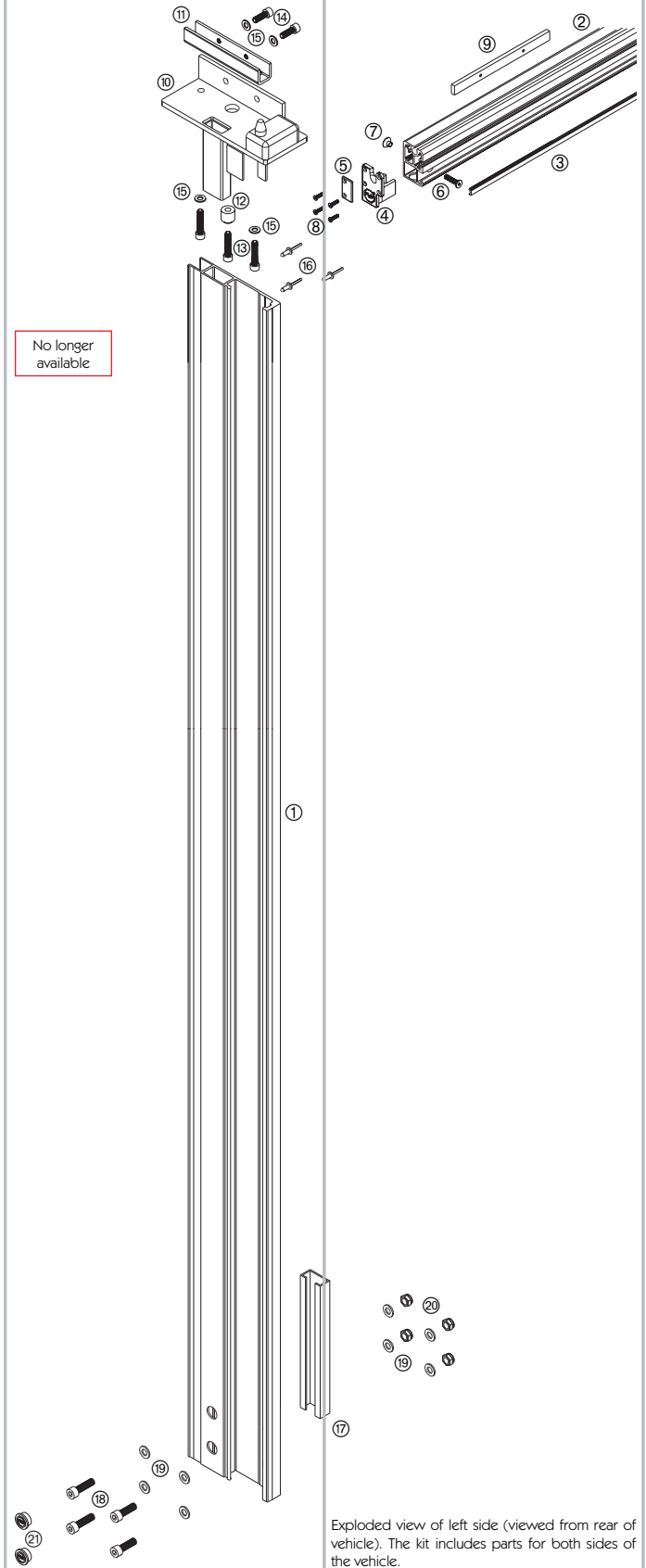
674000020

Fitting kit
Pillar reinforcing profile in stainless steel, remaining parts zinc plated steel. Consisting of:

Item
⑩ Mounting plate for cant rail, left hand (illustrated) Mounting plate for cant rail, right hand
⑪ Clamp
⑫ Centring boss
⑬ Socket head screw DIN 912 - M 10 x 50 - 12.9
⑭ Socket head screw DIN 912 - M 10 x 30 - 12.9
⑮ Washer DIN 125 - A 10.5
⑯ Monobolt blind rivet 6.5 x 2.0 - 15.9
⑰ Pillar reinforcing profile
⑱ Socket head screw DIN 912 - M 12 x 40 - 12.9
⑲ Washer DIN 125 - A 13
⑳ Hex. head nut DIN 985 - M 12

674834028

Individual Parts



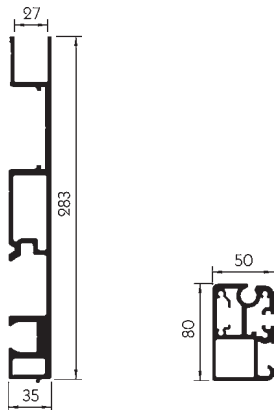
Rear portal frame with pillar 52005

Anodised aluminium rear portal frame for PWP portal doors.

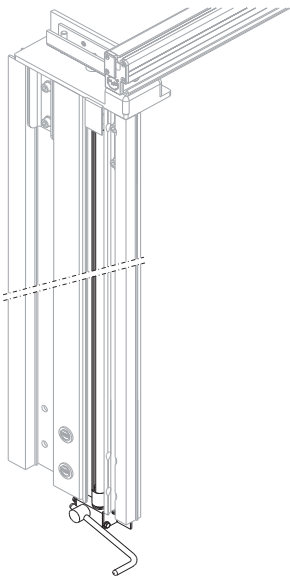
The frame includes the following parts as itemised on the next page: two aluminium corner pillars 52005, the Contact 80 cross-bar and the mounting kit with the fixture for the aluminium cant rail 10050. The corner pillars can be equipped with optional pockets for side planks (accessory pack). When fitting, please note the "traffic light" info on page 732.

The weight of this frame for a side loading height of 2485 mm/rear frame inside height of 2520 mm including PWP portal doors with a total of 4 locks and sandwich board door filling is approx. 169 kg.

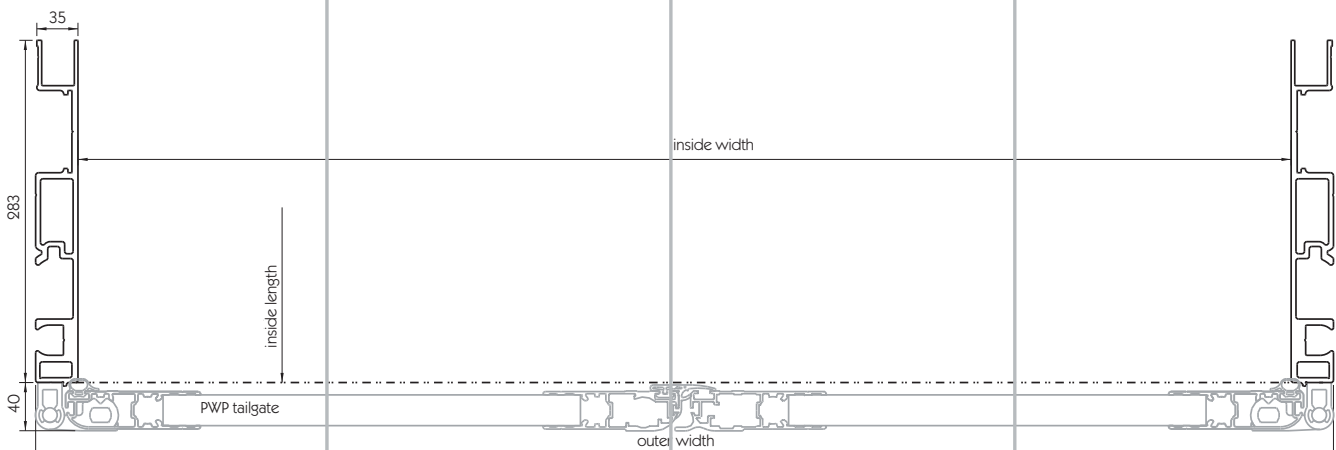
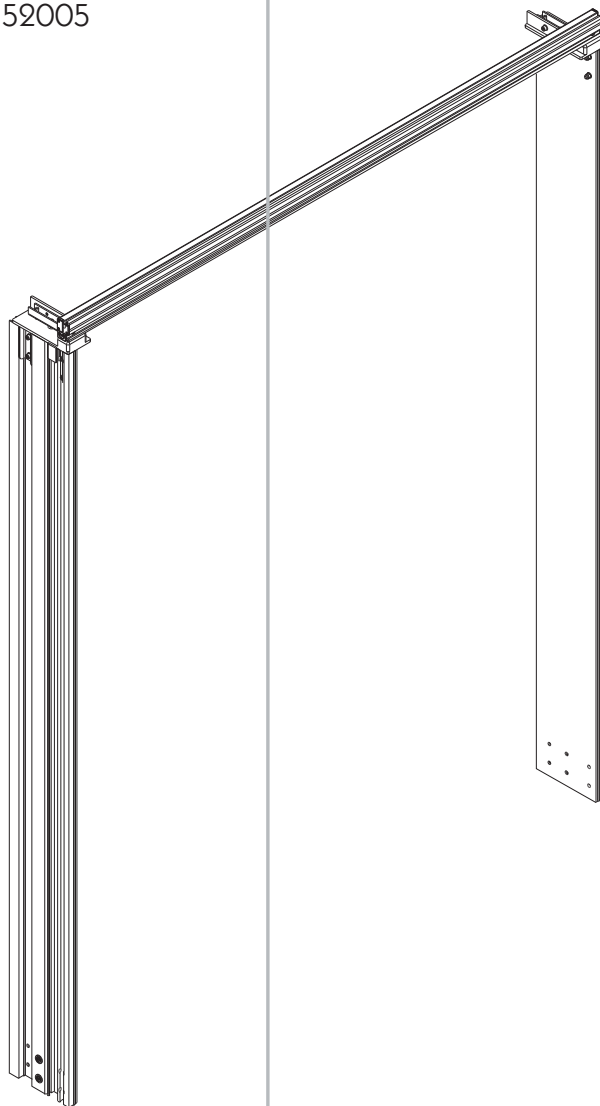
A tilt roof design is itemised on page 737, pockets for the side planks are contained in the accessory pack [674835029](#) (page 739).



Illustrations: left, cross section of corner pillar 52005, right, cross section of Contact 80 cross-bar.



Detail of positioning of items contained in the accessory pack [674835029](#) showing the \varnothing 27 mm aluminium curtain tensioning pole with the Piccolo tensioner below the pillar. The crank handle is removed when vehicle is in motion.



Pillar cross section of the PWP aluminium rear portal frame with PWP-rear doors (optional).

The plastic end caps ④ are only supplied with complete kits. These are only itemised for descriptive completeness.



① Corner pillar 52005
Supplied with kit, pre-cut to required height, all holes pre-drilled. Alternatively, "prepared profiles" can be selected.
Weight 7.885 kg/m.

Prepared profiles
Length 3380 mm, with bottom mounting holes. Please note the "traffic light" info on page 732. Surface anodised.

	Assembly	Version	
Corner pillar 52005	left hand	Standard	674052005
① Corner pillar 52005	right hand	Standard	674005036
Corner pillar 52005	left hand	Cargotrail	674152005
Corner pillar 52005	right hand	Cargotrail	674105036

Contact 80 crossbar
For bodywork width 2550 mm. Crossbar and filler profile are anodised aluminium, remaining parts zinc plated steel. Consisting of:

Item	
②	Contact 80 crossbar, weight 3.892 kg/m
③	Filler profile
④	Cap, left (illustrated) Cap, right
⑤	Clamping plate
⑥	Socket head screw DIN 7991 - M 8 x 35
⑦	C/sunk nut M 8
⑧	C/sunk screw DIN 7500 M - M 5 x 20 Z
⑨	Female threaded rail M 8

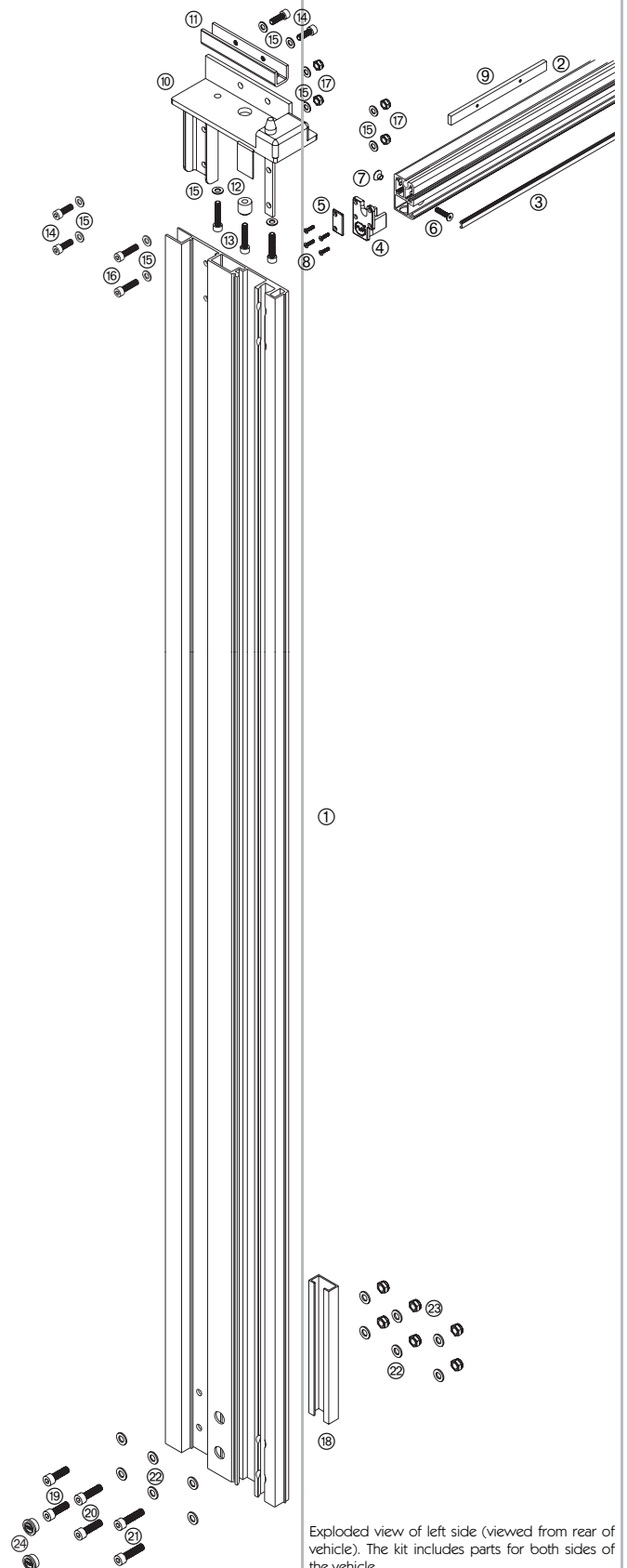
674000020

Fitting kit
Pillar reinforcing profile in stainless steel, remaining parts zinc plated steel. Consisting of:

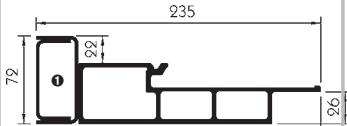
Item	
⑩	Mounting plate for cant rail, left hand (illustrated) Mounting plate for cant rail, right hand
⑪	Clamp
⑫	Centring boss
⑬	Socket head screw DIN 912 - M 10 x 50 - 12.9
⑭	Socket head screw DIN 912 - M 10 x 30 - 12.9
⑮	Washer DIN 125 - A 10.5
⑯	Socket head screw DIN 912 - M 10 x 40 - 12.9
⑰	Hex. head nut DIN 985 - M 10
⑱	Pillar reinforcing profile
⑲	Socket head screw DIN 912 - M 12 x 40 - 12.9
⑳	Socket head screw DIN 912 - M 12 x 45 - 12.9
㉑	Socket head screw DIN 912 - M 12 x 50 - 12.9
㉒	Washer DIN 125 - A 13
㉓	Hex. head nut DIN 985 - M 12

674835028

Individual parts



Headboard frame with pillar 52007, tilt roof design



Illustrations: above, cross section of corner pillar 52007 with bolt-on Kolumbus tilt roof system ①. Below, cross section of Contact 120 crossbar.

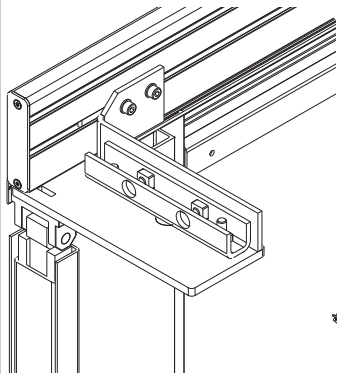
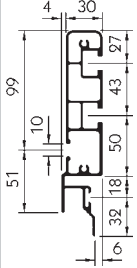
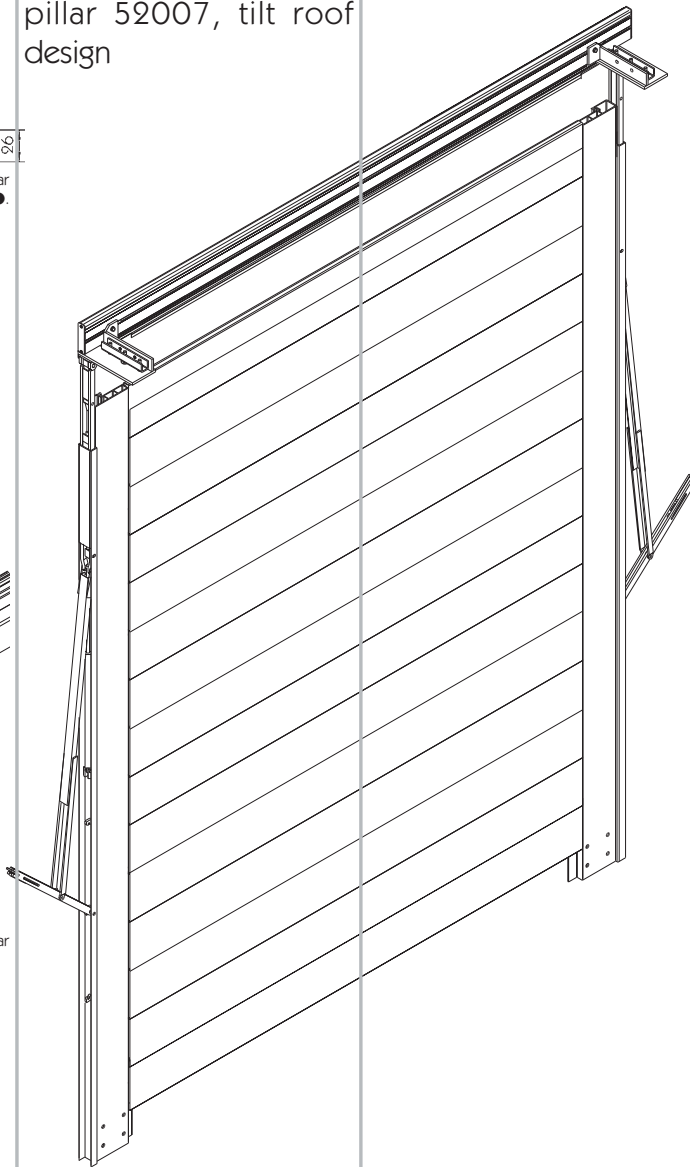



Illustration: mounting kit with Contact 120 crossbar for aluminium cant rail 10050.



Anodised aluminium headboard frame with Kolumbus tilt roof system (black KTL coated steel) for headboards from aluminium snap-lock profiles or GRP sandwich boards.

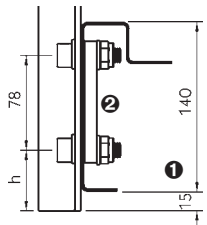
The frame includes two aluminium corner pillars 52007 with riveted-on roof tilt mechanism for maximum 400 mm lift, the crossbar Contact 120 and the mounting kit with the fixture for the aluminium cant rails 10050 or 10073. Monobolt blind rivets for riveting the mounting kit to the pillar must be ordered separately.

Steel side plank pockets (Kolumbus housing) can be welded on. Headboards can be found from page 738, pockets for side planks are included in accessory pack [674835029](#) (page 739).

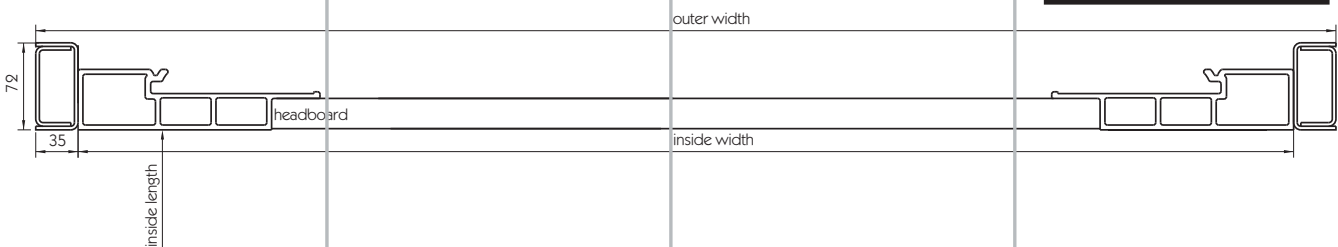


Please note that the floor frame profile in the area around the bolted connections ② must be reinforced.

With prepared pillars and pillars supplied with the kit, the dimension h is 50 mm in the standard version, and 25.5 mm in the **Cargotrail** flatbed kit version.



In the standard version, the mounting holes in the pillars are to suit a floor frame height of 140 mm ①, so that the profile projects 15 mm beyond the bottom edge of the floor frame.



Cross section of pillar for PWP aluminium headboard frame, tilt roof version.

Anodised aluminium rear portal frame with integrated Kolumbus tilt roof mechanism (black KTL coated steel) for PWP portal doors.

The frame includes two aluminium corner pillars 52005 with riveted-on tilt roof mechanism for maximum 400 mm lift, the Contact 80 crossbar and the mounting kit with the fixture for the aluminium cant rails 10050 or 10073.

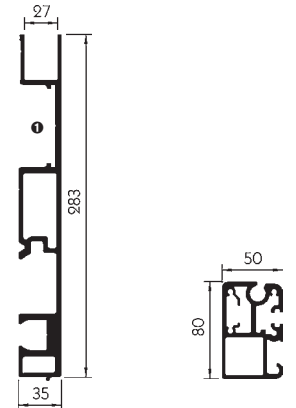
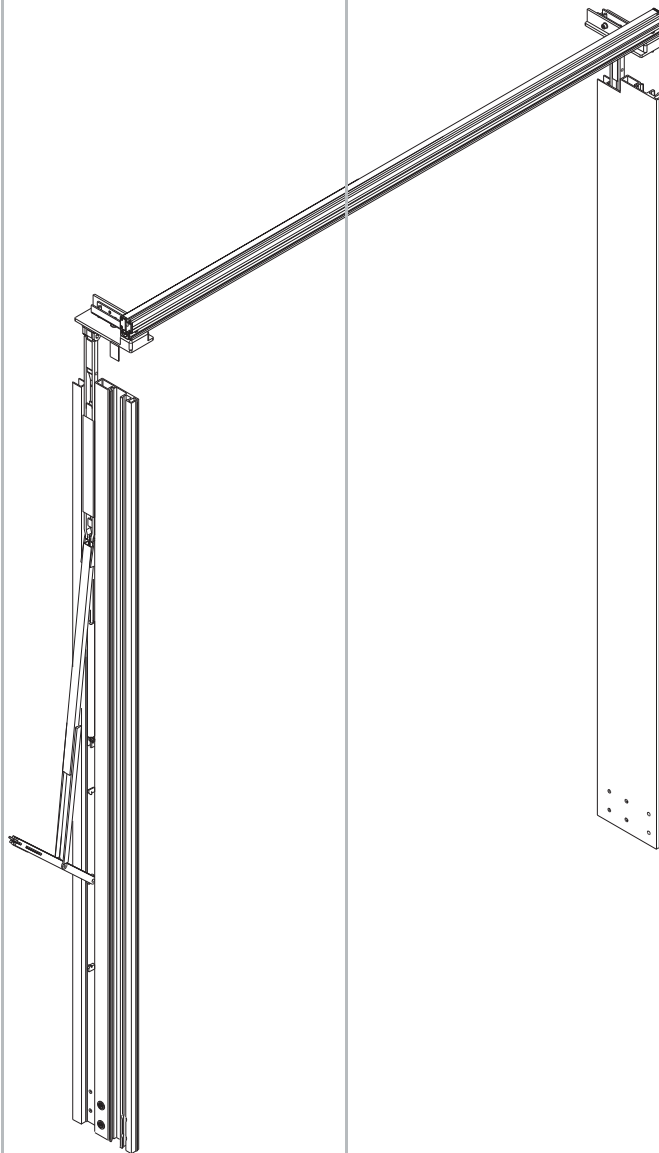
The corner pillars can be optionally equipped with pockets for side planks (accessory pack).

When fitting, please note the "traffic light" info on page 736.

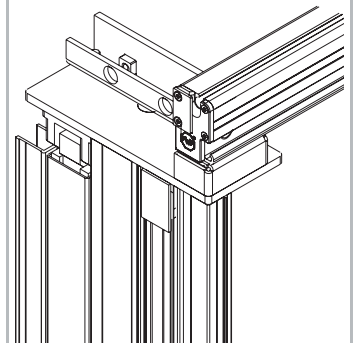
The PWP rear portal frame in the tilt roof version, as opposed to conventional designs of tilt roof, needs no fixed second crossbar. With the PWP Contact door sealing system, the PWP doors must be open when the roof is raised. For this purpose, a door interlock is integrated into the Boxer locking handle. More information can be found on page 765.

Pockets for side planks are contained in the accessory pack **674835029** (page 739).

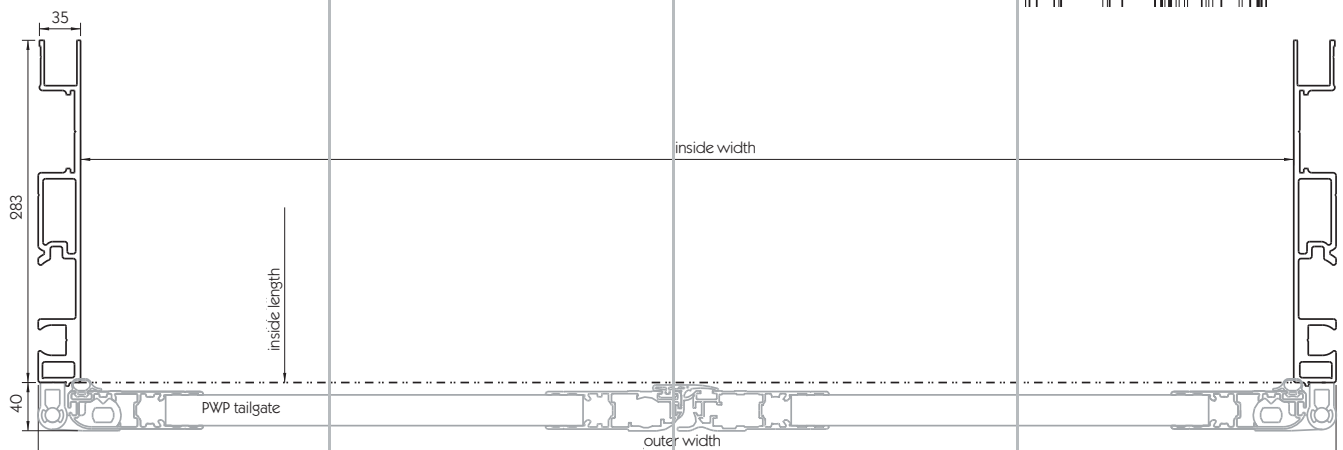
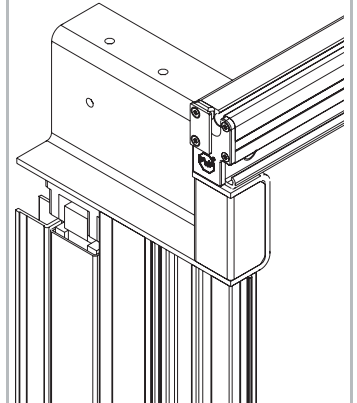
Rear door frame with pillar 52005, tilt roof version



Illustrations: left, cross section of corner pillar 52005, the Kolumbus tilt roof mechanism is integrated in a chamber ❶ within the profile. Right: cross section of the Contact 80 crossbar.



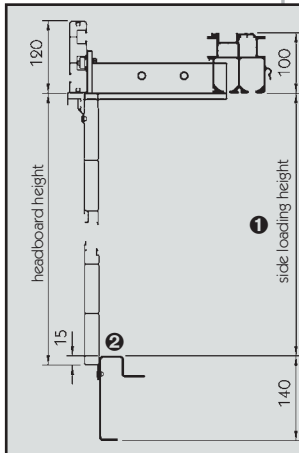
Illustrations: above, mounting kit with Contact 80 crossbar for aluminium cant rail 10050. Below, for cant rail 10073.



Pillar cross section of the PWP aluminium rear portal frame with PWP-rear doors (optional).

Headboards

From page 634 you will find all the aluminium profiles illustrated in a scale of 1:1.



With orders for a complete PWP aluminium trailer kit, the portals are finished to any desired dimension up to a maximum 3235 mm side loading height ①.

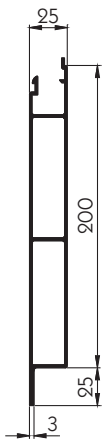
PWP recommends that the headboard overlaps the top edge of the floor frame by 15 mm ②. Combining the various sizes of 25 mm aluminium snap-lock profiles available from SUER results in the different heights given in the table below.

Alternatively, the GRP sandwich boards listed on the next page can be used. These must be cut to the desired length and width when assembling the portal.

Theoretical headboard width for an outside width of 2550 mm would be:

Headboard for trucks & trailers: 2164 mm

Headboard for semi-trailers: 2090 mm



621297

2.619 kg/m
AlMgSi 0.5 F25



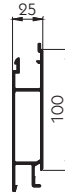
621039

2.609 kg/m
AlMgSi 0.5 F25



621038

2.059 kg/m
AlMgSi 0.5 F25



621037

1.529 kg/m
AlMgSi 0.5 F25



621033

2.679 kg/m
AlMgSi 0.5 F25



621031

2.079 kg/m
AlMgSi 0.5 F25

Side loading height [mm]	Headboard height [mm]	Inside height rear [mm]	No. of profiles of type:					621033 200 mm top [pieces]	621031 150 mm top [pieces]
			621297 200 mm bottom [pieces]	621039 200 mm middle [pieces]	621038 150 mm middle [pieces]	621037 100 mm middle [pieces]	621033 200 mm top [pieces]		
2185	2200	2220	1	9	0	0	1	0	
2235	2250	2270	1	9	0	1	0	1	
2285	2300	2320	1	9	1	0	0	1	
2335	2350	2370	1	9	1	0	1	0	
2385	2400	2420	1	10	0	0	1	0	
2435	2450	2470	1	10	0	1	0	1	
2485	2500	2520	1	10	1	0	0	1	
2535	2550	2570	1	10	1	0	1	0	
2585	2600	2620	1	11	0	0	1	0	
2635	2650	2670	1	11	0	1	0	1	
2685	2700	2720	1	11	1	0	0	1	
2735	2750	2770	1	11	1	0	1	0	
2785	2800	2820	1	12	0	0	1	0	
2835	2850	2870	1	12	0	1	0	1	
2885	2900	2920	1	12	1	0	0	1	
2935	2950	2970	1	12	1	0	1	0	
2985	3000	3020	1	13	0	0	1	0	
3035	3050	3070	1	13	0	1	0	1	
3085	3100	3120	1	13	1	0	0	1	
3135	3150	3170	1	13	1	0	1	0	
3185	3200	3220	1	14	0	0	1	0	
3235	3250	3270	1	14	0	1	0	1	

GRP sandwich board

The horizontally applied purenite reinforcing strips makes these suitable for use as headboards. Polyurethane core with double sided 1.8 mm GRP gel coat skin. Colour similar to RAL 9010 (white), suitable for painting.

Size
[mm]

2480 x 2400	675000001
2480 x 2800	675000002

Accessories

Accessory pack

For one vehicle, consisting, among other things, of pockets for 6 rows of side planks. Consisting of:

Item

- ① Hooked curtain tensioning pole, length 3300 mm
- ② Side plank retainer, tube \varnothing 18 x 4 x 27 mm
- ③ Button head rivet 6.4 x 26.2
- ④ Top insert for aluminium tensioning pole \varnothing 27 mm
- ⑤ Aluminium tensioning pole \varnothing 27 mm, length 3000 mm
- ⑥ Bottom insert for aluminium tensioning pole \varnothing 27 mm
- ⑦ Tender tensioner
- ⑧ Fixing bracket for Tender tensioner
- ⑨ Hand crank
- ⑩ Hex. head screw DIN 933 - M 6 x 12
- ⑪ Washer DIN 125 - A 6.4
- ⑫ Socket head screw DIN 912 - M 8 x 25
- ⑬ Washer DIN 125 - A 13
- ⑭ Hex. head nut DIN 985 - M 12

674835029

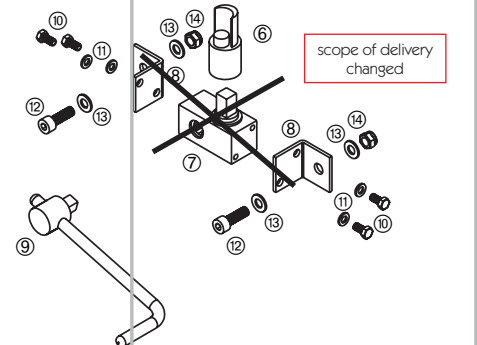
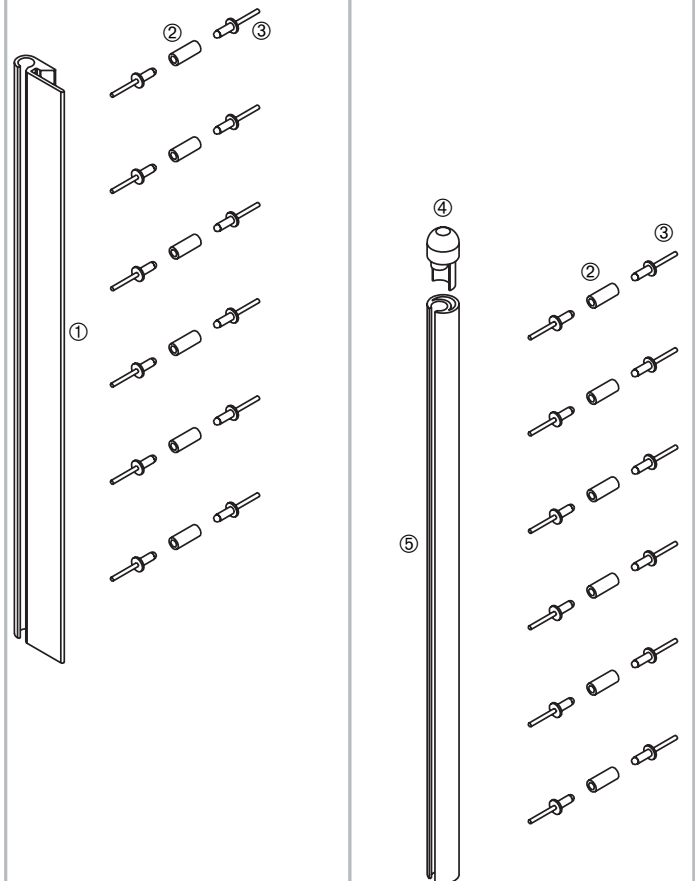
Fitting kit for rigid roof

For fitting the Contact 80 crossbar on the cant rail mounting plate. For one vehicle, consisting of:

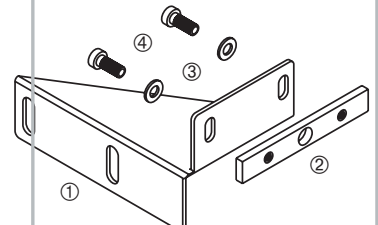
Item

- ① Fixing bracket for end beam, left, zinc plated steel.
Fixing bracket for end beam, right, zinc plated steel.
- ② Threaded plate 120 x 18 x 6 mm, zinc plated steel.
- ③ Washer DIN 125 - A 8.4
- ④ Socket headed screw DIN 7984 - M 8 x 20

643835503



Illustrations: exploded view of left hand side (viewed from rear of vehicle). The kit includes parts for both sides of the vehicle.



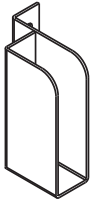
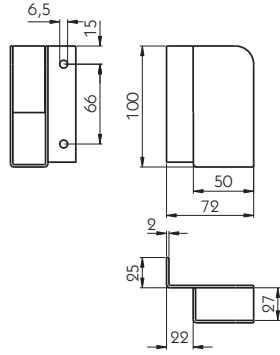


Illustration: left hand



Side plank sockets PWP
For PWP aluminium trailer kit headboard frame, tilt roof version. Zinc plated steel, weight 0.28 kg.

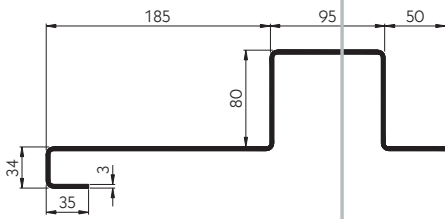
Left hand

643355011

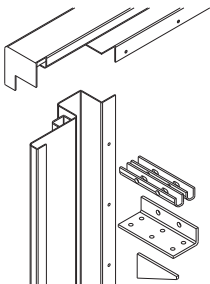
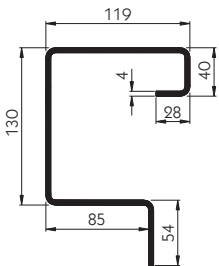
Right hand

643355012

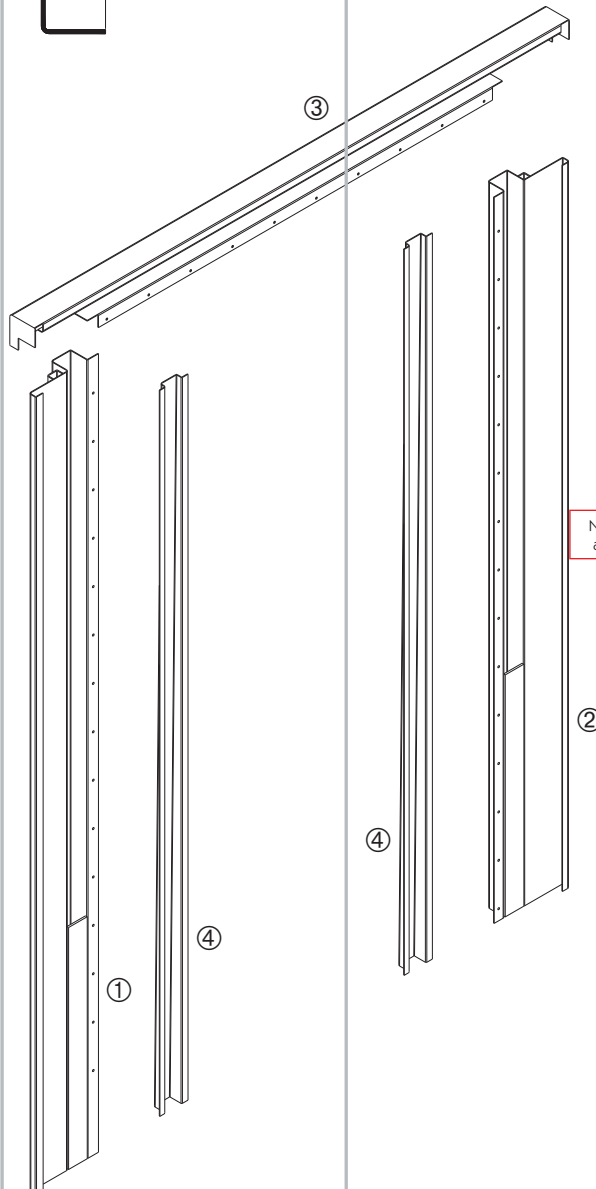
Curtainsider pillar kits Headboard frame, flat 1



Illustrations:
Above: cross section of corner pillar.
Below: cross section of crossbar.



When mounting the aluminium cant rail, the corner pillar must be interfaced in this area or additionally notched out.



No longer available

Headboard pillar kit for mounting a curtainsider body on a truck or trailer floor frame. The individual parts must be welded together during installation.

The pillar profiles are generously reinforced in the lower area and can be shortened to the desired height.

A mounting kit for the aluminium cant rails is not available; instead, for the cant rails 80797 or 10050, the mounting kit 660029750 can be used.

All parts from QStE 380 TM steel, black KTL coated.

Consisting of:

① Corner pillar, left

Length 3300 mm, weight 49 kg.

670201001

② Corner pillar, right

Length 3300 mm, weight 49 kg.

670201002

③ Crossbar

Width 2550 mm, weight 24 kg.

670201003

④ Headboard support

Length 3000 mm, weight 15 kg.

370561360

Headboard frame 2014

Headboard pillar kit for mounting a curtainsider body on a truck or trailer floor frame. Corner pillars and crossbar are bolted together. The pillar profiles are generously reinforced in the lower area and can be shortened to the desired height.

The fitting kit for the aluminium cant rail 80797 or 10050 also contains the screws for the individual component sub-assemblies. All parts from QStE 380 TM steel, black KTL coated.

Consisting of:

① Corner pillar, left

Length 3300 mm, weight 46 kg.

672014015

② Corner pillar, right

Length 3300 mm, weight 46 kg.

672014016

③ Crossbar

Width 2550 mm, weight 24 kg.

672014001

④ Mounting kit

For curtainsider profile 80797 or 10050 with screw kit, weight approx. 15 kg.

672015130

⑤ Lateral tie bar, bottom

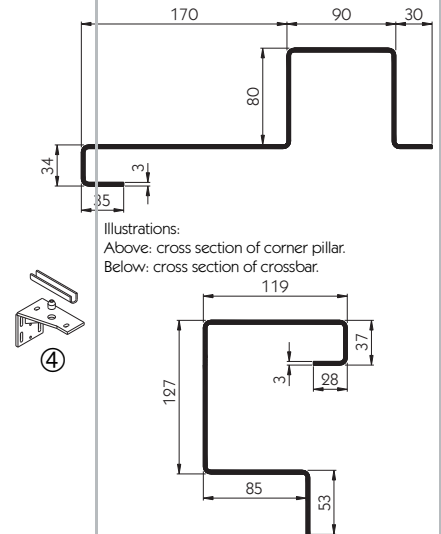
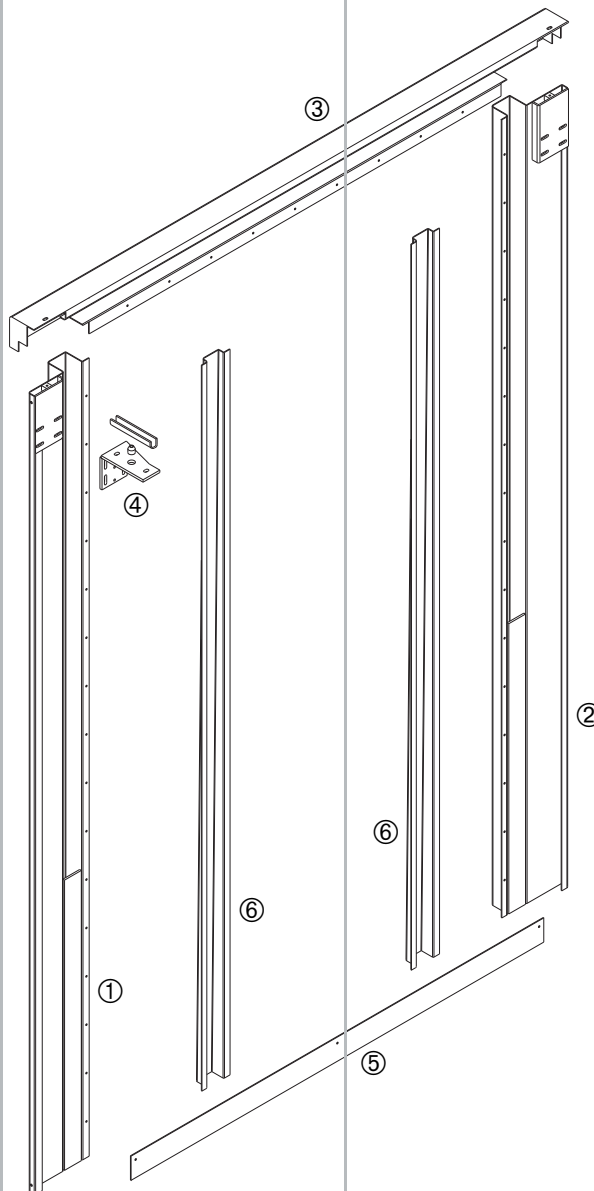
Weight 4.6 kg.

672014007

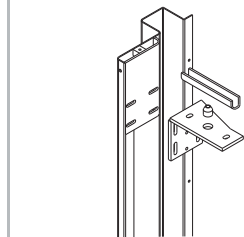
⑥ Headboard support

Length 3000 mm, weight 15 kg.

370561360

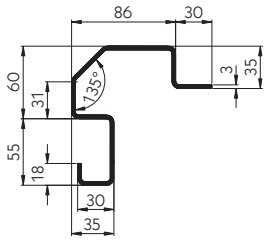


Illustrations:
Above: cross section of corner pillar.
Below: cross section of crossbar.

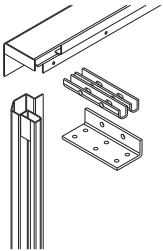
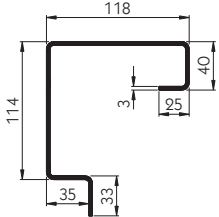


With the headboard frame 2014, the kits for mounting the curtainsider cant rails to the holding plates which are already integrated into the corner pillar, are assembled using the screws supplied.

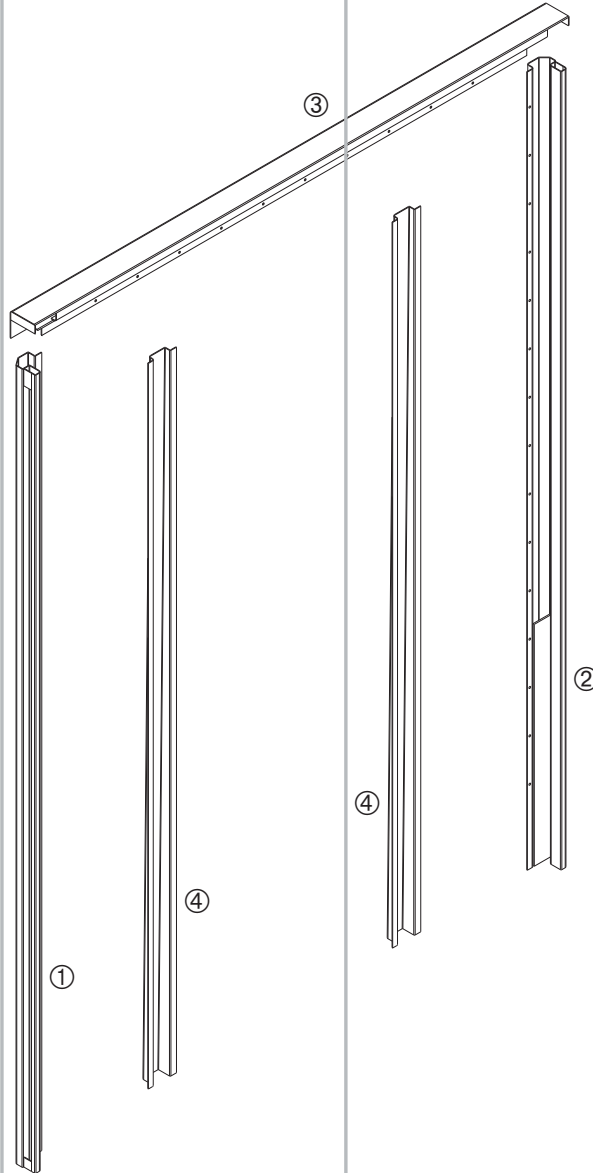
Headboard frame, flat 2



Illustrations:
Above: cross section of corner pillar.
Below: cross section of crossbar.



The mounts for the aluminium cant rails are welded to the pillars.



Headboard pillar kit for mounting a curtainsider body on a truck or trailer floor frame. The individual parts must be welded together during installation.

The pillar profiles are generously reinforced in the lower area and can be shortened to the desired height.

A mounting kit for the aluminium cant rail is not available. Instead, for the cant rails 80797 or 10050, the mounting kit **660029750** can be used.

All parts from QStE 380 TM steel, black KTL coated.

Consisting of:

① Corner pillar, left
Length 3300 mm, weight 49 kg.
670201101

② Corner pillar, right
Length 3300 mm, weight 49 kg.
670201102

③ Crossbar
Width 2550 mm, weight 24 kg.
670201103

④ Headboard support
Length 3000 mm, weight 15 kg.
370561360

Wrap-round headboard
2017

Consisting of:

① Corner pillar, left
Length 3300 mm, weight 65 kg.

672017001

② Corner pillar, right
Length 3300 mm, weight 65 kg.

672017002

③ Crossbar
Width 2550 mm, weight 26 kg.

672017003

④ Headboard support
Length 3000 mm, weight 15 kg.

370561360

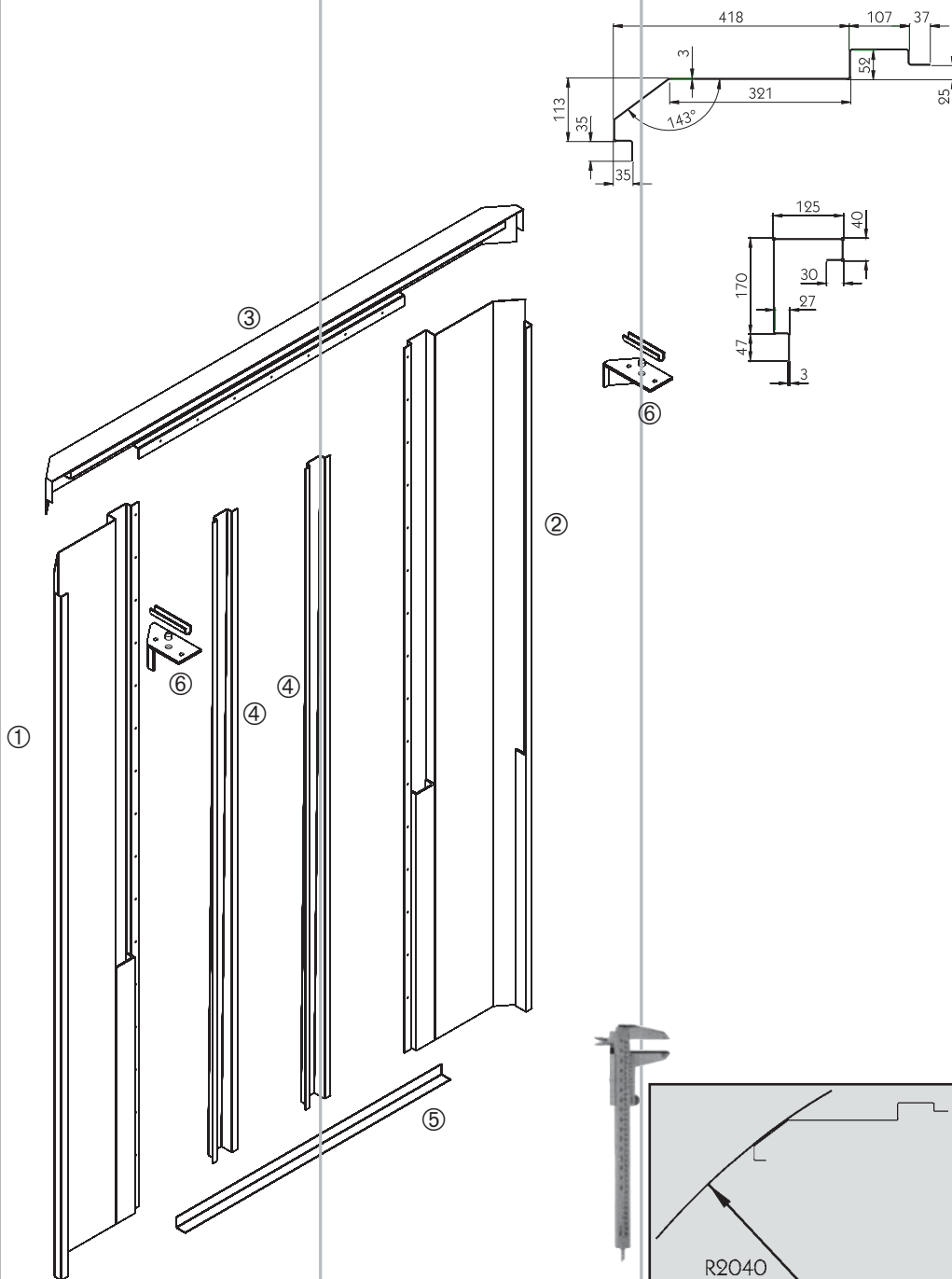
⑤ Lateral tie bar below
Weight 4.6 kg.

672017004

⑥ Mounting kit
For curtainsider profile 80797
and 10050, weight 8.1 kg.

672017005

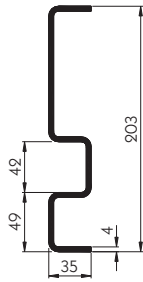
No longer
available



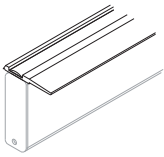
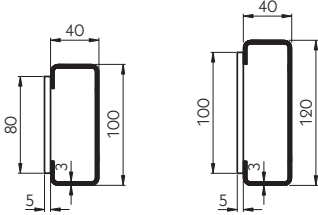
R2040

Front overhang:
With a front overhang of 2040 mm and an outer width of 2550 mm the result is an inner front overhang clearance of approx. 1665 mm.

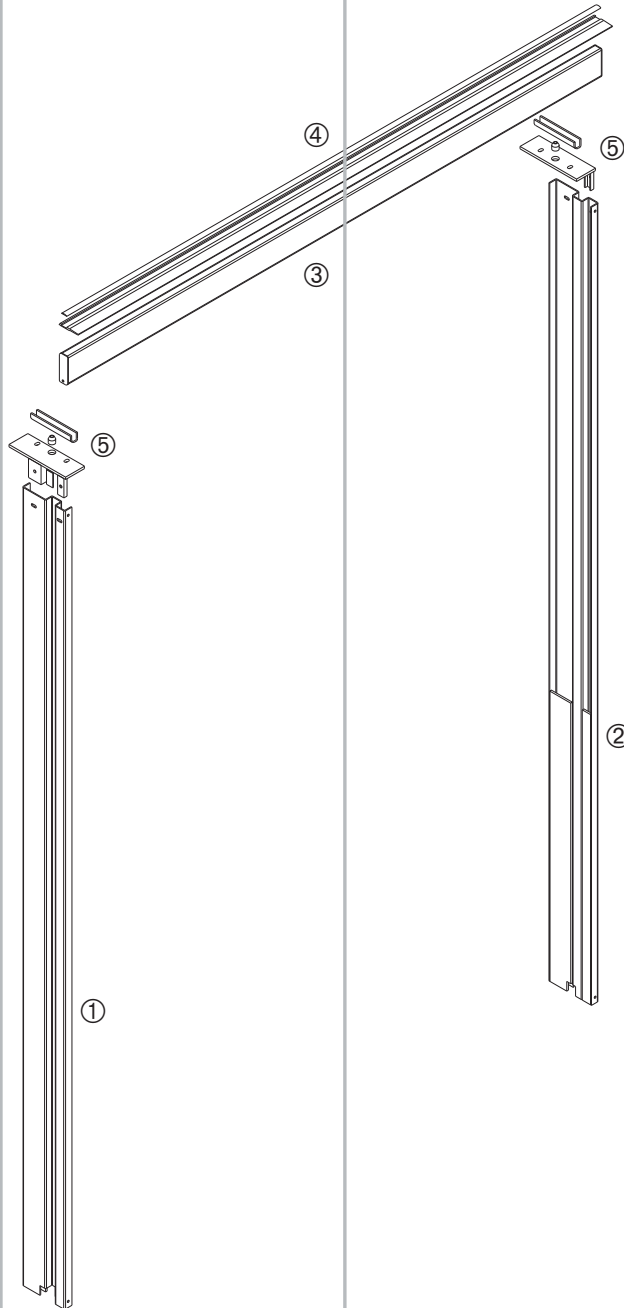
Rear portal frame 2102



Illustrations:
Above: cross section of left hand corner pillar.
Below: cross section of crossbars.



The above illustration shows a detail of the rubber cover strip with aluminium trim riveted to the crossbar (parts supplied loose).



Rear pillar kit for mounting a curtainsider body on a truck or trailer floor frame.

The pillar profiles are generously reinforced in the lower area and can be shortened to the desired height.

The fitting kit for the aluminium cant rail 80797 or 10050 also contains the screws for fitting the mounting kit to the corner pillars. All parts from QStE 380 TM steel, black KTL coated.

Consisting of:

① Corner pillar, left

Length 3300 mm, weight 42 kg.

672102016

② Corner pillar, right

Length 3300 mm, weight 42 kg.

672102017

③ Crossbar 100 mm

For rigid roofs, width 2550 mm, weight 14 kg.

672900021

Crossbar 120 mm

For sliding roofs, width 2550 mm, weight 16 kg.

672900020

④ Rubber cover strip

With aluminium trim, length 2800 mm, weight 2.26 kg.

672000065

⑤ Mounting kit

For curtainsider profile 80797 or 10050, with screw kit, weight 6.2 kg.

672015170

Rear portal frame

Rear pillar kit for mounting a curtainsider body on a truck or trailer floor frame. The individual parts must be welded together during installation.

The pillar profiles are generously reinforced in the lower area and can be shortened to the desired height.

A mounting kit for the aluminium cant rail is not available. Instead, for the cant rail 80797 or 10050, the mounting kit 660029750 can be used.

All parts from QStE 380 TM steel, black KTL coated.

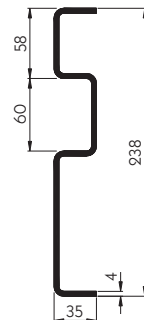
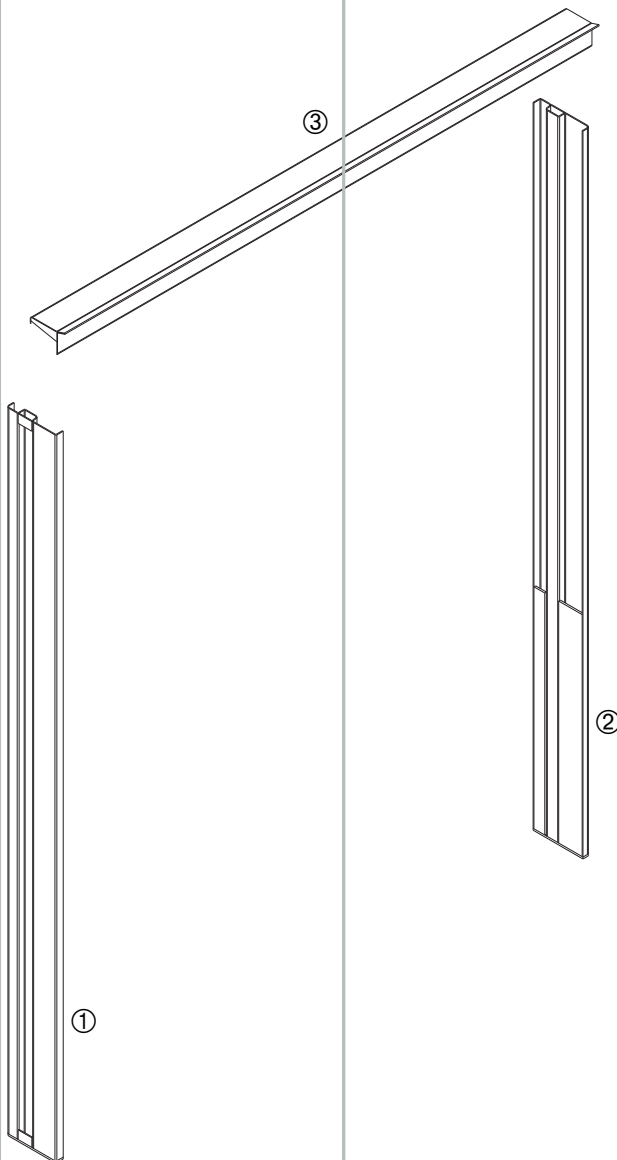
Consisting of:

① Corner pillar, left
Length 3300 mm, weight 48 kg.
670212101

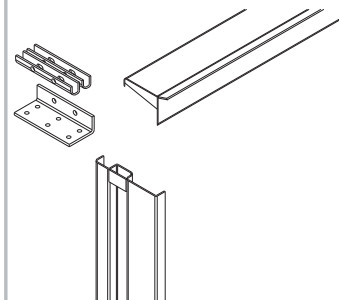
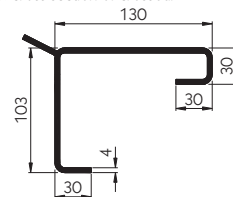
No longer available

② Corner pillar, right
Length 3300 mm, weight 48 kg.
670212102

③ Crossbar
Width 2550 mm, weight 22 kg.
670212103

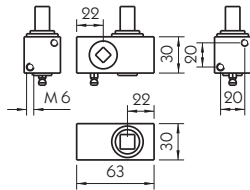


Illustrations:
Above: cross section of corner pillar.
Below: cross section of crossbar.



The mounts for the aluminium cant rails are welded to the pillars.

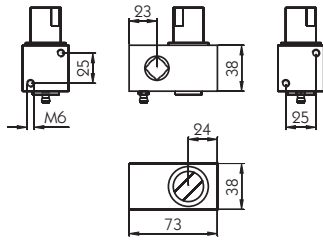
Curtain tensioners



Piccolo tensioner

□ 12 mm, for hand crank □ 10 mm, suitable for both right and left handed installation, zinc plated, weight 0.40 kg.

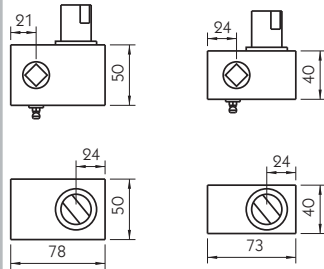
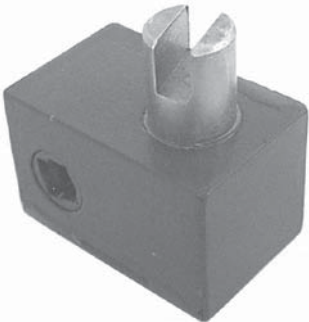
670900005



Tensioner type 40

For hand crank □ 14 mm, suitable for both right and left handed installation, zinc plated, weight 0.81 kg.

670900006



Tensioner for hand crank

For hand crank □ 14 mm, suitable for both right and left hand installation, primer finish.

Width 50 mm

Weight [kg]

1.08

670904893

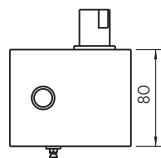
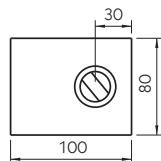
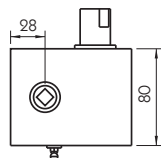
Width 40 mm

0.65

670904993



Illustration: left hand



Tensioner for hand crank

For hand crank □ 10 mm, primer finish, weight 2.25 kg.

Left hand

670904693

Right hand

670904793

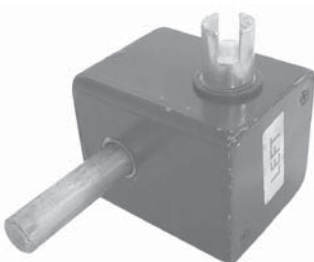
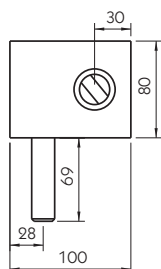


Illustration: left hand



Tensioner for handwheel

Primer finish, weight 2.44 kg.

Left hand

670904093

Right hand

670904193

Handwheel
Outside Ø 124 mm, aluminium self-colour, weight 0.21 kg.
670909993



Tensioner with ratchet
Primer finish, weight 1.78 kg.

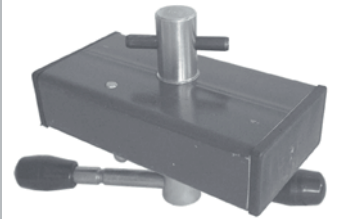
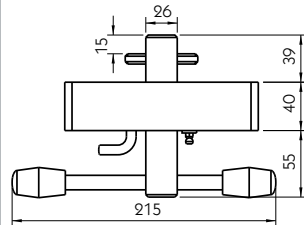
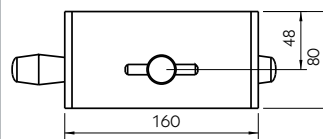


Illustration: left hand

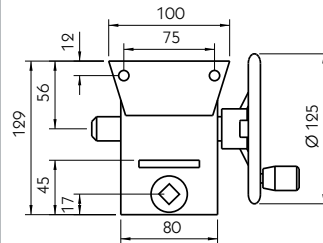
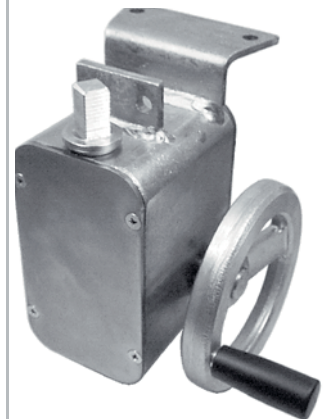
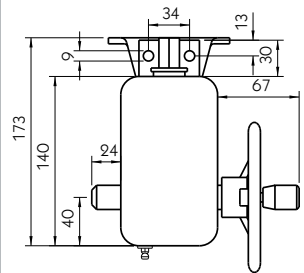
Left hand
Right hand

670904293
670904393



The designation "left hand" or "right hand" serves only as identification. The tensioners can also, depending on application or space, be mounted "wrong way round".

Tensioner with handwheel
Ø 12 mm, suitable for both left or right hand operation by changing the handwheel over, zinc plated, weight 4.68 kg.
670005193



Hand wheel
Spare part for tensioners with hand wheel.
670005194



PWP tensioning ratchet Tender
Ø 12 mm, zinc plated, weight 1.11 kg.

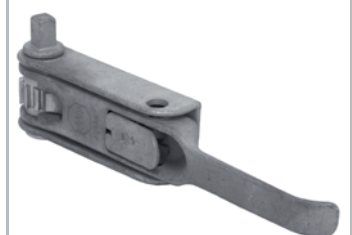
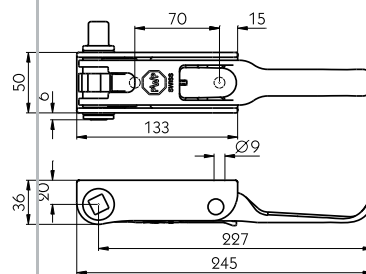


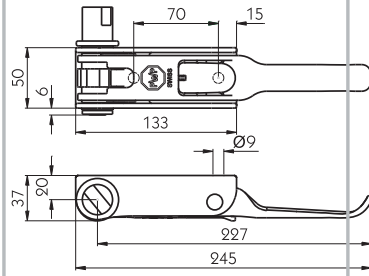
Illustration: right hand

Left hand
Right hand

670905101
670905102



Illustration: right hand



PWP tensioning ratchet

Tender

Slot drive, zinc plated, weight 1.14 kg.

Left hand

670905111

Right hand

670905112

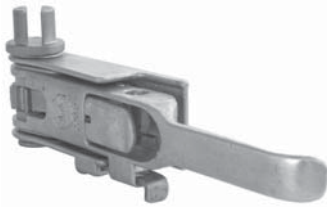
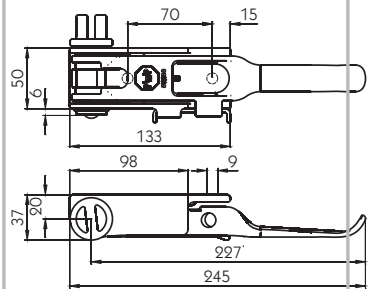


Illustration: right hand



PWP tensioning ratchet

Tender

For bodies with tailboards, slider for custom safety, slot drive, zinc plated, weight 1.13 kg.

Left hand

670905113

Right hand

670905114

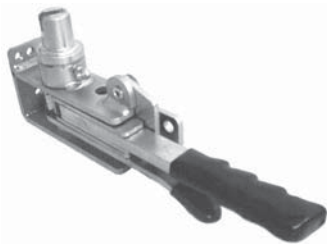
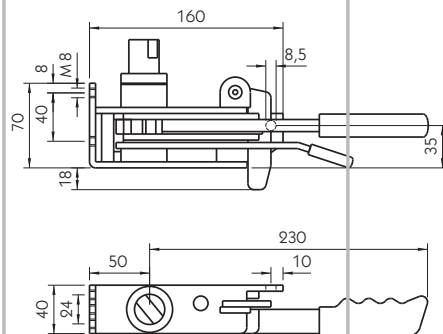


Illustration: left hand



Ratchet tensioner 40 mm

Zinc plated, weight 1.95 kg.

Left hand

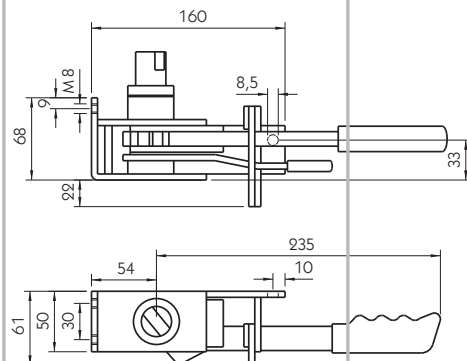
670905493

Right hand

670905593



Illustration: left hand



Ratchet tensioner 50 mm,
straight hand lever

Zinc plated, weight 2.21 kg.

Left hand

670499054

Right hand

670499055

Accessories for curtain tensioners

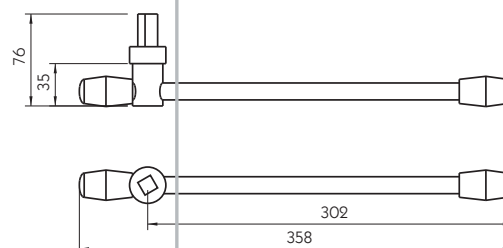
Hand crank
Ø 14 mm, zinc plated, weight
0.22 kg.
670909693



Hand crank
One side Ø 10 mm, other side
Ø 14 mm, zinc plated, weight
0.70 kg.
670000521

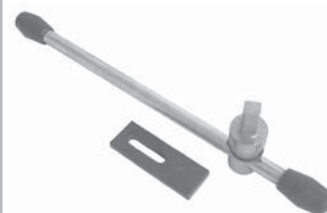


Accessories
Quick curtain tensioning
system

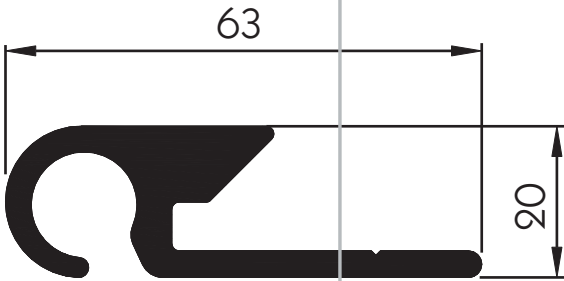
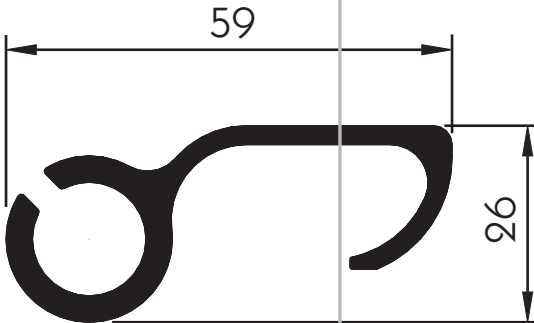


Quick curtain tensioning
system
Zinc plated, weight 0.73 kg.
670212122

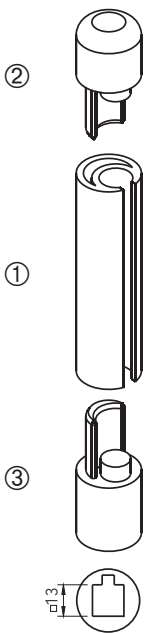
No longer
available



Curtain tensioning accessories
Hooked curtain tensioning poles



Curtain tensioning poles



Hooked curtain tensioning pole

Aluminium, self-colour, length 3300 mm, weight 1.03 kg/m.

670901293

Hooked curtain tensioning pole

Aluminium, self-colour, weight 1.29 kg/m.

Length 3000 mm

670901294

Length 3300 mm

670901295

The sections through the curtain tensioning poles are illustrated in a 1:1 scale.

Curtain tensioning pole
Ø 27 mm

① Aluminium tensioning pole

Length 3300 mm, weight 0.76 kg/m.

670900301

② Top insert

Brass, weight 0.15 kg.

670900311

③ Bottom insert

Brass, weight 0.14 kg.

670900321



The aluminium curtain tensioning pole \varnothing 34 with its inserts can be utilised, depending on bottom inserts, on the following tensioners/ratchets: With inserts 670999206 ③ :

Tensioners for hand crank
670900006, 670904893,
670904993, 670904693 and
670 904793

Tensioners for handwheel
670904093 and 670904193

PWP Tender ratchet tensioners
670905111, 670905112,
670905111 and 670905112

Ratchet tensioners 40 mm
670905493 and 670905593
Ratchet tensioners 50 mm
670499054 and 670499055

The adapter 670000411 enables all of the above itemised tensioners/ratchets with the inserts 670900321 or 670310832 (see page before) to accept the \varnothing 27 mm tensioning pole. The adapter is welded to the tensioner/ratchet.

Curtain tensioning pole \varnothing 34 mm

① Aluminium tensioning pole

Weight 1.27 kg/m.

Length 3000 mm
670999925

Length 3300 mm
670999205

② Top insert

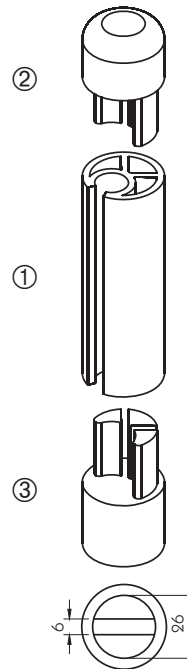
Brass, weight 0.24 kg.

670999207

③ Bottom insert

Brass, weight 0.20 kg.

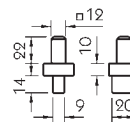
670999206



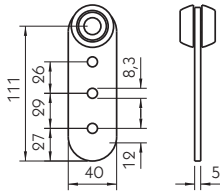
Adapter

Steel, zinc plated, weight 0.08 kg.

670000411

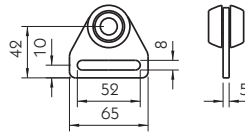


Curtain rollers



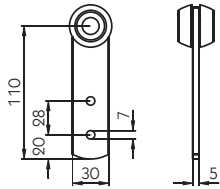
Curtain roller, straight
Curtain roll Standard, weight 0.24 kg.

660029200



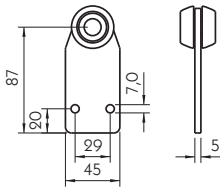
Curtain roller, short
Curtain roll Standard, weight 0.16 kg.

660323360



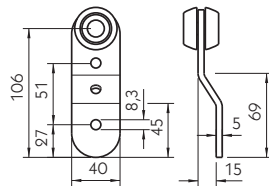
Curtain roller, straight
Curtain roll Standard, weight 0.19 kg.

650000017



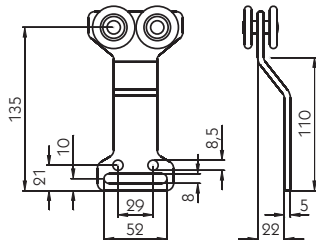
Curtain roller, straight
Curtain roll Standard, weight 0.22 kg.

660830060



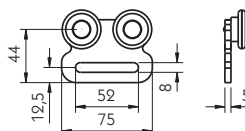
Curtain roller, offset
Curtain roll Standard, weight 0.25 kg.

660031360



Curtain roller, offset
Curtain roll Volumen "165", weight 0.36 kg.

660510200



Curtain roller
Curtain roll Volumen, weight 0.18 kg.

660518600

Please order the pillar sockets separately. The bodies of the pillars ② and ③ are drilled along the sides with \varnothing 6.6 mm holes at 29.6 mm intervals. All curtainsider pillars are KTL coated.

① C10/1

Weight 22.1 kg.

670830201

Pillar socket for C10/1

Not illustrated, weight 0.45 kg.

670830202

② CS centre pillar

Weight 28 kg.

670908391

③ CS centre pillar for Suer Combi ram guards

Weight 32 kg.

670907991

Pillar socket for ②

Not illustrated, weight 1.01 kg.

670900391

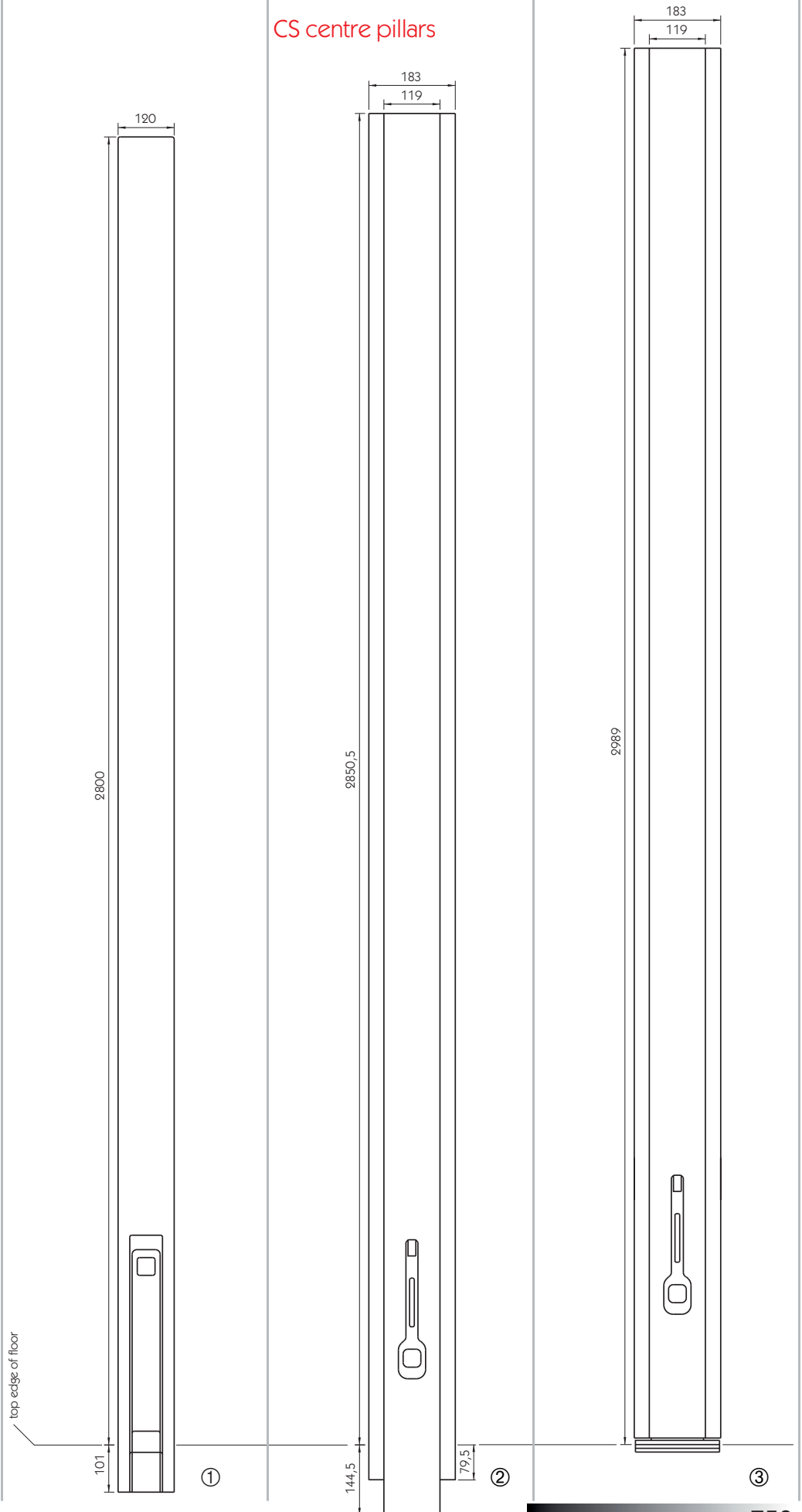
Spring

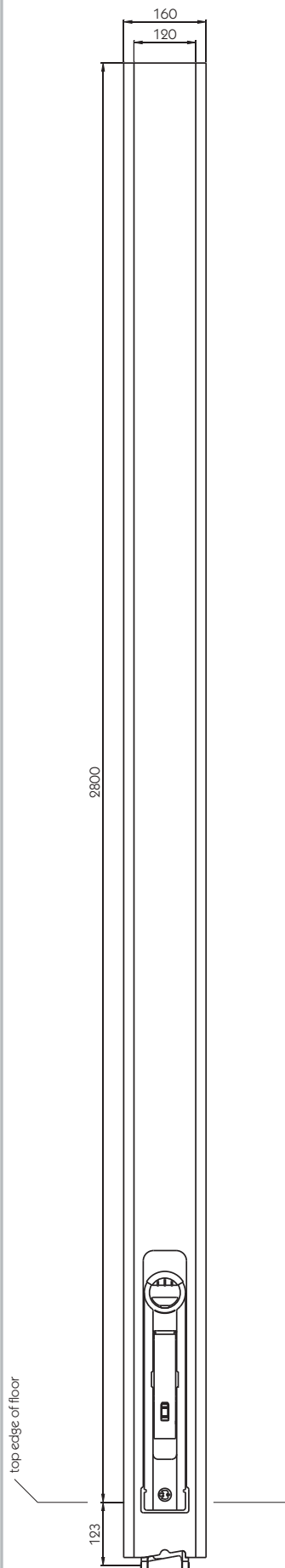
Spare part for hand lever mechanism of CS pillars ② and ③. 2 springs are fitted.

670908392



CS centre pillars





A pillar socket is supplied with the pillar.

700.2

Effective height approx. 2800 mm, KTL coated, weight 22 kg.

No longer available

670700200

Pivot bearing 6001 VT/20

Pillar socket, weld-on, not illustrated, self-colour, weight 0.63 kg.

101121406

With the appropriate trolley 911.1, article no.: **670911100**, a vehicle side-loading height of up to 3000 mm can be covered. Please order the pillar sockets separately. All curtainsider pillars are KTL coated.

① Variomaster 901 Code XL

Weight 21.0 kg.

670901000

② Variomaster 901 Code XL with deep side plank pocket

Weight 21.6 kg.

670901001

③ Pillar bearing 910.1

Not illustrated, weight 0.60 kg.

670910100

Screw kit 910.07

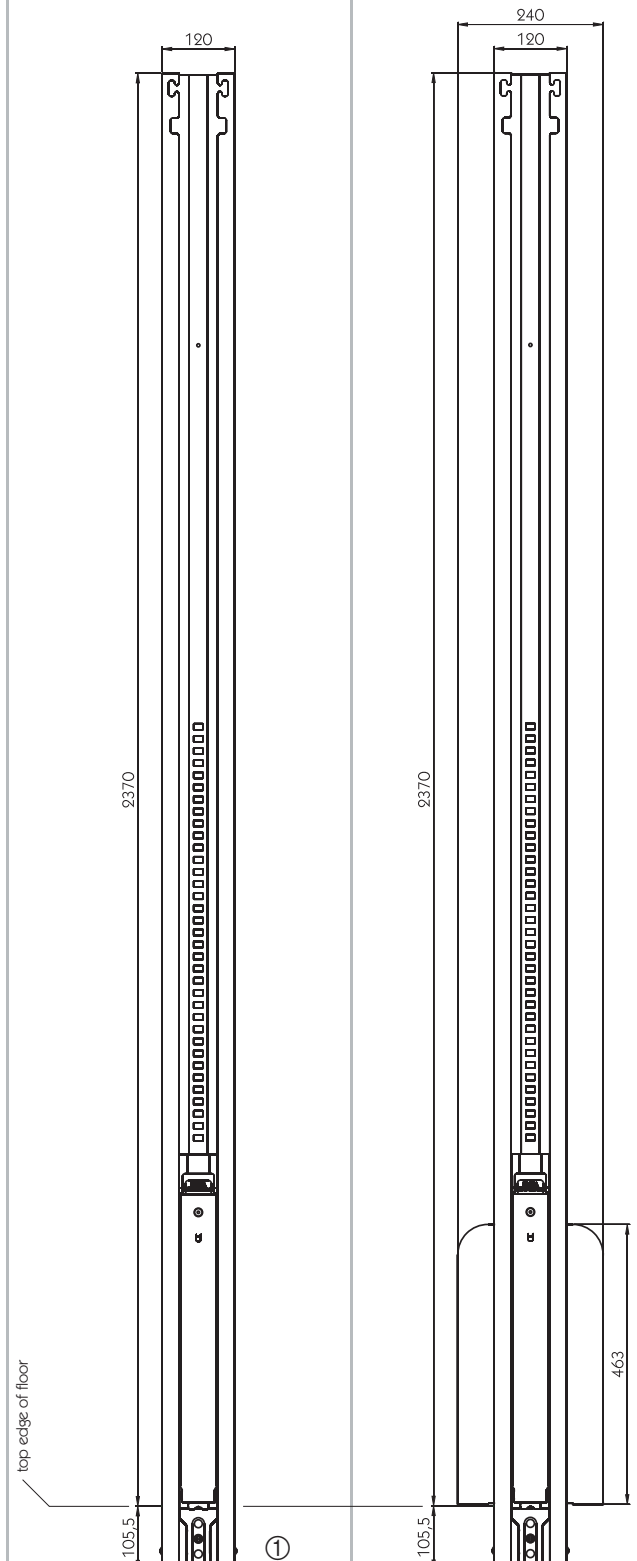
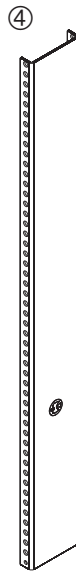
Included are: 2 x cheese head screws with hexagon socket DIN-EN-ISO 4762 M12 x 60 - 12.9, Washers DIN-EN-ISO 7089 - 12, hexagon nut with clamp part DIN-EN-ISO 7042 - M 12 - 10, not illustrated, weight 0.17 kg.

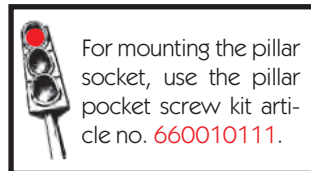
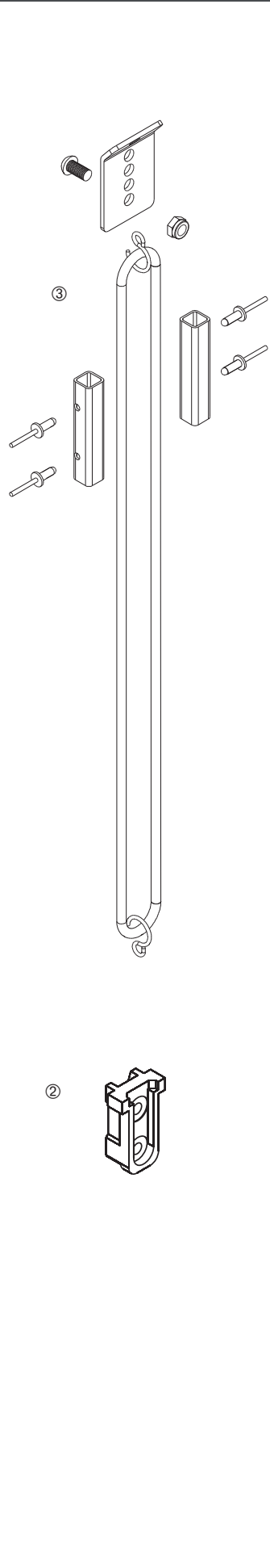
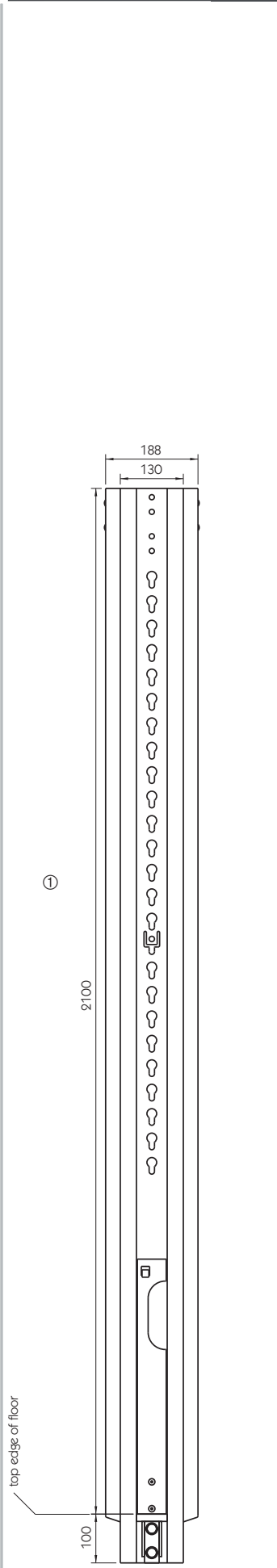
670910077

④ Reinforcement profile

The reinforcement profile is necessary where the pillar is equipped with the trolley **670911100**, weight 3.41 kg.

670901300





For mounting the pillar socket, use the pillar pocket screw kit article no. **660010111**.



DEKRA test

The CS centre pillar Safe TRS is tested in conjunction with the pillar trolleys 1200/1700 in accordance with VDI 2700 for a failure load of 1250 daN (VDI: Association of German Engineers).

The test certificate, however, only covers a side loading height of 2350 mm to 2800 mm (only in conjunction with trolley nominal height of 1200 mm) or to 3050 mm (only in conjunction with trolley nominal height of 1700 mm).

Other installed (higher) lengths do not comply with VDI 2700.

No longer available

By using the appropriate pillar trolleys 1200/1700 (page 761), vehicle side loading heights are covered ranging from 2350 mm to 3100 mm (trolley with 1200 mm nominal height), or 3110 mm (trolley with 1700 mm nominal height) in 10 mm steps. Please note here the information concerning the "DEKRA test". The curtain-sider pillar is KTL coated.

① Safe TRS

Without pillar socket, weight 17.66 kg.

660038040

② Pillar socket

Zinc plated steel, weight 0.61 kg.

660038430

Screw kit for pillar socket

Not illustrated, zinc plated steel, weight 0.16 kg.

660010111

③ Lifting gear kit

For the CS centre pillar Safe TRS in conjunction with the CS pillar trolleys 1200/1700 (page 761). Comprising:

- 1 bungee cord with hooks and crimping sleeves, 2 x 100 mm
- RHS tubes 20 x 20 x 2 mm, 1
- anchor plate, 1 button head socket screw DIN ISO 7380 - M 10 x 30, 1 hex. nut DIN 985 - M 10, 4 blind rivets 6.5 x 17. Weight 0.69 kg.

660038290

Side plank pocket kit

Comprising:

- 3 sets of 135 mm high side plank pocket ②, 1 set of 500 mm deep side plank pockets ① and fastening materials (the item numbers relate to the illustrations on the next page). All parts zinc plated steel, weight 2.35 kg.

660038320

Spare parts/accessories

① Handle
For CS centre pillar 700.7.
670700706

No longer available

② Cover plate
For older CS centre pillars 700.7 with plastic covers.
670700703

No longer available

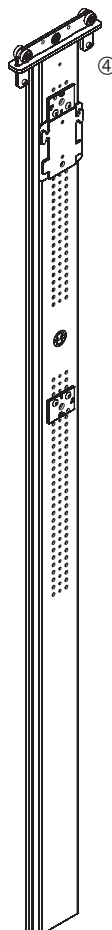
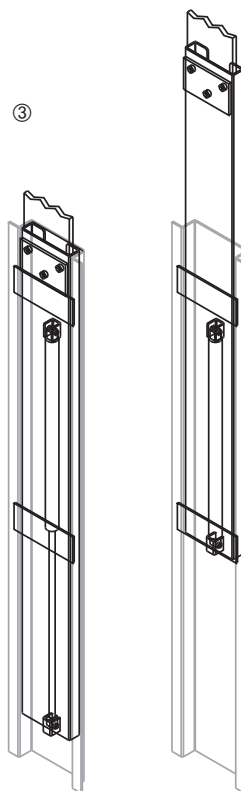
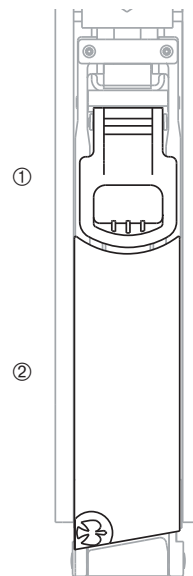
The pillar telescopes can be utilised in centre pillars for vehicles with tilt roofs. These are fitted between the pillar bodies and the trolleys. A built in gas strut prevents the pillar from falling onto the operator when hanging up the centre pillar. The pillar telescopes 750 and 850 were originally conceived for the curtainsider pillars 700.1 and 700.2 in respect of their installed dimensions and the damping properties of the gas struts.

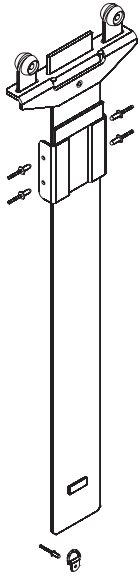
③ Pillar telescopes

	Weight [kg]	
750, lift approx. 400 mm	6.3	670901010
850, lift approx. 580 mm	7.5	670901020
Gas strut, spare part for pillar telescope 750		670010115

No longer available

④ Pillar telescope 912.3
For Variomaster 901 Code XL, pillar roll Volumen, including accessories.
670912300





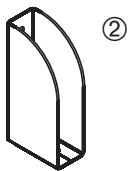
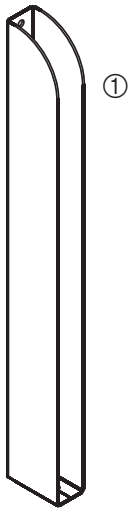
No longer available

Telescope pillar trolley 700.77

Pillar roll Standard, weight 7.31 kg.

670901220

The telescopic trolley 700.77 is suitable for positioning and fastening CS pillars from the series 700.5 - 700.7. It enables length compensation of up to 595 mm. When using with CS pillars from the series 700.7, attention must be paid during design to leaving a distance of 35 mm between the outer edge of the roof profile and the floor frame profile.

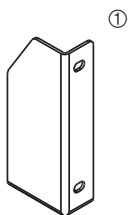
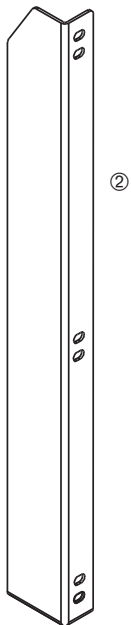


Side plank pockets

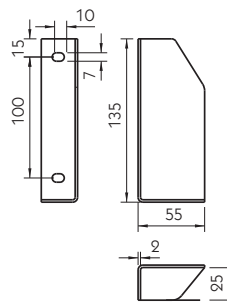
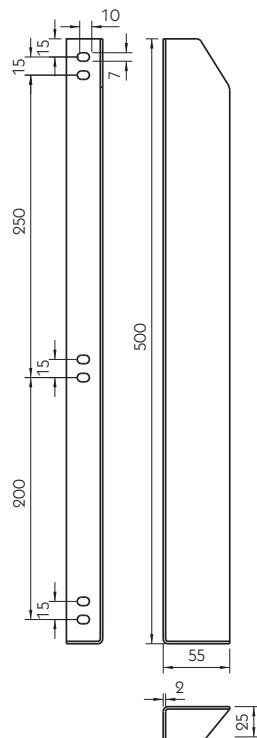
For Variomaster 901 Code XL, black, KTL coated.

Weight [kg]

① Deep pocket 901	1.03	670901100
② Short pocket 901	0.27	670901200



Illustrations: left hand



Side plank pockets

For pillars with stop (inside open), zinc plated steel.

Weight [kg]

① Short pocket, left hand	0.16	660038440
① Short pocket, right hand	0.16	660038450
② Deep pocket, left hand	0.62	660038460
② Deep pocket, right hand	0.62	660038470



For reasons of stability of bodies over 9 m in length, we do not recommend the use of swivel trolleys (670980293 and 660025390).

The CS pillar trolleys 660031490 and 660025390 can be used for curtainsider bodies with German Rail approval (DB).

CS pillar trolley

Pillar roll Standard, zinc plated, weight 2.80 kg.

660025390

CS pillar trolley

Pillar roll Standard, KTL coated, weight 4.35 kg.

670980293

CS pillar trolley

Pillar roll Standard, KTL coated, weight 2.10 kg.

660031950

CS pillar trolley

Pillar roll Standard, Aluminium self colour, weight 1.15 kg.

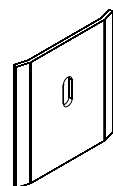
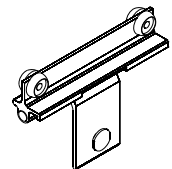
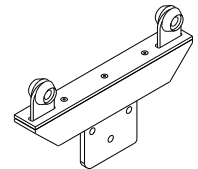
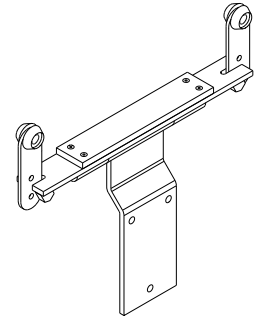
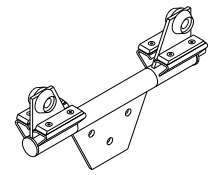
650000019

Steel plate

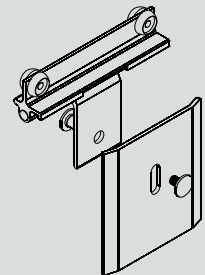
Steel zinc plated, weight 1.73 kg.

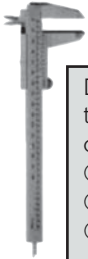
650000020

Pillar trolleys



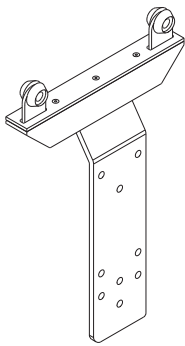
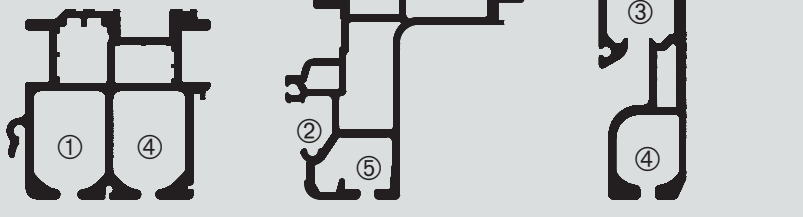
The (aluminium) pillar trolley is screwed to the steel plate 650000020 which is welded to the centre pillar. With this screwed connection the sliding pillar slips down several centimetres as soon as it is loosened from its socket and can then be swung to the side to a limited extent. This free play between the sliding pillar and the cant rail allows the pillar so be moved comfortably by hand without tilting. The necessary screw fixings are supplied with the trolley.



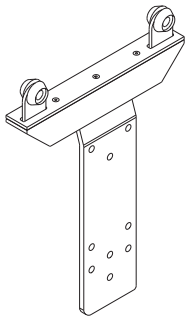


Due to the numerous differently shaped cavities in the cant rails we have given the corresponding rollers (for curtain rollers and pillar trolleys) the following designations:

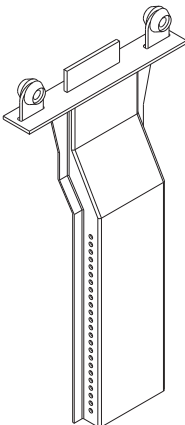
- ① For pillar roller Standard ② For pillar roller Volumen
- ③ For pillar roller Volumen "165"
- ④ For pillar roller Standard ⑤ For pillar roller Volumen



CS pillar trolley
 Offset 34 mm, pillar roll Standard,
 KTL coated, weight 3.89 kg.
660032400



CS pillar trolley
 Offset 15 mm, pillar roll Standard,
 KTL coated, weight 3.64 kg.
660031490



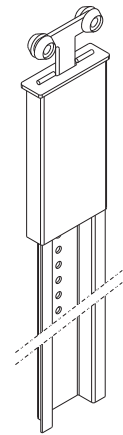
700.73
 Offset from outer edge to centre
 of pillar roll 72.5 mm. Pillar roll
 Standard, KTL coated, weight
 3.87 kg.
670700730

No longer
 available

CS pillar trolleys, straight
Without pillar trolley, KTL coated.

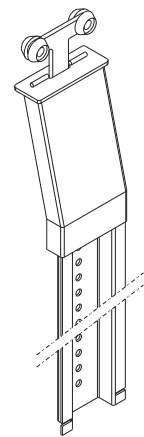
	Nominal height [mm]	Weight [kg]	
1200 straight	1200	5.92	660038330
1700 straight	1700	7.83	660038350

No longer available



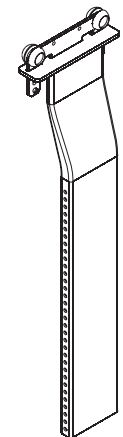
CS pillar trolleys, offset
Without pillar trolley, offset approx. 48 mm, KTL coated.

	Nominal height [mm]	Weight [kg]	
1200 offset	1200	5.92	660038360
1700 offset	1700	7.83	660038340



Fitting accessories
Required for CS pillar trolleys.

	Weight [kg]	
Pillar trolley with pillar roll Standard	0.28	660038280
Pillar trolley with pillar roll Volumen	0.28	660048420
Pillar fitting kit	0.25	660038390



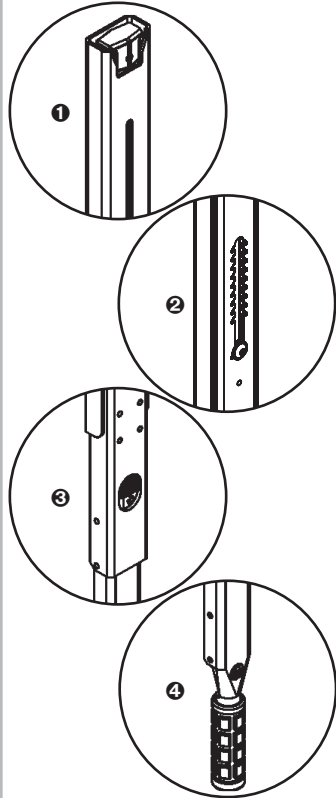
911.1
Offset, pillar roll Standard, KTL coated, weight 4.60 kg.
670911100

Spare parts

Pillar roll
Pillar roll Standard, for pillar trolleys 660031950, 660032400 and 660031490.
660030450



Tilt roof drives Mechanical tilt roof drives



Liftmaster 770
KTL coated, weight 17.5 kg.
670770200

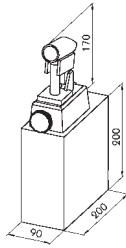
The Liftmaster 770 is a mechanical lifting system with which, by means of a toggle lever mechanism the roof can be raised steplessly by up to 400 mm.

Lifting takes place by means of a swing-out hand lever ④ whereby the Liftmaster extends by 50 mm per single stroke. Additional stroke latching ② permits vehicle travel with the roof raised up to 120 mm. Lowering the roof is by means of a lowering button ③ by which the lowering speed is metered out via the actuating force.

During vehicle travel the completely lowered roof lies mates positively onto the Liftmaster 770 guide channel ① thereby relieving the toggle lever mechanism. The hand lever is secured against inadvertently swinging out by a spring element. The standard length is 2750 mm, which, if required, can be modified in increments of 50 mm to a minimum length of 2450 mm. Each Liftmaster (width 60 mm, depth 30 mm) is riveted into the corner pillar of the vehicle body. It is designed for a stroke weight of 250 kg or, where a Liftmaster is deployed in each of the 4 corner pillars, for a roof weight of max. 1000 kg.

Please observe the assembly and fitting instructions without fail.

All drives are supplied without hydraulic lines or hydraulic oil.



Hand hydraulic tilt roof drive

Lift approx. 600 mm with compact hand pump in. Tilting sequentially.

No longer available

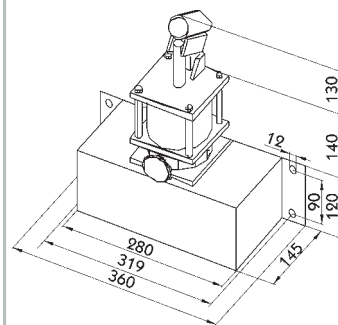
670905591

Hydro-pneumatic tilt roof drive

Single sided tilting, lift approx. 600 mm, drive can be pumped by hand in emergency.

No longer available

670905291

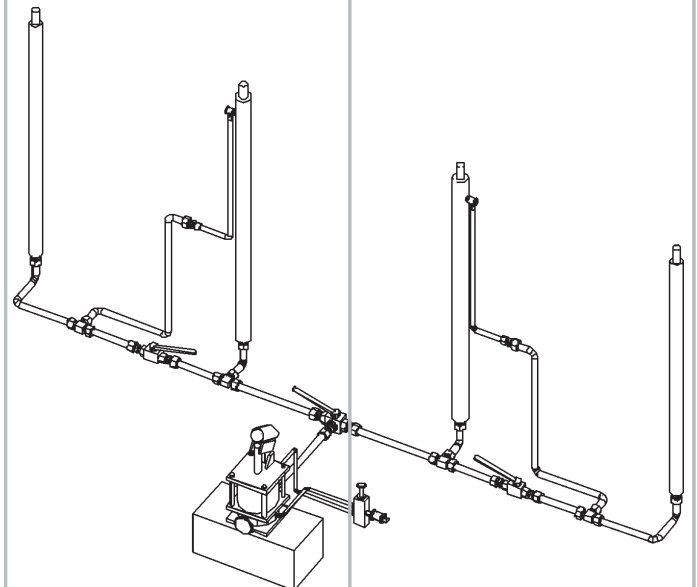
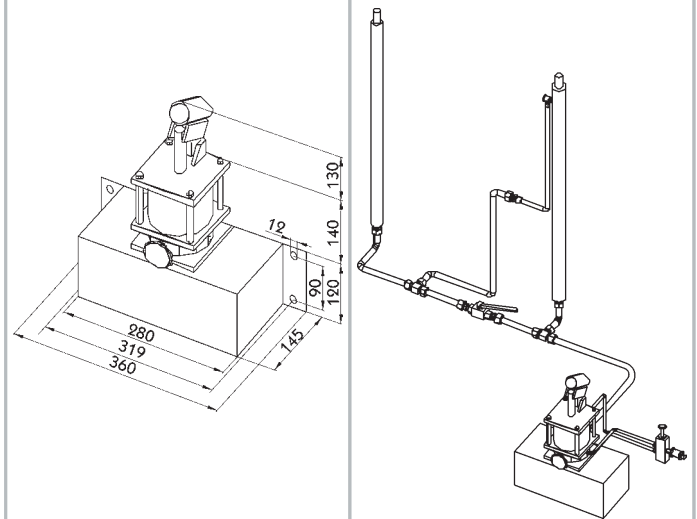
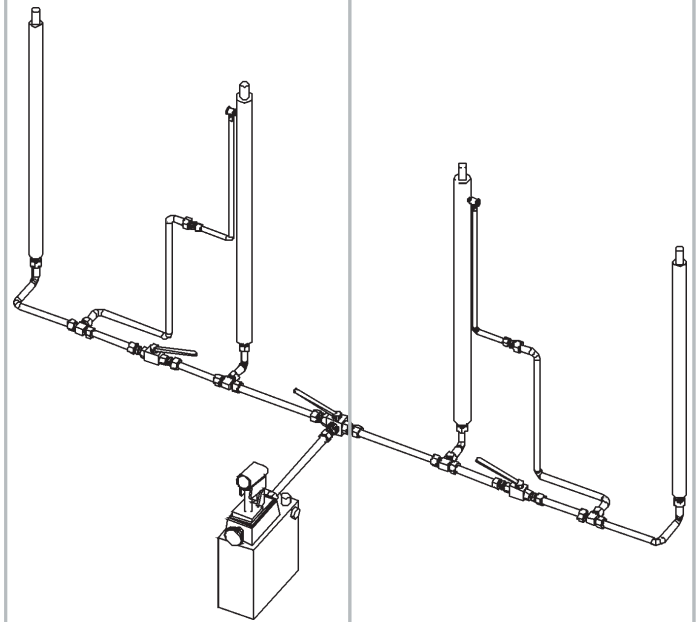


Hydro-pneumatic tilt roof drive

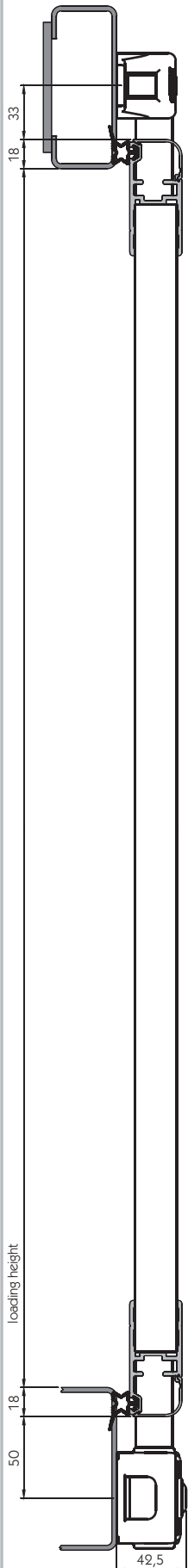
Dual sided tilting, tilting sequentially, lift approx. 600 mm, drive can be pumped by hand in emergency.

670905191

Hydraulic tilt roof drives



PWP doors Portal doors



PWP Challenge

- Tailor made.
- Door filling 25 mm.
- Aluminium double jointed hinge, 270° rotation.
- Door guide for controlled opening and closing.
- No projecting locks, combination of glue and rivet construction with a smooth outer coating (sandwich door filling) results in an ideal advertising surface which can be exploited to the full.
- All-round rubber sealing, even in the hinge and locking areas.
- No millings in the hinge area.
- All hinge leafs mounted on a common axis.
- When open, hinges are outside the areas of loading ramps and fork lifts.
- No projecting hinges or door fittings.
- Boxer locking handle is customs secure.
- Boxer locking handle and keeper are high temperature zinc galvanised.

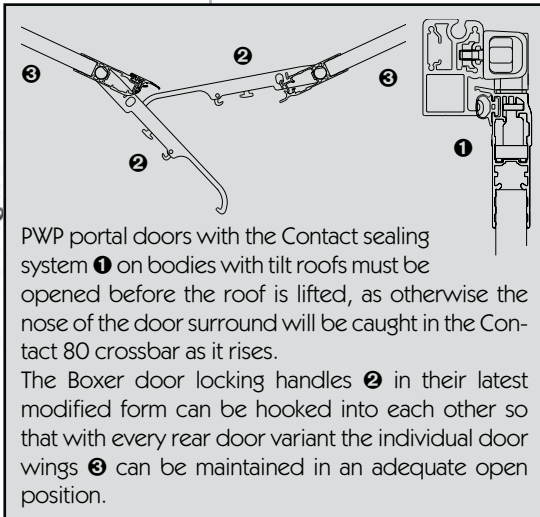
Variants:

- Door filling in aluminium snap lock 25 mm or with sandwich board (steel plate 0.6 mm zinc plated, outside powder coated with polystyrene filling).
- 1 or 2 locks per doorwing.
- Doors, self-colour or anodised.
- Hinge body in steel for bolting.
- Rubber seal pre-assembled in door wing.

- Tailor made.
- Aluminium double jointed hinge, 270° rotation.
- Door guide for controlled opening and closing.
- No projecting locks, combination of glue and rivet construction with a smooth outer coating (sandwich door filling) results in an ideal advertising surface which can be exploited to the full.
- All-round rubber sealing, even in the hinge and locking areas.
- All hinge leafs mounted on a common axis.
- When open, hinges are outside the areas of loading ramps and fork lifts.
- No projecting hinges or door fittings.
- Boxer locking handle is customs secure.
- Boxer locking handle and keeper are high temperature zinc galvanised.

Variants:

- Door filling 20, 25 or 30 mm.
- Contact door interface profile.
- 2, 3 or 4-winged for mounting at the rear or, reinforced at the front portal.
- Door filling from aluminium snap lock profiles (25 and 30 mm) or with sandwich board.
- 1 or 2 locks per doorwing (with 20 mm door filling, only 1 lock possible), with 3 and 4-winged doors, one lock per door wing.
- Doors, self-colour, anodised or powder coated RAL 9010.
- Various types of locks, below the door or integrated into the doorwing.
- Weld-on hinge body in steel or inox, or in aluminium for bolting or riveting.
- Rubber seal pre-assembled in door wing.
- Door wing additionally welded (only with aluminium snap lock door filling).



PWP portal doors with the Contact sealing system ① on bodies with tilt roofs must be opened before the roof is lifted, as otherwise the nose of the door surround will be caught in the Contact 80 crossbar as it rises.

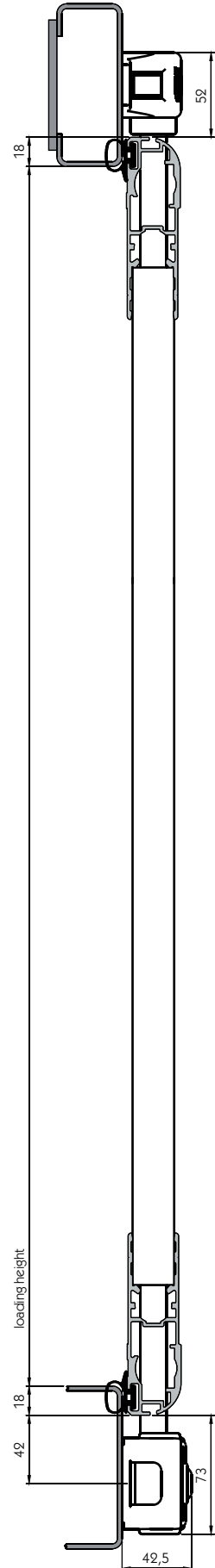
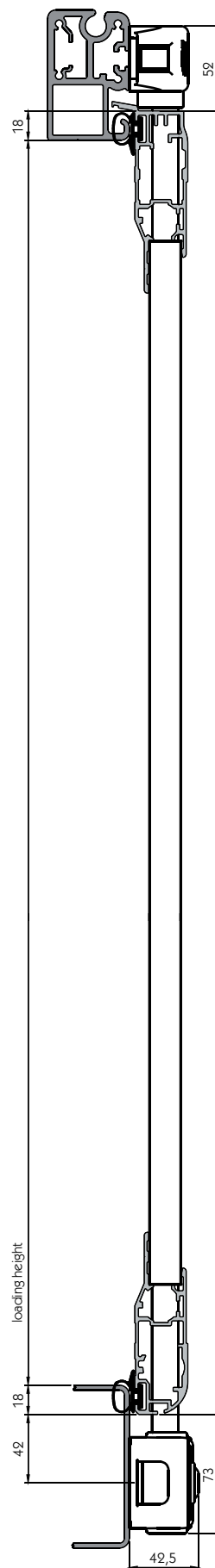
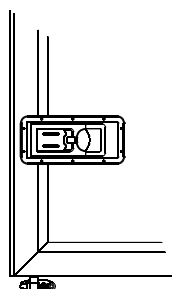
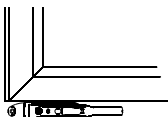
The Boxer door locking handles ② in their latest modified form can be hooked into each other so that with every rear door variant the individual door wings ③ can be maintained in an adequate open position.

Illustrations:

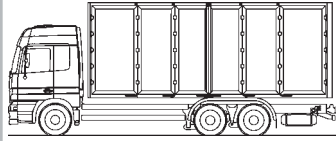
Outer: Mounting dimensions of the PWP rearportal door with Contact door interface (left) and standard door interface (right). Door on left with 20 mm door filling. Weld-on Boxer door lock recess plate.

Right: FU type lock, recessed into door wing. Weld-on Boxer door lock recess.

Left: Boxer locking handle.



Side doors



- Tailor made.
- Aluminium double-jointed hinges.
- Door guide for controlled opening and closing.
- No projecting locks, combination of glue and rivet construction with a smooth outer coating (sandwich door filling) results in an ideal advertising surface which can be exploited to the full.
- All-round rubber sealing, even in the hinge and locking areas.
- All hinge leaves mounted on a common axis.
- When open, hinges are outside the areas of loading ramps and fork lifts.
- No projecting hinges or door fittings.
- Boxer locking handle is customs secure.
- Boxer locking handle and keeper are high temperature zinc galvanised.

Variants:

- Door filling 20, 25 or 30 mm.
- Contact door interface profile.
- Number of door wings as required depending on length and division of body.
- Door filling from aluminium snap lock profiles (25 and 30 mm) or with sandwich board.
- 1 or 2 locks per door wing depending on width of wing.
- Doors, self-colour, anodised or powder coated RAL 9010.
- Various types of locks, below the door or integrated into the door wing.
- Weld-on hinge body in steel or inox, or in aluminium for bolting or riveting.
- Rubber seal pre-assembled in door wing.
- Door wing additionally welded (only with aluminium snap-lock-profiles).
- 30 mm aluminium snap-lock profiles, welded, with bulk material deflector, for loose bulk materials.

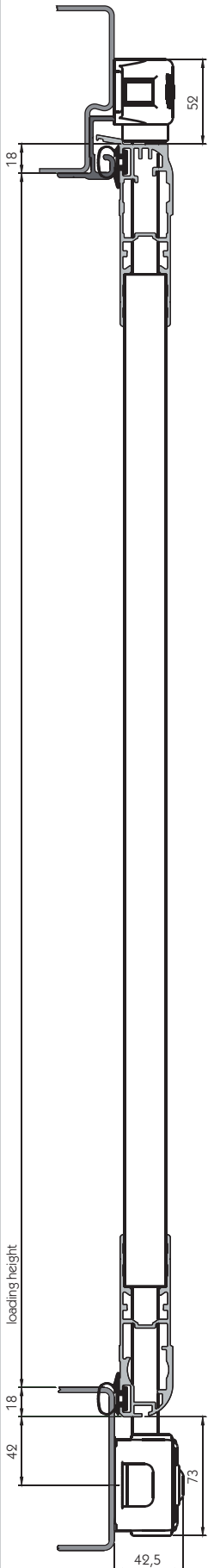
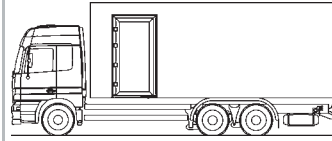


Illustration:
Installation dimensions of the PWP side door with
Contact door interface for steel crossbar. Weld-on
Boxer lock recess plate.

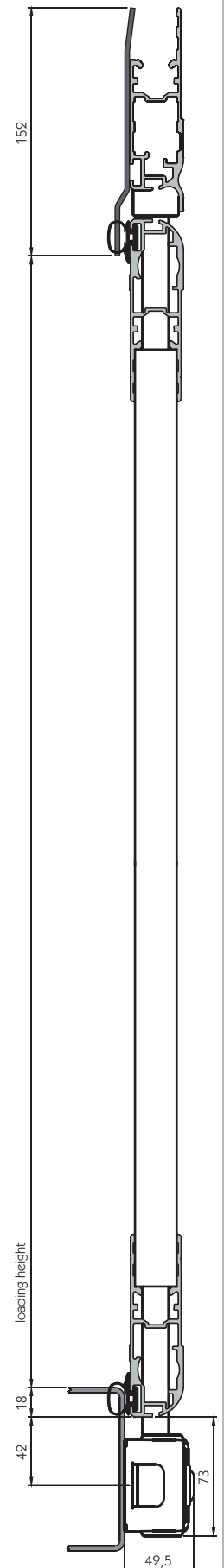
Side doors with frame



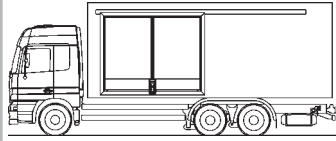
- Tailor made.
- Aluminium double-jointed hinges.
- Door guide for controlled opening and closing.
- No projecting locks, combination of glue and rivet construction with a smooth outer coating (sandwich door filling) results in an ideal advertising surface which can be exploited to the full.
- All-round rubber sealing, even in the hinge and locking areas.
- All hinge leaves mounted on a common axis.
- When open, hinges are outside the areas of loading ramps and fork lifts.
- No projecting hinges or door fittings.
- Supplied with frame to top and sides for clamping to sidewalls of box bodies.
- Boxer locking handle and keeper are high temperature zinc galvanised.

Variants:

- Door filling 20, 25 or 30 mm.
- Contact door interface profile.
- Single or 2-winged for installing in the side of box bodies.
- Door filling from aluminium snap lock profiles (25 and 30 mm) or with sandwich board.
- 1 lock per door wing.
- Doors, self-colour, anodised or powder coated RAL 9010.
- Various types of locks, below the door or integrated into the door wing.
- Weld-on hinge body in steel or inox, or in aluminium for bolting or riveting.
- Rubber seal pre-assembled in door wing.
- Door wings additionally welded (only with aluminium snap-lock profiles).



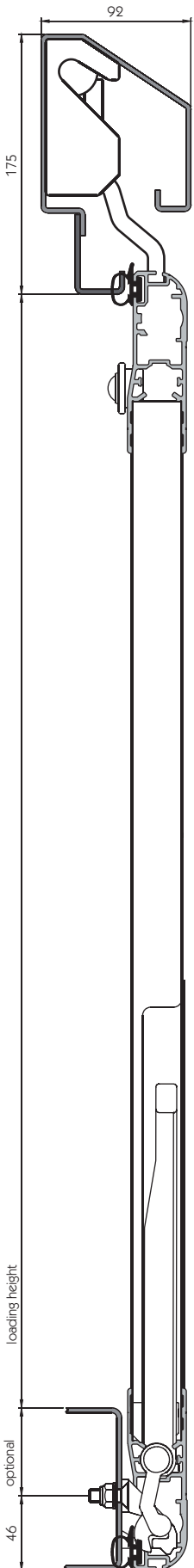
Sliding doors



- Tailor made.
- All-round aluminium surrounds from the well-known PWP range of portal and side doors.
- One-handed opening and closing.
- Zinc plated steel track rails.
- No projecting locks, combination of glue and rivet construction with a smooth outer coating (sandwich door filling) results in an ideal advertising surface which can be exploited to the full.
- Maximum door width 3500 mm.
- All-round rubber sealing, even in the hinge and locking areas.
- Door elements slide in an overhead track, a bottomtrack rail is unnecessary.

Variants:

- Door filling from 30 mm aluminium snap-lock profiles or sandwich board.
- 2 - 4 locking points per sliding door depending on door width.
- Multiple sliding doors can be integrated in one sidewall. These can be slid over each other.
- Door filling and surround profile additionally welded (only with aluminium snap-lock profile filling).
- Doors, self-colour, anodised or powder coated RAL 9010.
- Special design for swap trailer with exterior locking cams.
- Special design for bulk material bodies with walking floors.
- Special design for movable centre pillar (with more than 2 sliding doors on one side).



PWP double jointed and centre hinges

Double jointed hinges for 25 mm aluminium profile, sandwich board or similar. The hinges can be used on either side (i.e. l.h. = r.h.). Aluminium self-colour. The fixing kit, seal and door guides are not included. Please order these parts separately.

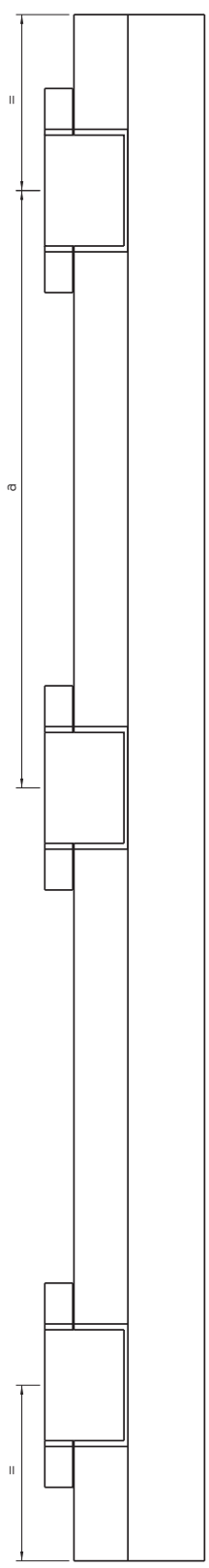
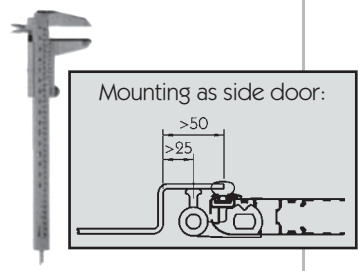
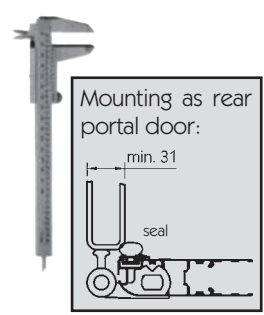
Double jointed hinges
For rear portal and side doors,
dim. a = 600 mm.


Door height [mm]	Hinge leafs	Weight [kg]	
1500 - 2099	3	7.50	643045120
2100 - 2699	4	10.00	643045126
2700 - 3135	5	12.20	643045132

Double jointed hinges with especially close hinge leafs spacing for heavy, multiple winged rear portal and side doors. For 25 mm aluminium profile, sandwich boards or similar. The hinges can be used on either side (i.e. l.h. = r.h.). Aluminium self-colour. The fixing kit, seal and door guides are not included. Please order these parts separately.

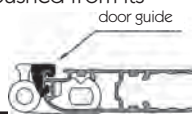
Double jointed hinges
For multiple winged rear portal and side doors, dim. a = 500 mm.

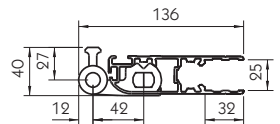
Door height [mm]	Hinge leafs	Weight [kg]	
1800 - 2299	4	7.80	643045322
2300 - 2799	5	9.57	643045327
2800 - 3135	6	11.20	643045332

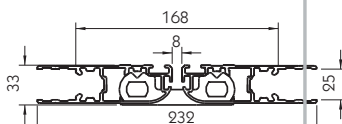
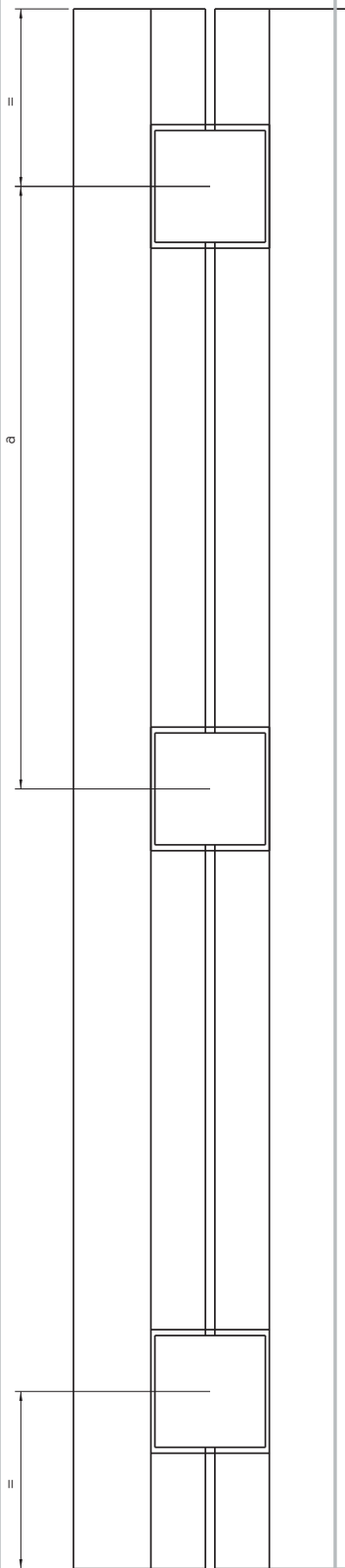




When opening and closing a door with double jointed hinges, the shifting door centre of gravity varies the friction forces in the hinge bushes so that one cannot basically determine in which order and around which hinge pin the door will open. In unfortunate cases, as well as paint-work damage, this leads to the rubber seal in the surround profile being pushed from its seating or shorn off. The door guide [643049112](#) compels the hinges to open and close in the correct order. One door guide per hinge is clamped into the aluminium surround profile.







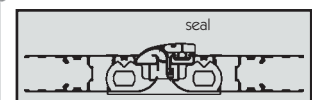
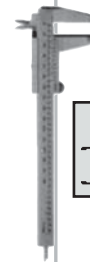
Double jointed centre hinges for building multiple winged rear portal and side doors. For 25 mm aluminium profile, sandwich board or similar. Aluminium, self-colour finish.

The seal and door guides are not included. Please order these parts separately.

Centre hinges

For multiple winged rear portal and side doors, dim. a = 500 mm.

Door height [mm]	Hinge leaves	Weight [kg]	
1800 - 2299	4	14.60	643045520
2300 - 2799	5	15.10	643045526
2800 - 3135	6	20.50	643045532



Accessories/spare parts
For PWP double jointed and centre hinges, and also for PWP portal, side and sliding doors.

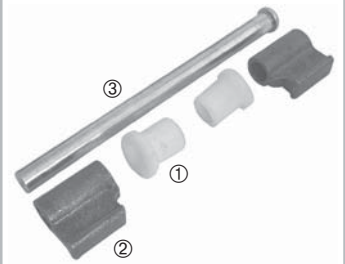
Fixing kit for double jointed hinges

For 2 hinge leaves, weight 0.31 kg/hinge leaf.

643045102

Individual parts

① Polyamide bush	643049104
② Hinge housing, self-colour	643049106
③ Hinge pin, zinc plated	643049107



Plastic cap

For PWP double jointed hinges, colour grey, weight 0.012 kg.

Left hand	643059001
Right hand	643059002



Illustration: left hand.

Rubber seal

For double jointed hinges. Seal for door surround, side (outer), top and bottom. Weight 0.21 kg/m.

643219501



Rubber seal

For portal door Challenge, weight 0.18 kg/m.

646389015



Rubber seal

For double jointed centre hinges. Seal between two door wings hinged together with double jointed hinges (multi-winged doors). Weight 0.18 kg/m.

645219530



Rubber seal

For centre joint between two door wings. Weight 0.41 kg/m.

Length [mm]	
2930	643219290
3130	643219310
3330	643219330

No longer available



Door guide

For double jointed and centre hinges, weight 0.02 kg.

643049112



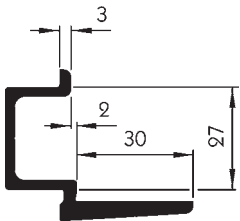
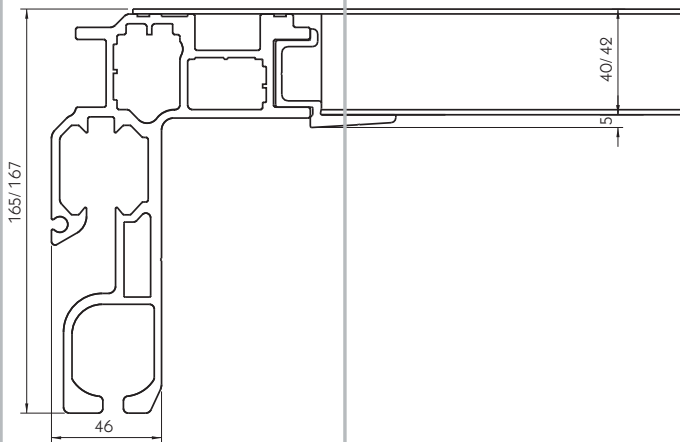
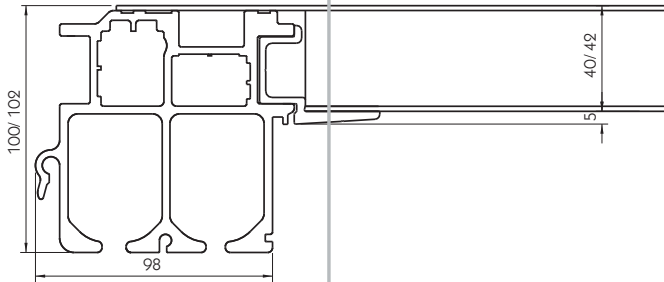
With the exception of the seal for the door centre joint, all the itemised seals are available as a fixed length.

Aluminium fixed or tarpaulin roof

For constructing a fixed tarpaulin roof onto the aluminium cant rails (curtainsider profile), roof connecting profiles **660641117** and roof spars **621288** are required.

By additionally riveting aluminium sheeting on to the roof spar profiles, the fixed tarpaulin roof can be fitted out as a complete aluminium roof.

- The fixed tarpaulin roof consists of roof spars and the roof connecting profiles. Riveting or fixing materials can not be supplied.
- The roof spars can be cut to suit any body width.
- Aluminium profile, roof spars without pitch.



Roof connecting profile

Length 6800 mm, AlMgSi 0.5 F22, weight 0.889 kg/m.

660641117

The roof connecting profile serves as the support for the roof spars. It fits into a channel on the inside of the cant rail and is riveted to it.

Only available in warehouse lengths of 6800 mm.

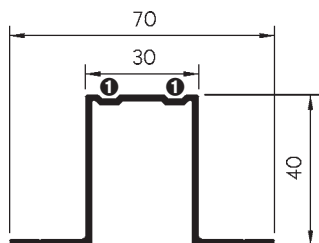
Roof spars

AlMgSi 0.5 F22, weight 0.759 kg/m.

621288

The aluminium roof spars are set on the roof connecting profile and riveted or welded. Combined with the roof connecting profile, the roof spars sit flush with the top edge of the cant rail (curtainsider profile). The roof spar profile can be supplied in fixed lengths or warehouse lengths of 7600 mm.

① Groove for sealing material.



Simple and robust in long distance operation where the roof also has to be open - these points were written into the performance specification of the "Lite" model series. Plastic links at intervals of 570 mm control the lifting and folding of the tarpaulin.

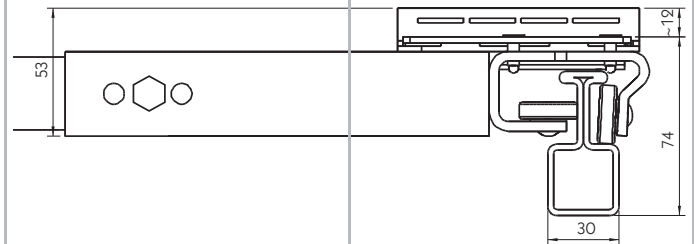
- Included are the roller carriages with the plastic links, the roof spars, the end trolleys with end lifter 700 N and end spars (not suitable for door lock recesses), the steel track rails and the connections for the under-body.
- Roller carriage with lateral ball bearings.
- Steel roof spars, zero pitch, spaced at 570 mm intervals, travelling on the track rails when opening.
- Travelling crossmember as end trolley with locking and end lifter (gas strut 700 N) for positioning the end spar.
- The top can be slid open from one side, from ground level.
- Track rails 1-piece up to 7000 mm, 2-piece up to 10000 mm and 3-piece up to 14000 mm roof length.
- A support connection kit is included for each piece for connecting the centre pillars to the track rails.
- Rail latch mounted on the underside of the track rails.
- Standard outside widths of 2495 mm, 2520 mm, 2550 mm or 2600 mm. Outer width is measured at the outermost cant of the roller carriage.
- Length up to 16000 mm.
- The roof assembly, with exception of the end trolley, is completely zinc plated, the end trolley is black KTL coated.
- Weight approx. 15 kg/m.

Special designs:

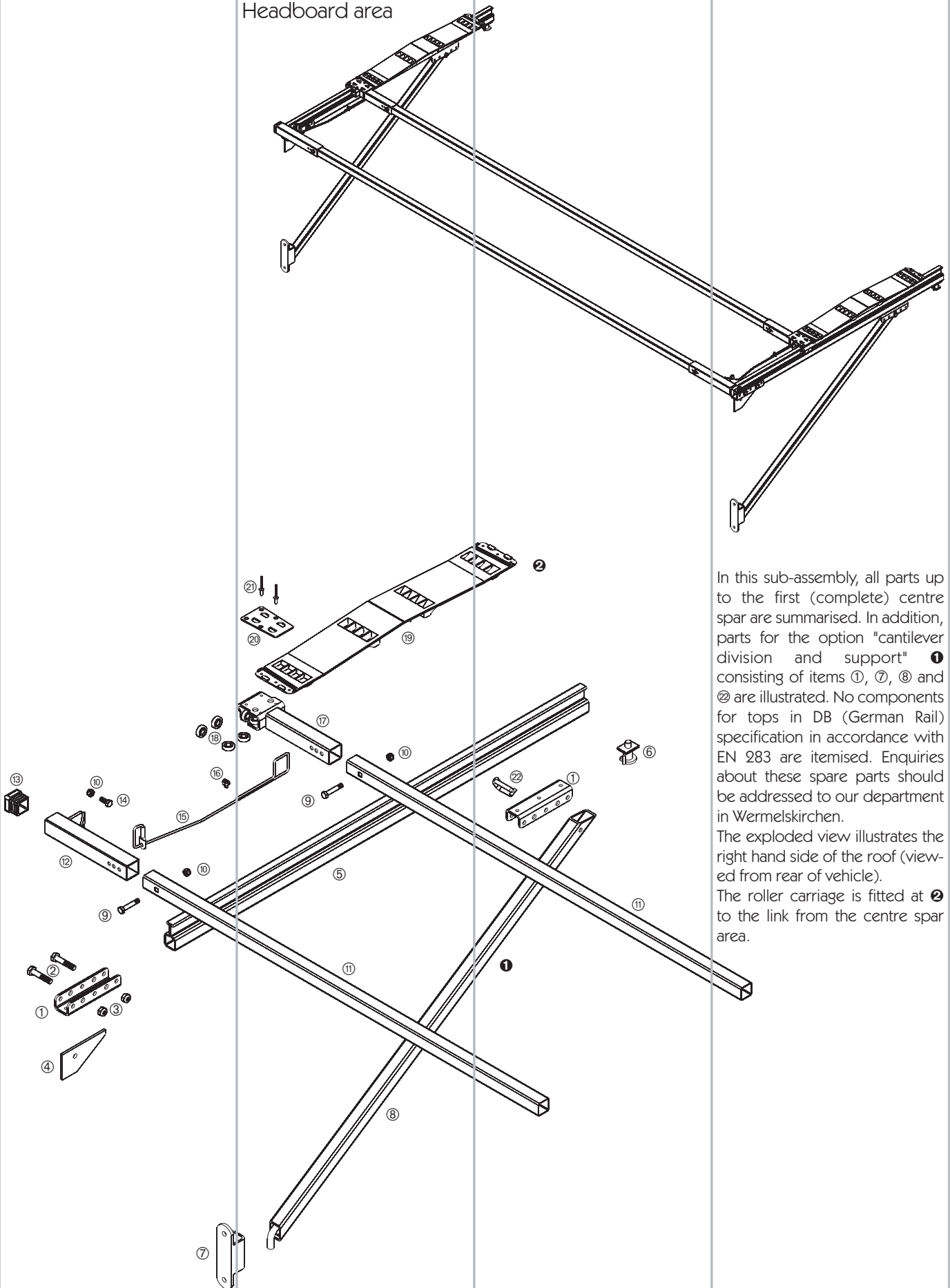
- Top in DB (German Rail) specification in accordance with EN 283.
- Top can be opened towards both ends. See under "Headboard area special design for two-way sliding".
- Portal beam with integrated end lifter (gas strut 700 N). Depth of crossbar, 113 mm.
- End lifter for customer's own crossbar with 2 x 500 N gas struts.
- Additional front spar with (shortened) plastic links.
- Spar spacing, 650 mm.
- Top supplied without spars.
- Special division of the track rails to suit the (when pushed together) linkage pack, with or without support (strut), support can be height adjustable if required.
- Rail latch mounted on the side of the track rails (not available for DB specification tops).
- Top supplied without track rails and their connections for the under-body.
- Deviation from standard outside widths up to maximum 2600 mm.
- (Pillar) tie bars.
- Top couplers for centre pillars.

Tops

Full tarpaulin „Lite 72“ Type 2978.9000



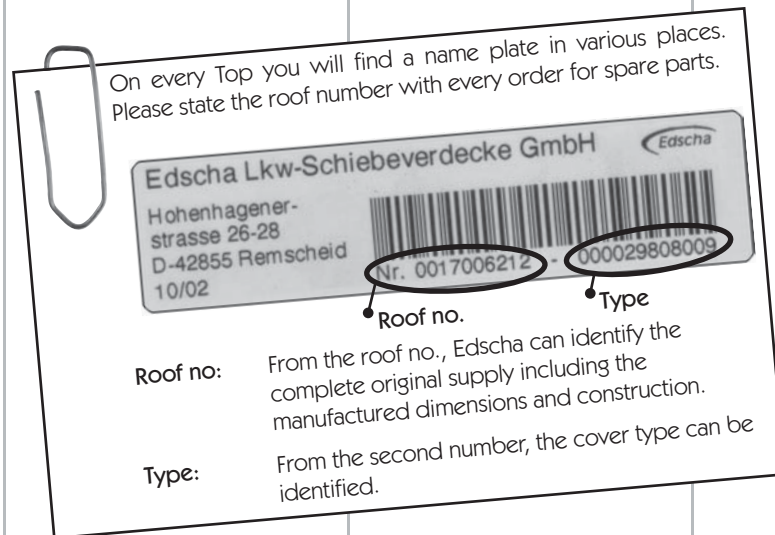
Spare parts overview Headboard area



In this sub-assembly, all parts up to the first (complete) centre spar are summarised. In addition, parts for the option "cantilever division and support" ❶ consisting of items ❶, ❷, ❸ and ❹ are illustrated. No components for tops in DB (German Rail) specification in accordance with EN 283 are itemised. Enquiries about these spare parts should be addressed to our department in Wermelskirchen.

The exploded view illustrates the right hand side of the roof (viewed from rear of vehicle).

The roller carriage is fitted at ❷ to the link from the centre spar area.



Headboard area

This sub-assembly consists of:

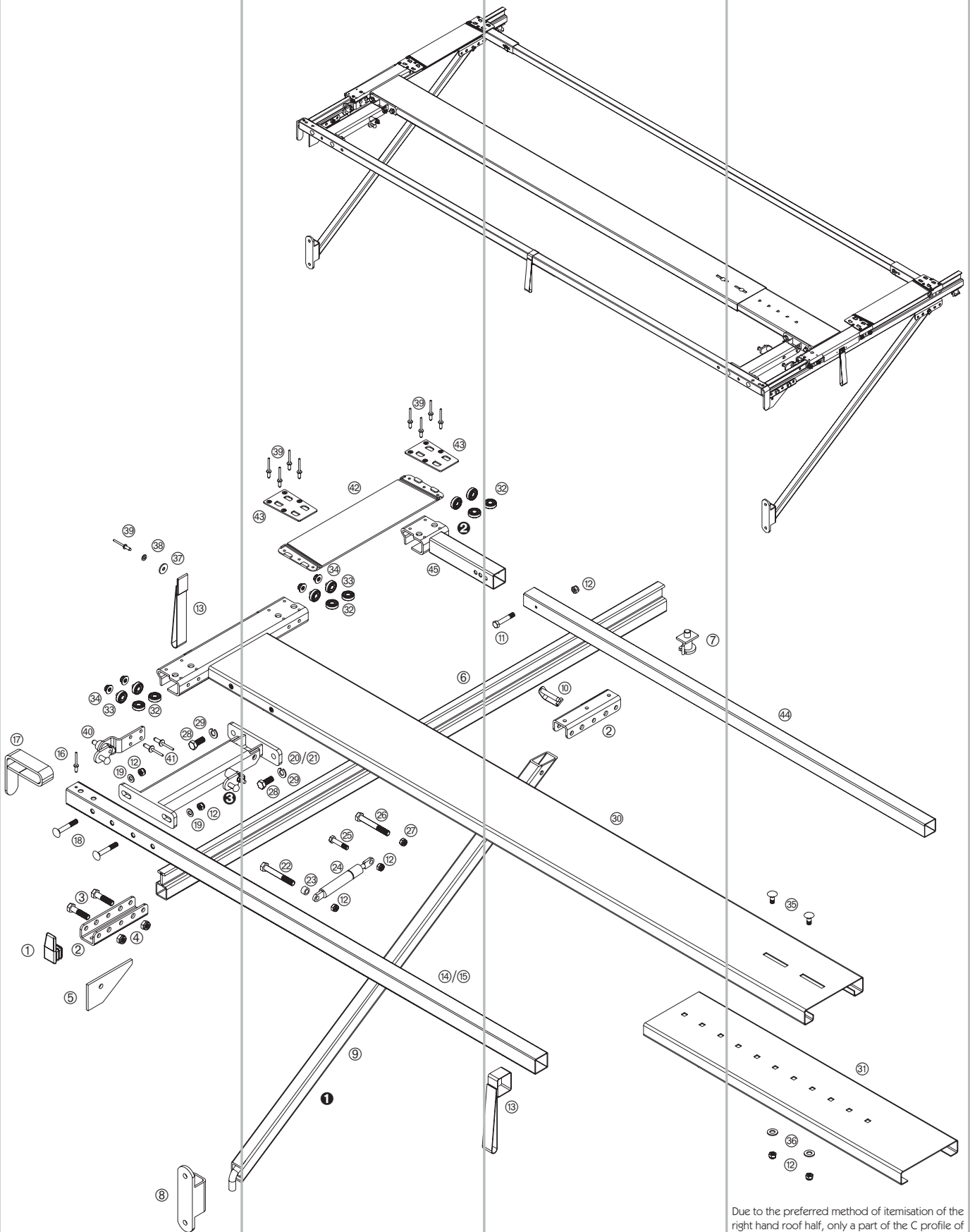
Item

①	Cantilever saddle	660030640
②	Hex. head screw DIN 931 - M 10 x 50	660781030
③	Hex. head nut DIN 985 - M 10 - 8	660794490
④	Gusset plate (corner plate)	660010310
⑤	Track rail or cantilever rail, left hand	vehicle dependant
	Track rail or cantilever rail, right hand (illustrated)	vehicle dependant
⑥	Rail latch	660033550
⑦	Strut socket	vehicle dependant
⑧	Strut	vehicle dependant
⑨	Hex. head screw DIN 931 - M 8 x 45	960970311
⑩	Hex. head nut DIN 985 - M 8 - 8	660794590
⑪	Headboard spar and centre spar	660035210
⑫	Headboard spar holder, left hand	660030950
	Headboard spar holder, right hand (illustrated)	660030960
⑬	End plug (for end spar)	660324980
⑭	Hex. head screw DIN 933 - M 8 x 20	960970006
⑮	Safety cable Ø 4 mm	660854310
⑯	Wire rope clamp DIN 1142 - 5 mm	270151188
⑰	Roller carriage	660030130
⑱	Ball bearing with rivet stud	660850470
⑲	Link	vehicle dependant
⑳	Clamping plate	660034120
㉑	Blind rivet DIN 7337 - 5.0 x 10 mm	660305430
㉒	Locking pin clip	660855200

There are further spare parts for the rail latch ⑥ which are itemised under the individual parts. Vehicle dependant parts are available in several designs, e.g. in various lengths. Please note that various components also include other parts itemised in the table and illustrations.

All available individual parts and the extent of their supply can be found from page 784.

Headboard area special construction "two-way sliding"



Due to the preferred method of itemisation of the right hand roof half, only a part of the C profile of the right hand end trolley ⑩ is illustrated (both end trolley parts are turned through 180° when fitted therefore, when viewed from rear of vehicle, right = end trolley left). A complete illustration can be found, for example, on page 780.

Headboard area special construction "two-way sliding"

This sub-assembly consists of:

Item

①	End cap (end track rail plug)	660701450
②	Cantilever saddle	660030640
③	Hex. head screw DIN 931 - M 10 x 50	660781030
④	Hex. head nut DIN 985 - M 10 - 8	660794490
⑤	Gusset plate (corner plate)	660010310
⑥	Track rail or cantilever rail, left hand	vehicle dependant
	Track rail or cantilever rail, right hand (illustrated)	vehicle dependant
⑦	Rail latch	660033550
⑧	Strut socket	vehicle dependant
⑨	Strut	vehicle dependant
⑩	Locking pin clip	660855200
⑪	Hex. head screw DIN 931 - M 8 x 45	960970311
⑫	Hex. head nut DIN 985 - M 8 - 8	660794590
⑬	Pull strap	660323350
⑭	End spar complete	vehicle dependant
⑮	Spar 35 x 35 mm	not available
⑯	Blind rivet DIN 7337 - 4.8 x 18	not available
⑰	Tarpaulin deflector	not available
⑱	Carriage bolt DIN 603 - M 8 x 55	not available
⑲	Washer DIN 125 - A 8.4	660785280
⑳	End lifter 700 N complete	660027300
㉑	End lifter housing, left hand	not available
	End lifter housing, right hand (illustrated)	not available
㉒	Hex. head screw DIN 931 - M 8 x 75	not available
㉓	Bush \varnothing 14 x 9 - 8.5 mm	not available
㉔	Gas strut 700 N	660750990
㉕	Hex head screw similar to DIN 931 - M 8 x 38	660783310
㉖	Hex. head screw DIN 931 - M 10 x 75	not available
㉗	Hex. head nut DIN 985 - M 10 - 8	660794490
㉘	Hex. head screw DIN 933 - M 10 x 25	960970014
㉙	Spring washer DIN 127 - A 10	not available
㉚	End trolley, left hand (long)	660030110
㉛	End trolley, right hand (short)	660030120
㉜	Ball bearing with rivet stud	660850470
㉝	Ball bearing with threaded stud M 8	660830040
㉞	Hex. head nut with flange DIN 6926 - M 8	not available
㉟	Carriage bolt DIN 603 - M 8 x 20	not available
㊱	Washer DIN 125 - A 10.5	660785660
㊲	Washer DIN 9021 - 6.4	not available
㊳	Washer DIN 125 - A 6.4	660785760
㊴	Blind rivet DIN 7337 - 5.0 x 10 mm	660305430
㊵	Locking device, end trolley	660031660
㊶	Blind rivet 6.5 x 17 mm	not available
㊷	Compensating link	660035130
㊸	Clamping plate	660034120
㊹	Spar	660035210
㊺	Roller carriage	660030130

In the headboard area sub-assembly for the special "two-way sliding" construction, all parts of the basic top up to the first (complete) centre spar are summarised. In addition, parts for the option "cantilever division and support" ①, consisting of items ②, ③, ④ and ⑩, are illustrated.

No components for tops in DB (German Rail) specification in accordance with EN 283 are itemised. Enquiries about these spare parts should be addressed to our department in Wermelskirchen.

The exploded view on the facing page illustrates the right roof side (viewed from rear of vehicle).

With two-way sliding tops, the roof length must correspond exactly to the body length. Because all the parts, from the rear to the front end trolley, are joined to each other by links, and the roof length must be manufactured exact to the centimetre, the compensating link ④ is used. In contrast to the standard links, these are not profiled and can be shortened to the required length.

The end lifter 700 N and the end spar are supplied with this top; on pages 782 and 783, further variants are itemised.

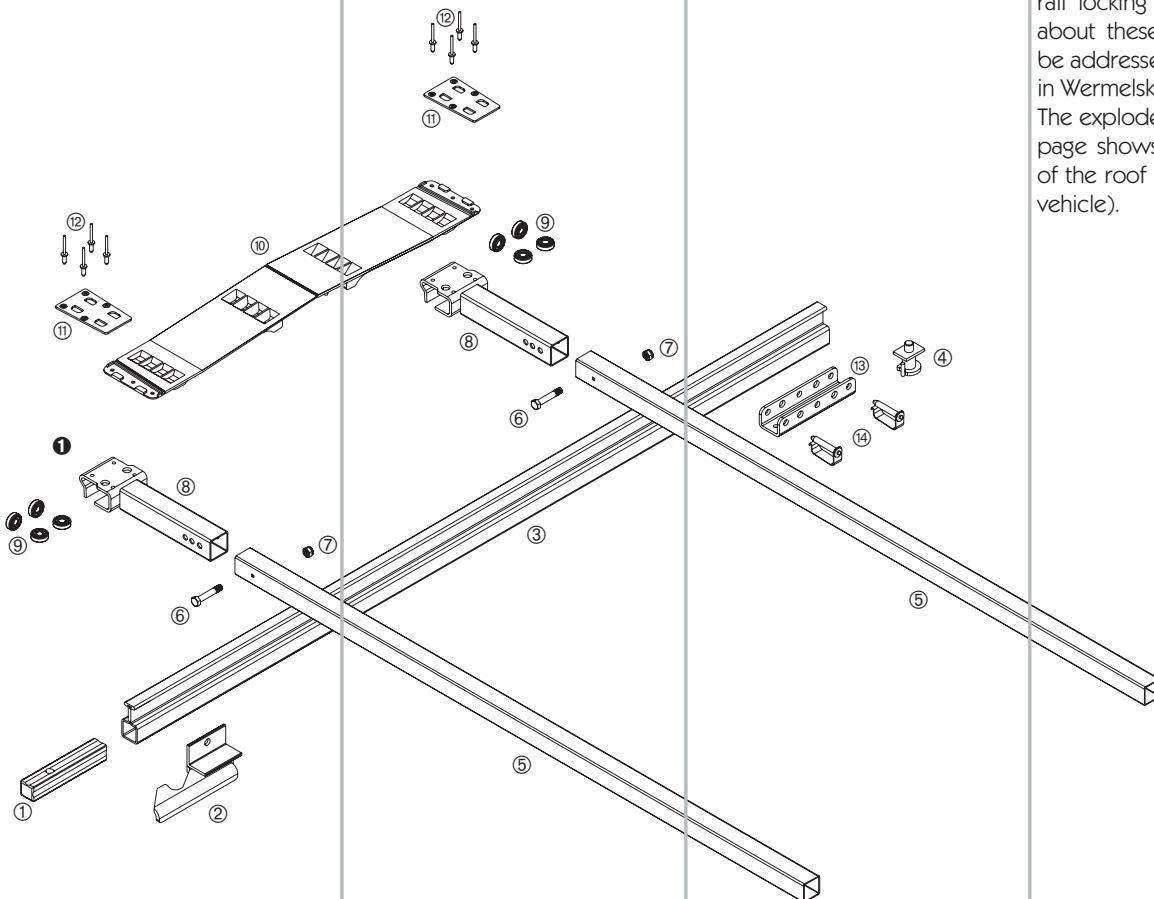
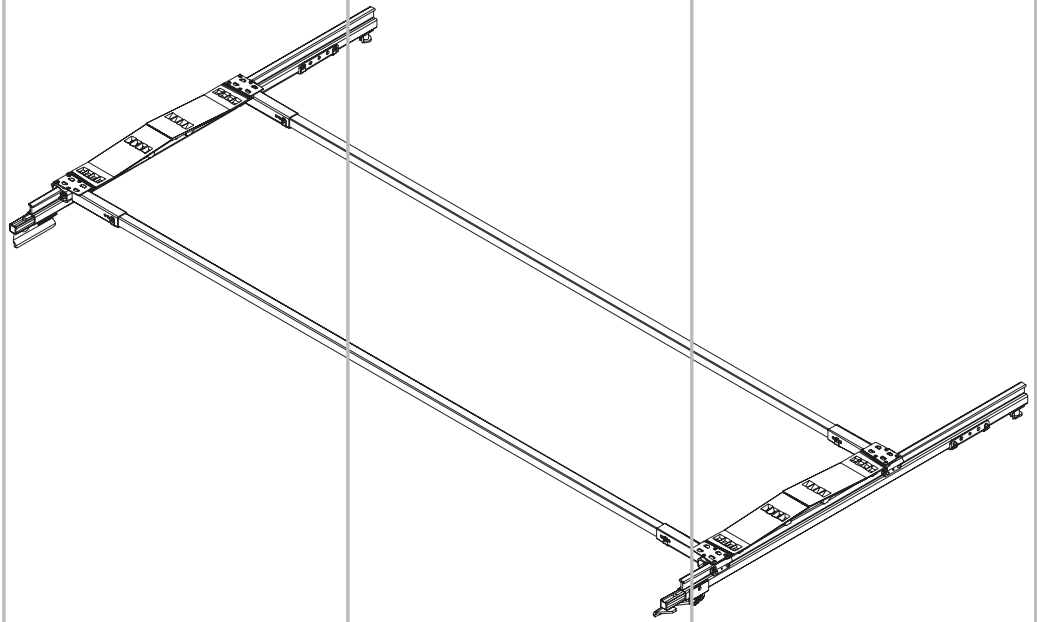
The links from the centre spar area are fitted to the roller carriages ②.

For the latch ③, mounted on the end lifter, there is a spring bolt kit available as a spare part which is itemised with the individual parts below the end lifter.

Vehicle dependant parts are available in several designs, e.g. in various lengths. Please note that various components also include other parts itemised in the table and illustrations.

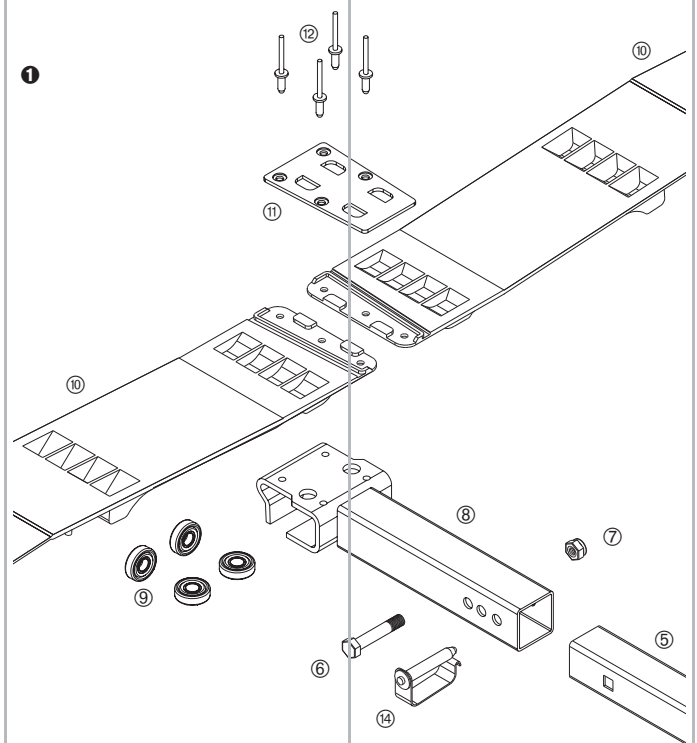
All available individual parts and the extent of their supply can be found from page 784.

Centre spar



In the centre spar sub-assembly, all parts in the centre spar area and the support connection provided for the centre pillars are summarised. There are no components itemised for tops in DB (German Rail) specification in accordance with EN 283, apart from the additional track rail locking device ②. Enquiries about these spare parts should be addressed to our department in Wermelskirchen.

The exploded view on the facing page shows the right hand side of the roof (viewed from rear of vehicle).



Centre spar

This sub-assembly consists of:

Item

①	Connecting insert	660010540
②	Additional track rail locking device, left hand	on request
	Additional track rail locking device, right hand (illustrated)	on request
③	Track rail	vehicle dependant
④	Rail latch	660033550
⑤	Spar	660035210
⑥	Hex. head screw DIN 931 - M 8 x 45	960970311
⑦	Hex. head nut DIN 985 - M 8 - 8	660794590
⑧	Roller carriage	660030130
⑨	Ball bearing with rivet stud	660850470
⑩	Link	vehicle dependant
⑪	Clamping plate	660034120
⑫	Blind rivet DIN 7337 - 5.0 x 10 mm	660305430
⑬	Cantilever saddle	660030640
⑭	Locking pin clip	660855200

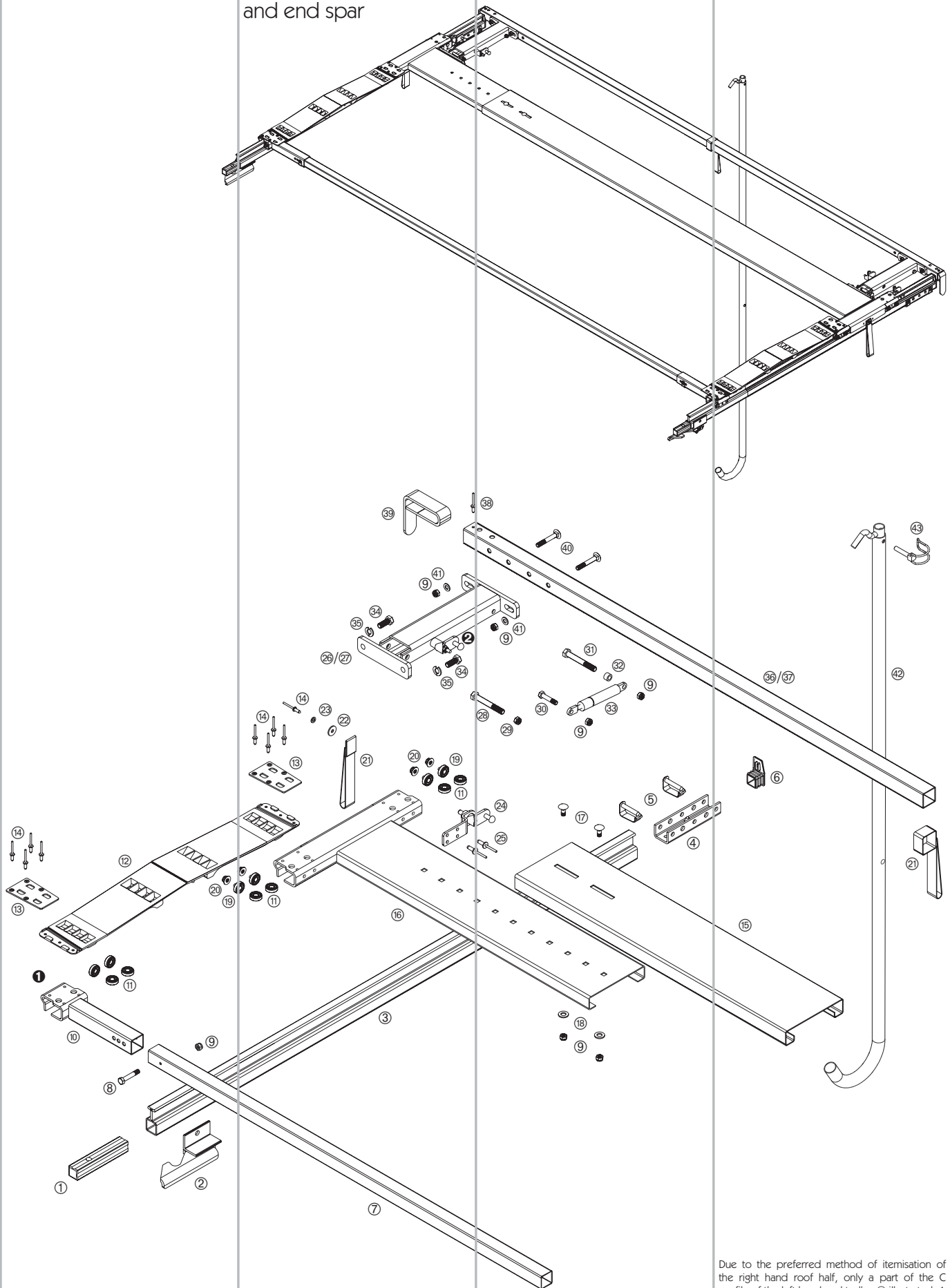
For a clearer understanding, the assembly of a standard roller carriage ① is shown again on this page scaled up 2:1.

There are further spare parts for the rail latch ④ which are itemised under the individual parts.

Vehicle dependant parts are available in several designs, e.g. in various lengths. Please note that various components also include other parts itemised in the table and illustrations.

All available individual parts and the extent of their supply can be found from page 784.

End trolley with end lifter and end spar



Due to the preferred method of itemisation of the right hand roof half, only a part of the C profile of the left hand end trolley is illustrated. A complete illustration can be found, for example, on page 776.

End trolley with end lifter and end spar

This sub-assembly consists of:

Item

①	Connecting insert	660010540
②	Additional track rail locking device, left hand	on request
	Additional track rail locking device, right hand (illustration)	on request
③	Track rail	vehicle dependant
④	End support connector	660032360
⑤	Locking pin clip	660855200
⑥	End cap (end track rail plug)	660701450
⑦	Spar	660035210
⑧	Hex. head screw DIN 931 - M 8 x 45	960970311
⑨	Hex. head nut DIN 985 - M 8 - 8	660794590
⑩	Roller carriage	660030130
⑪	Ball bearing with rivet stud	660850470
⑫	Link	vehicle dependant
⑬	Clamping plate	660034120
⑭	Blind rivet DIN 7337 - 5.0 x 10 mm	660305430
⑮	End trolley, left hand (long)	660030110
⑯	End trolley, right hand (short)	660030120
⑰	Carriage bolt DIN 603 - M 8 x 20	not available
⑱	Washer DIN 125 - A 10.5	660785660
⑲	Ball bearing with threaded stud M 8	660830040
⑳	Hex. head nut with flange DIN 6926 - M 8	not available
㉑	Pull strap	660323350
㉒	Washer DIN 9021 - 6.4	not available
㉓	Washer DIN 125 - A 6.4	660785760
㉔	Locking device, end trolley	660031660
㉕	Blind rivet 6.5 x 17 mm	not available
㉖	End lifter 700 N complete	660027300
㉗	End lifter housing, left hand	not available
	End lifter housing, right hand (illustrated)	not available
㉘	Hex. head screw DIN 931 - M 10 x 75	not available
㉙	Hex. head nut DIN 985 - M 10 - 8	660794490
㉚	Hex head screw similar to DIN 931 - M 8 x 38	660783310
㉛	Hex. head screw DIN 931 - M 8 x 75	not available
㉜	Bush Ø 14 x 9 - 8.5 mm	not available
㉝	Gas strut 700 N	660750990
㉞	Hex. head screw DIN 933 - M 10 x 25	960970014
㉟	Spring washer DIN 127 - A 10	not available
㊱	End spar complete	vehicle dependant
㊲	Spar 35 x 35 mm	not available
㊳	Blind rivet DIN 7337 - 4.8 x 18	not available
㊴	Tarpaulin deflector	not available
㊵	Carriage bolt DIN 603 - M 8 x 55	not available
㊶	Washer DIN 125 - A 8.4	660785280
㊷	Roof pole	660025180
㊸	Tube linchpin	660830190

In the end trolley sub-assembly with end lifter and end spar, all parts of the basic top up to the first (complete) centre spar are summarised. Apart from the additional track rail locking device ②, no components for tops in DB (German Rail) specification in accordance with EN 283 are itemised. Enquiries about these spare parts should be addressed to our department in Wermelskirchen.

The exploded view on the facing page illustrates the right (as seen from rear of vehicle) roof side.

The end lifter 700 N and the end spar are supplied with this top, further variants are itemised on pages 782 and 783.

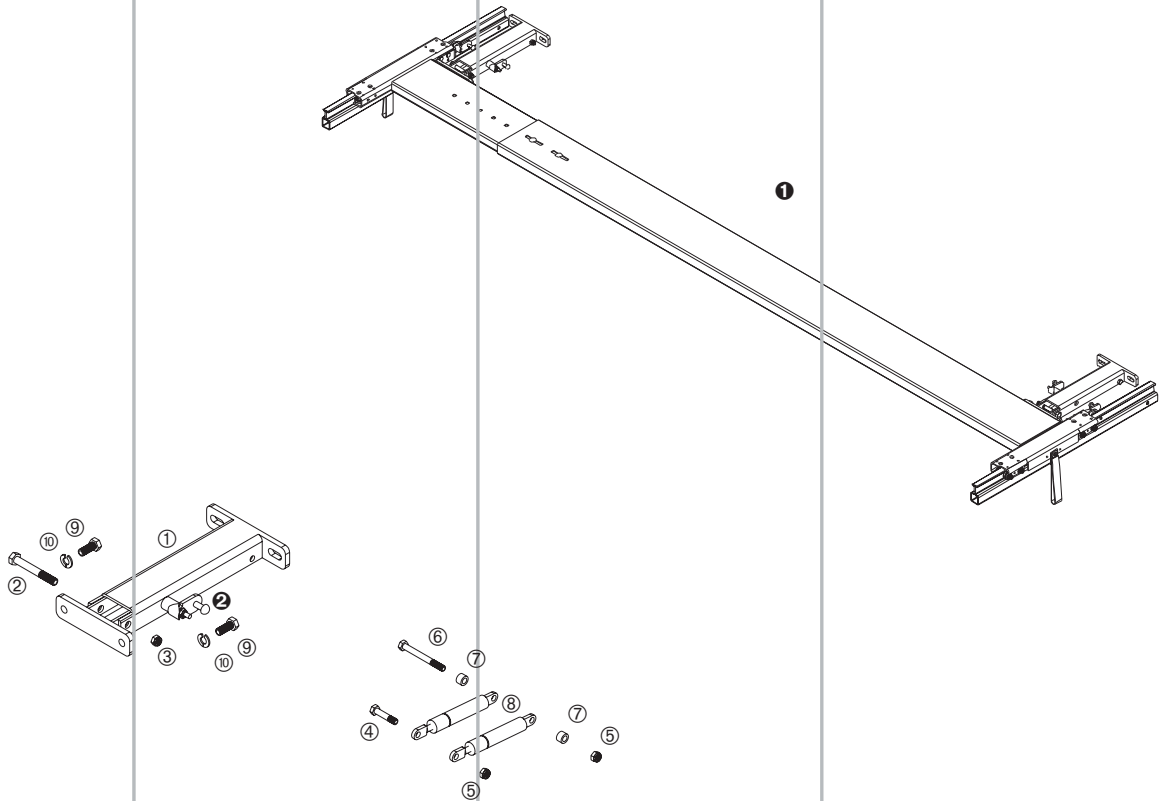
The links from the centre spar area are fitted to the roller carriages ⑩.

For the latch ②, mounted on the end lifter, there is a spring bolt kit available as a spare part which is itemised with the individual parts below the end lifter.

Vehicle dependant parts are available in several designs, e.g. in various lengths. Please note that various components also include other parts itemised in the table and illustrations.

All available individual parts and the extent of their supply can be found from page 784.

Accessory overview End lifter 2 x 500 N



End lifter 2 x 500 N

This accessory consists of:

Item	Description	Availability
①	End lifter housing, left hand	not available
	End lifter housing, right hand (illustrated)	not available
②	Hex. head screw DIN 931 - M 10 x 75	not available
③	Hex. head nut DIN 985 - M 10 - 8	660794490
④	Hex head screw similar to DIN 931 - M 8 x 38	660783310
⑤	Hex. head nut DIN 985 - M 8 - 8	660794590
⑥	Hex. head screw DIN 931 - M 8 x 75	not available
⑦	Bush Ø 14 x 9 - 8.5 mm	not available
⑧	Gas strut 500 N	660728290

660027301

Miscellaneous parts

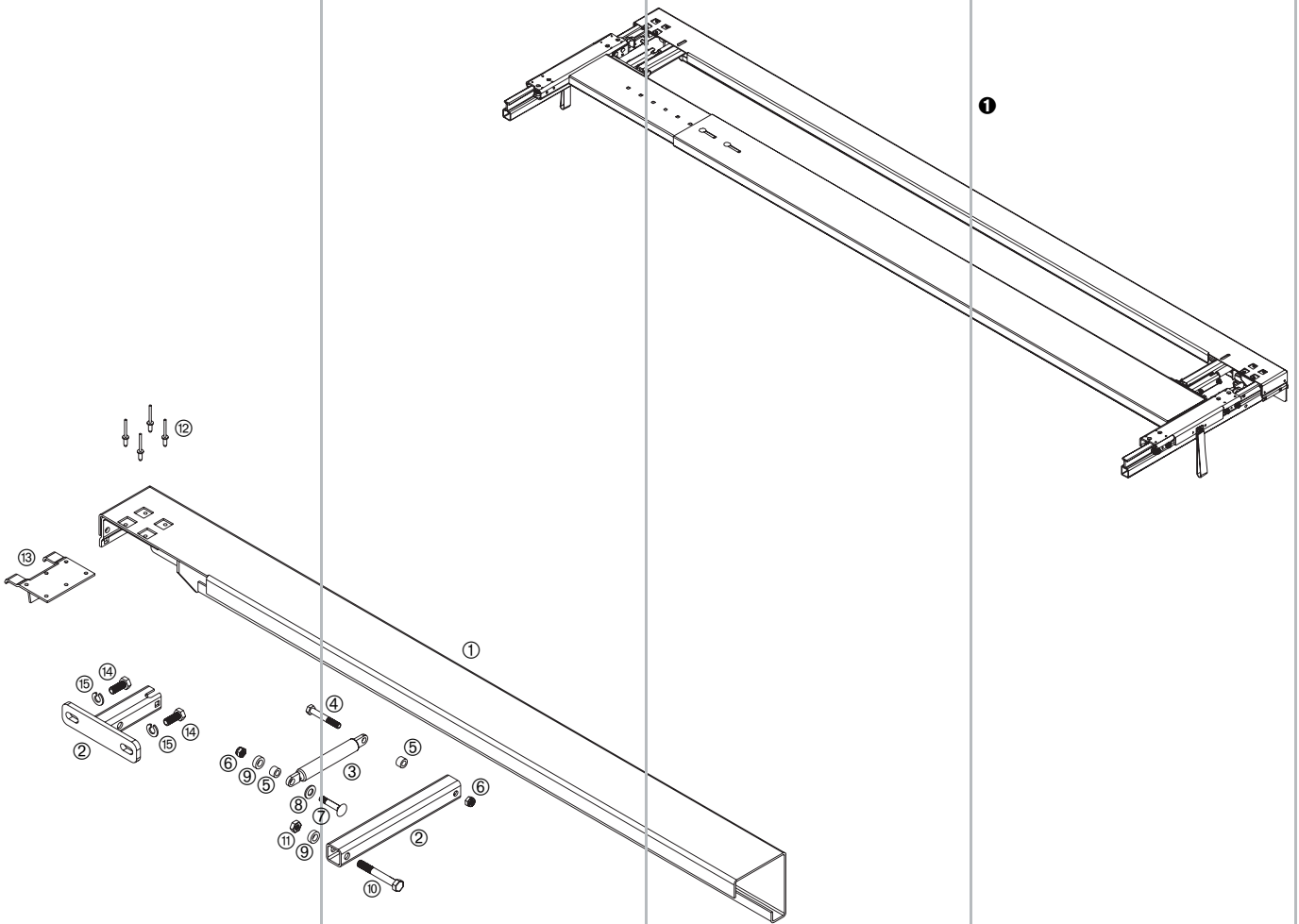
Item	Description	Availability
⑨	Hex. head screw DIN 933 - M 10 x 25	960970014
⑩	Spring washer DIN 127 - A 10	not available

On this page, the end lifter accessory part is illustrated with 2 x 500 N gas struts. The end lifter version with 2 x 500 N gas struts is only recommended for heavy portal/closing beams.

For clarity, ① shows the complete roof closing mechanism without the end spar/portal beam. The exploded view shows the right hand roof side (as seen from rear of vehicle). For the latch ②, mounted on the end lifter, there is a spring bolt kit available as a spare part which is itemised with the individual parts below the end lifter.

The article numbers given in the table are available individual parts; each number given below comprises the parts supplied for one roof. All available individual parts and the extent of their supply can be found from page 784.

Portal beam



Portal beam

This accessory consists of:

Item

①	Portal beam	not available
②	End lifter housing	not available
③	Gas strut 700 N	660750990
④	Hex. head screw DIN 931 - M 8 x 55	not available
⑤	Bush Ø 14 x 9 - 8.5 mm	not available
⑥	Hex. nut DIN 985 - M 8 - 8	660794590
⑦	Carriage bolt DIN 603 - M 8 x 42	660782250
⑧	Washer DIN 125 - A 10.5	660785660
⑨	Bush Ø 18 x 6 - 10.5 mm	not available
⑩	Hex. head screw DIN 931 - M 10 x 75	not available
⑪	Hex. nut DIN 980 form V - M 10	not available
⑫	Blind rivet DIN 7337 - 5.0 x 10 mm	660305430
⑬	Adapter plate	not available

On request

Miscellaneous parts

Item

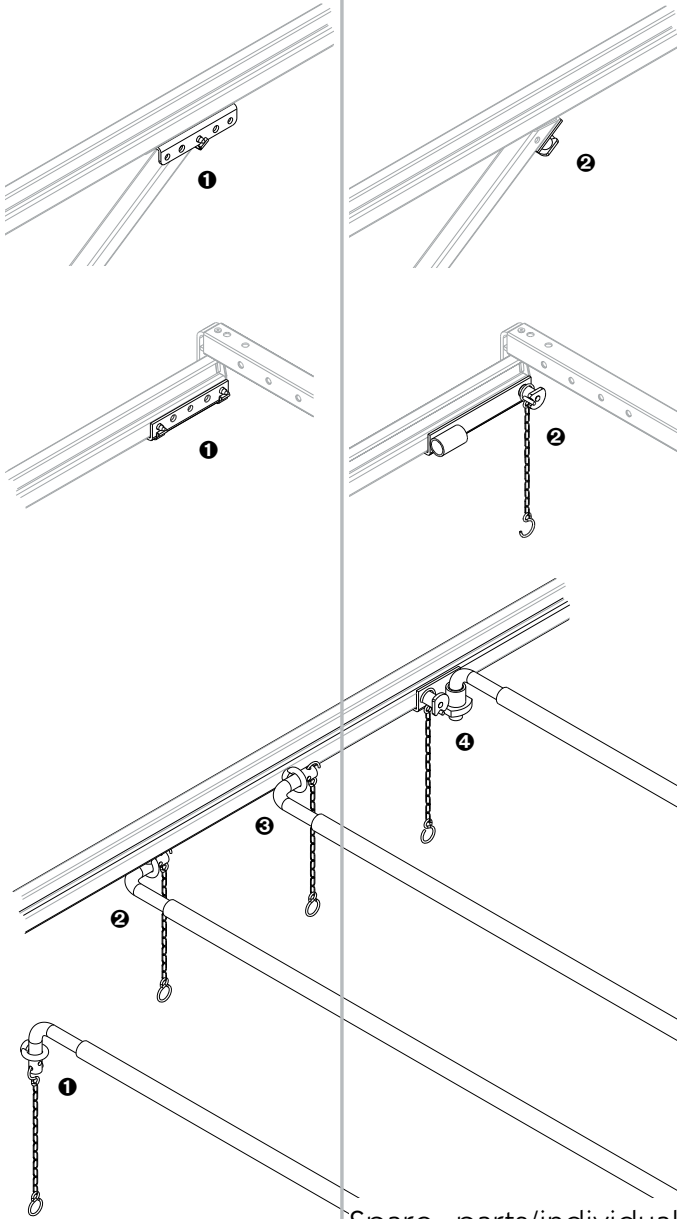
⑭	Hex. head screw DIN 933 - M 10 x 25	960970014
⑮	Spring washer DIN 127 - A 10	not available

The portal beam is illustrated on this page as an accessory part. For clarity, ❶ illustrates the complete roof closing mechanism. The exploded view shows the right hand roof side (viewed from rear of vehicle).

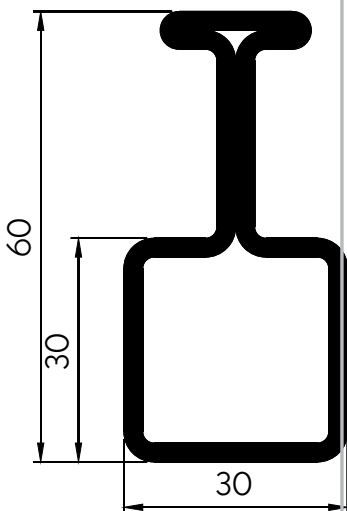
The article numbers given in the table are available individual parts; each number given below comprises the parts supplied for one roof. The portal beam is only available on request due to its many variants.

All available individual parts and the extent of their supply can be found from page 784.

Overview of available obsolete spare parts.



Spare parts/individual parts



Strut socket

The strut is connected to the track rail by means of the cantilever saddle ❶, which is turned through 180° and welded to the underside of the track rail. The strut is secured by means of a locking pin clip which is pushed sideways through one of the holes in the cantilever saddle. Obsolete roof constructions still have the strut latch ❷ which is obtainable left handed, article no. 660013713, and right handed, article no. 660013714 (illustrated), which locates by means of a spring bolt from behind through a hole in the strut. New struts have holes for both versions.

End support saddle

For mounting the roof on to the rear corner pillar, the end support saddle ❶ is supplied from current production, which is welded to the rear corner pillar or its extension. The support connection ❷ with integrated tie bar socket is only supplied as a spare part. This is obtainable left handed, article no. 660020090, and right handed (illustrated), article no. 660020100.

Tie rod fixing

For suspending the tie bars, the new tops are supplied with an eye nut DIN 582 - M 8 which is fitted inside the body pillars ❶. When ordering the top, it can also be stated that the tie bars are to be welded under ❷ or inside ❸ the track rail, in which case the eye nut is welded by the bodywork fitter. The parts supplied for these three variants are determined by the length of the tie bar which is calculated depending on the distance between the track rails. The obsolete support connection ❹ is now only obtainable as a spare part and is also used purely as a holder for the tie bar. This can be supplied left handed, article no. 660026610, and right handed, article no. 660026620. Included in the supply is now a spring cotter for securing the tie bar instead of a safety chain as illustrated.



By quoting the roof number, all track rails/cantilevers for the specified roof can be obtained to the original finished dimensions including drilled holes.

Illustration of the track rail, scale 1:1.

Track rail
Zinc plated.

Length [mm]	Article no.
3000	660746113
4000	660746114
7000	660746110

Spare parts for this latch can be found under "Latch spare parts" on page 791. The relevant item numbers are ⑥ to ⑨.

Connecting insert

Steel, self colour.
660010540

Rail latch

Zinc plated steel.
660033550

Additional track rail locking device

For tops to DB (German Rail) specification in accordance with EN 283. Weld-on bracket, self coloured steel, black KTL coated locking device, zinc coated DIN parts.

Left hand assembly
Right hand assembly

on request
on request

End cap

End track rail plug, plastic.
660701450

The cantilever saddle **660030640** is used as a direct connection between the headboard corner pillar and the track rail and is supplied as standard as the support connection for each centre pillar, and also as a bracket for the strut when turned through 180° and welded to the underside of the track rail.

Cantilever saddle

Steel, KTL coated.
660030640

Gusset plate (corner plate)

Steel, KTL coated.
660010310

End support saddle

Steel, KTL coated.
660032360

Locking pin clip

Zinc plated steel.
660855200

Spare parts for the latch welded to the support connection can be found under "Latch spare parts" on page 791. The relevant item numbers are ⑥ and ⑧.

Support connection

With safety chain and holder for tie bar, steel, KTL coated.

Left hand
Right hand

660020090
660020100

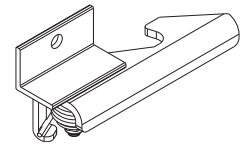
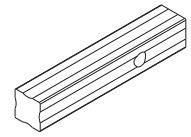
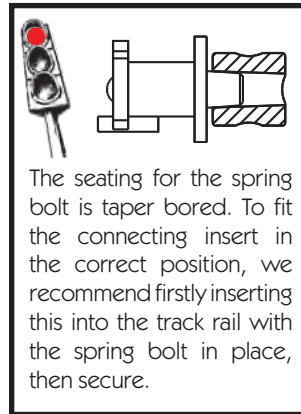


Illustration: left hand

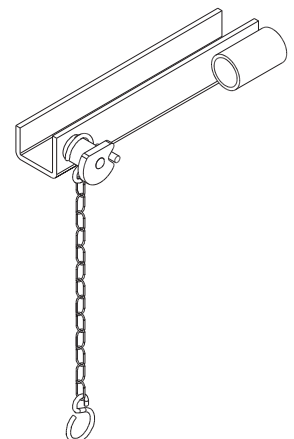
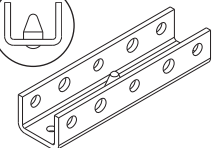
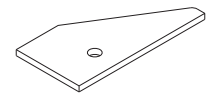
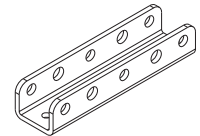
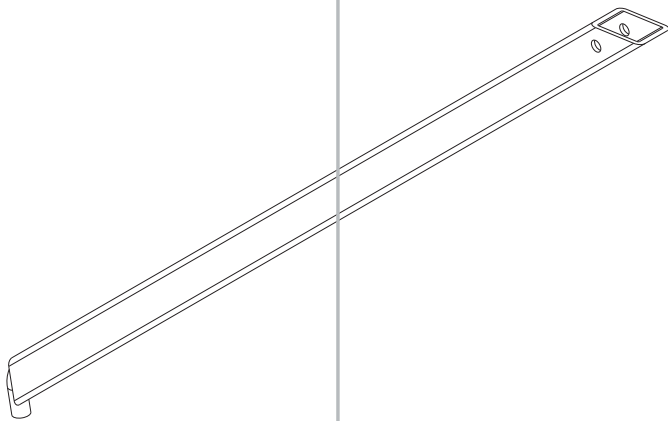


Illustration: left hand

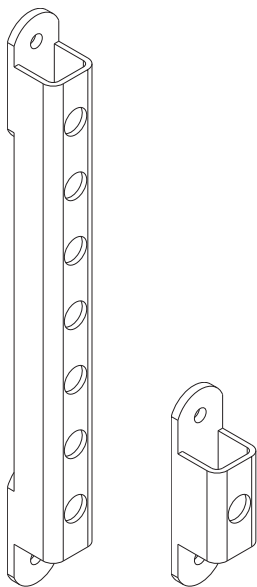


Strut

Steel, KTL coated.

Nominal length
[mm]

1052	660014450
1560	660014190



Strut socket

Steel, KTL coated.

Short	660014310
Height adjustable	660014340

Spare parts for this latch can be found under "Latch spare parts" on page 791. The relevant item numbers are ☺ and ☻.

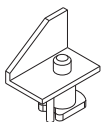
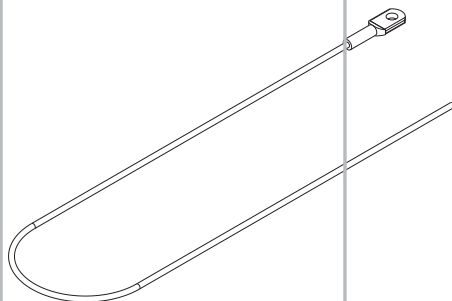


Illustration: left hand

Strut latch

Steel, self colour.

Left hand	660013713
Right hand	660013714



Safety cable Ø 4 mm

For headboard connection, zinc plated steel.

660854310

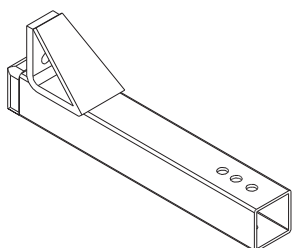


Illustration: left hand

Headboard spar holder

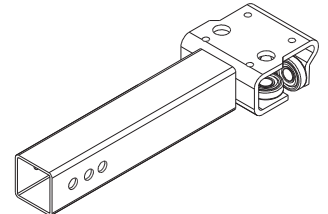
Incl. plastic end plugs, KTL coated steel.

Left hand	660030950
Right hand	660030960

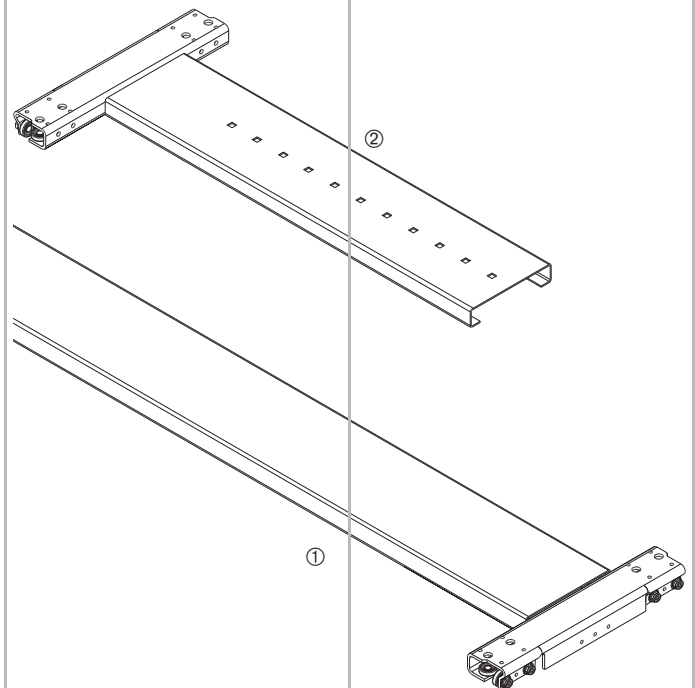
End plug
(For end spars), for spar tubing
35 x 35 mm or headboard spar
holder, plastic.
660324980



Roller carriage
With ball bearings, steel, KTL coa-
ted.
660030130



End trolley
With ball bearings, KTL coated
steel.



① Left hand assembly **660030110**
② Right hand assembly **660030120**

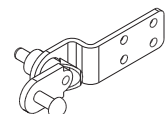
Ball bearing with rivet stud
Steel, gunmetal finish.
660850470



**Ball bearing with threaded
stud M 8**
Steel, gunmetal finish.
660830040

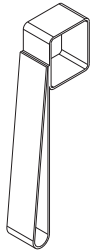


End trolley locking device
Zinc plated steel.
660031660



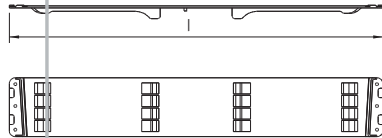
Pressure spring
Spare part for latch on the end
trolley locking device, zinc pla-
ted.
660625141





Pull strap
Green.

660323350



Linkage
Plastic.

Nominal length
[mm]

Dim. I
[mm]

570

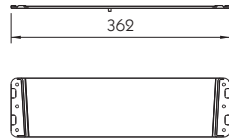
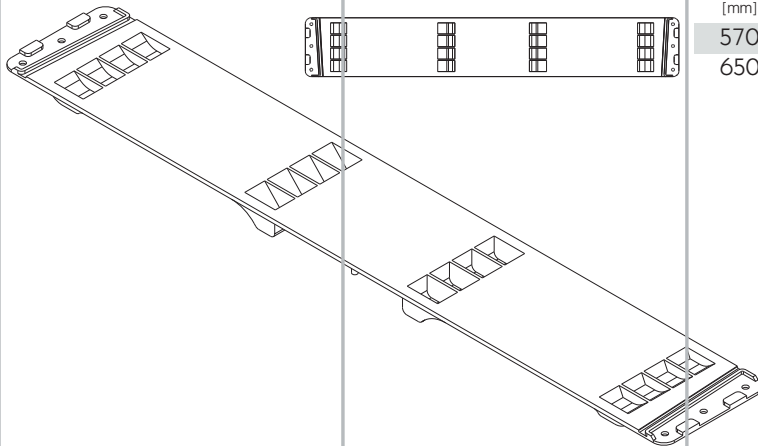
552

660034210

650

632

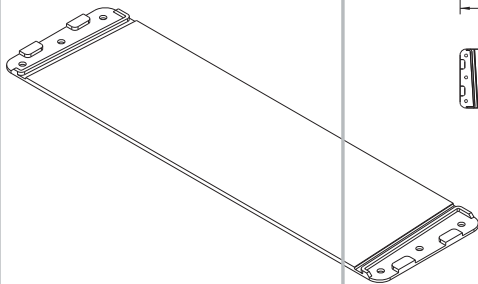
660034110



Compensating linkage

Nominal length 380 mm, can be shortened, plastic.

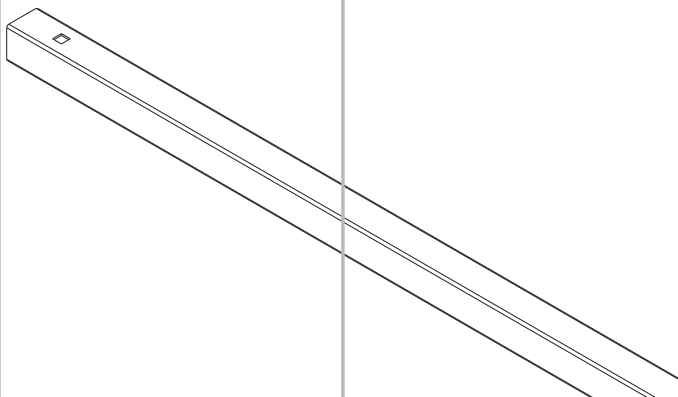
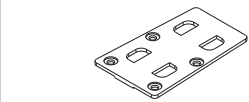
660035130



Clamping plate

For plastic link, plastic.

660034120



Spar

30 x 30 x 1.5 mm, length \varnothing 185 mm, pitch 0, zinc plated steel.

660035210

Overall length
[mm]

2550

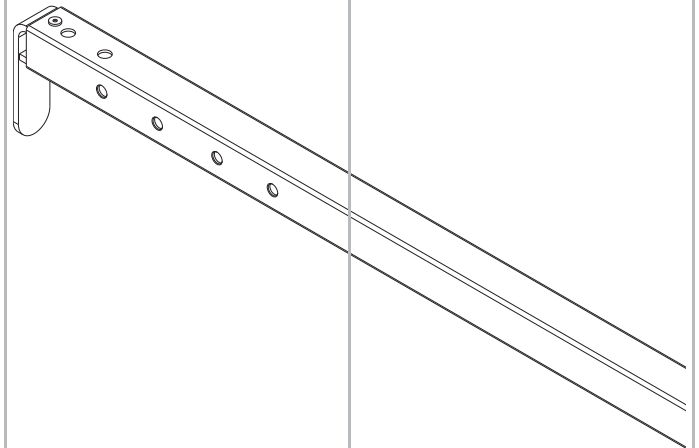
Made to order

End spar

35 x 35 x 2.0 mm, 0 pitch, with tarpaulin deflector and pull strap, steel parts zinc plated.

660035360

660027910

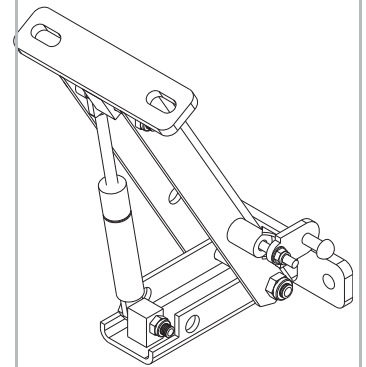


Each set consists of one left hand and one right hand assembly.

End lifter 700 N

Set, KTL coated steel.

660027300



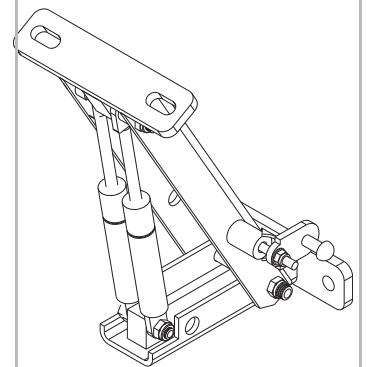
Illustrations:
Left hand construction, lifted state.

Each set consists of one left hand and one right hand assembly.

End lifter 2 x 500 N

Set, KTL coated steel.

660027301

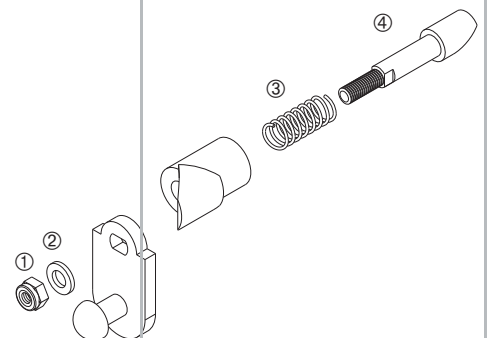


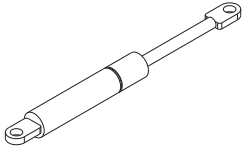
Individual spare parts available for the spring bolt set can be found under "Latch spare parts" on page 791. The relevant item numbers are ①, ②, ④ and ⑤.

Spring bolt set

For latch on end lifters 700 N and 2 x 500 N. Supplied as illustrated.

660027251





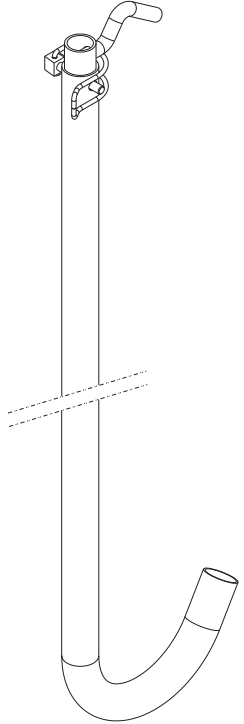
Gas strut

500 N

660728290

700 N

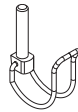
660750990



Roof pole

Incl. tube linchpin, telescopic from 2000 mm to 4000 mm long, galvanised steel.

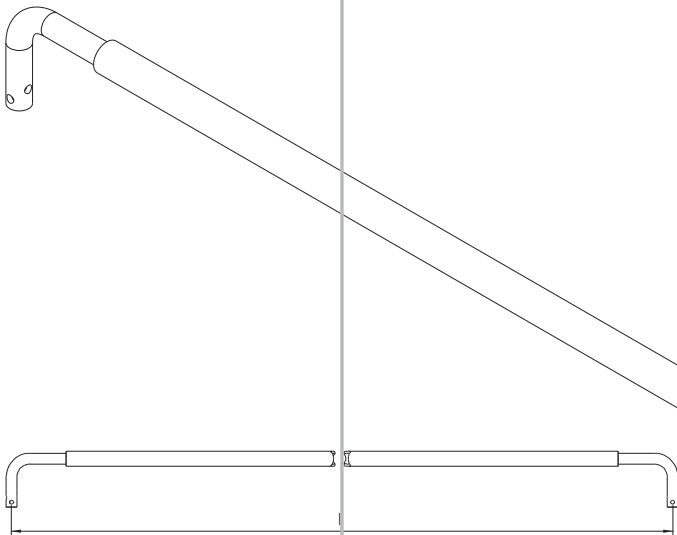
660025180



Tube linchpin

Ø 6 x 40, zinc plated steel.

660830190



Tie bar

Ø 25 mm, zinc plated steel.

Dim. l
[mm]

2400

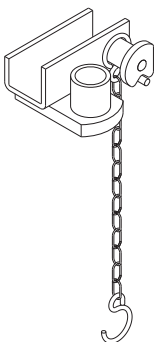
660016290

2430

660016292

One end loose

660016291



Support connection

With safety chain and holder for tie bar, steel, KTL coated.

Left hand

660026610

Right hand

660026620

Illustration: left hand

Safety chain

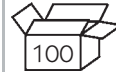
For both sides, S hooks, zinc plated steel.

660751410

Spring cotter 4 mm

Plain, zinc plated steel.

215141008

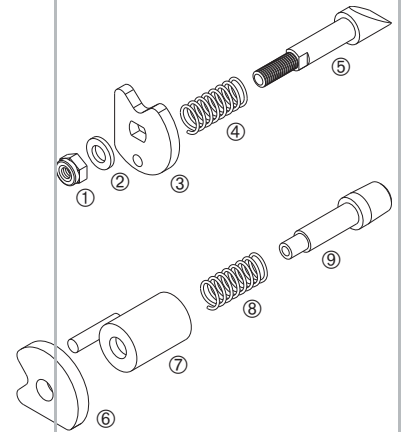


Please note that only those latch item numbers given will fit the respective latch as spare parts.

Latch spare parts

Item

① Hex. head nut DIN 985 - M 6 - 8	660794430
② Washer DIN 125 - A 6.4	660785760
③ Catch plate, zinc plated	660026080
④ Pressure spring, zinc plated	660625140
⑤ Locking bolt, bevelled, zinc plated	660740500
⑥ Catch plate, zinc plated	660018860
⑦ Housing, rail latch, self colour	660010420
⑧ Pressure spring, zinc plated	660625141
⑨ Locking bolt, conical, zinc plated	660648120

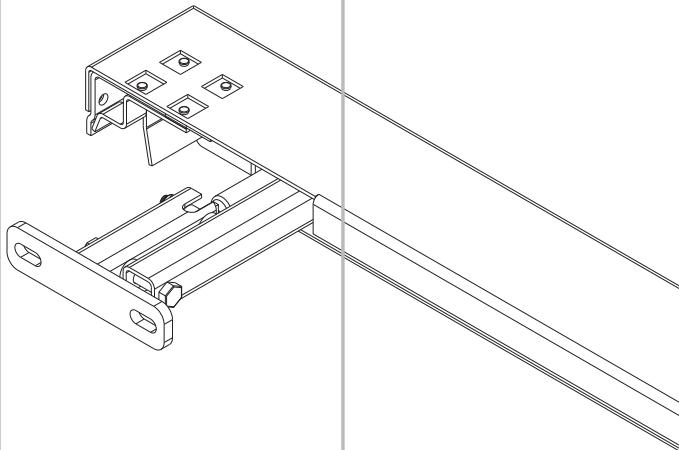


Screws and fixing materials to DIN standards

All parts zinc plated.

Washer DIN 125 - A 6.4	660785760
Washer DIN 125 - A 8.4	660785280
Washer DIN 125 - A 10.5	660785660
Eye nut DIN 582 - M 8	660698200
Carriage bolt DIN 603 - M 8 x 42	660782250
Hex. nut DIN 985 - M 6 - 8	660794430
Hex. nut DIN 985 - M 8 - 8	660794590
Hex. nut DIN 985 - M 10 - 8	660794490
Hex. head screw similar to DIN 931 - M 8 x 38	660783310
Hex. head screw DIN 931 - M 10 x 50	660781030
Hex. head screw DIN 933 - M 8 x 20	960970006
Hex. head screw DIN 933 - M 10 x 25	960970014
Wire rope clamp DIN 1142 - 5 mm	270151188
Blind rivet DIN 7337 - 5.0 x 10 mm	660305430

Accessories



Portal beam

With integrated end lifter and gas strut 700 N, KTL coated steel.

Due to the many design variations, only available on request.

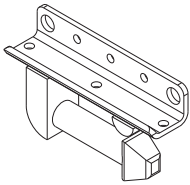
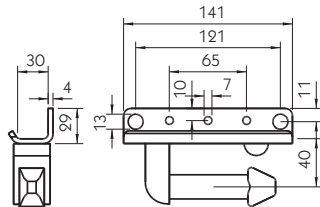


Illustration: left hand



Top coupling

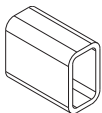
Zinc coated steel, weight 0.73 kg.

Left hand

660031230

Right hand

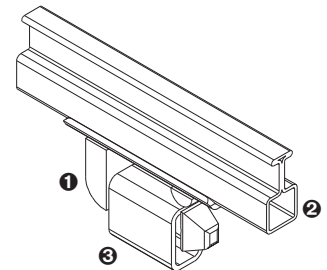
660031240



RHS tube

For top coupling, KTL coated steel, weight 0.25 kg.

660030680



The top coupling **1** is riveted to the track rail **2** from the outside and underside. The pillar is welded to the RHS tube **3**.

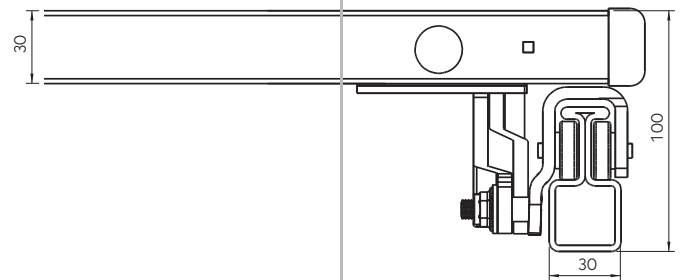
The Profi series tops are conceived for universal daily deployment in all conditions. Steel linkages and rising steel spars when opening ensure that the sliding roof function treats the tarpaulin gently.

- Included in the supply are the linkage packs, the roof spars, the end trolleys, the steel track rails and the connections to the body-work.
- Linkage pack roller carriages with ball bearings, steel linkages with bushed pivot points.
- First spar acts as running tie bar on the track rails (no linkage), the spar does not rise when opening the top.
- Steel roof spars, zero pitch, spaced at 570 mm, rise and lift the tarpaulin when opening.
- Travelling crossmember as end trolley with locking device.
- The top can be slid from one side, from ground level.
- Track rails 1-piece up to 7000 mm, 2-piece up to 10000 mm and 3-piece up to 14000 mm roof length.
- A support connection kit is included for each piece for connecting the centre pillars to the track rails.
- Rail latch mounted underneath on the track rails.
- Standard outside widths of 2495 mm, 2520 mm, 2550 mm or 2600 mm. The external width is measured at the outermost edges of the plugs (spar ends).
- Length up to 16000 mm.
- Roof assembly, with the exception of the end trolley crossmember, is completely zinc plated, the crossmember is black KTL coated.
- Weight approx. 18 kg/m.

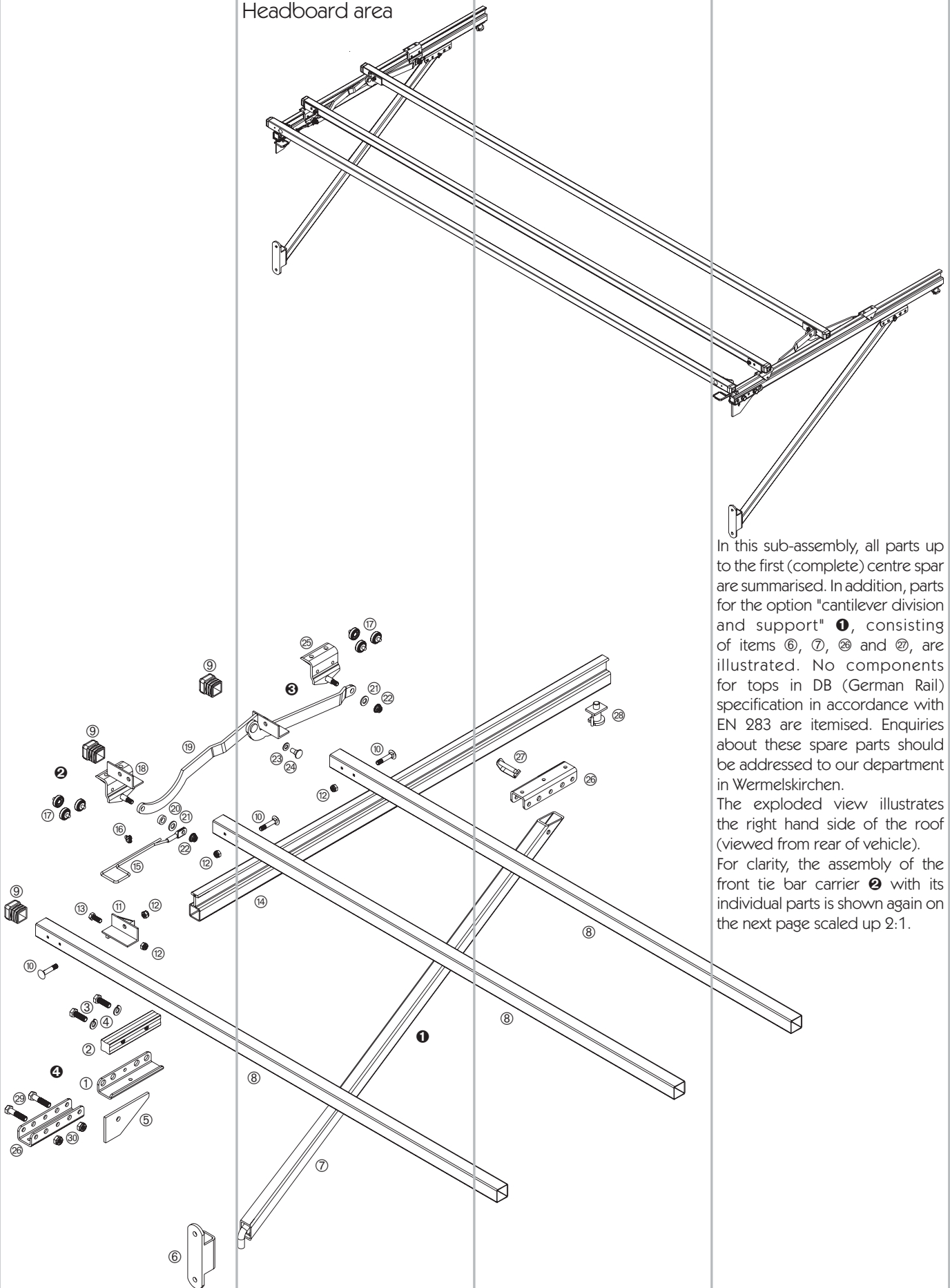
Special designs:

- Top in DB (German Rail) specification in accordance with EN 283.
- First spar with (shortened) linkage, spar rises when roof is opened. See "Headboard area special construction with compensating linkages".
- Top can be opened towards both ends. See under "Headboard area special construction two-way sliding".
- Running tie rods, recommended for tops over 9 m in length.
- End spar, not suitable for door lock recesses.
- Portal beam with integrated end lifter (gas strut 700 N). Height of crossbar, 113 mm.
- End lifter for customer's own crossbar with 1 x 700 N gas strut or 2 x 500 N gas struts.
- Top supplied without spars.
- Special sectioning of the track rails to suit the (when pushed together) linkage pack, with or without support (strut), support can be height adjustable if required.
- Top supplied without track rails and their connections for the under-body.
- Deviation from standard outside widths up to maximum 3000 mm.
- Tarpaulin holder for spar (necessary, for instance, when equipping the roof with side sliding tarpaulin, supplied loose for welding on-site).
- (Pillar) tie bars.
- Top couplers for centre pillars.

Full tarpaulin "Profi 95" Type 2979.8000

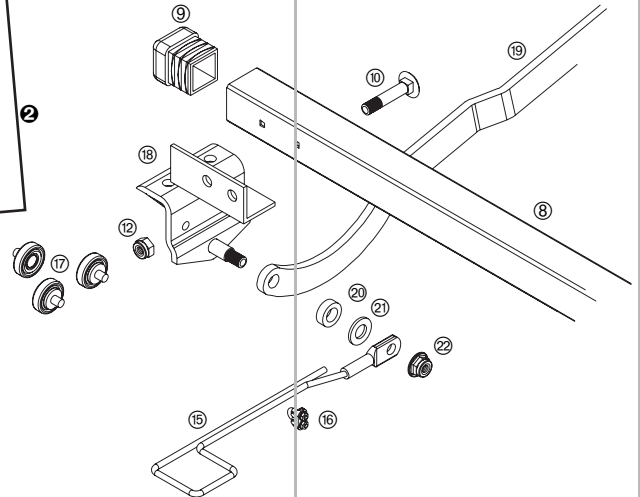
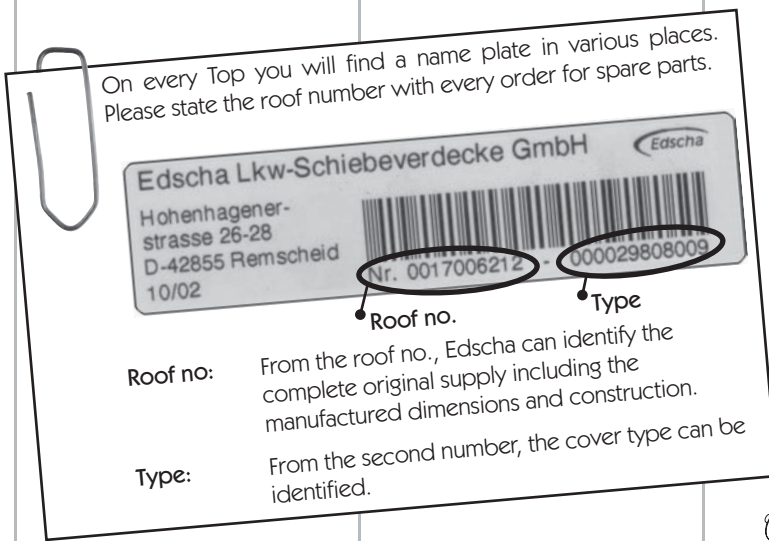


Spare parts overview Headboard area



In this sub-assembly, all parts up to the first (complete) centre spar are summarised. In addition, parts for the option "cantilever division and support" **1**, consisting of items **6**, **7**, **26** and **27**, are illustrated. No components for tops in DB (German Rail) specification in accordance with EN 283 are itemised. Enquiries about these spare parts should be addressed to our department in Wermelskirchen.

The exploded view illustrates the right hand side of the roof (viewed from rear of vehicle). For clarity, the assembly of the front tie bar carrier **2** with its individual parts is shown again on the next page scaled up 2:1.



Headboard area

This sub-assembly consists of:

Item

①	Cantilever saddle L profile (④ or alternatively ⑳ in conjunction with ㉑ and ㉒)	660030700
②	Connecting inserts	660030720
③	Hex. head screw DIN 933 - M 10 x 25	960970014
④	Spring washer DIN 127 - A 10	not available
⑤	Gusset plate (corner plate)	660010310
⑥	Strut socket	vehicle dependant
⑦	Strut	vehicle dependant
⑧	Headboard spar and centre spar	vehicle dependant
⑨	Plug 30 x 30 mm (for spar ends)	660802820
⑩	Carriage bolt DIN 603 - M 8 x 42	660782250
⑪	Head board spar holder, left hand	660031130
	Head board spar holder, right hand (illustrated)	660031140
⑫	Hex. nut DIN 985 - M 8 - 8	660794590
⑬	Hex. head screw DIN 933 - M 8 x 20	960970006
⑭	Track rail or cantilever track rail, left hand	vehicle dependant
	Track rail or cantilever track rail, right hand (illustrated)	vehicle dependant
⑮	Safety cable Ø 4 mm	660854310
⑯	Wire rope clamp DIN 1142 - 5 mm	270151188
⑰	Ball bearing with rivet stud	660850470
⑱	Tie bar carrier, left hand	660032110
	Tie bar carrier, right hand (illustrated)	660032120
㉑	Cranked link behind tie bar carrier, left hand	660026510
	Cranked link behind tie bar carrier, right hand (illustrated)	660026520
㉒	Bush Ø 18 x 10.2 x 6 mm	not available
㉓	Washer DIN 125 - A 10.5	660785660
㉔	Hex. head nut with flange DIN 6926 - M 8	not available
㉕	Washer DIN 125 - A 8.4	660785280
㉖	Linkage rivet	660845530
㉗	Roller carriage	660031101
㉘	Cantilever saddle	660030640
㉙	Locking pin clip	660855200
㉚	Rail latch	660033550
㉛	Hex. head screw DIN 931 - M 10 x 50	660781030
㉜	Hex. head nut DIN 985 - M 10 - 8	660794490

The centre spar area linkages are screwed to the threaded stud ③ on the roller carriages.

There are further spare parts for the rail latch ㉚ which are itemised under the individual parts.

④ There are currently 3 different headboard/head board support connections available:

1) The combination of items ①, ②, ③ and ④ is Standard.

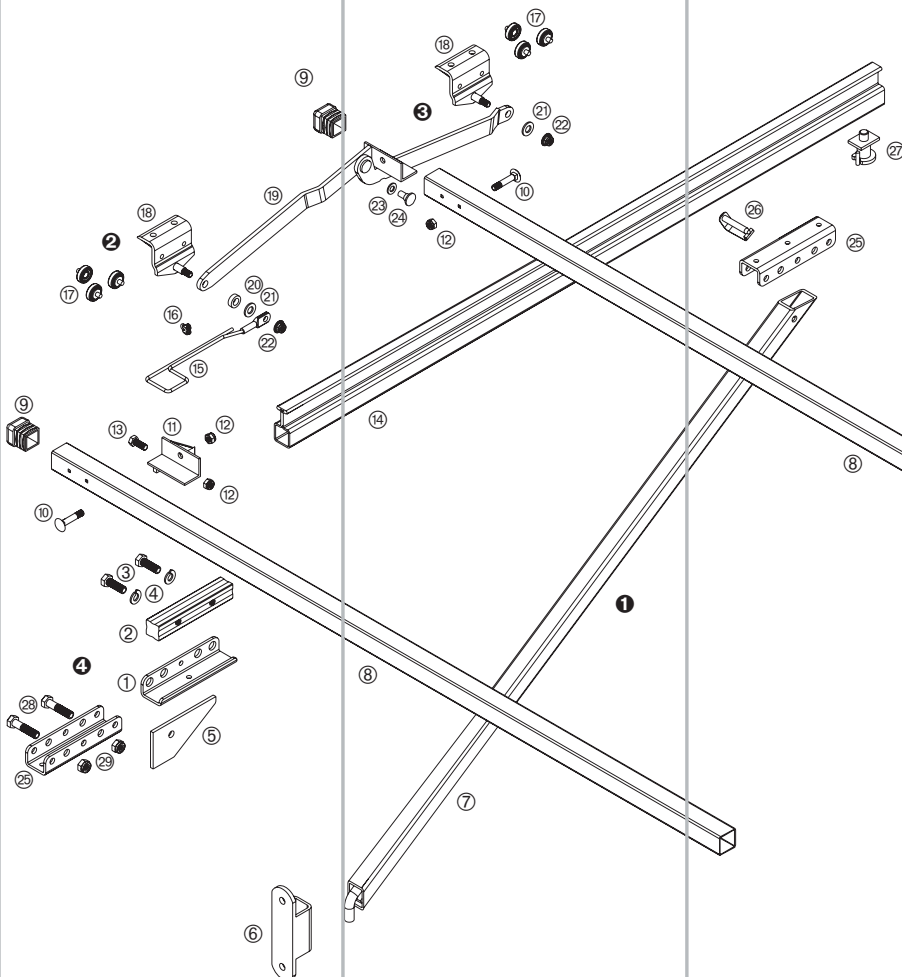
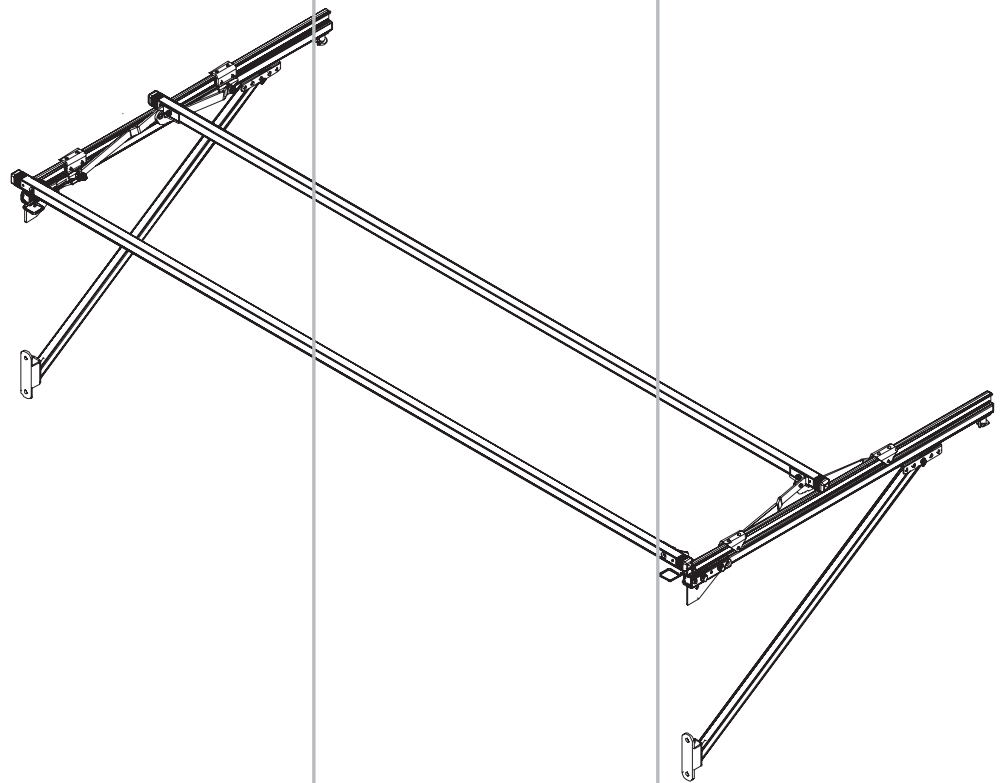
2) On request, the obsolete connection can still be supplied, consisting of items ㉑, ㉒ and ㉓. This version, however, is not recommended for new tops, as the frontmost roller carriage collides with the cantilever saddle when the roof is opened.

3) In the interim and for special designs, the itemised headboard/headboard support connection variant listed under "Overview of obsolete spare parts still available" on page 807 are still manufactured.

Vehicle dependant parts are available in several designs, e.g. in various lengths. Please note that various components also include other parts itemised in the table and illustrations.

All available individual parts and the extent of their supply can be found from page 807.

Headboard area special construction "with compensating linkages"



In the Headboard area sub-assembly special construction "with compensating links", all parts up to the first (complete) centre spar are summarised. In addition, parts for the option "cantilever division and support" ❶, consisting of items ❷, ❸, ❹ and ❺, are illustrated. No components for tops in DB (German Rail) specification in accordance with EN 283 are itemised. Enquiries about these spare parts should be addressed to our department in Wermelskirchen.

The exploded view illustrates the right hand side of the roof (viewed from rear of vehicle) side. This construction is used (as opposed to the basic version) to obtain a shorter spacing between the first rising spar and the headboard. For this reason, the frontmost tie bar carrier and its link (see page 794) are replaced with a standard roller carriage with a compensating linkage ❹. Depending on the roof length, a standard linkage or several compensating linkages can be used behind each other. One advantage of this option is that when opening and sliding the roof together, the first spar also rises thereby allowing collected

condensation to run off when rain is on the tarpaulin between the headboard and the first spar. For clarity, the assembly of the front tie bar carrier 2 with its individual parts is shown again on the next page scaled up 02:01.

The centre spar area linkages are screwed to the threaded studs 3 on the roller carriage.

There are further spare parts for the rail latch 27 which are itemised under the individual parts.

4 There are currently 3 different headboard/headboard support connections available:

1) The combination of items 1, 2, 3 and 4 is Standard.

2) On request, the obsolete connection can still be supplied, consisting of items 20, 21 and 22. This version, however, is not recommended for new tops, as the frontmost roller carriage collides with the cantilever saddle when the roof is opened.

3) In the interim and for special designs, the itemised headboard/headboard support connection variant listed under "Overview of obsolete spare parts still available" on page 807 are still manufactured.

Vehicle dependant parts are available in several designs, e.g. in various lengths. Please note that various components also include other parts itemised in the table and illustrations.

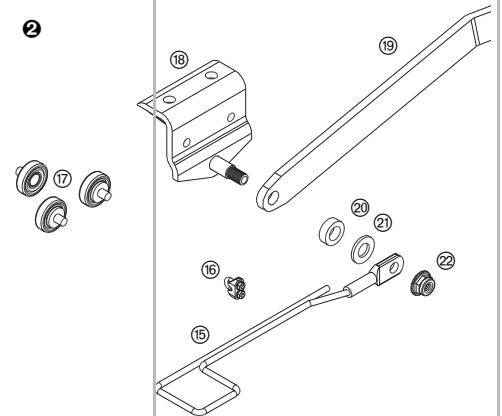
All available individual parts and the extent of their supply can be found from page 807.

Headboard area Special construction "with compensating linkages"

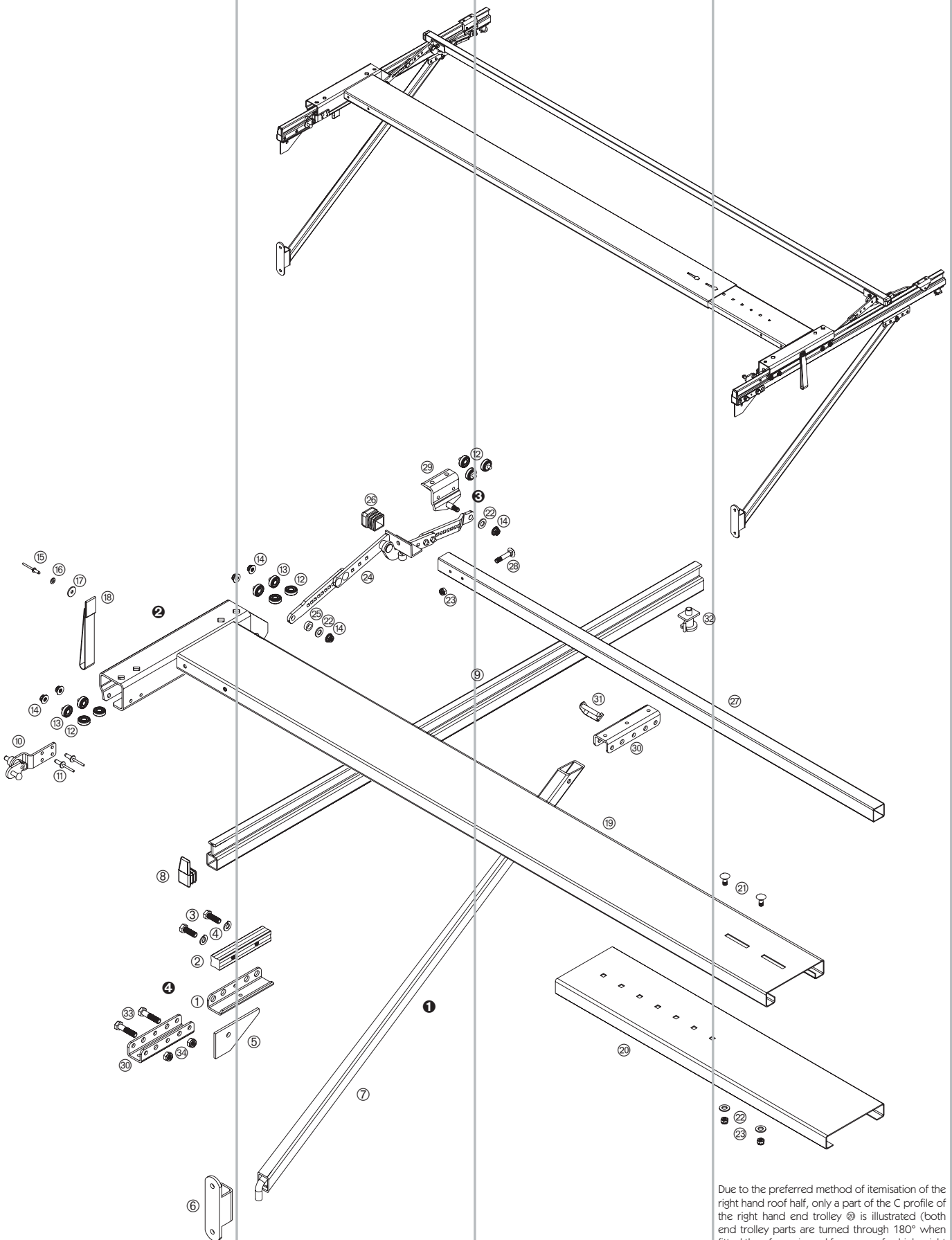
This sub-assembly consists of:

Item

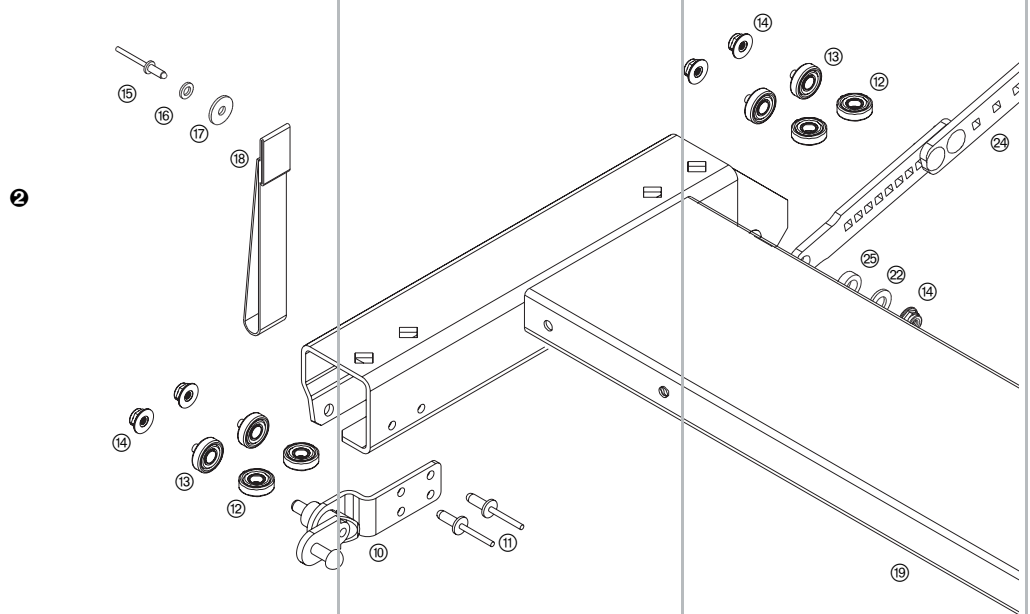
1	Cantilever saddle L profile (4 or alternatively 20 in conjunction with 20 and 29)	660030700
2	Connecting inserts	660030720
3	Hex. head screw DIN 933 - M 10 x 25	960970014
4	Spring washer DIN 127 - A 10	not available
5	Gusset plate (corner plate)	660010310
6	Strut socket	vehicle dependant
7	Strut	vehicle dependant
8	Headboard spar and centre spar	vehicle dependant
9	Plug 30 x 30 mm (for spar ends)	660802820
10	Carriage bolt DIN 603 - M 8 x 42	660782250
11	Head board spar holder, left hand	660031130
	Head board spar holder, right hand (illustrated)	660031140
12	Hex. nut DIN 985 - M 8 - 8	660794590
13	Hex. head screw DIN 933 - M 8 x 20	960970006
9	Track rail or cantilever track rail, left hand	vehicle dependant
	Track rail or cantilever track rail, right hand (illustrated)	vehicle dependant
15	Safety cable Ø 4 mm	660854310
16	Wire rope clamp DIN 1142 - 5 mm	270151188
17	Ball bearing with rivet stud	660850470
18	Roller carriage	660031101
19	Linkage or compensating linkage, left hand	vehicle dependant
	Linkage or compensating linkage, left hand (illustrated)	vehicle dependant
20	Bush Ø 18 x 10.2 x 6 mm	not available
21	Washer DIN 125 - A 10.5	660785660
22	Hex. head nut with flange DIN 6926 - M 8	not available
23	Washer DIN 125 - A 8.4	660785280
24	Linkage rivet	660845530
25	Cantilever saddle	660030640
27	Locking pin clip	660855200
27	Rail latch	660033550
28	Hex. head screw DIN 931 - M 10 x 50	660781030
29	Hex. head nut DIN 985 - M 10 - 8	660794490



Headboard area special construction "two-way sliding"



Due to the preferred method of itemisation of the right hand roof half, only a part of the C profile of the right hand end trolley 20 is illustrated (both end trolley parts are turned through 180° when fitted therefore, viewed from rear of vehicle, right = end trolley left). A complete illustration can be found on page 802.



In the headboard area sub-assembly for the special construction "two-way sliding", all parts of the basic top up to the first (complete) centre spar are summarised. In addition, parts for the option "cantilever division and support" ❶, consisting of items ❸, ❷, ❹ and ❺ are illustrated.

No components for tops in DB (German Rail) specification in accordance with EN 283 are itemised. Enquiries about these spare parts should be addressed to our department in Wermelskirchen.

The exploded view on the facing page illustrates the right (viewed from rear of vehicle) roof side.

For clarity, the assembly of the end trolley ❷ with its individual parts is shown again on this page scaled up 2:1.

The various end lifters and end spars/portal beam variants are accessories and are for this reason itemised from page 804.

The centre spar area linkages are screwed to the threaded studs ❸ on the roller carriages.

There are further spare parts for the rail latch ❷ which are itemised under the individual parts.

❶ There are currently 3 different headboard/headboard support connections available:

1) The combination of items ❶, ❷, ❸ and ❹ is Standard.

2) On request, the obsolete connection can still be supplied, consisting of items ❹, ❺ and ❻.

3) In the interim and for special designs, the itemised headboard/headboard support connection variant listed under "Overview of obsolete spare parts still available" on page 807 are still manufactured.

Vehicle dependant parts are available in several designs, e.g. in various lengths. Please note that various components also include other parts itemised in the table and illustrations.

All available individual parts and the extent of their supply can be found from page 807.

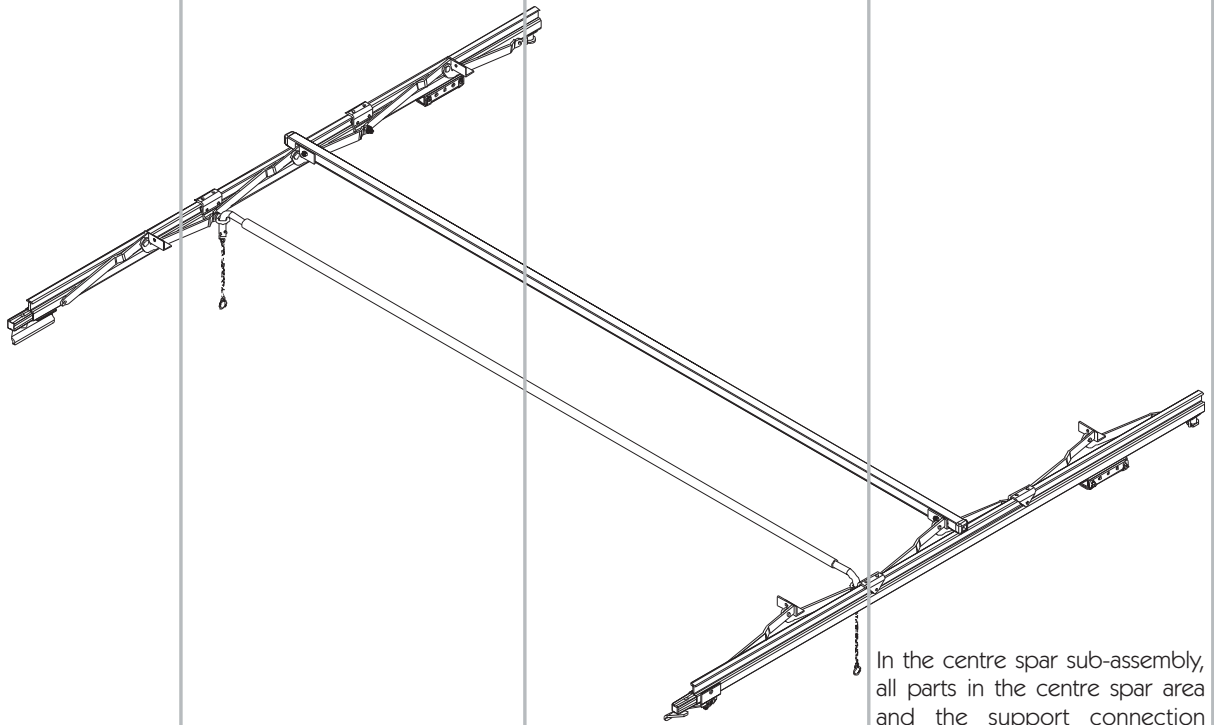
Headboard area special construction "two-way sliding"

This sub-assembly consists of:

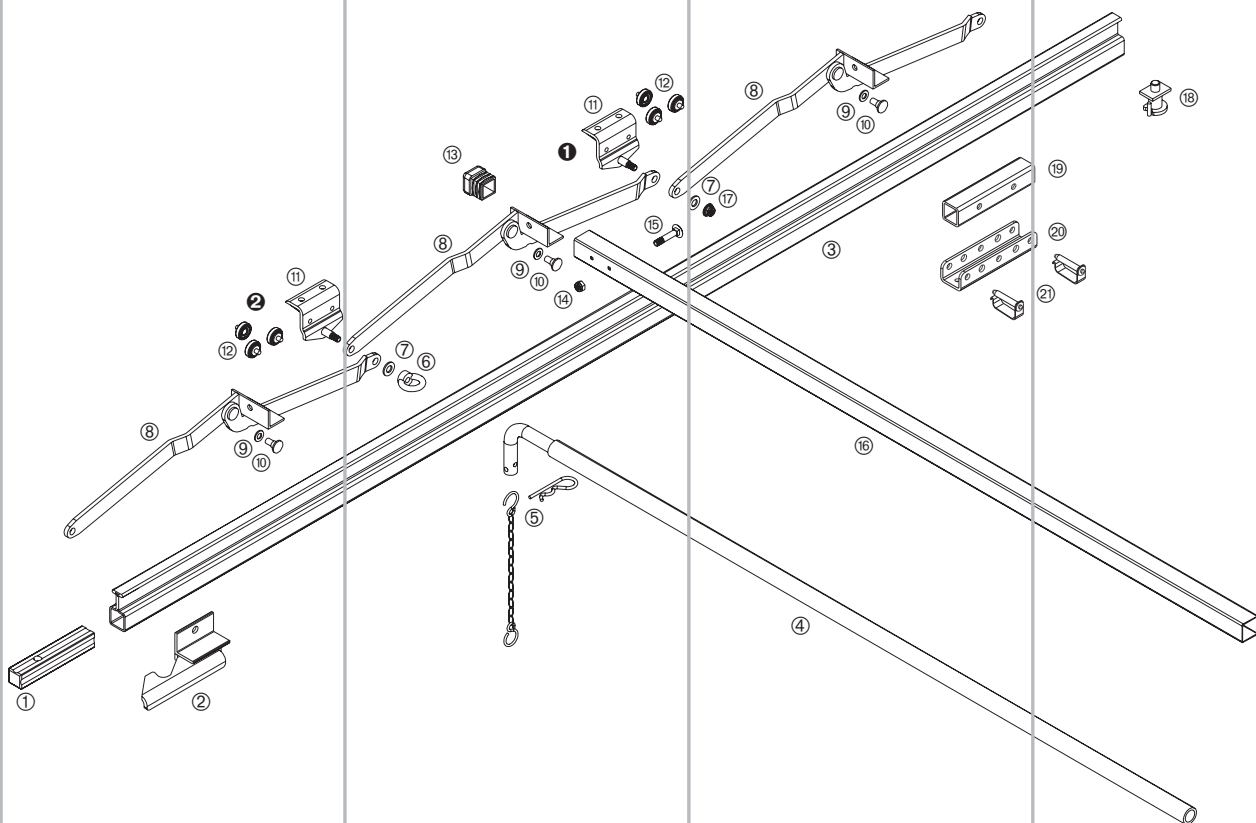
Item

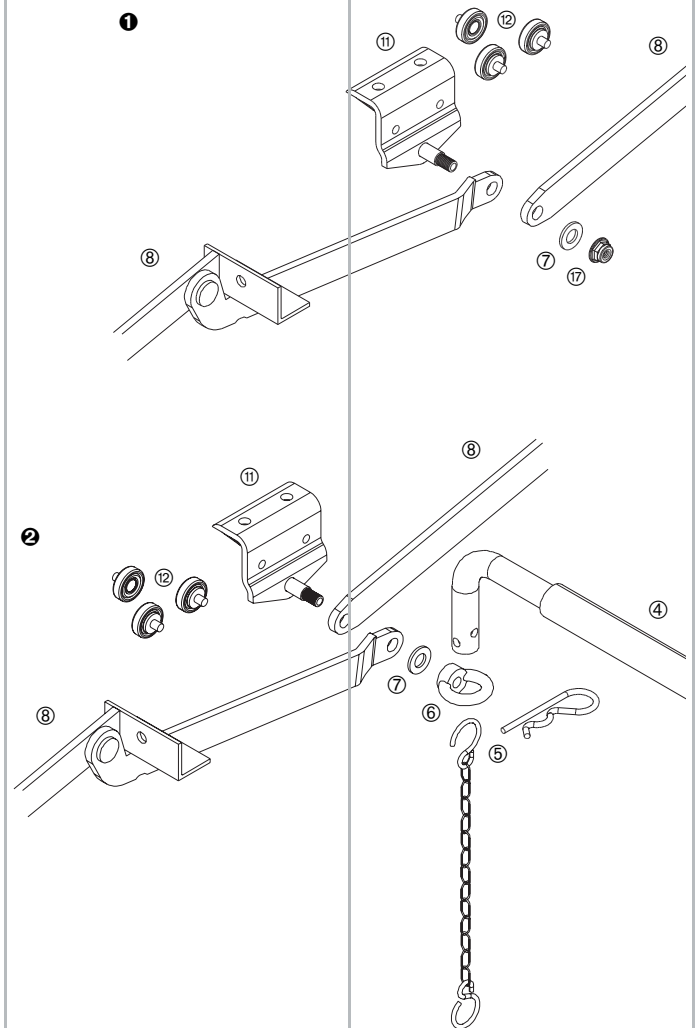
❶	Cantilever saddle, L profile (❶ or alternatively ❹ in conjunction with ❺ and ❻)	660030700
❷	Connecting inserts	660030720
❸	Hex. head screw DIN 933 - M 10 x 25	960970014
❹	Spring washer DIN 127 - A 10	not available
❺	Gusset plate (corner plate)	660010310
❻	Strut socket	vehicle dependant
❼	Strut	vehicle dependant
❽	End cap (end track rail plug)	660701450
❾	Track rail or cantilever track rail, left hand	vehicle dependant
	Track rail or cantilever track rail, right hand (illustrated)	vehicle dependant
❿	Locking device, end trolley	660031660
⓫	Blind rivet 6.5 x 17 mm	not available
⓬	Ball bearing with rivet stud	660850470
⓭	Ball bearing with threaded stud M 8	660830040
⓮	Hex. head nut with flange DIN 6926 - M 8	not available
⓯	Blind rivet DIN 7337 - 5.0 x 10 mm	660305430
⓰	Washer DIN 125 - A 6.4	660785760
⓱	Washer DIN 9021 - 6.4	not available
⓲	Pull strap	660323350
⓳	End trolley, left hand (long)	660031290
⓴	End trolley, right hand (short)	660031301
⓵	Carriage bolt DIN 603 - M 8 x 20	not available
⓶	Washer DIN 125 - A 10.5	660785660
⓷	Hex. head nut DIN 985 - M 8 - 8	660794590
⓸	Adjustable compensating linkage, left hand	660031210
	Adjustable compensating linkage, right hand (illustration)	660031220
⓹	Bush Ø 18 x 10.2 - 6 mm	not available
⓺	Plug 30 x 30 mm (for spar ends)	660802820
⓻	Spar	vehicle dependant
⓼	Carriage bolt DIN 603 - M 8 x 42	660782250
⓽	Roller carriage	660031101
⓾	Cantilever saddle	660030640
⓿	Locking pin clip	660855200
⓿	Rail latch	660033550
⓿	Hex. head screw DIN 931 - M 10 x 50	660781030
⓿	Hex. head nut DIN 985 - M 10 - 8	660794490

Centre spar



In the centre spar sub-assembly, all parts in the centre spar area and the support connection provided for the centre pillars are summarised. There are no components itemised for tops in DB (German Rail) specification in accordance with EN 283, apart from the additional track rail locking device ②. Enquiries about these spare parts should be addressed to our department in Wermelskirchen.





Centre spar

This sub-assembly consists of:

Item

①	Connecting insert	660010540
②	Additional track rail locking device, left hand	on request
	Additional track rail locking device, right hand (illustrated)	on request
③	Track rail	vehicle dependant
④	Tie bar	vehicle dependant
⑤	Safety chain (or alternative)	660751410
	Spring cotter 4 mm, plain	215141008
⑥	Eye nut DIN 582 - M 8	660698200
⑦	Washer DIN 125 - A 10.5	660785660
⑧	Linkage or compensating linkage, left hand	vehicle dependant
	Linkage or compensating linkage, right hand (illustrated)	vehicle dependant
⑨	Washer DIN 125 - A 8.4	660785280
⑩	Linkage rivet	660845530
⑪	Roller carriage	660031101
⑫	Ball bearing with rivet stud	660850470
⑬	Plug 30 x 30 mm (for spar ends)	660802820
⑭	Hex. nut DIN 985 - M 8 - 8	660794590
⑮	Carriage bolt DIN 603 - M 8 x 42	660782250
⑯	Spar	vehicle dependant
⑰	Hex. head nut with flange DIN 6926 - M 8	not available
⑱	Rail latch	660033550
⑲	Locating tube	660026670
⑳	Cantilever saddle	660030640
㉑	Locking pin clip	660855200

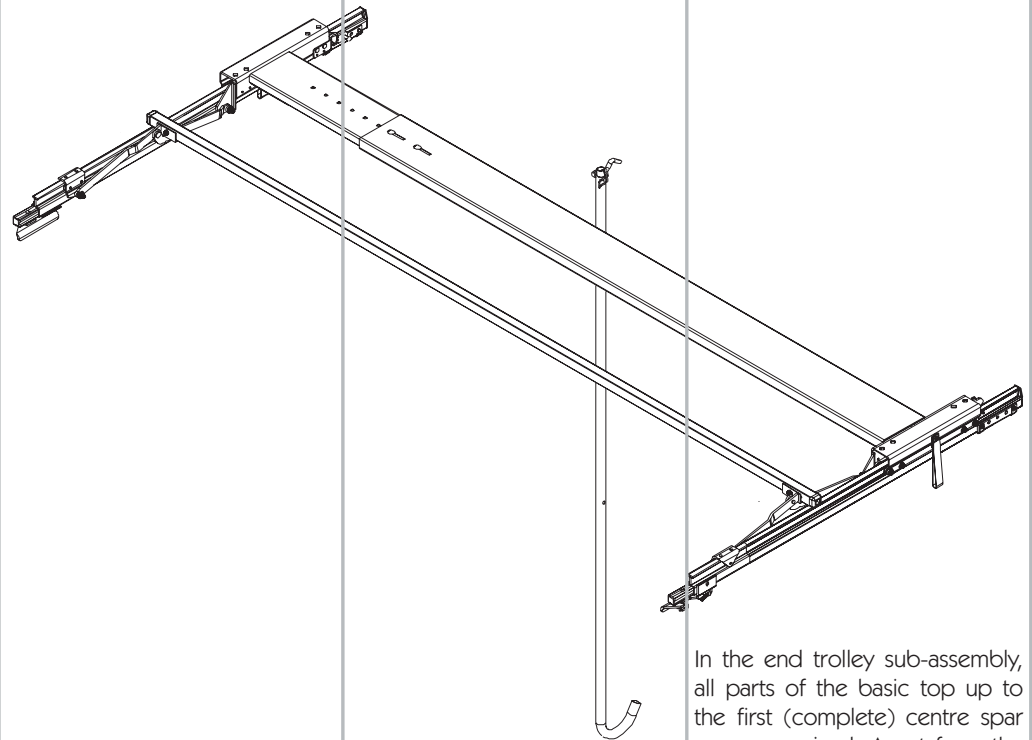
The exploded view, below left, shows the right hand roof side (viewed from rear of vehicle). For clarity, the assembly of a standard roller carriage ① and also a roller carriage with tie rod holder ② with their individual parts is shown again on this page scaled up 2:1.

There are further spare parts for the rail latch ⑱ which are itemised under the individual parts.

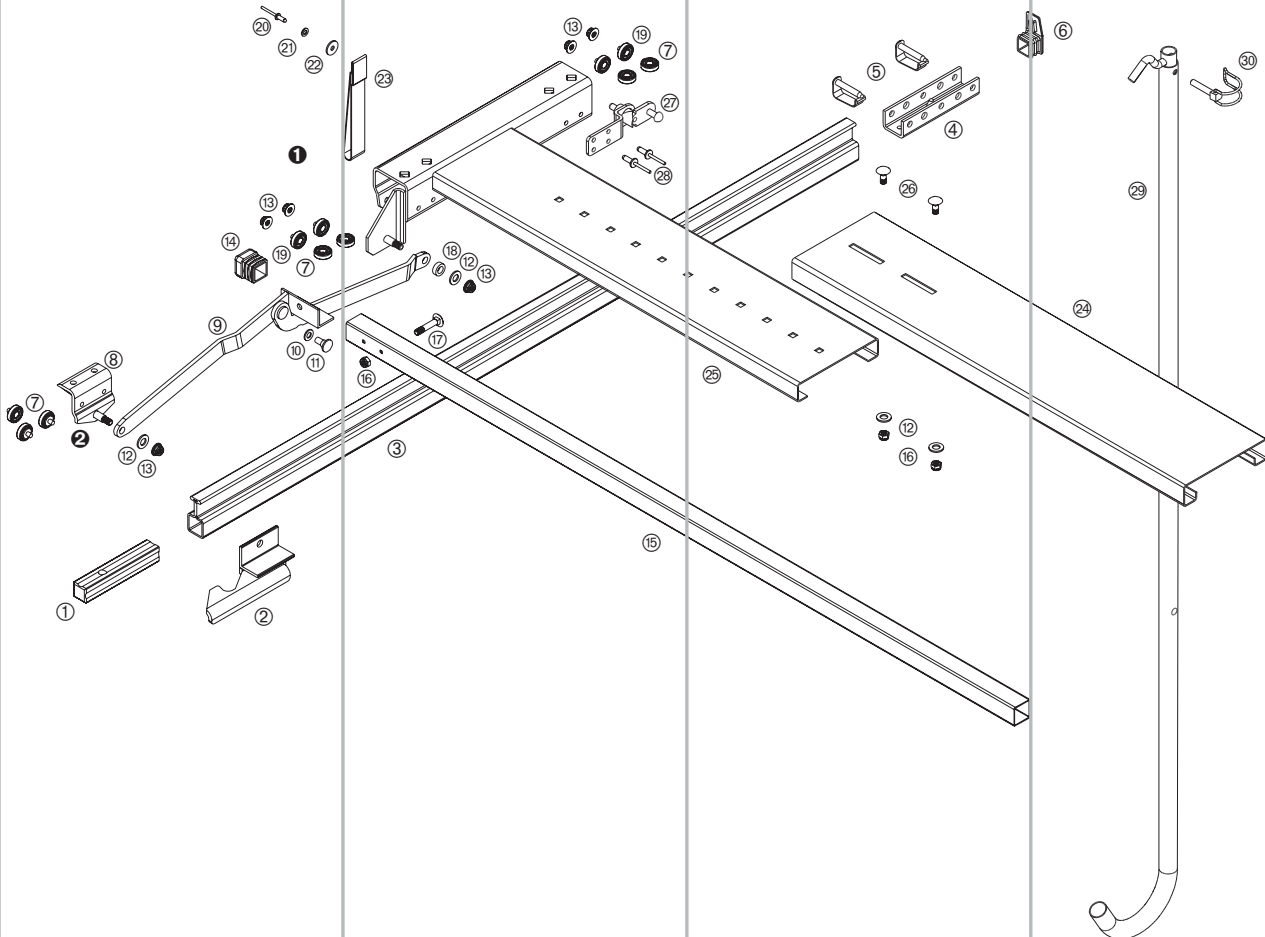
Vehicle dependant parts are available in several designs, e.g. in various lengths. Please note that various components also include other parts itemised in the table and illustrations.

All available individual parts and the extent of their supply can be found from page 807.

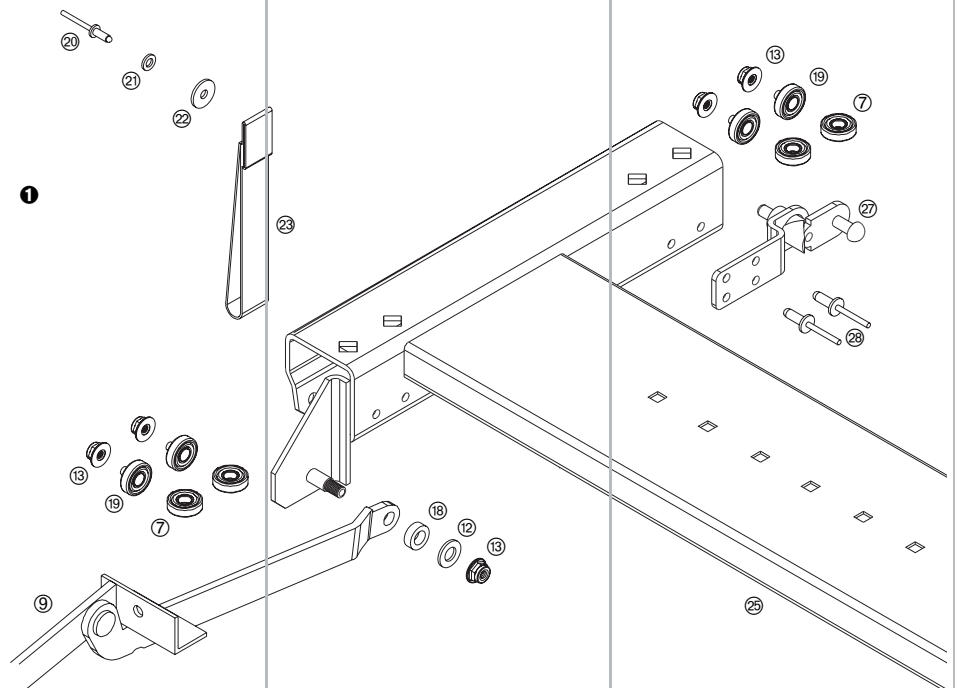
End trolley



In the end trolley sub-assembly, all parts of the basic top up to the first (complete) centre spar are summarised. Apart from the additional track rail locking device ②, no components for tops in DB (German Rail) specification in accordance with EN 283 are



Due to the preferred method of itemisation of the right hand roof half, only a part of the C profile of the left hand end trolley ⑩ is illustrated. A complete illustration can be found on page 798.



End trolley

This sub-assembly consists of:

Item

①	Connecting insert	660010540
②	Additional track rail locking device, left hand	on request
	Additional track rail locking device, right hand (illustrated)	on request
③	Track rail	vehicle dependant
④	End support connector	660032360
⑤	Locking pin clip	660855200
⑥	End cap (end track rail plug)	660701450
⑦	Ball bearing with rivet stud	660850470
⑧	Roller carriage	660031101
⑨	Linkage, left hand	vehicle dependant
	Linkage, right hand (illustrated)	vehicle dependant
⑩	Washer DIN 125 - A 8.4	660785280
⑪	Linkage rivet	660845530
⑫	Washer DIN 125 - A 10.5	660785660
⑬	Hex. head nut with flange DIN 6926 - M 8	not available
⑭	Plug 30 x 30 mm (for spar ends)	660802820
⑮	Spar	vehicle dependant
⑯	Hex. head nut DIN 985 - M 8 - 8	660794590
⑰	Carriage bolt DIN 603 - M 8 x 42	660782250
⑱	Bush \varnothing 18 x 10.2 x 6 mm	not available
⑲	Ball bearing with threaded stud M 8	660830040
⑳	Blind rivet DIN 7337 - 5.0 x 10 mm	660305430
㉑	Washer DIN 125 - A 6.4	660785760
㉒	Washer DIN 9021 - 6.4	not available
㉓	Pull strap	660323350
㉔	End trolley, left hand (long)	660031290
㉕	End trolley, right hand (short)	660031301
㉖	Carriage bolt DIN 603 - M 8 x 20	not available
㉗	Locking device, end trolley	660031660
㉘	Blind rivet 6.5 x 17 mm	not available
㉙	Roof pole	660025180
㉚	Tube linchpin	660830190

itemised.

Enquiries about these spare parts should be addressed to our department in Wermelskirchen.

The exploded view shows the right hand roof side (viewed from rear of vehicle).

For clarity, the assembly of the front tie bar carrier ❶ with its individual parts is shown again on the next page scaled up 02:01.

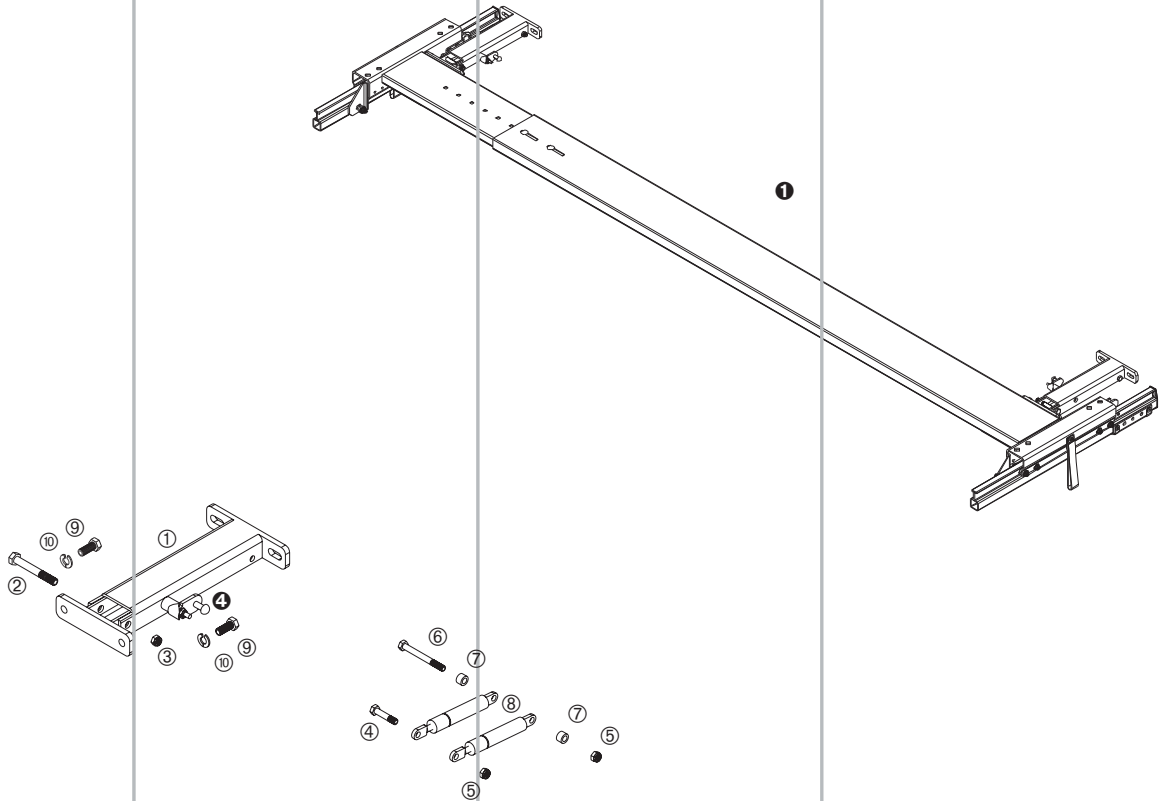
The various end lifters and end spars/portal beam variants are accessories and are for this reason itemised from page 804.

The centre spar area linkages are screwed to the threaded studs ❷ on the roller carriages.

Vehicle dependant parts are available in several designs, e.g. in various lengths. Please note that various components also include other parts itemised in the table and illustrations.

All available individual parts and the extent of their supply can be found from page 807.

Accessory overview End lifter 2 x 500 N



End lifter 2 x 500 N

This accessory consists of:

Item		
①	End lifter housing, left hand	not available
	End lifter housing, right hand (illustrated)	not available
②	Hex. head screw DIN 931 - M 10 x 75	not available
③	Hex. head nut DIN 985 - M 10 - 8	660794490
④	Hex head screw similar to DIN 931 - M 8 x 38	660783310
⑤	Hex. head nut DIN 985 - M 8 - 8	660794590
⑥	Hex. head screw DIN 931 - M 8 x 75	not available
⑦	Bush Ø 14 x 9 - 8.5 mm	not available
⑧	Gas strut 500 N	660728290

660027301

Miscellaneous parts

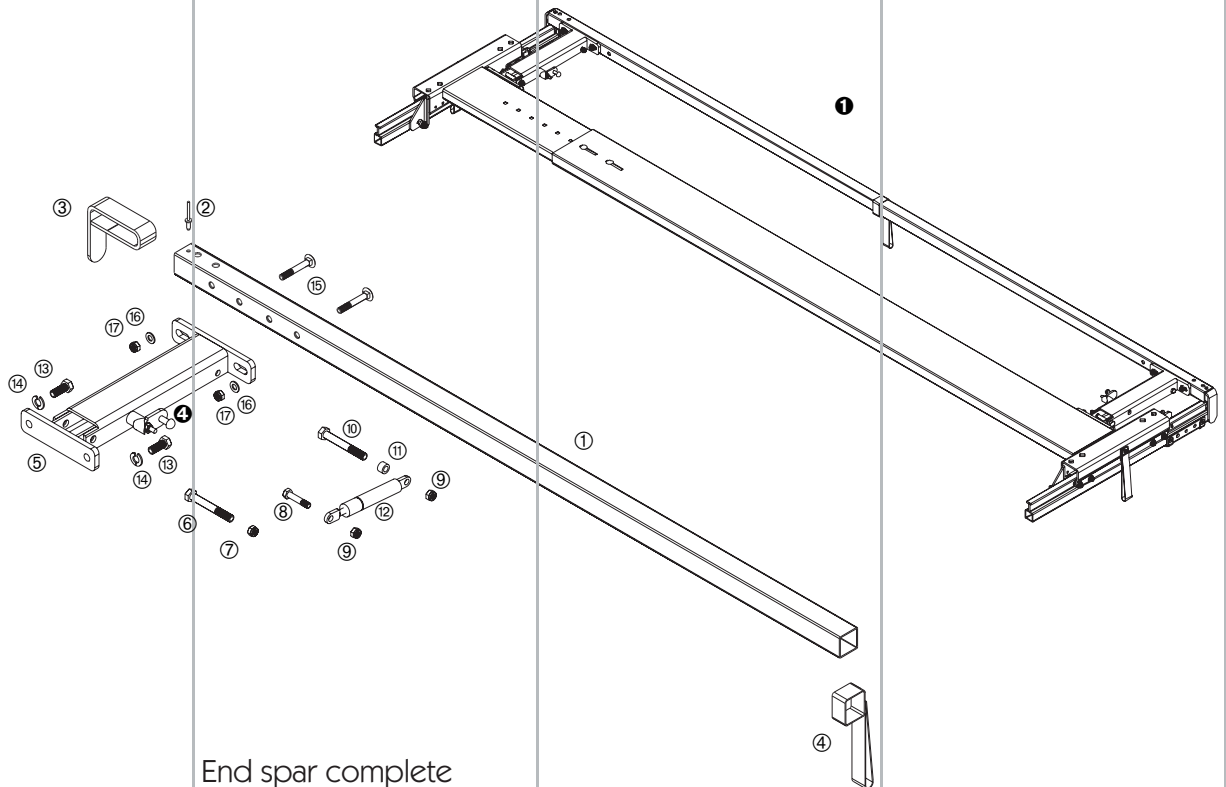
Item		
⑨	Hex. head screw DIN 933 - M 10 x 25	960970014
⑩	Spring washer DIN 127 - A 10	not available

On this page, the end lifter accessory part is illustrated with 2 x 500 N gas struts. The version of end lifter with 2 x 500 N gas struts is only recommended for heavy portal/end beams.

For clarity, ① shows the complete roof closing mechanism without the end spar/portal beam. The exploded view shows the right hand roof side (viewed from rear of vehicle).

The article numbers given in the table are available individual parts; each number given below comprises the parts supplied for one roof.

All available individual parts and the extent of their supply can be found from page 807.

End spar and end lifter
 700 N


End spar complete

This accessory consists of:

Item

① Spar 35 x 35 mm	not available
② Blind rivet DIN 7337 - 4.8 x 18	not available
③ Tarpaulin deflector	not available
④ Pull strap	660323350

Overall length 2550 mm

660035360

Length as required

660027910

End lifter 700 N

This accessory consists of:

Item

⑤ End lifter housing, left hand	not available
End lifter housing, right hand (illustrated)	not available
⑥ Hex. head screw DIN 931 - M 10 x 75	not available
⑦ Hex. head nut DIN 985 - M 10 - 8	660794490
⑧ Hex head screw similar to DIN 931 - M 8 x 38	660783310
⑨ Hex. head nut DIN 985 - M 8 - 8	660794590
⑩ Hex. head screw DIN 931 - M 8 x 75	not available
⑪ Bush Ø 14 x 9 - 8.5 mm	not available
⑫ Gas strut 700 N	660750990

660027300

Miscellaneous parts

Item

⑬ Hex. head screw DIN 933 - M 10 x 25	960970014
⑭ Spring washer DIN 127 - A 10	not available
⑮ Carriage bolt DIN 603 - M 8 x 55	not available
⑯ Washer DIN 125 - A 8.4	660785280
⑰ Hex. head nut DIN 985 - M 8 - 8	660794590

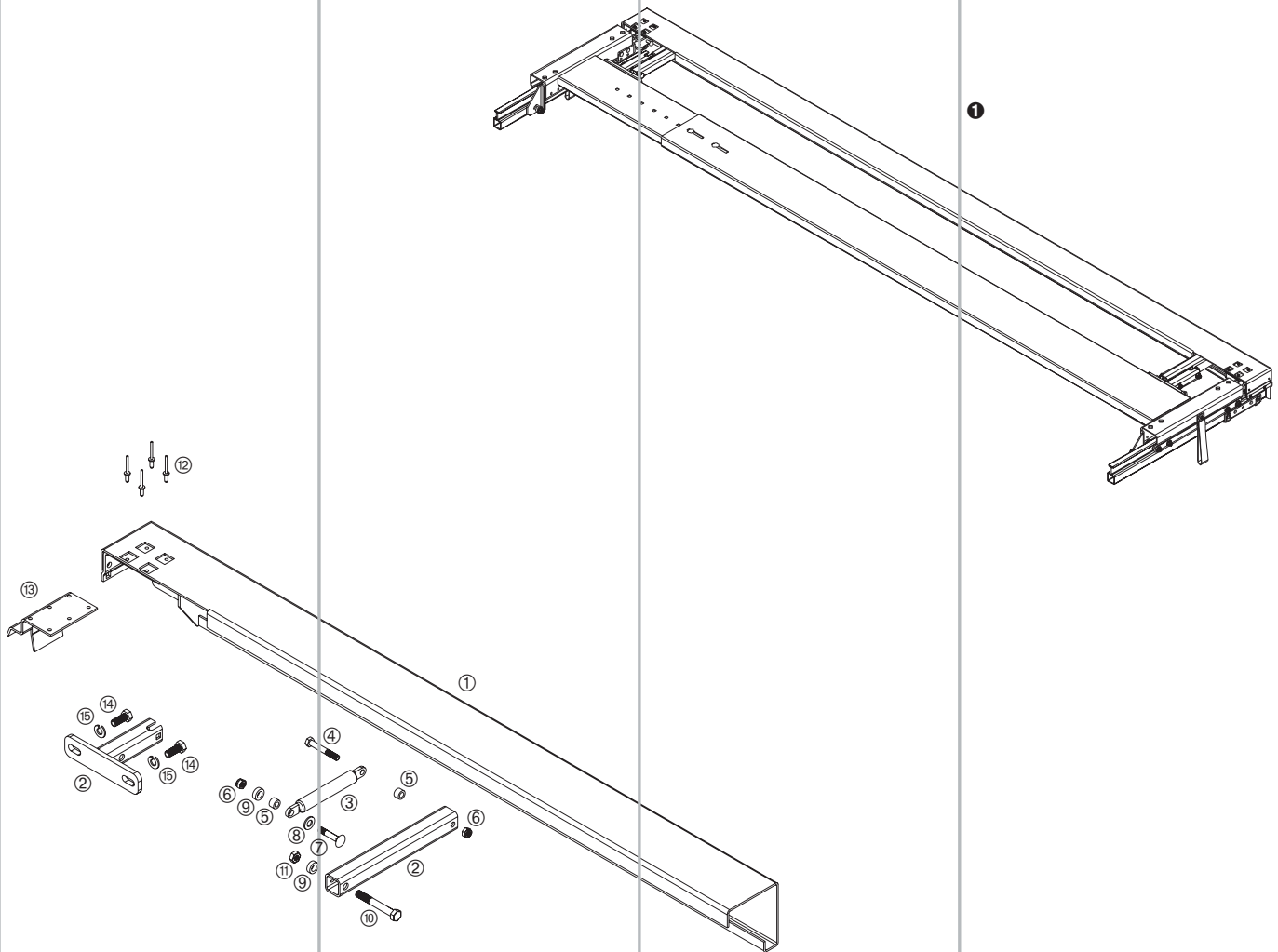
On this page, the accessory parts for the end spar and end lifter 700 N are illustrated. For clarity, ❶ illustrates the complete roof closure.

The exploded view depicts the right hand roof side (viewed from rear of vehicle).

The article numbers given in the table are available individual parts; each number given below comprises the parts supplied for one roof.

All available individual parts and the extent of their supply can be found from page 807.

Portal beam



Portal beam

This accessory consists of:

Item		
①	Portal beam	not available
②	End lifter housing	not available
③	Gas strut 700 N	660750990
④	Hex. head screw DIN 931 - M 8 x 55	not available
⑤	Bush Ø 14 x 9 - 8.5 mm	not available
⑥	Hex. nut DIN 985 - M 8 - 8	660794590
⑦	Carriage bolt DIN 603 - M 8 x 42	660782250
⑧	Washer DIN 125 - A 10.5	660785660
⑨	Bush Ø 18 x 6 - 10.5 mm	not available
⑩	Hex. head screw DIN 931 - M 10 x 75	not available
⑪	Hex. nut DIN 980 form V - M 10	not available
⑫	Blind rivet DIN 7337 - 5.0 x 10 mm	660305430
⑬	Adapter plate	not available

Supplied on request

Miscellaneous parts

Item		
⑭	Hex. head screw DIN 933 - M 10 x 25	960970014
⑮	Spring washer DIN 127 - A 10	not available

The portal beam accessory part is illustrated on this page. For clarity, ❶ illustrates the complete roof closure. The exploded view depicts the right hand roof side (viewed from rear of vehicle).

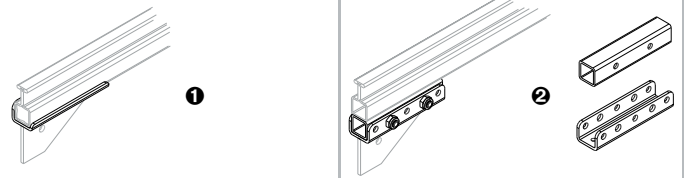
The article numbers given in the table are available individual parts; each number given below comprises the parts supplied for one roof. The portal beam is only available on request due to its many variants.

All available individual parts and the extent of their supply can be found from page 807.

Headboard/headboard support connection

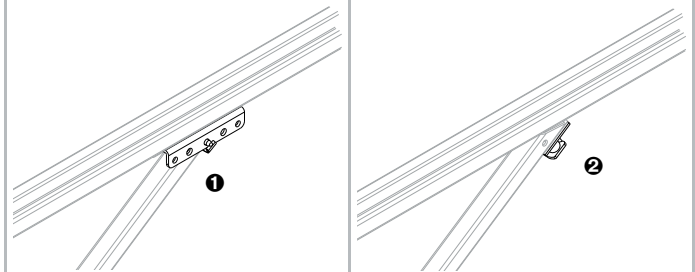
For fitting the roof to the headboard, the cantilever saddle L profile is currently supplied on which the inner leg is shortened to allow for the shape of the roller carriage, and which is fastened on one side (from outside) with the connection inserts pushed into the track rails using 2 screws DIN 933 - M 10 x 25 and spring washers DIN 127 - A 10 ①. Up to 2001, and still currently in the case of special designs, a locating tube article no. 660026670 must be welded under the track rail which, using two hex. head screws DIN 931 - M 10 x 50, article no. 660781030 and hex. nuts DIN 985 - M 10 - 8, article no. 660794490, is screwed to the cantilever saddle article no: 660030640, which has been welded to the headboard/headboard support ②.

Overview of obsolete spare parts still available



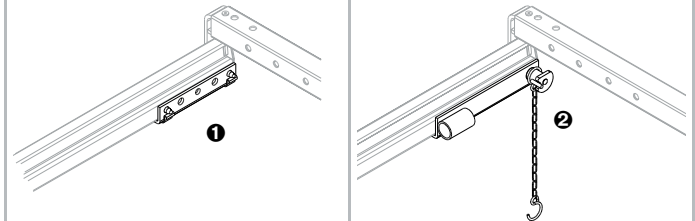
Strut bearing

The strut is connected to the track rail by means of the cantilever saddle ①, which is turned through 180° and welded to the underside of the track rail. The strut is secured by means of a locking pin clip which is pushed sideways through one of the holes in the cantilever saddle. Obsolete roof constructions still have the strut latch ② which is obtainable left handed, article no. 660013713, and right handed, article no. 660013714 (illustrated), which locates by means of a spring bolt from behind through a hole in the strut. New struts have holes for both versions.

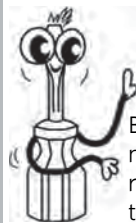


End support saddle

For mounting the roof on to the rear corner pillar, the end support saddle ① is supplied in current production, which is welded to the rear corner pillar or its extension. The support connection ② with integrated tie bar socket is only supplied as a spare part. This is obtainable left handed, article no. 660020090, and right handed (illustrated), article no. 660020100.



Spare parts/individual parts



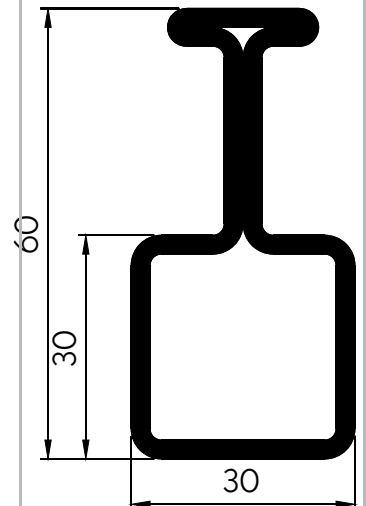
By quoting the roof number, all track rails/cantilevers for the specified roof can be obtained to the original finished dimensions including drilled holes.

Illustration of track rail, scale 1:1.

Track rail
Zinc plated steel.

Length
[mm]

3000	660746113
4000	660746114
7000	660746110



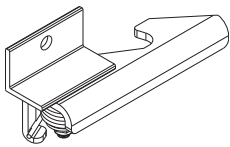
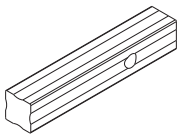
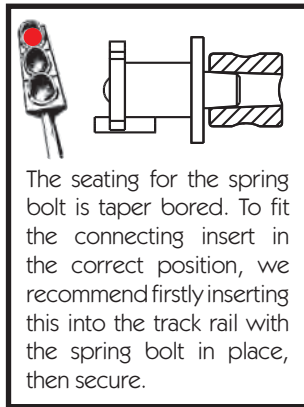
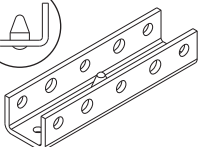
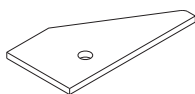
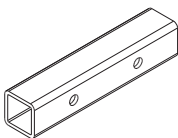
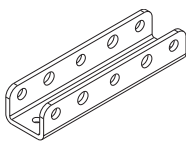
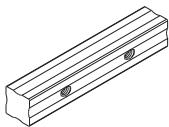
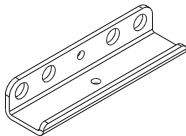


Illustration: left hand.



The seating for the spring bolt is taper bored. To fit the connecting insert in the correct position, we recommend firstly inserting this into the track rail with the spring bolt in place, then secure.

Connecting insert

Steel, self colour.

660010540

Rail latch

Zinc plated steel.

660033550

Additional track rail locking device

For tops to DB (German Rail) specification in accordance with EN 283. Weld-on bracket, self coloured steel, black KTL coated locking device, zinc coated DIN parts.

Left hand assembly

on request

Right hand assembly

on request

End cap

End track rail plug, plastic.

660701450

Cantilever saddle

L profile

Steel, KTL coated.

660030700

Connecting insert

For fitting the cantilever saddle L profile, with 2 x female threads M 10, zinc plated steel.

660030720

Cantilever saddle

Steel, KTL coated.

660030640

Locating tube

Zinc plated steel.

660026670

Gusset plate (corner plate)

Steel, KTL coated.

660010310

End support saddle

Steel, KTL coated.

660032360

Spare parts for this latch can be found under "Latch spare parts" on page 814 The relevant item numbers are ⑥ to ⑨.

The cantilever saddle 66003640 is used as a direct connection between the front headboard corner pillar and the track rail, as an indirect connection between the front headboard corner pillar and the track rail via the locating tube welded to the underside of the latter (with this top, only up to 2001 production and special designs), and likewise supplied as standard using the locating tube welded underneath the track rail as support connections for each centre pillar, and, turned through 180° and welded to the underside of the track rail, as a fixing point for the strut.

Spare parts for the latch welded to the support connection can be found under "Latch spare parts" on page 814. The relevant item numbers are ⑥ and ⑧.

Locking pin clip
Zinc plated steel.
660855200



Support connection
With safety chain and holder for tie bar, steel, KTL coated.

Left hand	660020090
Right hand	660020100

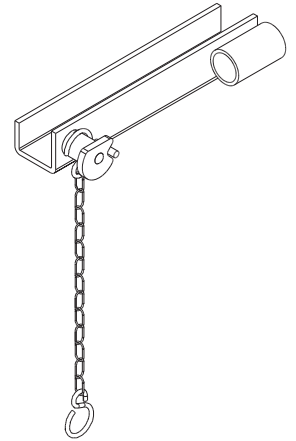
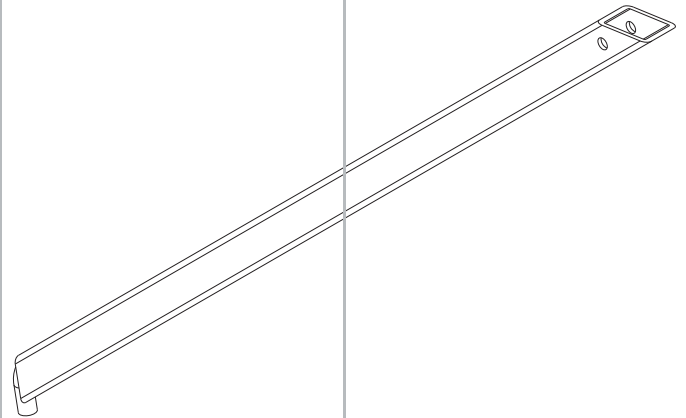


Illustration: left hand.

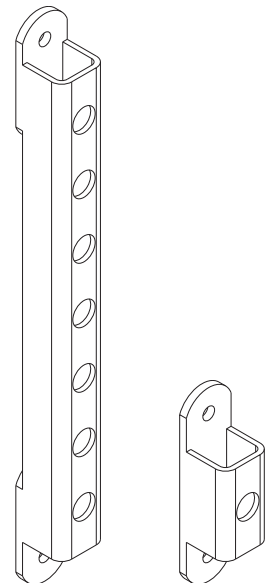
Strut
Steel, KTL coated.

Nominal length [mm]	
1052	660014450
1560	660014190



Strut socket
Steel, KTL coated.

Short	660014310
Height adjustable	660014340



Spare parts for this latch can be found under "Latch spare parts" on page 814. The relevant item numbers are ⑥ and ⑧.

Strut latch
Steel, self colour.

Left hand	660013713
Right hand	660013714

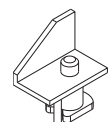


Illustration: left hand.

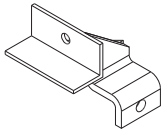
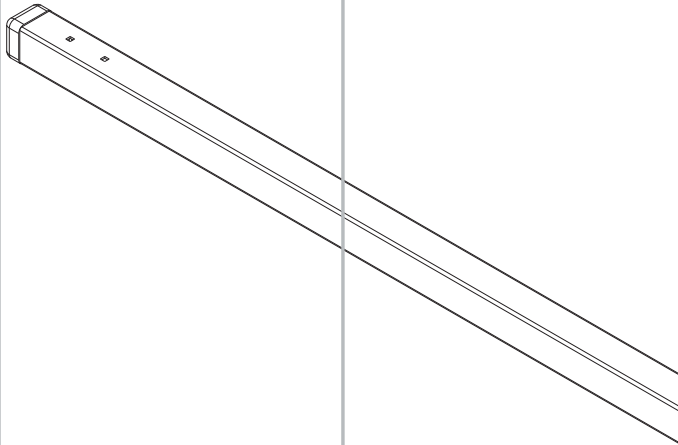


Illustration: left hand.

Headboard crossbar holder

Steel, self colour.

Left hand	660031130
Right hand	660031140



Spar

Headboard and centre spar, 30 x 30 x 1.5 mm, incl. plugs, zinc plated steel.

Outside width [mm]

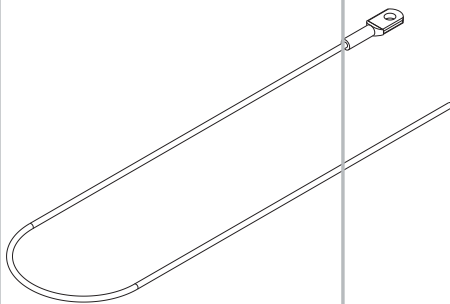
2520	660025010
2550	660035220



Plug

For 30 x 30 mm spar, plastic.

660802820



Safety cable Ø 4 mm

For headboard connection, length approx. 1000 mm, zinc plated steel.

660854310

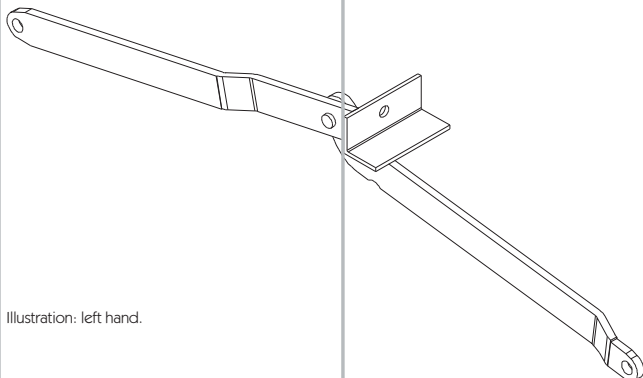
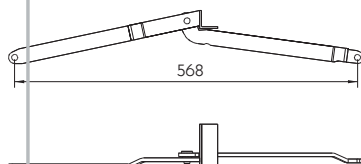


Illustration: left hand.

Linkage

Zinc plated steel.

Left hand	660027410
Right hand	660027420



Cranked link behind tie bar carrier
Zinc plated steel.

Left hand
Right hand

660026510
660026520

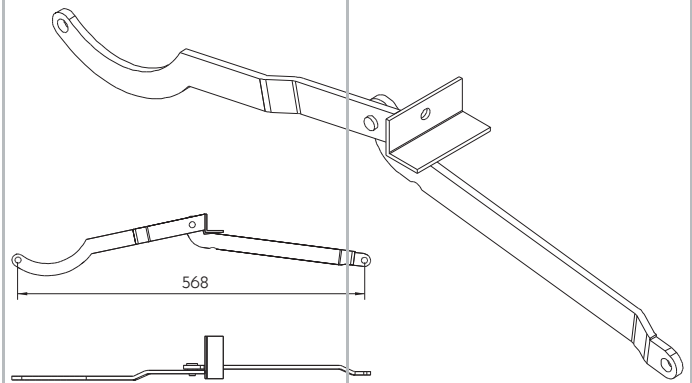
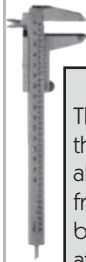


Illustration: left hand.



Linkage, compensating linkage, adjustable linkage?

The difference between the linkages is in the spacing of the roller carriage mounting holes in the outstretched position. With all tops, the 570 mm variant is primarily used whereby fitting is always carried out from the end of the body towards the front, and the frontmost (i.e. furthest from rear of vehicle) roller carriage/linkage/spar combination is connected to the fixed headboard spar by means of the safety cable \varnothing 4 mm. The frontmost spar should always be spaced at 200 - 300 mm from the headboard spar. In order to maintain this spacing consistently with the many variations in body length, compensating links are fitted as the frontmost links, which allow a roller carriage spacing of 460 mm or 330 mm. This situation is somewhat different with the roof variant "two-way sliding". Here, the roof length must correspond exactly to the body length as all parts, from the rear end to the front end trolleys are connected to each other by linkages. Adjustable compensating linkages are used to enable the top to be built exact to the centimetre.

Compensation linkage
Zinc plated steel.

Left hand
Right hand

660027430
660027440

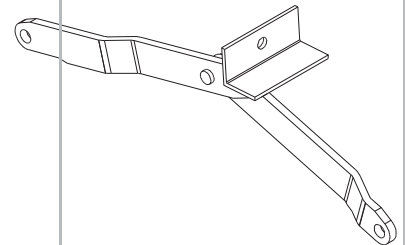
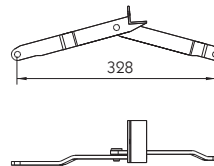


Illustration: left hand.

Compensation linkage
Zinc plated steel.

Left hand
Right hand

660027450
660027460

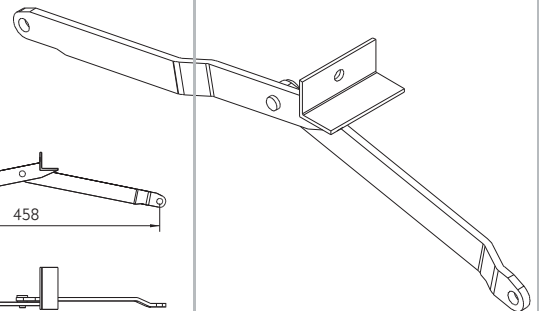
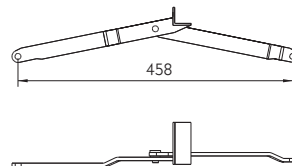


Illustration: left hand.

Linkage rivet
Zinc plated steel.
660845530



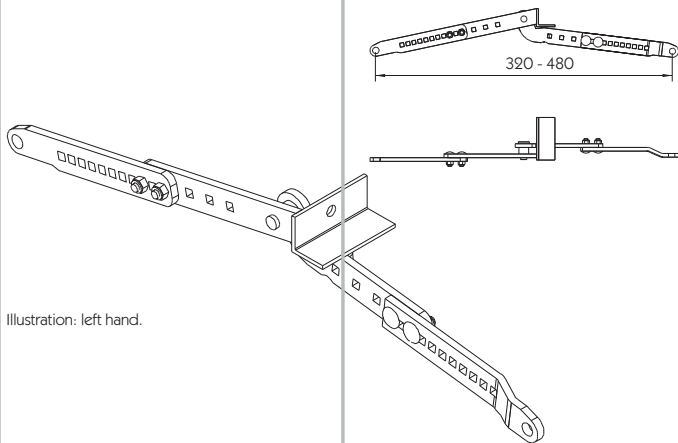


Illustration: left hand.

Adjustable compensation linkage

Zinc plated steel.

Left hand	660031210
Right hand	660031220

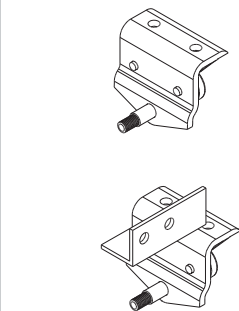


Illustration: left hand.

Roller carriage

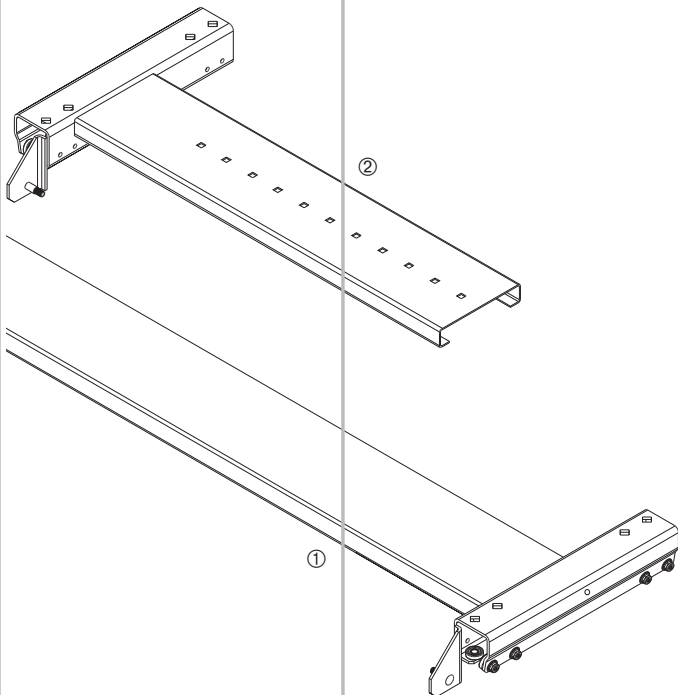
With ball bearings, zinc plated steel.

660031101

Tie bar carrier

With ball bearings, zinc plated steel.

Left hand	660032110
Right hand	660032120



End trolley

With ball bearings, KTL coated steel.

① Left hand	660031290
② Right hand	660031301

Ball bearing with rivet stud

Steel, gunmetal finish.

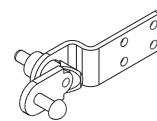
660850470

Ball bearing with threaded stud M 8

Steel, gunmetal finish.

660830040

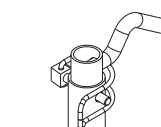
Locking device for end trolley
Zinc plated steel.
660031660



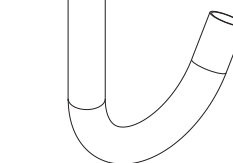
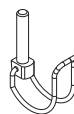
Pull strap
Green.
660323350



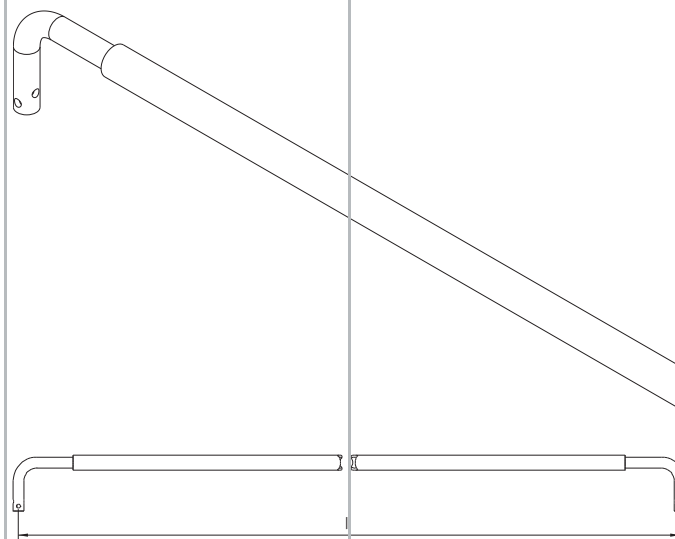
Drawbar tube
Incl. Tube linchpin, telescopic from 2000 mm to 4000 mm long, galvanised steel.
660025180



Tube linchpin
Ø 6 x 40, zinc plated steel.
660830190

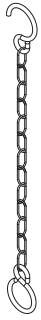


Tie bar
Ø 25 mm, zinc plated steel.



Dim. l
[mm]

2400	660016290
2430	660016292
One end loose	660016291



Safety chain

For both sides, S hook, zinc plated steel.

660751410



Spring cotter 4 mm

Plain, zinc plated steel.

215141008

Please note that only those latch item numbers given will fit the respective latches as spare parts.

Latch spare parts

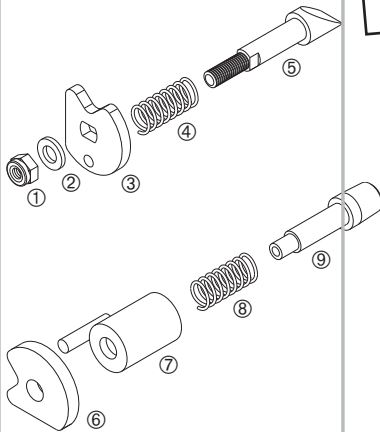
Item.

① Hex. head nut DIN 985 - M 6 - 8	660794430
② Washer DIN 125 - A 6.4	660785760
③ Catch plate, zinc plated	660096080
④ Pressure spring, zinc plated	660625140
⑤ Locking bolt, bevelled, zinc plated	660740500
⑥ Catch plate, zinc plated	660018860
⑦ Housing, rail latch, self colour	660010420
⑧ Pressure spring, zinc plated	660625141
⑨ Locking bolt, conical, zinc plated	660648120

Screws and fixing materials to DIN

All parts zinc plated.

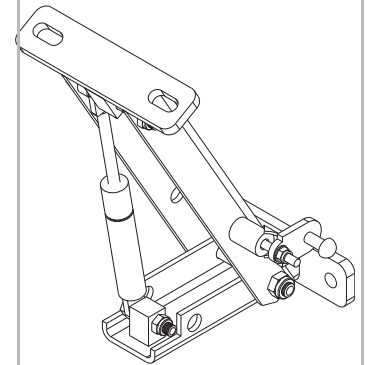
Washer DIN 125 - A 6.4	660785760
Washer DIN 125 - A 8.4	660785280
Washer DIN 125 - A 10.5	660785660
Eye nut DIN 582 - M 8	660698200
Carriage bolt DIN 603 - M 8 x 42	660782250
Hex. nut DIN 985 - M 6 - 8	660794430
Hex. nut DIN 985 - M 8 - 8	660794590
Hex. nut DIN 985 - M 10 - 8	660794490
Hex. head screw similar to DIN 931 - M 8 x 38	660783310
Hex. head screw DIN 931 - M 10 x 50	660781030
Hex. head screw DIN 933 - M 8 x 20	960970006
Hex. head screw DIN 933 - M 10 x 25	960970014
Wire rope clamp DIN 1142 - 5 mm	270151188
Blind rivet DIN 7337 - 50 x 10 mm	660305430



Accessories

Each set consists of one left hand and one right hand assembly.

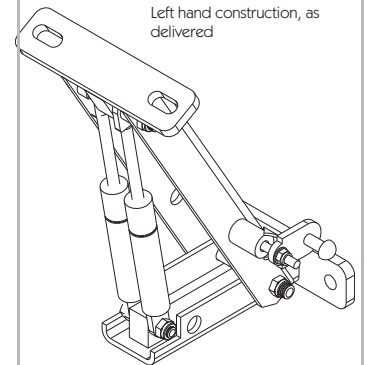
End lifter 700 N
Set, KTL coated steel.
660027300



Illustrations:
Left hand construction, as delivered

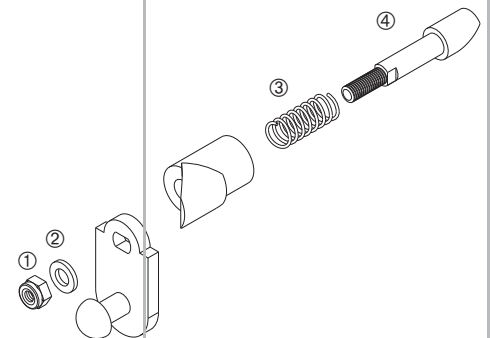
Each set consists of one left hand and one right hand assembly.

End lifter 2 x 500 N
Set, KTL coated steel.
660027301



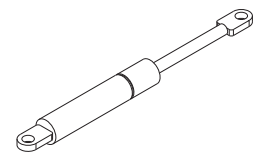
Individual parts available for the spring bolt set can be found under "Latch spare parts" on page 814. The relevant item numbers are ①, ②, ④ and ⑤.

Spring bolt set
For latch on end lifters 700 N and 2 x 500 N. Supplied as illustrated.
660027251

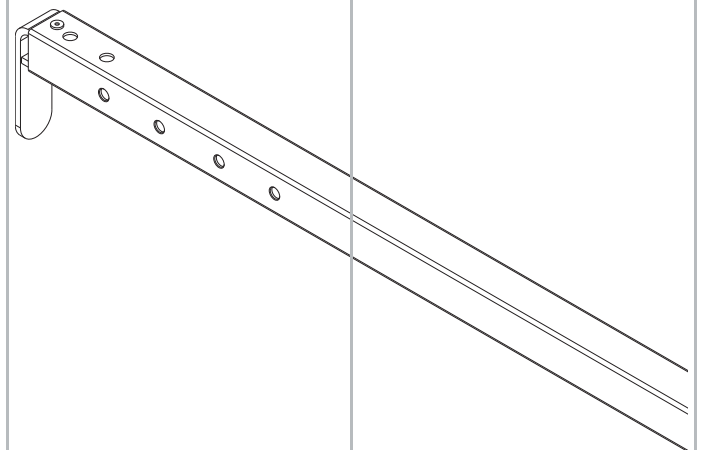


Gas strut

500 N	660728290
700 N	660750990

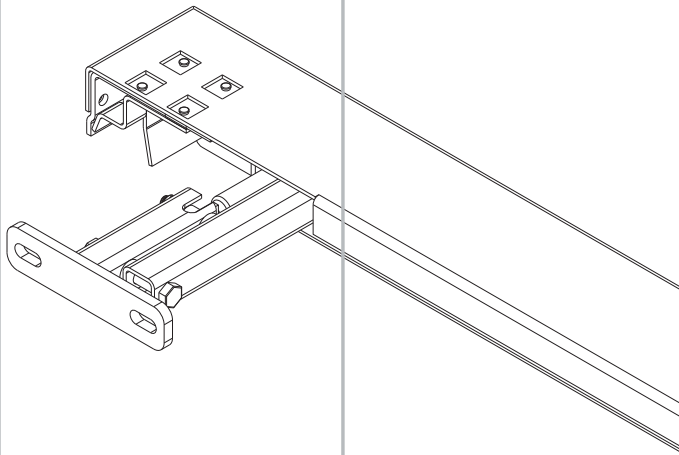


End spar
35 x 35 x 2.0 mm, DN 0, with tarpaulin deflector and pull strap, steel parts zinc plated.



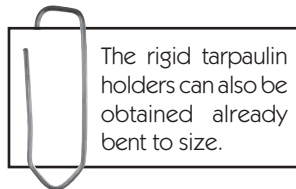
Overall length
[mm]

2550	660035360
Made to order	660027910

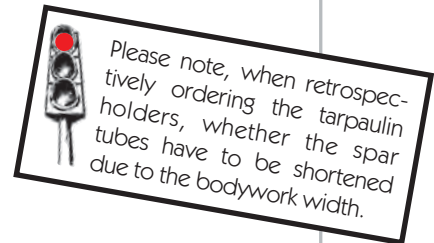


Portal beam

With integrated end lifter and gas strut 700 N, KTL coated steel.
Due to the many design variations, only available on request.



The rigid tarpaulin holders can also be obtained already bent to size.



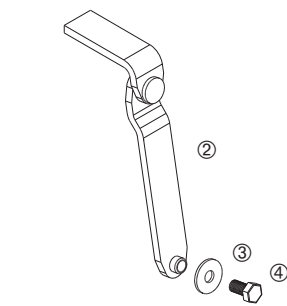
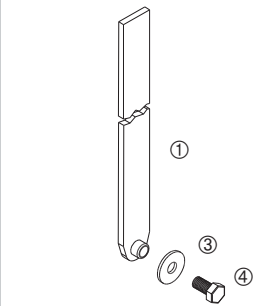
Please note, when retrospectively ordering the tarpaulin holders, whether the spar tubes have to be shortened due to the bodywork width.

Tarpaulin holder

For welding to the spar tubes.
Holder, self colour with zinc plated threaded boss M 8.

Item

①	Tarpaulin holder, rigid, length approx. 350 mm	on request
②	Tarpaulin holder, swivel, fitted height approx. 170 mm	on request
③	Washer DIN 9021 - 8.4 VA	660786580
④	Hex. head screw DIN 933 - M 8 x 16 VA	660681330



Top coupling

Zinc coated steel, weight 0.73 kg.

Left hand	660031230
Right hand	660031240

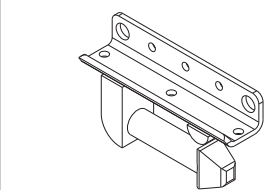
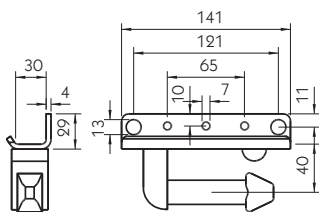
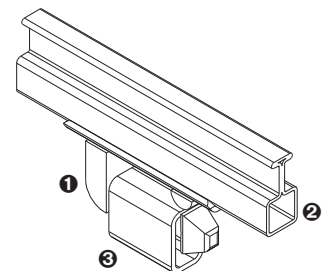


Illustration: left hand.

RHS tube

For top coupling, KTL coated steel, weight 0.25 kg.

660030680



The top coupling ① is riveted to the track rail ② from outside and underneath. The pillar is welded to the RHS tube ③.

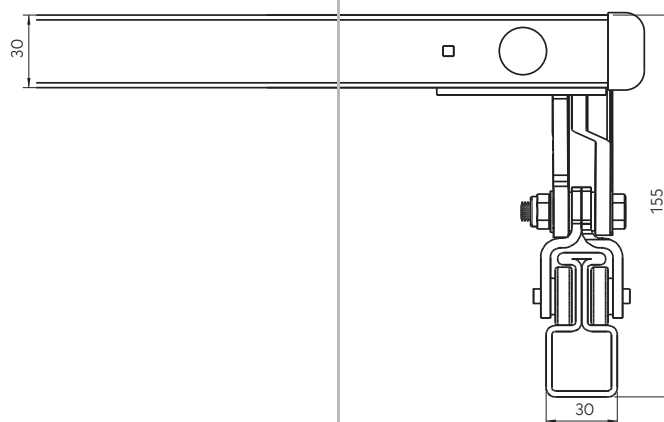
Full tarpaulin "Classic 155"
 Type 2978.1000

The "original" sliding top for flatbed bodies - tried and tested through years of service. With this top, the special needs can also be met. Steel linkages and rising steel spars when opening ensure that the sliding roof function treats the tarpaulin gently.

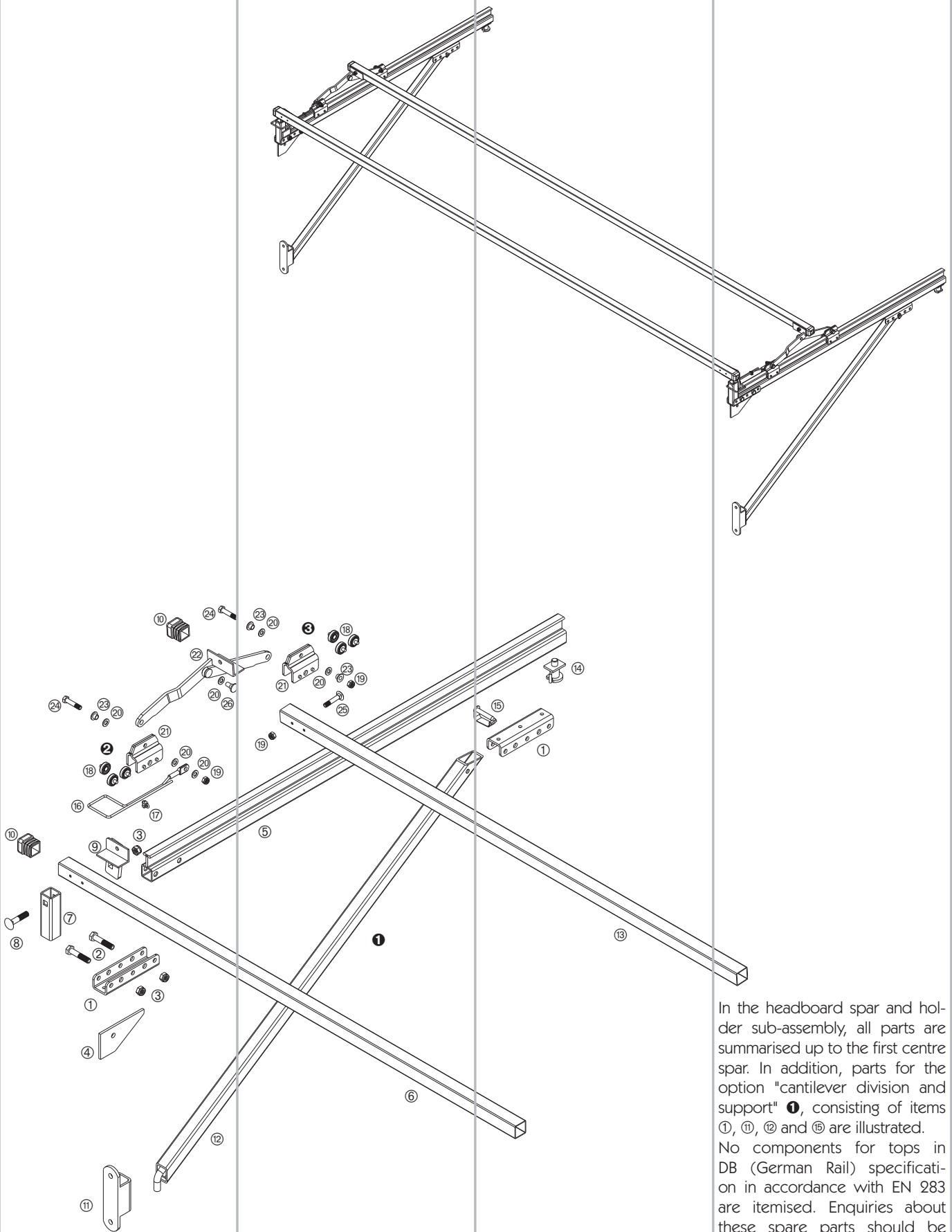
- Included in the supply are the linkage bundles, the roof spars, the end trolley, the steel track rails and the connections to the underbody.
- Linkage bundle roller carriages with ball bearings, steel linkages with bushed pivot points.
- Steel roof spars, not pitched, spaced at 570 mm.
- End trolley with locking device and end lifter (gas strut 500 N) for positioning the end spar.
- Track rails, 1-piece up to 7000 mm, 2-piece up to 10000 mm and 3-piece up to 14000 mm roof length.
- A support connection kit is included for each piece for connecting the centre pillars to the track rails.
- Rail latch mounted below the track rails.
- Fixed (pillar) tie rod for each centre pillar and for the rear pillar.
- Standard outside widths of 2495 mm, 2520 mm, 2550 mm or 2600 mm. The external width is measured at the outermost edges of the plugs (spar ends).
- Length up to 16000 mm.
- Roof assembly completely zinc plated.
- Weight approx. 18.5 kg/m.

Special designs:

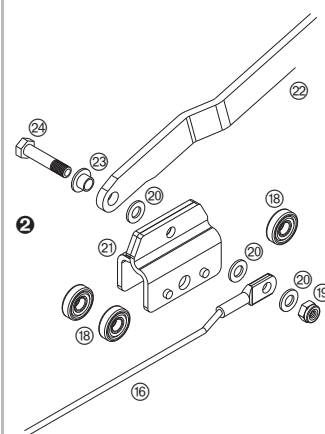
- Top in DB (German Rail) specification in accordance with EN 283.
- Linkage bundle can be slid over headboard.
- Top can be opened towards both ends, supply of two additional end trolleys with end lifters (gas strut 500 N) and locking device.
- End lifter with gas strut 700 N.
- Spar with 50 mm pitch.
- Top supplied without spars.
- Special division of the track rails to suit the (when pushed together) linkage bundle, with or without support (strut), support can be height adjustable if required.
- Rail latch mounted on the side of the track rails (not available for DB specification tops).
- Top supplied without track rails and their connections for the underbody.
- Deviation from standard outside widths up to maximum 5000 mm.
- Electric drive via perforated rails, 24 volt, operated from a control box which can be mounted on the bodywork.
- Hand pull cable for opening and closing the top from ground level via guide pulleys.
- Rigid or swivelling tarpaulin holders for spars (necessary, for instance, when equipping the top with side sliding tarpaulins, supplied loose for welding on-site).
- Additional (pillar) tie bars.
- Top couplers for centre pillars.



Spare parts overview,
headboard spar and holder



In the headboard spar and holder sub-assembly, all parts are summarised up to the first centre spar. In addition, parts for the option "cantilever division and support" **1**, consisting of items **1**, **11**, **12** and **16** are illustrated. No components for tops in DB (German Rail) specification in accordance with EN 283 are itemised. Enquiries about these spare parts should be addressed to our department in Wermelskirchen.



Headboard spar and holder

This sub-assembly consists of:

Item

①	Cantilever saddle	660030640
②	Hex. head screw DIN 931 - M 10 x 50	660781030
③	Hex. head nut DIN 985 - M 10 - 8	660794490
④	Gusset plate (corner plate)	660010310
⑤	Track rail or cantilever track rail, left hand	vehicle dependant
	Track rail or cantilever track rail, right hand (illustrated)	vehicle dependant
⑥	Headboard spar	vehicle dependant
⑦	Pillar stub	660023560
⑩	Carriage bolt DIN 603 - M 10 x 50	not available
⑨	Headboard bracket, left hand (illustrated)	660010243
	Headboard bracket, right hand	660010244
⑩	Plug 30 x 30 mm (for spar ends)	660802820
⑪	Strut socket	vehicle dependant
⑫	Strut	vehicle dependant
⑬	Spar	vehicle dependant
⑭	Rail latch	660033550
⑮	Locking pin clip	660855200
⑯	Safety cable Ø 4 mm	660854310
⑰	Wire rope clamp DIN 1142 - 5 mm	270151188
⑱	Ball bearing with rivet stud	660850470
⑲	Hex. head nut DIN 985 - M 8 - 8	660794590
⑳	Washer DIN 125 - A 8.4	660785280
㉑	Roller carriage	660033600
㉒	Linkage or compensating linkage, left hand	vehicle dependant
	Linkage or compensating linkage, right hand (illustrated)	vehicle dependant
㉓	Flanged bush	660845230
㉔	Hex. head screw similar to DIN 931 - M 8 x 38	660783310
㉕	Carriage bolt DIN 603 - M 8 x 42	660782250
㉖	Linkage rivet	660845530

The exploded view on the previous page shows the right hand side of the roof (viewed from the rear of the vehicle).

For clarity, the assembly of the first roller carriage ② with its individual parts is shown again on this page scaled up 2:1.

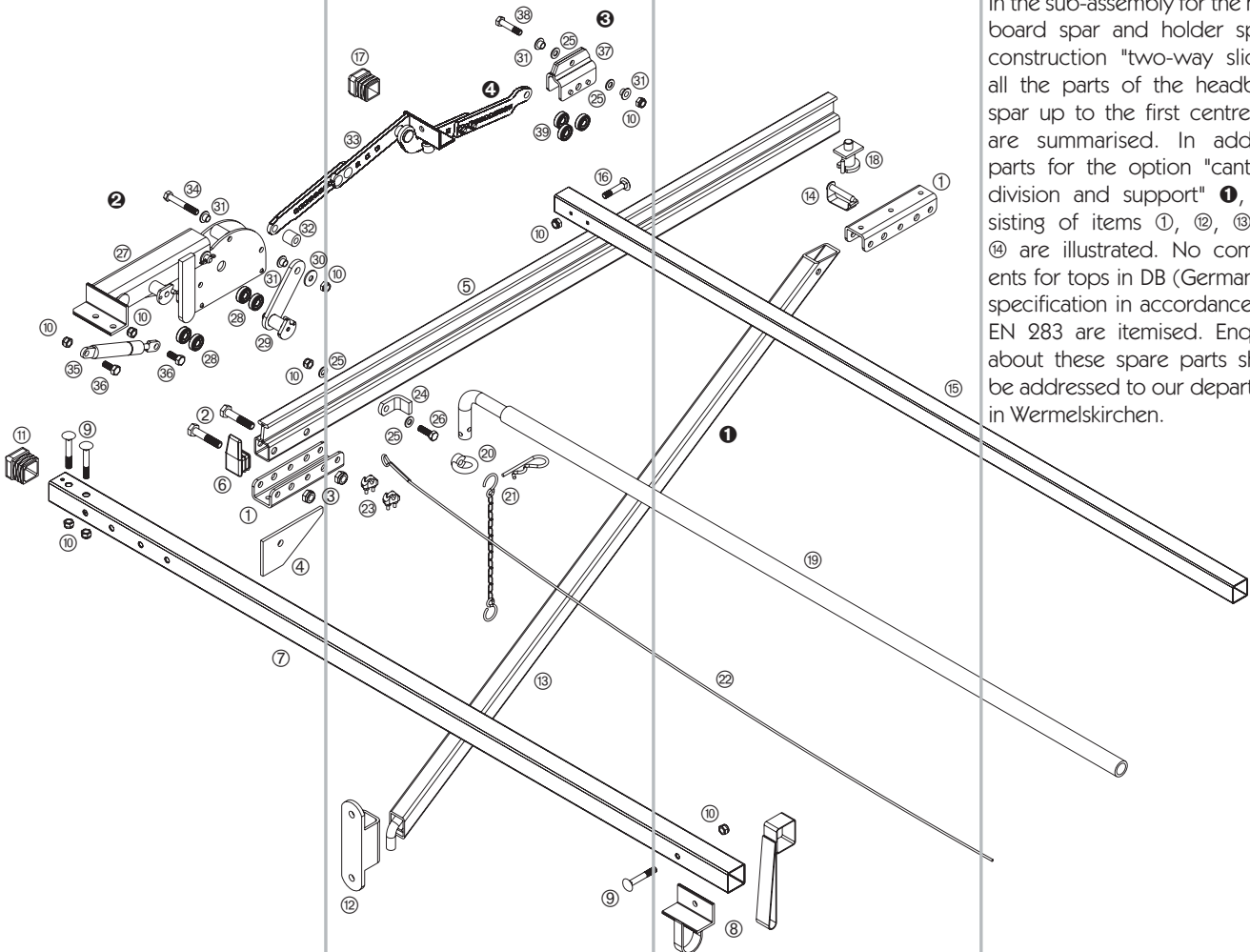
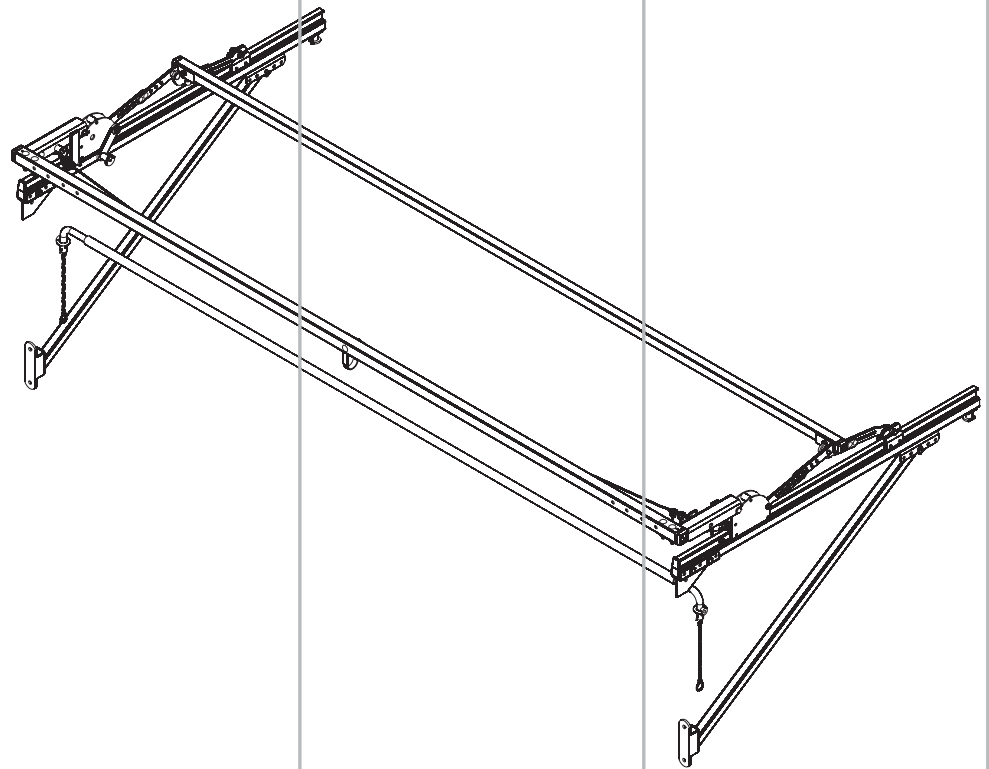
If the old roller carriages with 4 pressed-on ball bearings are to be re-fitted (roof production up to 10/2003), the worn bearings can be replaced with new press-on bearings article no. **660646770**. With roller carriages having 3 riveted ball bearings ⑱ it is cheaper to replace the complete roller carriage.

The centre spar area linkages are screwed to the threaded studs ③ on the roller carriages.

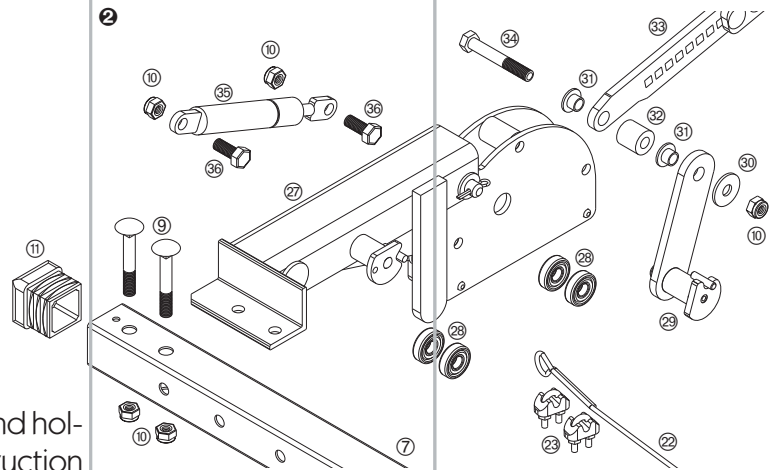
There are further spare parts for the rail latch ⑭ which are itemised under the individual parts. Vehicle dependant parts are available in several designs, e.g. in various lengths. Please note that various components also include other parts in the table and illustrations.

All available individual parts and the extent of their supply can be found from page 828.

Headboard spar and holder, special construction "two-way sliding"



In the sub-assembly for the headboard spar and holder special construction "two-way sliding", all the parts of the headboard spar up to the first centre spar are summarised. In addition, parts for the option "cantilever division and support" ①, consisting of items ①, ⑩, ⑬ and ⑭ are illustrated. No components for tops in DB (German Rail) specification in accordance with EN 283 are itemised. Enquiries about these spare parts should be addressed to our department in Wermelskirchen.



Headboard spar and holder, special construction "two-way sliding"

This sub-assembly consists of:

Item

①	Cantilever saddle	660030640
②	Hex. head screw DIN 931 - M 10 x 50	660781030
③	Hex. head nut DIN 985 - M 10 - 8	660794490
④	Gusset plate (corner plate)	660010310
⑤	Track rail or cantilever track rail, left hand, left hand	vehicle dependant
	Track rail or cantilever track rail, right hand (illustrated)	vehicle dependant
⑥	End cap (end track rail plug)	660701450
⑦	Endspar	vehicle dependant
⑧	Pull ring bracket for end spar (or alternative)	660029850
	Pull strap	660323350
⑨	Carriage bolt DIN 603 - M 8 x 55	not available
⑩	Hex. head nut DIN 985 - M 8 - 8	660794590
⑪	Plug 35 x 35 mm (for spar ends)	660324980
⑫	Strut socket	vehicle dependant
⑬	Strut	vehicle dependant
⑭	Locking pin clip	660855200
⑮	Spar	vehicle dependant
⑯	Carriage bolt DIN 603 - M 8 x 42	660782250
⑰	Plug 30 x 30 mm (for spar ends)	660802820
⑱	Rail latch	660033550
⑲	Tie bar	vehicle dependant
⑳	Eye nut DIN 582 - M 8	660698200
㉑	Safety chain (or alternative)	660751410
	Spring cotter 4 mm, plain	215141008
㉒	Pull cable Ø 3 mm	660037560
㉓	Wire rope clamp DIN 1142 - 5 mm	270151188
㉔	Stop for end trolley	660026340
㉕	Washer DIN 125 - A 8.4	660785280
㉖	Hex. head screw DIN 933 - M 8 x 25	960970007
㉗	End trolley, left hand (illustrated)	660026390
	End trolley, right hand	660026400
㉘	Ball bearing, press-on	660646770
㉙	Latch, swing type	660026541
㉚	Washer DIN 9021 - A 8.4	not available
㉛	Flanged bush	660845230
㉜	Bush	660735750
㉝	Adjustable compensating linkage, left hand	660031210
	Adjustable compensating linkage, right hand (illustrated)	660031220
㉞	Hex. head screw DIN 931 - M 8 x 55	not available
㉟	Gas strut	vehicle dependant
㊱	Hex. head screw DIN 933 - M 8 x 20	960970006
㊲	Roller carriage	660033600
㊳	Hex. head screw similar to DIN 931 - M 8 x 38	660783310
㊴	Ball bearing with rivet stud	660850470

The exploded view depicts the right hand roof side (viewed from rear of vehicle).

For clarity, the assembly of the front end trolley ② with its individual parts is shown again on this page scaled up 2:1.

If the old roller carriages with 4 pressed-on ball bearings are to be re-fitted (roof production up to 10/2003), the worn bearings can be replaced with new press-on bearings article no. [660646770](#). With roller carriages having 3 riveted ball bearings ㉘ it is cheaper to replace the complete roller carriage.

The centre spar area linkages are screwed to the threaded studs ㉞ on the roller carriages.

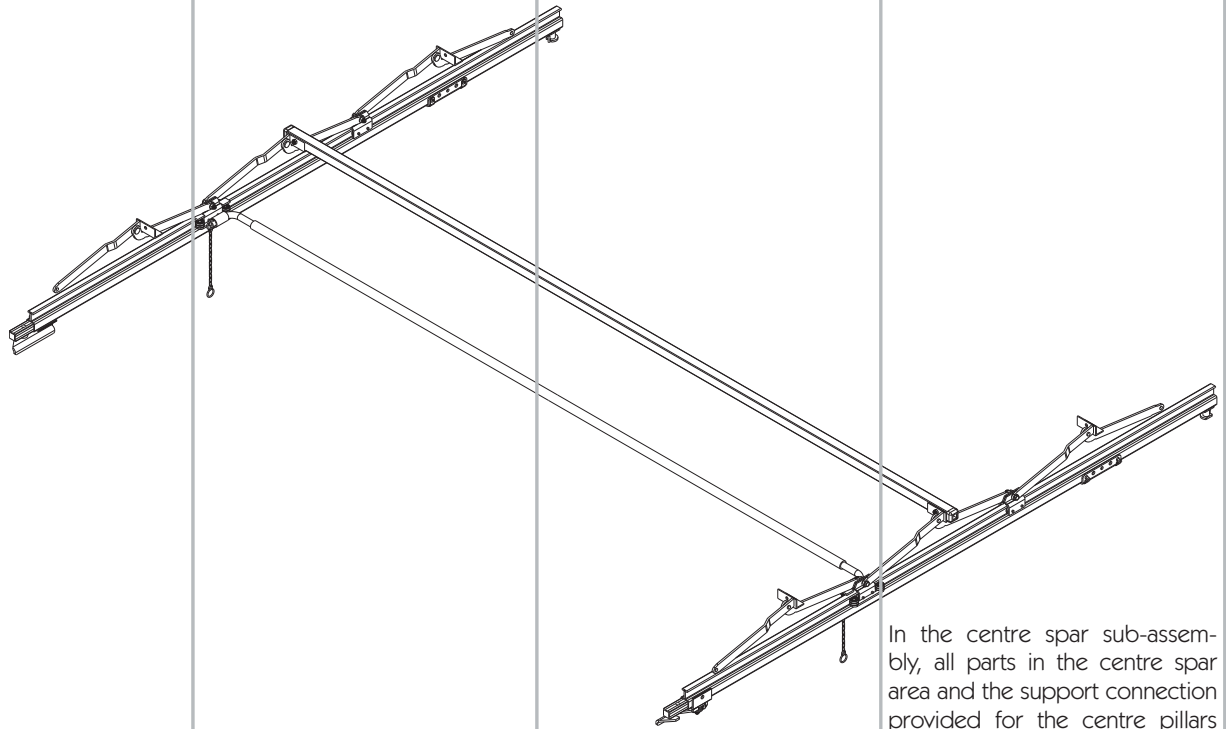
The original compensation linkage has no longer been available since the beginning of 2006. Alternatively the compensating link from the "Profi 95" can be fitted ㉝; to do this, it must be modified to fit this roof by switching the lower, cranked linkage extension component ㉜ from the outside to the inside.

There are further spare parts for the latch mounted on the end trolley ㉗ and the swing type latch ㉙, which are itemised with the individual parts below the latch.

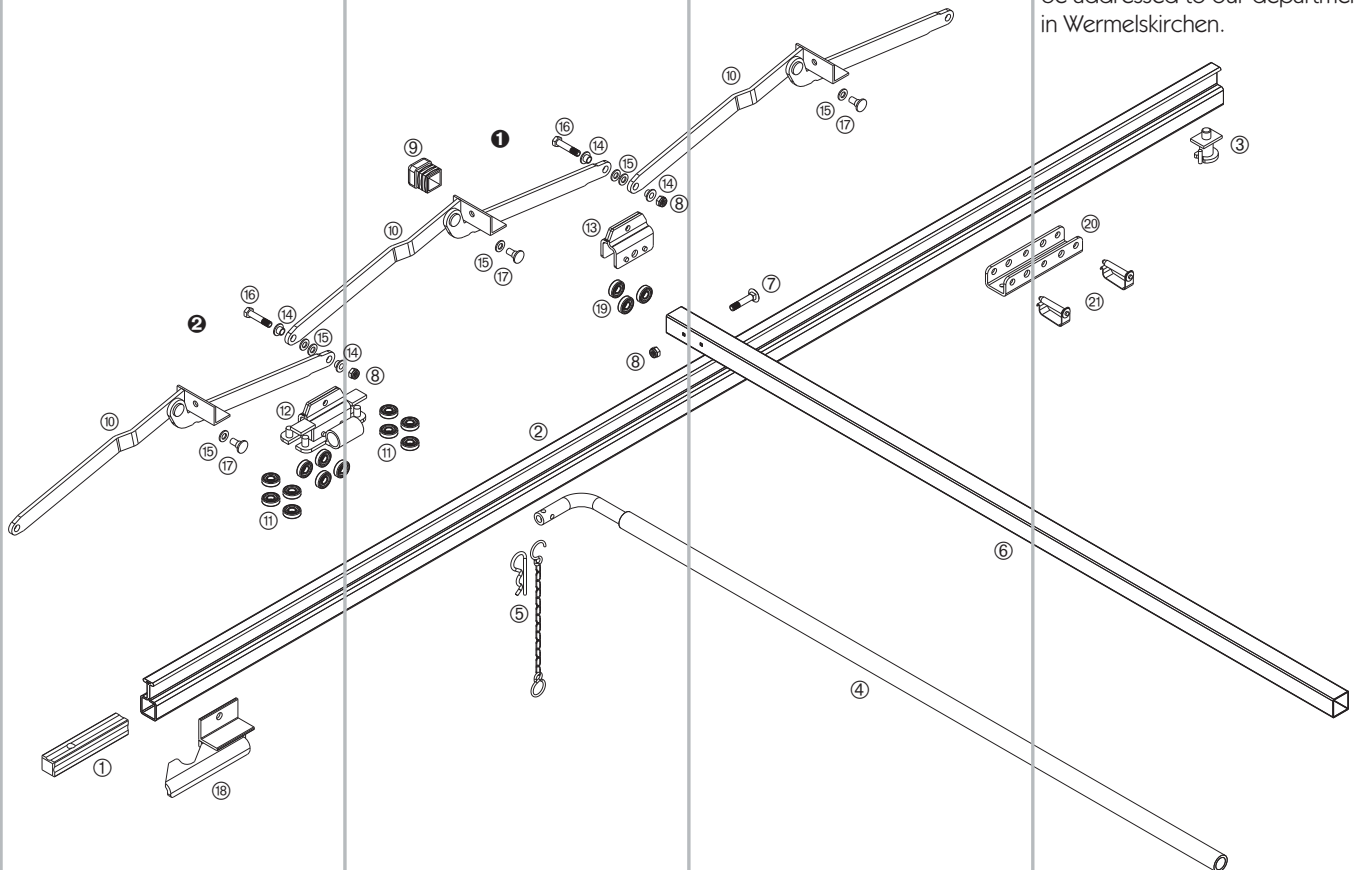
Vehicle dependant parts are available in several designs, e.g. in various lengths. Please note that various components also include other parts in the table and illustrations.

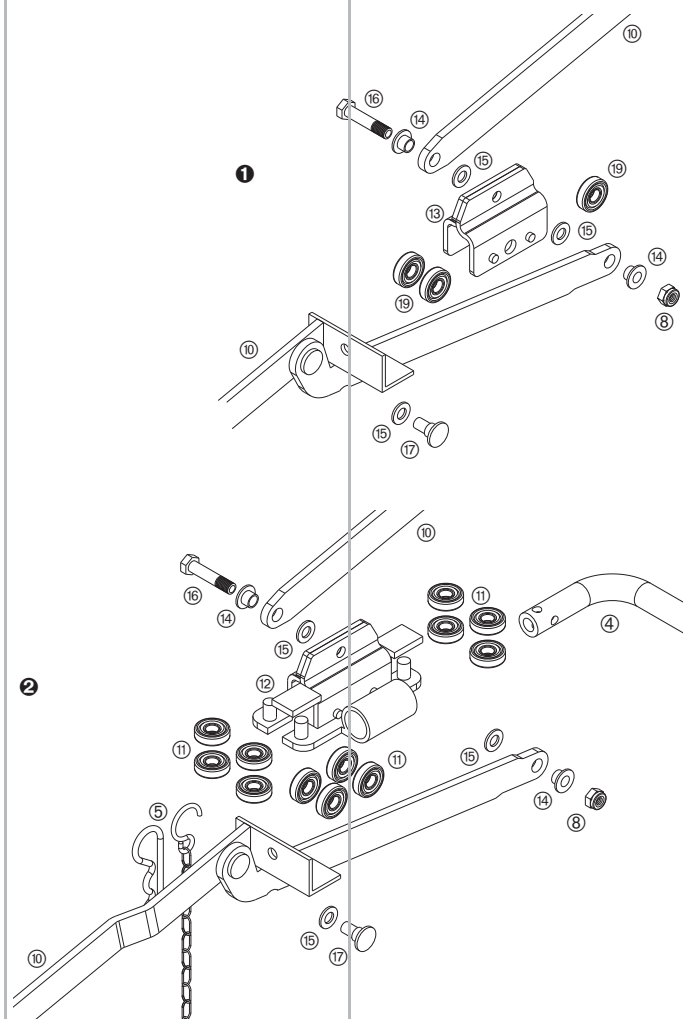
All available individual parts and the extent of their supply can be found from page 828.

Centre spar



In the centre spar sub-assembly, all parts in the centre spar area and the support connection provided for the centre pillars are summarised. There are no components itemised for tops in DB (German Rail) specification in accordance with EN 283, apart from the additional track rail locking device [®]. Enquiries about these spare parts should be addressed to our department in Wermelskirchen.





Centre spar

This sub-assembly consists of:

Item		
①	Connecting insert	660010540
②	Track rail	vehicle dependant
③	Rail latch	660033550
④	Tie bar	vehicle dependant
⑤	Safety chain (or alternative)	660751410
	Spring cotter 4 mm, plain	215141008
⑥	Spar	vehicle dependant
⑦	Carriage bolt DIN 603 - M 8 x 42	660782250
⑧	Hex. nut DIN 985 - M 8 - 8	660794590
⑨	Plug 30 x 30 mm (for spar ends)	660802820
⑩	Linkage or compensating linkage, left hand	vehicle dependant
	Linkage or compensating linkage, right hand (illustrated)	vehicle dependant
⑪	Ball bearing, press-on	660646770
⑫	Tie bar trolley	660027160
⑬	Roller carriage	660033600
⑭	Flanged bush	660845230
⑮	Washer DIN 125 - A 8.4	660785280
⑯	Hex. head screw similar to DIN 931 - M 8 x 38	660783310
⑰	Linkage rivet	660845530
⑱	Additional track rail locking device, left hand	on request
	Additional track rail locking device, right hand (illustrated)	on request
⑲	Ball bearing with rivet stud	660850470
⑳	Cantilever saddle	660030640
㉑	Peg clip	660855200

The exploded view on the previous page shows the right hand roof side (viewed from rear of vehicle).

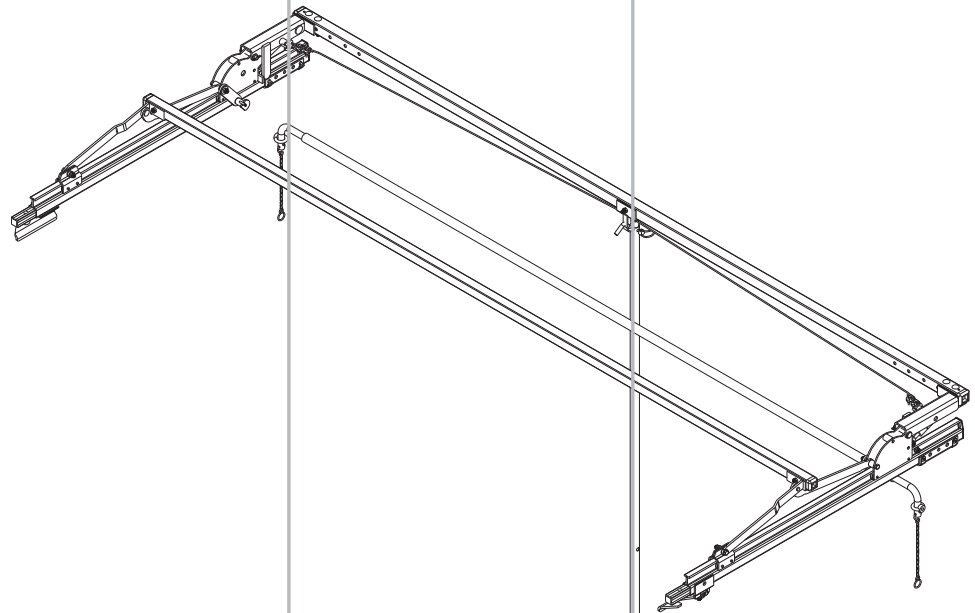
For clarity, the assembly of a standard roller carriage ① and also a tie rod roller carriage ② with their individual parts is shown again on this page scaled up 2:1.

If the old roller carriages with 4 pressed-on ball bearings are to be re-fitted (roof production up to 10/2003), the worn bearings can be replaced with new press-on bearings article no. 660646770. With roller carriages having 3 riveted ball bearings ⑯ it is cheaper to replace the complete roller carriage.

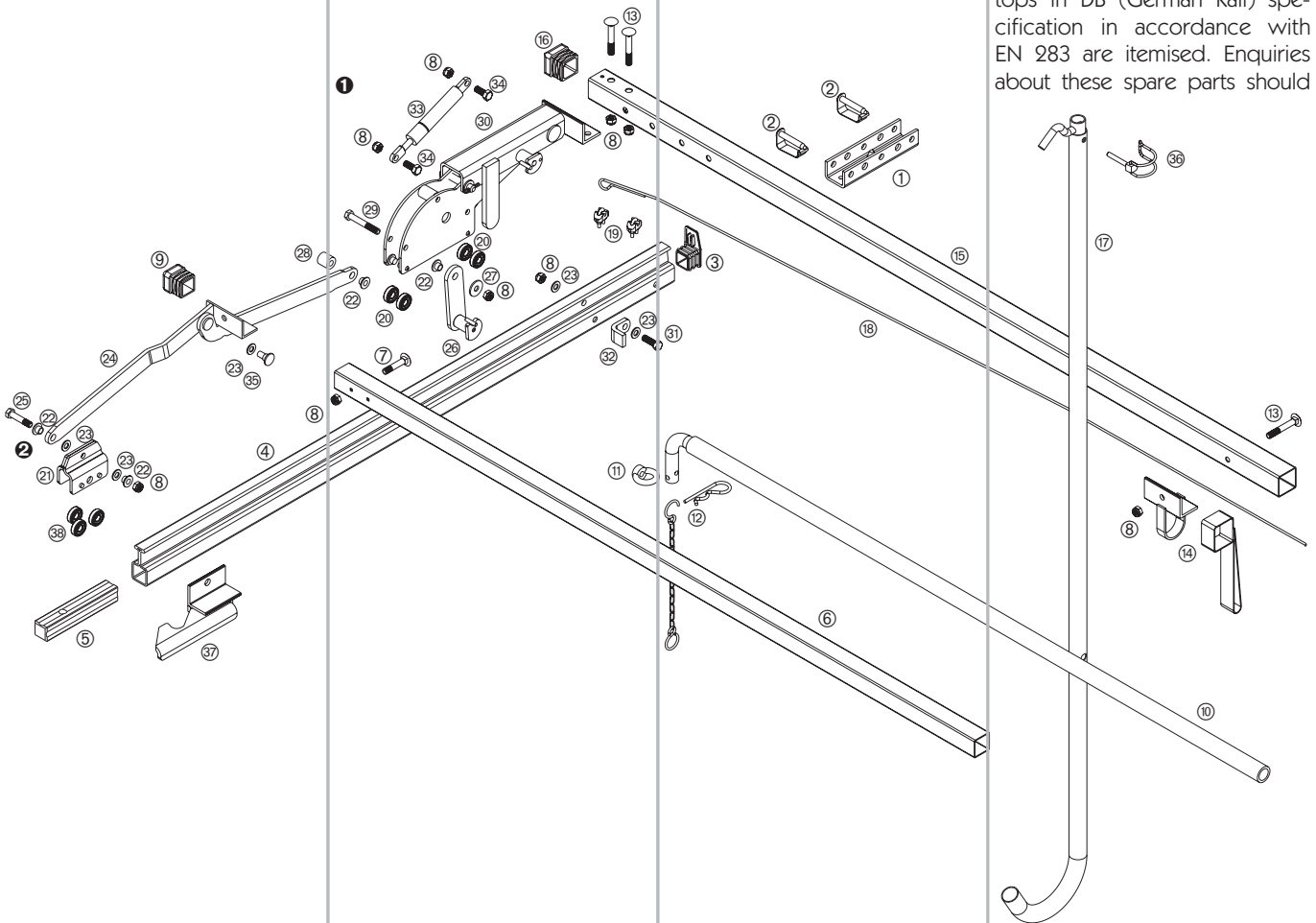
Vehicle dependant parts are available in several designs, e.g. in various lengths. Please note that various components also include other parts in the table and illustrations.

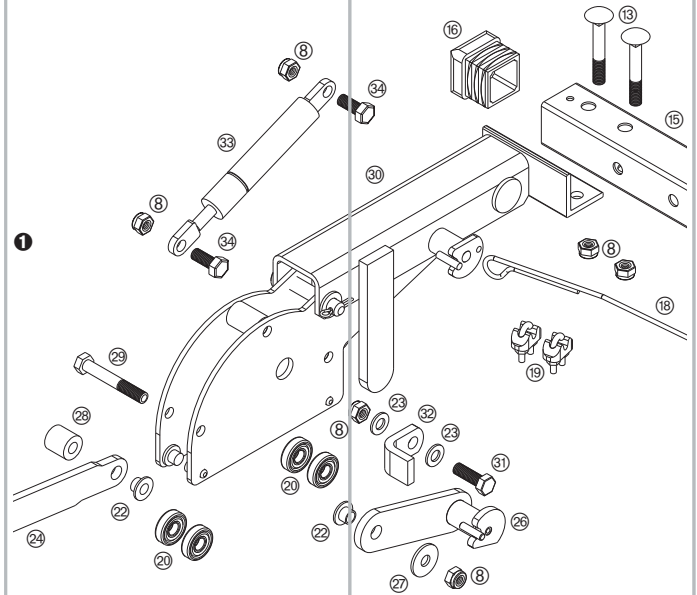
All available individual parts and the extent of their supply can be found from page 828.

End spar and holder



In the end spar and holder sub-assembly, all parts from the last centre spar to the end spar are summarised. Apart from the additional track rail locking device 37, no components for tops in DB (German Rail) specification in accordance with EN 283 are itemised. Enquiries about these spare parts should





End spar and holder

This sub-assembly consists of:

Item

①	End support connector	660032360
②	Locking pin clip	660855200
③	End cap (end track rail plug)	660701450
④	Track rail	vehicle dependant
⑤	Connecting insert	660010540
⑥	Spar	vehicle dependant
⑦	Carriage bolt DIN 603 - M 8 x 42	660782250
⑧	Hex. nut DIN 985 - M 8 - 8	660794590
⑨	Plug 30 x 30 mm (for spar ends)	660802820
⑩	Tie bar	vehicle dependant
⑪	Eye nut DIN 582 - M 8	660698200
⑫	Safety chain (or alternative)	660751410
	Spring cotter 4 mm, plain	215141008
⑬	Carriage bolt DIN 603 - M 8 x 55	not available
⑭	Pull ring bracket for end spar (or alternative)	660029850
	Pull strap	660323350
⑮	Spar 35 x 35 mm	vehicle dependant
⑯	Plug 35 x 35 mm (for spar ends)	660324980
⑰	Roof pole	660025180
⑱	Pull cable Ø 3 mm	660037560
⑲	Wire rope clamp DIN 1142 - 5 mm	270151188
⑳	Ball bearing, press-on	660646770
㉑	Roller carriage	660033600
㉒	Flanged bush	660845230
㉓	Washer DIN 125 - A 8.4	660785280
㉔	Linkage or compensating linkage, left hand	vehicle dependant
	Linkage or compensating linkage, right hand (illustrated)	vehicle dependent
㉕	Hex. head screw similar to DIN 931 - M 8 x 38	660783310
㉖	Latch, swing type	660026541
㉗	Washer DIN 9021 - A 8.4	not available
㉘	Bush	660735750
㉙	Hex. head screw DIN 931 - M 8 x 55	not available
㉚	End trolley, left hand	660026390
	End trolley, right hand (illustrated)	660026400
㉛	Hex. head screw DIN 933 - M 8 x 25	960970007
㉜	Stop for end trolley	660026340
㉝	Gas strut	vehicle dependant
㉞	Hex. head screw DIN 933 - M 8 x 20	960970006
㉟	Linkage rivet	660845530
㊱	Tube clip plug 6 x 40	660830190
㊲	Additional track rail locking device, left hand	on request
	Additional track rail locking device, right hand (illustrated)	on request
㊳	Ball bearing with rivet stud	660850470

be addressed to our department in Wermelskirchen.

The exploded view on the previous page shows the right hand roof side (viewed from rear of vehicle).

For clarity, the assembly of the rear end trolley ① with its individual parts is shown again on this page scaled up 2:1.

If the old roller carriages with 4 pressed-on ball bearings are to be re-fitted (roof production up to 10/2003), the worn bearings can be replaced with new press-on bearings article no. [660646770](#). With roller carriages having 3 riveted ball bearings ㉑, it is cheaper to replace the complete roller carriage.

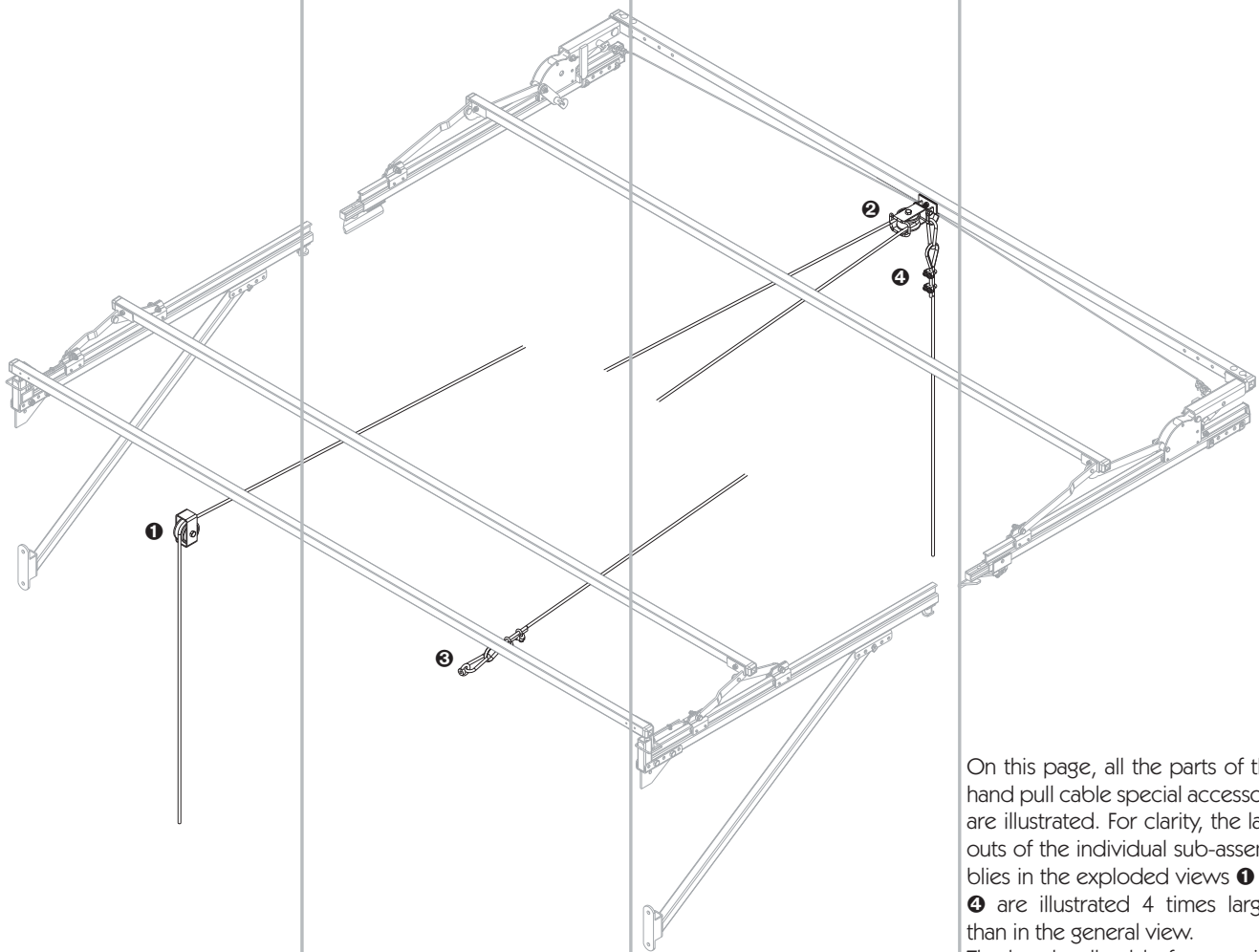
The centre spar area linkages are screwed to the threaded studs ㉕ on the roller carriages.

For the latch mounted on the end trolley ㉚ and the swing type latch ㉖, there are further spare parts available which are itemised with the individual parts below the latch.

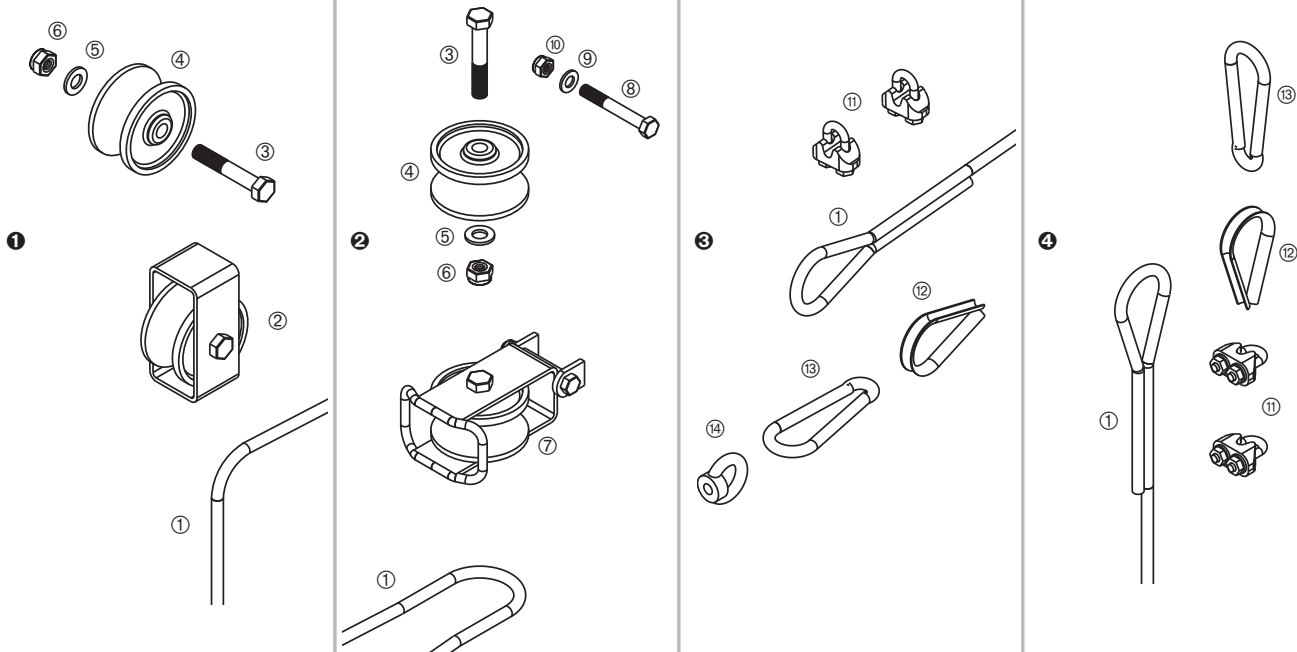
Vehicle dependant parts are available in several designs, e.g. in various lengths. Please note that various components also include other parts in the table and illustrations.

All available individual parts and the extent of their supply can be found from page 828.

Accessory overview Hand pull cable



On this page, all the parts of the hand pull cable special accessory are illustrated. For clarity, the layouts of the individual sub-assemblies in the exploded views **1** to **4** are illustrated 4 times larger than in the general view. The hand pull cable for opening the top consists of the groups **1** to **3**. **4** is the option for closing the complete top.



An exact article description of spare and individual parts can be found from page 828.

Hand pull cable

This accessory consists of:

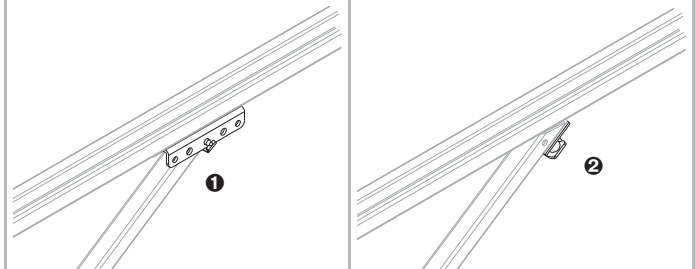
Item

① Tarpaulin cord Ø 8 mm, plastic with steel wire core, in 100 m roll	320135115
② Cable guide pulley, complete	660027050
③ Hex. head screw DIN 931 - M 10 x 60	not available
④ Cable pulley	660842070
⑤ Washer DIN 125 - A 10.5	660785660
⑥ Hex. head nut DIN 985 - M 10 - 8	660794490
⑦ Swivel mounted cable guide pulley complete	660027000
⑧ Hex. head screw DIN 931 - M 8 x 60	not available
⑨ Washer DIN 125 - A 8.4	660785280
⑩ Hex. head nut DIN 985 - M 8 - 8	660794590
⑪ Wire rope clamp DIN 1142 - 8 mm	270151190
⑫ Thimble similar to DIN 6899 - A 8	270151094
⑬ Carbine DIN 5299 form C - 8 x 80 mm	215131422
⑭ Eye nut DIN 582 - M 10	not available

Overview of obsolete spare parts which are still available

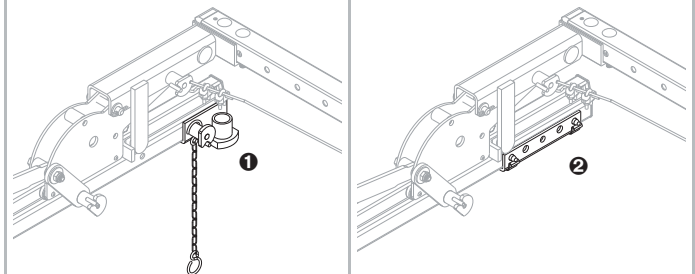
Strut socket

The strut is connected to the track rail by means of the cantilever saddle ①, which is turned through 180° and welded underneath the track rail. The strut is secured by means of a locking pin clip which is pushed sideways through one of the holes in the cantilever saddle. Obsolete roof constructions still have the strut latch ② which is obtainable left handed, article no. 660013713, and right handed, article no. 660013714 (illustrated), which locates by means of a spring bolt from behind through a hole in the strut. New struts have holes for both versions.



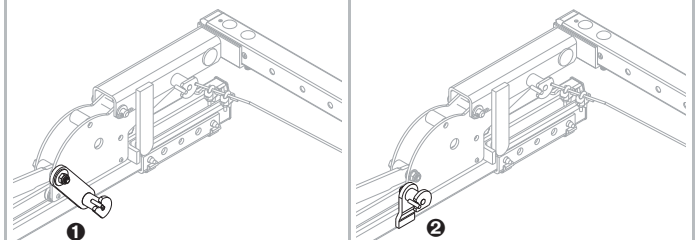
End support saddle

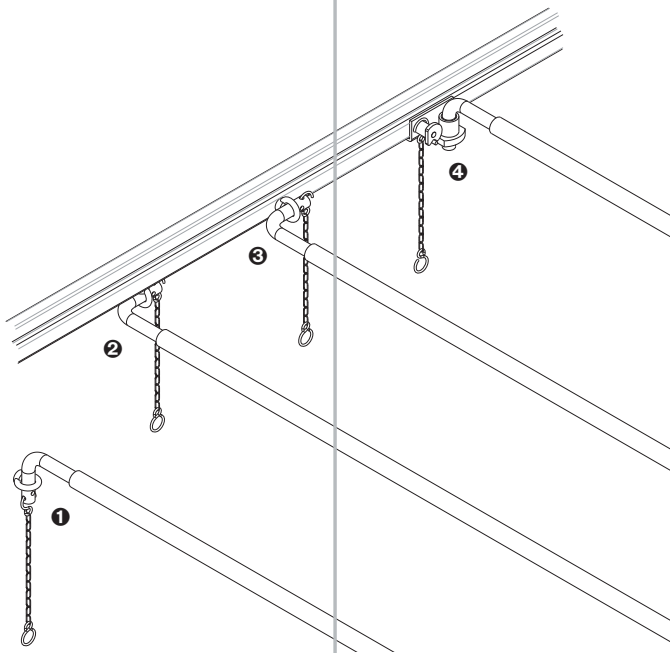
For mounting the roof on to the rear corner pillar, the end support saddle ① is supplied in current production, which is welded to the rear corner pillar or its extension. The support connection ② with integrated tie bar socket is only supplied as a spare part. This is obtainable left handed, article no. 660026610, and right handed (illustrated), article no. 660026620.



Trolley latch

In the obsolete construction, the end trolley was locked by a latch ②, article no. 660012240, welded to the inside of the track rail. There is now a swivel type latch ① fitted to the end trolley which locates into a hole in the side of the track rail.



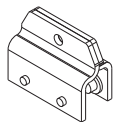


Tie rod fixing

For suspending the tie bars, the new tops are supplied with an eye nut DIN 582 - M 8 which is fitted inside the body pillars ❶. When ordering the top, it can also be stated that the tie bars are to be welded under ❷ or inside ❸ the track rail, in which case the eye nut is welded by the bodywork fitter. The parts supplied for these three variants are determined by the length of the tie bar which is calculated depending on the distance between the track rails.

The obsolete support connection ❹ is now only obtainable as a spare part and is also used purely as a holder for the tie bar. This can be supplied left handed, article no. **660026610**, and right handed, article no. **660026620**.

The producer now supplies a spring cotter for securing the tie bar instead of a safety chain as illustrated.



No longer available

Roller carriage

Since 10/2003 roller carriages have been produced fitted with 3 ball bearings **660033600**.

This obsolete 4 bearing roller carriage is supplied without ball bearings. Zinc plated steel.

660014880

Ball bearing

Press-on (for roller carriage **660014880**), steel, gun metal finish.

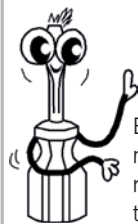
660646770



The press-on ball bearings are retained in the roller carriage only by their positive fit.

It is therefore important to secure the concerted linkage bundle on the cantilever before dismantling the rear track rails.

Spare parts/individual parts



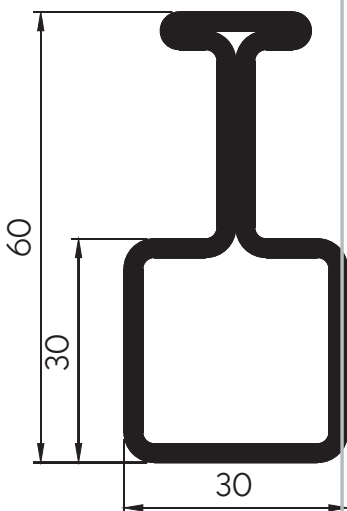
By quoting the roof number, all track rails/cantilevers for the specified roof can be obtained to the original finished dimensions including drilled holes.

Track rail

Zinc plated steel.

Length [mm]	Article no.
3000	660746113
4000	660746114
7000	660746110

Illustration of track rail, scale 1:1.



Spare parts for the latch **660033550** welded to the track rail can be found under "Latch spare parts" on page 834. The relevant item numbers are ⑥ to ⑨.

Track rail length [mm]	Handing	
1050	left	660023410
1050	right	660023420
1890	left	660023530
1890	right	660023540

Track rail cantilever

Incl. pillar stub and rail latch, zinc plated steel.

Pillar stub

Steel, self colour.
660023560

Connecting insert

Steel, self colour.
660010540

Spare parts for this latch can be found under "Latch spare parts" on page 834. The relevant item numbers are ⑥ to ⑨.

Rail latch

Zinc plated steel.
660033550

Additional track rail locking device

For tops to DB (German Rail) specification in accordance with EN 283. Weld-on bracket, self coloured steel, black KTL coated locking device, zinc coated DIN parts.

Left hand assembly	on request
Right hand assembly	on request

End track rail plugs

Plastic.
660701450

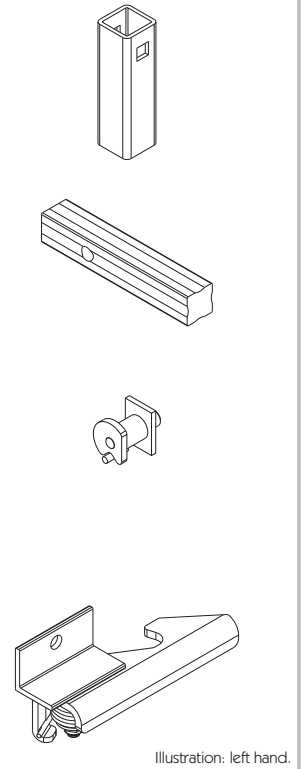
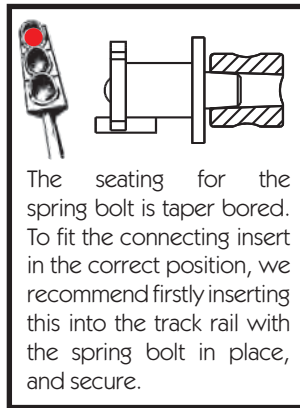
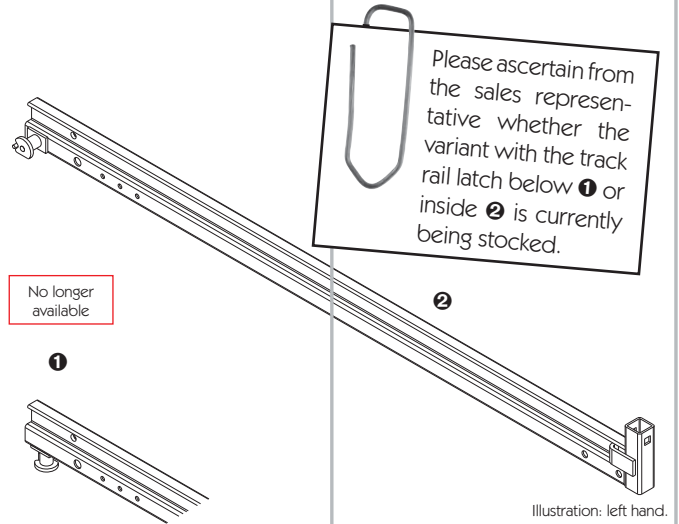
The cantilever saddle is used as a connection between the front headboard corner pillar and the track rail and is supplied as standard as the support connection for each centre pillar, and also as a bracket for the strut when turned through 180° and welded under the track rail.

Cantilever saddle

Steel, KTL coated.
660030640

Gusset plate (corner plate)

Steel, KTL coated.
660010310



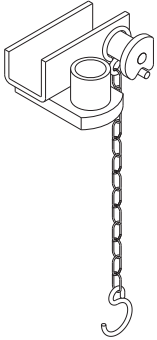
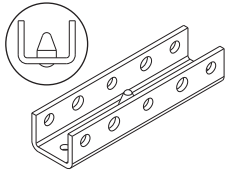


Illustration: left hand.

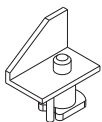
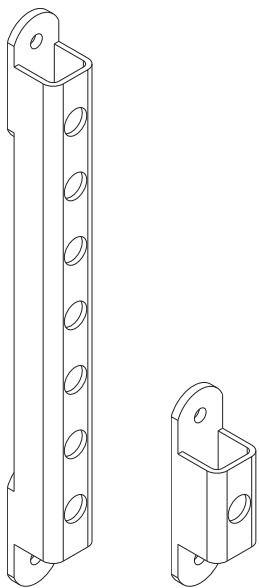
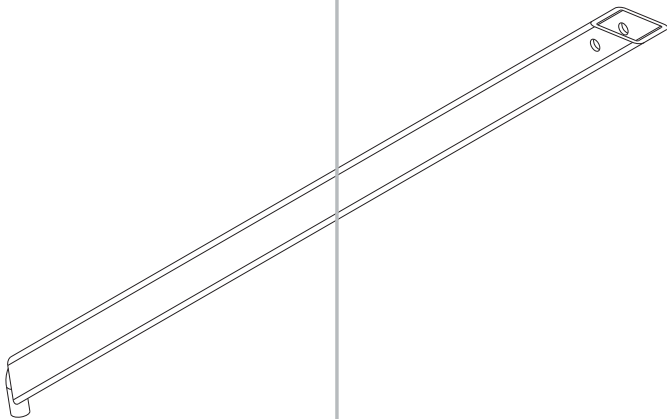


Illustration: left hand.

End support saddle

Steel, KTL coated.

660032360

Locking pin clip

Zinc plated steel.

660855200

Support connection

With safety chain and holder for tie bar, steel, KTL coated.

Left hand

660026610

Right hand

660026620

Spare parts for the latch welded to the support connection can be found under "Latch spare parts" on page 834. The relevant item numbers are ⑥ and ⑦.

Strut

Steel, KTL coated.

Nominal length
[mm]

1052

660014450

1560

660014190

Strut socket

Steel, KTL coated.

Short

660014310

Height adjustable

660014340

Spare parts for this latch can be found under "Latch spare parts" on page 834. The relevant item numbers are ⑥ and ⑦.

Strut latch

Steel, self colour.

Left hand

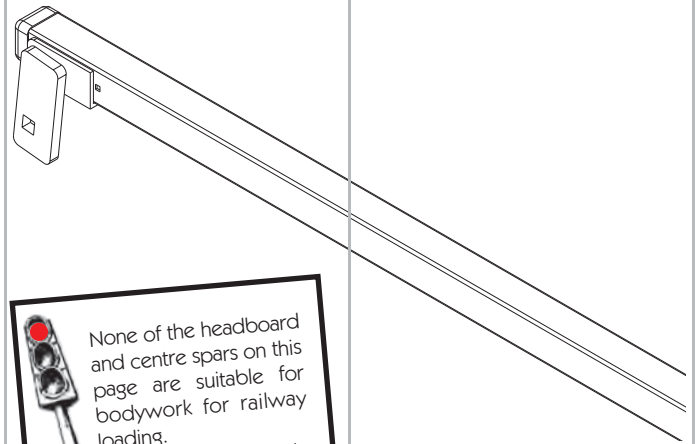
660013713

Right hand

660013714

Headboard spar
30 x 30 x 1.5 mm, incl. welded-on headboard lugs and end plugs, zinc plated steel.

Outside width [mm]	Roof pitch [mm]	
2520	0	660016650
2550	0	660016651
2520	50	660016660
2550	50	660016661



None of the headboard and centre spars on this page are suitable for bodywork for railway loading.
We will be pleased to quote price and delivery for the reinforced version.

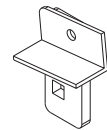


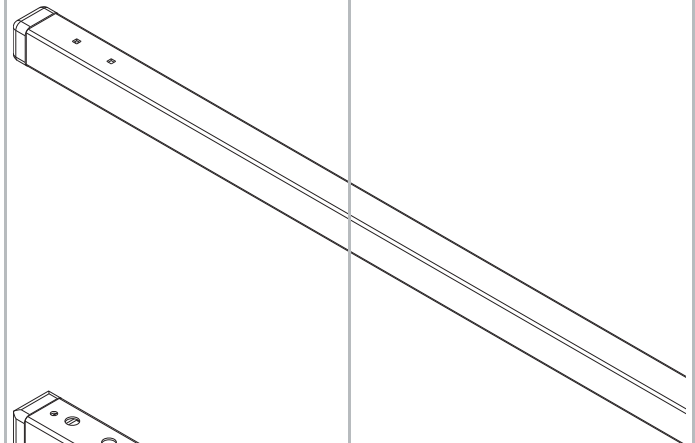
Illustration: left hand.

Headboard lug
Steel, self colour.

Left hand	660010243
Right hand	660010244

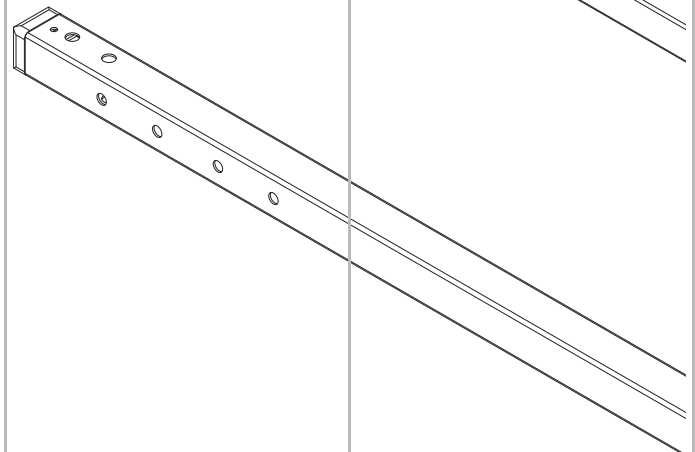
Spar
30 x 30 x 1.5 mm, incl. plugs, zinc plated steel.

Outside width [mm]	Roof pitch [mm]	
2520	0	660025010
2550	0	660035220
2520	50	660025020
2550	50	660025021

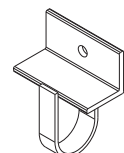


End spar
35 x 35 x 2 mm, incl. steel pull ring bracket and plugs. Also for tops for railway loading. Zinc plated steel.

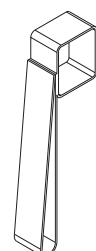
Outside width [mm]	Roof pitch [mm]	
2520	0	660027530
2550	0	660035540
2520	50	660027560
2550	50	660027561



Pull ring bracket for end spar
Zinc plated steel.
660029850



Pull strap
Colour, green.
660323350





Plug

Plastic.
For spar tube
[mm]

30 x 30 (for spar ends)

660802820

35 x 35 (for end spar ends)

660324980

Safety cable Ø 4 mm

For headboard connection, zinc plated steel.

660854310

Linkage, compensating linkage, adjustable linkage?

The difference between the linkages is in the spacing of the roller carriage mounting holes in the outstretched position. With all tops, the 570 mm variant is primarily used whereby fitting is always carried out from the end of the body towards the front, and the frontmost (i.e. furthest from rear of vehicle) roller carriage/linkage/spar combination is connected to the fixed headboard spar by means of the safety cable Ø 4 mm. Thus the frontmost spar should always be spaced at 200 - 300 mm from the headboard spar. In order to maintain this spacing consistently with the many variations in body length, compensating links are fitted as the frontmost links, which allow a roller carriage spacing of 460 mm or 330 mm. This situation is somewhat different with the roof variant "two way sliding". Here, the roof length must correspond exactly to the body length as all parts, from the rear end to the front end trolleys are connected to each other by linkages. Adjustable compensating linkages are used to enable the top to be built exact to the centimetre.

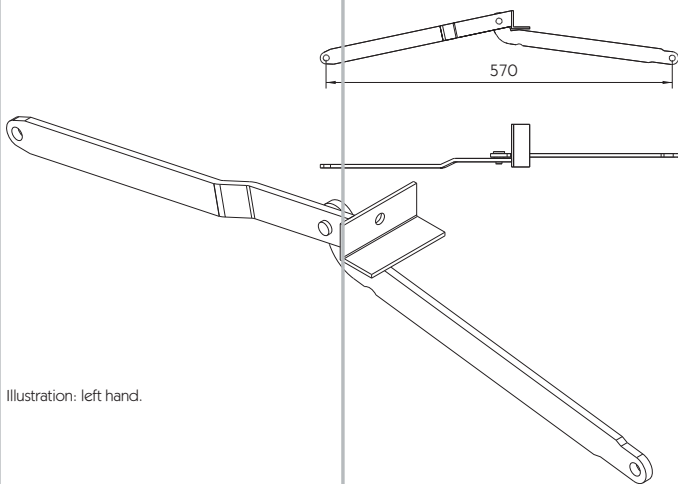
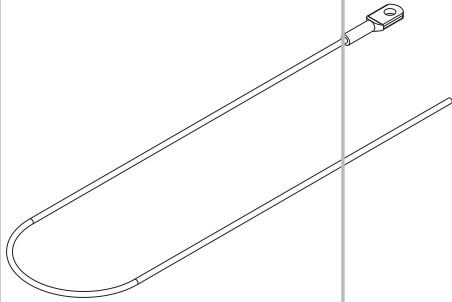


Illustration: left hand.

Linkage

Zinc plated steel.

Left hand

660029610

Right hand

660029620

This linkage is suitable for spars with a roof pitch of 0 mm and 50 mm.

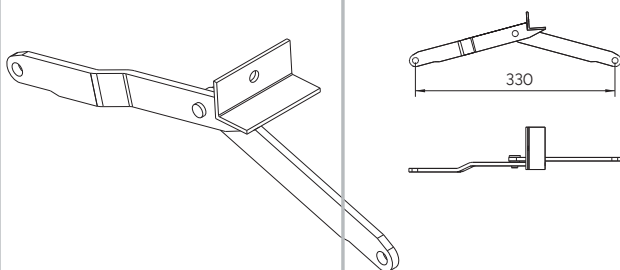


Illustration: left hand.

Compensating linkage

Zinc plated steel.

Left hand

660023150

Right hand

660023160

This compensating linkage is suitable for spars with a roof pitch of 0 mm and 50 mm.

This compensating linkage is suitable for spars with a roof pitch of 0 mm and 50 mm.

Compensating linkage

Zinc plated steel.

Left hand

660023290

Right hand

660023300

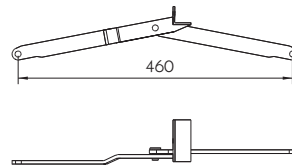


Illustration: left hand.



This compensating linkage is an alternative to the original which is no longer supplied. The compensating linkage must be modified to fit this roof by switching the lower, cranked linkage extension component ❶ from the outside to the inside. The illustration shows the finished conversion.

This adjustable compensating linkage is suitable for spars with a roof pitch of 0 mm and 50 mm.

Adjustable compensating linkage

Zinc plated steel.

Left hand

660031210

Right hand

660031220

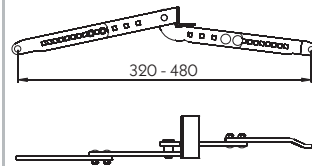


Illustration: left hand.



The roller carriages have different leg widths. The narrower side with the single ball bearing is the outside. This is to prevent the tarpaulin being pinched between two roller carriages when the linkage bundle is concerned together.

Linkage rivet

Zinc plated steel.

660845530

Roller carriage

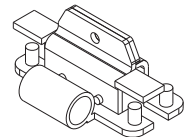
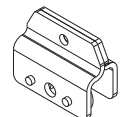
With 3 riveted ball bearings, can be substituted for the obsolete version with 4 bearings. Zinc plated steel.

660033600

Tie bar carrier

Without ball bearings, zinc plated steel.

660027160



This end trolley is suitable for end spars with a roof pitch of 0 mm and 50 mm.

Spare parts for the latch welded to the end trolley can be found under "Latch spare parts" on page 834. The relevant item numbers are ❶ to ❺.

End trolley

Without ball bearings, with end lifter, gasstrut 500 N, zinc plated steel.

Left hand

660026390

Right hand

660026400

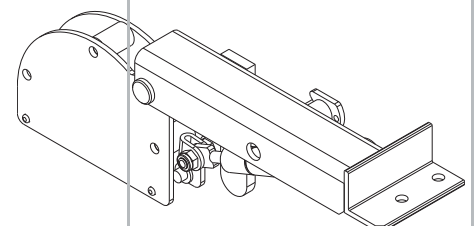
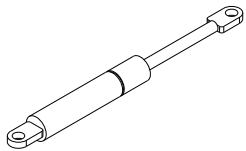
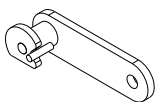
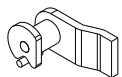


Illustration: left hand.



It is cheaper to replace the complete roller carriage **660033600** than just the ball bearings with rivet studs.



Gas strut

500 N

660728290

700 N

660750990

Ball bearing with rivet stud

Steel, gunmetal finish.

660850470

Ball bearing

Press-on type, also spare part for obsolete roller carriages with 4 press-on ball bearings (tops produced up to 10/2003). Steel, gunmetal finish.

660646770

Bush

18 x 17.8 mm, zinc plated steel.

660735750

Flanged bush

Sintered steel.

660845230

Trolley latch

Steel, self colour.

660012240

Latch, swivel type

Zinc plated steel.

660026541

Please note that only those latch item numbers given will fit the respective latches as spare parts.

"Latch spare parts"

Item

① Hex. head nut DIN 985 - M 6 - 8	660794430
② Washer DIN 125 - A 6.4	660785760
③ Catch plate, zinc plated	660026080
④ Pressure spring, zinc plated	660625140
⑤ Locking bolt, bevelled, zinc plated	660740500
⑥ Catch plate, zinc plated	660018860
⑦ Housing, rail latch, self colour	660010420
⑧ Pressure spring, zinc plated	660625141
⑨ Locking bolt, conical, zinc plated	660648120

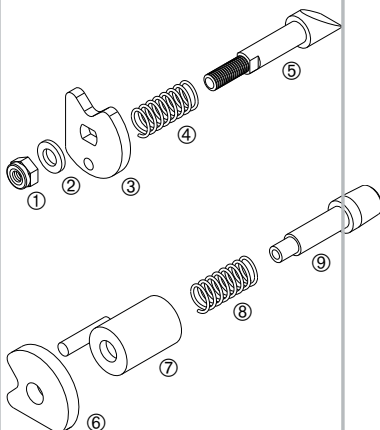


The press-on ball bearings are retained in the roller carriage only by their positive fit.

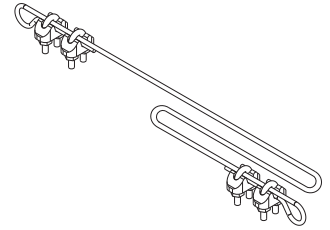
It is therefore important to secure the concerned linkage bundle on the cantilever before dismantling the rear track rails.

Spare parts for this trolley latch can be found under "Latch spare parts". The relevant item numbers are ⑥ and ⑧.

Spare parts for this swivel type latch can be found under "Latch spare parts". The relevant item numbers are ⑥ and ⑨.



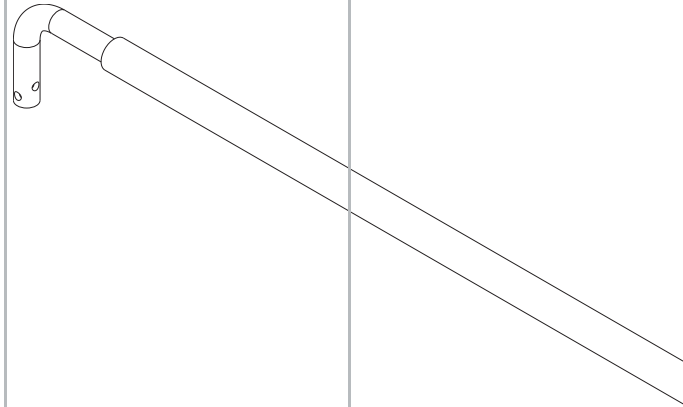
Pull cable Ø 3 mm
For unlocking the end trolleys, incl.
4 wire rope clamps DIN 1142 - 5
mm, cable length approx. 2700
mm, zinc plated.
660037560



Stop for end trolley
Steel, self colour.
660026340

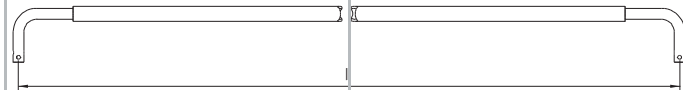


Tie bar
Ø 25 mm, zinc plated steel.



Dim. l
[mm]

2400	660016290
2430	660016292
One end loose	660016291

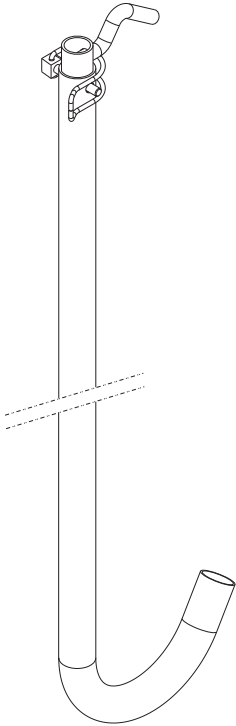


Safety chain
For both sides, S hook, zinc plated steel.
660751410

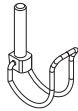


Spring cotter 4 mm
Plain, zinc plated steel.
215141008

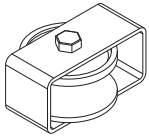


**Roof pole**

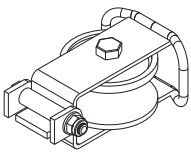
Incl. tube lynchpin, telescopic from 2000 mm to 4000 mm long, galvanised steel.

660025180**Tube clip plug**

Ø 6 x 40, zinc plated steel.

660830190**Cable guide pulley**

Cable pulley, plastic, zinc plated steel housing.

660027050**Swivel mounted cable guide pulley**

Cable pulley, plastic, zinc plated steel housing.

660027000**Cable pulley**

Plastic.

660842070**Tarpaulin cord Ø 8 mm**

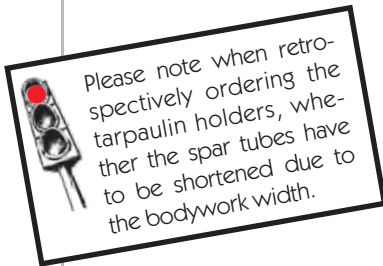
Transparent plastic with steel wire core.

320135115

Screws and fixing materials to DIN

All parts zinc plated.

Hex. nut DIN 985 - M 6 - 8	660794430
Hex. nut DIN 985 - M 8 - 8	660794590
Hex. nut DIN 985 - M 10 - 8	660794490
Hex. head screw similar to DIN 931 - M 8 x 38	660783310
Carriage bolt DIN 603 - M 8 x 42	660782250
Hex. head screw DIN 933 - M 8 x 20	960970006
Hex. head screw DIN 933 - M 8 x 25	660781200
Hex. head screw DIN 931 - M 10 x 50	660781030
Washer DIN 125 - A 6.4	660785760
Washer DIN 125 - A 8.4	660785280
Washer DIN 125 - A 10.5	660785660
Thimble similar to DIN 6899 B - A 8	270151094
Wire rope clamp DIN 1142 - 5 mm	270151188
Wire rope clamp DIN 1142 - 8 mm	270151190
Carbine DIN 5299 Form C - 8 x 80 mm	215131422
Eye nut DIN 582 - M 8	660698200



Tarpaulin holder

For welding to the spar tubes. Holder, self colour with zinc plated threaded boss M 8.

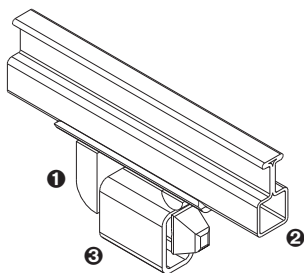
Item

① Tarpaulin holder, rigid, length approx. 350 mm	on request
② Tarpaulin holder, swivel, fitted height approx. 170 mm	on request
③ Washer DIN 9021 - 8.4 VA	660786580
④ Hex. head screw DIN 933 - M 8 x 16 VA	660681330

Top coupling

Zinc coated steel, weight 0.73 kg.

Left hand	660031230
Right hand	660031240



The top coupling ① is riveted to the track rail ② from outside and underneath. The pillar is welded to the RHS tube ③.

RHS tube

For top coupling, KTL coated steel, weight 0.25 kg.

660030680

Accessories

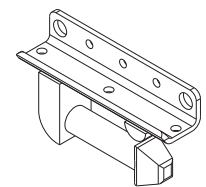
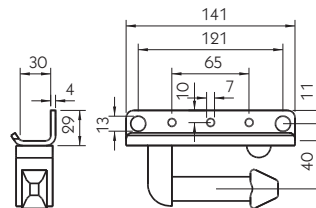
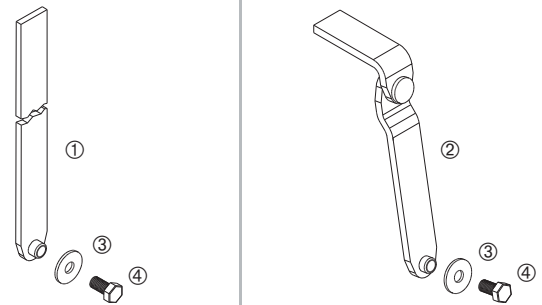
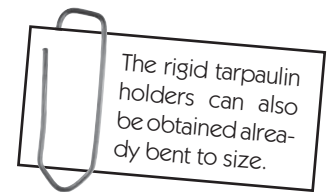
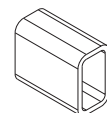
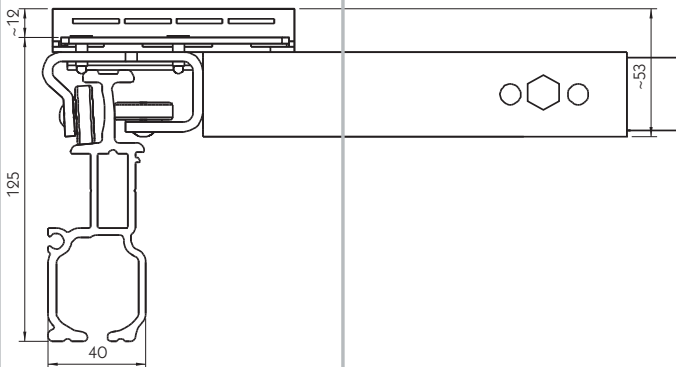


Illustration: left hand.



Curtain-Sider „Small CS“
Type 2978.9500



The curtainsider top "Small CS" is based on the full tarpaulin top "Lite 72". It has been conceived for light commercial vehicles with dropsides and a sliding roof with sliding side tarpaulins above the side boards. The top is not suitable for typical curtainsider tarpaulins which are closed using belts, tipping safety toggle locks, pull fasteners or tensioners.

The aluminium curtainsider profile supplied is self supporting for loading and unloading. Bodies over 4600 mm in length require one centre pillar.

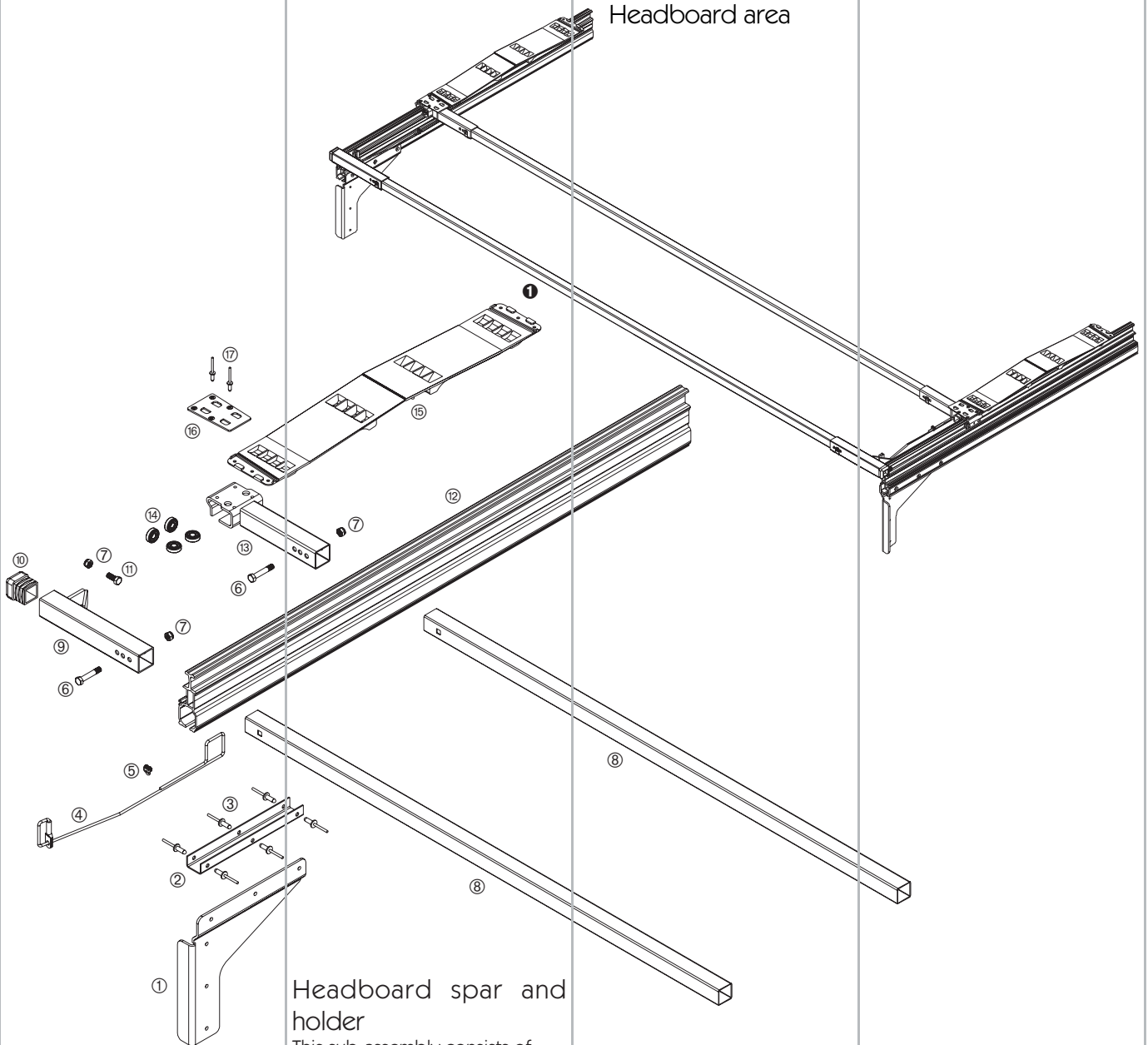
In the case of the curtainsider sliding top "Small CS", plastic links spaced at approx. 650 mm intervals control the alignment and folding of the roof tarpaulin.

- Included are the roller carriages with the plastic links, the roof spars, a headboard spar, the end spar, the end trolleys, the curtainsider profile 55900 with sealing lip and the connections for the underbody.
- Roller carriage with lateral ball bearings.
- Steel roof spars, zero pitch, spaced at 650 mm intervals, travelling on the track rails when opening.
- End trolley with locking device for positioning the end spar, without gas strut assistance.
- Standard outside widths of 1550 mm, 1650 mm, 1850 mm, 2100 mm and 2350 mm. The external width is measured at the outermost edges of the curtainsider profiles (cant rail).
- Lengths up to 7100 mm, independant of outside width.
- Roof assembly with exception of the spars, black KTL coated, spars and standard parts zinc plated, curtainsider profile 55900 aluminium self colour

Special designs:

- Deviations from width and length.

Spare parts overview
Headboard area



Headboard spar and holder

This sub-assembly consists of:

Item		
①	Pillar connection, left hand	660033690
	Pillar connection, right hand (illustrated)	660033700
②	Saddle	660033670
③	Blind rivet DIN 7337 - 6.5 x 17	not available
④	Safety cable Ø 4 mm	660854310
⑤	Wire rope clamp DIN 1142 - 5 mm	270151188
⑥	Hex. head screw DIN 931 - M 8 x 45	960970311
⑦	Hex. head nut DIN 985 - M 8 - 8	660794590
⑧	Spar	660035210
⑨	Headboard spar holder, left hand	660030950
	Headboard spar holder, right hand (illustrated)	660030960
⑩	End plug (for end spar)	660324980
⑪	Hex. head screw DIN 931 - M 8 x 20	960970006
⑫	Curtainsider profile 55900	profile 55900
⑬	Roller carriage	660030130
⑭	Ball bearing with rivet stud	660850470
⑮	Link	vehicle dependant
⑯	Clamping plate	660034120
⑰	Blind rivet DIN 7337 - 5.0 x 10 mm	660305430

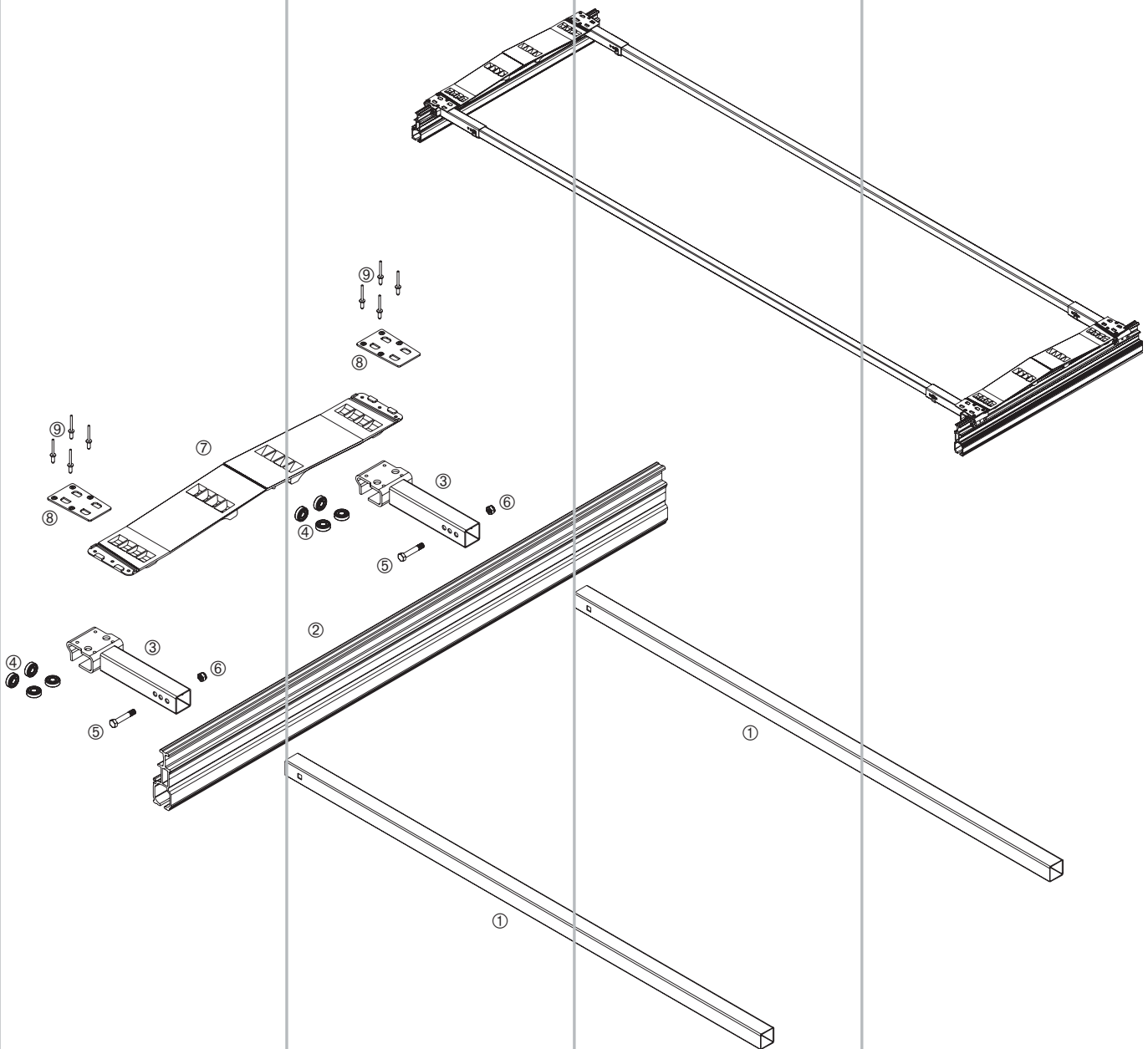
In this sub-assembly, all parts up to the first (complete) centre spar are summarised. The exploded view illustrates the right hand side of the roof (viewed from rear of vehicle).

The roller carriage from the centre spars area is fitted to linkage at ①.

Vehicle dependant parts are available in several designs, e.g. in various lengths. Please note that various components also include other parts in the table and illustrations.

All available individual parts can be found from page 842.

Centre spar



Centre spar

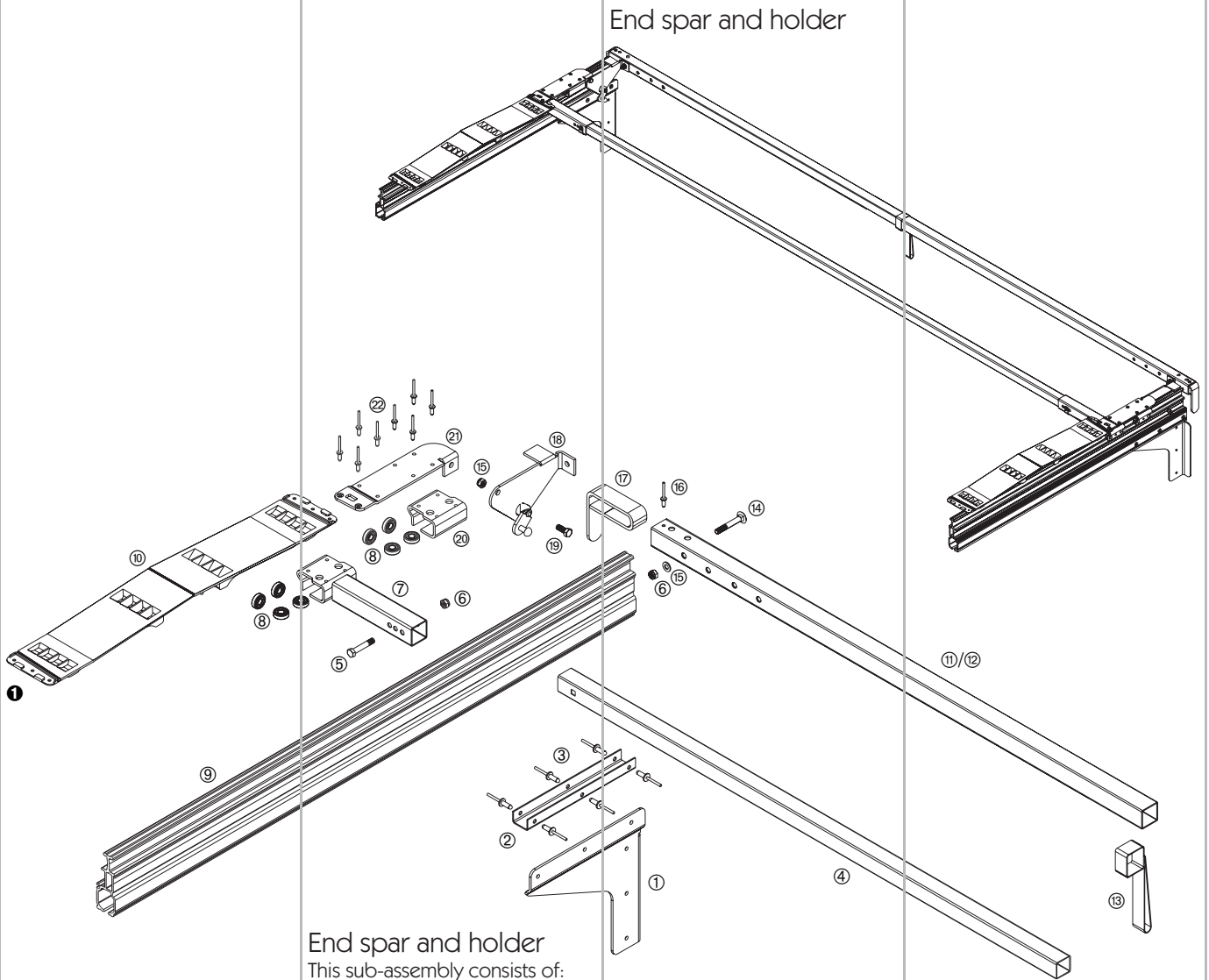
This sub-assembly consists of:

Item		
① Spar		660035210
② Curtainsider profile 55900		profile 55900
③ Roller carriage		660030130
④ Ball bearing with rivet stud		660850470
⑤ Hex. head screw DIN 931 - M 8 x 45		960970311
⑥ Hex. nut DIN 985 - M 8 - 8		660794590
⑦ Link		vehicle dependant
⑧ Clamping plate		660034120
⑨ Blind rivet DIN 7337 - 5.0 x 10 mm		660305430

In this sub-assembly, all parts between two centre spars are summarised. The exploded view illustrates the right hand side of the roof (viewed from rear of vehicle).

Vehicle dependant parts are available in several designs, e.g. in various lengths. Please note that various components also include other parts in the table and illustrations.

All available individual parts can be found from page 842.



End spar and holder

This sub-assembly consists of:

Item

①	Pillar connection, left hand (illustrated)	660033690
	Pillar connection, right hand	660033700
②	Saddle	660033670
③	Blind rivet DIN 7337 - 6.5 x 17	not available
④	Spar	660035210
⑤	Hex. head screw DIN 931 - M 8 x 45	960970311
⑥	Hex. nut DIN 985 - M 8 - 8	660794590
⑦	Roller carriage	660030130
⑧	Ball bearing with rivet stud	660850470
⑨	Curtainsider profile 55900	profile 55900
⑩	Link	vehicle dependant
⑪	End spar complete	vehicle dependant
⑫	Spar	not available
⑬	Pull strap	660323350
⑭	Carriage bolt DIN 603 - M 8 x 55	not available
⑮	Washer DIN 125 - A 8.4	660785280
⑯	Blind rivet DIN 7337 - 4.8 x 18	not available
⑰	Tarpaulin deflector	not available
⑱	Locking device, left hand	660033730
	Locking device, right hand (illustrated)	660033740
⑲	Hex. head screw DIN 933 - M 8 x 20	960970006
⑳	Roller carriage	660033680
㉑	Holding plate, left hand	660033710
	Holding plate, right hand (illustrated)	660033720
㉒	Blind rivet DIN 7337 - 5.0 x 10 mm	660305430

The exploded view illustrates the right hand side of the roof (viewed from rear of vehicle).

The roller carriage from the centre spars area is fitted to linkage at ①.

Vehicle dependant parts are available in several designs, e.g. in various lengths. Please note that various components also include other parts in the table and illustrations.

All available individual parts can be found from page 842.

Spare parts/individual parts

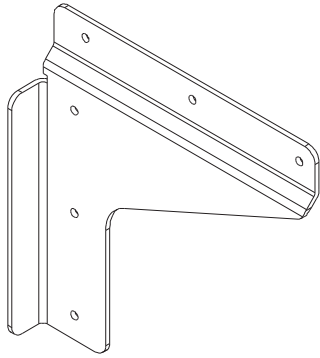


Illustration: left hand.

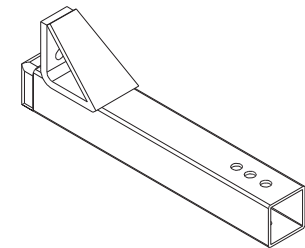
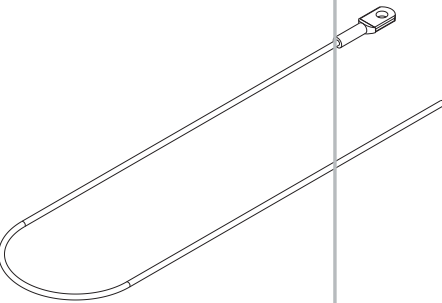
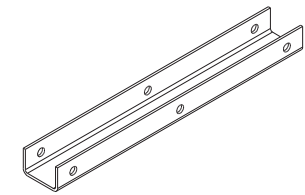
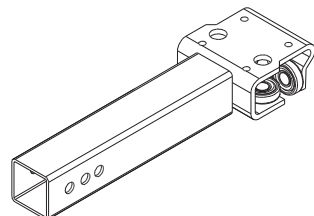


Illustration: left hand.



Pillar connection

Steel, KTL coated.

Left hand

660033690

Right hand

660033700

Saddle

Steel, KTL coated.

660033670

Safety cable \varnothing 4 mm

For headboard connection, zinc plated steel.

660854310

Headboard spar holder

Incl. plastic plug, KTL coated steel.

Left hand

660030950

Right hand

660030960

Plug

(End of end spar), for spar tubes 35 x 35 mm or headboard cross-bar holder, plastic.

660324980

Locking pin clip

Zinc plated steel.

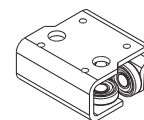
660855200

Roller carriage

With ball bearings, steel, KTL coated.

660030130

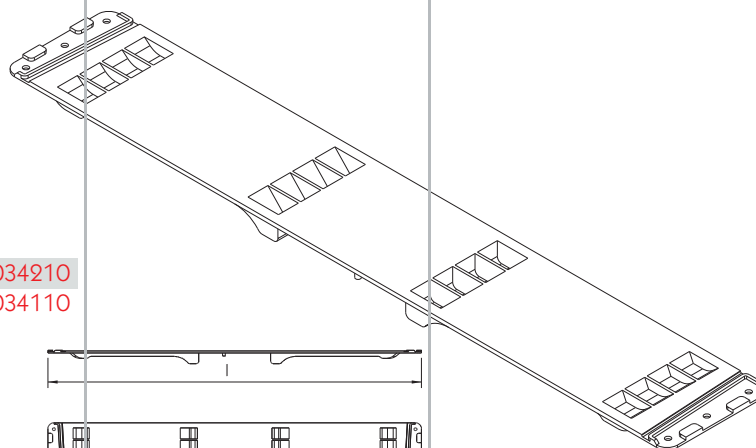
Roller carriage
With ball bearings, steel, KTL-coated.
660033680



Ball bearing with rivet stud
Steel, gunmetal finish.
660850470

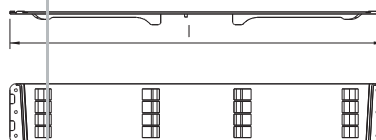


Linkage
Plastic.

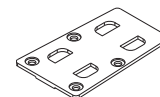


Nominal length [mm]	Dim. l [mm]
570	552
650	632

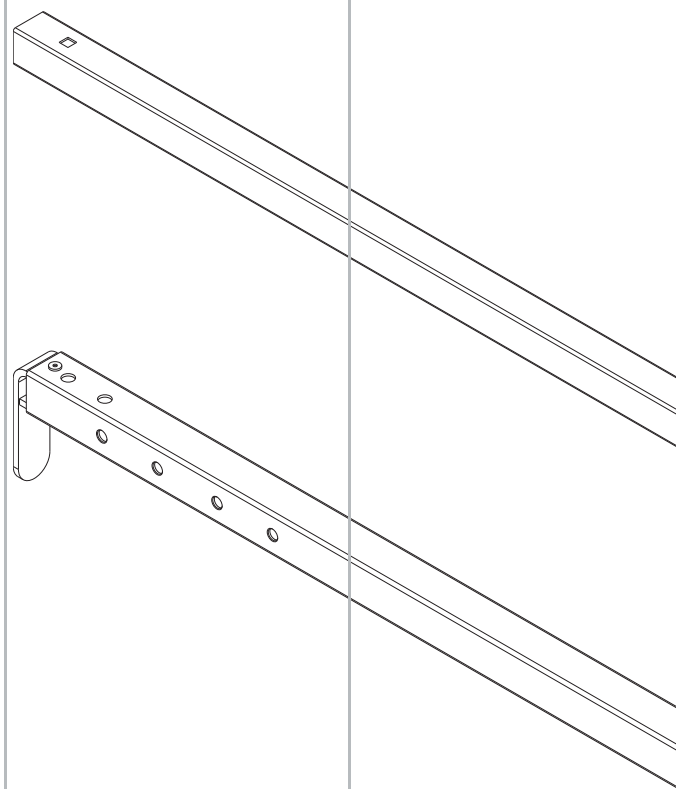
660034210
660034110



Clamping plate
For plastic link, plastic.
660034120



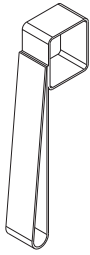
Spar
30 x 30 x 1.5 mm, length \varnothing 185 mm, DN 0, zinc plated steel.
660035210



End spar
35 x 35 x 2.0 mm, DN 0, with tarpaulin deflector and pull strap, steel parts zinc plated.

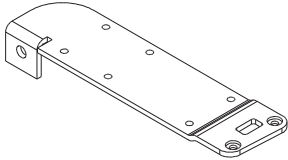
Overall length [mm]

2550
Made to order **660035360**
660027910



Pull strap
Green.

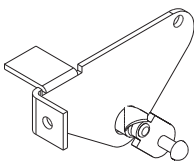
660323350



Holding plate
Steel, KTL coated.

Left hand	660033710
Right hand	660033720

Illustration: left hand.



Locking device
Steel, KTL coated.

Left hand	660033730
Right hand	660033740

Illustration: left hand.



Pressure spring
Spare parts for locking device
latch, zinc plated.

660625141

Screws and fixing
materials to DIN

All parts zinc plates.

Washer DIN 125 - A 8.4	660785280
Hex. head screw DIN 933 - M 8 x 20	960970006
Hex. head nut DIN 985 - M 8 - 8	660794590
Wire rope clamp DIN 1142 - 5 mm	270151188
Blind rivet DIN 7337 - 5.0 x 10 mm	660305430

Accessories

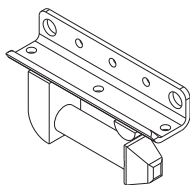
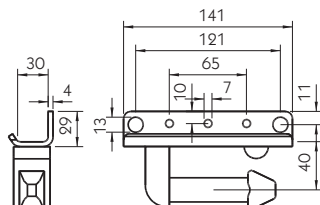


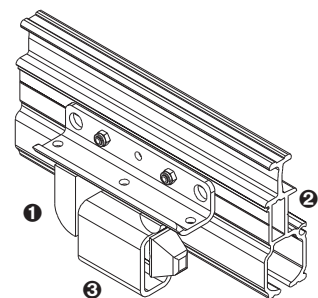
Illustration: left hand.



Top coupling

Zinc coated steel, weight 0.73 kg.

Left hand	660031230
Right hand	660031240



RHS tube

For top coupling, KTL coated
steel, weight 0.25 kg.

660030680

The top coupling **1** is screwed to the inside of the curtainsider profile 55900 **2**. The producer recommends using hex. head screws ISO 4017 - M 6 x 35 with washers DIN 6920 - 21.0 x 2.0 and hex. nuts DIN 985 - M 6 - 8. The pillar is welded to the RHS tube **3**.

Curtainsider „Lite 100“
 Type 2980.9000

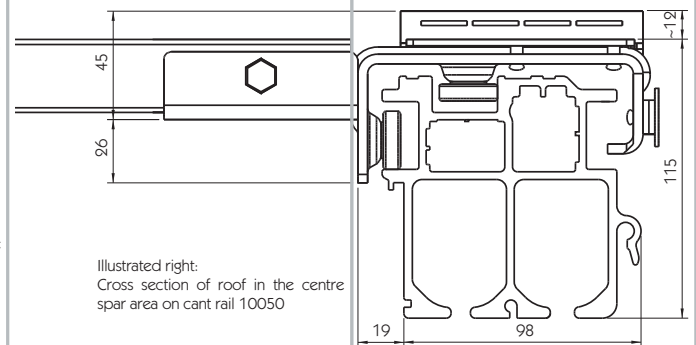
With the "Lite 100" curtainsider sliding top, control of the lifting and folding of the roof tarpaulin is by means of plastic links placed at 650 mm intervals. Vertically and laterally mounted ball bearings in conjunction with roof spars mounted rigidly on roller carriers provide simple and twist free operation from ground level with the aid of a telescopic roof pole.

- Included are the roller carriages with the plastic links, the roof spars and the end trolleys.
- Roller carriage with lateral ball bearings.
- Steel roof spars, zero pitch, spaced at 650 mm intervals, travelling on the track rails when opening.
- End trolley as travelling crossmember.
- Standard outside widths of 2550 mm or 2570 mm.
- Length up to 16000 mm.
- Roof assembly, with the exception of the end trolley crossmember is completely zinc plated, the crossmember is black KTL coated.
- Weight without cant rail approx. 7 kg/m.

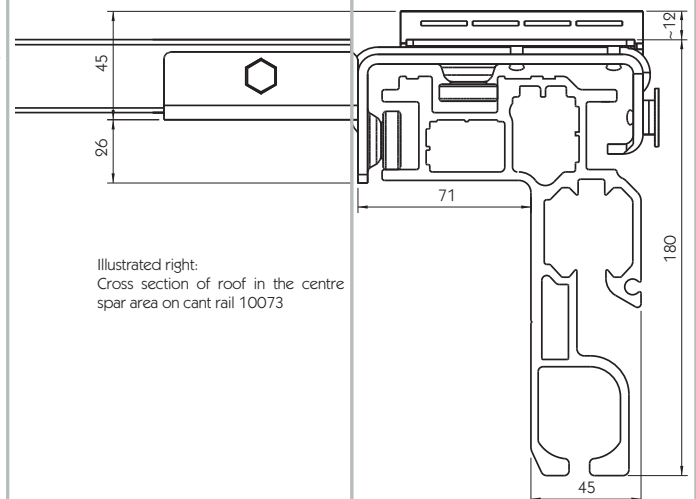
The aluminium cant rail, the accessories of which and the cant rail dependant end trolley locking device, are not supplied, and must be ordered separately.

Special designs:

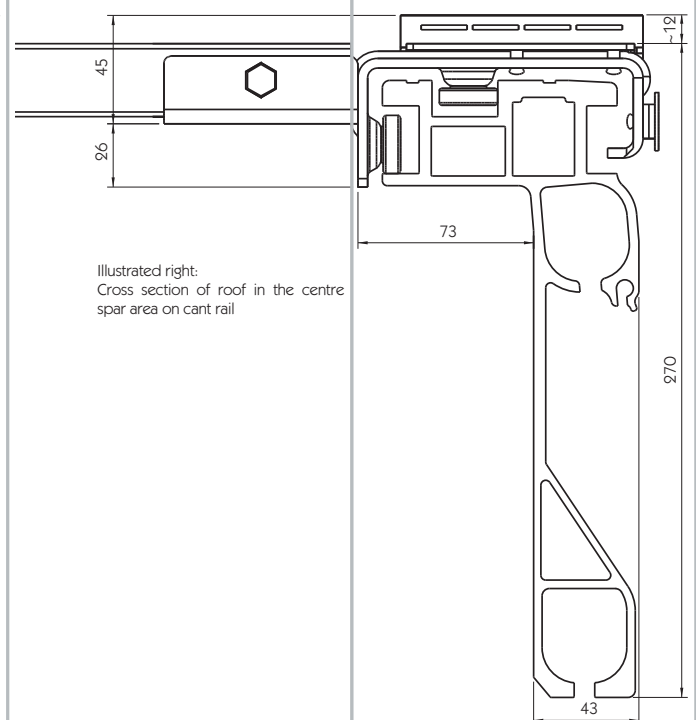
- Top in DB (German Rail) specification in accordance with EN 283.
- Additional front spar with (shortened) plastic links.
- Top can be opened towards both ends. See under "Headboard area special construction, two-way sliding".
- End spar, not suitable for door lock recesses.
- Portal beam with integrated end lifter (gas strut 700 N). Height of crossbar, 113 mm.
- End lifter for customer's own crossbar with 1 x 700 N gas strut or 2 x 500 N gas struts.
- Miscellaneous crossbars, e.g. for PWP Contact door sealing system.
- End trolley locking device (roller/ramp wedge/pull-cord detents), depending on cant rail profile.
- Spar spacing, 570 mm.
- Top supplied without spars.
- Deviation from standard outside widths



Illustrated right:
 Cross section of roof in the centre spar area on cant rail 10050

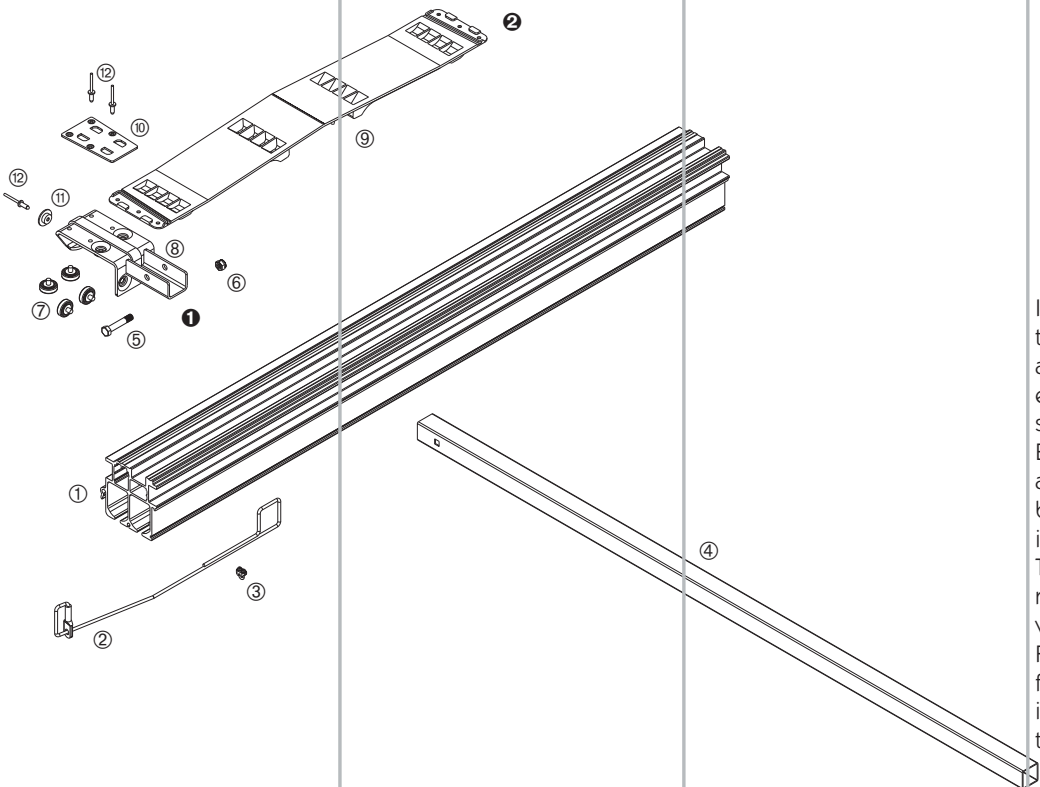
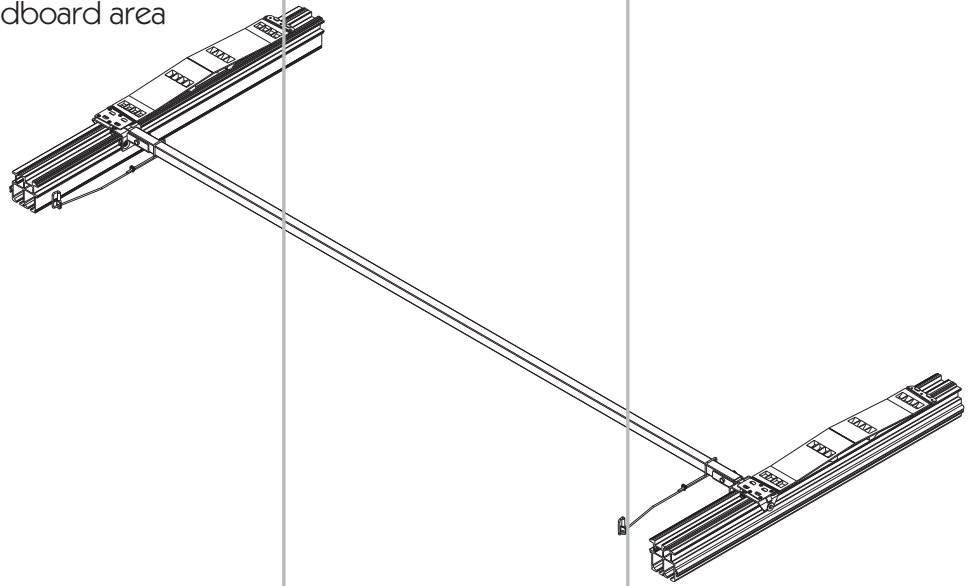


Illustrated right:
 Cross section of roof in the centre spar area on cant rail 10073



Illustrated right:
 Cross section of roof in the centre spar area on cant rail

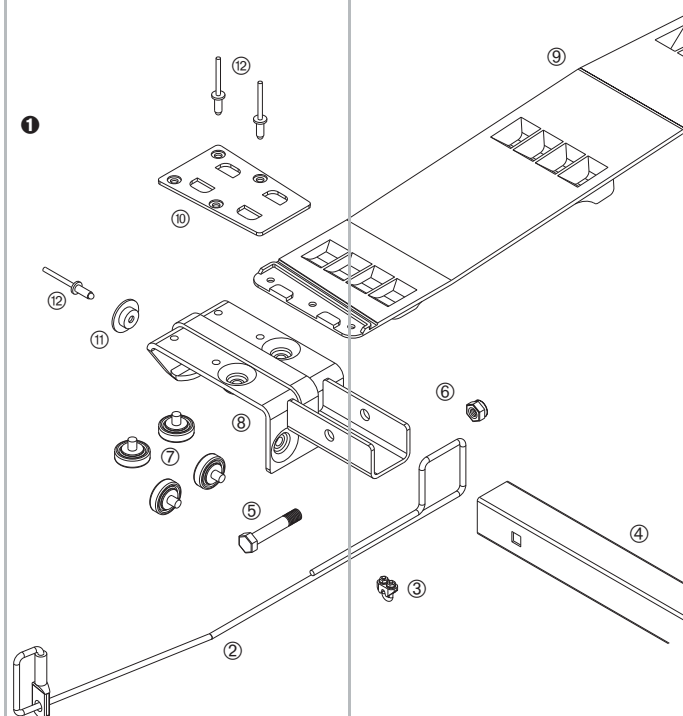
Spare parts overview
Headboard area



In this sub-assembly, all parts up to the first (complete) centre spar are summarised. No components for tops in DB (German Rail) specification in accordance with EN 283 are itemised. Enquiries about these spare parts should be addressed to our department in Wermelskirchen.

The exploded view illustrates the right hand side of the roof (as viewed from rear of vehicle). For clarity, the assembly of the front roller carriage 1 with the individual parts is shown again on the next page scaled up 2:1.

The link is riveted at 2 to the roller carriage from the centre spar area.



Headboard area

This sub-assembly consists of:

Item

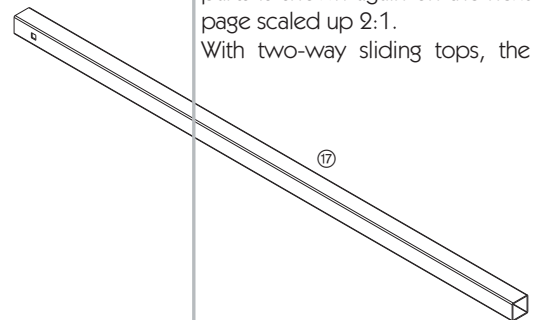
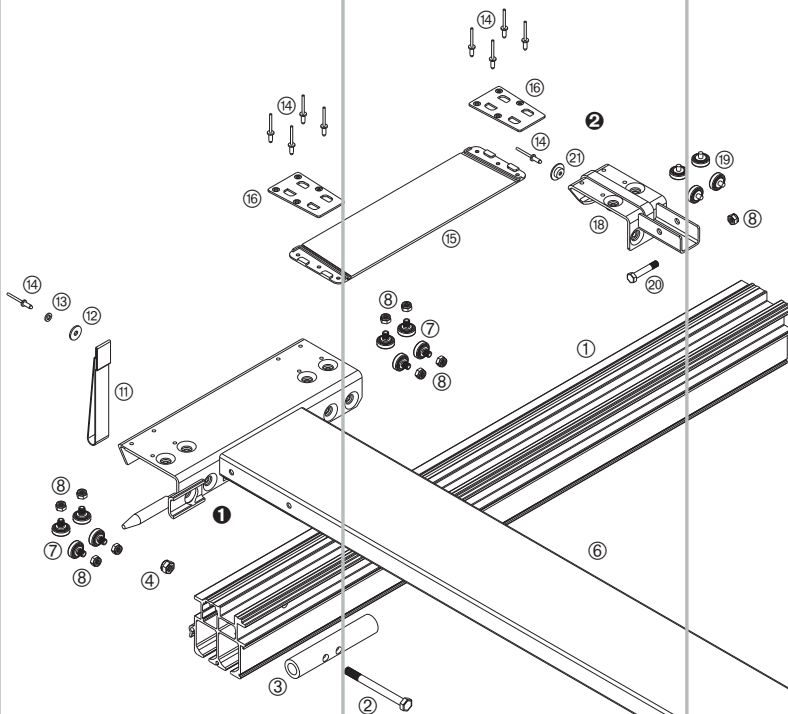
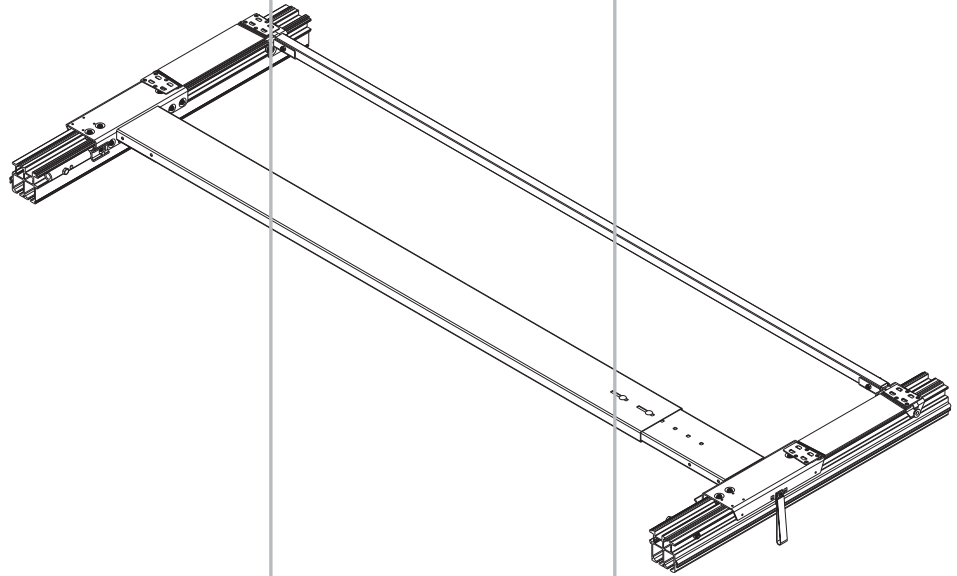
①	Cant rail depth 92 mm	profile 80797
	Cant rail depth 100 mm (illustrated)	profile 10050
	Cant rail depth 165 mm	profile 10073
	Cant rail depth 255 mm	profile 33569
②	Safety cable Ø 4 mm	660854310
③	Wire rope clamp DIN 1142 - 5 mm	270151188
④	Spar (for roof outer width 2550 mm)	660034640
⑤	Hex. head screw DIN 931 - M 8 x 45	960970311
⑥	Hex. nut DIN 985 - M 8 - 8	660794590
⑦	Ball bearing with rivet stud (illustrated, alternative)	660850470
	Ball bearing with threaded stud M 8 ③	660830040
	Hex. nut DIN 985 - M 8 - 8 (for 660830040)	660794590
⑧	Roller carriage	660031430
⑨	Link <i>see page 864</i>	vehicle dependant
⑩	Clamping plate	660034120
⑪	Hat washer	660633950
⑫	Blind rivet DIN 7337 - 5.0 x 10 mm	660305430

When repairing the roller carriage using ball bearings with threaded studs ③, the stud holes in the roller carriage must be bored out to Ø 7.8 mm.

Vehicle dependant parts are available in several designs, e.g. in various lengths. Please note that various components also include other parts itemised in the table and illustrations.

All available individual parts and the extent of their supply can be found from page 863. Accessories for curtainsider sliding roofs can be found from page 905, for cant rails from page 950.

Headboard area special construction "two-way sliding"



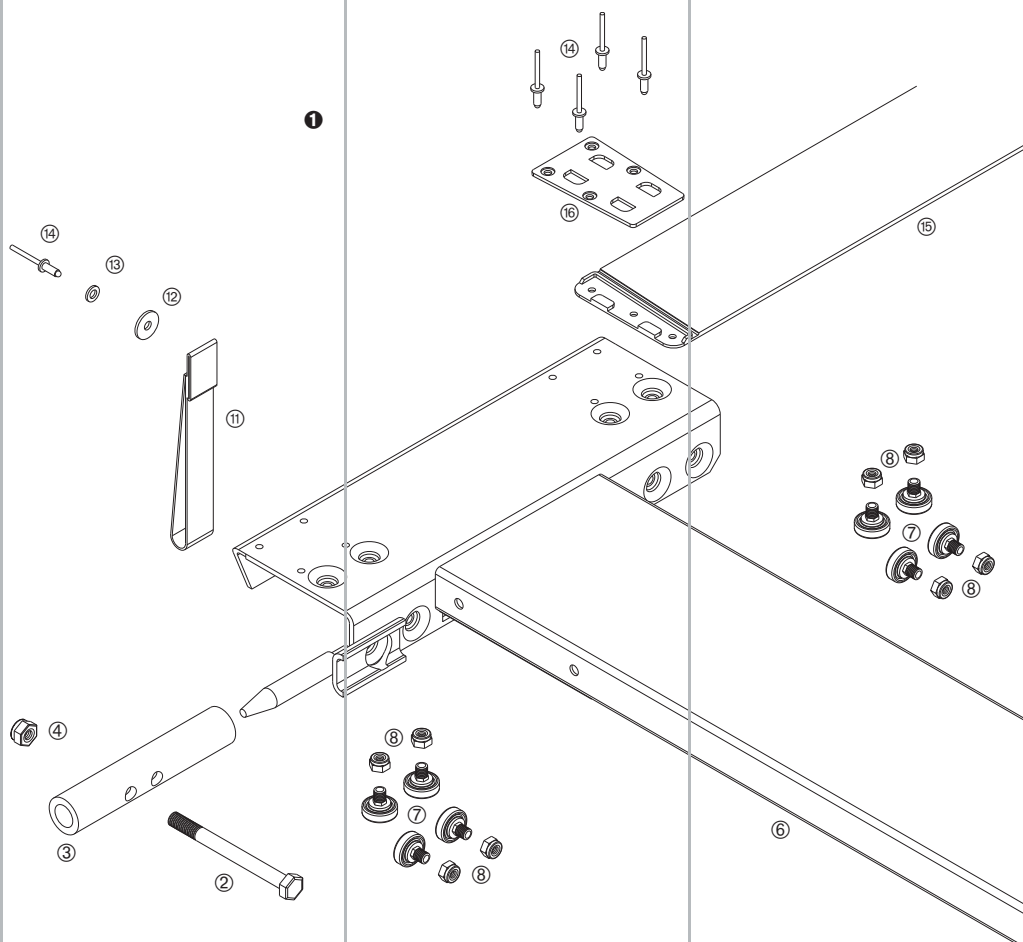
In this sub-assembly, all the parts of the basic top from the last (complete) centre spar up to the end trolley are summarised.

No components for tops in DB (German Rail) specification in accordance with EN 283 are itemised. Enquiries about these spare parts should be addressed to our department in Wermelskirchen.

For clarity, the assembly of the end trolley 1 with the individual parts is shown again on the next page scaled up 2:1.

With two-way sliding tops, the

Due to the preferred method of itemisation of the right hand roof half, only a part of the C profile of the right hand end trolley 5 is illustrated (both end trolley parts are turned through 180° when fitted therefore, when viewed from rear of vehicle, right = end trolley left). A complete illustration can be found, for example, on page 852.



roof length must correspond exactly to the body length. Because all the parts, from the rear to the front end trolley, are joined to each other by links, and the roof length must be manufactured exact to the centimetre, the compensating link ⑮ is used. In contrast to the standard links, these are not profiled and can be shortened to the required length. The various end lifters and end spars/portal beam variants are considered to be accessories and for this reason are first itemised on the next page together with cant rail specific end trolley locking devices.

The exploded view illustrates the right hand side of the roof (viewed from rear of vehicle).

The links from the centre spar area are riveted to the roller carriages ⑱.

When repairing the roller carriage using ball bearings with threaded studs ⑳, the stud holes in the roller carriage must be bored out to Ø 7.8 mm.

Vehicle dependant parts are available in several designs, e.g. in various lengths. Please note that various components also include other parts itemised in the table and illustrations.

All available individual parts and the extent of their supply can be found from page 863. Accessories for curtainsider sliding roofs can be found from page 905, for cant rails from page 950.

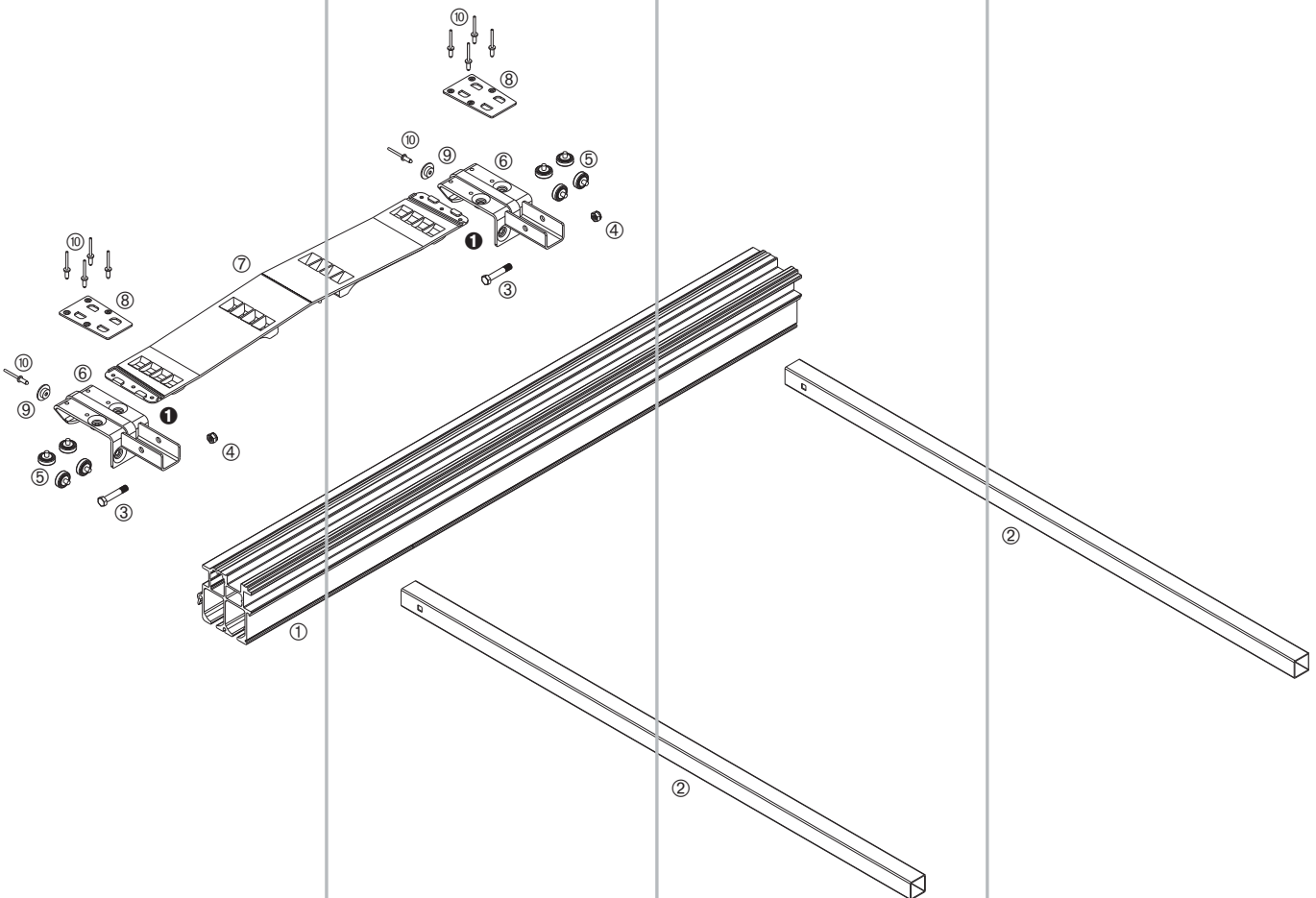
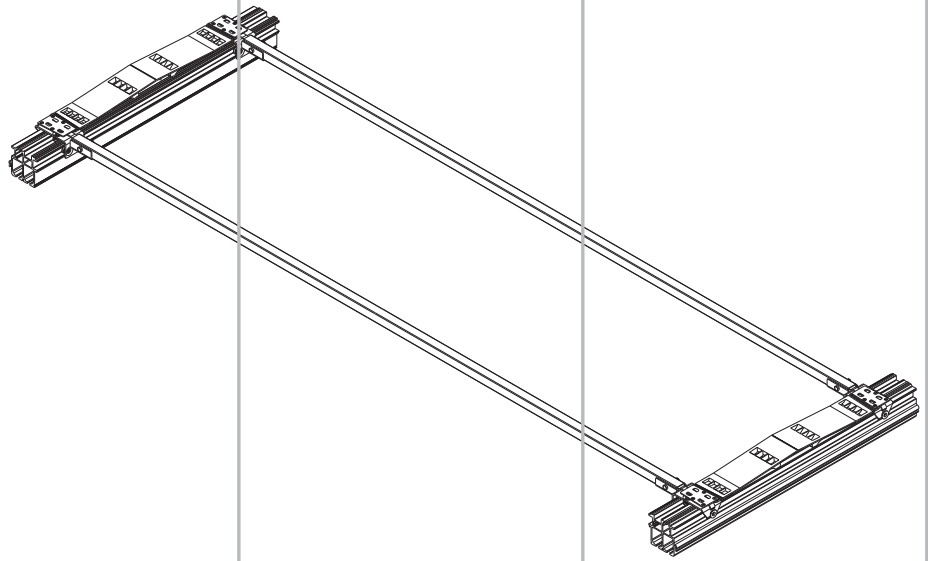
Headboard area special construction "two-way sliding"

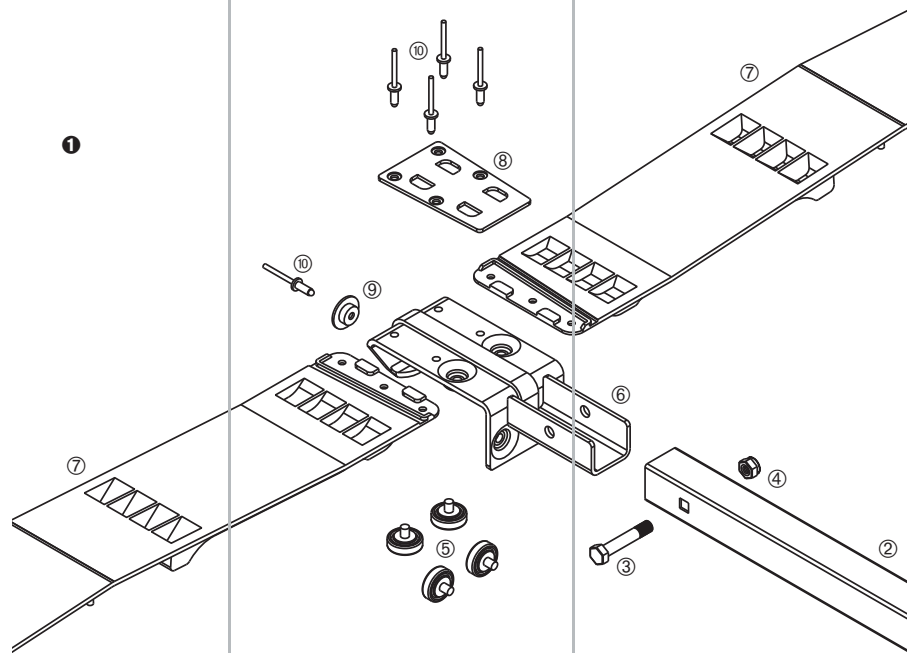
This sub-assembly consists of:

Item

①	Cant rail depth 92 mm	profile 80797
	Cant rail depth 100 mm (illustrated)	profile 10050
	Cant rail depth 165 mm	profile 10073
	Cant rail depth 255 mm	profile 33569
②	Hex. head screw DIN 931 - M 10 x 110	660781480
③	Guide tube	660030240
④	Hex. head nut DIN 985 - M 10 - 8	660794490
⑤	End trolley, right hand (short)	660031840
⑥	End trolley, left hand (long)	660031830
⑦	Ball bearing with threaded stud M 8	660830040
⑧	Hex. nut DIN 985 - M 8 - 8	660794590
⑨	Carriage bolt DIN 603 - M 8 x 20	not available
⑩	Washer DIN 125 - A 10.5	660785660
⑪	Pull strap	660323350
⑫	Washer DIN 9021 - 6.4	not available
⑬	Washer DIN 125 - A 6.4	660785760
⑭	Blind rivet DIN 7337 - 5.0 x 10 mm	660305430
⑮	Compensating link	660035130
⑯	Clamping plate	660034120
⑰	Spar (for roof outer width 2550 mm)	660034640
⑱	Roller carriage	660031430
⑲	Ball bearing with rivet stud (illustrated, alternative)	660850470
	Ball bearing with threaded stud M 8 ⑳ (also ⑦)	660830040
	Hex. nut DIN 985 - M 8 - 8 (for 660830040 also ⑧)	660794590
⑳	Hex. head screw DIN 931 - M 8 x 45	960970311
㉑	Hat washer	660633950

Centre spar





In this sub-assembly, all parts between two centre spars are summarised.

No components for tops in DB (German Rail) specification in accordance with EN 283 are itemised. Enquiries about these spare parts should be addressed to our department in Wermelskirchen.

The exploded view on the facing page illustrates the right (viewed from rear of vehicle) roof side.

For clarity, the assembly of a roller carriage ❶ with the individual parts is shown again on this page scaled up 2:1.

When repairing the roller carriage using ball bearings with threaded studs ❷, the stud holes in the roller carriage must be bored out to Ø 7.8 mm.

Vehicle dependant parts are available in several designs, e.g. in various lengths. Please note that various components also include other parts itemised in the table and illustrations.

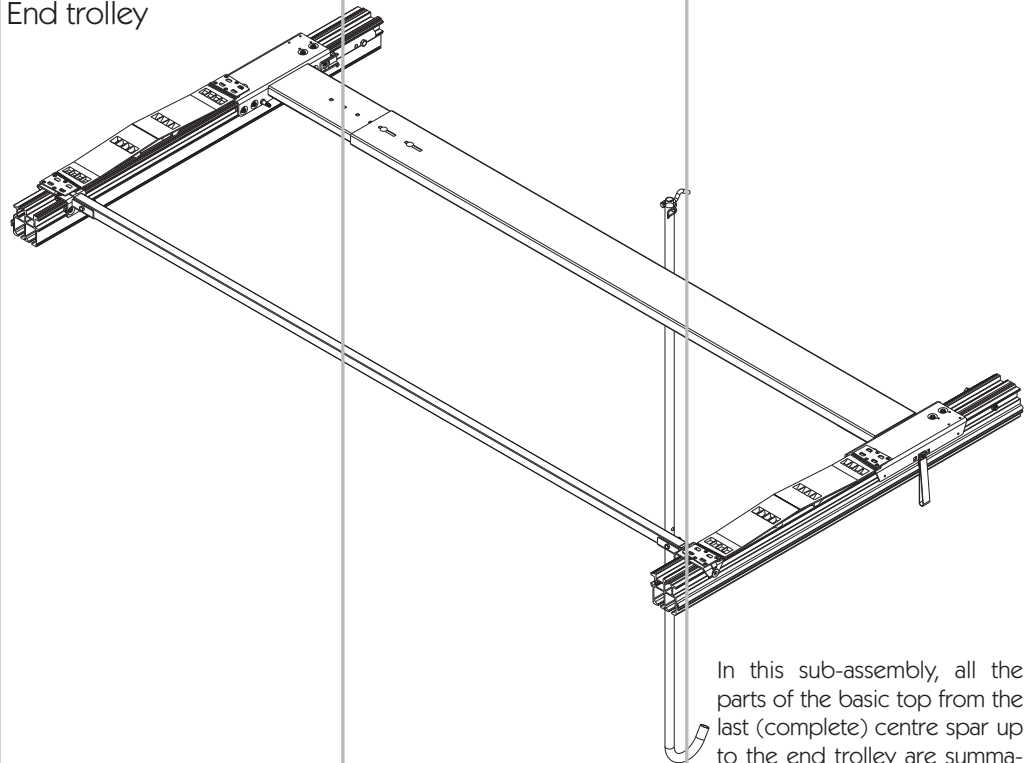
All available individual parts and the extent of their supply can be found from page 863. Accessories for curtainsider sliding roofs can be found from page 905, for cant rails from page 950.

Centre spar

This sub-assembly consists of:

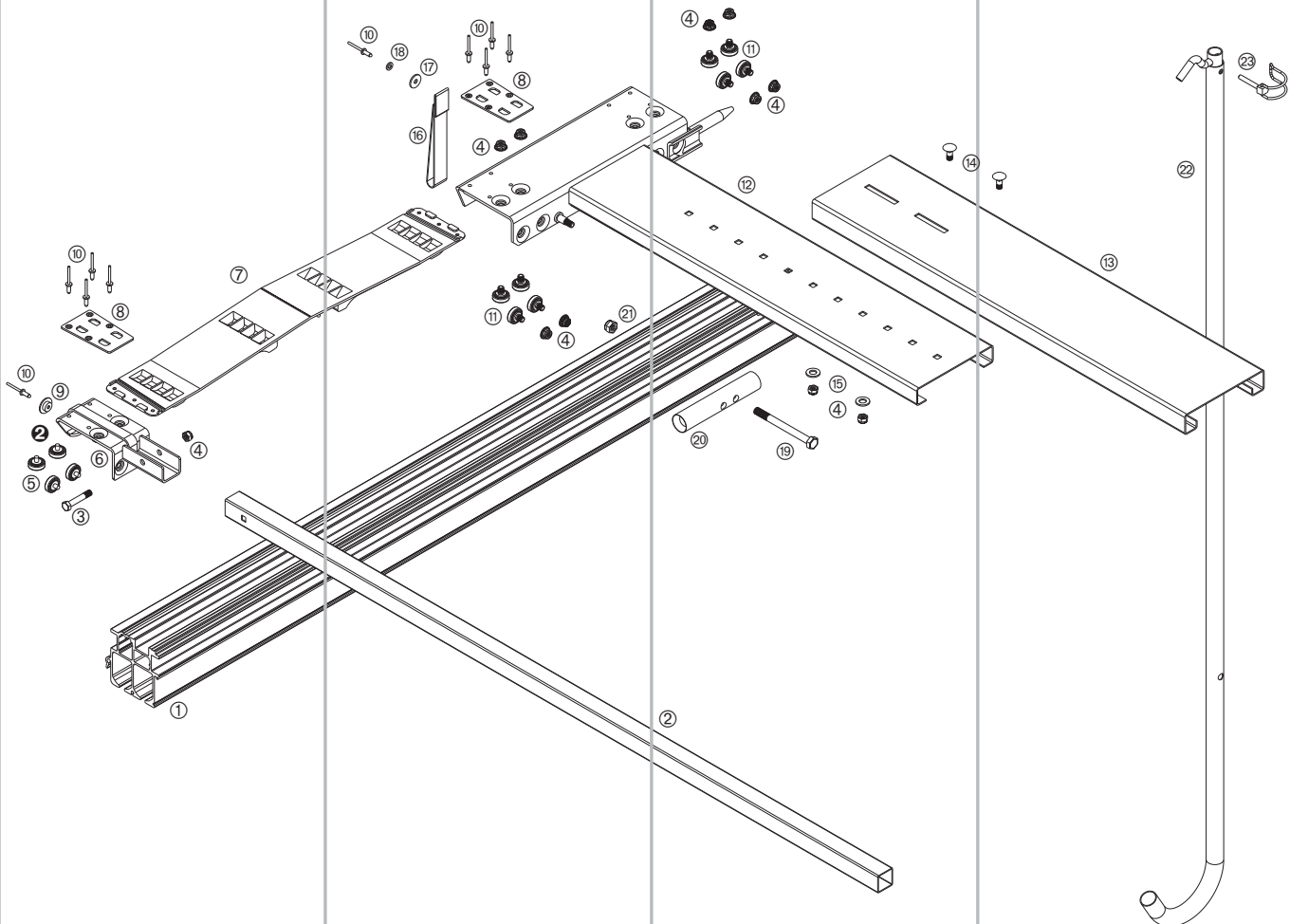
Item		
❶	Cant rail depth 92 mm	profile 80797
	Cant rail depth 100 mm (illustrated)	profile 10050
	Cant rail depth 165 mm	profile 10073
	Cant rail depth 255 mm	profile 33569
❷	Spar (for roof outer width 2550 mm)	660034640
❸	Hex. head screw DIN 931 - M 8 x 45	960970311
❹	Hex. nut DIN 985 - M 8 - 8	660794590
❺	Ball bearing with rivet stud (illustrated, alternative)	660850470
	Ball bearing with threaded stud M 8 ❷	660830040
	Hex. nut DIN 985 - M 8 - 8 (for 660830040 also ❸)	660794590
❻	Roller carriage	660031430
❼	Link <i>see page 864</i>	vehicle dependant
❽	Clamping plate	660034120
❾	Hat washer	660633950
❿	Blind rivet DIN 7337 - 5.0 x 10 mm	660305430

End trolley

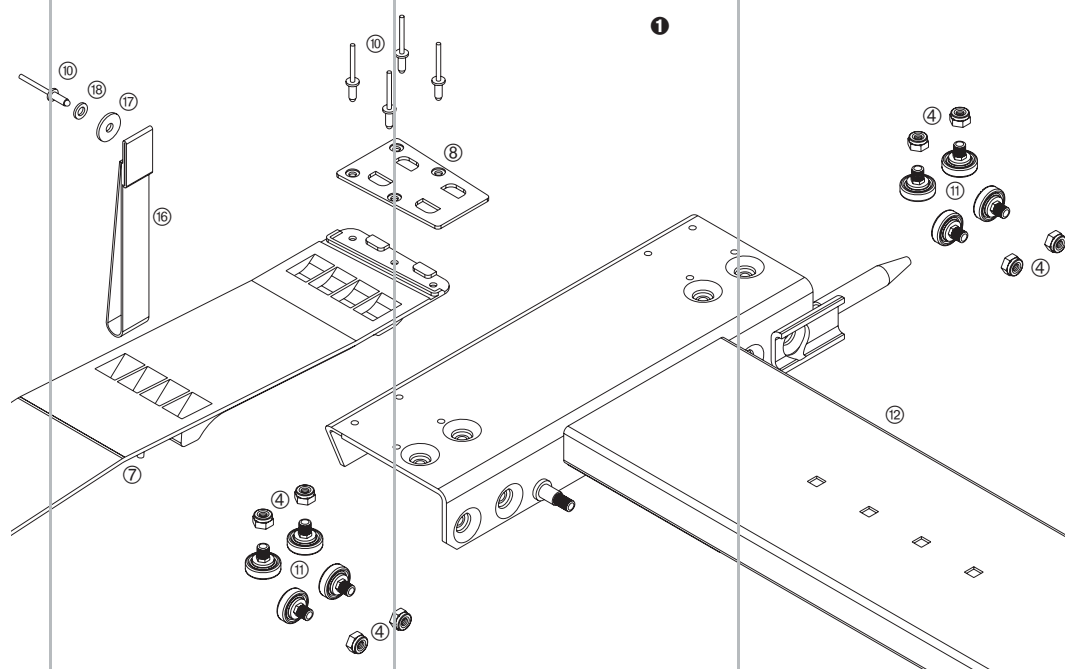


In this sub-assembly, all the parts of the basic top from the last (complete) centre spar up to the end trolley are summarised.

No components for tops in DB (German Rail) specification in accordance with EN 283



Due to the preferred method of itemisation of the right hand roof half, only a part of the C profile of the left hand trolley is illustrated. A complete illustration can be found, for example, on page 848.



are itemised. Enquiries about these spare parts should be addressed to our department in Wermelskirchen.

The exploded view on the facing page illustrates the right (viewed from rear of vehicle) roof side.

For clarity, the assembly of the end trolley ① with the individual parts is shown again on this page scaled up 2:1.

The various end lifters and end spars/portal beam variants are considered to be accessories and for this reason are first itemised on the next page together with cant rail specific end trolley locking devices.

The links from the centre spar area are riveted to the roller carriages ②.

When repairing the roller carriage using ball bearings with threaded studs ⑤, the stud holes in the roller carriage must be bored out to \varnothing 7.8 mm.

Vehicle dependant parts are available in several designs, e.g. in various lengths. Please note that various components also include other parts in the table and illustrations.

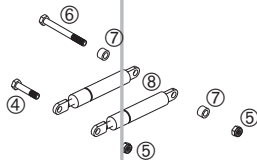
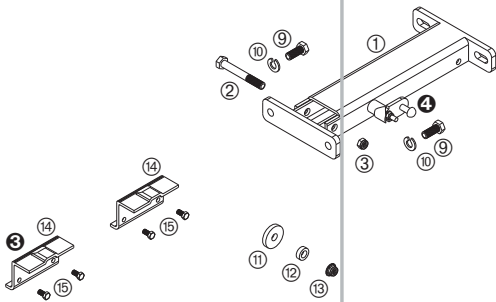
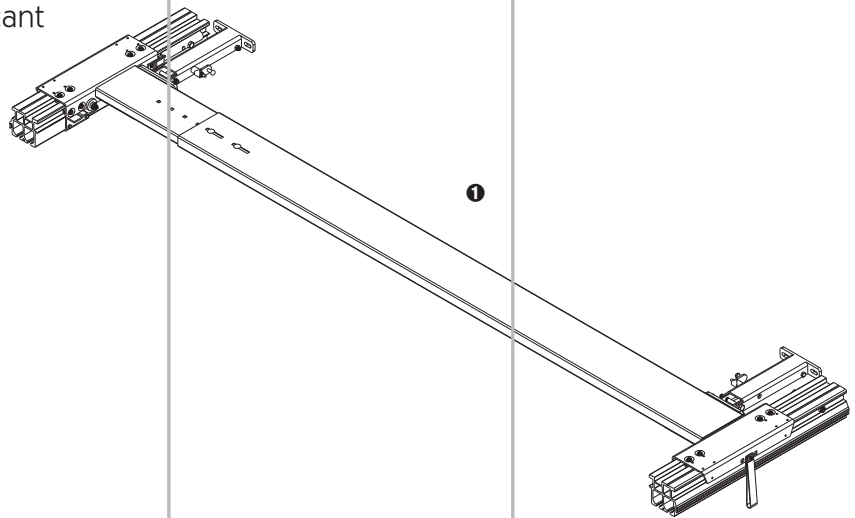
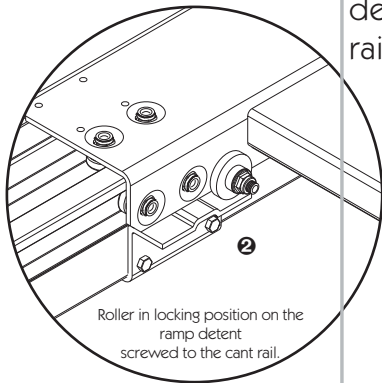
All available individual parts and the extent of their supply can be found from page 863. Accessories for curtainsider sliding roofs can be found from page 905, for cant rails from page 950.

End trolley

This sub-assembly consists of:

Item		
①	Cant rail depth 92 mm	profile 80797
	Cant rail depth 100 mm (illustrated)	profile 10050
	Cant rail depth 165 mm	profile 10073
	Cant rail depth 255 mm	profile 33569
②	Spar (for roof outside width 2550 mm)	660034640
③	Hex. head screw DIN 931 - M 8 x 45	960970311
④	Hex. nut DIN 985 - M 8 - 8	660794590
⑤	Ball bearing with rivet stud (illustrated, alternative)	660850470
	Ball bearing with threaded stud M 8 ⑤ (also ⑪)	660830040
	Hex. nut DIN 985 - M 8 - 8 (for 660830040 also ④)	660794590
⑥	Roller carriage	660031430
⑦	Link <i>see page 864</i>	vehicle dependant
⑧	Clamping plate	660034120
⑨	Hat washer	660633950
⑩	Blind rivet DIN 7337 - 5.0 x 10 mm	660305430
⑪	Ball bearing with threaded stud M 8	660830040
⑫	End trolley, right hand (short)	660031840
⑬	End trolley, left hand (long)	660031830
⑭	Carriage bolt DIN 603 - M 8 x 20	not available
⑮	Washer DIN 125 - A 10.5	660785660
⑯	Pull strap	660323350
⑰	Washer DIN 9021 - 6.4	not available
⑱	Washer DIN 125 - A 6.4	660785760
⑲	Hex. head screw DIN 931 - M 10 x 110	660781480
⑳	Locating tube	660030240
㉑	Hex. head nut DIN 985 - M 10 - 8	660794490
㉒	Drawbar	660025180
㉓	Tube linchpin 6 x 40	660830190

Accessory overview End lifter 2 x 500 N and roller/ramp locking device for cant rail 80797



End lifter 2 x 500 N This accessory consists of:

Item	Description	Availability
①	End lifter housing, left hand	not available
	End lifter housing, right hand (illustrated)	not available
②	Hex. head screw DIN 931 - M 10 x 75	not available
③	Hex. head nut DIN 985 - M 10 - 8	660794490
④	Hex head screw similar to DIN 931 - M 8 x 38	660783310
⑤	Hex. head nut DIN 985 - M 8 - 8	660794590
⑥	Hex. head screw DIN 931 - M 8 x 75	not available
⑦	Bush Ø 14 x 9 - 8.5 mm	not available
⑧	Gas strut 500 N	660728290

660027301

Miscellaneous parts

Item	Description	Availability
⑨	Hex. head screw DIN 933 - M 10 x 25	960970014
⑩	Spring washer DIN 127 - A 10	not available
⑪	Roller Ø 35 mm	not available
⑫	Bush Ø 18 x 10.2 - 6 mm	not available
⑬	Hex. head nut with flange DIN 6926 - M 8	not available

Roller/ramp locking de- vice for cant rail 80797 This accessory consists of:

Item	Description	Availability
⑭	Ramp detent	not available
⑮	Hex. head screw DIN 933 - M 6 x 12	not available

660034830

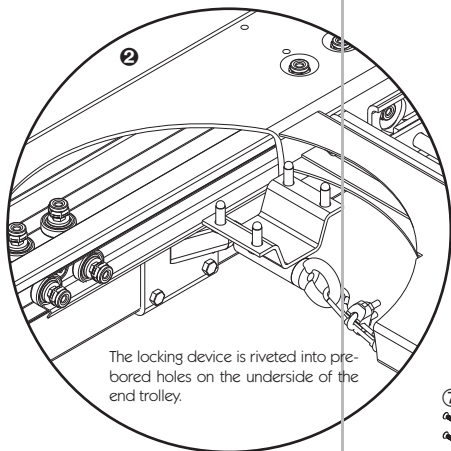
Illustrated on this page are the accessory parts for the end lifter with 2 x gas struts 500 N and the end trolley roller/ramp locking device which is only for cant rail 80797.

The version of end lifter with 2 x 500 N gas struts is only recommended for heavy portal/end beams.

For clarity, ① shows the complete top closing mechanism with the exception of the portal beam, and detail ② illustrates the roller on the ramp detent. The exploded view shows the right hand roof side (viewed from rear of vehicle). The additional ramp ③ is for positioning the concertinaed linkage bundle at the headboard end.

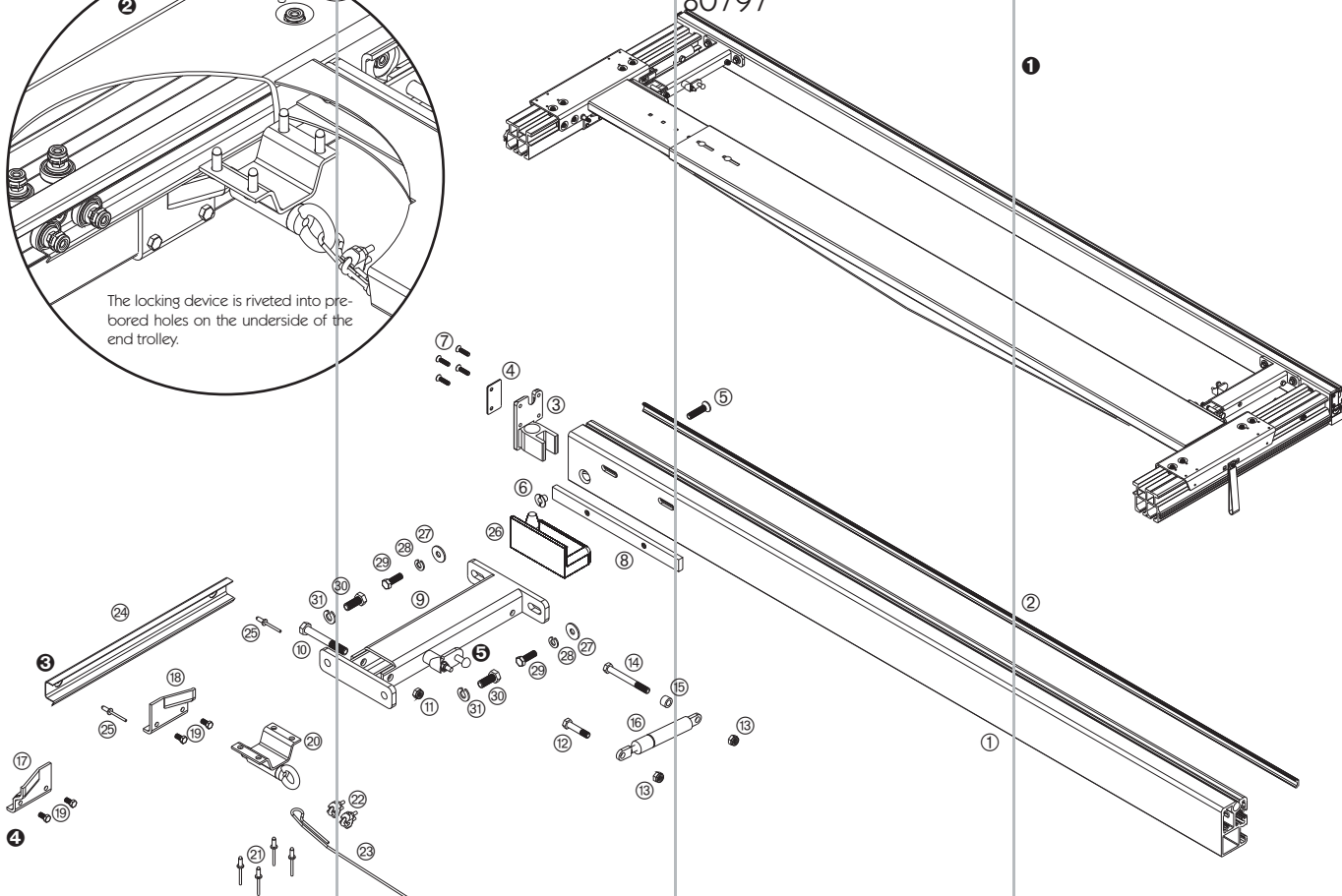
The article numbers given in the table are available individual parts; each number given below comprises the parts supplied for one roof. The item numbers ⑨ to ⑬ are only supplied with a complete top. They are not included in any individual accessory or spare parts set. For the latch ④, mounted on the end lifter, there is a spring bolt spare part which is itemised with the individual parts under end lifter.

All available individual parts and the extent of their supply can be found from page 863. All accessory parts for curtainsider sliding tops are itemised from page 905.



The locking device is riveted into pre-bored holes on the underside of the end trolley.

PWP crossbar Contact 80, end lifter 700 N and wedge/pull-cord locking device for cant rail 80797



Illustrated on this page (the parts list is continued on to the next page) are the accessory parts PWP Contact 80 crossbar, the end lifter with gas strut 700 N and the end trolley wedge/pull-cord locking device which are only for cant rail 80797.

For clarity, ❶ shows the complete top closing mechanism with the exception of the portal beam, and detail ❷ illustrates the end trolley partly cut away to show the wedge/pull-cord locking device assembly. The exploded view depicts the right hand roof side (viewed from rear of vehicle).

When the vehicle is in motion, the end trolley is parked in the detented position on the guide rail ❸ which is riveted to the cant rail inside track channel. The concentrated linkage bundle is secured by the additional wedge plate ❹ at the headboard end.

The article numbers given in the table

PWP Contact 80 crossbar

This accessory consists of:

Item		
❶	Crossmember PWP Contact 80	not available
❷	Filler profile	not available
❸	Cap, left hand	not available
	Cap, right hand (illustrated)	not available
❹	Clamping plate	not available
❺	Hex. head screw DIN 7991 - M 8 x 35	not available
❻	Hex. nut M 8	not available
❼	C/sunk screw DIN 7500 M - M 5 x 20 Z	not available
❽	Female threaded rail M 8	not available

674000020

End lifter 700 N

This accessory consists of:

Item		
❾	End lifter housing, left hand	not available
	End lifter housing, right hand (illustrated)	not available
❿	Hex. head screw DIN 931 - M 10 x 75	not available
⓫	Hex. head nut DIN 985 - M 10 - 8	660794490

Continued on next page

PWP Contact 80 cross-bar, end lifter 700 N and wedge/pull-cord locking device for cant rail 80797
Continued from previous page

End lifter 700 N

Continued from previous page:

Item		
⑫	Hex head screw similar to DIN 931 - M 8 x 38	660783310
⑬	Hex. nut DIN 985 - M 8 - 8	660794590
⑭	Hex. head screw DIN 931 - M 8 x 75	not available
⑮	Bush Ø 14 x 9 - 8.5 mm	not available
⑯	Gas strut 700 N	660750990

660027300

Wedge/pull-cord locking device for cant rail 80797

This accessory consists of:

Item		
⑰	Wedge plate, left hand	not available
⑱	Wedge plate, right hand	not available
⑲	Hex. head screw DIN 933 - M 6 x 12	not available
⑳	Locking device	not available
㉑	Blind rivet, steel/steel - 6.5 x 17	not available
㉒	Wire rope clamp DIN 1142 - 5 mm	270151188
㉓	Tarpaulin cord Ø 8 mm	320135115

660032750

Guide channel

This accessory consists of:

Item		
㉔	Guide channel	not available
㉕	Blind rivet, steel/steel - 4.8 x 14.3	not available

660028490

Miscellaneous parts

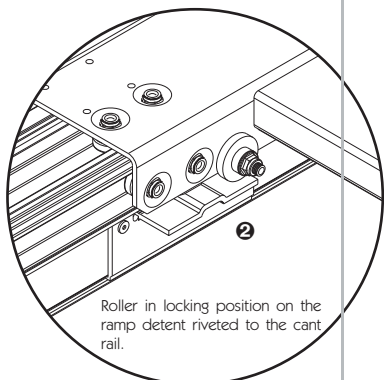
Item		
㉖	PWP spigot plate, left hand	643027021
	PWP spigot plate, right hand	643027022
㉗	Washer DIN 9021 - A 8.4 SS	660786580
㉘	Spring washer DIN 127 - A 8	not available
㉙	Hex. head screw DIN 933 - M 8 x 25	960970007
㉚	Hex. head screw DIN 933 - M 10 x 25	960970014
㉛	Spring washer DIN 127 - A 10	not available

are available individual parts; each number given below comprises the parts supplied for one roof.

The items ㉖ and ㉗ are only supplied with a complete top. They are not included in any individual accessory/spare part set. By contrast, the parts ㉘ to ㉚ must always be ordered separately or otherwise sourced.

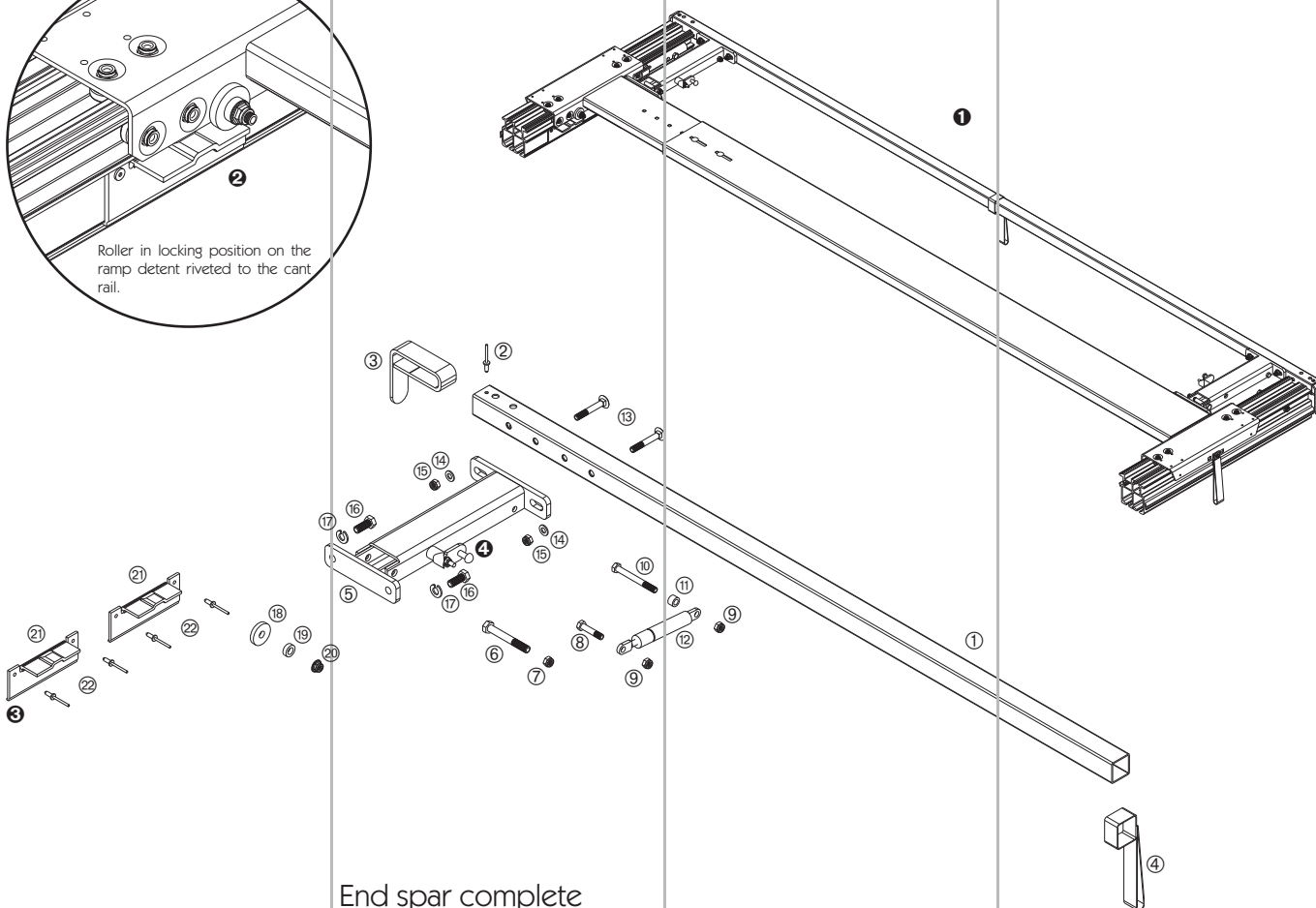
For the latch ㉑, mounted on the end lifter, there is a spring bolt kit available as a spare part which is itemised with the individual parts below the end lifter.

All available individual parts and the extent of their supply can be found from page 863. All accessory parts for curtainsider sliding tops are itemised from page 905.



Roller in locking position on the ramp detent riveted to the cant rail.

End spar, end lifter 700 N and roller/ramp locking device for cant rail 10050



End spar complete

This accessory consists of:

Item

① Spar 35 x 35 mm	not available
② Blind rivet DIN 7337 - 4.8 x 18	not available
③ Tarpaulin deflector	not available
④ Pull strap	660323350

Overall length 2550 mm

660035360

Length as required

660027910

End lifter 700 N

This accessory consists of:

Item

⑤ End lifter housing, left hand	not available
End lifter housing, right hand (illustrated)	not available
⑥ Hex. head screw DIN 931 - M 10 x 75	not available
⑦ Hex. head nut DIN 985 - M 10 - 8	660794490
⑧ Hex head screw similar to DIN 931 - M 8 x 38	660783310
⑨ Hex. head nut DIN 985 - M 8 - 8	660794590
⑩ Hex. head screw DIN 931 - M 8 x 75	not available
⑪ Bush Ø 14 x 9 - 8.5 mm	not available
⑫ Gas strut 700 N	660750990

660027300

Illustrated on this page (the parts list is continued on to the next page) are the end spar and end lifter 700 N accessory parts which are independent of the cant rail, and also the end trolley roller/ramp locking device which is only for cant rail 10050.

For clarity, ① shows the complete top closing mechanism. Detail ② illustrates the roller on the ramp detent. The exploded view depicts the right hand roof side (viewed from rear of vehicle).

The concertinaed linkage bundle is secured by the additional ramp detent ③ at the headboard end.

The article numbers given in the table are available

End spar, end lifter 700 N and roller/ramp locking device for cant rail 10050

Continued from previous page

Miscellaneous parts

Item		
⑬	Carriage bolt DIN 603 - M 8 x 55	not available
⑭	Washer DIN 125 - A 8.4	660785280
⑮	Hex. head nut DIN 985 - M 8 - 8	660794590
⑯	Hex. head screw DIN 933 - M 10 x 25	960970014
⑰	Spring washer DIN 127 - A 10	not available
⑱	Roller Ø 35 mm	not available
⑲	Bush Ø 18 x 10.2 x 6 mm	not available
⑳	Hex. head nut with flange DIN 6926 - M 8	not available

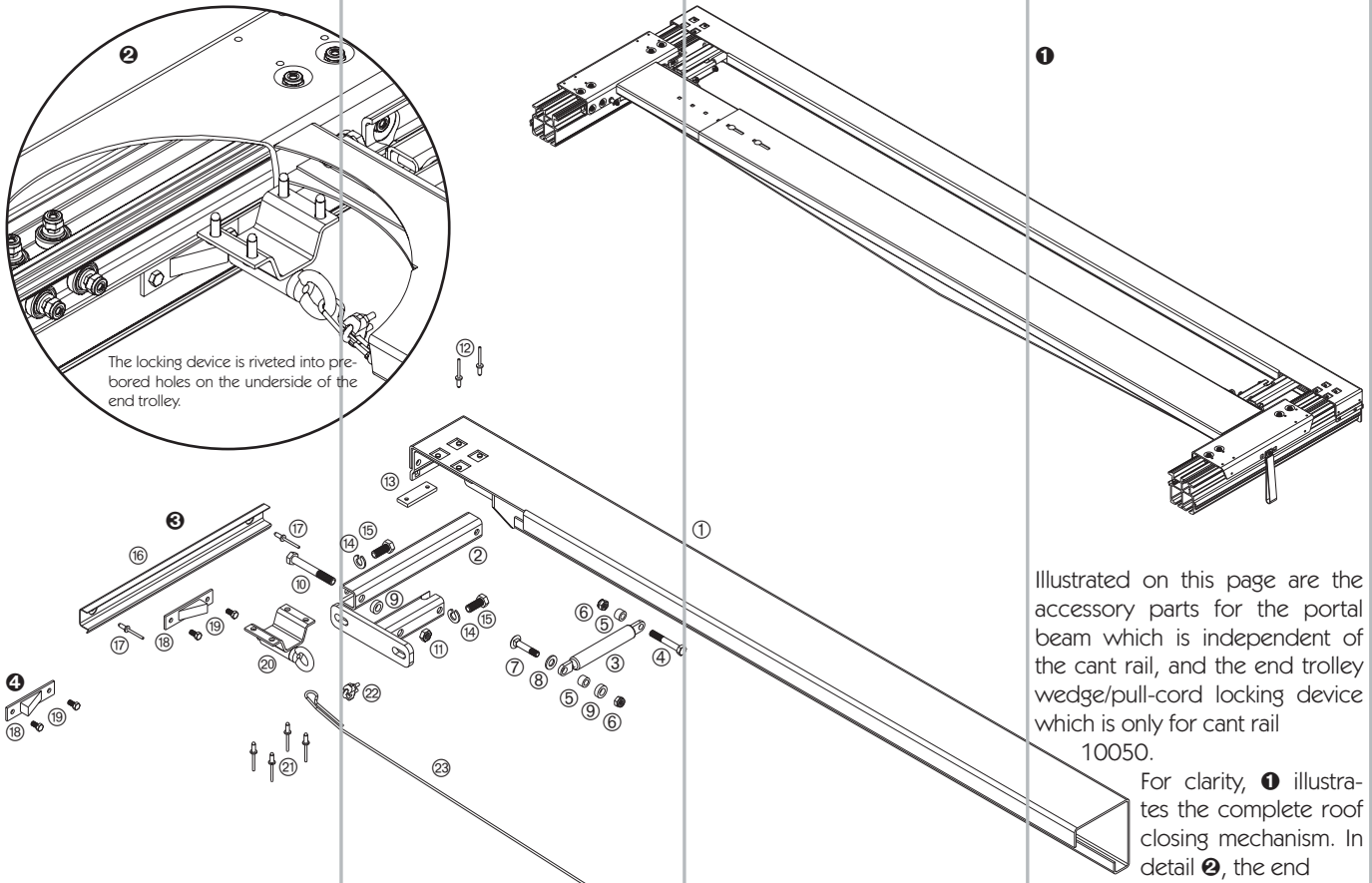
Roller/ramp locking device for cant rail 10050

This accessory consists of:

Item		
㉑	Ramp	not available
㉒	Blind rivet, steel/steel - 5.0 x 12	not available

660034840

Portal beam and wedge/pull-cord locking device for cant rail 10050



The locking device is riveted into pre-bored holes on the underside of the end trolley.

Illustrated on this page are the accessory parts for the portal beam which is independent of the cant rail, and the end trolley wedge/pull-cord locking device which is only for cant rail 10050.

For clarity, ① illustrates the complete roof closing mechanism. In detail ②, the end trolley is partly cut away to illustrate the wedge/pull-cord locking device.

king device assembly. The exploded view depicts the right hand roof side (viewed from rear of vehicle).

When the vehicle is in motion, the end trolley is parked in the detented position on the guide rail ③ which is riveted to the cant rail inside track channel. The concentrated linkage bundle is secured by the additional ramp detent ④ at the headboard end.

The article numbers given in the table are available individual parts; each number given below comprises the parts supplied for one roof. Due to its many variants, the portal beam is only available on request. The items ⑭ and ⑮ are only supplied with a complete roof, they are not included in any individual accessory/spare parts set.

All available individual parts and the extent of their supply can be found from page 863. All accessory parts for curtainsider sliding tops are itemised from page 905.

Portal beam

This accessory consists of:

Item

① Portal beam	not available
② End lifter housing	not available
③ Gas strut 700 N	660750990
④ Hex. head screw DIN 931 - M 8 x 55	not available
⑤ Bush Ø 14 x 9 - 8.5 mm	not available
⑥ Hex. nut DIN 985 - M 8 - 8	660794590
⑦ Carriage bolt DIN 603 - M 8 x 42	660782250
⑧ Washer DIN 125 - A 10.5	660785660
⑨ Bush Ø 18 x 6 - 10.5 mm	not available
⑩ Hex. head screw DIN 931 - M 10 x 75	not available
⑪ Hex. nut DIN 980 form V - M 10	not available
⑫ Blind rivet DIN 7337 - 5.0 x 10 mm	660305430
⑬ Base plate	not available

Supplied on request

Miscellaneous parts

Item

⑭ Hex. head screw DIN 933 - M 10 x 25	960970014
⑮ Spring washer DIN 127 - A 10	not available

Guide channel

This accessory consists of:

Item

⑯ Guide channel	not available
⑰ Blind rivet, steel/steel - 4.8 x 14.3	not available

660028490

Wedge/pull-cord locking device for cant rail 10050

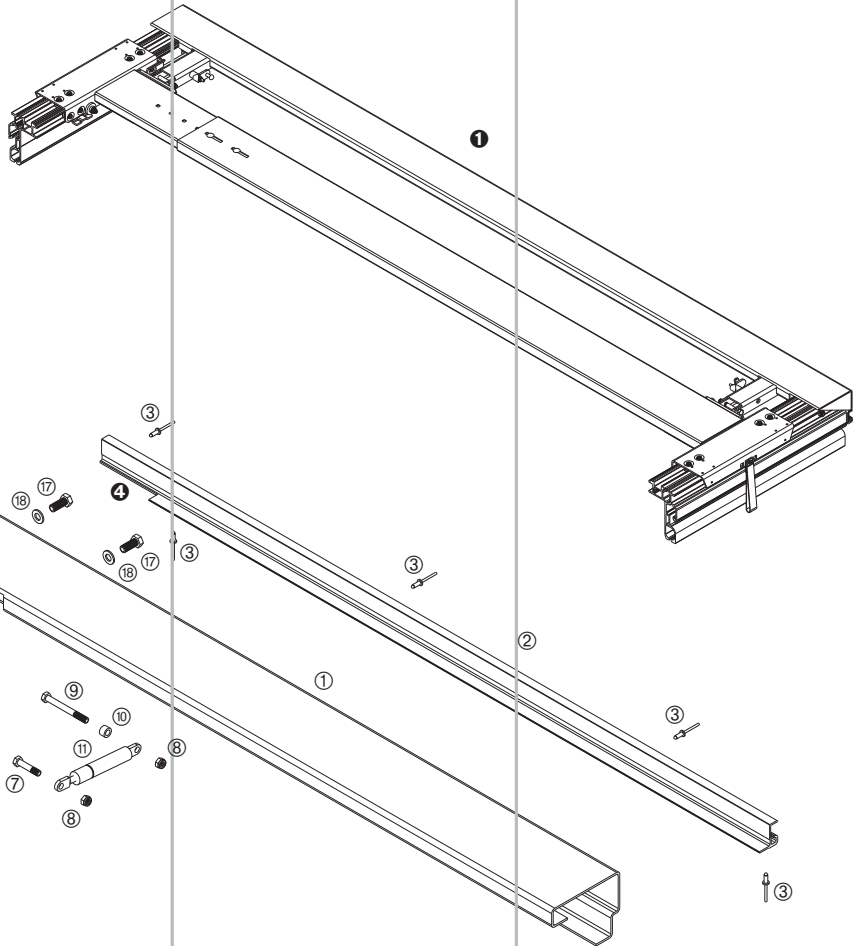
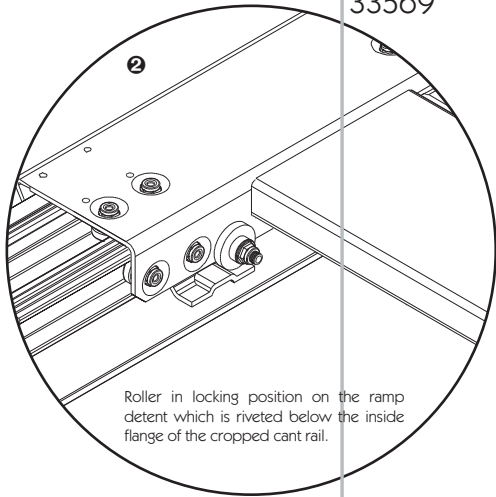
This accessory consists of:

Item

⑱ Wedge latch plate	660027320
⑲ Hex. head screw DIN 933 - M 6 x 12	not available
⑳ Locking device	not available
㉑ Blind rivet, steel/steel - 6.5 x 17	not available
㉒ Wire rope clamp DIN 1142 - 5 mm	270151188
㉓ Tarpaulin cord Ø 8 mm	320135115

660034930

Crossbar for PWP Contact door sealing system, end lifter 700 N and roller/ramp locking device for cant rails 10073 and 33569



Crossbar for PWP Contact door sealing system
Consisting of individual parts:

Illustrated on this page are the steel crossbar accessory parts for the PWP door sealing system Contact and end lifter 700 N which are independent of the cant rail, and the end trolley roller/ramp locking device which is only for cant rails 10073 and 33569.

End lifter 700 N

This accessory consists of:

For clarity, ❶ shows the complete top closing mechanism with cant rail 10073 illustrated. Detail ❷ shows the roller on the ramp detent. The exploded view depicts the right hand roof side (viewed from rear of vehicle). The concertinaed linkage bundle is secured by the additional ramp detent ❹ at the headboard end. The steel crossbar and PWP aluminium rain channel profile are supplied as individual parts. Here, as shown in the exploded view, modifications ❺ for fitting the parts to each other and to the

Item

❶ Steel crossbar for PWP Contact sealing system	670212105
❷ PWP aluminium profile rain channel	643015188
❸ Blind rivet DIN 7337 - 5.0 x 10 mm	660305430

No longer available

Item

❹ End lifter housing, left hand	not available
End lifter housing, right hand (illustrated)	not available
❺ Hex. head screw DIN 931 - M 10 x 75	not available
❻ Hex. head nut DIN 985 - M 10 - 8	660794490
❼ Hex head screw similar to DIN 931 - M 8 x 38	660783310
❽ Hex. nut DIN 985 - M 8 - 8	660794590
❾ Hex. head screw DIN 931 - M 8 x 75	not available
❿ Bush Ø 14 x 9 - 8.5 mm	not available
⓫ Gas strut 700 N	660750990

660027300

end lifter have to be carried out. The article numbers given in the table are available individual parts; each number given below comprises the parts supplied for one roof. The items ⑭ to ⑯ as with ⑰ and ⑱ (the latter only in the quantity required for fitting the end lifter to the end trolley) are only delivered with a complete top and are not included in any individual accessory/spare parts set. By contrast, the parts ⑰ and ⑱ must always be ordered separately or otherwise sourced.

For the latch ⑤, mounted on the end lifter, there is a spring bolt kit available as a spare part which is itemised with the individual parts below the end lifter.

All available individual parts and the extent of their supply can be found from page 863. All accessory parts for curtainsider sliding tops are itemised from page 905.

Roller/ramp locking device for cant rail 10073 and 33569

This accessory consists of:

Item

⑫ Ramp detent	not available
⑬ Blind rivet, steel/steel - 6.5 x 17.0	not available

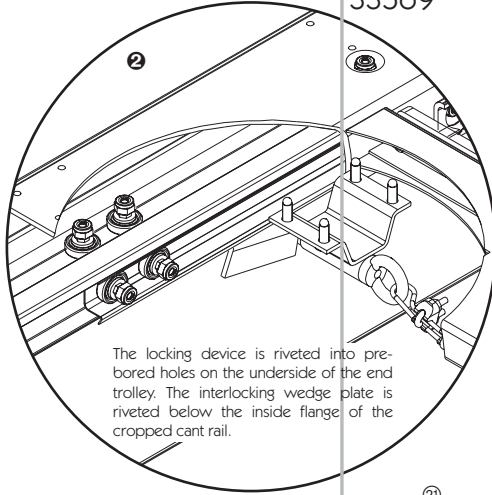
660034850

Miscellaneous parts

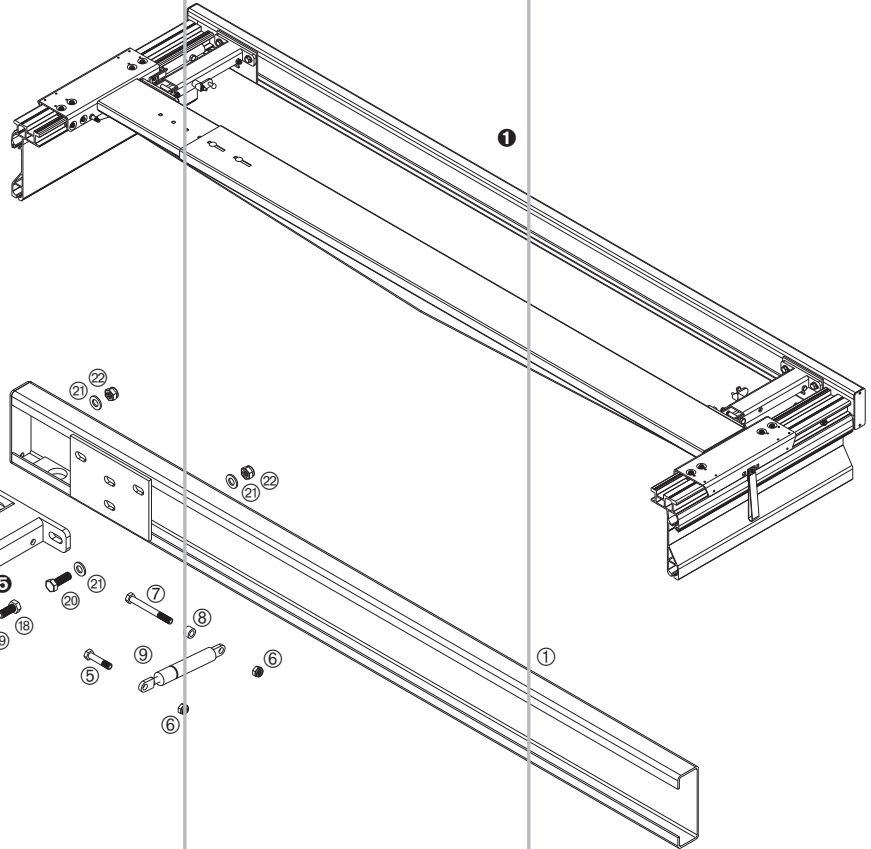
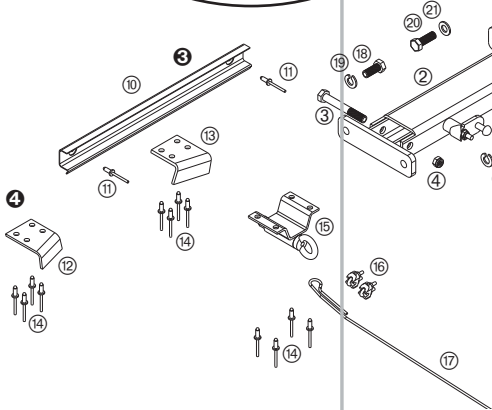
Item

⑭ Roller Ø 35 mm	not available
⑮ Bush Ø 18 x 10.2 x 6 mm	not available
⑯ Hex. head nut with flange DIN 6926 - M 8	not available
⑰ Hex. head screw DIN 933 - M 10 x 25	960970014
⑱ Washer DIN 125 - A 10.5	660785660
⑲ Hex. head nut DIN 985 - M 10 - 8	660794490
⑳ Spring washer DIN 127 - A 10	not available

Cargotrail crossbar, end lifter 700 N and wedge/pull-cord locking device for cant rails 10073 and 33569



The locking device is riveted into pre-bored holes on the underside of the end trolley. The interlocking wedge plate is riveted below the inside flange of the cropped cant rail.



Cargotrail crossbar

Item	① Cargotrail steel crossbar	672900020
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End lifter 700 N

This accessory consists of:

Item	② End lifter housing, left hand	not available
	End lifter housing, right hand (illustrated)	not available
	③ Hex. head screw DIN 931 - M 10 x 75	not available
	④ Hex. head nut DIN 985 - M 10 - 8	660794490
	⑤ Hex head screw similar to DIN 931 - M 8 x 38	660783310
	⑥ Hex. nut DIN 985 - M 8 - 8	660794590
	⑦ Hex. head screw DIN 931 - M 8 x 75	not available
	⑧ Bush Ø 14 x 9 - 8.5 mm	not available
	⑨ Gas strut 700 N	660750990

660027300

Guide channel

This accessory consists of:

Item	⑩ Guide channel	not available
	⑪ Blind rivet, steel/steel - 4.8 x 14.3	not available

660028490

Illustrated on this page are the accessory parts **Cargotrail** crossbar and end lifter 700 N which are independent from the cant rail, and the end trolley wedge/pull-cord locking device which is only for cant rails 10073 and 33569.

For clarity, ① illustrates the complete roof closing mechanism with cant rail 33569, and detail ② illustrates the end trolley partly cut away to illustrate the wedge/pull-cord locking device assembly. The exploded view depicts the right hand roof side (viewed from rear of vehicle).

When the vehicle is in motion, the end trolley is parked in the detented position on the guide rail ⑩ which is riveted to the cant rail inside track channel. The concentrated linkage bundle is secured by the additional ramp detent ④ at the headboard end.

The article numbers given in the table are available individual

parts; each number given below comprises the parts supplied for one roof. Items ⑩ and ⑪ are only supplied with a complete top. They are not included in any individual accessory/spare part set. By contrast, the parts ⑫ and ⑬ must always be ordered separately or otherwise sourced. For the latch ⑤, mounted on the end lifter, there is a spring bolt kit available as a spare part which is itemised with the individual parts below the end lifter. All available individual parts and the extent of their supply can be found from page 863. All accessory parts for curtainsider sliding tops are itemised from page 905.

Wedge/pull-cord locking device for cant rails 10073 and 33569

This accessory consists of:

Item

⑫	Wedge plate, left hand	not available
⑬	Wedge plate, right hand, right hand	not available
⑭	Blind rivet, steel/steel - 6.5 x 17.0	not available
⑮	Locking device	not available
⑯	Wire rope clamp DIN 1142 - 5 mm	270151188
⑰	Tarpaulin cord Ø 8 mm	320135115

660032650

Miscellaneous parts

Item

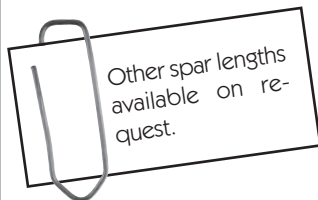
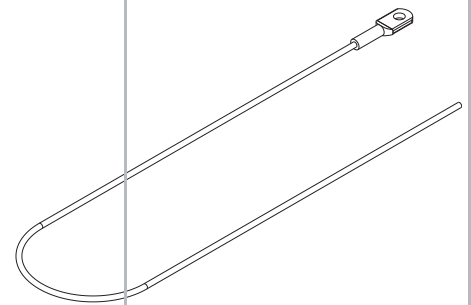
⑱	Hex. head screw DIN 933 - M 10 x 25	960970014
⑲	Spring washer DIN 127 - A 10	not available
⑳	Hex. head screw DIN 933 - M 10 x 30	960970015
㉑	Washer DIN 125 - A 10.5	660785660
㉒	Hex. head nut DIN 985 - M 10 - 8	660794490

Spare parts/individual parts

Safety cable Ø 4 mm

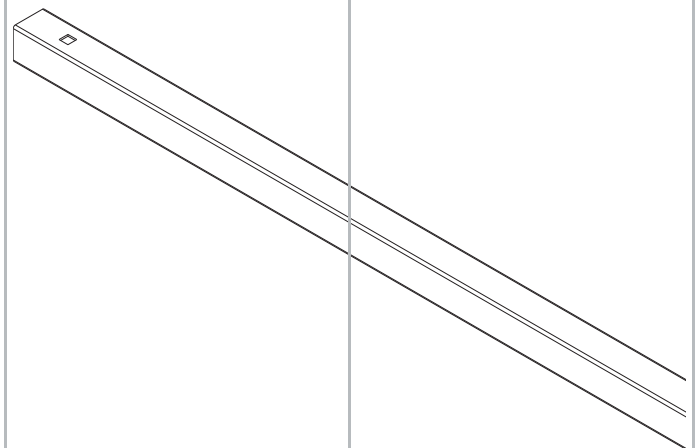
For connecting to the headboard, length approx. 1000 mm, zinc plated steel.

660854310

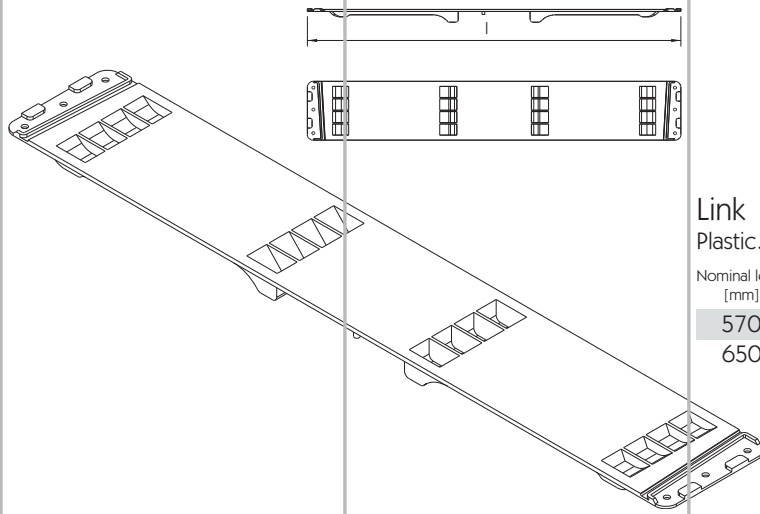


Spar

30 x 30 x 1.5 mm, DN 0, zinc plated steel.



Length [mm]	For roof outside width [mm]	
2310	2550	660034640



Link
Plastic.

Nominal length
[mm]

Dim. I
[mm]

570

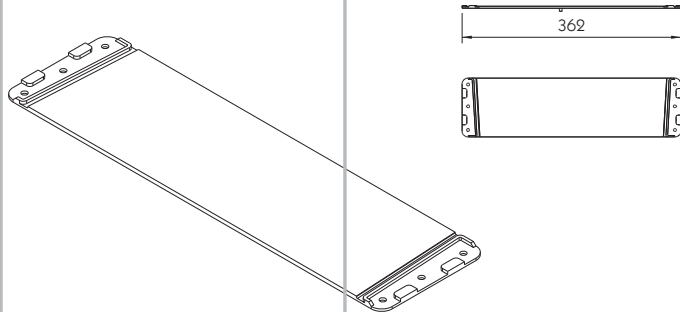
552

660034210

650

632

660034110



Compensating link

Nominal length 380 mm, can be shortened, plastic.

660035130

Clamping plate

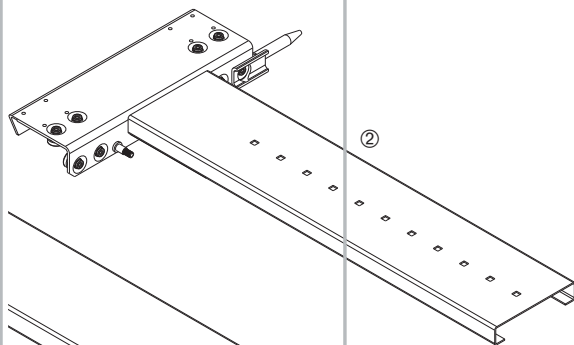
For plastic link, plastic.

660034120

Roller carriage

With ball bearings, zinc plated steel.

660031430



End trolley

With ball bearings, KTL coated steel.

① Left hand

660031830

② Right hand

660031840

Ball bearing with rivet stud

Steel, gunmetal finish.

660850470

Ball bearing with threaded stud M 8

Steel, gunmetal finish.

660830040

Hat washer

For fastening the tarpaulin, zinc plated steel.

660633950

Pull strap

Green.

660323350

Locating tube

Zinc plated steel.

660030240

The set contains 2 channels and 4 blind rivets steel/steel - 4.8 x 14.3.

Guide channel

Set for tops with end trolley wedge/pull-cord locking device. From stainless steel sheet.

660028490

Roof pole

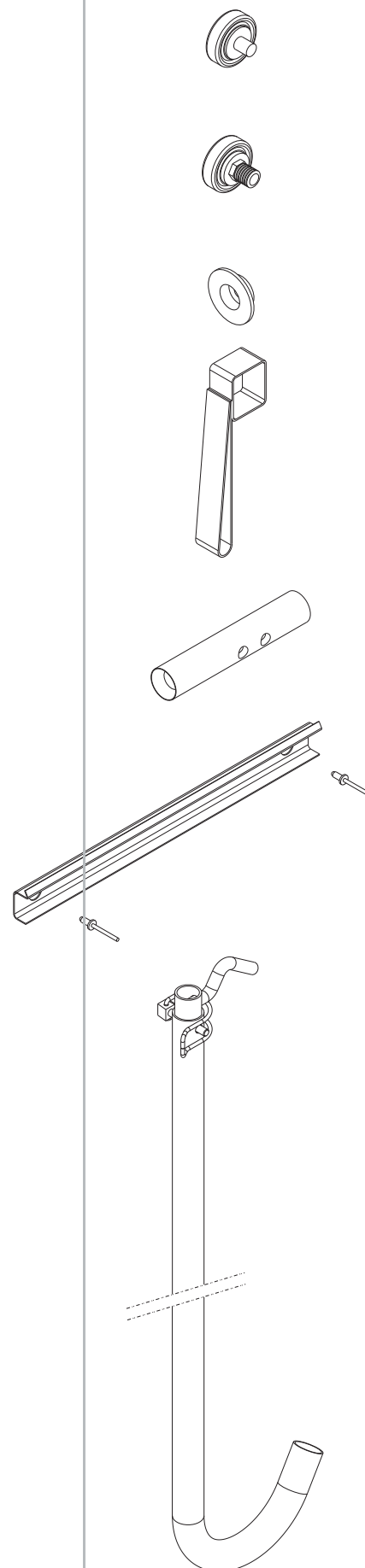
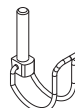
Incl. tube linchpin, telescopic from 2000 mm to 4000 mm long, galvanised steel.

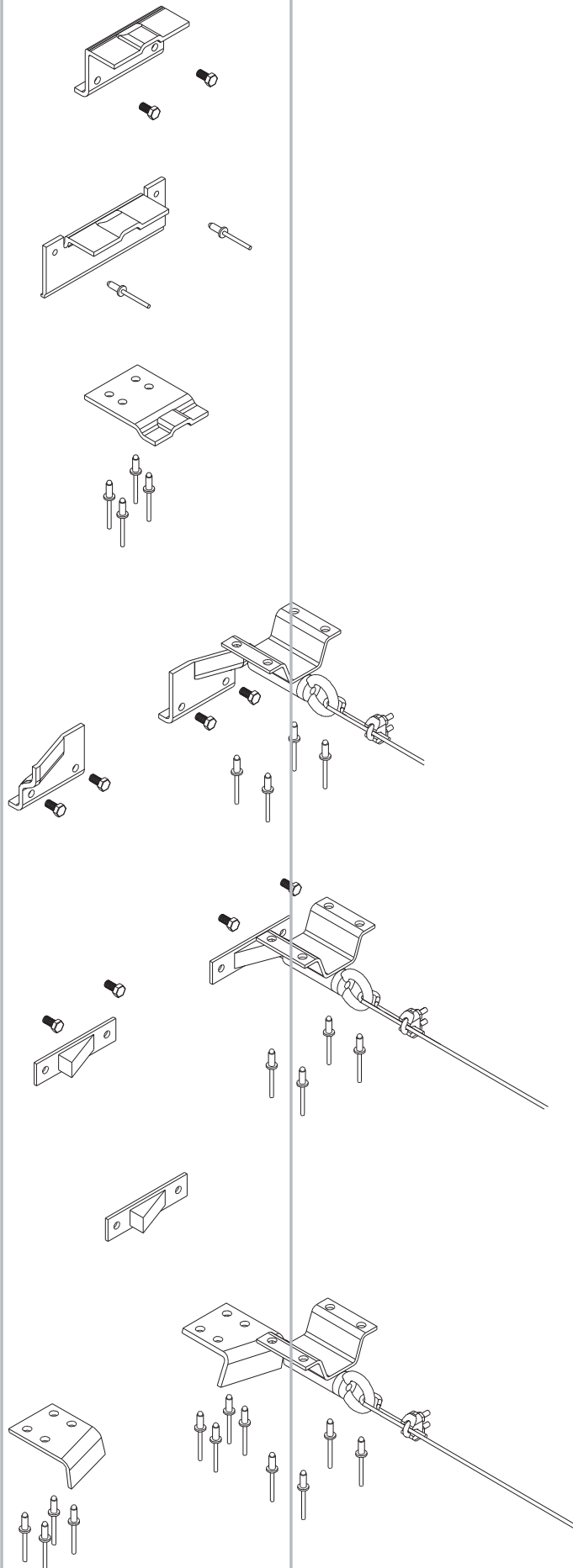
660025180

Tube linchpin

Ø 6 x 40, zinc plated steel.

660830190





Roller/ramp locking device for cant rail 80797
Zinc plated steel.

660034830

Includes 4 x ramp detents and 8 x hex. head screws DIN 933 - M 6 x 12.

Roller/ramp locking device for cant rail 10050
Zinc plated steel.

660034840

Includes 4 x ramp detents and 8 x blind rivets DIN 7337 steel/steel - 5.0 x 12.0.

Roller/ramp locking device for cant rail 10073 and 33569
Zinc plated steel.

660034850

Includes 4 x ramp detents and 8 x blind rivets DIN 7337 steel/steel - 6.5 x 17.0.

Wedge/pull-cord locking device for cant rail 80797

All parts zinc plated.

660032750

Includes 2 x left hand, and 2 x right hand wedge plates, 2 x locking devices, 1 x tarpaulin cord length approx. 2500 mm, 2 x wire rope clamps DIN 1142 - 5 mm, 8 x blind rivets steel/steel - 6.5 x 17 and 8 x hex. head screws DIN 933 - M 6 x 12.

Wedge/pull-cord locking device for cant rail 10050

All parts zinc plated.

660034930

Includes 4 x wedge latch plates, 2 x locking devices, 1 x tarpaulin cord length approx. 2500 mm, 2 x wire rope clamps DIN 1142 - 5 mm, 8 x blind rivets steel/steel - 6.5 x 17 and 8 x hex. head screws DIN 933 - M 6 x 12

Wedge latch plate

Loose, zinc plated steel.

660027320

Wedge/pull-cord locking device for cant rail 10073 and 33569

All parts zinc plated.

660032650

Includes 2 x left hand, and 2 x right hand wedge plates, 2 x locking devices, 1 x tarpaulin cord length approx. 2500 mm, 2 x wire rope clamps DIN 1142 - 5 mm and 24 x blind rivets steel/steel - 6.5 x 17.



Tarpaulin cord \varnothing 8 mm
Transparent plastic with steel wire
core.


320135115



Screws and fixing
materials to DIN
All parts zinc plated.

Washer DIN 125 - A 6.4	660785760
Washer DIN 125 - A 8.4	660785280
Washer DIN 125 - A 10.5	660785660
Carriage bolt DIN 603 - M 8 x 42	660782250
Hex. nut DIN 985 - M 6 - 8	660794430
Hex. nut DIN 985 - M 8 - 8	660794590
Hex. nut DIN 985 - M 10 - 8	660794490
Hex. head screw similar to DIN 931 - M 8 x 38	660783310
Hex. head screw DIN 931 - M 8 x 45	960970311
Hex. head screw DIN 931 - M 10 x 110	660781480
Hex. head screw DIN 933 - M 8 x 25	960970007
Hex. head screw DIN 933 - M 10 x 25	960970014
Hex. head screw DIN 933 - M 10 x 30	960970015
Wire rope clamp DIN 1142 - 5 mm	270151188
Blind rivet DIN 7337 - 5.0 x 10 mm	660305430
Washer DIN 9021 - A 8.4 VA	660786580

On every Top you will find a name plate in various places.
Please state the roof number with every order for spare parts.



Roof no. From the roof no., Edscha can identify the complete original supply including the manufactured dimensions and construction.

Type: From the second number, the cover type can be identified.

Curtainsider „Lite Plus“
 Type 2981.9500

Approved top Curtainsider "Lite" is being refined to top Curtainsider "Lite Plus". Lifting and folding of the roof tarpaulin is controlled by means of plastic links. Vertically and laterally rollers in conjunction with rigidly mounted roof spars provide simple and twist free operation from ground level. Roof structure is very solid while driving. Due to volume optimisation of cant rail Lite Plus 175/Slimliner Large, three instead of two standard iron-barred boxes (2480 mm) can be stacked.

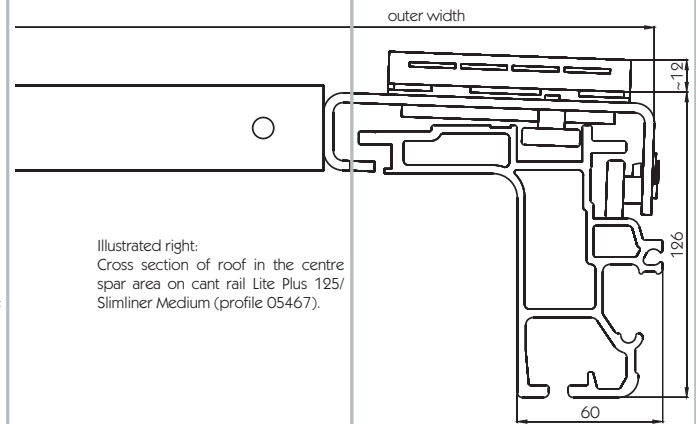
- Included are the roller carriages with the plastic links, the roof spars and the end trolleys.
- Roller carriage with lateral steel ball bearings.
- Steel roof spars, zero pitch, spaced at 650 mm intervals, travelling on the track rails when opening.
- End trolley as travelling crossmember.
- Standard outside widths of 2550 mm or 2570 mm. The external width is measured at the outermost edges of the curtainsider profiles (cant rail).
- Length up to 13970 mm.
- Roof assembly, with the exception of the end trolley crossmember is completely zinc plated, the crossmember is black KTL coated.
- Weight without cant rail approx. 8 kg/m.

The aluminium cant rail and accessories are not supplied, and must be ordered separately.

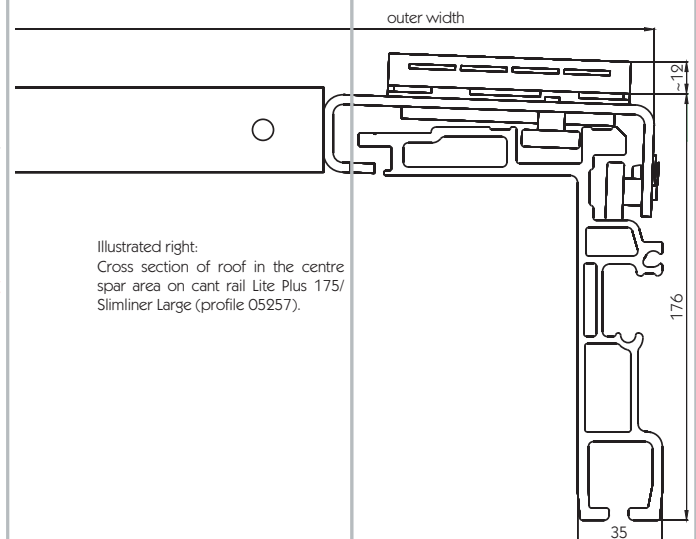
Special designs:

- Locking device plates for front end trolleys.
- Top in DB (German Rail) specification in accordance with EN 283.
- Top in VDI specification in accordance to EN 12642XL.
- Top in TIR specification.
- Top can be opened towards both ends. See under "Headboard area special construction, two-way sliding".
- End spar, not suitable for door lock recesses.
- Portal beam with integrated end lifter (gas strut 700 N). Height 130 mm or 213 mm.
- End lifter for customer's own crossbar with 1 x 700 N gas strut or 2 x 500 N gas struts.
- Miscellaneous crossbars, e.g. for PWP Contact door sealing system.
- Deviation from standard outside widths.

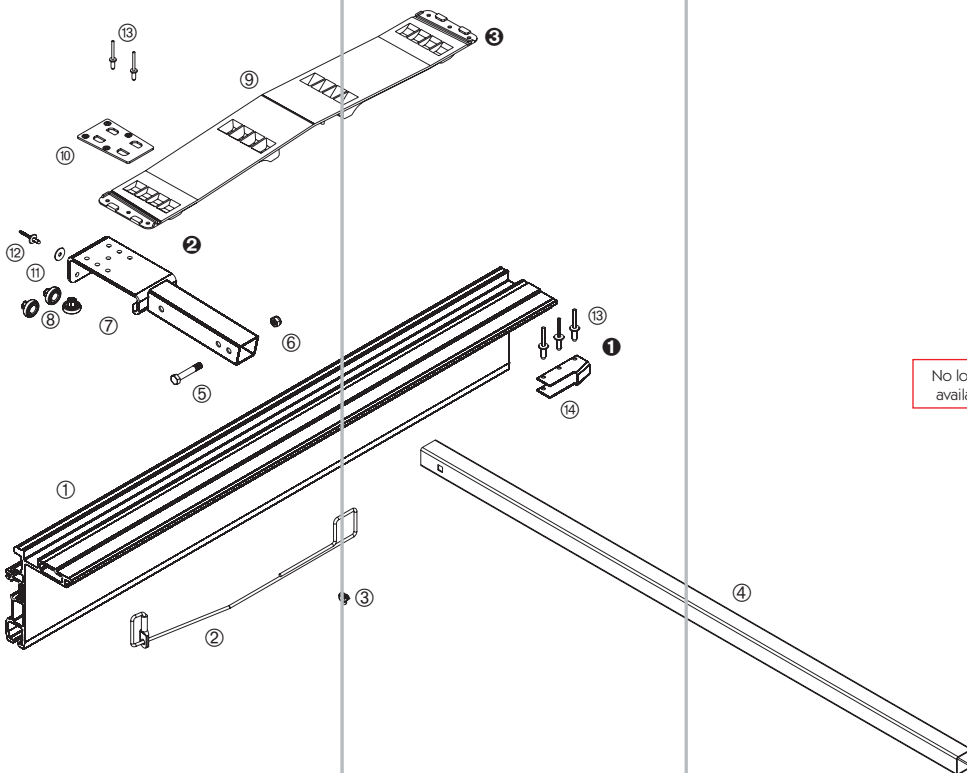
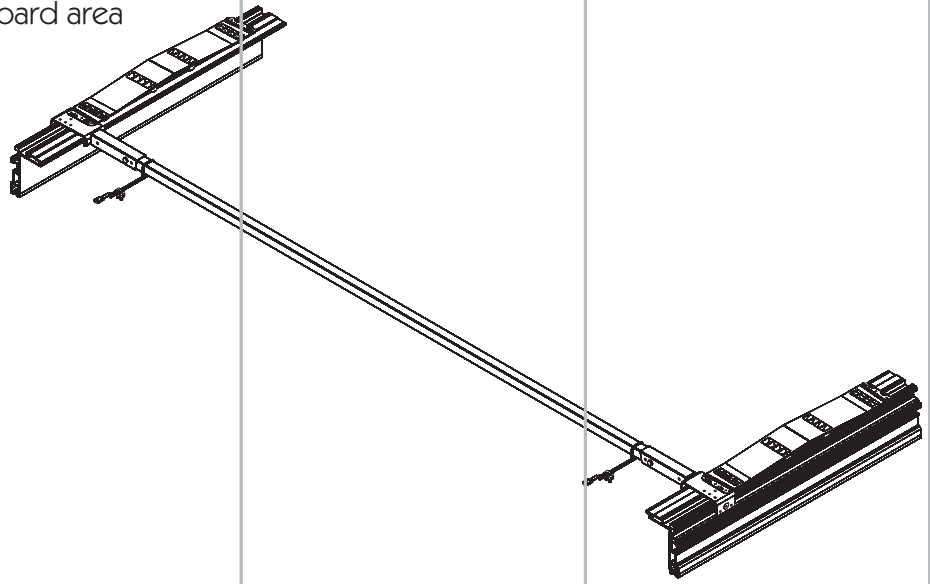
Illustrated right:
 Cross section of roof in the centre spar area on cant rail Lite Plus 125/ Slimliner Medium (profile 05467).



Illustrated right:
 Cross section of roof in the centre spar area on cant rail Lite Plus 175/ Slimliner Large (profile 05257).



Spare parts overview Headboard area



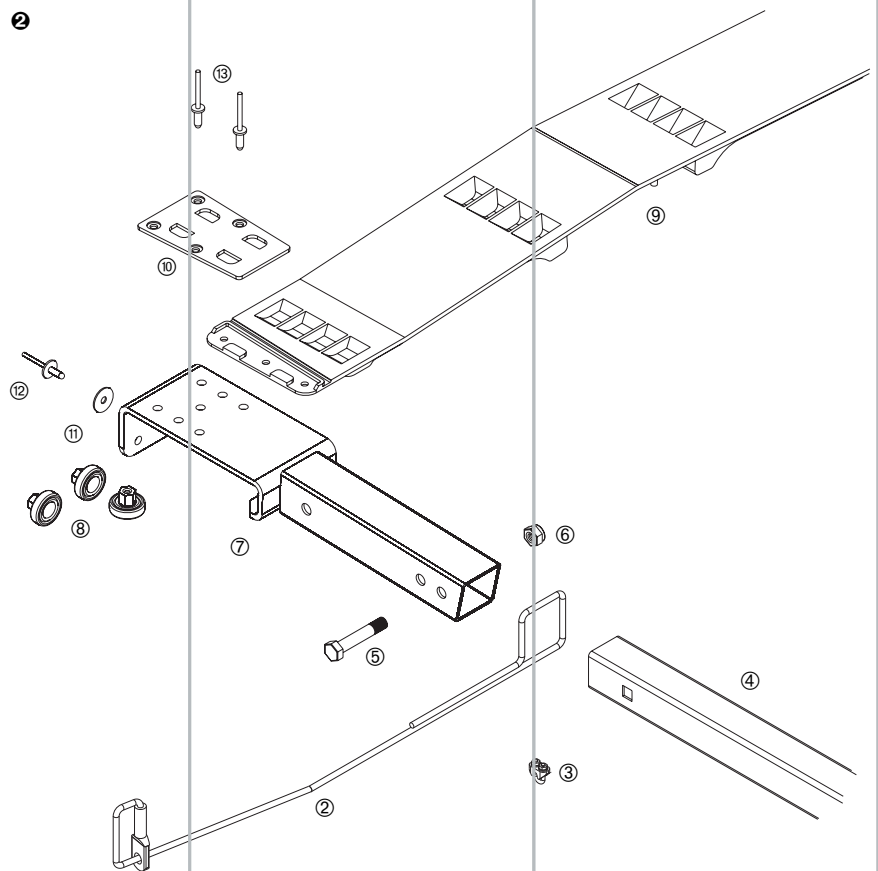
In this sub-assembly, all parts up to the first (complete) centre spar are summarised. No components for tops in DB (German Rail) specification in accordance with EN 283, VDI specification in accordance to EN 12642XL or TIR specification are itemised. Enquiries about these spare parts should be addressed to our department in Wermelskirchen.

① Locking device plate **660049290** and appropriate blind rivets DIN 7337 - 5.0 x 10 mm **660305430** for locking the end trolley with opened top are not supplied and must be ordered separately. The exploded view illustrates the right hand side of the roof (as viewed from rear of vehicle).

For clarity, the assembly of the front roller carriage ② with the individual parts is shown again on the next page scaled up 2:1.

The link is riveted at ③ to the roller carriage from the centre spar area.

No longer available



Headboard area

This sub-assembly consists of:

Item

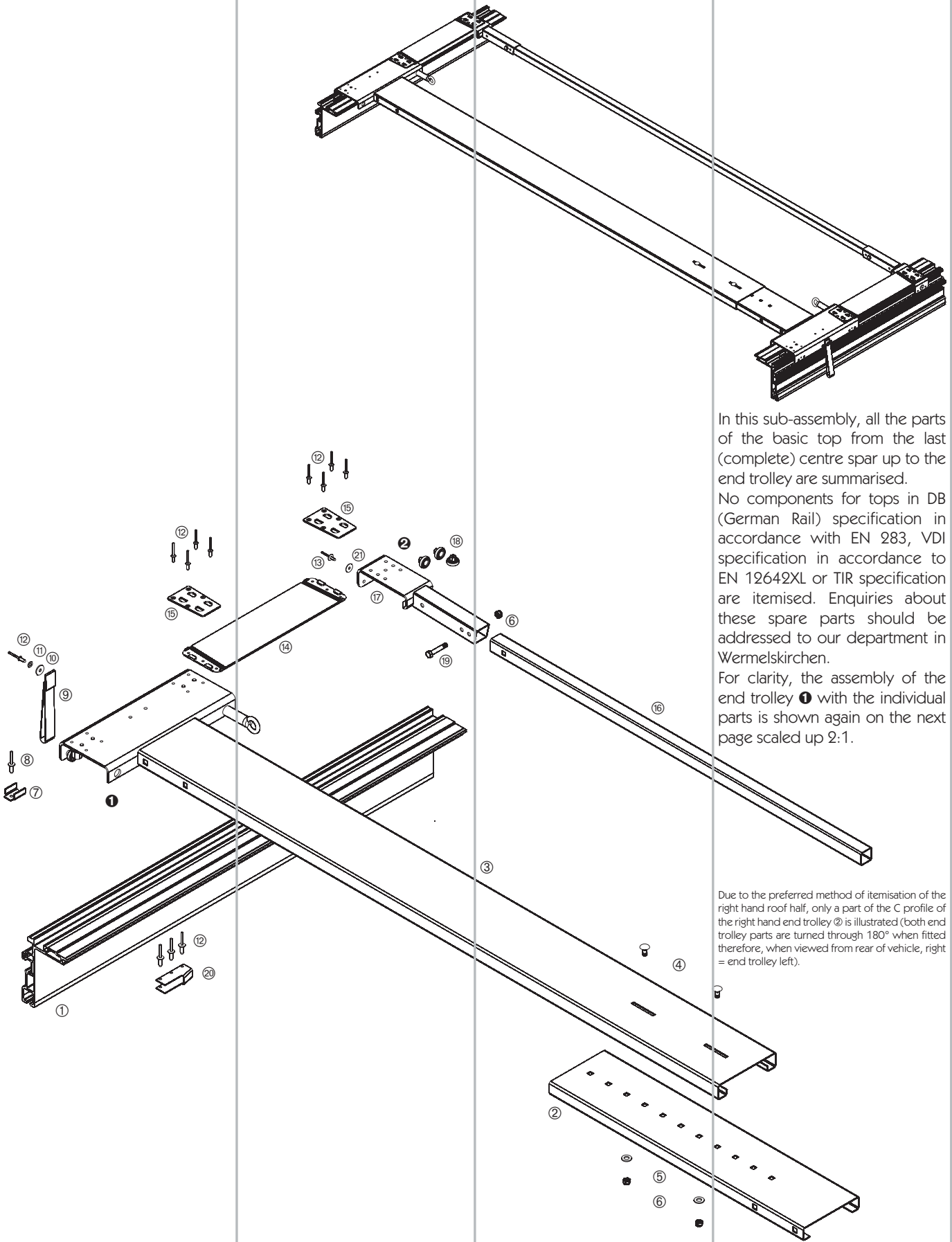
①	Cant rail Lite Plus 125/Slimliner Medium, depth 112.5 mm	profile 05467
	Cant rail Lite Plus 175/Slimliner Large, depth 162.5 mm (illustrated)	profile 05257
②	Safety cable \varnothing 4 mm	660854310
③	Wire rope clamp DIN 1142 - 5 mm	270151188
④	Spar	660048880
⑤	Hex. head screw DIN 931 - M 8 x 45	960970311
⑥	Hex. nut DIN 985 - M 8 - 8	660794590
⑦	Roller carriage	660521100
⑧	Ball bearing with innerthreaded sleeve M 6	660016741
⑨	Link, see page 881	vehicle dependant
⑩	Clamping plate	660034120
⑪	Plastic washer \varnothing 18 x 1 mm	not available
⑫	Blind rivet large flange - 5.0 x 12 mm	not available
⑬	Blind rivet DIN 7337 - 5.0 x 10 mm	660305430
⑭	Locking device plate	660049290

No longer available

Vehicle dependant parts are available in several designs, e.g. in various lengths. Please note that various components also include other parts itemised in the table and illustrations.

All available individual parts and the extent of their supply can be found from page 881. Accessories for curtainsider sliding roofs can be found from page 905, for cant rails from page 950.

Headboard area special construction "two-way sliding"

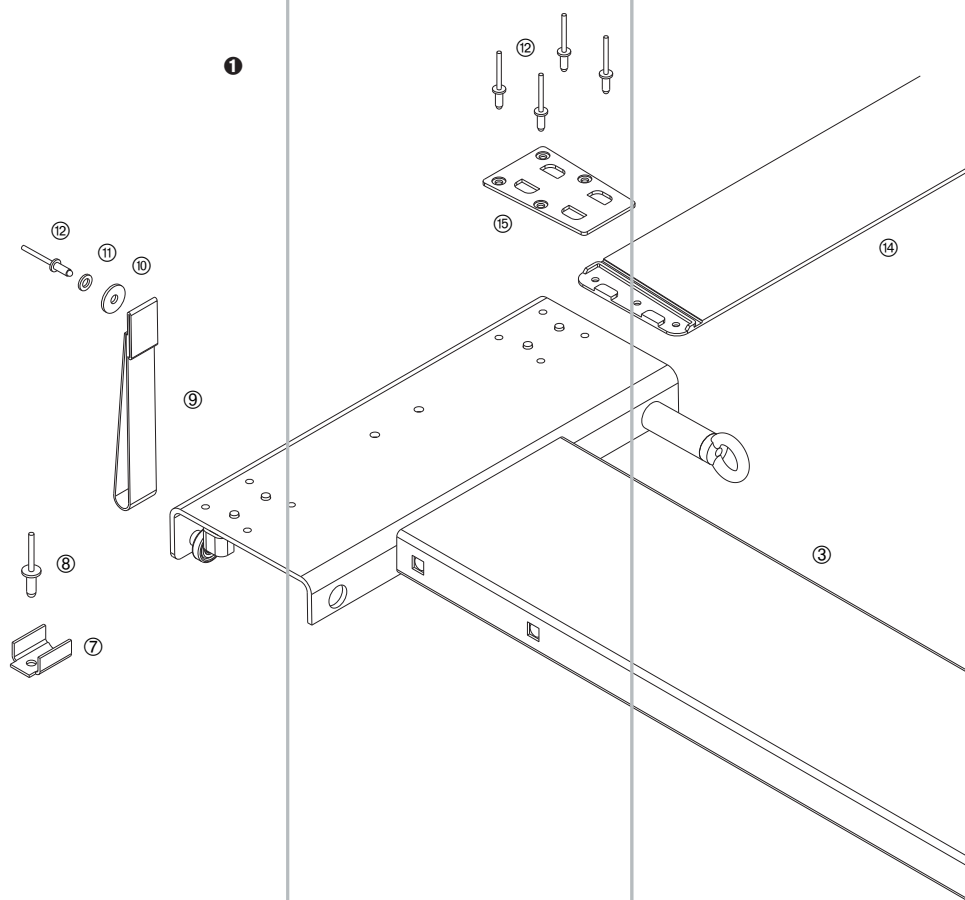


In this sub-assembly, all the parts of the basic top from the last (complete) centre spar up to the end trolley are summarised.

No components for tops in DB (German Rail) specification in accordance with EN 283, VDI specification in accordance to EN 12642XL or TIR specification are itemised. Enquiries about these spare parts should be addressed to our department in Wermelskirchen.

For clarity, the assembly of the end trolley 1 with the individual parts is shown again on the next page scaled up 2:1.

Due to the preferred method of itemisation of the right hand roof half, only a part of the C profile of the right hand end trolley 2 is illustrated (both end trolley parts are turned through 180° when fitted therefore, when viewed from rear of vehicle, right = end trolley left).



With two-way sliding tops, the roof length must correspond exactly to the body length. Because all the parts, from the rear to the front end trolley, are joined to each other by links, and the roof length must be manufactured exact to the centimetre, the compensating link ⑭ is used. In contrast to the standard links, these are not profiled and can be shortened to the required length. The various end lifters and end spars/portal beam variants are considered to be accessories and for this reason are first itemised in the accessory overview.

The exploded view illustrates the right hand side of the roof (viewed from rear of vehicle).

The links from the centre spar area are riveted to the roller carriages ②.

Vehicle dependant parts are available in several designs, e.g. in various lengths. Please note that various components also include other parts itemised in the table and illustrations.

All available individual parts and the extent of their supply can be found from page 881. Accessories for curtainsider sliding roofs can be found from page 905, for cant rails from page 950.

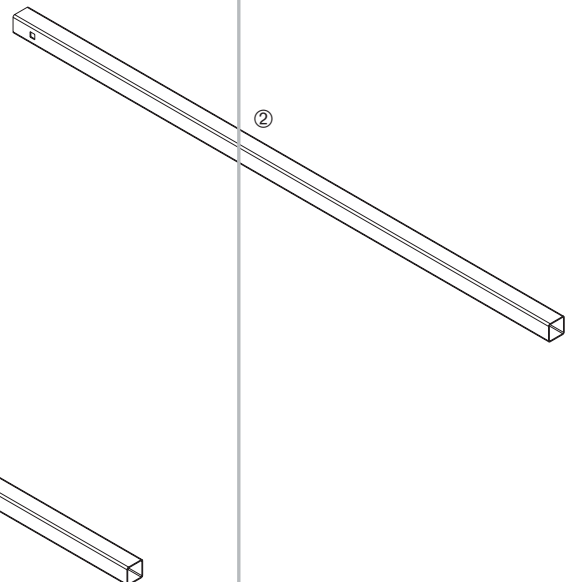
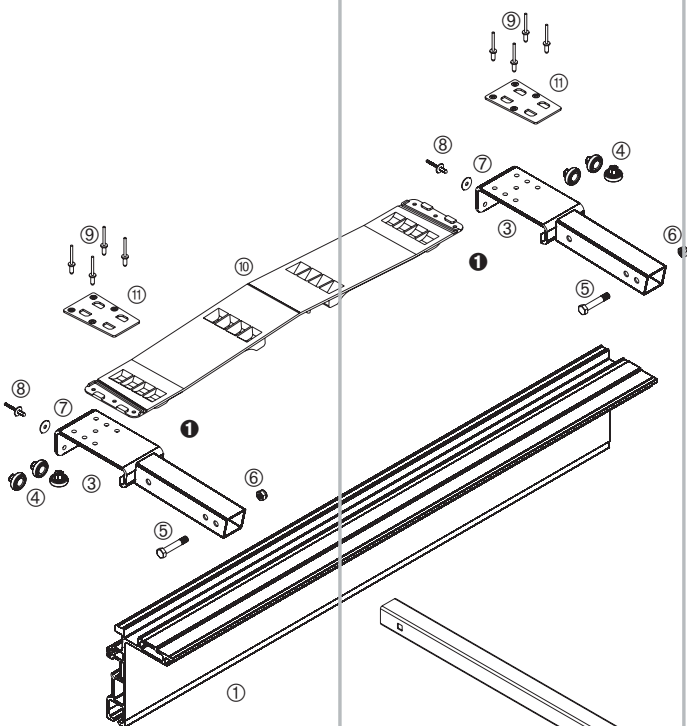
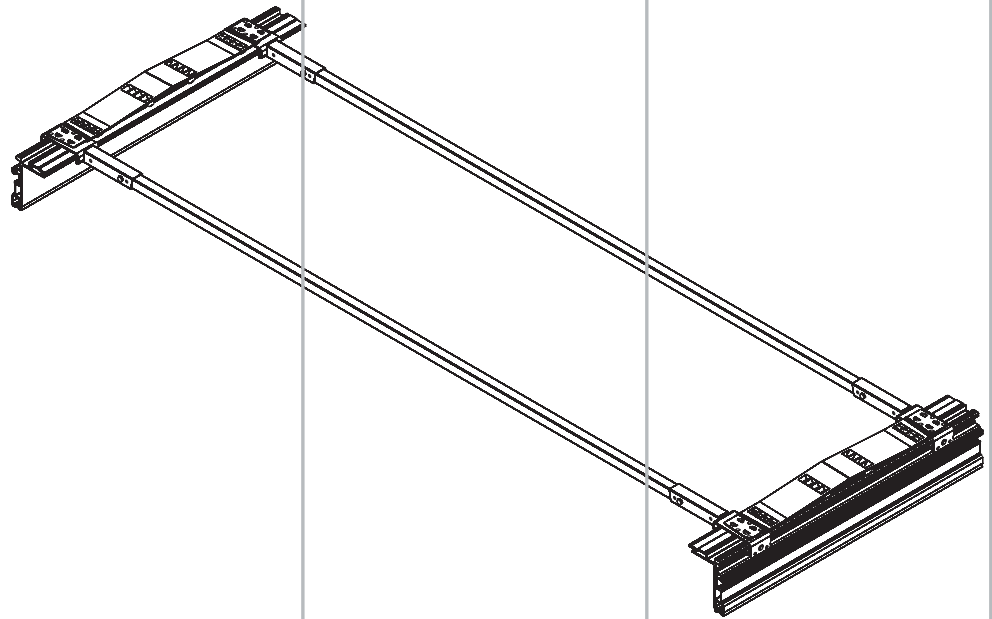
Headboard area special construction "two-way sliding"

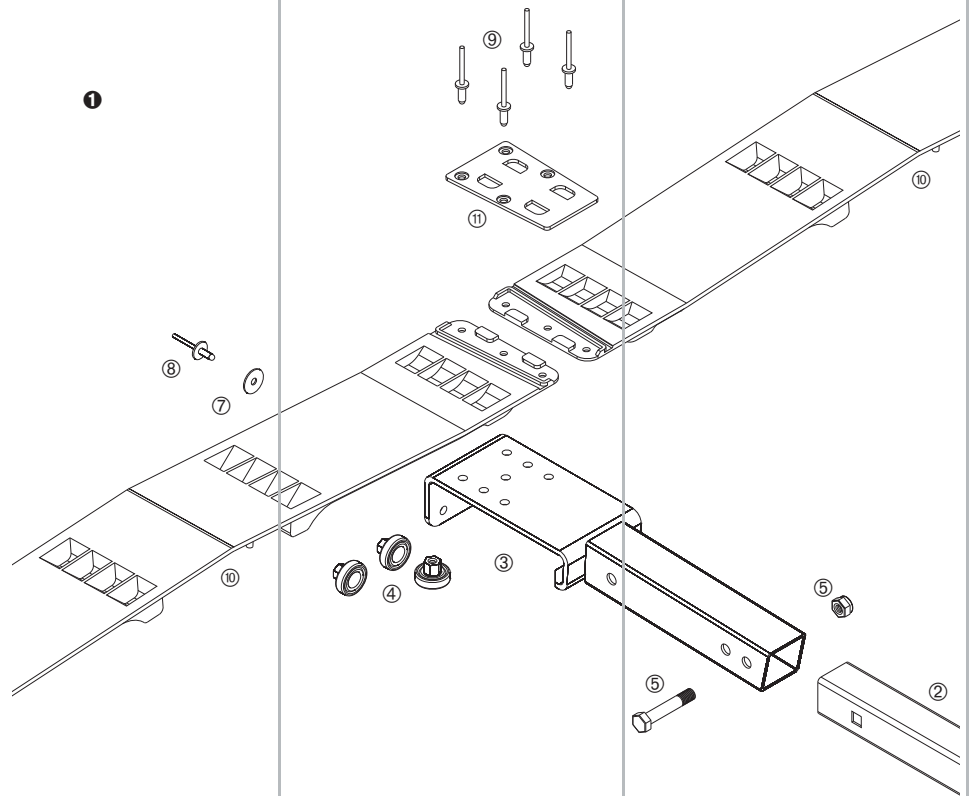
This sub-assembly consists of:

Item		
①	Cant rail Lite Plus 125/Slimliner Medium, depth 112.5 mm	profile 05467
	Cant rail Lite Plus 175/Slimliner Large, depth 162.5 mm (illustrated)	profile 05257
②	End trolley, right hand (short)	660048140
③	End trolley, left hand (long)	660048130
④	Carriage bolt DIN 603 - M 8 x 20	not available
⑤	Washer DIN 125 - A 10.5	660785660
⑥	Hex. nut DIN 985 - M 8 - 8	660794590
⑦	Guide unit	660048410
⑧	Blind rivet steel/steel 6.5 x 17 mm	not available
⑨	Pull strap	660323350
⑩	Washer DIN 9021 - 6.4	not available
⑪	Washer DIN 125 - A 6.4	660785760
⑫	Blind rivet DIN 7337 - 5.0 x 10 mm	660305430
⑬	Blind rivet large flange - 5.0 x 12 mm	not available
⑭	Compensating link	660035130
⑮	Clamping plate	660034120
⑯	Spar	660048880
⑰	Roller carriage	660521100
⑱	Ball bearing with innerthreaded sleeve M 6	660016741
⑲	Hex. head screw DIN 931 - M 8 x 45	960970311
⑳	Locking device plate	660049290
㉑	Plastic washer Ø 18 x 1 mm	not available

No longer available

Centre spar





In this sub-assembly, all parts between two centre spars are summarised.

No components for tops in DB (German Rail) specification in accordance with EN 283 are itemised. Enquiries about these spare parts should be addressed to our department in Wermelskirchen.

The exploded view on the facing page illustrates the right (viewed from rear of vehicle) roof side.

For clarity, the assembly of a roller carriage ① with the individual parts is shown again on this page scaled up 2:1.

Vehicle dependant parts are available in several designs, e.g. in various lengths. Please note that various components also include other parts itemised in the table and illustrations.

All available individual parts and the extent of their supply can be found from page 881. Accessories for curtainsider sliding roofs can be found from page 905, for cant rails from page 950.

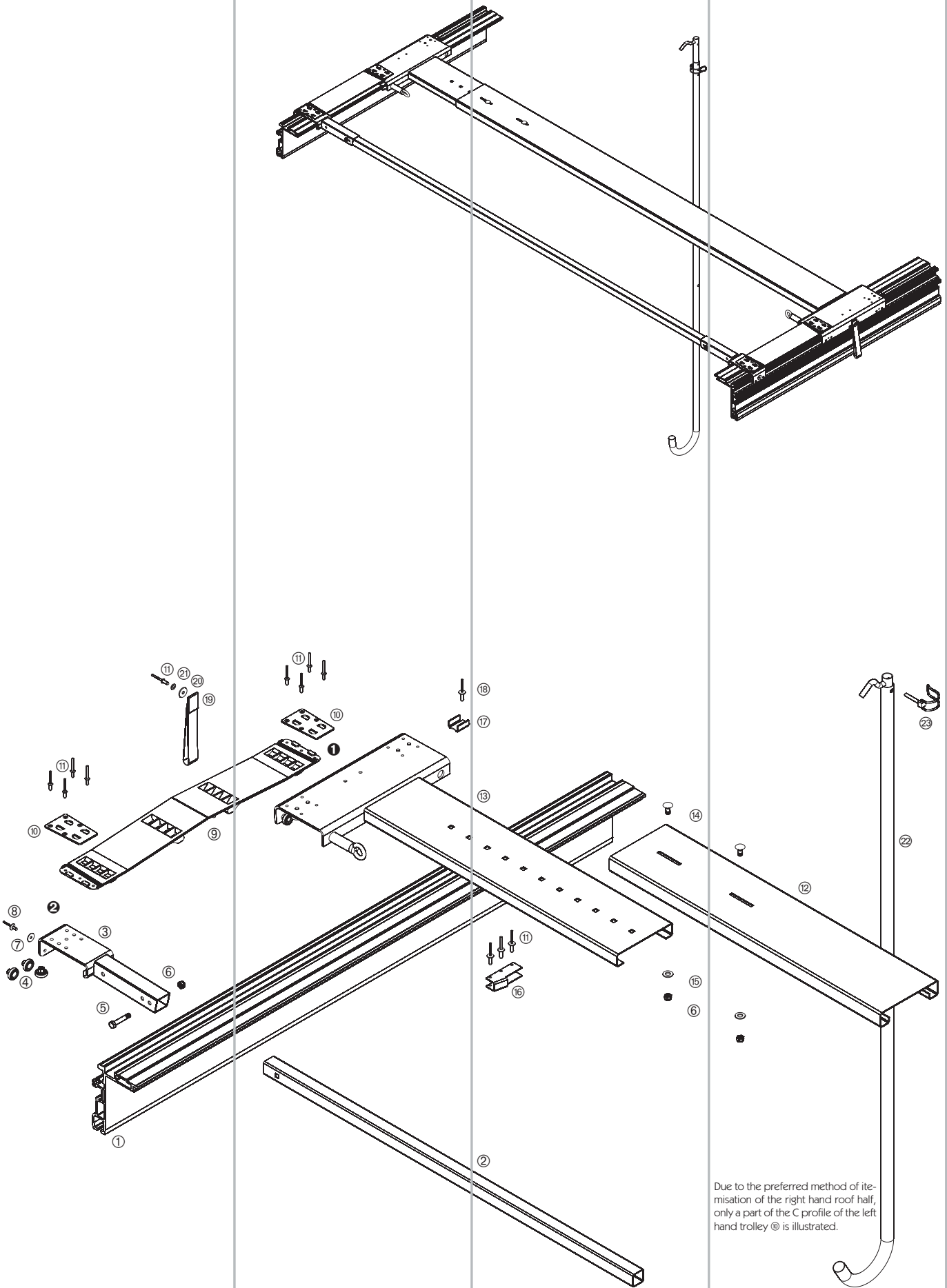
Centre spar

This sub-assembly consists of:

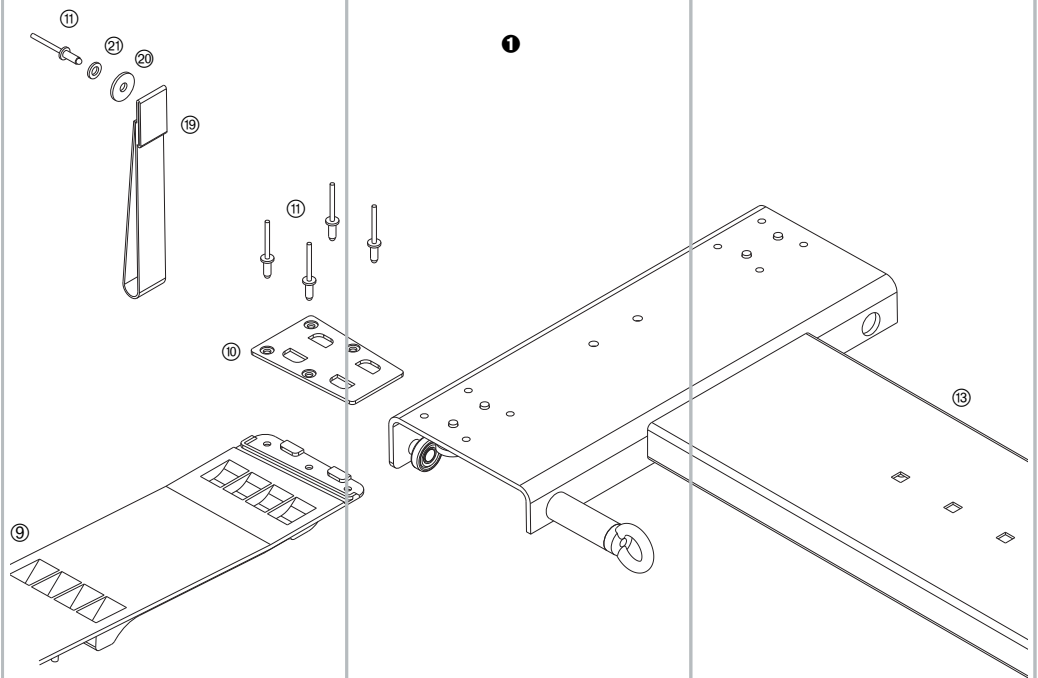
Item

①	Cant rail Lite Plus 125/Slimliner Medium, depth 112.5 mm	profile 05467
	Cant rail Lite Plus 175/Slimliner Large, depth 162.5 mm (illustrated)	profile 05257
②	Spar	660048880
③	Roller carriage	660521100
④	Ball bearing with innerthreaded sleeve M 6	660016741
⑤	Hex. head screw DIN 931 - M 8 x 45	960970311
⑥	Hex. nut DIN 985 - M 8 - 8	660794590
⑦	Plastic washer Ø 18 x 1 mm	not available
⑧	Blind rivet large flange - 5.0 x 12 mm	not available
⑨	Blind rivet DIN 7337 - 5.0 x 10 mm	660305430
⑩	Link <small>see page 881</small>	vehicle dependant
⑪	Clamping plate	660034120

End trolley



Due to the preferred method of ite-
misation of the right hand roof half,
only a part of the C profile of the left
hand trolley © is illustrated.



In this sub-assembly, all the parts of the basic top from the last (complete) centre spar up to the end trolley are summarised.

No components for tops in DB (German Rail) specification in accordance with EN 283, VDI specification in accordance to EN 12642XL or TIR specification are itemised. Enquiries about these spare parts should be addressed to our department in Wermelskirchen.

The exploded view on the facing page illustrates the right (viewed from rear of vehicle) roof side.

For clarity, the assembly of the end trolley 1 with the individual parts is shown again on this page scaled up 2:1.

The various end lifters and end spars/portal beam variants are considered to be accessories and for this reason are first itemised on the next page in the accessory overview.

The links from the centre spar area are riveted to the roller carriages 2.

Vehicle dependant parts are available in several designs, e.g. in various lengths. Please note that various components also include other parts in the table and illustrations.

All available individual parts and the extent of their supply can be found from page 881. Accessories for curtainsider sliding roofs can be found from page 905, for cant rails from page 950.

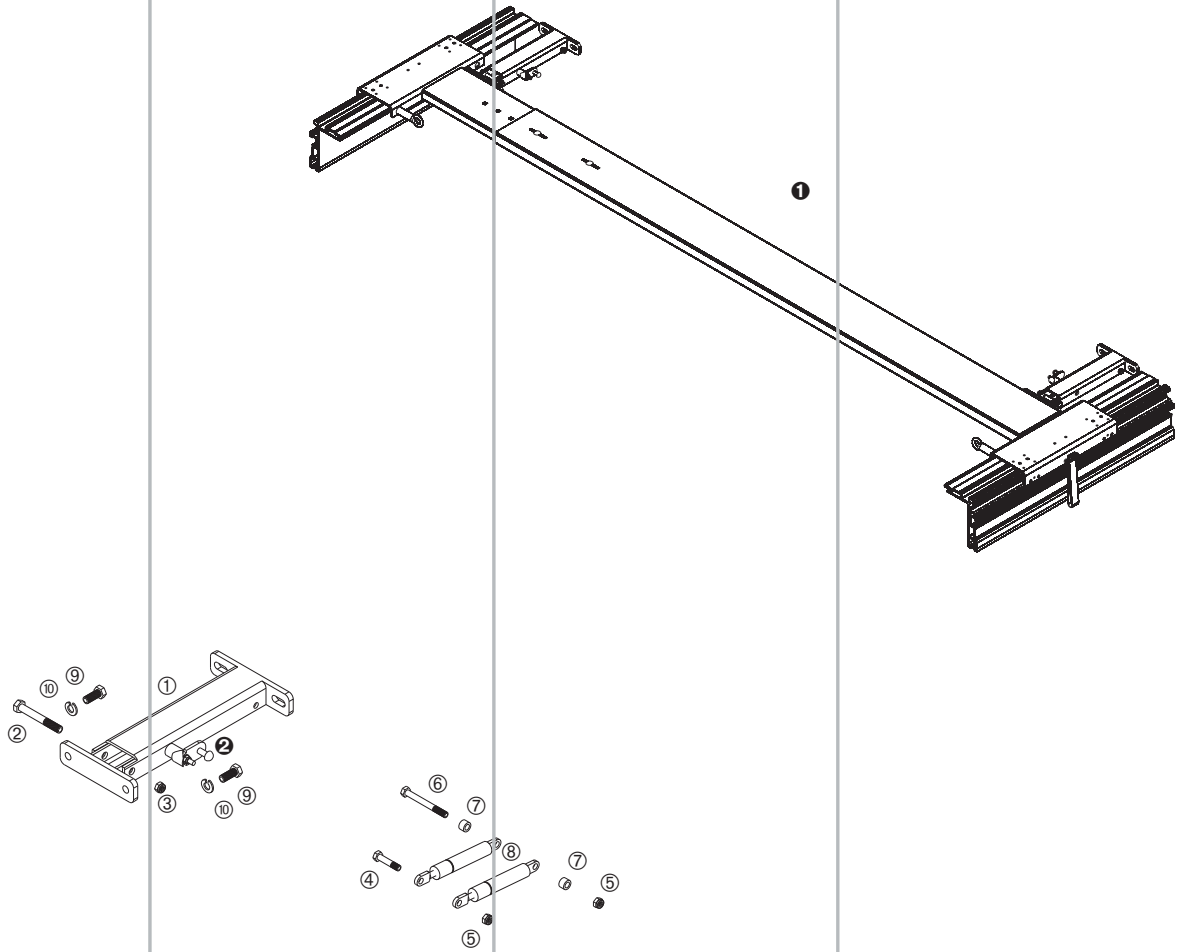
End trolley

This sub-assembly consists of:

Item

①	Cant rail Lite Plus 125/Slimliner Medium, depth 112.5 mm	profile 05467
	Cant rail Lite Plus 175/Slimliner Large, depth 162.5 mm (illustrated)	profile 05257
②	Spar	660048880
③	Roller carriage	660521100
④	Ball bearing with innerthreaded sleeve M 6	660016741
⑤	Hex. head screw DIN 931 - M 8 x 45	960970311
⑥	Hex. nut DIN 985 - M 8 - 8	660794590
⑦	Plastic washer \varnothing 18 x 1 mm	not available
⑧	Blind rivet large flange - 5.0 x 12 mm	not available
⑨	Link see page 881	vehicle dependant
⑩	Clamping plate	660034120
⑪	Blind rivet DIN 7337 - 5.0 x 10 mm	660305430
⑫	End trolley, left hand (long)	660048130
⑬	End trolley, right hand (short)	660048140
⑭	Carriage bolt DIN 603 - M 8 x 20	not available
⑮	Washer DIN 125 - A 10.5	660785660
⑯	Locking device plate	No longer available 660049290
⑰	Guide unit	660048410
⑱	Blind rivet steel/steel 6.5 x 17 mm	not available
⑲	Pull strap	660323350
⑳	Washer DIN 9021 - 6.4	not available
㉑	Washer DIN 125 - A 6.4	660785760
㉒	Drawbar	660025180
㉓	Tube linchpin 6 x 40	660830190

Accessory overview End lifter 2 x 500 N



End lifter 2 x 500 N This accessory consists of:

Item		
①	End lifter housing, left hand	not available
	End lifter housing, right hand (illustrated)	not available
②	Hex. head screw DIN 931 - M 10 x 75	not available
③	Hex. head nut DIN 985 - M 10 - 8	660794490
④	Hex head screw similar to DIN 931 - M 8 x 38	660783310
⑤	Hex. head nut DIN 985 - M 8 - 8	660794590
⑥	Hex. head screw DIN 931 - M 8 x 75	not available
⑦	Bush Ø 14 x 9 - 8.5 mm	not available
⑧	Gas strut 500 N	660728290

660027301

Miscellaneous parts

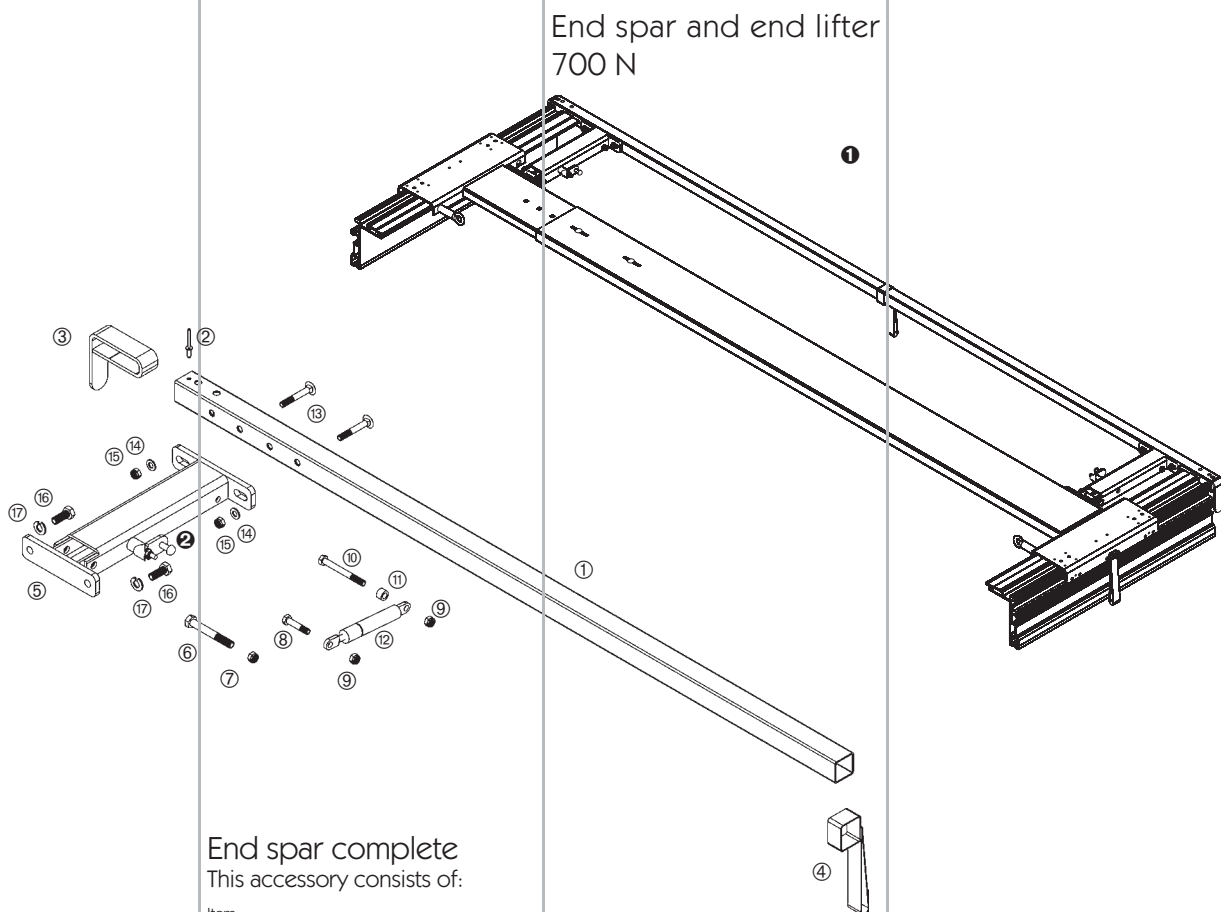
Item		
⑨	Hex. head screw DIN 933 - M 10 x 25	960970014
⑩	Spring washer DIN 127 - A 10	not available

Illustrated on this page are the accessory parts for the end lifter with 2 x gas struts 500 N. This version is only recommended for heavy portal/end beams.

For clarity, ① shows the complete top closing mechanism with the exception of the portal beam.

The article numbers given in the table are available individual parts; each number given below comprises the parts supplied for one roof. The item numbers ⑨ to ⑩ are only supplied with a complete top. They are not included in any individual accessory or spare parts set. For the latch ②, mounted on the end lifter, there is a spring bolt spare part which is itemised with the individual parts under end lifter.

All available individual parts and the extent of their supply can be found from page 881. All accessory parts for curtainsider sliding tops are itemised from page 905, cant rails from page 950.



End spar and end lifter
700 N

End spar complete
This accessory consists of:

Item

① Spar 35 x 35 mm	not available
② Blind rivet DIN 7337 - 4.8 x 18	not available
③ Tarpaulin deflector	not available
④ Pull strap	660323350

Overall length 2550 mm

660035360

Length as required

660027910

End lifter 700 N

This accessory consists of:

Item

⑤ End lifter housing, left hand	not available
End lifter housing, right hand (illustrated)	not available
⑥ Hex. head screw DIN 931 - M 10 x 75	not available
⑦ Hex. head nut DIN 985 - M 10 - 8	660794490
⑧ Hex head screw similar to DIN 931 - M 8 x 38	660783310
⑨ Hex. head nut DIN 985 - M 8 - 8	660794590
⑩ Hex. head screw DIN 931 - M 8 x 75	not available
⑪ Bush Ø 14 x 9 - 8.5 mm	not available
⑫ Gas strut 700 N	660750990

660027300

Miscellaneous parts

Item

⑬ Carriage bolt DIN 603 - M 8 x 55	not available
⑭ Washer DIN 125 - A 8.4	660785280
⑮ Hex. nut DIN 985 - M 8 - 8	660794590
⑯ Hex. nut DIN 933 - M 10 x 25	960970014
⑰ Spring washer DIN 127 - A 10	not available

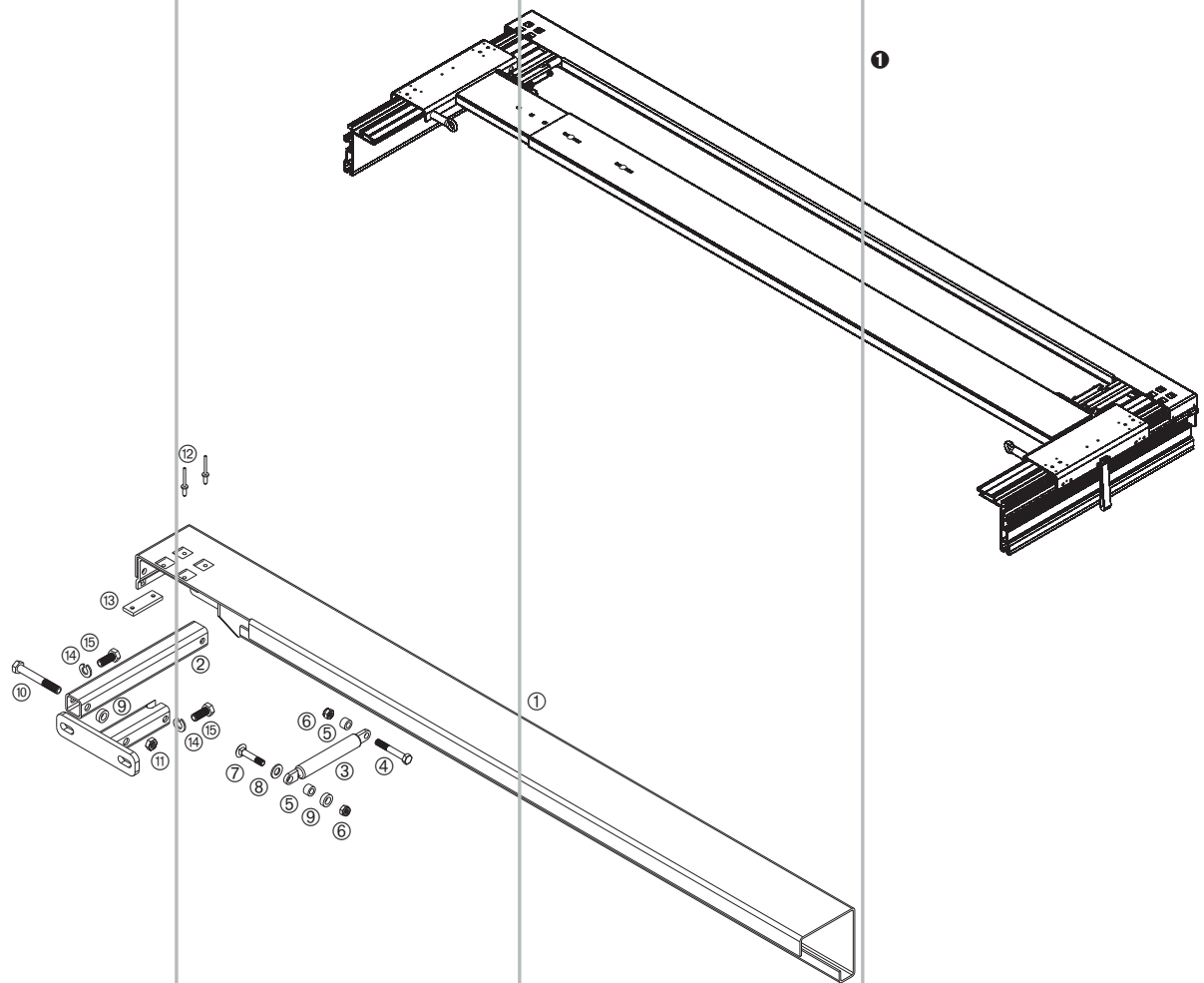
Illustrated on this page are the end spar and end lifter 700 N accessory parts.

For clarity, ❶ shows the complete top closing mechanism. The exploded view depicts the right hand roof side (viewed from rear of vehicle).

The article numbers given in the table are available individual parts. Each item number given below comprises the parts supplied for one top. The items ⑳ to ㉗ are only supplied with a complete top. They are not included in any individual accessory/spare part set. For the latch ❷ mounted on the end lifter, there is a spring bolt spare part which is itemised with the individual parts under end lifter.

All available individual parts and the extent of their supply can be found from page 881. All accessory parts for curtainsider sliding tops are itemised from page 905, cant rails from page 950.

Portal beam



Portal beam

This accessory consists of:

Item		
①	Portal beam	not available
②	End lifter housing	not available
③	Gas strut 700 N	660750990
④	Hex. head screw DIN 931 - M 8 x 55	not available
⑤	Bush Ø 14 x 9 - 8.5 mm	not available
⑥	Hex. nut DIN 985 - M 8 - 8	660794590
⑦	Carriage bolt DIN 603 - M 8 x 42	660782250
⑧	Washer DIN 125 - A 10.5	660785660
⑨	Bush Ø 18 x 6 - 10.5 mm	not available
⑩	Hex. head screw DIN 931 - M 10 x 75	not available
⑪	Hex. nut DIN 980 form V - M 10	not available
⑫	Blind rivet DIN 7337 - 5.0 x 10 mm	660305430
⑬	Base plate	not available

Supplied on request

Miscellaneous parts

Item		
⑭	Hex. head screw DIN 933 - M 10 x 25	960970014
⑮	Spring washer DIN 127 - A 10	not available

Illustrated on this page is the accessory parts for the portal beam. For clarity, ① illustrates the complete roof closing mechanism.

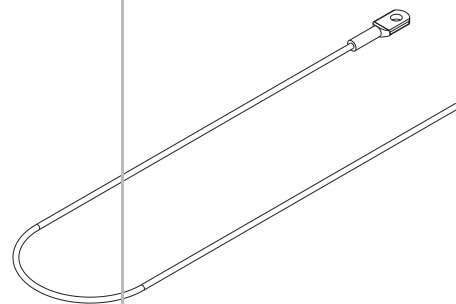
The exploded view depicts the right hand roof side (viewed from rear of vehicle).

The article numbers given in the table are available individual parts; each number given below comprises the parts supplied for one roof. Due to its many variants, the portal beam is only available on request. The items ⑭ and ⑮ are only supplied with a complete roof, they are not included in any individual accessory/spare parts set.

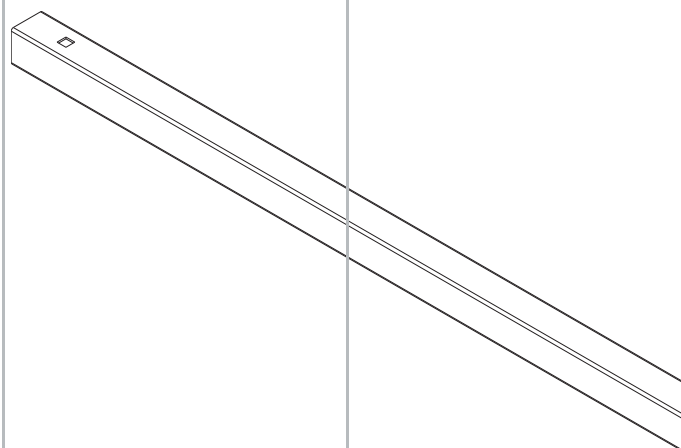
All available individual parts and the extent of their supply can be found from page 881. All accessory parts for curtainsider sliding tops are itemised from page 905, for cant rails from page 950.

Spare parts/individual parts

Safety cable \varnothing 4 mm
For connecting to the headboard,
length approx. 1000 mm, zinc
plated steel.
660854310

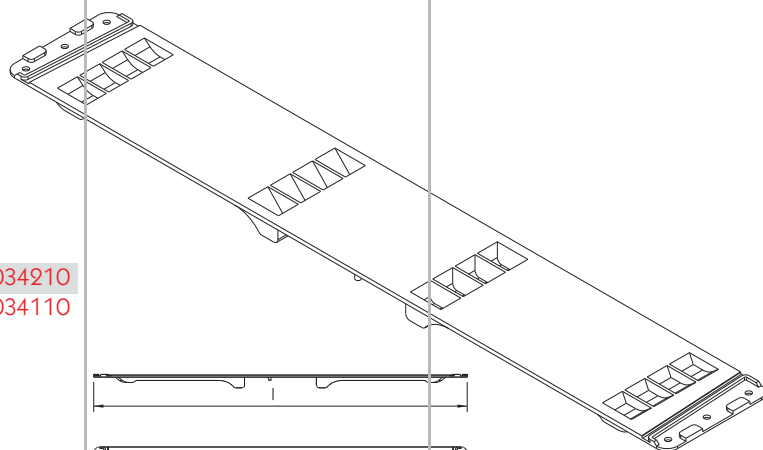


Spar
30x30x1.5 mm, length 2086 mm
for top outer width 2550 mm, DN
0, steel zinc plated.
660048880

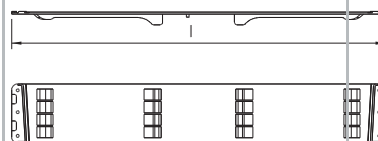


Link
Plastic.

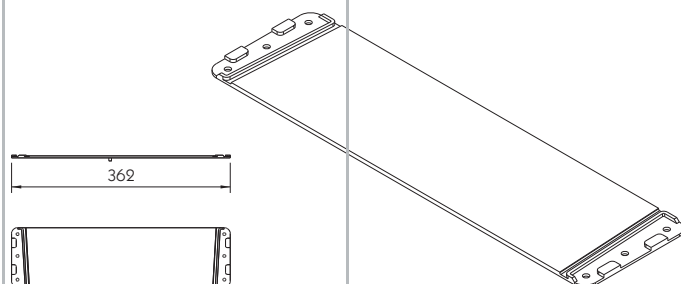
Nominal length [mm]	Dim. l [mm]
570	552
650	632



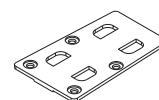
660034210
660034110

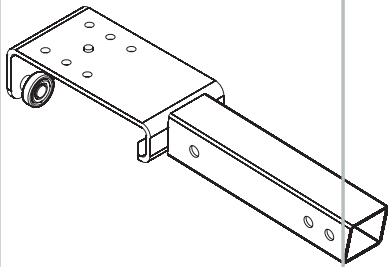


Compensating link
Nominal length 380 mm, can be
shortened, plastic.
660035130



Clamping plate
For plastic link, plastic.
660034120





Roller carriage

With ball bearings, steel zinc plated.

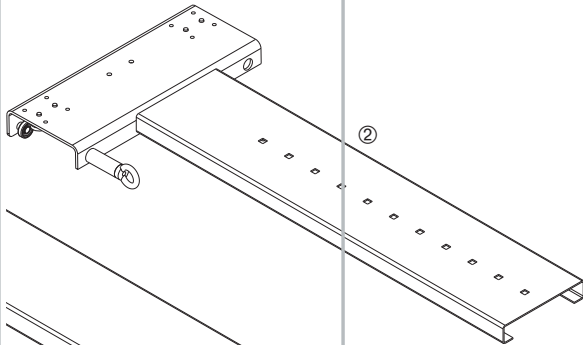
660521100



Ball bearing with inner-threaded sleeve M 6

Steel gunmetal finish.

660016741



End trolley

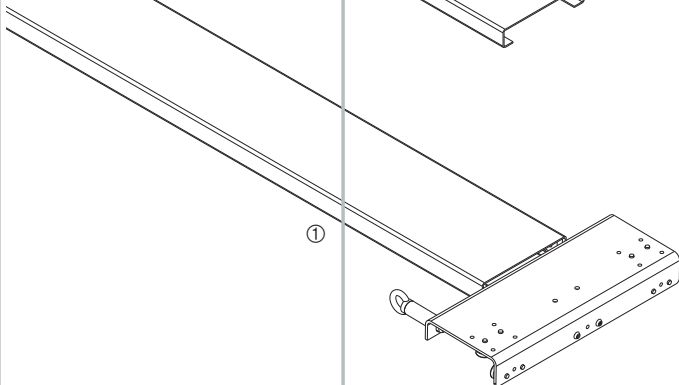
With spring bolt for locking, 4 steel ball bearings outside, plastic rolls inside, steel KTL coated.

① Left hand

660048130

② Right hand

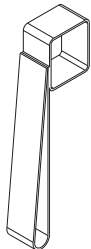
660048140



Pull strap

Green.

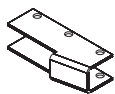
660323350



Locking device plate

Steel KTL coated.

660049290



Guide unit

Steel KTL coated.

660048410



No longer available

Roof pole

Incl. tube linchpin, telescopic from 2000 mm to 4000 mm long, galvanised steel.

660025180

Tube linchpin

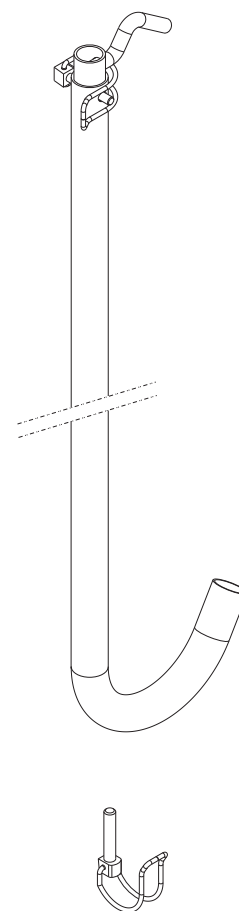
Ø 6 x 40, zinc plated steel.

660830190

Screws and fixing materials to DIN

All parts zinc plated.

Washer DIN 125 - A 6.4	660785760
Washer DIN 125 - A 8.4	660785280
Washer DIN 125 - A 10.5	660785660
Carriage bolt DIN 603 - M 8 x 42	660782250
Hex. nut DIN 985 - M 8 - 8	660794590
Hex. nut DIN 985 - M 10 - 8	660794490
Hex. head screw similar to DIN 931 - M 8 x 38	660783310
Hex. head screw DIN 931 - M 8 x 45	960970311
Hex. head screw DIN 933 - M 10 x 25	960970014
Wire rope clamp DIN 1142 - 5 mm	270151188
Blind rivet DIN 7337 - 5.0 x 10 mm	660305430



On every Top you will find a name plate in various places.
Please state the roof number with every order for spare parts.

Roof no.: From the roof no., Edscha can identify the complete original supply including the manufactured dimensions and construction.

Type: From the second number, the cover type can be identified.

Curtainsider „Profi 100“
 Type 2980.8000

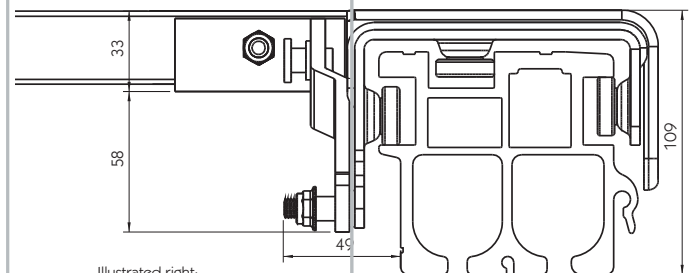
This sliding top is the curtainsider variant of the Profi model series. Steel linkages spaced at approx. 568 mm intervals control the lifting and folding of the tarpaulin during opening, by means of the rising roof spars. 5 bearing trolleys with vertical and lateral ball bearings ensure ease of sliding with the aid of a roof pole on one side from ground level.

- Included in the supply are the linkage bundles, the roof spars, and the end trolley.
- Steel linkages with bushed pivot points, screwed to the inside of the roller carriage.
- End trolley as travelling crossmember.
- Standard outside widths of 2550 mm or 2570 mm.
- Length up to 16000 mm.
- Roof assembly, with the exception of the end trolley crossmember is completely zinc plated, the crossmember is black KTL coated.
- Weight without cant rail approx. 10 kg/m.

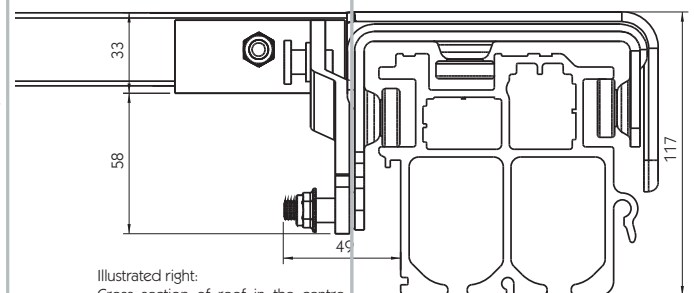
The aluminium cant rail, the accessories of which and the cant rail dependant end trolley locking device, are not supplied, and must be ordered separately.

Special designs:

- Top in DB (German Rail) specification in accordance with EN 283.
- First spar with (shortened) linkage, spar rises when roof is opened. See under "Headboard area special construction with compensating linkages".
- Top can be opened towards both ends. See under "Headboard area special construction two-way sliding".
- Travelling tie rods, recommended for tops over 9 m in length.
- End spar, not suitable for door lock recesses.
- Portal beam with integrated end lifter (gas strut 700N). Depth of crossbar, 113 mm.
- End lifter for customer's own crossbar with 1 x 700 N gas strut or 2 x 500 N gas struts.
- Miscellaneous crossbars, e.g. for PWP Contact door sealing system
- End trolley locking device (roller/ramp or wedge/pull-cord detents), depending on cant rail profile.
- Top supplied without spars.
- Deviation from standard outside widths.

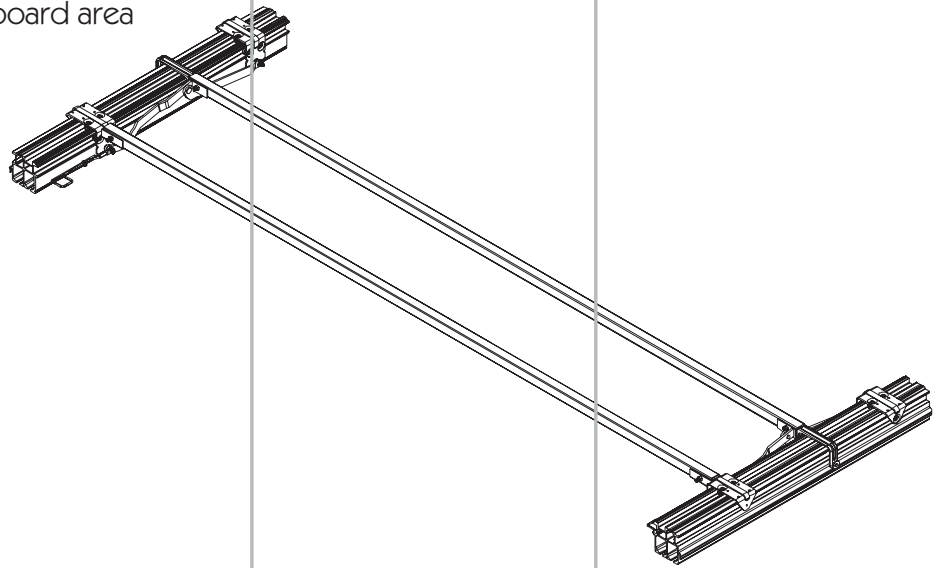


Illustrated right:
 Cross section of top centre spar area on cant rail 80797. A part of the standard linkage is shown on the roller carriage.



Illustrated right:
 Cross section of roof in the centre spar area on cant rail 10050. A part of the standard linkage is shown on the roller carriage.

Spare parts overview
Headboard area



In this sub-assembly, all parts up to the first (complete) centre spar are summarised. No components for tops in DB (German Rail) specification in accordance with EN 283 are itemised. Enquiries about these spare parts should be addressed to our department in Wermelskirchen.

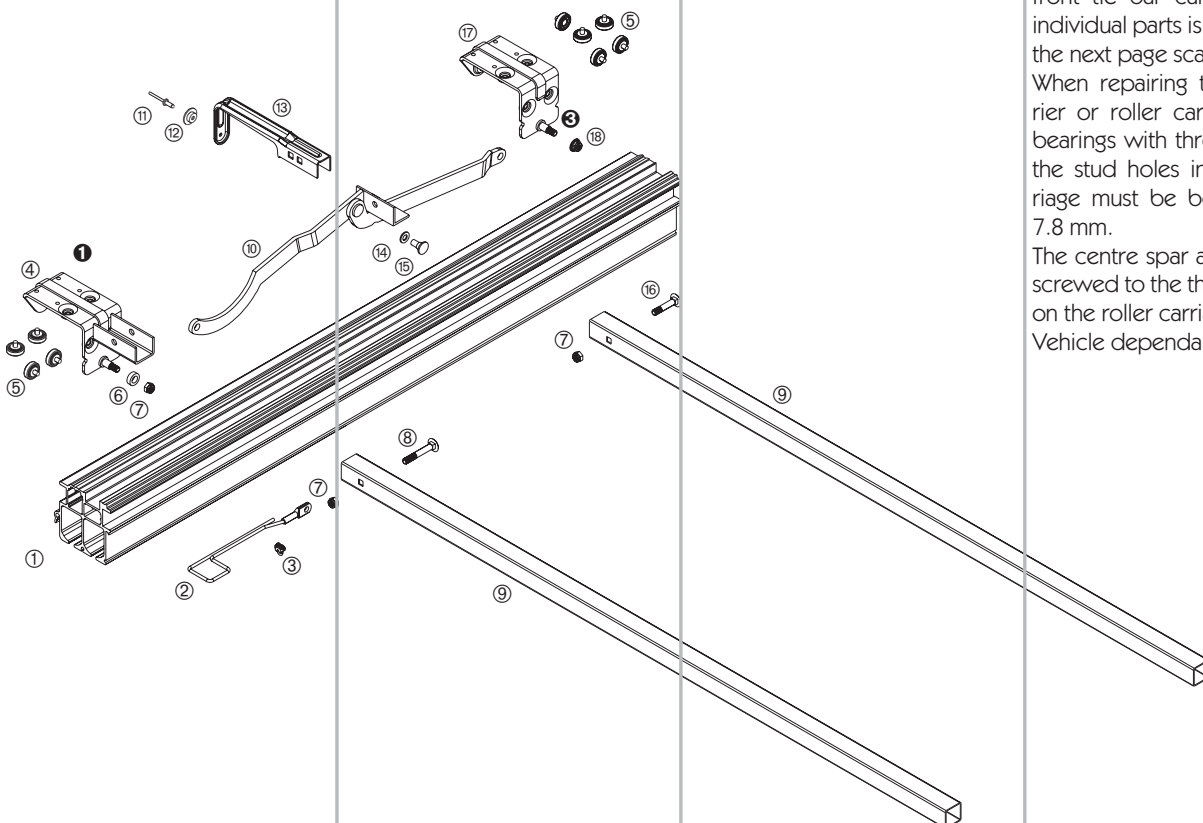
The exploded view illustrates the right hand side of the roof (viewed from rear of vehicle).

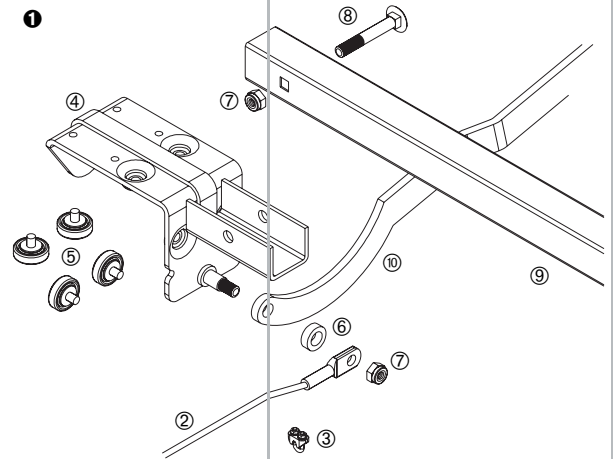
For clarity, the assembly of the front tie bar carrier **1** with its individual parts is shown again on the next page scaled up 2:1.

When repairing the tie bar carrier or roller carriage using ball bearings with threaded studs **2**, the stud holes in the roller carriage must be bored out to \varnothing 7.8 mm.

The centre spar area linkages are screwed to the threaded studs **3** on the roller carriages.

Vehicle dependant parts are





Headboard area

This sub-assembly consists of:

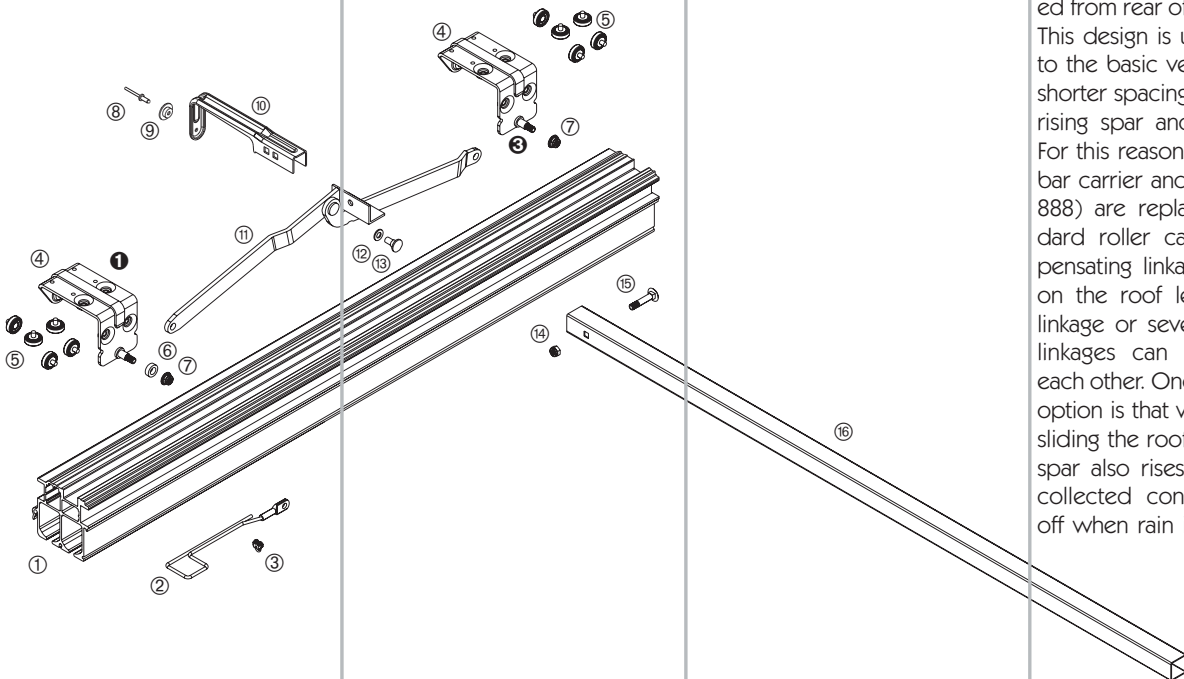
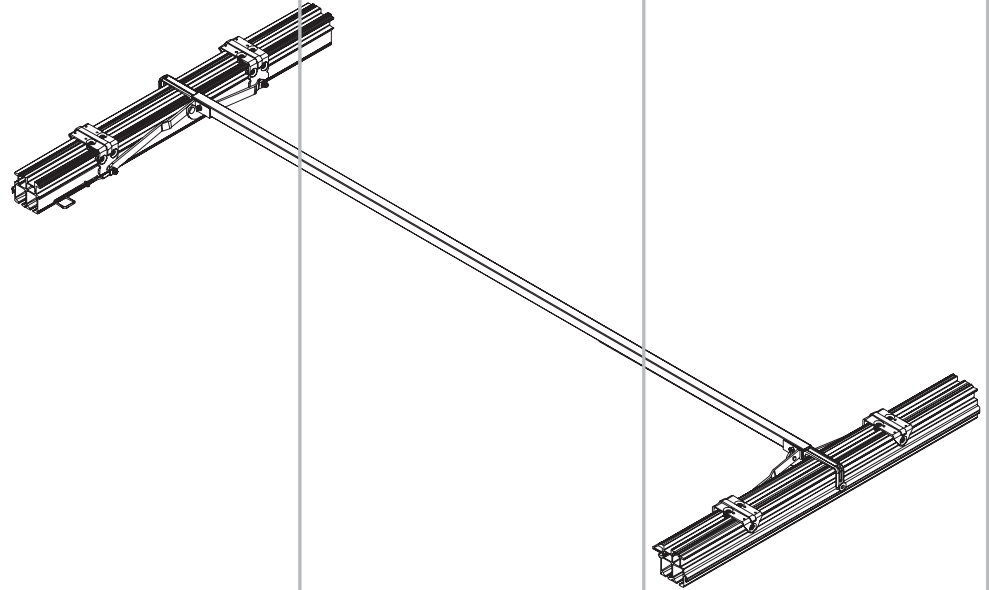
Item

①	Cant rail depth 92 mm	profile 80797
	Cant rail depth 100 mm (illustrated)	profile 10050
②	Safety cable \varnothing 4 mm	660854310
③	Wire rope clamp DIN 1142 - 5 mm	270151188
④	Tie bar carrier	660027040
⑤	Ball bearing with rivet stud (illustrated, alternative)	660850470
	Ball bearing with threaded stud M 8 ②	660830040
	Hex. nut DIN 985 - M 8 - 8 (for 660830040)	660794590
⑥	Bush \varnothing 18 x 10.2 x 6 mm	not available
⑦	Hex. nut DIN 985 - M 8 - 8	660794590
⑧	Carriage bolt DIN 603 - M 8 x 55	not available
⑨	Spar (for roof outer width 2550 mm)	660034640
⑩	Cranked link behind tie bar carrier, left hand	660026510
	Cranked link behind tie bar carrier, right hand (illustrated)	660026520
⑪	Blind rivet DIN 7337 - 5.0 x 10 mm	660305430
⑫	Hat washer	660633950
⑬	Tarpaulin holder	660027550
⑭	Washer DIN 125 - A 8.4	660785280
⑮	Linkage rivet	660845530
⑯	Carriage bolt DIN 603 - M 8 x 42	660782250
⑰	Roller carriage	660026990
⑱	Hex. head nut with flange DIN 6926 - M 8	not available

available in several designs, e.g. in various lengths. Please note that various components also include other parts itemised in the table and illustrations.

All available individual parts and the extent of their supply can be found from page 900. Accessories for curtainsider sliding roofs can be found from page 905, for cant rails from page 950.

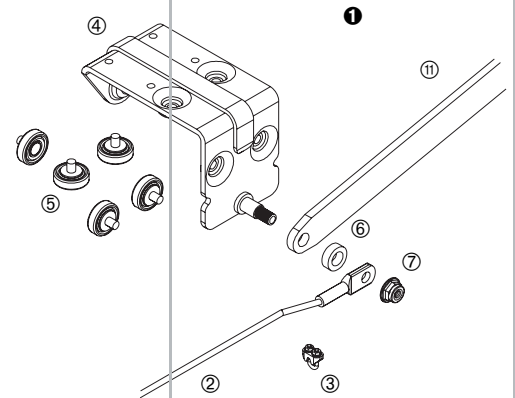
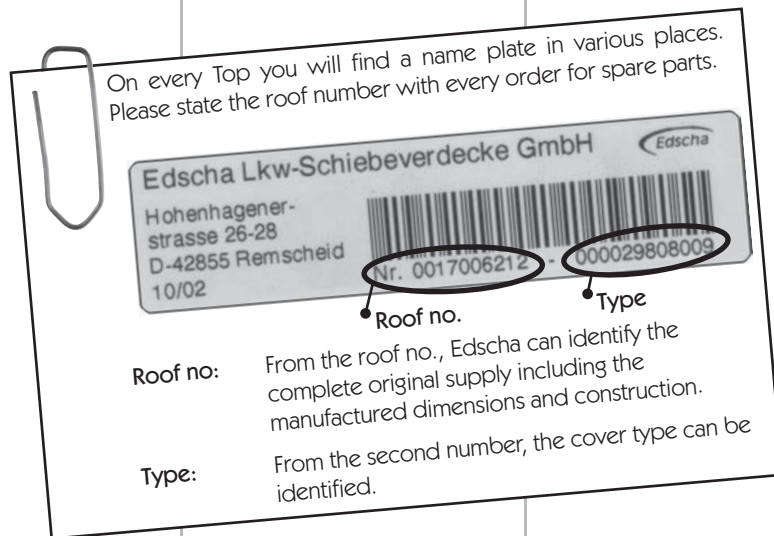
Headboard area special construction "with compensating linkages"



In the Headboard area sub-assembly special construction "with compensating links", all parts up to the first (complete) centre spar are summarised. No components for tops in DB (German Rail) specification in accordance with EN 283 are itemised. Enquiries about these spare parts should be addressed to our department in Wermelskirchen.

The exploded view illustrates the right hand side of the roof (viewed from rear of vehicle).

This design is used (as opposed to the basic version) to obtain a shorter spacing between the first rising spar and the headboard. For this reason, the frontmost tie bar carrier and its link (see page 888) are replaced with a standard roller carriage with compensating linkage ⑩. Depending on the roof length, a standard linkage or several compensating linkages can be used behind each other. One advantage of this option is that when opening and sliding the roof together, the first spar also rises thereby allowing collected condensation to run off when rain is on the tarpaulin



Headboard area special construction "with compensating linkages"

This sub-assembly consists of:

Item		
①	Cant rail depth 92 mm	profile 80797
	Cant rail depth 100 mm (illustrated)	profile 10050
②	Safety cable \varnothing 4 mm	660854310
③	Wire rope clamp DIN 1142 - 5 mm	270151188
④	Roller carriage	660026990
⑤	Ball bearing with rivet stud (illustrated, alternative)	660850470
	Ball bearing with threaded stud M 8 ②	660830040
	Hex. nut DIN 985 - M 8 - 8 (for 660.830040)	660794590
⑥	Bush \varnothing 18 x 10.2 x 6 mm	not available
⑦	Hex. head nut with flange DIN 6926 - M 8	not available
⑧	Blind rivet DIN 7337 - 5.0 x 10 mm	660305430
⑨	Hat washer	660633950
⑩	Tarpaulin holder	660027550
⑪	Linkage or compensating linkage, left hand, see page 900 - 902	vehicle dependent
	Linkage or compensating linkage, right hand (illustrated)	vehicle dependent
⑫	Washer DIN 125 - A 8.4	660785280
⑬	Linkage rivet	660845530
⑭	Hex. nut DIN 985 - M 8 - 8	660794590
⑮	Carriage bolt DIN 603 - M 8 x 42	660782250
⑯	Spar (for roof outer width 2550 mm)	660034640

between the headboard and the first spar.

For clarity, the assembly of the front roller carriage ① with its individual parts is shown again on this page scaled up 2:1.

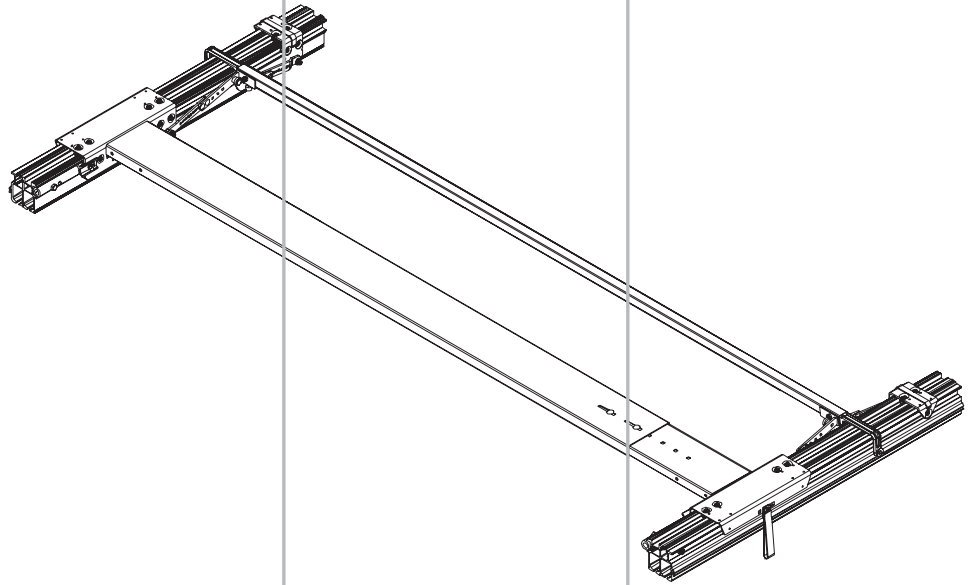
When repairing the roller carriage using ball bearings with threaded studs ②, the stud holes in the roller carriage must be bored out to \varnothing 7.8 mm.

The centre spar area linkages are screwed to the threaded studs ③ on the roller carriages.

Vehicle dependant parts are available in several designs, e.g. in various lengths. Please note that various components also include other parts itemised in the table and illustrations.

All available individual parts and the extent of their supply can be found from page 900. Curtainsider sliding roofs can be found from page 905, for cant rails from page 950.

Headboard area special construction "two-way sliding"

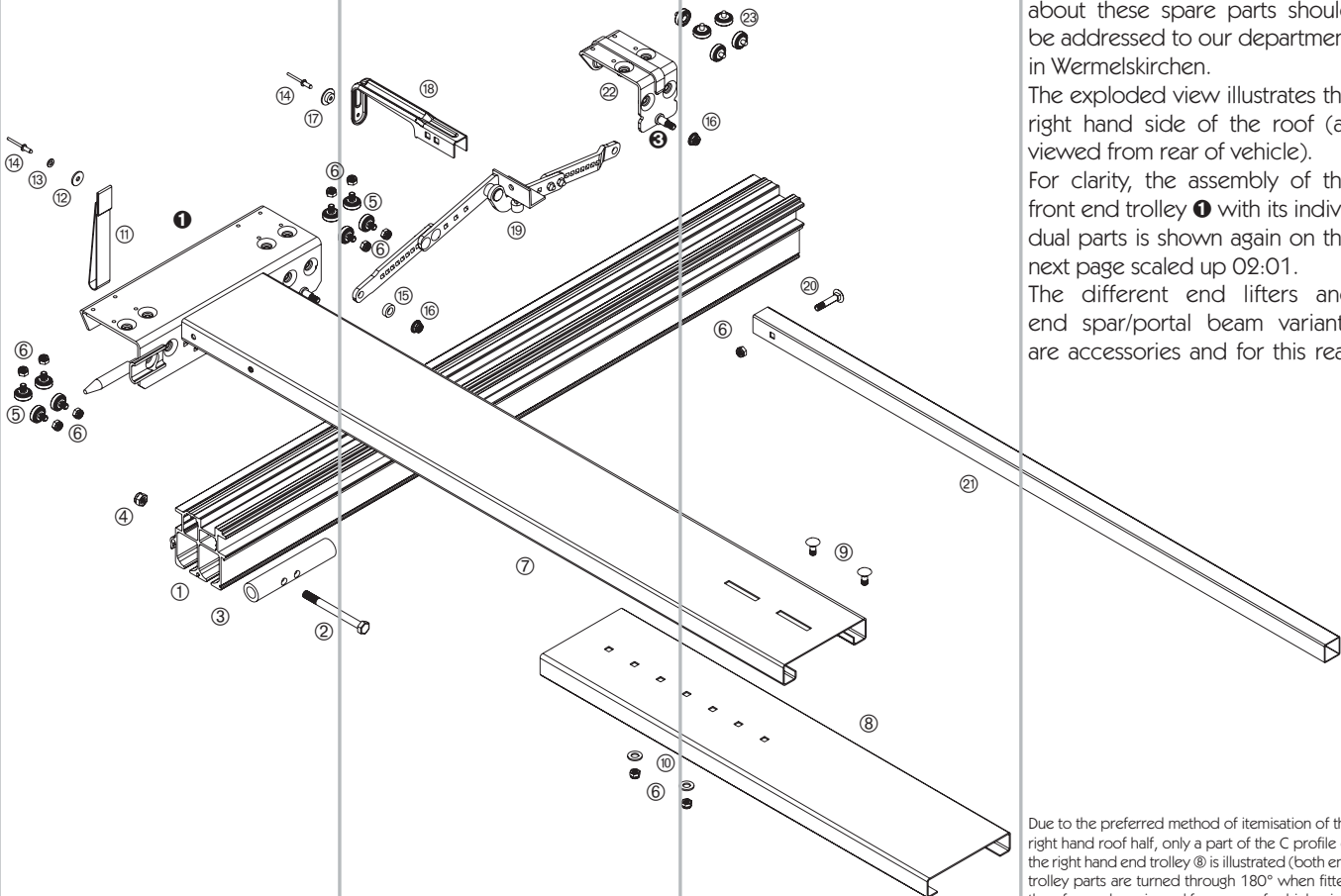


In the Headboard area sub-assembly special construction "two-way sliding", all parts up to the first (complete) centre spar are summarised. No components for tops in DB (German Rail) specification in accordance with EN 283 are itemised. Enquiries about these spare parts should be addressed to our department in Wermelskirchen.

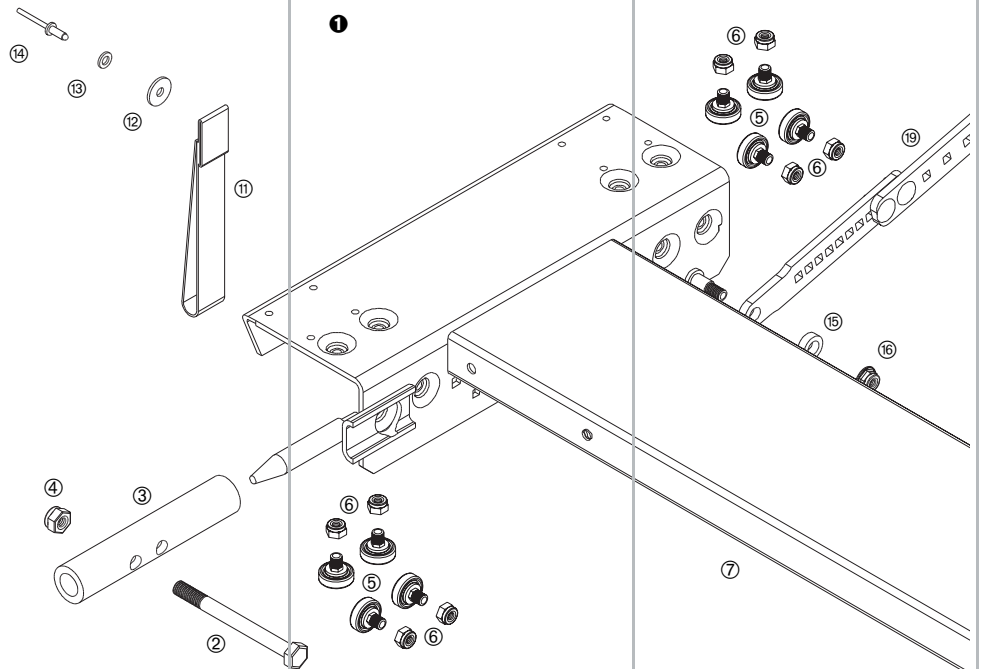
The exploded view illustrates the right hand side of the roof (as viewed from rear of vehicle).

For clarity, the assembly of the front end trolley 1 with its individual parts is shown again on the next page scaled up 02:01.

The different end lifters and end spar/portal beam variants are accessories and for this rea-



Due to the preferred method of itemisation of the right hand roof half, only a part of the C profile of the right hand end trolley 8 is illustrated (both end trolley parts are turned through 180° when fitted therefore, when viewed from rear of vehicle, right = end trolley left). A complete illustration can be found on page 894.



son are first itemised from page 898, together with the cant rail dependant end trolley locking device. For end trolley locking at the headboard, we recommend selecting the wedge/pull-cord variant. Do not forget to fit the necessary guide channels in this case.

When repairing the roller carriage using ball bearings with threaded studs ②, the stud holes in the roller carriage must be bored out to \varnothing 7.8 mm.

The centre spar area linkages are screwed to the threaded studs ③ on the roller carriages.

The bushes \varnothing 18 x 10.2 x 6 mm ⑩ in the case of the end trolley roller/ramp locking device variant are replaced with the rollers \varnothing 35 mm (itemised under roller/ramp locking devices from page 898).

Vehicle dependant parts are available in several designs, e.g. in various lengths. Please note that various components also include other parts itemised in the table and illustrations.

All available individual parts and the extent of their supply can be found from page 900. Curtainsider sliding roofs can be found from page 905, for cant rails from page 950.

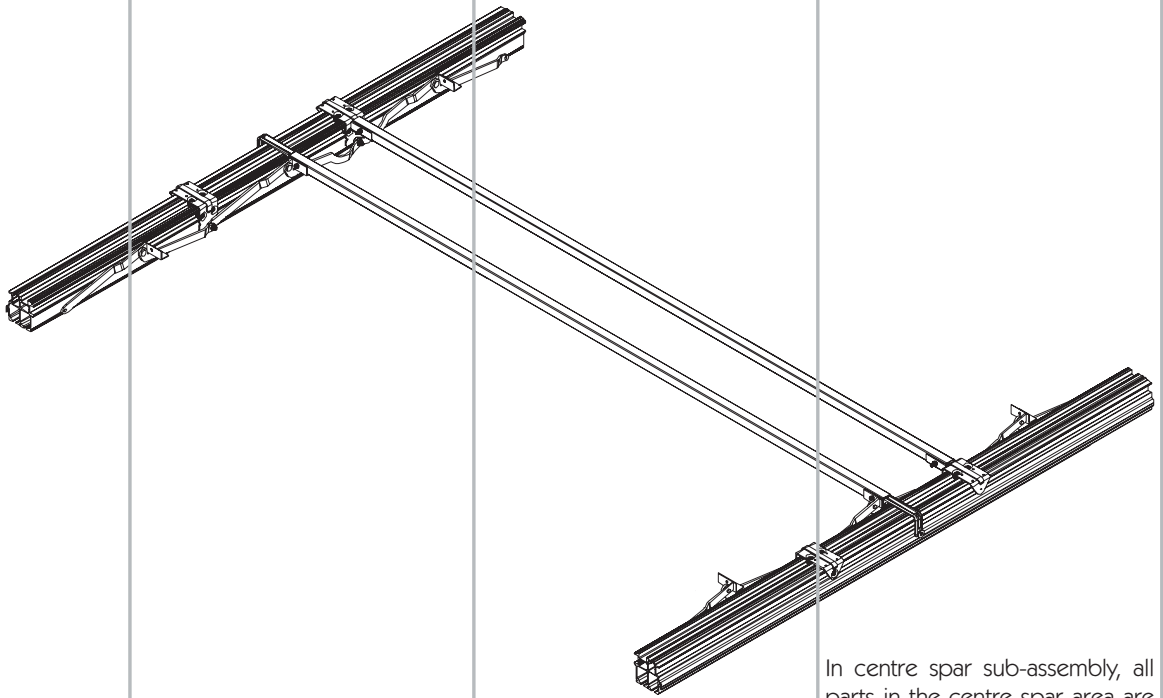
Headboard area special construction "two-way sliding"

This sub-assembly consists of:

Item

①	Cant rail depth 92 mm	profile 80797
	Cant rail depth 100 mm (illustrated)	profile 10050
②	Hex. head screw DIN 931 - M 10 x 110	660781480
③	Guide tube	660030240
④	Hex. head nut DIN 985 - M 10 - 8	660794490
⑤	Ball bearing with threaded stud M 8	660830040
⑥	Hex. nut DIN 985 - M 8 - 8	660794590
⑦	End trolley, left hand (long)	660032190
⑧	End trolley, right hand (short)	660032200
⑨	Carriage bolt DIN 603 - M 8 x 20	not available
⑩	Washer DIN 125 - A 10.5	660785660
⑪	Pull strap	660323350
⑫	Washer DIN 9021 - 6.4	not available
⑬	Washer DIN 125 - A 6.4	660785760
⑭	Blind rivet DIN 7337 - 5.0 x 10 mm	660305430
⑮	Bush \varnothing 18 x 10.2 x 6 mm	not available
⑯	Hex. head nut with flange DIN 6926 - M 8	not available
⑰	Hat washer	660633950
⑱	Tarpaulin holder	660027550
⑲	Adjustable compensating linkage, left hand, <i>see page 900 - 902</i>	660031210
	Adjustable compensating linkage, right hand (illustration)	660031220
⑳	Carriage bolt DIN 603 - M 8 x 42	660782250
㉑	Spar (for roof outer width 2550 mm)	660034640
㉒	Roller carriage	660026990
㉓	Ball bearing with rivet stud (illustrated, alternative)	660850470
	Ball bearing with threaded stud M 8 ② (also ⑤)	660830040
	Hex. nut DIN 985 - M 8 - 8 (for 660830040, also ⑥)	660794590

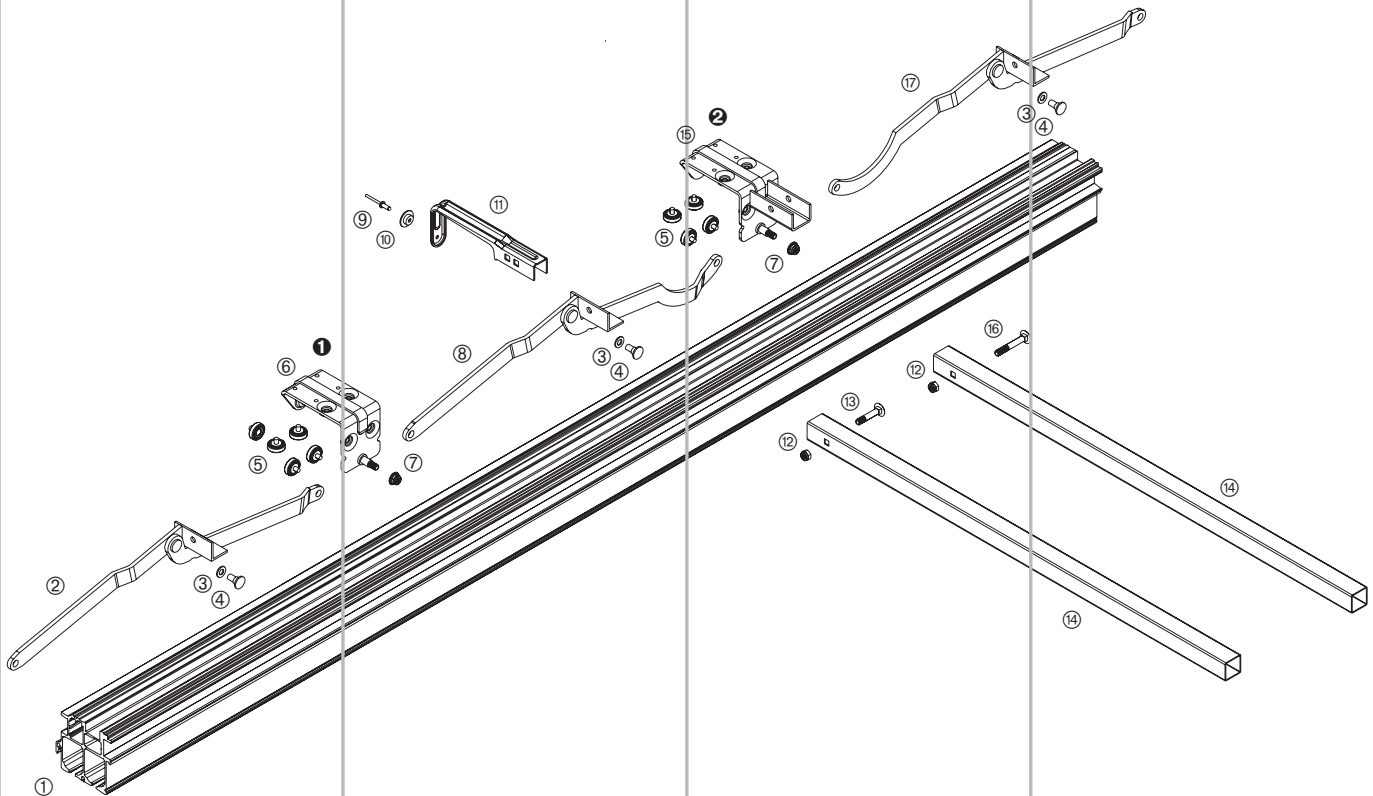
Centre spar

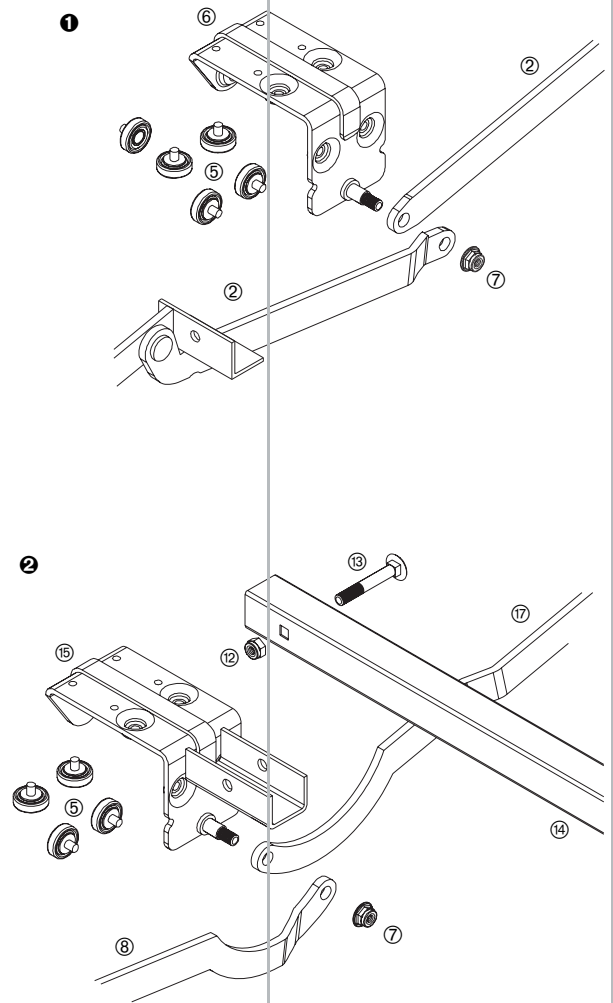


In centre spar sub-assembly, all parts in the centre spar area are summarised. No components for tops in DB (German Rail) specification in accordance with EN 283 are itemised. Enquiries about these spare parts should be addressed to our department in Wermelskirchen.

The exploded view below depicts the right hand roof side (viewed from rear of vehicle).

For clarity, the assembly of a standard roller carriage ① and also a





Centre spar

This sub-assembly consists of:

Item

①	Cant rail depth 92 mm	profile 80797
	Cant rail depth 100 mm (illustrated)	profile 10050
②	Linkage or compensating linkage, left hand, <i>see page 900 - 902</i>	vehicle dependent
	Linkage or compensating linkage, right hand (illustrated)	vehicle dependent
③	Washer DIN 125 - A 8.4	660785280
④	Linkage rivet	660845530
⑤	Ball bearing with rivet stud (illustrated, alternative)	660850470
	Ball bearing with threaded stud M 8 ⑤	660830040
	Hex. nut DIN 985 - M 8 - 8 (for 660830040)	660794590
⑥	Roller carriage	660026990
⑦	Hex. head nut with flange DIN 6926 - M 8	not available
⑧	Cranked link in front of tie bar carrier, left hand	660026530
	Cranked link in front of tie bar carrier, right hand (illustrated)	660026540
⑨	Blind rivet DIN 7337 - 5.0 x 10 mm	660305430
⑩	Hat washer	660633950
⑪	Tarpaulin holder	660027550
⑫	Hex. nut DIN 985 - M 8 - 8	660794590
⑬	Carriage bolt DIN 603 - M 8 x 42	660782250
⑭	Spar (for roof outer width 2550 mm)	660034640
⑮	Tie bar carrier	660027040
⑯	Carriage bolt DIN 603 - M 8 x 55	not available
⑰	Cranked link behind tie bar carrier left hand	660026510
	Cranked link behind tie bar carrier, right hand (illustrated)	660026520

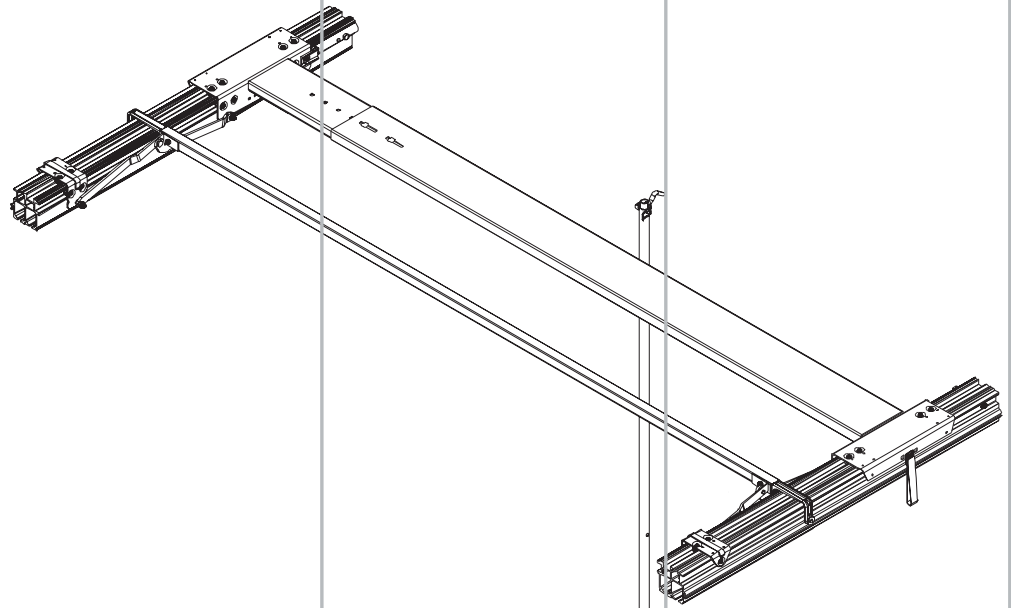
tie bar roller carrier ② with their individual parts is shown again on the next page scaled up 2:1.

When repairing the tie bar carrier or roller carriage using ball bearings with threaded studs ⑤, the stud holes in the roller carriage must be bored out to \varnothing 7.8 mm.

Vehicle dependant parts are available in several designs, e.g. in various lengths. Please note that various components also include other parts in the table and illustrations.

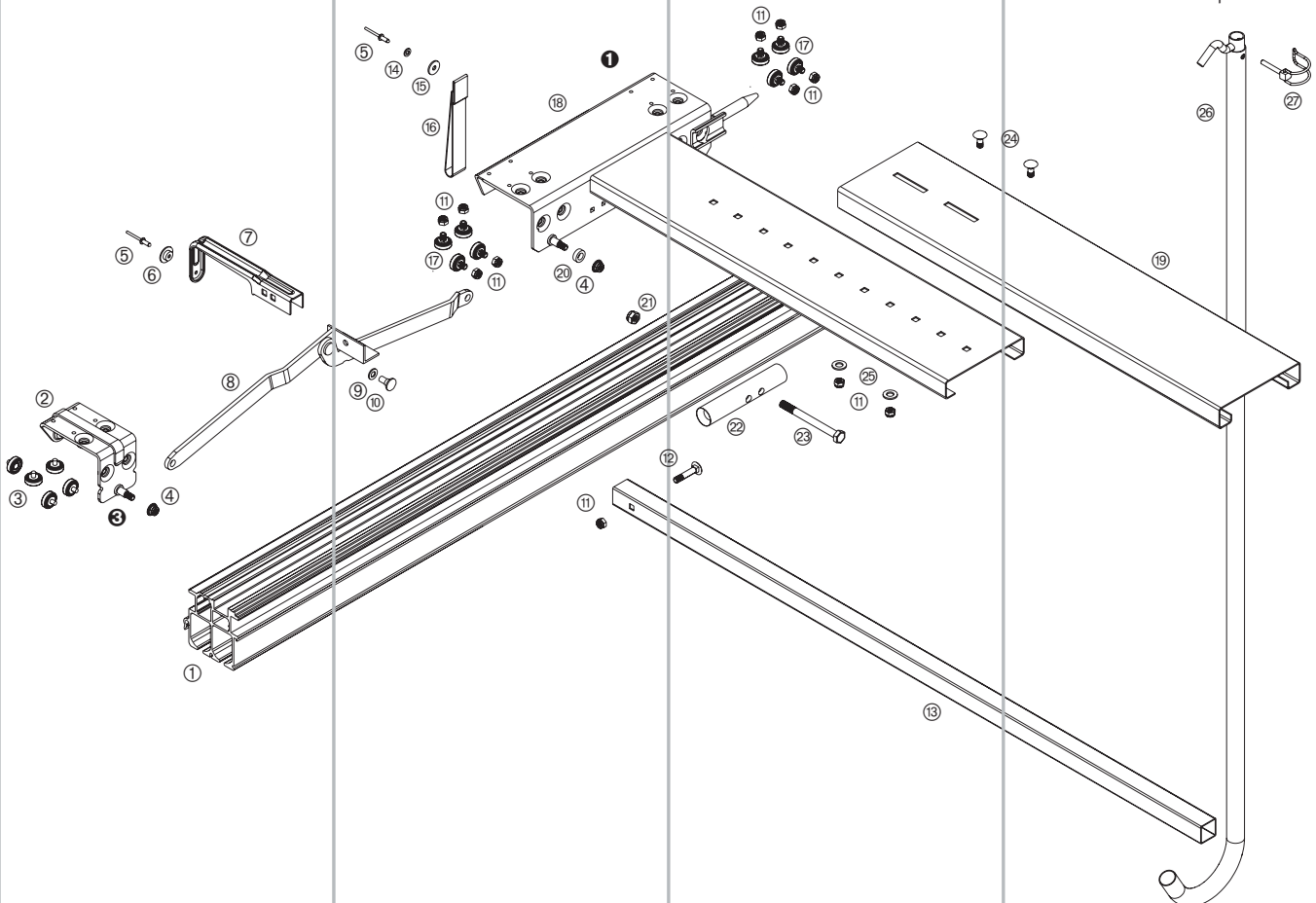
All available individual parts and the extent of their supply can be found from page 900. Curtainsider sliding roofs can be found from page 905, for cant rails from page 950.

End trolley

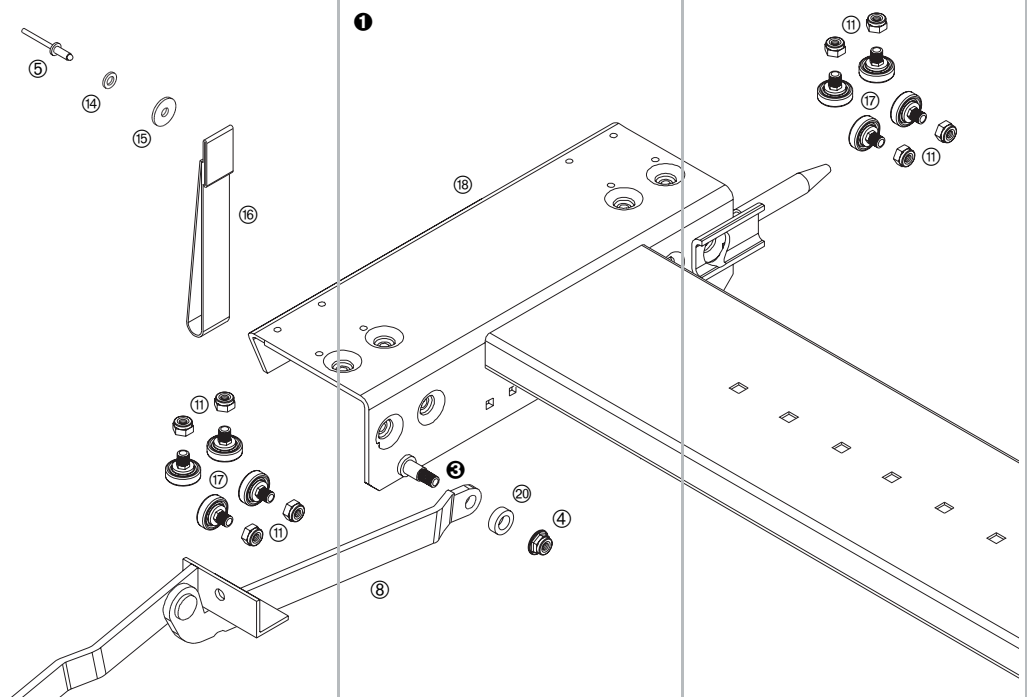


In the end trolley sub-assembly, all parts of the basic top up to the first (complete) centre spar are summarised.

No components for tops to DB (German Rail) specification in accordance with EN 283 are itemised. Enquiries about these spare parts should be addressed to our department in



Due to the preferred method of itemisation of the right hand roof half, only a part of the C profile of the left hand end trolley is illustrated. A complete illustration can be found on page 890.



Wermelskirchen.

The exploded view on the previous page illustrates the right (as seen from rear of vehicle) roof.

For clarity, the assembly of the end trolley ① with its individual parts is shown again on the right of this page scaled up 2:1.

The different end lifters and end spar/portal beam variants are accessories and for this reason are first itemised from page 896 together with the cant rail dependant end trolley locking device. When repairing the roller carriage using ball bearings with threaded studs ②, the stud holes in the roller carriage must be bored out to \varnothing 7.8 mm.

The centre spar area linkages are screwed to the threaded studs ③ on the roller carriages.

The bushes \varnothing 18 x 10.2 x 6 mm ⑭ in the case of the end trolley roller/ramp locking device variant are replaced with the rollers \varnothing 35 mm (itemised under roller/ramp locking devices from page 896).

Vehicle dependant parts are available in several designs, e.g. in various lengths. Please note that various components also include other parts in the table and illustrations.

All available individual parts and the extent of their supply can be found from page 900. Curtainsider sliding roofs can be found from page 905, for cant rails from page 950.

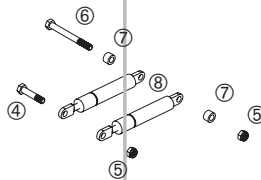
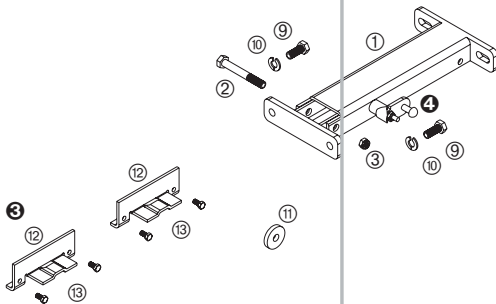
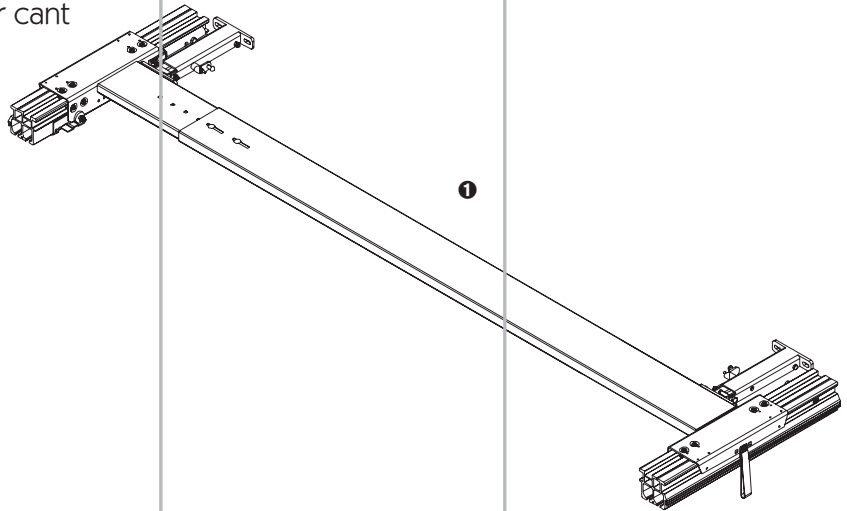
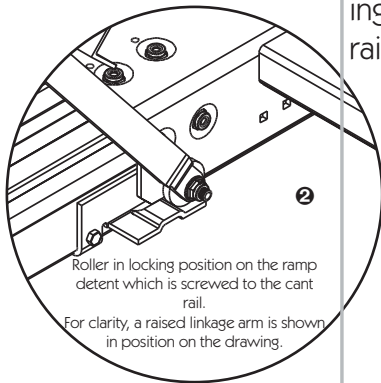
End trolley

This sub-assembly consists of:

Item

①	Cant rail depth 92 mm	profile 80797
	Cant rail depth 100 mm (illustrated)	profile 10050
②	Roller carriage	660026990
③	Ball bearing with rivet stud (illustrated, alternative)	660850470
	Ball bearing with threaded stud M 8 ② (also ⑰)	660830040
	Hex. nut DIN 985 - M 8 - 8 (for 660830040, also ⑩)	660794590
④	Hex. head nut with flange DIN 6926 - M 8	not available
⑤	Blind rivet DIN 7337 - 5.0 x 10 mm	660305430
⑥	Hat washer	660633950
⑦	Tarpaulin holder	660027550
⑧	Linkage, left hand, <i>see page 900 - 902</i>	vehicle dependant
	Linkage, right hand (illustrated)	vehicle dependant
⑨	Washer DIN 125 - A 8.4	660785280
⑩	Linkage rivet	660845530
⑪	Hex. nut DIN 985 - M 8 - 8	660794590
⑫	Carriage bolt DIN 603 - M 8 x 42	660782250
⑬	Spar (for roof outer width \geq 2550 mm)	660034640
⑭	Washer DIN 125 - A 6.4	660785760
⑮	Washer DIN 9021 - 6.4	not available
⑯	Pull strap	660323350
⑰	Ball bearing with threaded stud M 8	660830040
⑱	End trolley, right hand (short)	660032200
⑲	End trolley, left hand (long)	660032190
⑳	Bush \varnothing 18 x 10.2 x 6 mm	not available
㉑	Hex. head nut DIN 985 - M 10 - 8	660794490
㉒	Locating tube	660030240
㉓	Hex. head screw DIN 931 - M 10 x 110	660781480
㉔	Carriage bolt DIN 603 - M 8 x 20	not available
㉕	Washer DIN 125 - A 10.5	660785660
㉖	Roof pole	660025180
㉗	Tube linchpin	660830190

Accessory overview End lifter 2 x 500 N and roller/ramp locking device for cant rail 80797



End lifter 2 x 500 N This accessory consists of:

Item	Description	Part Number
①	End lifter housing, left hand	not available
	End lifter housing, right hand (illustrated)	not available
②	Hex. head screw DIN 931 - M 10 x 75	not available
③	Hex. head nut DIN 985 - M 10 - 8	660794490
④	Hex head screw similar to DIN 931 - M 8 x 38	660783310
⑤	Hex. head nut DIN 985 - M 8 - 8	660794590
⑥	Hex. head screw DIN 931 - M 8 x 75	not available
⑦	Bush Ø 14 x 9 - 8.5 mm	not available
⑧	Gas strut 500 N	660728290

660027301

Miscellaneous parts

Item	Description	Part Number
⑨	Hex. head screw DIN 933 - M 10 x 25	960970014
⑩	Spring washer DIN 127 - A 10	not available

Roller/ramp locking device for cant rail 80797

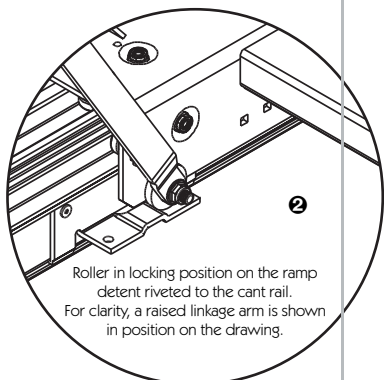
Item	Description	Part Number
⑪	Roller Ø 35 mm	not available
⑫	Ramp detent	660031650
⑬	Hex. head screw DIN 933 - M 6 x 12	not available

Illustrated on this page are the accessory parts for the end lifter with 2 x gas struts 500 N and the end trolley roller/ramp locking device only for cant rail 80797.

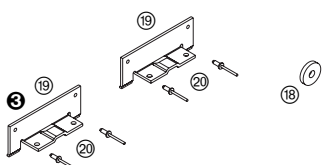
The end lifter version with 2 x 500 N gas struts is only recommended for heavy portal/closing beams. For clarity, ① shows the complete top closing mechanism with the exception of the portal beam. Detail ② illustrates the roller on the ramp detent. The exploded view shows the right hand roof side (viewed from rear of vehicle). The additional ramp ③ is for positioning the concertinaed linkage bundle at the headboard end.

The article numbers given in the table are available individual parts; each number given below comprises the parts supplied for one roof. For the latch ④, mounted on the end lifter, there is a spring bolt kit available as a spare part which is itemised with the individual parts below the end lifter.

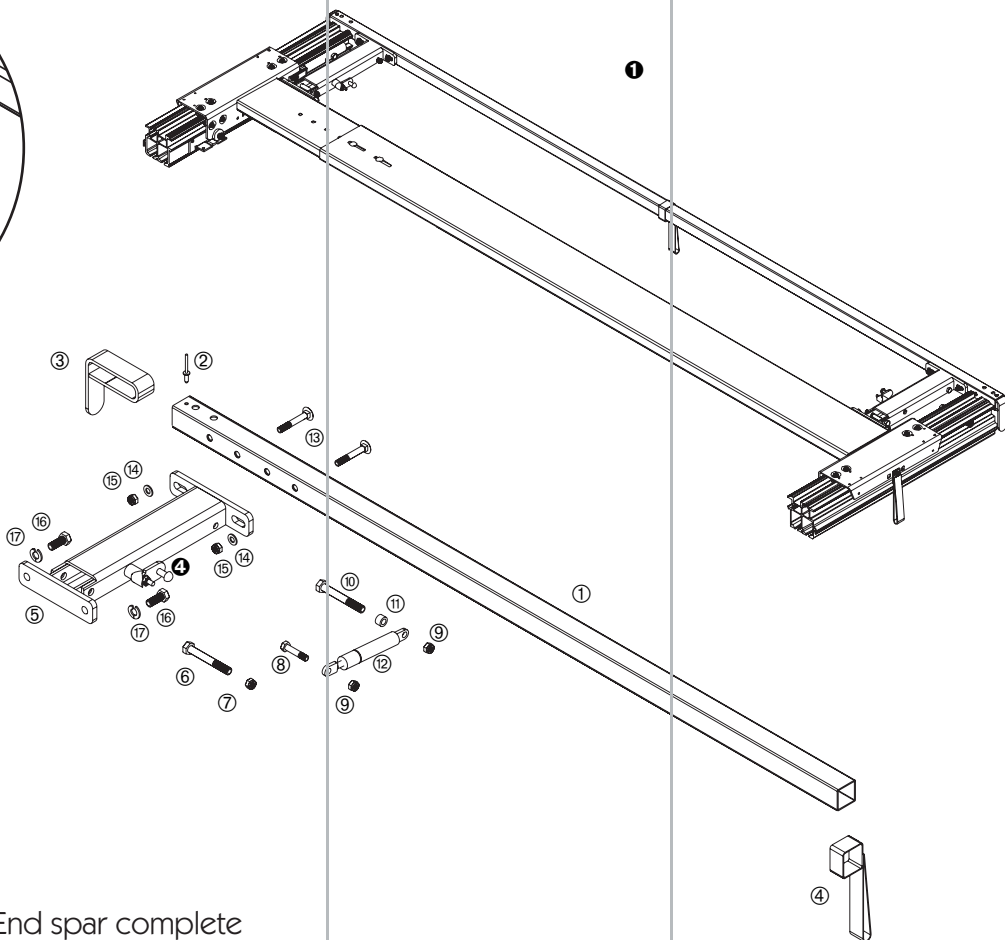
All available individual parts and the extent of their supply can be found from page 900. All accessory parts for curtainsider sliding tops are itemised from page 905.



Roller in locking position on the ramp detent riveted to the cant rail.
For clarity, a raised linkage arm is shown in position on the drawing.



End spar, end lifter 700 N and roller/ramp locking device for cant rail 10050



End spar complete

This accessory consists of:

Item

① Spar 35 x 35 mm	not available
② Blind rivet DIN 7337 - 4.8 x 18	not available
③ Tarpaulin deflector	not available
④ Pull strap	660323350

Overall length 2550 mm

660035360

Length as required

660027910

End lifter 700 N

This accessory consists of:

Item

⑤ End lifter housing, left hand	not available
End lifter housing, right hand (illustrated)	not available
⑥ Hex. head screw DIN 931 - M 10 x 75	not available
⑦ Hex. head nut DIN 985 - M 10 - 8	660794490
⑧ Hex head screw similar to DIN 931 - M 8 x 38	660783310
⑨ Hex. head nut DIN 985 - M 8 - 8	660794590
⑩ Hex. head screw DIN 931 - M 8 x 75	not available
⑪ Bush Ø 14 x 9 - 8.5 mm	not available
⑫ Gas strut 700 N	660750990

660027300

Illustrated on this page (the parts list is continued on to the next page), are the accessory parts end spar and end lifter 700 N which are independent of the cant rail, and also the end trolley roller/ramp locking device which is only for cant rail 10050.

For clarity, ① shows the complete top closing mechanism. Detail ② illustrates the roller on the ramp detent. The exploded view depicts the right hand roof side (viewed from rear of vehicle).

The concertinaed linkage bundle is secured by the additional ramp detent ④ at the headboard end.

The article numbers given in the table are available individual parts; each number given below comprises the parts supplied for one roof. For the latch ④, mounted on the end lifter, there is a

End spar, end lifter 700 N and roller/ramp locking device for cant rail 10050

Continued from previous page

Miscellaneous parts

Item		
13	Carriage bolt DIN 603 - M 8 x 55	not available
14	Washer DIN 125 - A 8.4	660785280
15	Hex. head nut DIN 985 - M 8 - 8	660794590
16	Hex. head screw DIN 933 - M 10 x 25	960970014
17	Spring washer DIN 127 - A 10	not available

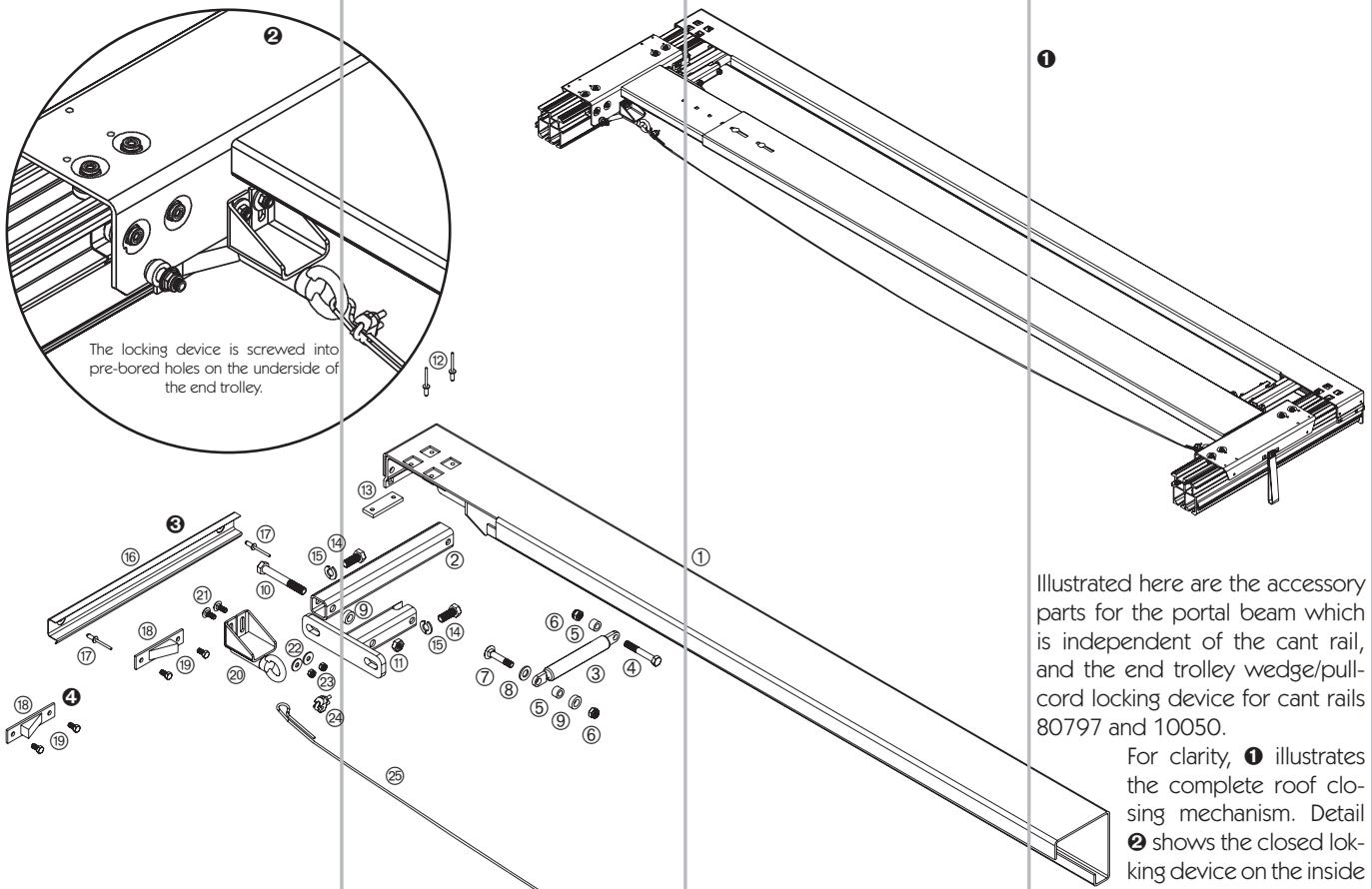
spring bolt kit available as a spare part which is itemised with the individual parts below the end lifter.

All available individual parts and the extent of their supply can be found from page 900. All accessory parts for curtainsider sliding tops are itemised from page 905.

Roller/ramp locking device for cant rail 10050

Item		
18	Roller Ø 35 mm	not available
19	Ramp detent	660033030
20	Blind rivet, steel/steel - 5.0 x 12	not available

Portal beam and wedge/pull-cord locking device for cant rail 80797 and 10050



Illustrated here are the accessory parts for the portal beam which is independent of the cant rail, and the end trolley wedge/pull-cord locking device for cant rails 80797 and 10050.

For clarity, 1 illustrates the complete roof closing mechanism. Detail 2 shows the closed locking device on the inside of the end trolley.

The exploded view depicts the

right hand roof side (viewed from rear of vehicle).

When the vehicle is in motion, the end trolley is parked in the detented position on the guide rail ⑨ which is riveted to the cant rail inside track channel. The concerned linkage bundle is secured by the additional wedge detent ⑩ at the headboard end.

The article numbers given in the table are available individual parts; each number given below comprises the parts supplied for one roof. The portal beam is only available on request due to its many variants.

All available individual parts and the extent of their supply can be found from page 900. All accessory parts for curtainsider sliding tops are itemised from page 905.

Portal beam

This accessory consists of:

Item

① Portal beam	not available
② End lifter housing	not available
③ Gas strut 700 N	660750990
④ Hex. head screw DIN 931 - M 8 x 55	not available
⑤ Bush Ø 14 x 9 - 8.5 mm	not available
⑥ Hex. nut DIN 985 - M 8 - 8	660794590
⑦ Carriage bolt DIN 603 - M 8 x 42	660782250
⑧ Washer DIN 125 - A 10.5	660785660
⑨ Bush Ø 18 x 6 - 10.5 mm	not available
⑩ Hex. head screw DIN 931 - M 10 x 75	not available
⑪ Hex. nut DIN 980 form V - M 10	not available
⑫ Blind rivet DIN 7337 - 5.0 x 10 mm	660305430
⑬ Base plate	not available

Supplied on request

Miscellaneous parts

Item

⑭ Hex. head screw DIN 933 - M 10 x 25	960970014
⑮ Spring washer DIN 127 - A 10	not available

Guide channel

This accessory consists of:

Item

⑯ Guide channel	not available
⑰ Blind rivet, steel/steel - 4.8 x 14.3	not available

660028490

Wedge/pull-cord locking device for cant rails 80797 and 10050

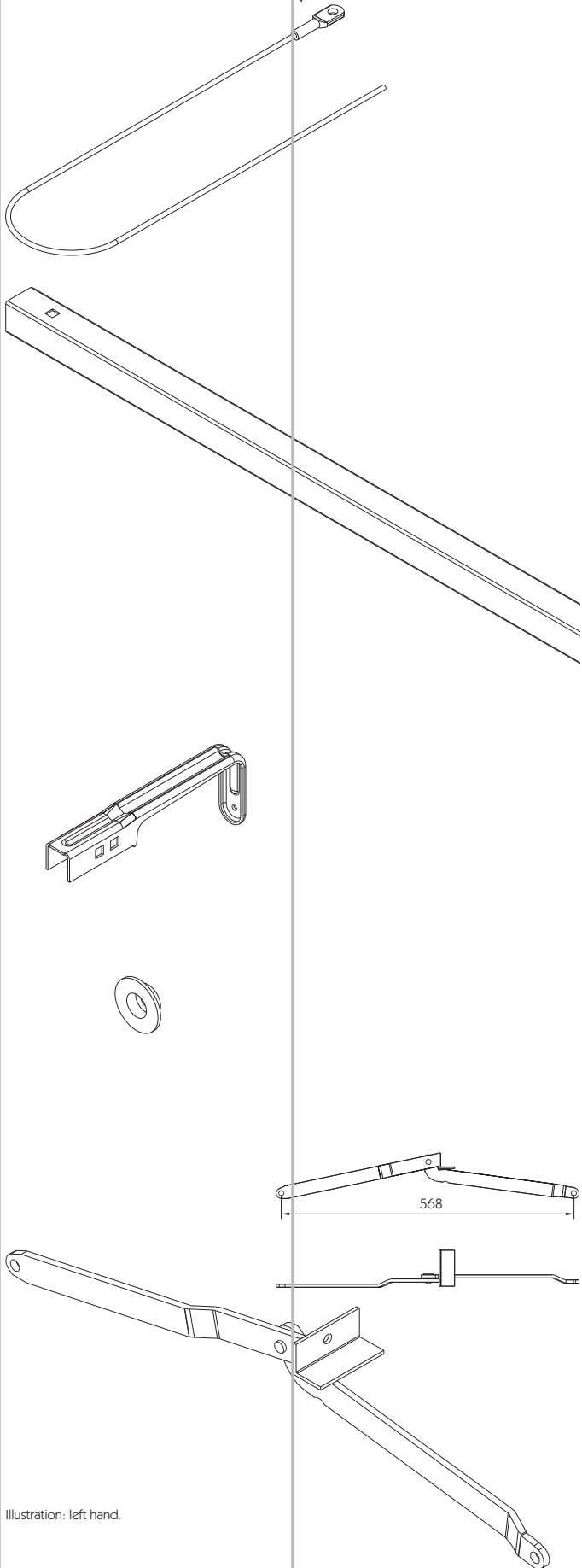
This accessory consists of:

Item

⑱ Wedge detent	660027320
⑲ Hex. head screw DIN 933 - M 6 x 12	not available
⑳ Locking device	not available
㉑ Carriage bolt DIN 603 - M 6 x 12	not available
㉒ Washer DIN 9021 - 6.4	not available
㉓ Hex. head nut DIN 985 - M 6 - 8	660794490
㉔ Wire rope clamp DIN 1142 - 5 mm	270151188
㉕ Tarpaulin cord Ø 8 mm	320135115

660028190

Spare parts/individual parts



Safety cable \varnothing 4 mm
 For connecting to headboard,
 length approx. 1000 mm, zinc
 plated steel.
660854310

Other spar
 lengths available
 on request.

Spar
 30 x 30 x 1.5 mm, DN 0, zinc
 plated steel.

Length [mm]	For roof outside width [mm]	
2310	2550	660034640

Tarpaulin holder
 Zinc plated steel.
660027550

Hat washer
 For fastening the tarpaulin, zinc
 plated steel.
660633950

Linkage
 Zinc plated steel.

Left hand	660027410
Right hand	660027420

Illustration: left hand.

Cranked link in front of tie bar carrier
Zinc plated steel.

Left hand **660026530**
Right hand **660026540**

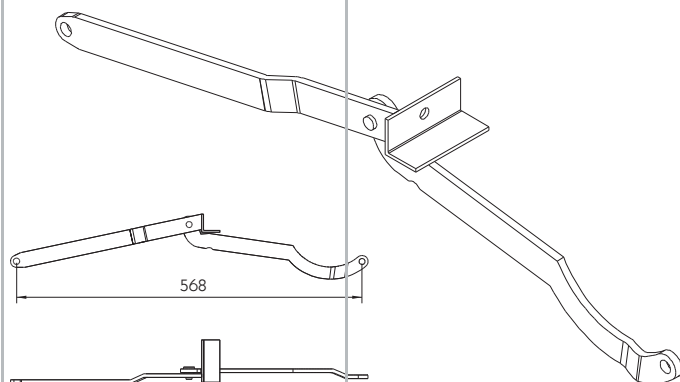


Illustration: left hand.

Cranked link behind tie bar carrier
Zinc plated steel.

Left hand **660026510**
Right hand **660026520**

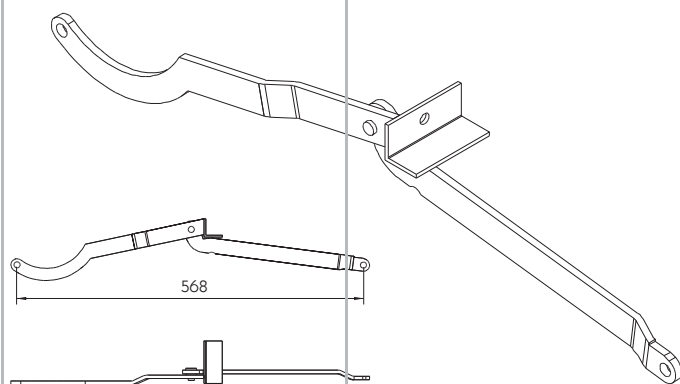


Illustration: left hand.

Compensating linkage
Zinc plated steel.

Left hand **660027430**
Right hand **660027440**

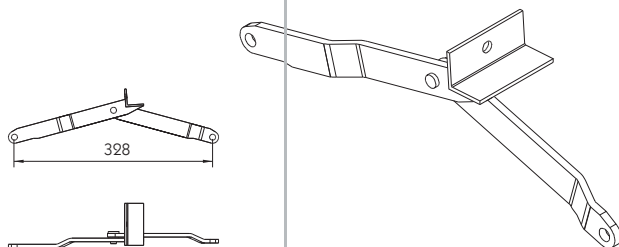


Illustration: left hand.

Compensating linkage
Zinc plated steel.

Left hand **660027450**
Right hand **660027460**

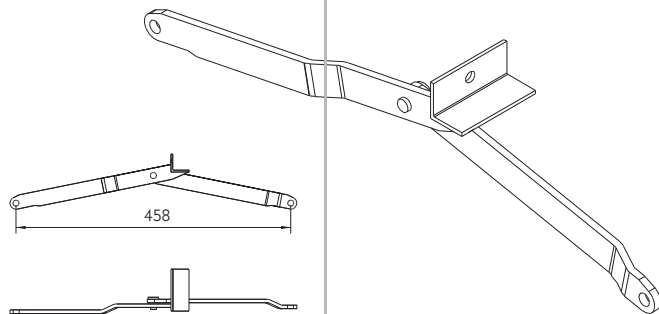


Illustration: left hand.

Linkage rivet
Zinc plated steel.
660845530



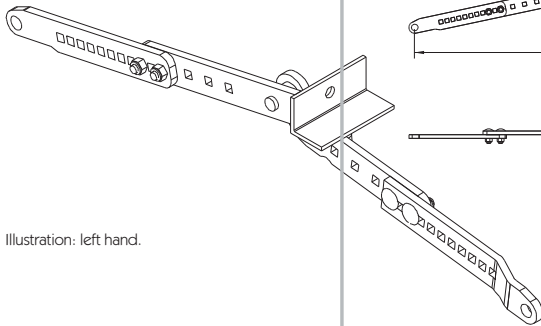


Illustration: left hand.

Adjustable compensating linkage

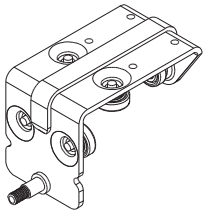
Zinc plated steel.

Left hand

660031210

Right hand

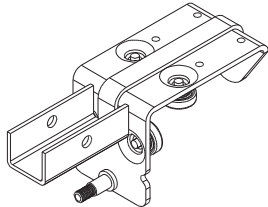
660031220



Roller carriage

With ball bearings, zinc plated steel.

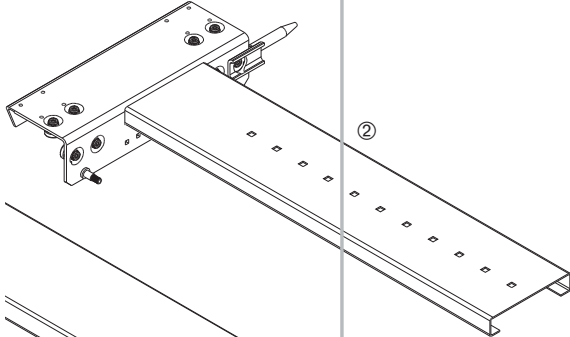
660026990



Tie bar carrier

With ball bearings, zinc plated steel.

660027040



End trolley

With ball bearings, KTL coated steel.

① Left hand

660032190

② Right hand

660032200



Ball bearing with rivet stud

Steel, gunmetal finish.

660850470



Ball bearing with threaded stud M 8

Steel, gunmetal finish.

660830040

Pull strap
Green.
660323350

Locating tube
Zinc plated steel.
660030240

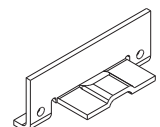
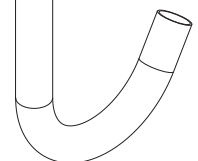
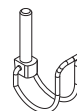
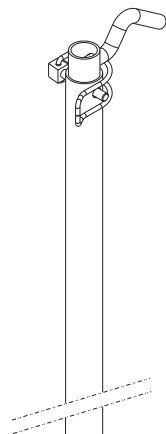
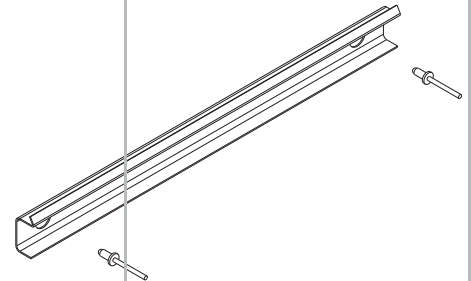
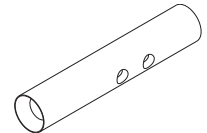
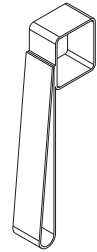
The set contains 2 channels and
4 blind rivets steel/steel - 4.8 x
14.3.

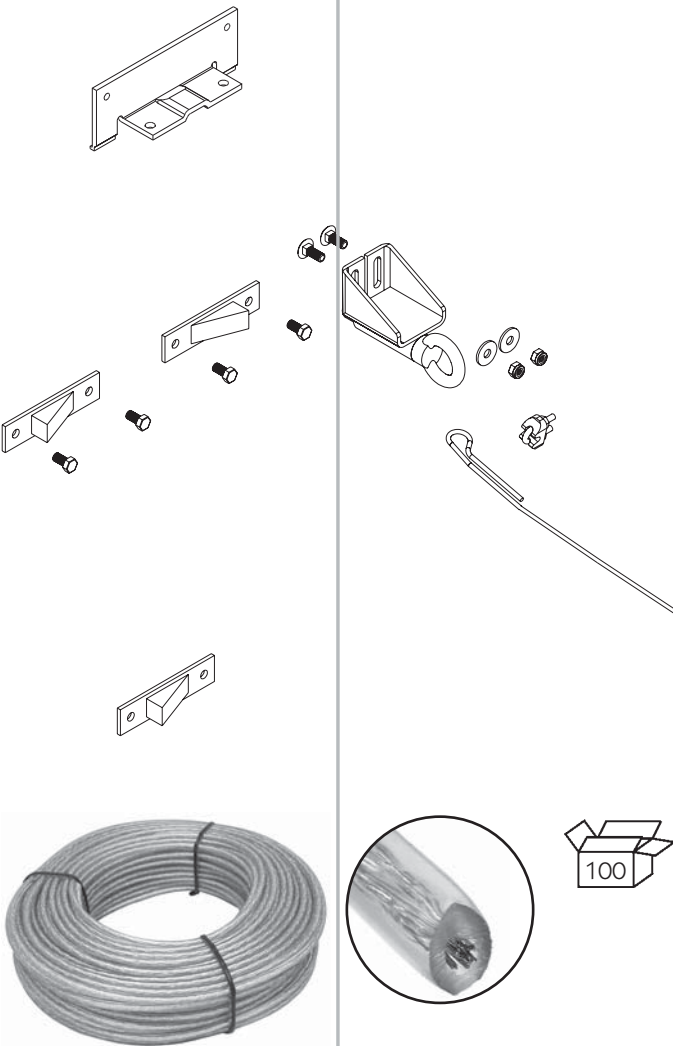
Guide channel
Set for top with end trolley
wedge/pull-cord locking device.
From stainless steel sheet.
660028490

Roof pole
Incl. tube linchpin, telescopic
from 2000 mm to 4000 mm
long, galvanised steel.
660025180

Tube linchpin
Ø 6 x 40, zinc plated steel.
660830190

Roller/ramp locking de-
vice for cant rail 80797
Zinc plated steel.
660031650





Roller/ramp locking device for cant rail 10050

Zinc plated steel.
660033030

Wedge/pull-cord locking device for cant rails 80797 and 10050

All parts zinc plated.
660028190

Includes 4 x wedge detents, 2 x locking devices, 1 x tarpaulin cord, length approx. 2500 mm, 2 x wire rope clamps DIN 1142 - 5 mm, 8 x hex, head screws DIN 933 - M 6 x 12, 4 x carriage bolts DIN 603 - M 6 x 12, 4 x washers DIN 9021 - A 6.4 and 4 x hex. nuts DIN 985 - M 6 - 8.

Wedge detent

Loose, zinc plated steel.
660027320

Tarpaulin cord Ø 8 mm

Transparent plastic with steel wire core.

320135115

Screws and fixing materials to DIN standards

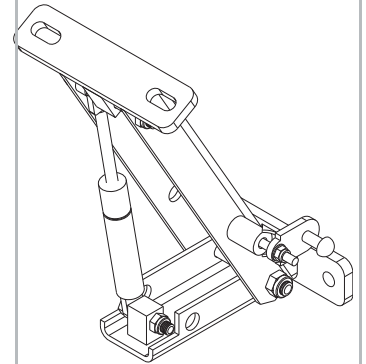
All parts zinc plated.

Washer DIN 125 - A 6.4	660785760
Washer DIN 125 - A 8.4	660785280
Washer DIN 125 - A 10.5	660785660
Carriage bolt DIN 603 - M 8 x 42	660782250
Hex. nut DIN 985 - M 6 - 8	660794430
Hex. nut DIN 985 - M 8 - 8	660794590
Hex. nut DIN 985 - M 10 - 8	660794490
Hex. head screw similar to DIN 931 - M 8 x 38	660783310
Hex. head screw DIN 931 - M 10 x 110	660781480
Hex. head screw DIN 933 - M 8 x 25	960970007
Hex. head screw DIN 933 - M 10 x 25	960970014
Wire rope clamp DIN 1142 - 5 mm	270151188
Blind rivet DIN 7337 - 5.0 x 10 mm	660305430

Accessories for Curtain-
sider tops "Lite 100",
"Profi 100" and "Lite Plus"

Each set consists of one left hand
and one right hand construction.

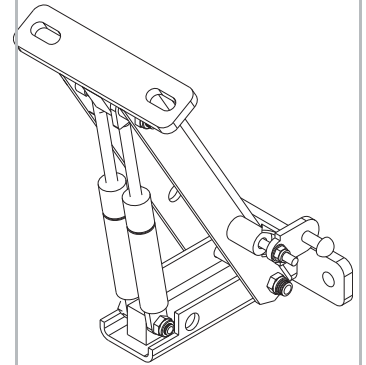
End lifter 700 N
Set, KTL coated steel.
660027300



Illustrations:
left hand construction, lifted.

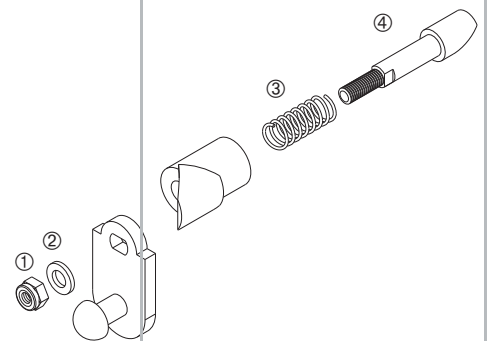
Each set consists of one left hand
and one right hand construction.

End lifter 2 x 500 N
Set, KTL coated steel.
660027301



Spring bolt set
For latch on end lifters 700 N
and 2 x 500 N. Supplied as illu-
strated.
660027251

Spring bolt set
Available individual parts

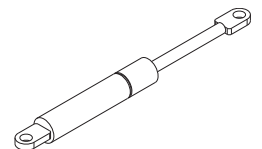


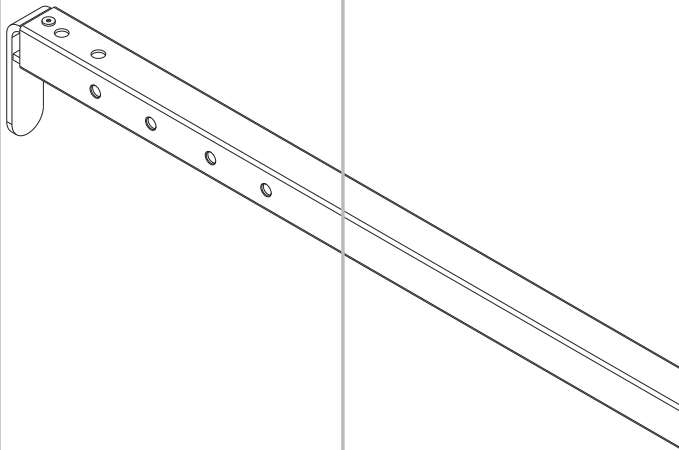
Item

① Hex. head nut DIN 985 - M 6 - 8	660794430
② Washer DIN 125 - A 6.4	660785760
③ Pressure spring, zinc plated	660625140
④ Locking bolt, bevelled, zinc plated	660740500

Gas strut

500 N	660728290
700 N	660750990





End spar

35 x 35 x 2.0 mm, DN 0, with tarpaulin deflector and pull strap, steel parts zinc plated.

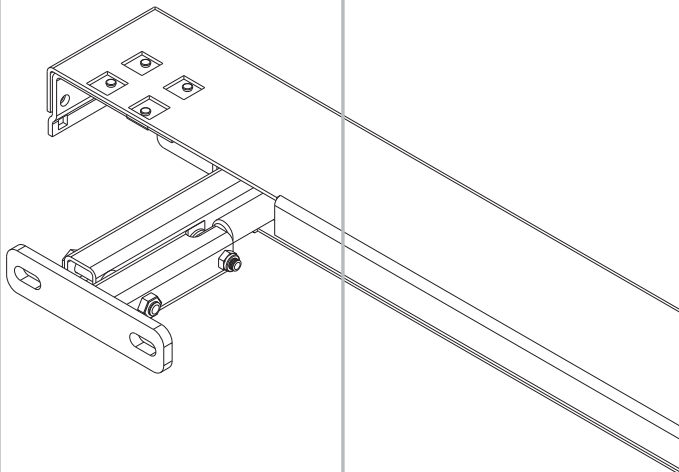
Overall length [mm]

2550

660035360

Made to order

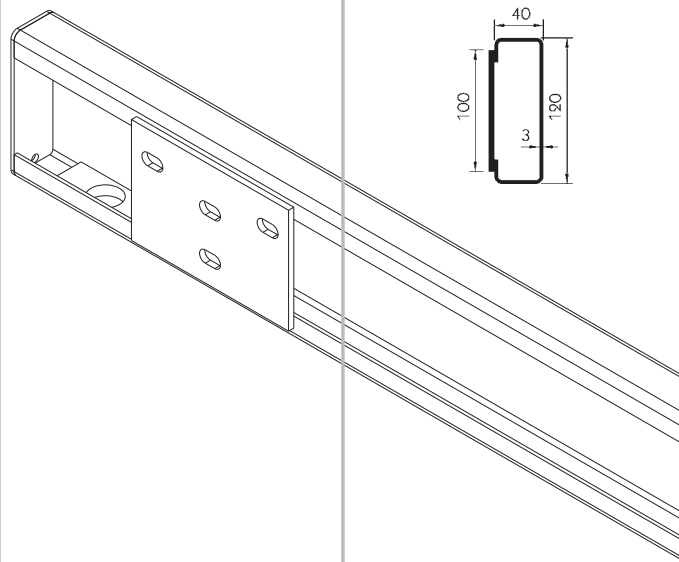
660027910



Portal beam

With integrated end lifter and gas strut 700 N, KTL coated steel.

Due to the many design variations, only available on request.

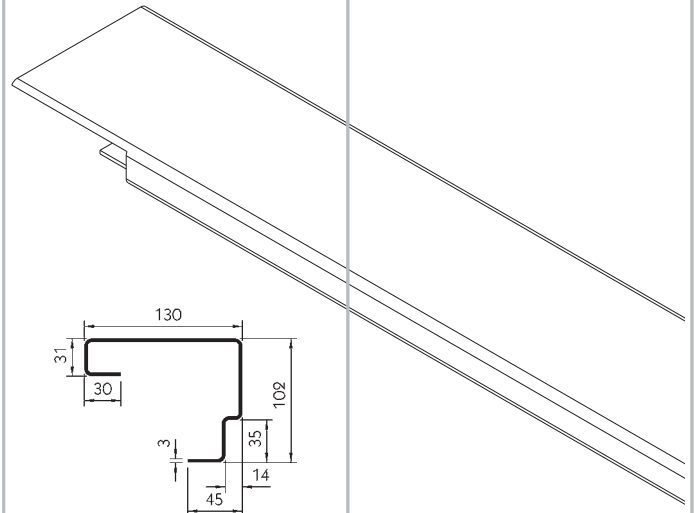


Cargotrail crossbar

Steel crossbar, overall length 2550 mm, black, KTL coated.

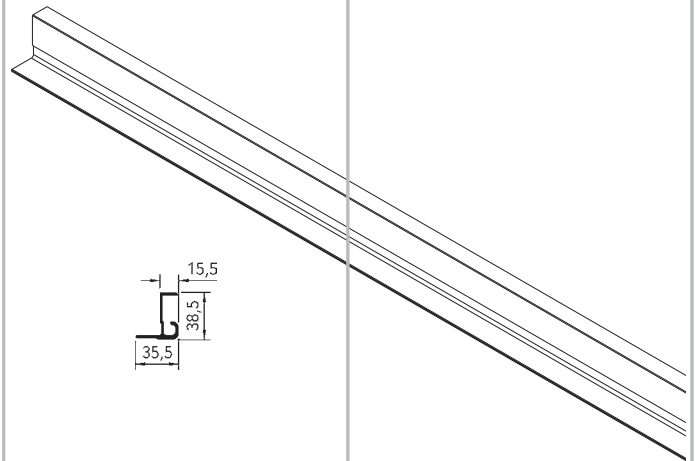
672900020

Crossbar for PWP Contact door sealing system
Steel crossbar, overall length 2550 mm, black, KTL coated.
670212105

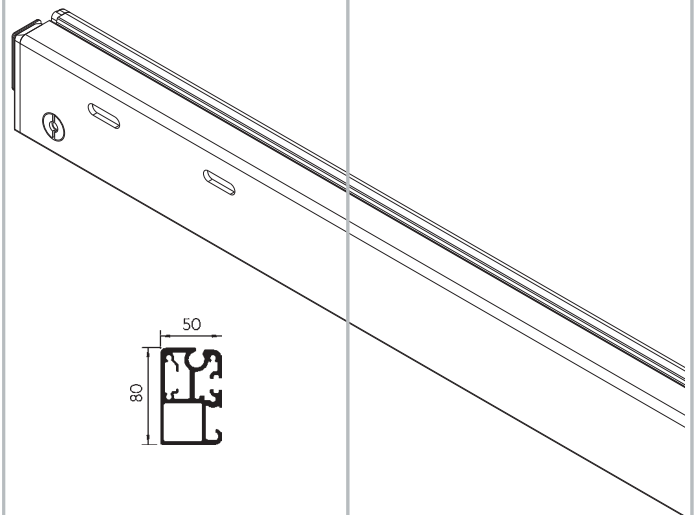


PWP aluminium profile rain channel
Overall length 2550 mm, aluminium self colour.
643015188

No longer available



PWP Contact 80 crossbar
Aluminium crossbar for PWP Contact door sealing system. Supply includes: aluminium crossbar, aluminium filler profile, 1 x left hand cap and 1 x right hand cap, 2 x clamping plates, 2 x c/sunk screws DIN 7991 - M 8 x 35.2 x c/sunk nuts M 8 and 8 x c/sunk screws DIN 7500 M - M 5 x 20 Z. Length o/a 2550 mm, crossbar and filler profile aluminium anodised, zinc plated steel.
674000020



PWP stop plate
For PWP aluminium crossbar Contact, steel, self colour, weight 0.68 kg.

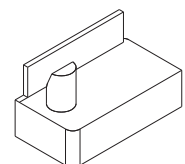
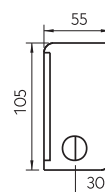


Illustration: left hand

Left hand	643027021
Right hand	643027022

On every Top you will find a name plate in various places.
Please state the roof number with every order for spare parts.



Roof no.

Type

Roof no: From the roof no., Edscha can identify the complete original supply including the manufactured dimensions and construction.

Type: From the second number, the cover type can be identified.

Curtainsider „Mixliner“

With the "Mixliner" curtainsider sliding top, control of the lifting and folding of the roof tarpaulin is by means of plastic links placed at 600 mm intervals or 700 mm intervals. Vertically and laterally mounted ball bearings in roller carriers provide simple and twist free operation of the top from ground level with the aid of a telescopic roof pole.

- Included are the roller carriages with the plastic links (type 2), the roof spars, the end trolley and the end beam/portal beam.
- Roller carriage with plastic bonded lateral ball bearings.
- Steel roof spars, zero pitch, spaced at 600 mm or 700 mm intervals, travelling on the track rails when opening.
- First front spar with 400 mm plastic links.
- End trolley as travelling crossmember with integrated end lift (each side 2 x 600 N gas struts).
- Standard outside width 2550 mm.
The external width is measured at the outermost edges of the curtainsider profiles (cant rail).
- Length up to 13760 mm.
- Roof assembly, with the exception of the end beam/portal beam crossmember is completely zinc plated, end beam/portal beam is black KTL coated.
- Weight without cant rail approx. 7 kg/m.

The aluminium cant rail and their accessories are not supplied, and must be ordered separately.

Special designs:

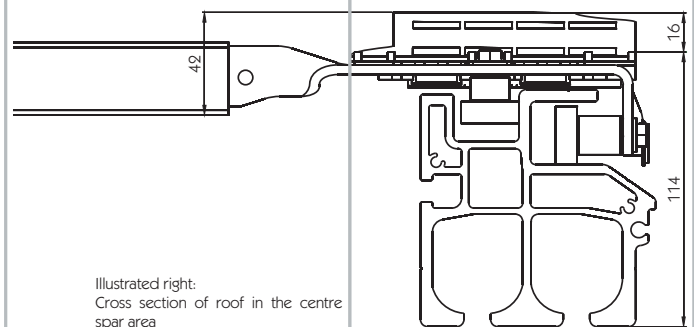
- Top can be opened towards both ends.
- Aluminium roof spars.

Order notice:

This top is not customer-specific. It is build out of standard components. These are:

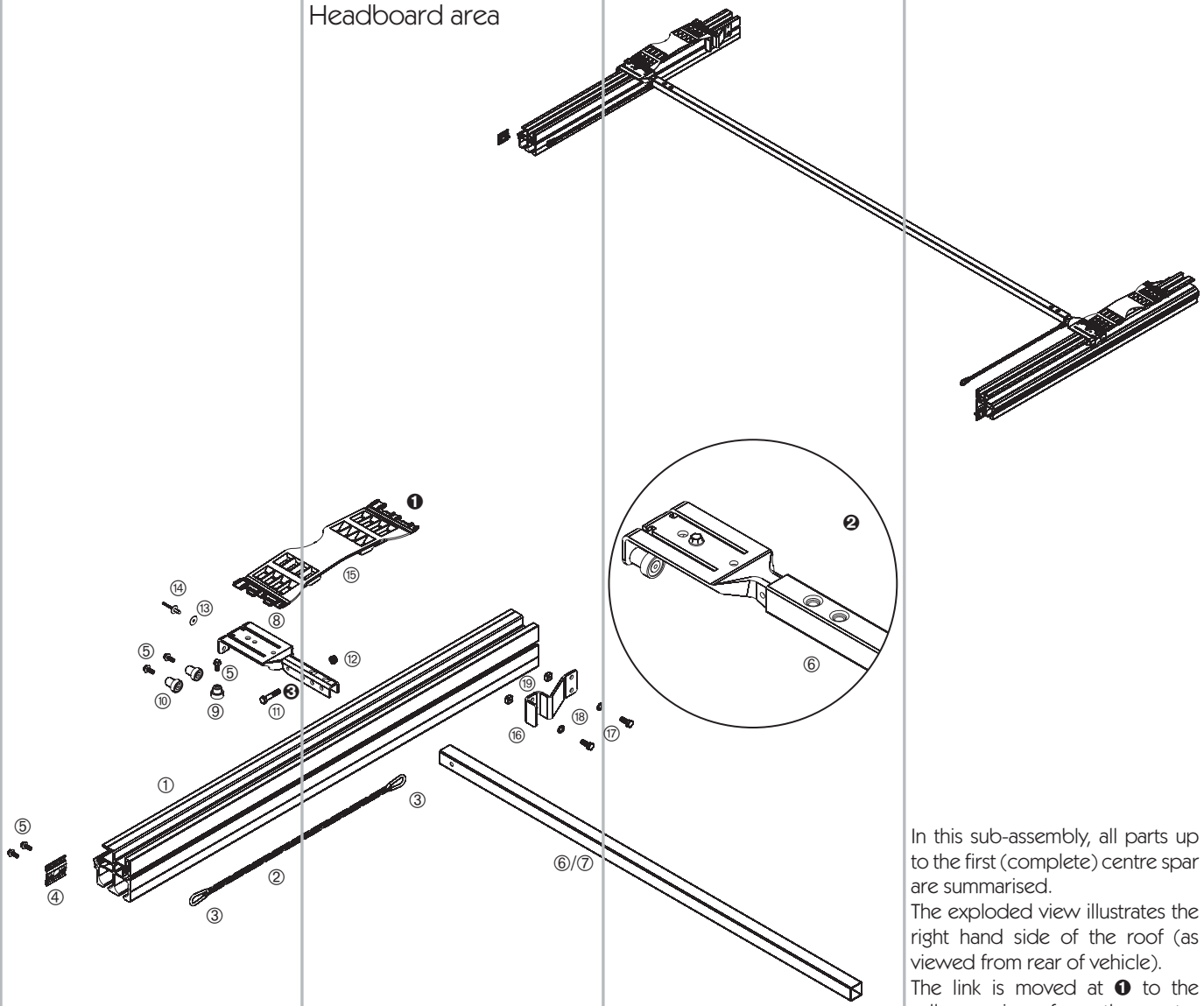
- Spars complete 650000001, number depends on length of bodywork and space of spars.
- Links type 2 in nominal length of 400 mm 650000208, 600 mm 650000209 or 700 mm 650000210. Number and nominal length depend on length of bodywork and space of spars.
- End trolley complete 650000003.
- End beam/portal beam 650000004.
- Roof pole 650000008.
- Accessory set 650000009.
- Cant rail Mixliner, currently can be supplied in length 6500 mm 650000055, 7500 mm 650000056 or 8500 mm 650000057. In addition PVC sealing grey or black (article no. 650000010 - 650000015).
- Mounting kit 650000018.

The top "Mixliner" standard version is rapidly available, because all articles mentioned are stock articles.



Illustrated right:
Cross section of roof in the centre spar area

Spare parts overview Headboard area



Headboard area

This sub-assembly consists of:

Item	
① Cant rail Mixliner 2004, see page 950	vehicle dependant
② Safety chain	650000041
③ Snap hook DIN 5299, form C - 5 mm	215131689
④ Cable clamp, wide	650000043
⑤ Serrated screw with flange - M 6 x 16	650000033
⑥ Spar complete with roller carriage, see page 914	vehicle dependant
⑦ Spar (only tube), see page 915	vehicle dependant
⑧ Roller carriage	650000028
⑨ Ball bearing, plastic coated, M 6 - Ø 16 x 10 mm	650000032
⑩ Ball bearing, plastic coated, M 6 - Ø 16 x 17 mm	650000029
⑪ Hex. head screw DIN 931 - M 8 x 40	960970310
⑫ Hex. nut DIN 985 - M 8 - 8	660794590
⑬ Washer PVC	650000046
⑭ Blind rivet with large die head - 4.8 x 12 mm	650000045
⑮ Linkage type 2, 400 mm	650000208
⑯ Stop safety device	650000040
⑰ Hex. head screw DIN 933 - M 8 x 20	960970006
⑱ Serrated lock washer DIN 6798 - A 8.4	not available
⑲ Square nut DIN 557 - M 8	not available

In this sub-assembly, all parts up to the first (complete) centre spar are summarised.

The exploded view illustrates the right hand side of the roof (as viewed from rear of vehicle).

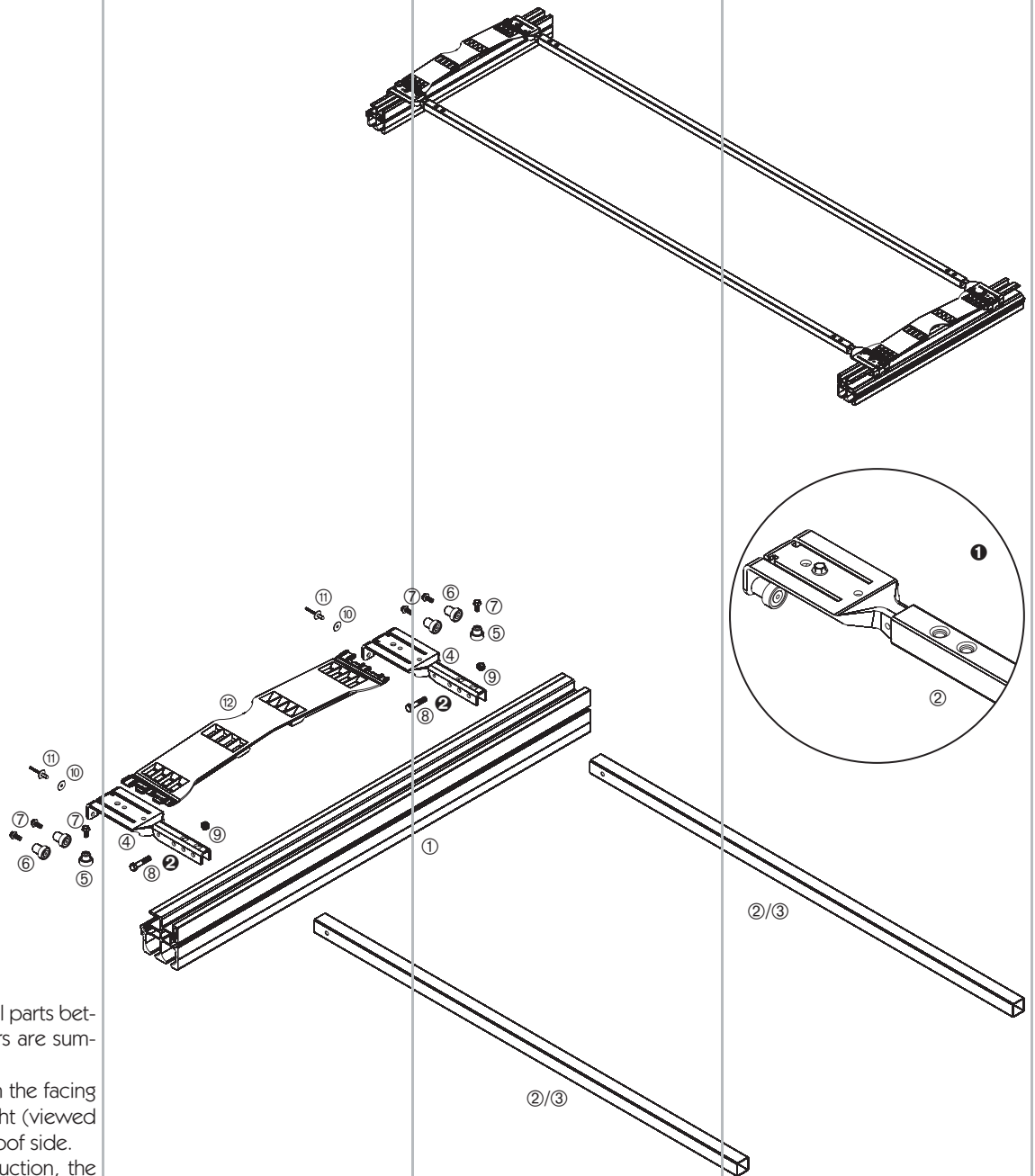
The link is moved at ① to the roller carriage from the centre spar area.

In the new roof production, the roller carriages are pressed into the spar ②. In the event of repair, the roller carriage and spar can therefore only be separated by destroying the spar. Although a screwed assembly has been provided for in the event of repair ③, it is recommended that a complete spar ⑥ is ordered where it has become necessary to replace a roller carriage or a spar.

Vehicle dependant parts are available in several designs, e.g. in various lengths. Please note that various components also include other parts itemised in the table and illustrations. Please note that various components also include other parts itemised in the table and illustrations.

All available individual parts and the extent of their supply can be found from page 914, cant rails can be found from page 950.

Centre spar



In this sub-assembly, all parts between two centre spars are summarised.

The exploded view on the facing page illustrates the right (viewed from rear of vehicle) roof side.

In the new roof production, the roller carriages are pressed into the spar ①. In the event of repair, the roller carriage and spar can therefore only be separated by destroying the spar. Although a screwed assembly has been provided for in the event of repair ②, it is recommended that a complete spar ② is ordered where it has become necessary to replace a roller carriage or a spar.

Vehicle dependant parts are available in several designs, e.g. in various lengths. Please note that various components also include other parts itemised in the table and illustrations.

All available individual parts and the extent of their supply can be found from page 914, cant rails can be found from page 950.

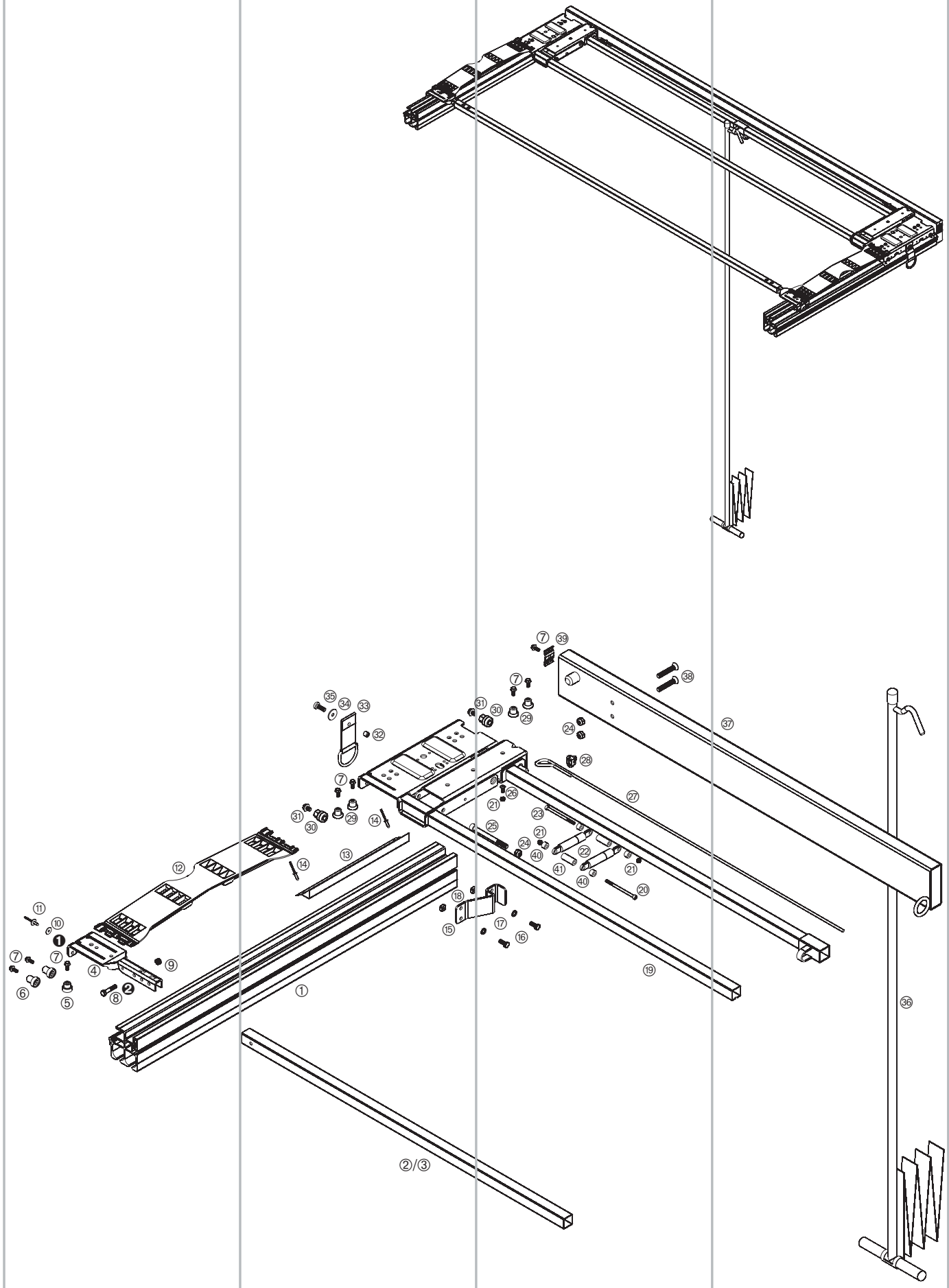
Centre spar

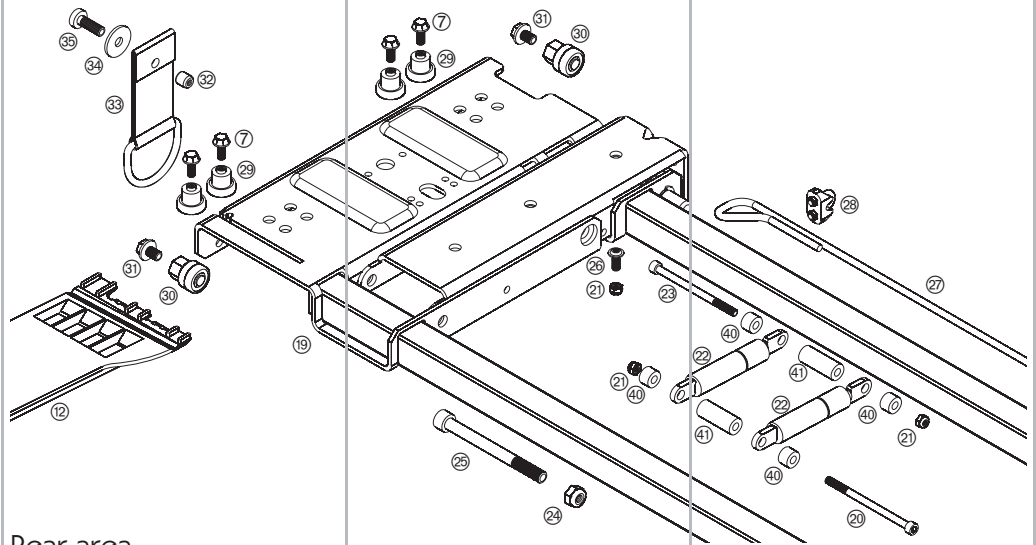
This sub-assembly consists of:

Item

①	Cant rail Mixliner 2004, see page 950	vehicle dependant
②	Spar complete with roller carriage, see page 914	vehicle dependant
③	Spar (only tube), see page 915	vehicle dependant
④	Roller carriage	65000028
⑤	Ball bearing, plastic coated, M 6 - Ø 16 x 10 mm	65000032
⑥	Ball bearing, plastic coated, M 6 - Ø 16 x 17 mm	65000029
⑦	Serrated screw with flange - M 6 x 16	65000033
⑧	Hex. head screw DIN 931 - M 8 x 40	960970310
⑨	Hex. nut DIN 985 - M 8 - 8	660794590
⑩	Washer PVC	65000046
⑪	Blind rivet with large die head - 4.8 x 12 mm	65000045
⑫	Linkage type 2, see page 915	vehicle dependant

Rear area





Rear area

This sub-assembly consists of:

Item

①	Cant rail Mixliner 2004, see page 950	vehicle dependant
②	Spar complete with roller carriage, see page 914	vehicle dependant
③	Spar (only tube), see page 915	vehicle dependant
④	Roller carriage	650000028
⑤	Ball bearing, plastic coated, M 6 - Ø 16 x 10 mm	650000032
⑥	Ball bearing, plastic coated, M 6 - Ø 16 x 17 mm	650000029
⑦	Serrated screw with flange - M 6 x 16	650000033
⑧	Hex. head screw DIN 931 - M 8 x 40	960970310
⑨	Hex. nut DIN 985 - M 8 - 8	660794590
⑩	Washer PVC	650000046
⑪	Blind rivet with large die head - 4.8 x 12 mm	650000045
⑫	Linkage type 2, see page 915	vehicle dependant
⑬	Latch plate	650000044
⑭	Blind rivet with mushroom head- 4.8 x 14 mm	not available
⑮	Stop safety device	650000040
⑯	Hex. head screw DIN 933 - M 8 x 20	960970006
⑰	Serrated lock washer DIN 6798 - A 8.4	not available
⑱	Square nut DIN 557 - M 8	not available
⑲	End trolley complete, for top outer width 2550 mm	650000003
⑳	Allen head screw with cheese head similar DIN 912 - M 6 x 95	not available
㉑	Hex. nut DIN 985 - M 6 - 8	660794430
㉒	Gas spring strut 600 N	650000039
㉓	Allen head screw with cheese head similar DIN 912 - M 6 x 90	not available
㉔	Hex. nut DIN 985 - M 10 - 8	660794490
㉕	Allen head screw with cheese head similar DIN 912 - M 10 x 110	not available
㉖	Lens head screw with hex. head bolt similar ISO 7380 - M 6 x 16	not available
㉗	Tarpaulin cord Ø 6 mm	not available
㉘	Wire rope clamps DIN 741 - M 5	270151102
㉙	Ball bearings, M 6 - Ø 16 x 12 mm	650000036
㉚	Double ball bearings with hexagon connection, M 8	650000037
㉛	Serrated screw with flange - M 8 x 12	650000038
㉜	Clinch nut - M 8	not available
㉝	Pull cable	not available
㉞	Washer	not available
㉟	Lens head screw DIN 7985 - M 8 x 25	not available
㊱	Roof pole	650000008
㊲	End beam/portal beam	650000004
㊳	Countersink screw with hexagon socket DIN 7991 - M 10 x 60	not available
㊴	Cable clamp, small	650000042
㊵	Bush Ø 15 x 7 - 10 mm	not available
㊶	Bush Ø 15 x 7 - 38 mm	not available

In this sub-assembly, all parts of the basis top from the last (complete) centre spar, the end trolley up to the end beam/portal beam (which are serially included in the supply) are summarised.

The exploded view on the previous page illustrates the right hand side of the roof (as viewed from rear of vehicle).

Further linkages are moved at ① to the roller carriage from the centre spar area.

In the new roof production, the roller carriages are pressed into the spar. In the event of repair, the roller carriage and spar can therefore only be separated by destroying the spar. Although a screwed assembly has been provided for in the event of repair ②, it is recommended that a complete spar ② is ordered where it has become necessary to replace a roller carriage or a spar.

Vehicle dependant parts are available in several designs, e.g. in various lengths. Please note that various components also include other parts itemised in the table and illustrations.

All available individual parts and the extent of their supply can be found from page 914, cant rails can be found from page 950.

Spare parts/individual parts

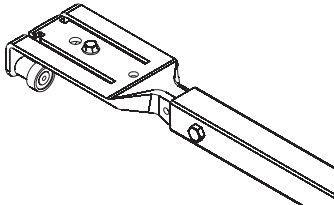
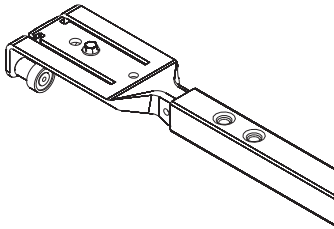
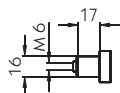
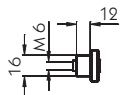
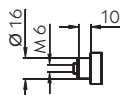
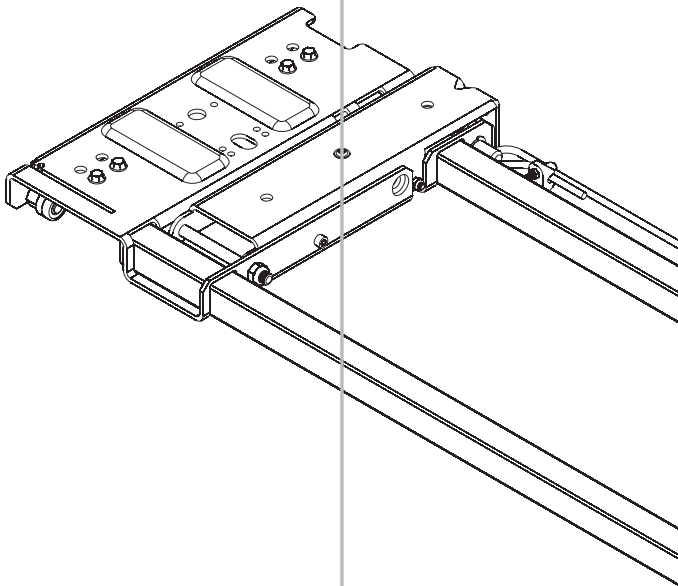
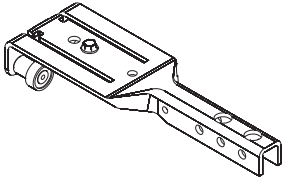


Illustration: Spar complete with steel spar tube.



Spars complete With trolley, pressed.

Top outer width [mm]	Spar tube	
2550	steel	65000001
2600	steel	65000002

Spars complete With trolley, screwed.

Top outer width [mm]	Spar tube	
2550	steel	65000025
2550	Aluminium	65000024

Roller carriage With ball bearings, steel zinc plated.

65000028

End trolley complete

For top outer width 2550 mm, with ball bearings, connected height end beam 100 mm, steel zinc plated.

65000003

Ball bearing Plastic coated.

65000032

Ball bearing

65000036

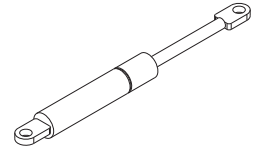
Ball bearing Plastic coated.

65000029

Double ball bearing
With hexagon connection, M 8.
650000037

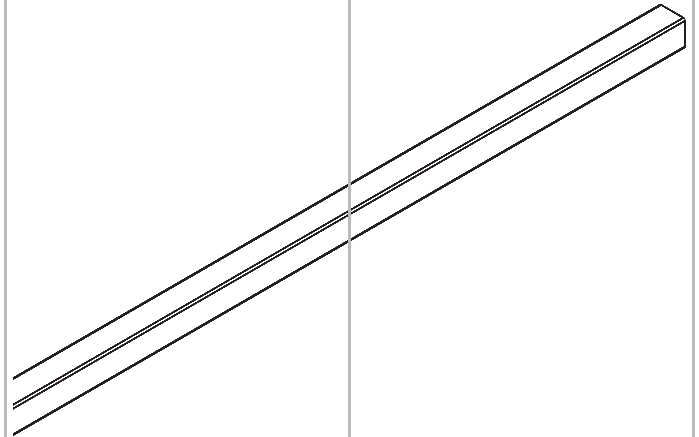


Gas spring strut 600 N
650000039



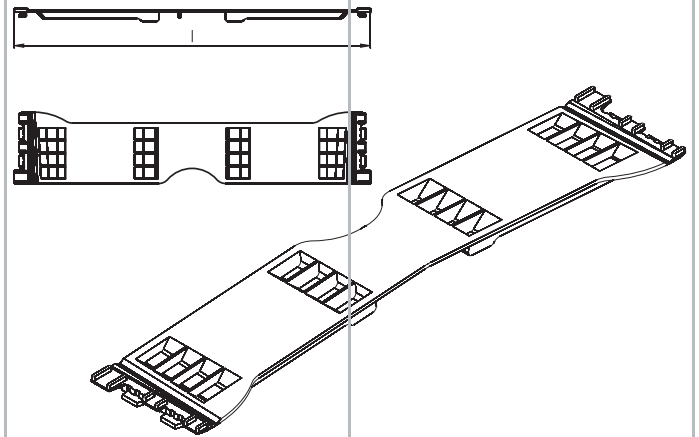
Spar
Length 2185 mm for top outer
width 2550 mm.

Type	Dim. tube [mm]	
Steel	30 x 30 x 1.5	650000034
Aluminium	--	650000035

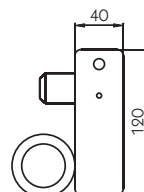
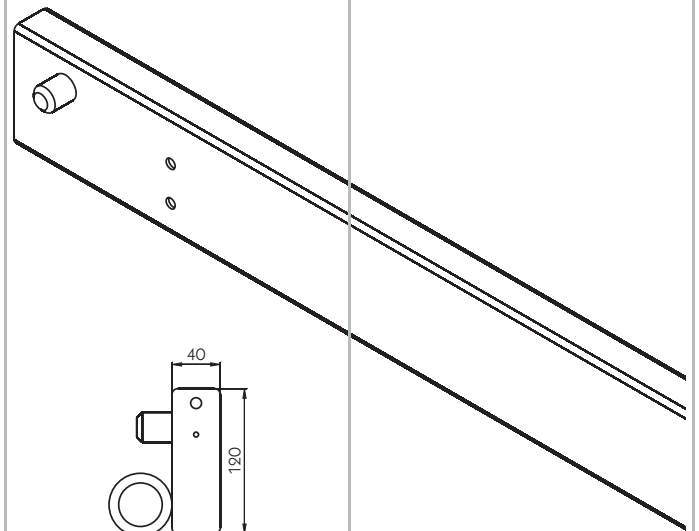


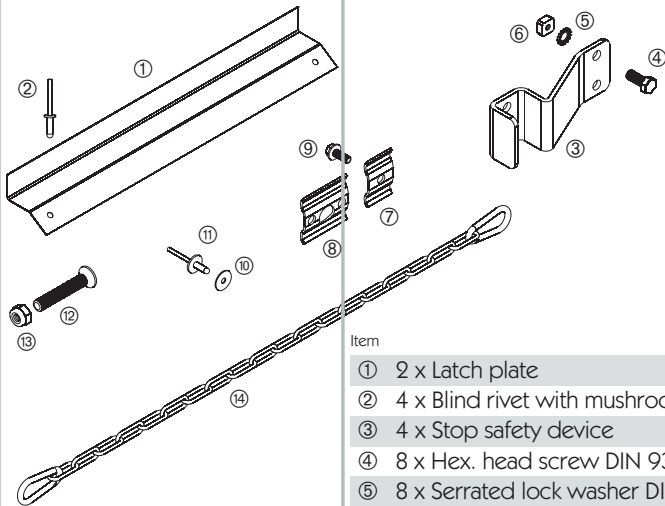
Linkage
Type 2, plastic.

Nominal length [mm]	Dim. l [mm]	
400	389	650000208
600	589	650000209
700	689	650000210



End beam/portal beam
Steel crossbar, length 2530 mm
for top outer width 2550 mm,
black KTL coated.
650000004





Accessory set
For cant rails Mixliner 2002 - 2004. Weight complete 2.40 kg.
Included are:

Item

①	2 x Latch plate	650000044
②	4 x Blind rivet with mushroom head 4.8 x 14	not available
③	4 x Stop safety device	650000040
④	8 x Hex. head screw DIN 933 - M 8 x 20	960970006
⑤	8 x Serrated lock washer DIN 6798 - A 8.4	not available
⑥	8 x Square nut DIN 557 - M 8	not available
⑦	2 x Cable clamp, small	650000042
⑧	2 x Cable clamp, wide	650000043
⑨	6 x Serrated screw with flange - M 6 x 16	650000033
⑩	60 x Washer PVC	650000046
⑪	60 x Blind rivet with large die head - 4.8 x 12	650000045
⑫	4 x Countersink screw with hexagon socket DIN 7991 - M 10 x 60	not available
⑬	4 x Hex. nut DIN 985 - M 10 - 8	660794490
⑭	2 x Safety chain with snap hook 5 mm	650000041

650000009

Latch plate
Rustless steel.

650000044

Stop safety device

For end trolley latch, steel zinc plated.

650000040

Cable clamp, small

For tensioning rear roof tarpaulin, rustless steel.

650000042

Cable clamp, wide

For tensioning front roof tarpaulin, rustless steel.

650000043

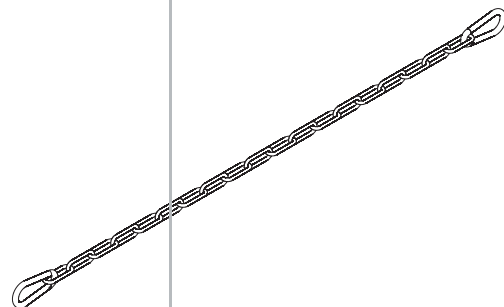
Washer PVC

650000046

Safety chain with snap hook 5 mm

For headboard connection, length o.a. approx. 500 mm, steel zinc plated.

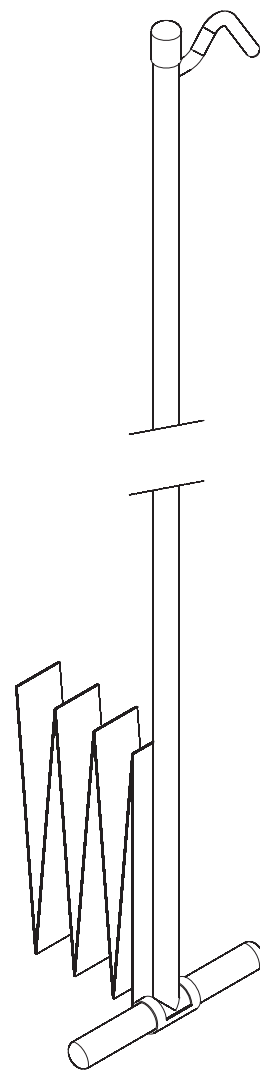
650000041



Roof pole

1900 mm towing band, steel zinc plated.

650000008




Screw and fixing material in accordance to DIN

All parts zinc plated.

Wire rope clamps DIN 741 - M 5	270151102
Hex. head screw DIN 931 - M 8 x 40	960970310
Hex. head screw DIN 933 - M 8 x 20	960970006
Hex. nut DIN 985 - M 6 - 8	660794430
Hex. nut DIN 985 - M 8 - 8	660794590
Hex. nut DIN 985 - M 10 - 8	660794490
Snap hook DIN 5299, form C - 5 mm	215131689
Blind rivet with large die head - 4,8 x 12 mm	650000045
Serrated screw with flange - M 6 x 16	650000033
Serrated screw with flange - M 8 x 12	650000038
Serrated screw with flange - M 10 x 40	650000050

On every Top you will find a name plate in various places.
Please state the roof number with every order for spare parts.



Roof no.: From the roof no., Edscha can identify the complete original supply including the manufactured dimensions and construction.

Type: From the second number, the cover type can be identified.

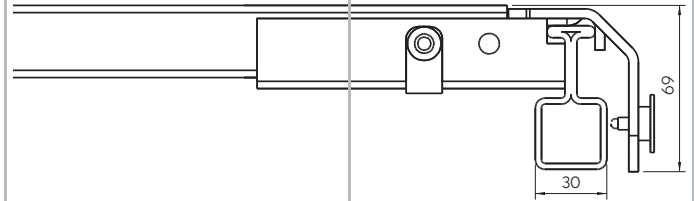
Full tarpaulin „Eco 65“
 Type 2978.9200

The tarpaulin fixed roofs from the Eco model series can also be rolled up and retro-converted to sliding roofs. The roof spars are clamped to the track rails with a positive fit using clevis pins and additionally fixed to the first and last spar with tensioning cable via the tarpaulin. This cover is the full tarpaulin variant of the Eco model series.

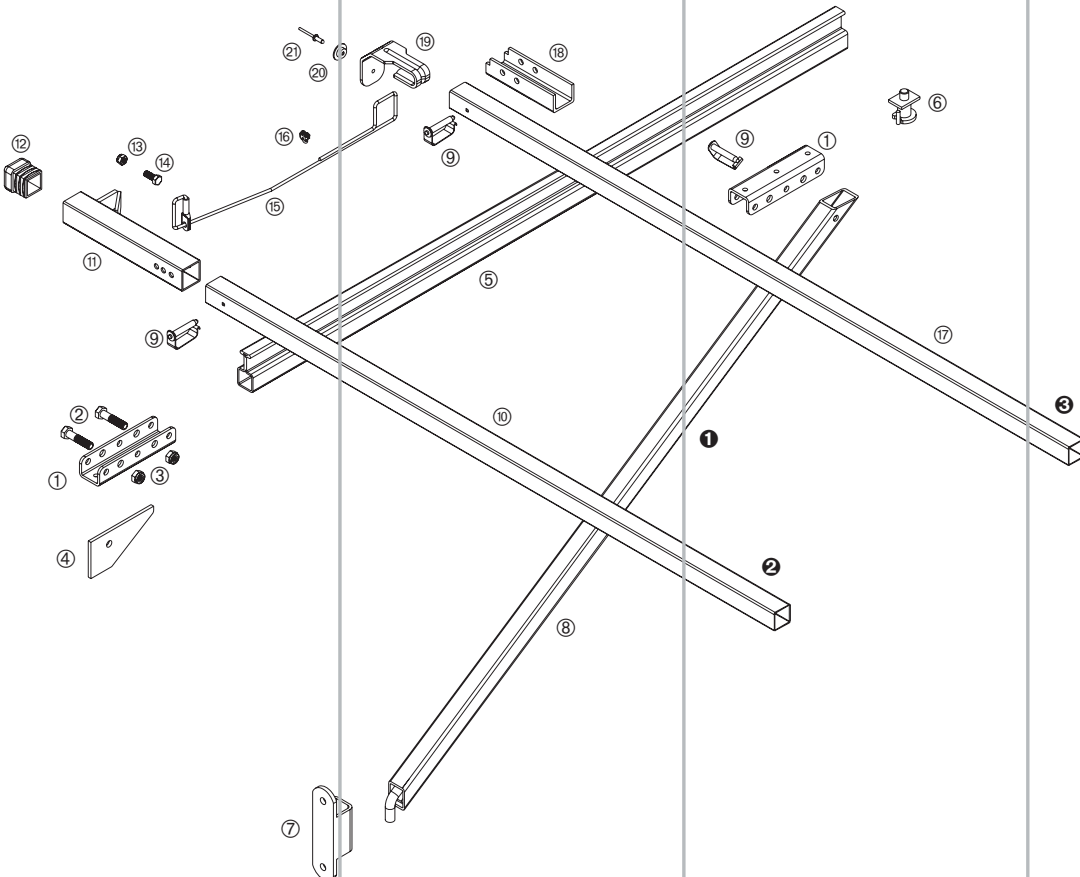
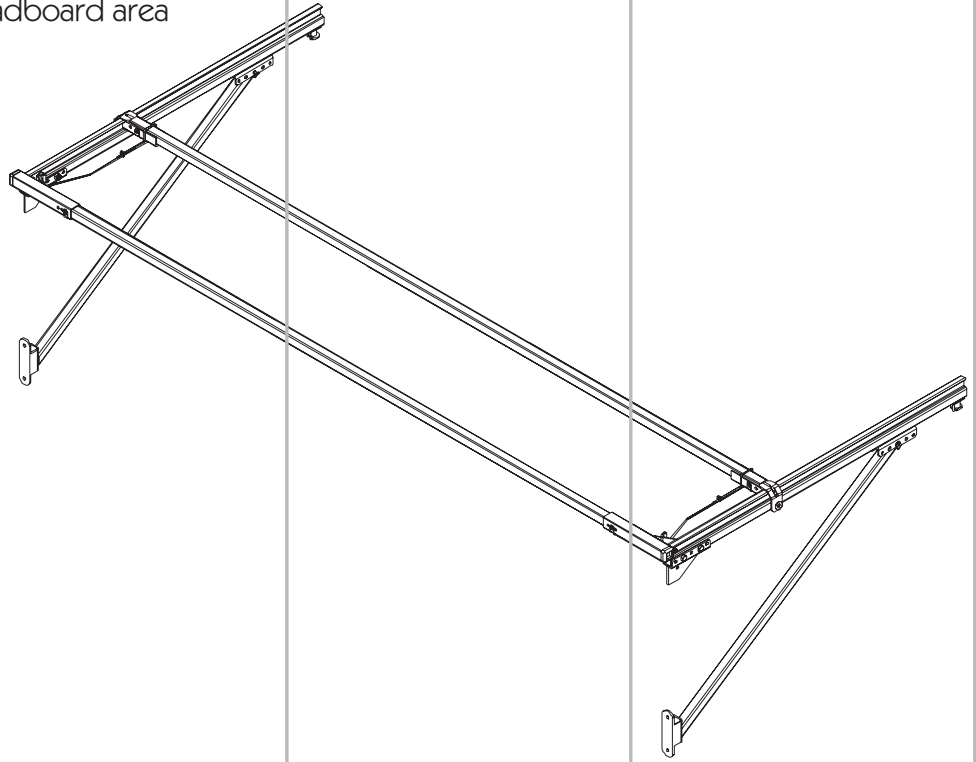
- Included in the supply is the headboard spar in duplicate (front and rear), the roof spars, the track rails, 4 tensioning cables, the fixing material on the track rails and the connections for the under-body.
- Steel roof spars, not pitched, spaced at 570 mm.
- Track rails, 1-piece up to 7000 mm, 2-piece up to 10000 mm and 3-piece up to 14000 mm roof length.
- A support connection kit is included for each piece for connecting the centre pillars to the running rails.
- Rail latch mounted underneath on the track rails.
- Standard outside widths of 2495 mm, 2520 mm, 2550 mm or 2600 mm. The external width is measured at the outermost edges of the tarpaulin holder.
- Length up to 16000 mm.
- Roof spars, track rails, tarpaulin holders and fixing material zinc plated, U rails KTL coated.
- Weight approx. 9.6 kg/m.

Special designs:

- Spar spacing, 650 mm.
- Special sectioning of the track rails with or without support (strut), height adjustable support on request.
- Rail latch mounted on the side of the track rails.
- Top supplied without track rails and their connections for the under-body.
- Deviation from standard outside width up to maximum 2600 mm.
- (Pillar) tie bars.
- Couplers for centre pillars.



Spare parts overview Headboard area



In this sub-assembly, all parts of the basic top up to the first (complete) centre spar are summarised. In addition, parts for the option "Special sectioning of the track rails...with support..." ❶, consisting of items ❶, ❷, ❸ and ❹ are illustrated.

The exploded view on the facing page illustrates the right (viewed from rear of vehicle) roof.

There are further spare parts for the rail latch ❻ which are itemised under the individual parts.

The spars are only connected to each other by the tarpaulin. We advise connecting the headboard spar tube ❷ to the tarpaulin with buckled webbing, or similar, in at least 5 places, and each centre spar ❸ in at least 3 places.

Vehicle dependant parts are available in several designs, e.g. in various lengths. Please note that various components also include other parts itemised in the table and illustrations.

All available individual parts and the extent of their supply can be found from page 924.

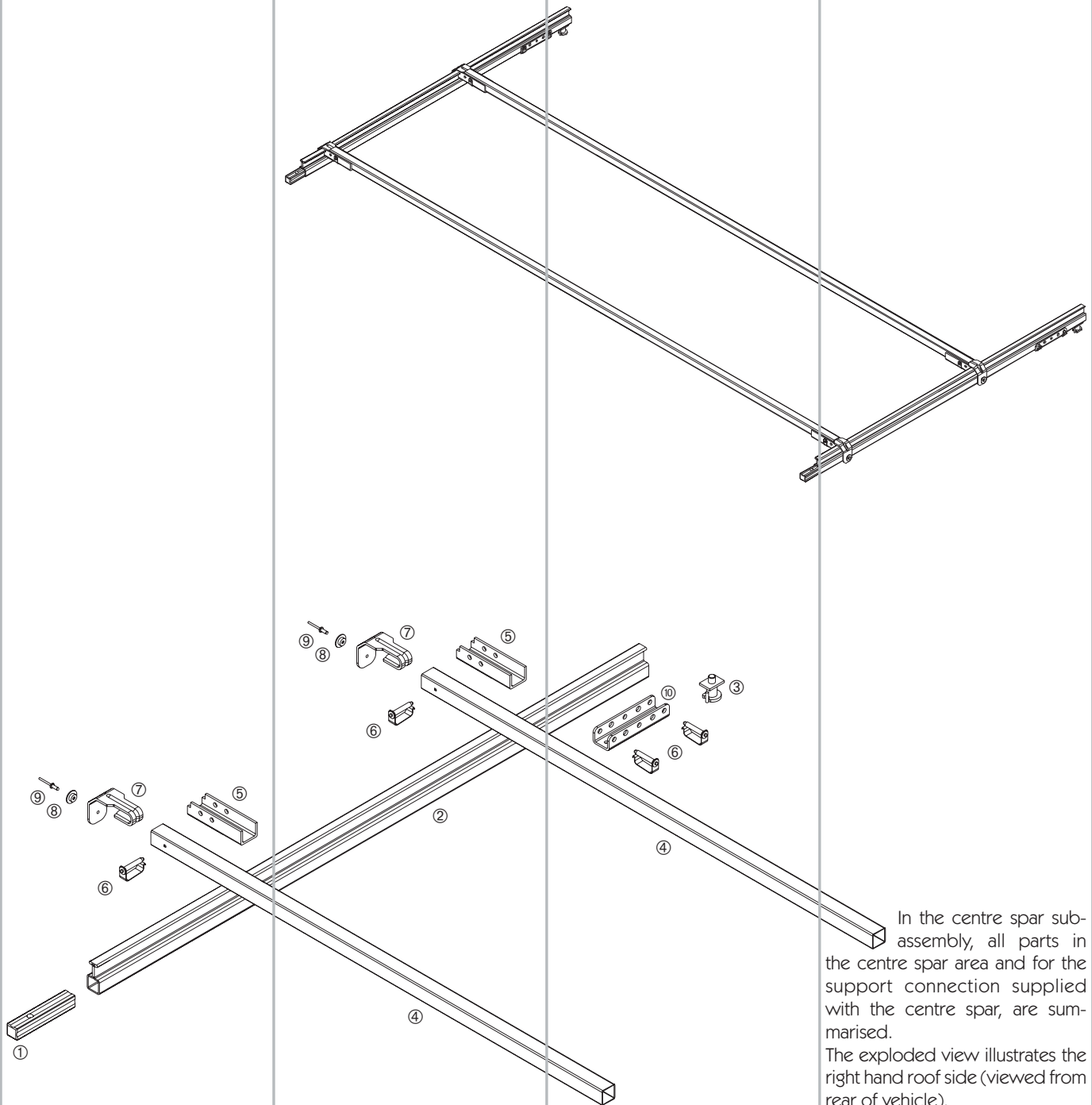
Headboard area

This sub-assembly consists of:

Item

❶	Cantilever saddle	660030640
❷	Hex. head screw DIN 931 - M 10 x 50	660781030
❸	Hex. head nut DIN 985 - M 10 - 8	660794490
❹	Gusset plate (corner plate)	660010310
❺	Track rail or cantilever track rail, left hand, left hand, <i>see page 924</i>	vehicle dependant
	Track rail or cantilever track rail, right hand (illustrated)	vehicle dependant
❻	Rail latch	660033550
❼	Strut socket	vehicle dependant
❽	Strut	vehicle dependant
❾	Locking pin clip	660855200
❿	Spar, here as headboard spar	660035210
⓫	Headboard spar holder, left hand	660030950
	Headboard spar holder, right hand (illustrated)	660030960
⓬	End plug (for end spar)	660324980
⓭	Hex. nut DIN 985 - M 8 - 8	660794590
⓮	Hex. head screw DIN 933 - M 8 x 20	960970006
⓯	Safety cable Ø 4 mm	660854310
⓰	Wire rope clamp DIN 1142 - 5 mm	270151188
⓱	Spar	on request
⓲	U rail	660033390
⓳	Tarpaulin holder	660033380
⓴	Hat washer	660633950
⓵	Blind rivet DIN 7337 - 5.0 x 10 mm	660305430

Centre spar



Centre spar

This sub-assembly consists of:

Item		
①	Connecting insert	660010540
②	Track rail, see page 924	vehicle dependant
③	Rail latch	660033550
④	Spar	on request
⑤	U rail	660033390
⑥	Peg clip	660855200
⑦	Tarpaulin holder	660033380
⑧	Hat washer	660633950
⑨	Blind rivet DIN 7337 - 5.0 x 10 mm	660305430
⑩	Cantilever saddle	660030640

In the centre spar sub-assembly, all parts in the centre spar area and for the support connection supplied with the centre spar, are summarised.

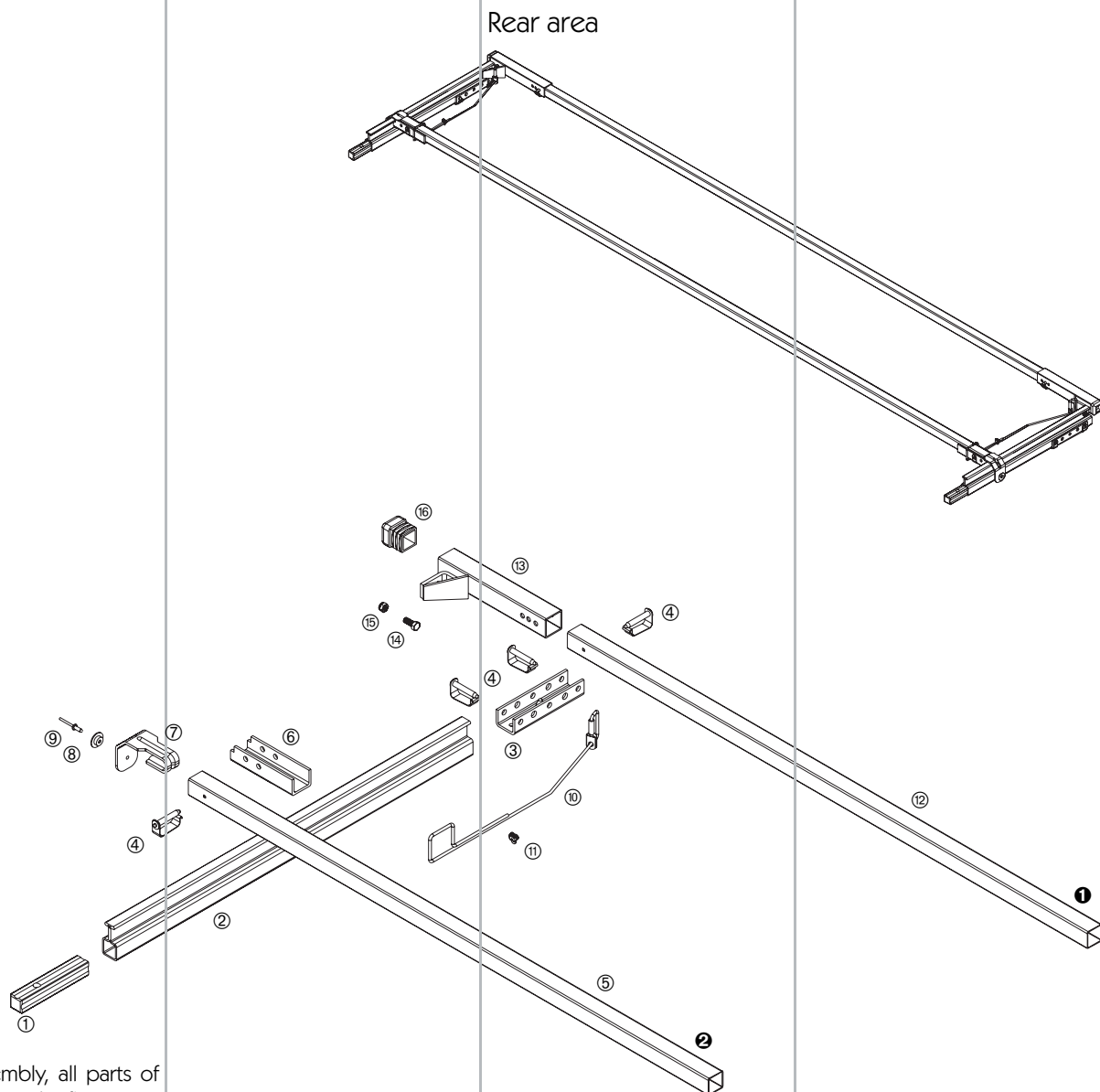
The exploded view illustrates the right hand roof side (viewed from rear of vehicle).

There are further spare parts for the rail latch ③ which are itemised under the individual parts.

The spars are only connected to each other by the tarpaulin. We advise connecting each centre spar to the tarpaulin with buckled webbing, or similar, in at least 3 places.

Vehicle dependant parts are available in several designs, e.g. in various lengths. Please note that various components also include other parts itemised in the table and illustrations.

All available individual parts and the extent of their supply can be found from page 924.



Rear area

Rear area

This sub-assembly consists of:

Item		
①	Connecting insert	660010540
②	Track rail, see page 924	vehicle dependant
③	End support connector	660032360
④	Locking pin clip	660855200
⑤	Spar	on request
⑥	U rail	660033390
⑦	Tarpaulin holder	660033380
⑧	Hat washer	660633950
⑨	Blind rivet DIN 7337 - 5.0 x 10 mm	660305430
⑩	Safety cable Ø 4 mm	660854310
⑪	Wire rope clamp DIN 1142 - 5 mm	270151188
⑫	Spar, here as headboard or last spar	660035210
⑬	Headboard spar holder, left hand (illustrated)	660030950
	Headboard spar holder, right hand	660030960
⑭	Hex. nut DIN 985 - M 8 - 8	660794590
⑮	Hex. head screw DIN 933 - M 8 x 20	960970006
⑯	End plug (for end spar)	660324980

In this sub-assembly, all parts of the basic top up to the first (complete) centre spar are summarised. With the exception of the track rail fixing, this sub-assembly is identical to the "Headboard area", but turned through 180°. For this reason, the last spar is also called "headboard spar".

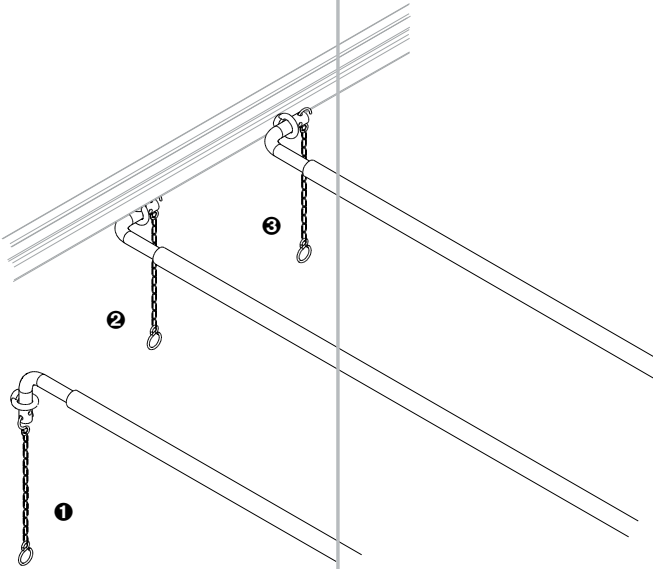
The exploded view illustrates the right hand roof side (viewed from rear of vehicle).

The spars are only connected to each other by the tarpaulin. We advise connecting the last spar tube ① to the tarpaulin with buckled webbing, or similar, in at least 5 places, and each centre spar ② in at least 3 places.

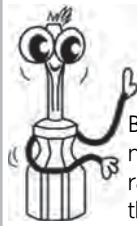
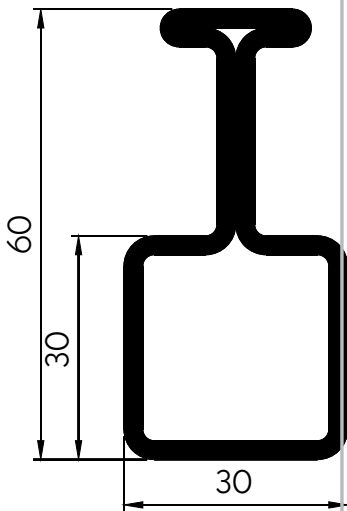
Vehicle dependant parts are available in several designs, e.g. in various lengths. Please note that various components also include other parts itemised in the table and illustrations.

All available individual parts and the extent of their supply can be found from page 924.

Tie rod fixing



Spare parts/individual parts



By quoting the roof number, all track rails/cantilevers for the specified roof can be obtained to the original finished dimensions including drilled holes.

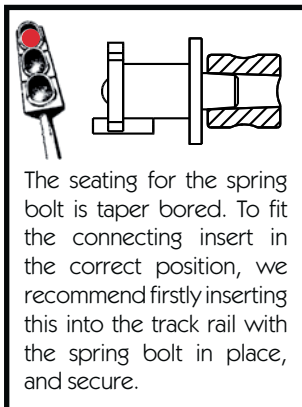
Illustration of track rail, scale 1:1.

Track rail

Zinc plated steel.

Length
[mm]

3000	660746113
4000	660746114
7000	660746110



The seating for the spring bolt is taper bored. To fit the connecting insert in the correct position, we recommend firstly inserting this into the track rail with the spring bolt in place, and secure.

Connecting insert

Steel, self colour.

660010540

Rail latch

Zinc plated steel.

660033550

Spare parts for this latch can be found under "Latch spare parts" on page 927. The relevant item numbers are ⑥ to ⑨.

The cantilever saddle **660030640** is used as a direct connection between the front headboard corner pillar and the track rail. It is supplied as standard as the support connection for each centre pillar, and also as a bracket for the strut when turned through 180° and welded under the track rail.

Cantilever saddle
Steel, KTL coated.
660030640

Gusset plate (corner plate)
Steel, KTL coated.
660010310

End support saddle
Steel, KTL coated.
660032360

Locking pin clip
Zinc plated steel.
660855200

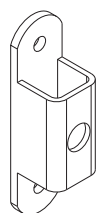
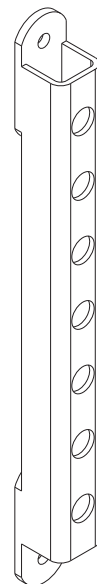
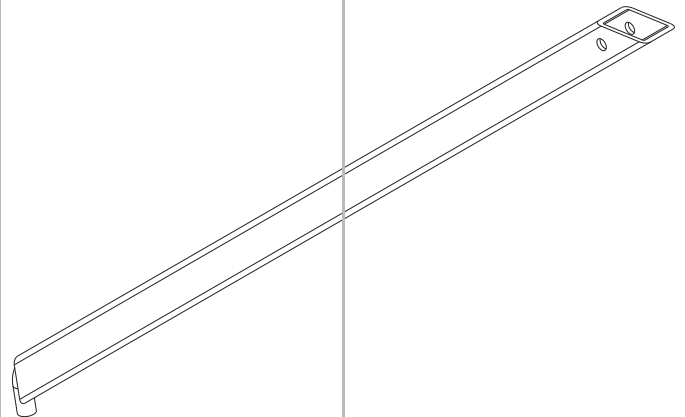
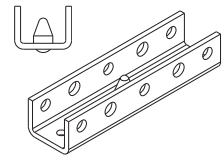
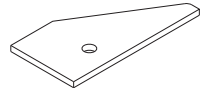
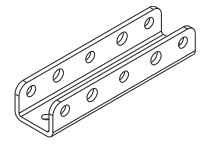
Strut
Steel, KTL coated.

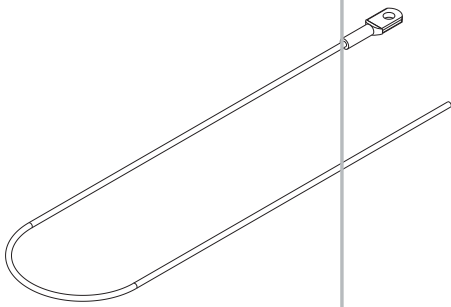
Nominal length
[mm]

1052	660014450
1560	660014190

Strut socket
Steel, KTL coated.

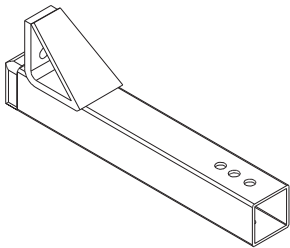
Short	660014310
Height adjustable	660014340





Safety cable \varnothing 4 mm
For headboard connection, zinc plated steel.

660854310



Headboard spar holder
Incl. plastic plug, KTL coated steel.

Left hand

660030950

Right hand

660030960

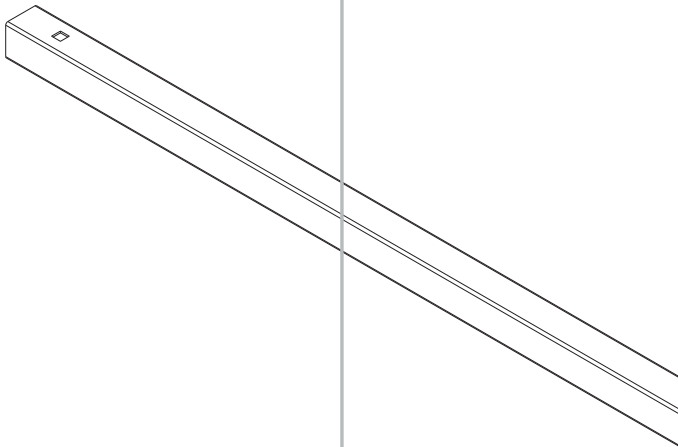
Illustration: left hand.



Plug

(End spar ends), for spar tubing 35 x 35 mm or headboard spar holder, plastic.

660324980



Spar

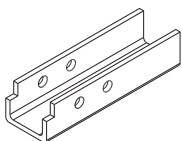
With this top, only used as headboard or last spar. 30 x 30 x 1.5 mm, length \geq 185 mm, DN O, zinc plated steel.

660035210

Spar

For centre spar. 30 x 30 x 1.5 mm, length as required, DN O, zinc plated steel.

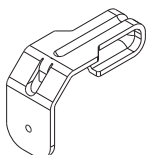
On request



U rail

Steel, KTL coated.

660033390



Tarpaulin holder

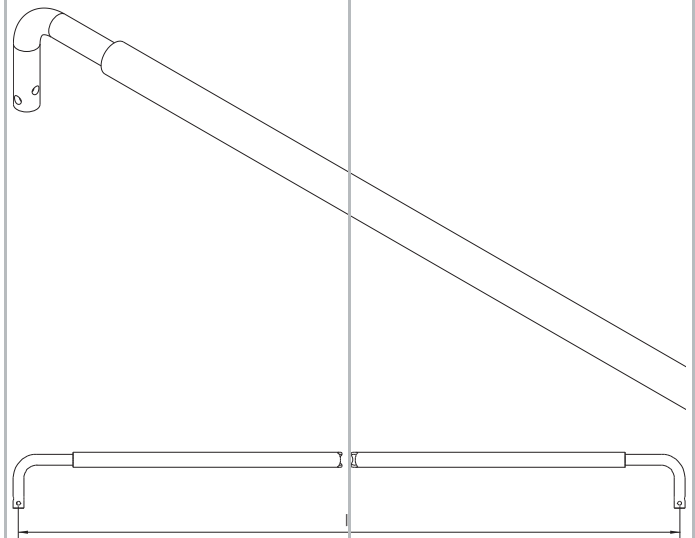
Zinc plated steel.

660033380

Tie bar
Ø 25 mm, zinc plated steel.

Dim. l
[mm]

2400	660016290
2430	660016292
One end loose	660016291



Safety chain
For both sides, S-hook, zinc plated steel.

660751410

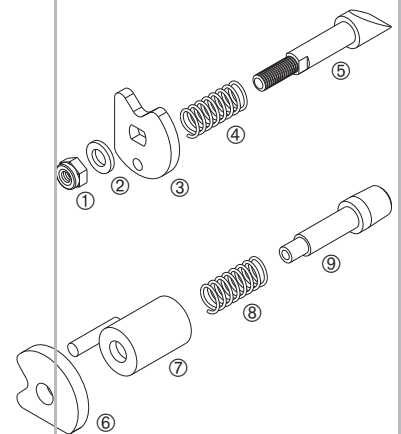


Please note that only those latch item numbers given will fit the respective latches as spare parts.

Latch

Item

① Hex. head nut DIN 985 - M 6 - 8	660794430
② Washer DIN 125 - A 6.4	660785760
③ Catch plate, zinc plated	660026080
④ Pressure spring, zinc plated	660625140
⑤ Locking bolt, sloped, zinc plated	660740500
⑥ Catch plate, zinc plated	660018860
⑦ Housing, rail latch, self colour	660010420
⑧ Pressure spring, zinc plated	660625141
⑨ Locking bolt, conical, zinc plated	660648120



Screws and fixing materials to DIN standards
All parts zinc plated.

Eye nut DIN 582 - M 8	660698200
Hex. nut DIN 933 - M 8 x 20	960970006
Hex. nut DIN 985 - M 8 - 8	660794590
Wire rope clamp DIN 1142 - 5 mm	270151188
Blind rivet DIN 7337 - 5.0 x 10 mm	660305430

Accessories

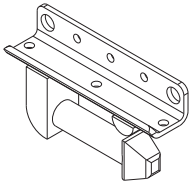
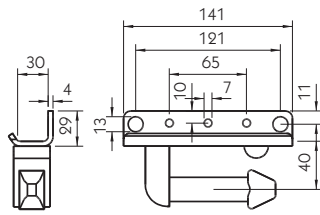


Illustration: left hand



Top coupling

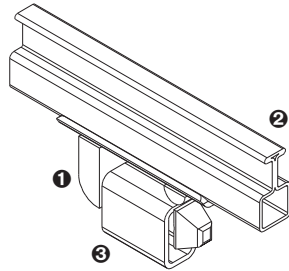
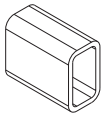
Zinc plated steel, weight 0.73 kg.

Left hand

660031230

Right hand

660031240



RHS tube

For top coupling, KTL coated steel, weight 0.25 kg.

660030680

The top coupling **1** is riveted to the track rail **2** from outside and underneath. The pillar is welded to the RHS tube **3**.

Curtainsider „Eco Small“
 Type 2978.9200

The curtainsider top "Eco Small" is based on the full tarpaulin top "Eco 65". It has been conceived for light commercial vehicles with drop-sides which have a tarpaulin fixed roof and additional sliding side tarpaulins above the side boards.

The roof spars are clamped to the track rails with a positive fit using clevis pins and additionally fixed to the first and last spar with tensioning cable the tarpaulin.

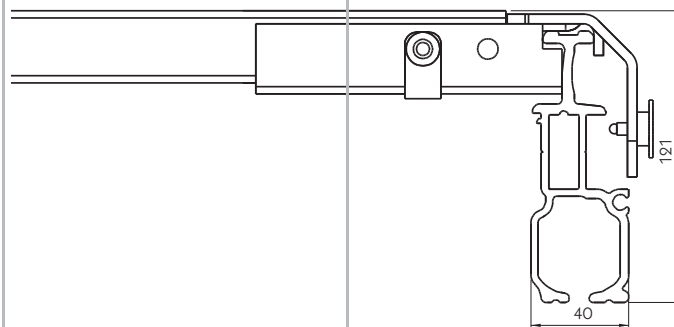
The top is not suitable for typical curtainsider tarpaulins which are closed using belts, tipping safety toggle locks, pull fasteners or tensioners.

The aluminium curtainsider profile supplied is self supporting for loading and unloading. Bodies over 4600 mm in length require one centre pillar.

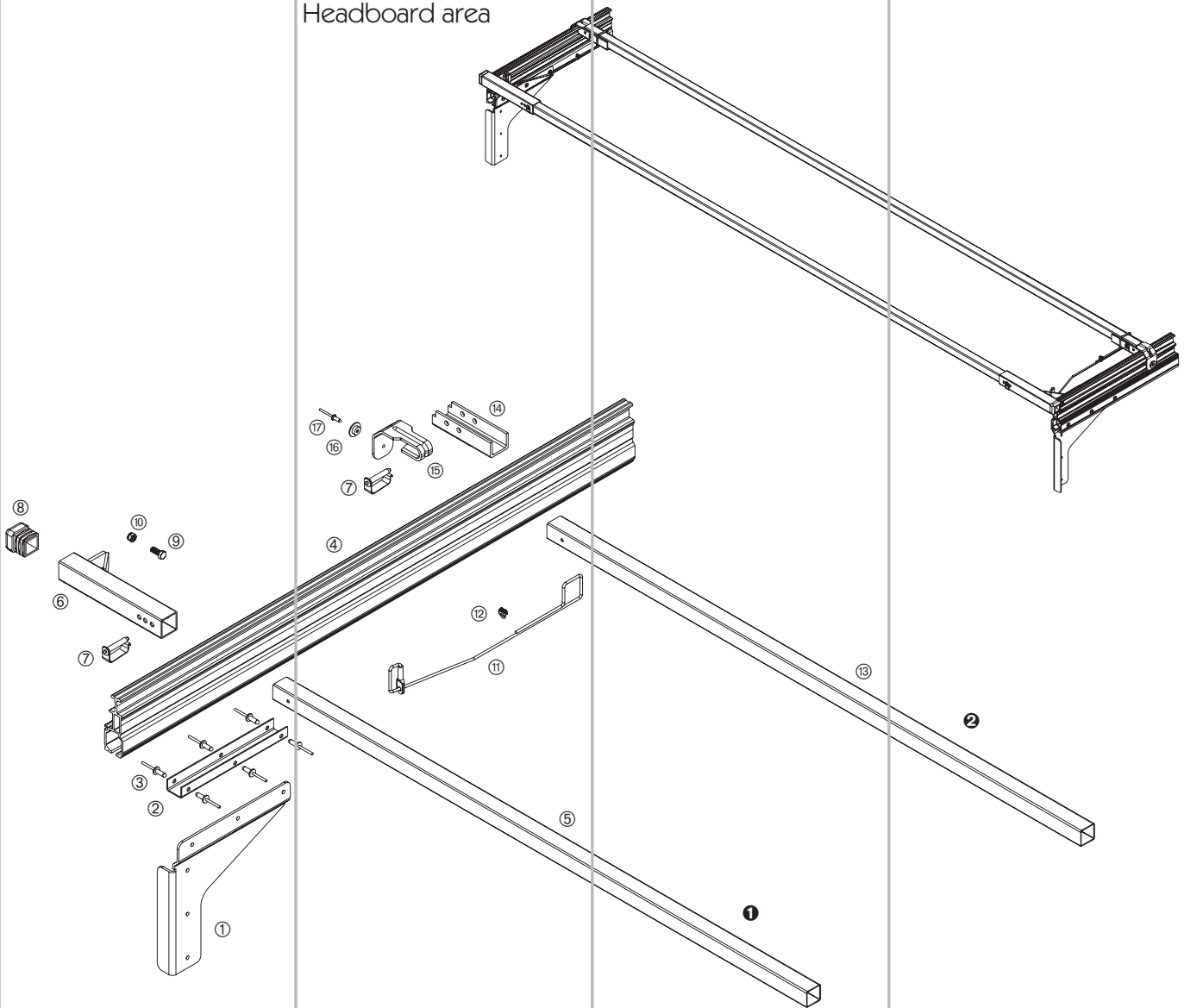
- Included in the supply is the headboard spar in duplicate (for front and rear), the roof spars, 4 tensioning cables, the fixing material on the track rails, the curtainsider profiles 55900 with pelmet and connections for the under-body.
- Steel roof spars, zero pitch, spaced at 570 mm.
- Standard outside widths of 1550 mm, 1650 mm, 1850 mm, 2100 mm and 2350 mm. The external width is measured at the outermost edges of the curtainsider profiles (cant rail).
- Lengths up to 7100 mm, dependent of outside width.
- Roof spars, tarpaulin holders and fasteners zinc plated steel, rails and under-body connections KTL coated, curtainsider profile 55900 self colour aluminium.

Special designs:

- Spar spacing, 650 mm.
- Top couplers for centre pillars.



Spare parts overview Headboard area



Headboard area This sub-assembly consists of:

Item		
①	Pillar connection, left hand	660033690
	Pillar connection, right hand (illustrated)	660033700
②	U rail	660033670
③	Blind rivet DIN 7337 - 6.5 x 17	not available
④	Curtainsider profile 55900	profile 55900
⑤	Spar, here as headboard spar	660035210
⑥	Headboard spar holder, left hand	660030950
	Headboard spar holder, right hand (illustrated)	660030960
⑦	Locking pin clip	660855200
⑧	End plug (for end spar)	660324980
⑨	Hex. head screw DIN 933 - M 8 x 20	960970006
⑩	Hex. head nut DIN 985 - M 8 - 8	660794590
⑪	Safety cable Ø 4 mm	660854310
⑫	Wire rope clamp DIN 1142 - 5 mm	270151188
⑬	Spar	on request
⑭	U rail	660033390
⑮	Tarpaulin holder	660033380
⑯	Hat washer	660633950
⑰	Blind rivet DIN 7337 - 5.0 x 10 mm	660305430

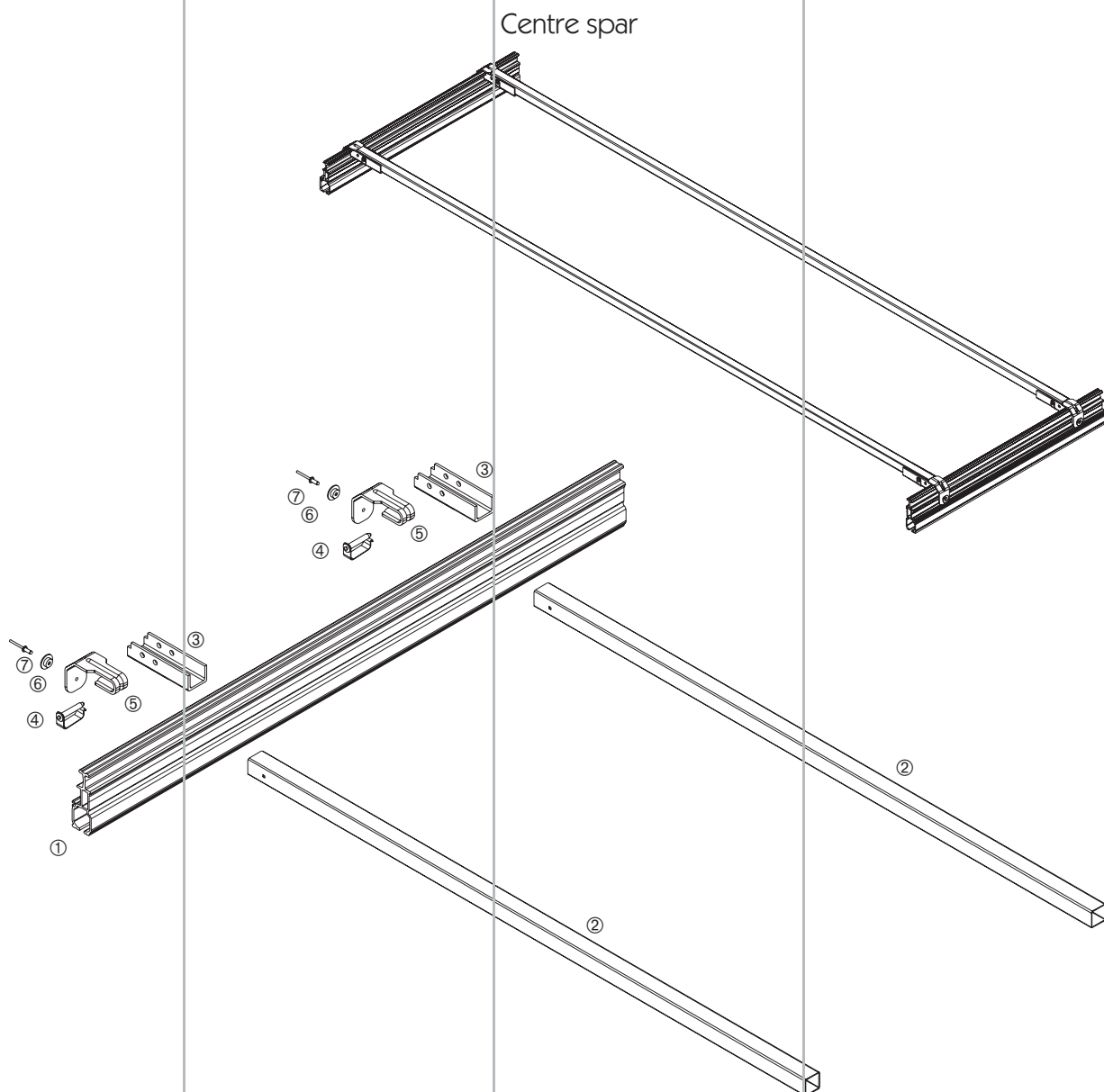
In this sub-assembly, all parts up to the first (complete) centre spar are summarised.

The exploded view illustrates the right (viewed from rear of vehicle) roof.

The spars are only connected to each other by the tarpaulin. We advise connecting the spar tube ❶ to the tarpaulin with buckled webbing, or similar, in at least 5 places, and each centre spar ❷ in at least 3 places.

Vehicle dependant parts are available in several designs, e.g. in various lengths. Please note that various components also include other parts in the table and illustrations.

All available individual parts and the extent of their supply can be found from page 933.



Centre spar

Centre spar

This sub-assembly consists of:

Item	
①	Curtainsider profile 55900 profile 55900
②	Spar on request
③	U rail 660033390
④	Locking pin clip 660855200
⑤	Tarpaulin holder 660033380
⑥	Hat washer 660633950
⑦	Blind rivet DIN 7337 - 5.0 x 10 mm 660305430

In the centre spar sub-assembly, all parts in the centre spar area are summarised.

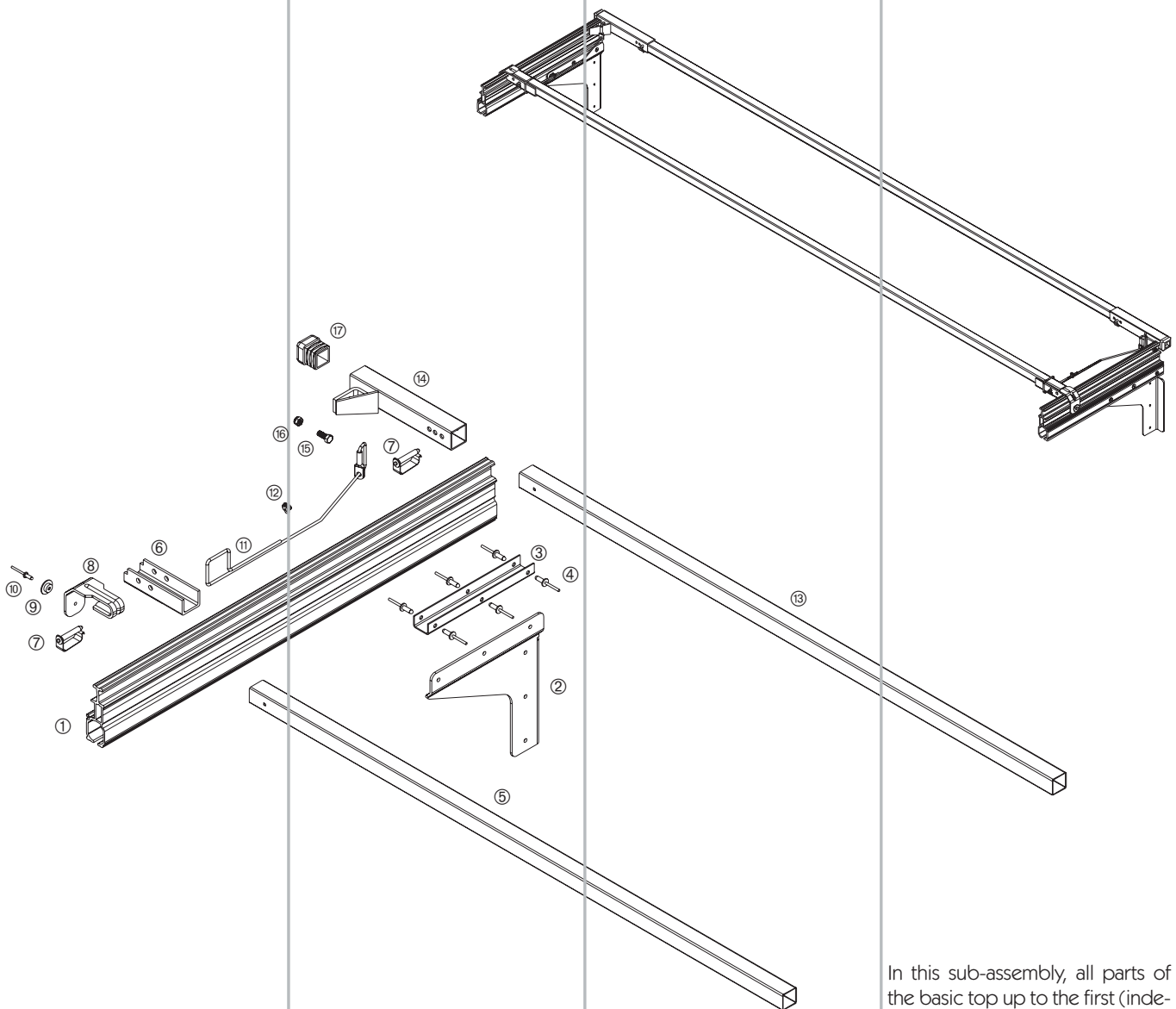
The exploded view illustrates the right hand roof side (as seen from rear of vehicle).

The spars are only connected to each other by the tarpaulin. We advise connecting each centre spar tube to the tarpaulin with buckled webbing, or similar, in at least 3 places.

Vehicle dependant parts are available in several designs, e.g. in various lengths. Please note that various components also include other parts in the table and illustrations.

All available individual parts and the extent of their supply can be found from page 933.

Rear area



Rear area

This sub-assembly consists of:

Item	
①	Curtainsider profile 55900 profile 55900
②	Pillar connection, left hand 660033690
	Pillar connection, right hand (illustration) 660033700
③	U rail 660033670
④	Blind rivet DIN 7337 - 6.5 x 17 not available
⑤	Spar on request
⑥	U rail 660033390
⑦	Locking pin clip 660855200
⑧	Tarpaulin holder 660033380
⑨	Hat washer 660633950
⑩	Blind rivet DIN 7337 - 5.0 x 10 mm 660305430
⑪	Safety cable Ø 4 mm 660854310
⑫	Wire rope clamp DIN 1142 - 5 mm 270151188
⑬	Spar, here as headboard or last spar 660035210
⑭	Headboard spar holder, left hand 660030950
	Headboard spar holder, right hand (illustration) 660030960
⑮	Hex. head screw DIN 933 - M 8 x 20 960970006
⑯	Hex. head nut DIN 985 - M 8 - 8 660794590
⑰	End plug (for end spar) 660324980

In this sub-assembly, all parts of the basic top up to the first (independent) centre spar are summarised.

This sub-assembly is identical to the "Headboard area", but turned through 180°. For this reason, the last spar also carries the name "headboard spar".

The exploded view illustrates the right hand roof side (as seen from rear of vehicle).

The spars are only connected to each other by the tarpaulin. We advise connecting the last spar tube ① to the tarpaulin with buckled webbing, or similar, in at least 5 places, and each centre spar ② in at least 3 places.

Vehicle dependant parts are available in several designs, e.g. in various lengths. Please note that various components also include other parts itemised in the table and illustrations.

All available individual parts and the extent of their supply can be found from page 933.

- ❶ Channel for PVC seal.
- ❷ Channel for tarpaulin rollers Standard.

Curtainsider profile

55900

Weight 2.8 kg/m

Length 8000 mm **660559000**

PVC seal

For cant rails 10073, Lite Plus 125/Slimliner Medium (05467), Lite Plus 175/Slimliner Large (05257) and Small CS (55900), weight 0.49 kg/m.

Colour	Length [m]	
Grey	13.7	660059950
Grey	18.5	660059960
Black	13.7	660059970
Black	18.5	660059980

Pillar connection

Steel KTL coated.

Left hand	660033690
Right hand	660033700

U rail

Steel, KTL coated.

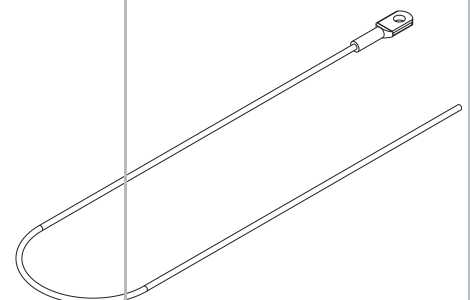
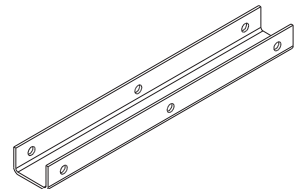
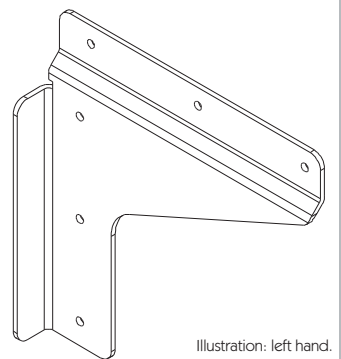
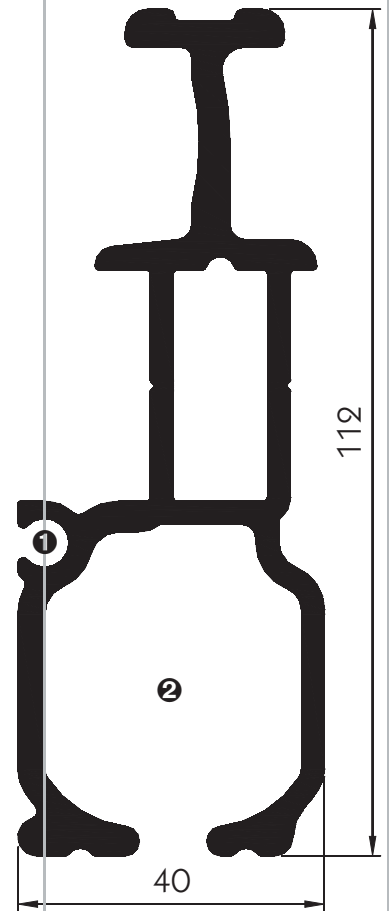
660033670

Safety cable Ø 4 mm

For headboard connection, zinc plated steel.

660854310

Spare parts/individual parts



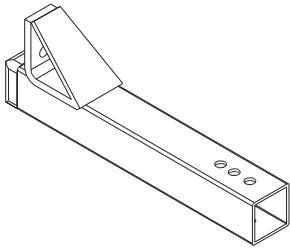
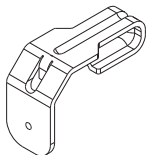
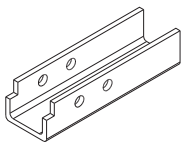
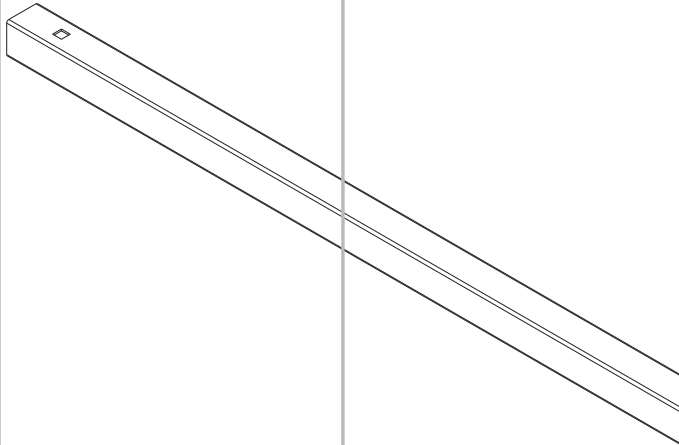


Illustration: left hand



Headboard spar holder

Incl. plastic plug, KTL coated steel.

Left hand

660030950

Right hand

660030960

Plug

(End spar ends), for spar tubing 35 x 35 mm or headboard spar holder, plastic.

660324980

Spar

With this top, only used as headboard or last spar. 30 x 30 x 1.5 mm, length \varnothing 185 mm, DN 0, zinc plated steel.

660035210

Spar

For centre spar. 30 x 30 x 1.5 mm, length as required, DN 0, zinc plated steel.

On request

U rail

Steel, KTL coated.

660033390

Tarpaulin holder

Zinc plated steel.

660033380

Screws and fixing

materials to DIN standards

All parts zinc plated.

Hex. screw DIN 933 - M 8 x 20

960970006

Hex. nut DIN 985 - M 8 - 8

660794590

Wire rope clamp DIN 1142 - 5 mm

270151188

Blind rivet DIN 7337 - 5.0 x 10 mm

660305430

Curtainsider „Eco 100“
 Type 2980.9200

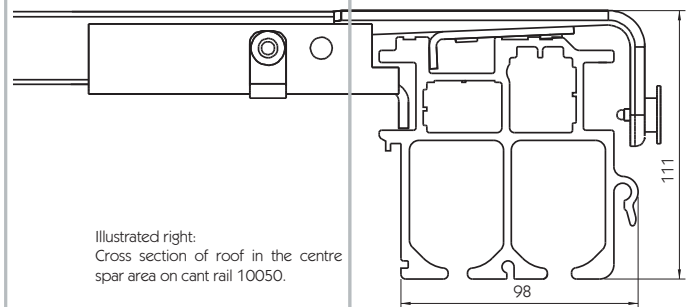
The tarpaulin fixed roofs from the Eco model series can also be rolled up and retro-converted to sliding roofs. The roof spars are clamped to the aluminium cant rail with a positive fit using clevis pins, and additionally fixed to the first and last spar with tensioning cable via the tarpaulin. This top is the curtainsider variant of the Eco model series.

- Included in the supply are the roof spars, 4 tensioning cables and the fixing materials on the cant rail.
- Steel roof spars, zero pitch, spar spacing 650 mm.
- Standard outside widths of 2550 mm or 2570 mm. The external width is measured at the outermost edges of the curtainsider profiles (cant rail).
- Length up to 16000 mm.
- Roof spars and fastening materials, zinc plated.
- Weight without cant rail approx. 6.5 kg/m.

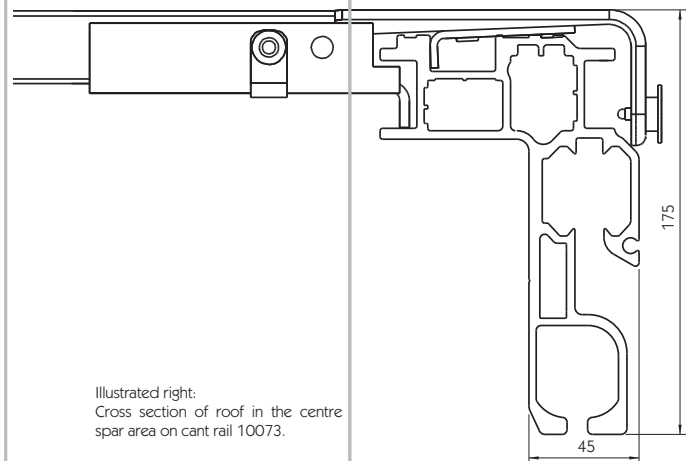
The aluminium cant rail and its accessories are not included and must be ordered separately.

Special designs:

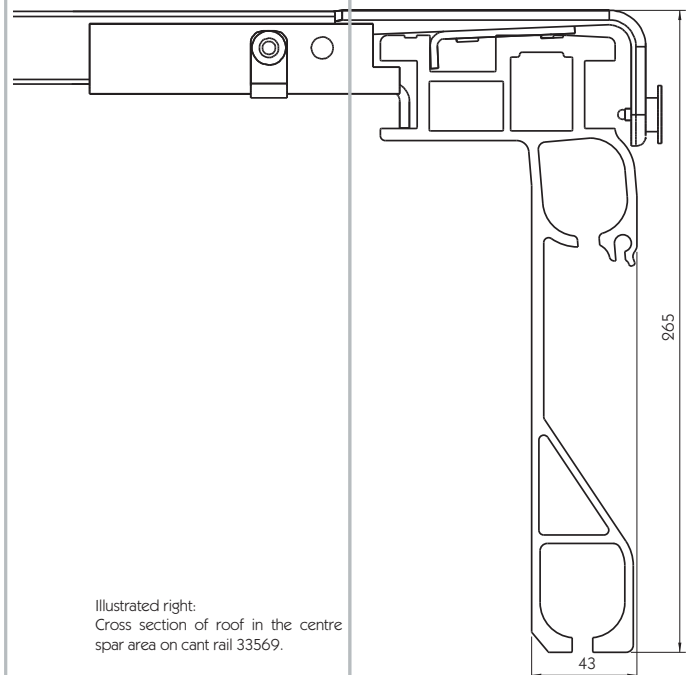
- Top in DB (German Rail) specification in accordance with EN 283.
- Fixed portal beam for outside width 2550 mm or 2570 mm, suitable for door locking recesses. Depth of crossbar, 113 mm.
- Spar spacing, 570 mm.
- Deviation from standard outside widths.



Illustrated right:
 Cross section of roof in the centre
 spar area on cant rail 10050.

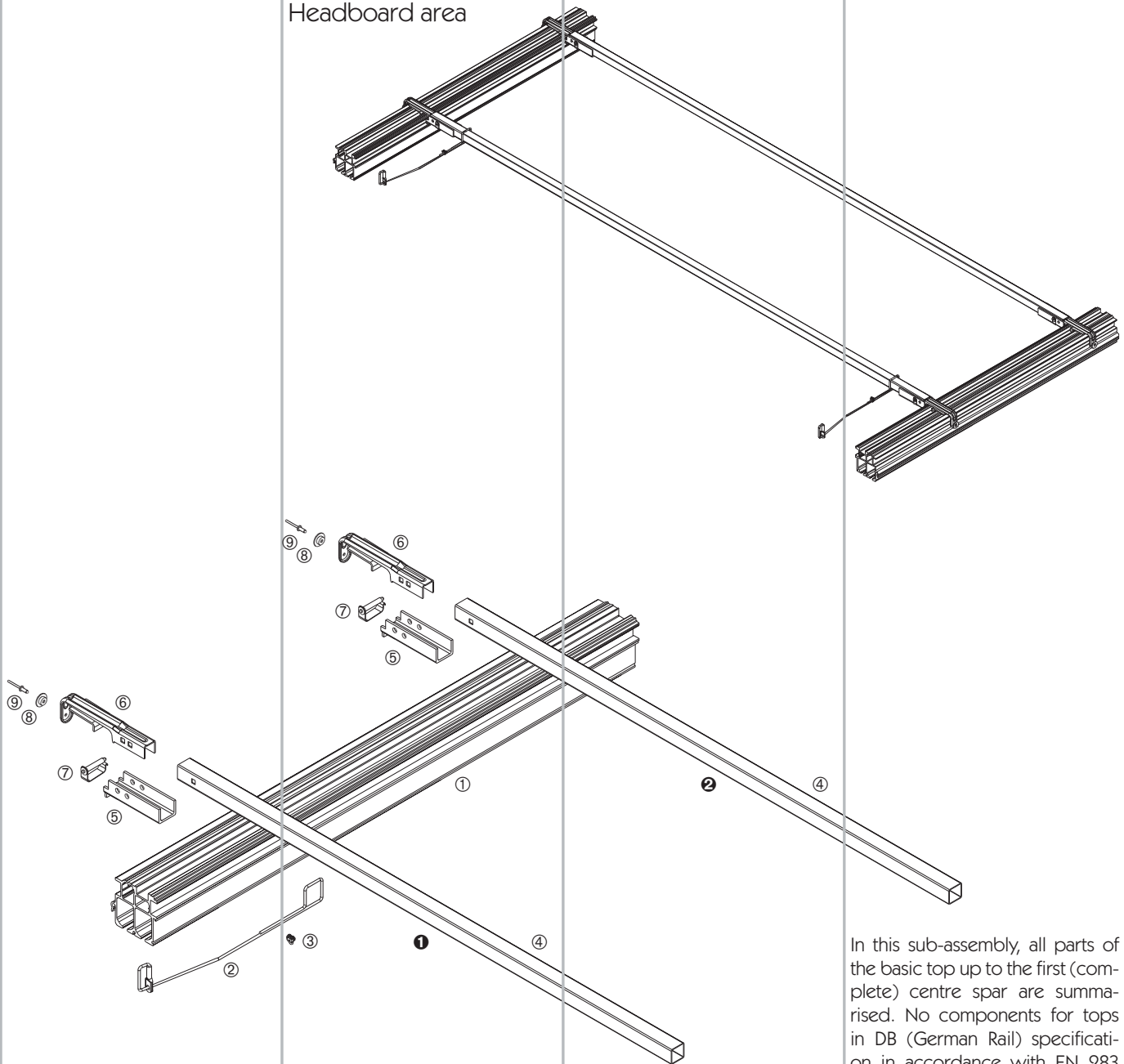


Illustrated right:
 Cross section of roof in the centre
 spar area on cant rail 10073.



Illustrated right:
 Cross section of roof in the centre
 spar area on cant rail 33569.

Spare parts overview Headboard area



Headboard area

This sub-assembly consists of:

Item	
①	Cant rail depth 92 mm Cant rail depth 100 mm (illustrated) Cant rail depth 165 mm Cant rail depth 255 mm
②	Safety cable Ø 4 mm
③	Wire rope clamp DIN 1142 - 5 mm
④	Spar (for roof outer width 2550 mm)
⑤	U rail
⑥	Tarpaulin holder with angle bracket
⑦	Locking pin clip
⑧	Hat washer
⑨	Blind rivet DIN 7337 - 5.0 x 10 mm

profile 80797
profile 10050
profile 10073
profile 33569
660854310
270151188
660034640
660031610
660031620
660855200
660633950
660305430

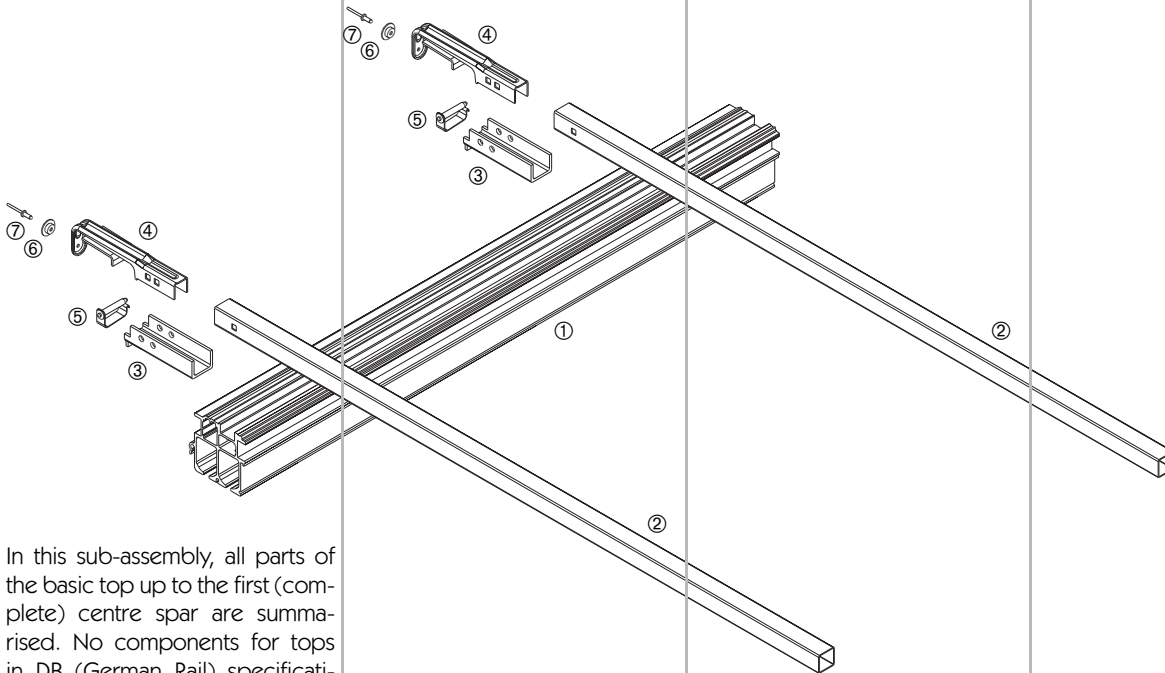
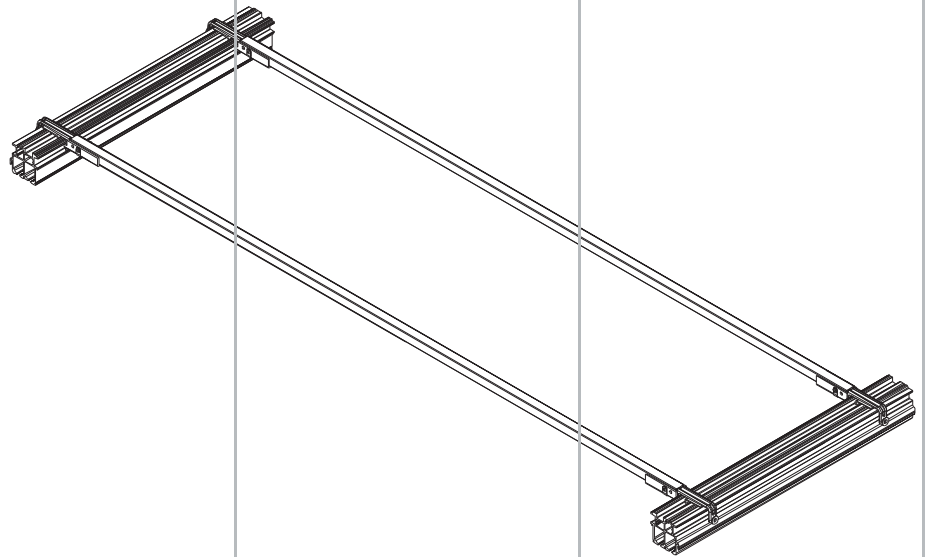
In this sub-assembly, all parts of the basic top up to the first (complete) centre spar are summarised. No components for tops in DB (German Rail) specification in accordance with EN 283 are itemised. Enquiries about these spare parts should be addressed to our department in Wermelskirchen.

The exploded view illustrates the right hand side of the roof (viewed from rear of vehicle).

The spars are only connected to each other by the tarpaulin. We advise connecting the first spar tube ① to the tarpaulin with buckled webbing, or similar, in at least 5 places, and each centre spar ② in at least 3 places.

All available individual parts and the extent of their supply can be found from page 940. Accessories for this curtainsider sliding roof can be found from page 939, for cant rails from page 950.

Centre spar



In this sub-assembly, all parts of the basic top up to the first (complete) centre spar are summarised. No components for tops in DB (German Rail) specification in accordance with EN 283 are itemised. Enquiries about these spare parts should be addressed to our department in Wermelskirchen.

The exploded view illustrates the right hand side of the roof (viewed from rear of vehicle).

The spars are only connected to each other by the tarpaulin. We advise connecting each centre spar tube to the tarpaulin with buckled webbing, or similar, in at least 3 places.

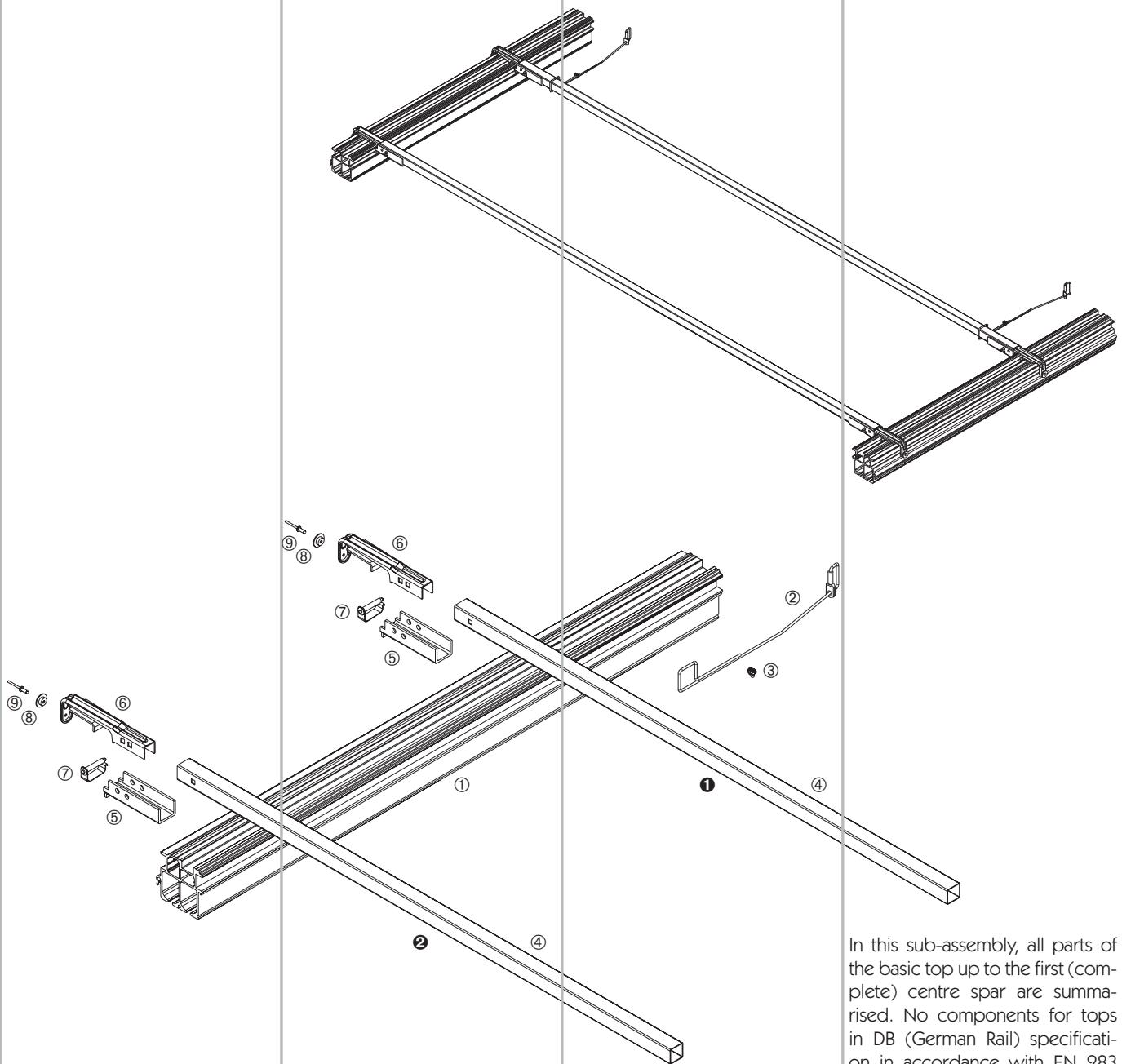
All available individual parts and the extent of their supply can be found from page 940. Accessories for this curtainsider sliding roof can be found from page 939, for cant rails from page 950.

Centre spar

This sub-assembly consists of:

Item		
①	Cant rail depth 92 mm	profile 80797
	Cant rail depth 100 mm (illustrated)	profile 10050
	Cant rail depth 165 mm	profile 10073
	Cant rail depth 255 mm	profile 33569
②	Spar (for roof outer width 2550 mm)	660034640
③	U rail	660031610
④	Tarpaulin holder with angle bracket	660031620
⑤	Peg clip	660855200
⑥	Hat washer	660633950
⑦	Blind rivet DIN 7337 - 5.0 x 10 mm	660305430

Rear area



Rear area

This sub-assembly consists of:

Item		
①	Cant rail depth 92 mm	profile 80797
	Cant rail depth 100 mm (illustrated)	profile 10050
	Cant rail depth 165 mm	profile 10073
	Cant rail depth 255 mm	profile 33569
②	Safety cable Ø 4 mm	660854310
③	Wire rope clamp DIN 1142 - 5 mm	270151188
④	Spar (for roof outer width 2550 mm)	660034640
⑤	U rail	660031610
⑥	Tarpaulin holder with angle bracket	660031620
⑦	Locking pin clip	660855200
⑧	Hat washer	660633950
⑨	Blind rivet DIN 7337 - 5.0 x 10 mm	660305430

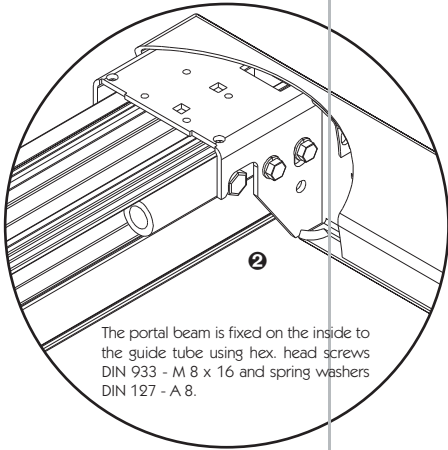
In this sub-assembly, all parts of the basic top up to the first (complete) centre spar are summarised. No components for tops in DB (German Rail) specification in accordance with EN 283 are itemised. Enquiries about these spare parts should be addressed to our department in Wermelskirchen.

The exploded view illustrates the right hand side of the roof (viewed from rear of vehicle).

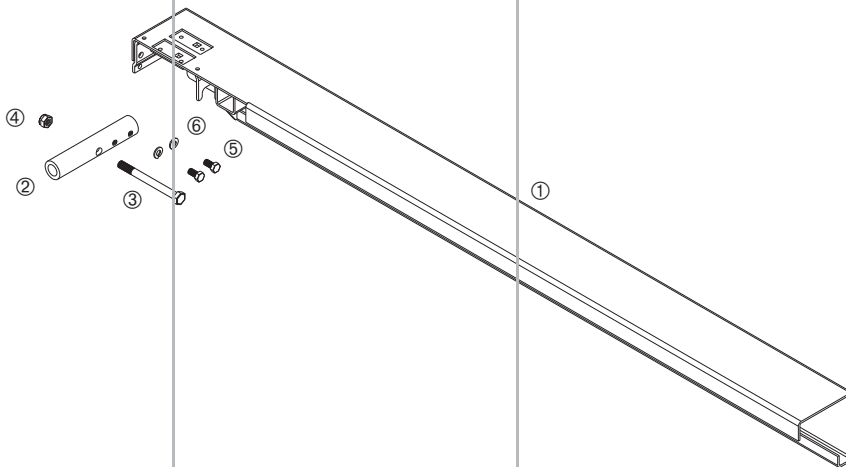
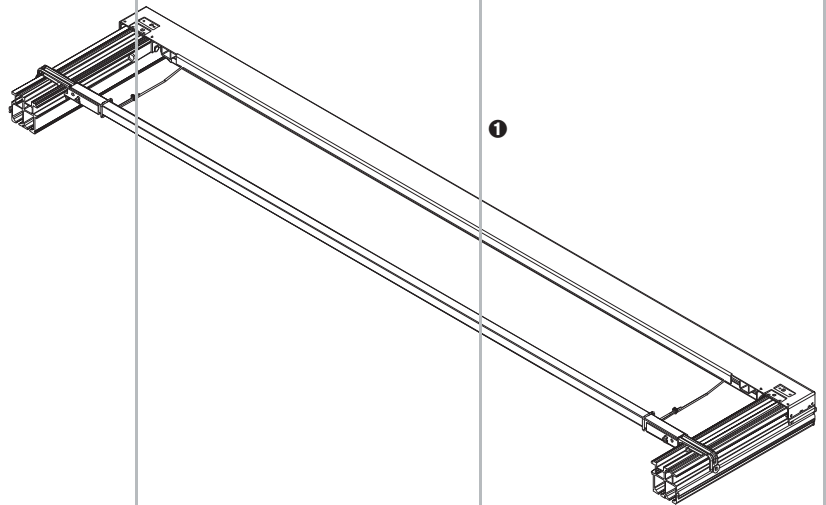
The spars are only connected to each other by the tarpaulin. We advise connecting the last spar tube ① to the tarpaulin with buckled webbing, or similar, in at least 5 places, and each centre spar ② in at least 3 places.

All available individual parts and the extent of their supply can be found from page 940. Accessories for this curtainsider sliding roof can be found from page 939, for cant rails from page 950.

Accessory overview
Portal beam



The portal beam is fixed on the inside to the guide tube using hex. head screws DIN 933 - M 8 x 16 and spring washers DIN 127 - A 8.



The portal beam accessory part is illustrated on this page.

For clarity, ❶ illustrates the complete roof closing mechanism.

Detail ❷ illustrates the portal beam partly cut away to show the assembly of the aluminium cant rail. The exploded view shows the right hand roof side (viewed from rear of vehicle).

The article numbers given in the table are available individual parts; each number given below comprises the parts supplied for one roof.

All available individual parts and the extent of their supply can be found from page 940. Cant rails can be found from page 950.

Portal beam

This accessory consists of:

Item

❶ Portal beam	not available
❷ Guide tube	on request
❸ Hex. head screw DIN 931 - M 10 x 110	660781480
❹ Hex. head nut DIN 985 - M 10 - 8	660794490
❺ Hex. head screw DIN 933 - M 8 x 16	not available
❻ Spring washer DIN 127 - A 8	not available

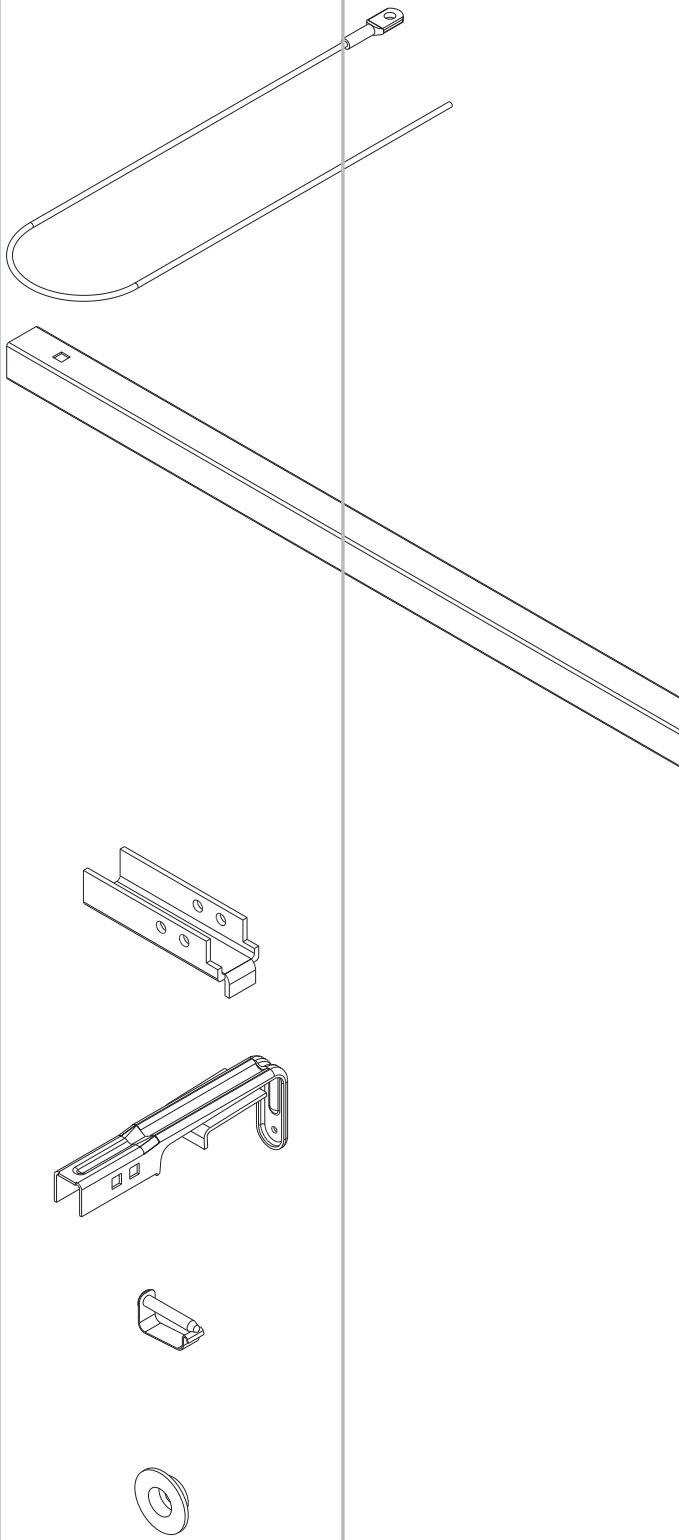
Overall length 2550 mm

660036090

Overall length 2570 mm

660036320

Spare parts/individual parts



Safety cable Ø 4 mm
Length approx. 1000 mm, zinc plated steel.

660854310

Other spar lengths available on request.

Spar

30 x 30 x 1.5 mm, DN O, zinc plated steel.

Length [mm]	For roof outside width [mm]	
2310	2550	660034640

U rail

Steel, KTL coated.

660031610

Tarpaulin holder with angle bracket

Zinc plated steel.

660031620

Locking pin clip

Zinc plated steel.

660855200

Hat washer

For fastening the tarpaulin, zinc plated steel.

660633950

Screws and fixing

materials to DIN standards

All parts zinc plated.

Hex. nut DIN 985 - M 10 - 8	660794490
Hex. head screw DIN 931 - M 10 x 110	660781480
Wire rope clamp DIN 1142 - 5 mm	270151188
Blind rivet DIN 7337 - 5.0 x 10 mm	660305430

Curtainsider „Eco Lite Plus“

The curtainsider top "Eco Lite Plus" is the tarpaulin fixed roof version of the curtainsider "Lite Plus".

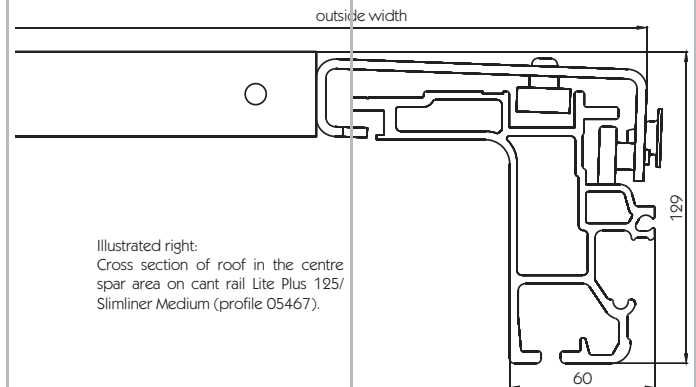
The roof spars are held in a positive fit in the aluminium cant rail due to sliders and ball bearings (which serve as distance pieces) and fixed to the first and last spars via the curtain and additionally by means of tensioning cords. Due to volume optimisation it is now possible with the cant rail Lite Plus 175/Slimliner to load the body to pallet cage width (2480 mm) and to three high instead of the previous two standard pallet cages stacked on top of each other.

- The roof spar sets are supplied from stock in the numbers required.
- Standard outside widths of 2550 mm, 2570 mm or 2590 mm. The external width is measured at the outermost edges of the curtainsider profiles (cant rail).
- Length up to 13600 mm.
- Roof spars and fastening materials, zinc plated.
- Each roof spar set weight 4.61 kg.

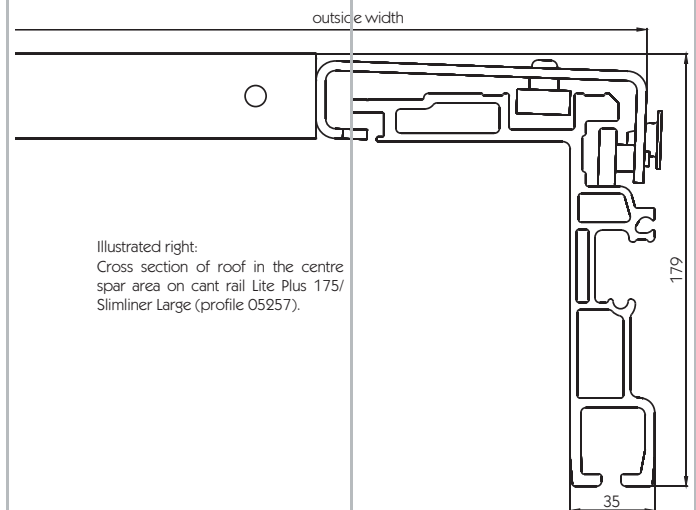
The aluminium cant rail and its accessories are not included and must be ordered separately.

Special designs:

- Deviation from standard outside width.

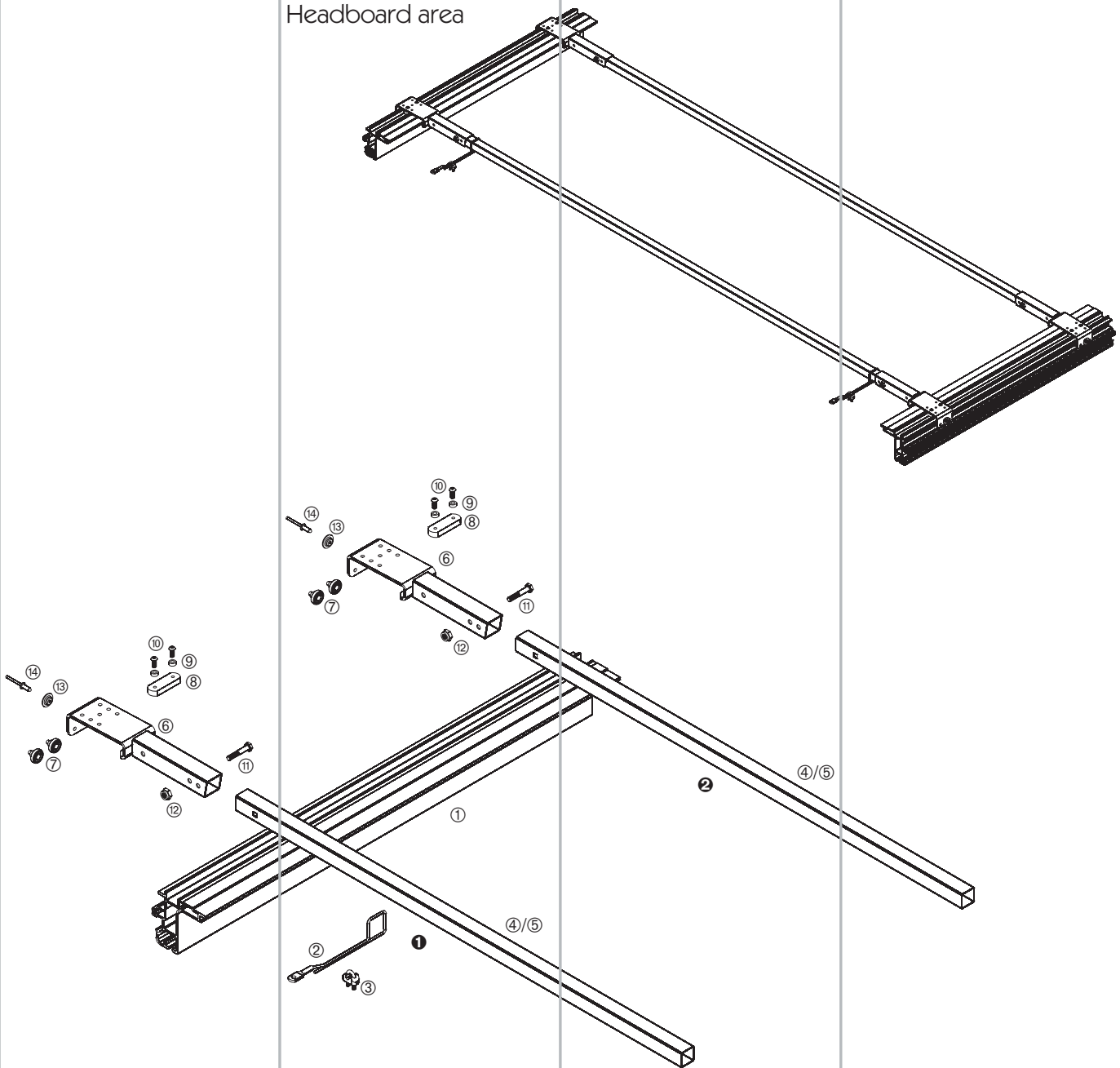


Illustrated right:
Cross section of roof in the centre spar area on cant rail Lite Plus 125/Slimliner Medium (profile 05467).



Illustrated right:
Cross section of roof in the centre spar area on cant rail Lite Plus 175/Slimliner Large (profile 05257).

Spare parts overview
Headboard area



Headboard area
This sub-assembly consists of:

Item		
①	Cant rail Lite Plus 125/Slimliner Medium, depth 112.5 (illustrated) Cant rail Lite Plus 175/Slimliner Large, depth 162.5	profile 05467 profile 05257
②	Safety cable Ø 4 mm	660854310
③	Wire rope clamp DIN 1142 - 5 mm	270151188
④	Roof spar set	660053880
⑤	Spar	660048880
⑥	Roller carriage	not available
⑦	Ball bearing with female thread M 6	660016741
⑧	Slider	not available
⑨	Bush 12 x 5 - 6.5 mm	not available
⑩	Mushroom head bolt with hex. DIN ISO 7380 - M 6 x 16	not available
⑪	Hex. head screw DIN 931 - M 8 x 45	960970311
⑫	Hex. nut DIN 985 - M 8 - 8	660794590
⑬	Hat washer	660633950
⑭	Blind rivet DIN 7337 - 5.0 x 10 mm	660305430

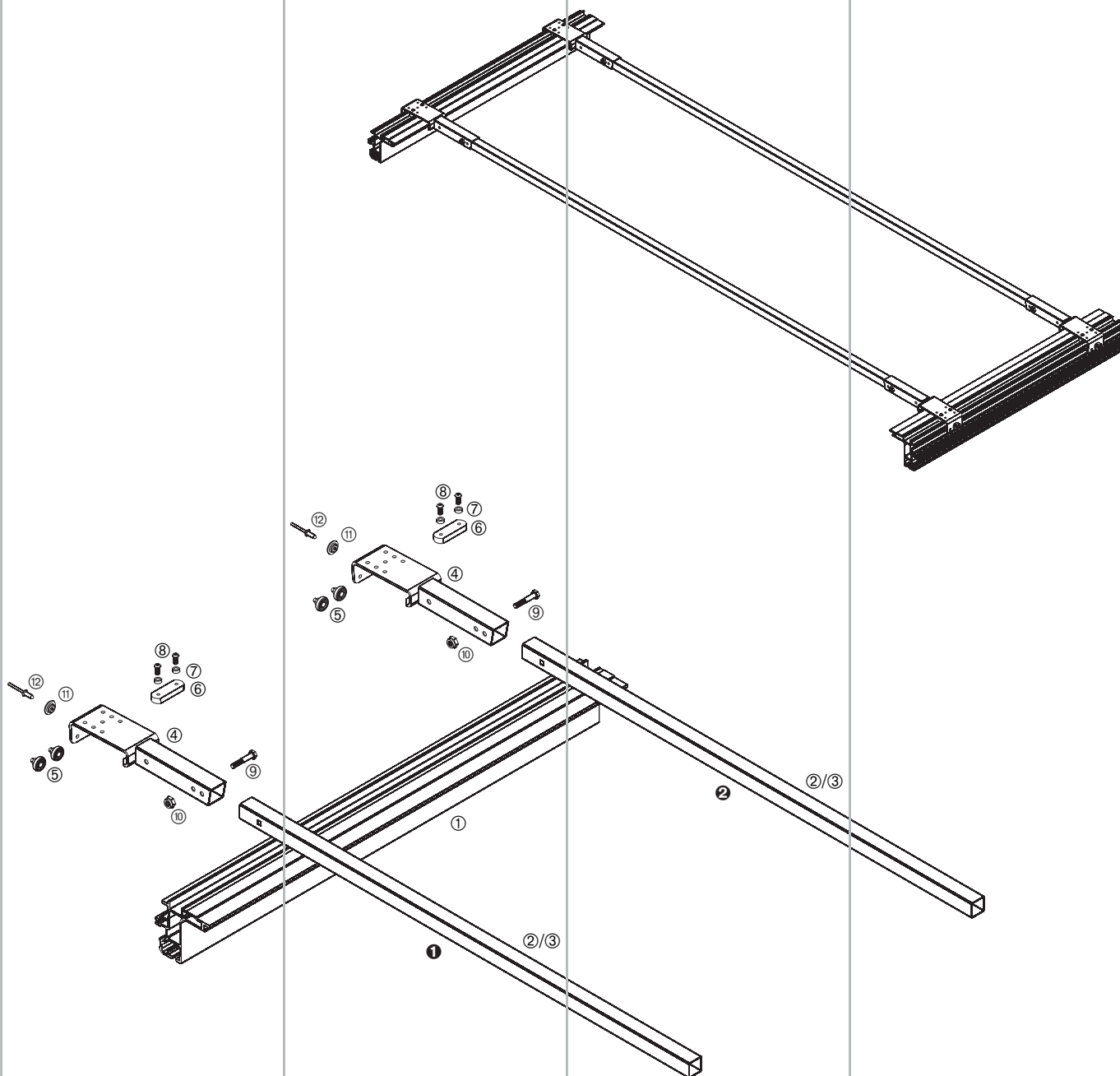
In this sub-assembly, all parts up to the first (complete) centre spar are summarised.

The exploded view illustrates the right (viewed from rear of vehicle) roof.

The spars are only connected to each other by the tarpaulin. We advise connecting the spar tube ① to the tarpaulin with buckled webbing, or similar, in at least 5 places, and each centre spar ② in at least 3 places.

All available individual parts and the extent of their supply can be found from page 945, cant rails can be found from page 950.

Centre spar



Centre spar

This sub-assembly consists of:

Item

①	Cant rail Lite Plus 125/Slimliner Medium, depth 112.5 (illustrated)	profile 05467
	Cant rail Lite Plus 175/Slimliner Large, depth 162.5	profile 05257
②	Roof spar set	660053880
③	Spar	660048880
④	Roller carriage	not available
⑤	Ball bearing with female thread M 6	660016741
⑥	Slider	not available
⑦	Bush 12 x 5 - 6.5 mm	not available
⑧	Mushroom head bolt with hex. DIN ISO 7380 - M 6 x 16	not available
⑨	Hex. head screw DIN 931 - M 8 x 45	960970311
⑩	Hex. nut DIN 985 - M 8 - 8	660794590
⑪	Hat washer	660633950
⑫	Blind rivet DIN 7337 - 5.0 x 10 mm	660305430

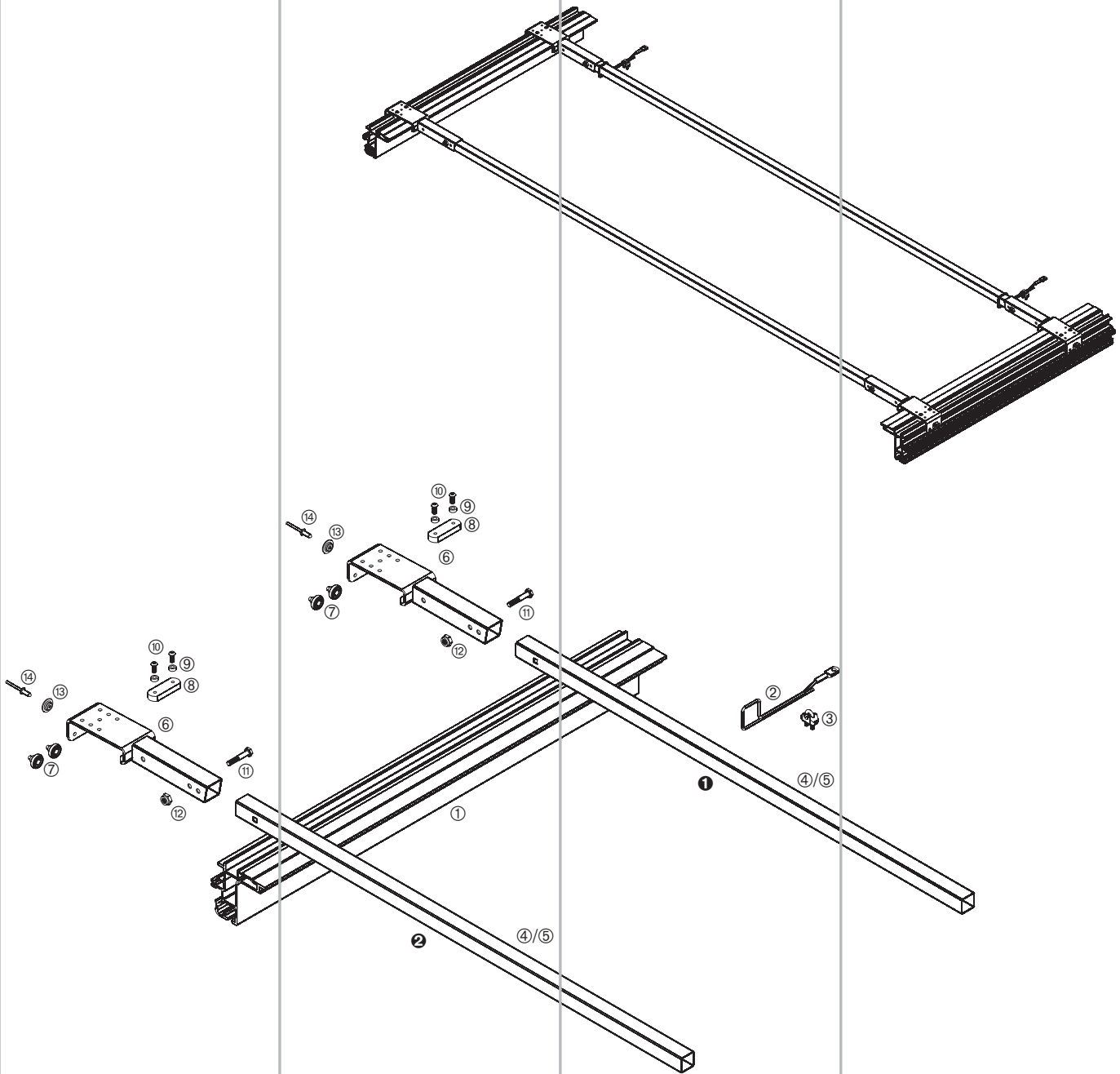
In the centre spar sub-assembly, all parts in the centre spar area are summarised.

The exploded view illustrates the right hand roof side (as seen from rear of vehicle).

The spars are only connected to each other by the tarpaulin. We advise connecting each centre spar tube to the tarpaulin with buckled webbing, or similar, in at least 3 places.

All available individual parts and the extent of their supply can be found from page 945, cant rails can be found from page 950.

Rear area



Rear area

This sub-assembly consists of:

Item		
①	Cant rail Lite Plus 125/Slimliner Medium, depth 112.5 (illustrated) Cant rail Lite Plus 175/Slimliner Large, depth 162.5	profile 05467 profile 05257
②	Safety cable Ø 4 mm	660854310
③	Wire rope clamp DIN 1142 - 5 mm	270151188
④	Roof spar set	660053880
⑤	Spar	660048880
⑥	Roller carriage	not available
⑦	Ball bearing with female thread M 6	660016741
⑧	Slider	not available
⑨	Bush 12 x 5 - 6.5 mm	not available
⑩	Mushroom head bolt with hex. DIN ISO 7380 - M 6 x 16	not available
⑪	Hex. head screw DIN 931 - M 8 x 45	960970311
⑫	Hex. nut DIN 985 - M 8 - 8	660794590
⑬	Hat washer	660633950
⑭	Blind rivet DIN 7337 - 5.0 x 10 mm	660305430

In this sub-assembly, all parts of the basic top up to the first (independent) centre spar are summarised.

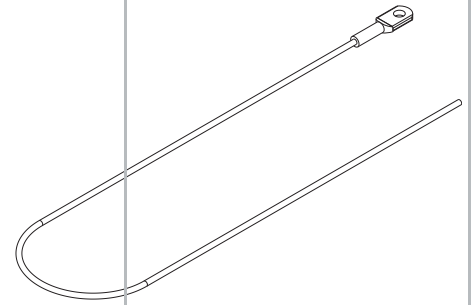
The exploded view illustrates the right hand roof side (as seen from rear of vehicle).

The spars are only connected to each other by the tarpaulin. We advise connecting the last spar tube ① to the tarpaulin with buckled webbing, or similar, in at least 5 places, and each centre spar ② in at least 3 places.

All available individual parts and the extent of their supply can be found from page 945, cant rails can be found from page 950.

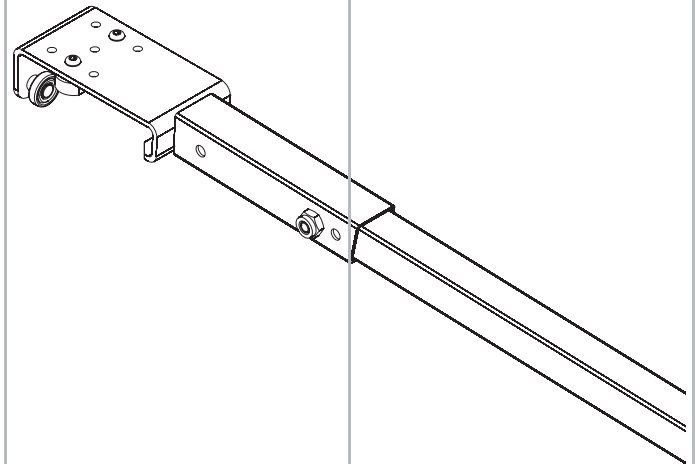
Spare parts/individual parts

Safety cable \varnothing 4 mm
Length approx. 1000 mm, zinc plated steel.
660854310

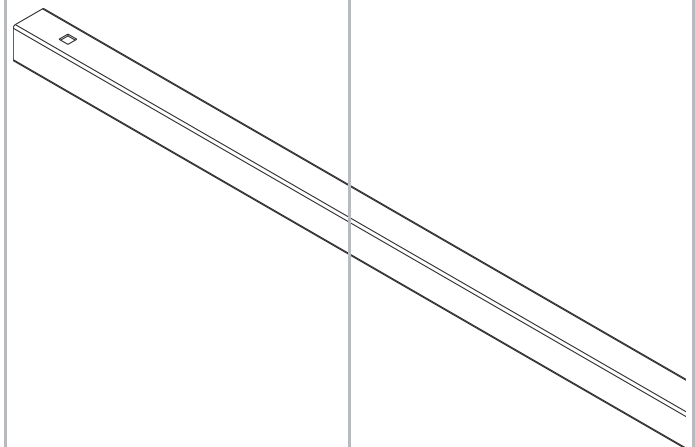


Fixing material includes:
2 x hex. head screws DIN 931 - M 8 x 45, 2 x hex. nuts DIN 985 - M 8 - 8, 2 x hat washer, 2 x blind rivet DIN 7337 - 5.0 x 10 mm.

Roof spar set
Includes spar, roller carriage and fixing material. All parts loose.
660053880



Spar
30 x 30 x 1.5 mm, length 2086 mm for top outer width 2550 mm, DN 0, zinc plated steel.
660048880



Ball bearing with female thread M 6
Steel gunmetal finish.
660016741





Hat washer

For fastening the tarpaulin, zinc plated steel.

660633950

Screws and fixing materials to DIN

All parts zinc plated.

Hex. nut DIN 985 - M 8 - 8

660794590

Hex. head screw DIN 931 - M 8 x 45

660794590

Wire rope clamp DIN 1142 - 5 mm

270151188

Blind rivet DIN 7337 - 5.0 x 10 mm

660305430

On every Top you will find a name plate in various places. Please state the roof number with every order for spare parts.

Edscha Lkw-Schiebeverdecke GmbH Edscha
 Hohenhagener-
 strasse 26-28
 D-42855 Remscheid
 10/02

Nr. **0017006212** - **000029808009**

Roof no. **Type**

Roof no: From the roof no., Edscha can identify the complete original supply including the manufactured dimensions and construction.

Type: From the second number, the cover type can be identified.

„Lite-Kombi“
Type 2980.9100

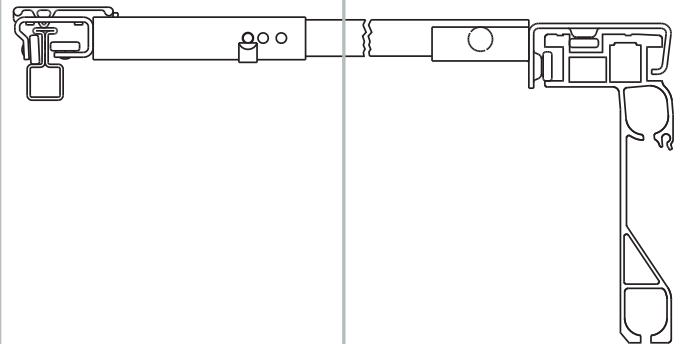
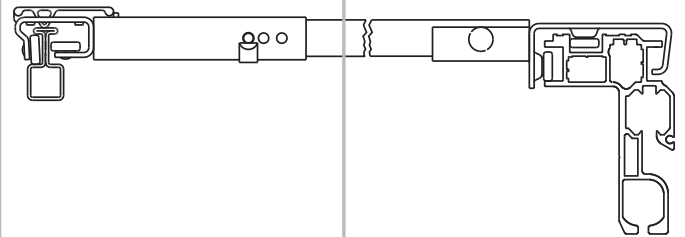
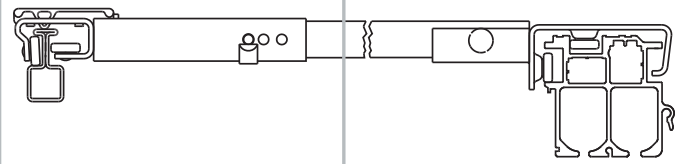
The roof types belonging to the Kombi model series combine the merits of the classic full tarpaulin with the curtainsider sliding tops. This top is a combination of the full tarpaulin top "Lite 72" (right side, viewed from rear), and the curtainsider top "Lite 100" (left side, viewed from rear). Plastic links at intervals of 570 mm control the lifting and folding of the tarpaulin.

- Included are the roller carriages with the plastic links, the roof spars, the end trolley, the steel track rails for the "Lite 72" range and their connections for the under-body.
- Roller carriage with lateral ball bearings.
- Steel roof spars, not pitched, spaced at 570 mm intervals, travelling on the track rails when opening.
- Travelling crossmember as end trolley with locking device for the range "Lite 72". The locking device for the page "Lite 100" must be ordered separately.
- The top can be slid from one side, from ground level.
- For the range "Lite 72": track rails, 1-piece up to 7000 mm, 2-piece up to 10000 mm and 3-piece up to 14000 mm roof length.
- For the range "Lite 72": a support connection kit is included for each piece for connecting the centre pillars to the track rails.
- For the range "Lite 72": rail latch mounted underneath on the trackrail.
- Standard outside widths of 2550 mm or 2570 mm. Dimension points see „Lite 72“ and „Lite 100“.
- Length up to 16000 mm.
- Roof assembly with exception of the end trolley is completely zinc plated, the end trolley is black KTL coated.
- Weight without cant rail approx. 11 kg/m.

The aluminium cant rail (for the "Lite 100" range), its accessories and the cant rail dependant end trolley locking device are not included and must be ordered separately.

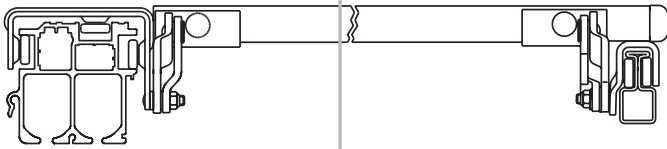
Special designs:

- Top in DB (German Rail) specification in accordance with EN 283.
- Top with "Lite 72" on left (viewed from rear) and "Lite 100" on right (viewed from rear).
- Additional front spar with (shortened) plastic links.
- Top can be opened towards both ends.
- Portal beam with integrated end lifter (gas strut 700 N). Depth of crossbar, 113 mm.
- End lifter for customer's own crossbar with 1 x 700 N gas strut or 2 x 500 N gas struts.
- Miscellaneous crossbars, e.g. for PWP Contact door sealing system.
- For the range "Lite 100": end trolley locking device (roller/ramp or wedge/pull-cord), dependant on cant rail.
- Top supplied without spars.
- For the range "Lite 72": special division of the track rails to suit linkage pack (concertinaed), with or without support (strut), support can be height adjustable if required.
- For the range "Lite 72": rail latch mounted on the side of the track rails (not available for DB specification tops).
- Top supplied without track rails and their connections for the under-body.
- Deviation from standard outside widths.
- (Pillar) tie bars.
- For the range "Lite 72": Top coupler for centre pillars.



This top does not have its own spare parts section. However, all individual parts can be found in the spare part overviews for the tops "Lite 72" from page 773, and "Lite 100" from page 845.

„Profi-Kombi“
Type 2980.8100



This top does not have its own spare parts section. However, all individual parts can be found in the spare part overviews for the tops "Profi 95" from page 793, and "Profi 100" from page 885.

The roof types belonging to the Kombi model series combine the merits of the classic full tarpaulin with the curtainsider sliding tops. This top is a combination of the full tarpaulin top "Profi 95" (right side, viewed from rear), and the curtainsider top "Profi 100" (left side, viewed from rear). Steel linkages and rising steel spars when opening control the lifting and folding of the roof tarpaulin thus ensuring gentle treatment of the tarpaulin by the sliding roof function.

- Included in the supply are the linkage packs, the roof spars, the end trolley and, for the range "Profi 95", the steel track rails with the connections for the under-body.
- Linkage pack roller carriages with ball bearings, steel linkages with bushed pivot points.
- First spar acts as running tie bar on the cant rails/track rail (no linkage), the spar does not rise when opening the top.
- Steel roof spars, zero pitch, spaced at 570 mm, rise and lift the tarpaulin when opening.
- Travelling crossmember as end trolley with locking device for the range "Profi 95". The locking device for the side "Profi 100" must be ordered separately.
- The top can be slid from one side, from ground level.
- Track rail (for the "Profi 95" range), 1-piece up to 7000 mm, 2-piece up to 10000 mm and 3-piece up to 14000 mm roof length.
- Rail latch (for the "Profi 95" range) mounted below on the track rail.
- Standard outside widths of 2550 mm or 2570 mm. Dimension points see „Profi 95“ and „Profi 100“.
- Length up to 16000 mm.
- Roof assembly, with the exception of the end trolley crossmember, is completely zinc plated, the crossmember is black KTL coated.
- Weight without cant rail approx. 14 kg/m.

The aluminium cant rail (for the "Lite 100" range), its accessories and the cant rail dependant end trolley locking device are not included and must be ordered separately.

Special designs:

- Top in DB (German Rail) specification in accordance with EN 283.
- Top with "Profi 95" on left (viewed from rear) and "Profi 100" on right (viewed from rear).
- First spar with (shortened) linkage, spar rises when roof is opened.
- Travelling tie rods, recommended for tops over 9 m in length.
- Portal beam with integrated end lifter (gas strut 700 N). Depth of crossbar, 113 mm.
- End lifter for customer's own crossbar with 1 x 700 N gas strut or 2 x 500 N gas struts.
- Miscellaneous crossbars, e.g. for PWP Contact door sealing system
- For the range "Profi 100": end trolley locking device (roller/ramp or wedge/pull-cord), dependant on cant rail.
- Top supplied without spars.
- For the range "Profi 95": special sectioning of the track rails to suit linkage pack (concertinaed), with or without support (strut), support can be height adjustable if required.
- Top supplied without track rails and their connections for the under-body.
- Deviation from standard outside widths.
- For the range "Profi 95": Top coupler for centre pillars.

„Eco-Kombi“
 Type 2980.9200

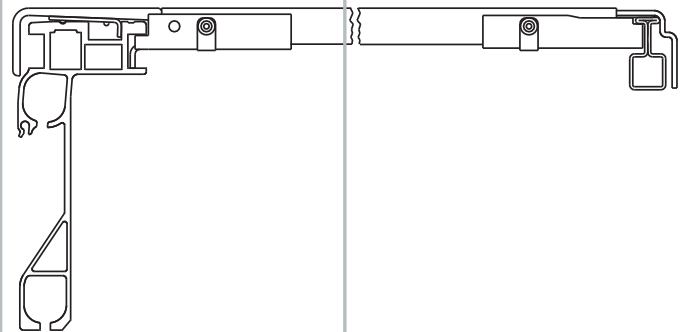
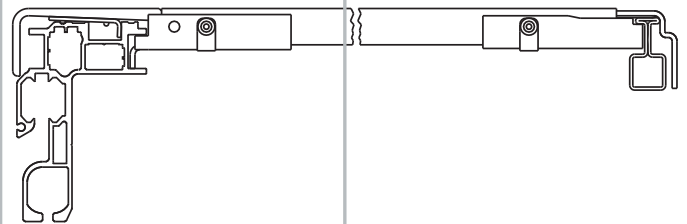
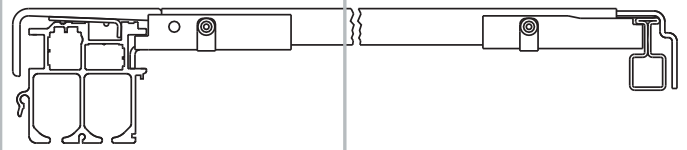
The roof types belonging to the Kombi model series combine the merits of the classic full tarpaulin with the curtainsider tops. This top is a combination of the full tarpaulin top "Eco 65" (right side, viewed from rear), and the curtainsider top "Eco 100" (left side, viewed from rear). The tarpaulin fixed roofs from the Eco model series can also be rolled up and retro-converted to sliding roofs. The roof spars are clamped to the track rails/cant rails and additionally fixed via tensioning cables.

- Included in the supply are the roof spar, the steel track rail for the "Eco 65" range and their connections for the under-body, 4 tensioning cables and the fixing materials on the track rail and the cant rail.
- Steel roof spars, zero pitch, spaced at 650 mm.
- Track rail (for the "Eco 65" range) with 1 section.
- Rail latch fitted to the underside of the track rail.
- Standard outside widths of 2550 mm or 2570 mm. Dimension points see „Eco 65“ and „Eco 100“.
- Length up to 16000 mm.
- Roof spars, track rail and fasteners zinc plated steel.
- Weight without cant rail approx. 8 kg/m.

The aluminium cant rail (for the "Eco 100" range) and its accessories are not included and must be ordered separately.

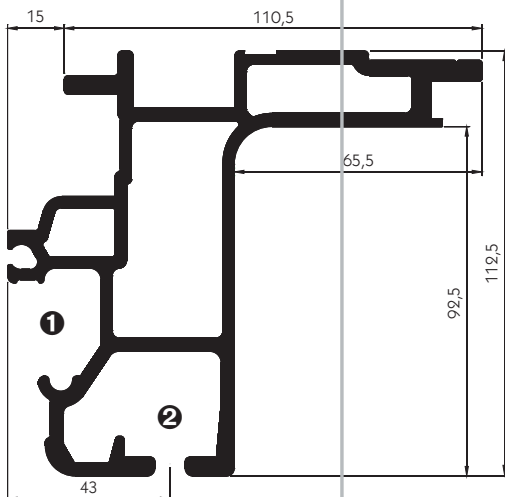
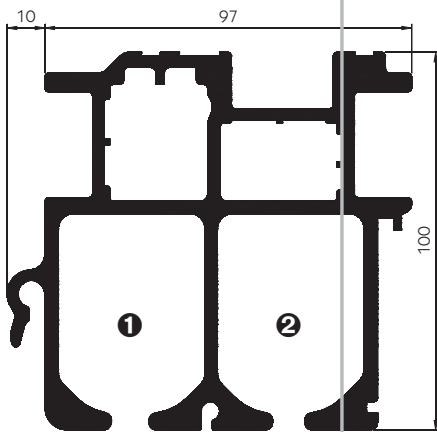
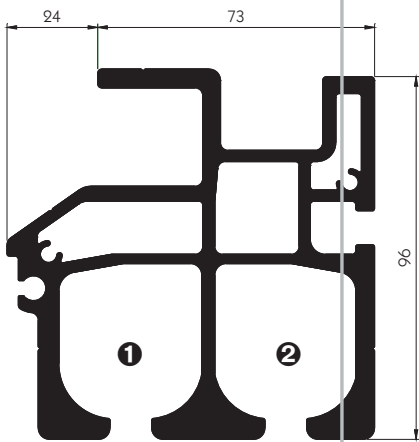
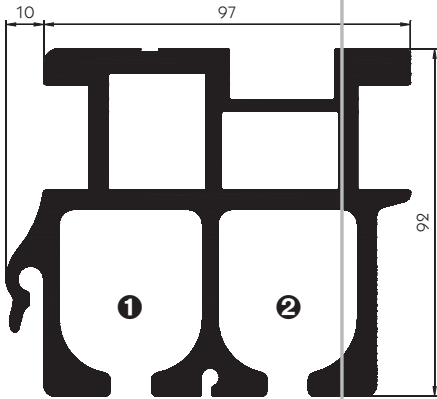
Special designs:

- Top in reinforced DB (German Rail) specification.
- Top with "Eco 65" on left (viewed from rear) and "Eco 100" on right (viewed from rear).
- End spar, not suitable for door lock recesses.
- Fixed portal beam for outside width 2550 mm or 2570 mm, suitable for door locking recesses. Depth of crossbar, 113 mm.
- For the range "Eco 65": special sectioning of the track rail with or without support (strut), height adjustable support on request.
- For the range "Eco 65": top supplied without the track rails and their connections for the under-body.
- Deviation from standard outside widths.
- For the range "Eco 65": Top coupler for centre pillars.



This top does not have its own spare parts section. However, all individual parts can be found in the spare part overviews for the tops "Eco 65" from page 919, and "Eco 100" from page 935.

Cant rails (Curtainsider profile)



Curtainsider profile 80797

Weight 7.5 kg/m.

Length 13600 mm* **660807973**

*profile pre-stressed

- ❶ Cavity for curtain roller Standard.
- ❷ Cavity for pillar roller Standard.

Curtainsider profile Mixliner 2004

Weight 6.5 kg/m.

Length 6500 mm **650000055**

Length 7500 mm **650000056**

Length 8500 mm **650000057**

- ❶ Cavity for curtain roller Standard.
- ❷ Cavity for pillar roller Standard.

Curtainsider profile 10050

Weight 6.4 kg/m.

Length 6500 mm **660100506**

Length 7500 mm **660100501**

Length 8500 mm **660100502**

Length 9500 mm **660100504**

Length 13600 mm* **660100503**

*profile pre-stressed

- ❶ Cavity for curtain roller Standard.
- ❷ Cavity for pillar roller Standard.

Curtainsider profile Slimliner Medium/Lite Plus 125

Weight 5.2 kg/m.

Length 6500 mm **660054676**

Length 7500 mm **660054671**

Length 8500 mm **660054672**

Length 9500 mm **660054674**

Length 13600 mm* **660054673**

*profile pre-stressed

- ❶ Cavity for curtain roller Volumen.
- ❷ Cavity for pillar roller Volumen.

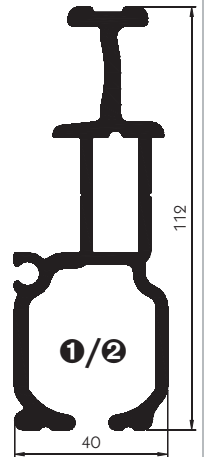
- ❶ Cavity for curtain roller Standard.
- ❷ Cavity for pillar roller Standard.

Curtainsider profile

55900

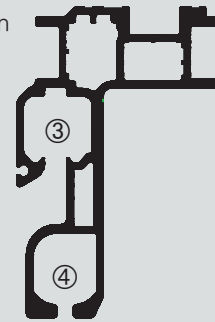
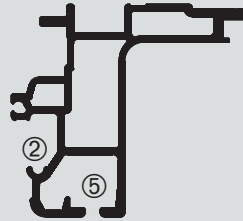
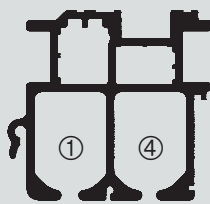
Weight 2.8 kg/m.

Length 8000 mm **660559000**



Due to the variety of differently formed chambers within the cant rails we have given the corresponding rollers (for curtain rollers and pillar trolleys) the following designations:

- ❶ For curtain rollers Standard
- ❷ For curtain rollers Volumen
- ❸ For curtain rollers Volumen "165"
- ❹ For pillar rollers Standard
- ❺ For pillar rollers Volumen



- ❶ Cavity for curtain roller Volumen.
- ❷ Cavity for pillar roller Volumen.

Curtainsider profile Slimliner Large/Lite Plus 175

Weight 6.3 kg/m.

Length 6500 mm **660052576**

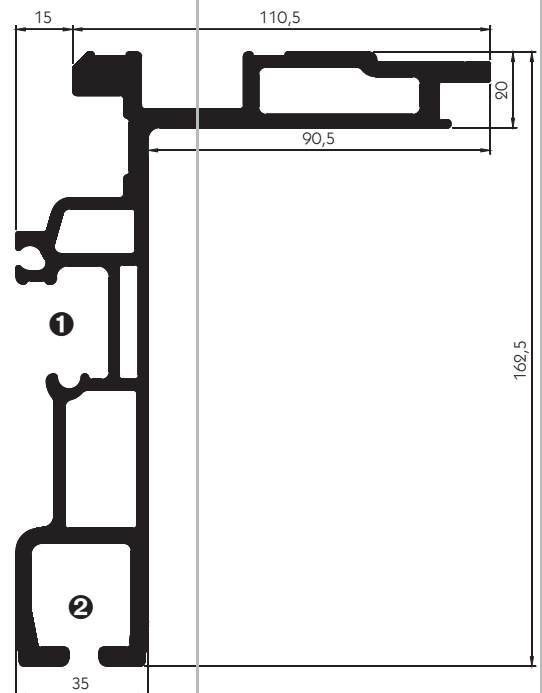
Length 7500 mm **660052571**

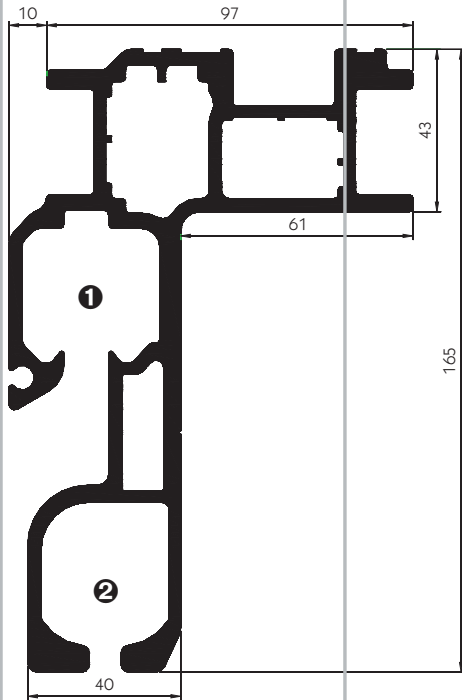
Length 8500 mm **660052572**

Length 9500 mm **660052574**

Length 13600 mm* **660052573**

*profile pre-stressed





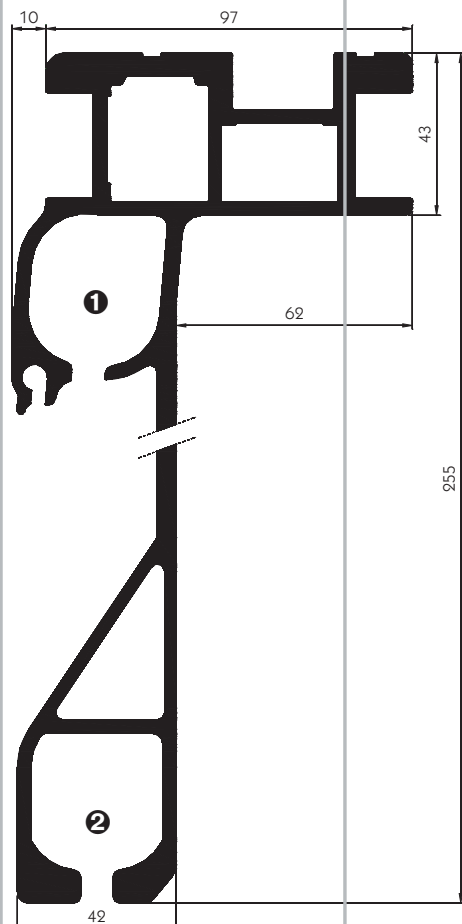
Curtainsider profile
10073

Weight 7.2 kg/m.

Length 13600 mm* [660100733](#)

*profile pre-stressed

- ❶ Cavity for curtain roller Volumen "165".
- ❷ Cavity for pillar roller Standard.



Curtainsider profile
33569

Weight 9.0 kg/m.

Length 7800 mm [660335691](#)

Length 9000 mm [660335699](#)

Length 13600 mm* [660335693](#)

*profile pre-stressed

- ❶ Cavity for curtain roller Standard.
- ❷ Cavity for pillar roller Standard.

Accessory for cant rails

PVC seal

For cant rails 10073, Lite Plus 125/
Slimliner Medium (05467), Lite
Plus 175/Slimliner Large (05257)
and Small CS (55900), weight
0.49 kg/m.

Colour	Length [m]	
Grey	13.7	660059950
Grey	18.5	660059960
Black	13.7	660059970
Black	18.5	660059980

PVC seal

For cant rails 80797, 10050 and
33569, weight 0.49 kg/m.

Colour	Length [m]	
Grey	16	660828216
Grey	28	660828228
Black	16	660828316
Black	28	660854930
Black	33	660758500

PVC seal

For cant rail Mixliner 2004, weight
0.8 kg/m.

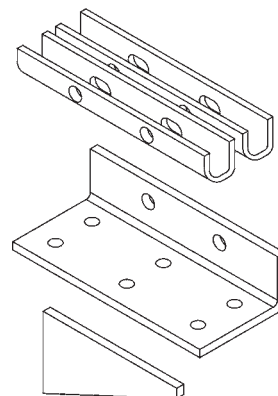
Colour	Length [m]	
Grey	9	650000015
Grey	14	650000016
Black	9	650000010
Black	14	650000011
Black	15	650000013
Black	20	650000014
Black	28	650000012

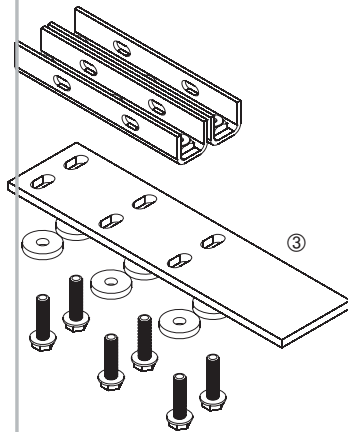
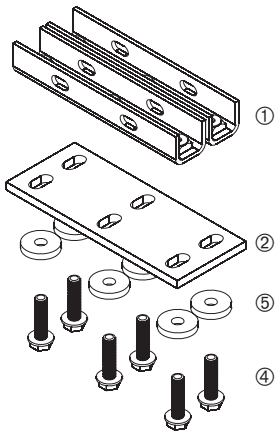
Fitting kit including fixing screws.
1 kit per cant rail is required.

Fitting kit

For cant rails 80797 and 10050,
weight 8.10 kg.

660029750





Fitting kit
For cant rails Mixliner and Flatliner.
Weight 10.06 kg. This accessory consists of:

Item

①	8 x U threaded rail	65000047
②	2 x Mounting plate short	65000048
③	2 x Mounting plate long	65000049
④	24 x Serrated screw with flange - M 10 x 40	65000050
⑤	24 x Washer DIN 9021 - A 10.5	not available

65000018

U threaded rail
For mounting cant rails Mixliner and Flatliner, zinc plated steel.

65000047

Mounting plate short
For mounting cant rails Mixliner and Flatliner in the front, self colour steel.

65000048

Mounting plate long
For mounting cant rails Mixliner and Flatliner in the rear, self colour steel.

65000049

Sliding bow top "Profi"
 Type 2971.2000

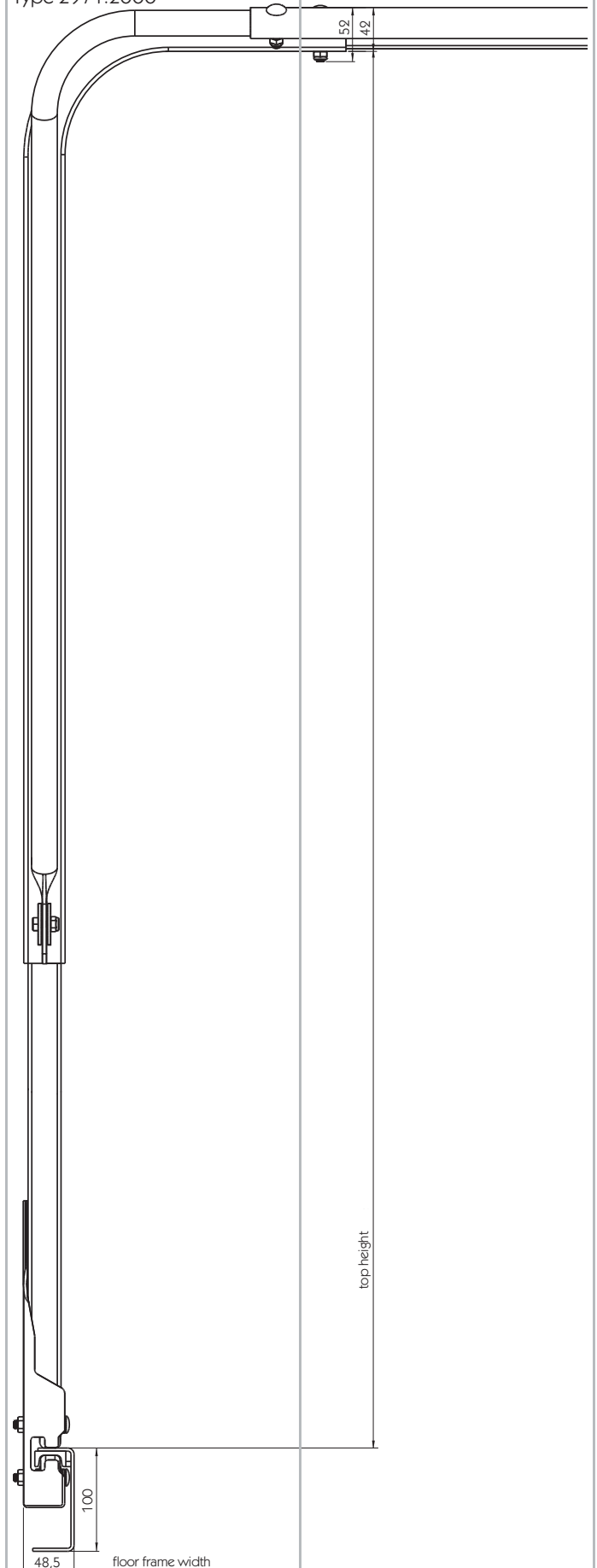
The sliding bow top transforms the traditional flatbed body into an all-purpose commercial vehicle.

Spars sliding rollers with tarpaulin lifting bows allow one person to open and close the complete loading area in both directions within seconds (minus the concertinaed length) from the side at ground level.

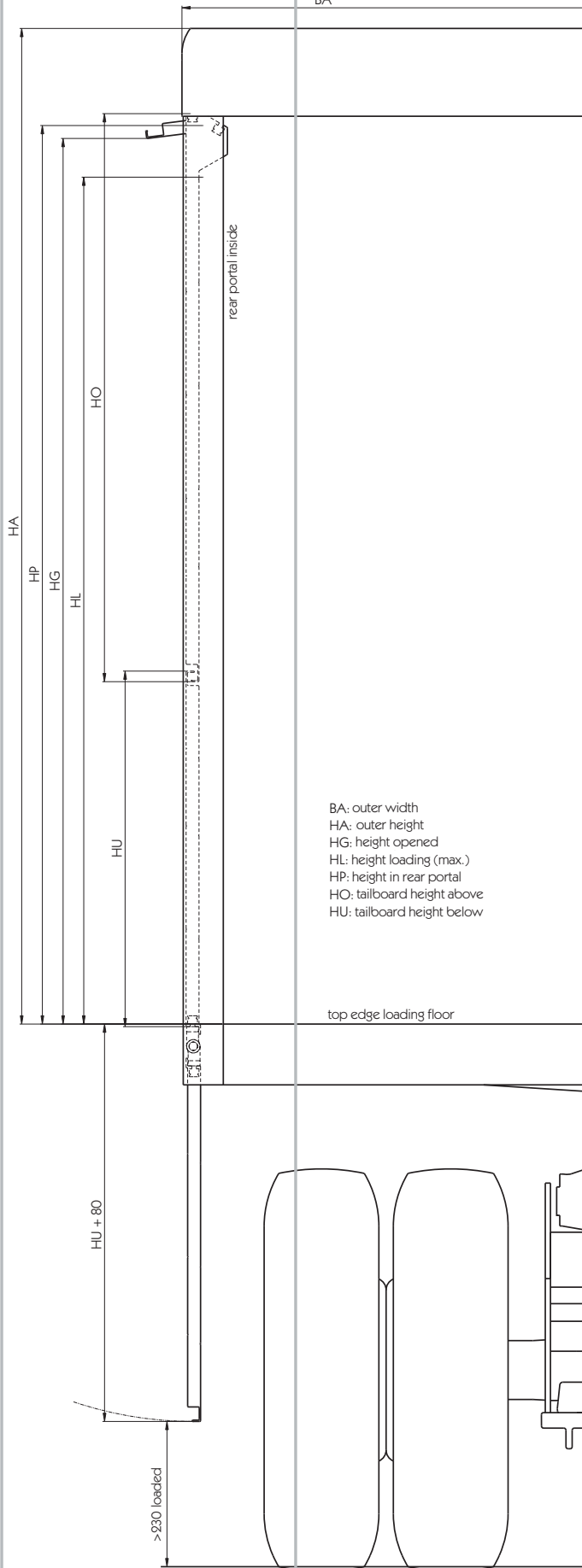
- Included in the supply are the headboard trolley with board locking, the end trolley with floor locking, roller carriages (spars) each with two folding bows, the track rails with fixing screws and specially required fitting materials for the tarpaulin.
- Steel roller carriages (spars), not pitched, spaced at approx. 1700 - 1800 mm (bet. centres).
- Top can be slid open from both sides, and operated from one side at ground level.
- Headboard and end trolleys with brake for partially opening the top during loading/unloading.
- Track rails with multiple sectioning:
Front and rear rails 2010 mm each, intermediate track rails 2000 mm each, and 1 compensating rail, length as required.
- Standard roof heights of 2100 mm to 2500 mm in steps of 100 mm.
- Standard outside widths of 2495 mm, 2550 mm or 2600 mm.
- Length up to 16000 mm.
- Loading height at palette width = roof height - 150 mm, with "sharp edges" = roof height - 200 mm.
- The superstructure must have a headboard almost equal in height to the roof in order to absorb wind pressure.
- A PVC tarpaulin 650-700 g/m² is necessary, we would be pleased to advise on a suitable tarpaulin manufacturer.
- Weight approx. 32 kg/m.

Special designs:

- Headboard adapter - positive fit sealing between the headboard trolley and headboard with additional sealing profiles.
- Door kit - when opening the top, travelling PWP portal doors with modified hinge bearings. These doors must be equipped by the customer with a travelling locking device for the opened door.
- Deviation from standard roof height, from 2600 mm to 3000 mm in steps of 100 mm or preferred dimension between 1500 mm to 3200 mm.
- Deviation from standard outside widths up to maximum 2600 mm.



Dropside bodies Under-roof linkages NPV3



BA: outer width
HA: outer height
HG: height opened
HL: height loading (max.)
HP: height in rear portal
HO: tailboard height above
HU: tailboard height below

Beverage body kits with under-roof construction whereby the upper and lower side boards of one side or section are interconnected by rod linkages. Elliptical movement of the upper side boards allows optimum utilisation of the loading space.

- Included are the steel pillar portals with integrated rod linkage elements for the front and rear areas, the aluminium side boards, the pre-assembled aluminium headboard with loose headboard supports, prepared parts for the aluminium roof including sealant but without roof sheeting, seals for the side board and roof areas, and also the roller mechanisms. Including fitting instructions.
- Open rear portal.
- Automatic opening of the upper side boards when dropping the lower side boards.
- Levers and rods in maintenance free bearings.
- Smooth operation with consistent gearing over the whole travel range.
- Each lower side board fitted with 2 x 500 mm long moveable folding steps 621281 (integrated into the side board profile).
- Large advertising area on the aluminium side boards.
- Standard outside width 2550mm (in roof area).
- Length up to 13600 mm, lengths over 7600 mm are equipped as standard with 1 fixed centre pillar with integrated linkage elements.
- Centre board lock as standard with side loading length (in one section) of over 6000 mm.
- Pillar portals and pick up equipment for the side boards zinc plated, headboard supports black KTL coated, aluminium parts self colour.

Special designs:

- Roof pre-assembled including sheeting.
- Rear portal as closed wall.
- Rear portal with upper shutter (opens via gas strut) for tail lift or tail gate
- Rear portal with multiple winged PWP-portal doors.
- Centre board locking.
- Centre pillar portal with integrated linkage elements.
- Side board locking with simultaneously closing locks.
- Side boards powder coated on one side (outer), serves as primer coat.
- Side boards with integrated lashing ring rails.
- Deviations from standard outside widths.

Variants

Variant	Dim. HL [mm]	Dim. HG [mm]	Dim. HA [mm]	Dim. HP [mm]	Dim. HU [mm]	Dim. HO [mm]
NP3 - 1	1640	1715	1928	1715	700	1100
NP3 - 2	1690	1765	1978	1765	700	1150
NP3 - 3	1740	1815	2028	1815	750	1150
NP3 - 4	1790	1865	2078	1865	750	1200
NP3 - 4/5	1840	1915	2128	1915	800	1200
NP3 - 5	1890	1965	2178	1965	850	1200
NP3 - 5/6	1940	2015	2228	2015	900	1200
NP3 - 6	1990	2065	2278	2065	950	1200
NP3 - 6/7	2040	2115	2328	2115	950	1250

Beverage body kits with under-roof construction whereby the upper and lower side boards of one side or section are interconnected via cables.

- Included are the steel pillar portals with integrated pulleys and pre-assembled cables for front and rear area, the aluminium side boards, the pre-fitted aluminium headboard with loose supports, pre-finished parts for the aluminium roof including sealant but without roof sheeting, and also seals for the side board and roof areas. Including fitting instructions.
- Side board cable can also be adjusted when fully loaded.
- Open rear portal.
- Automatic opening of the upper side boards when dropping the lower side boards.
- Cable pulleys with maintenance-free ball bearings.
- Each lower side board fitted with 2 x 500 mm long moveable folding steps 621281 (integrated into the side board profile).
- Large advertising area on the aluminium side boards.
- Standard outside width 2550 mm (in roof area).
- Length up to 13600 mm, lengths over 7600 mm are equipped as standard with 1 fixed centre pillar portal with integrated pulleys and pre-fitted cables.
- Centre board lock as standard with side loading length (in one section) of over 6000 mm.
- Pillar portals for the headboards zinc plated, headboard supports black KTL coated, aluminium parts self colour.

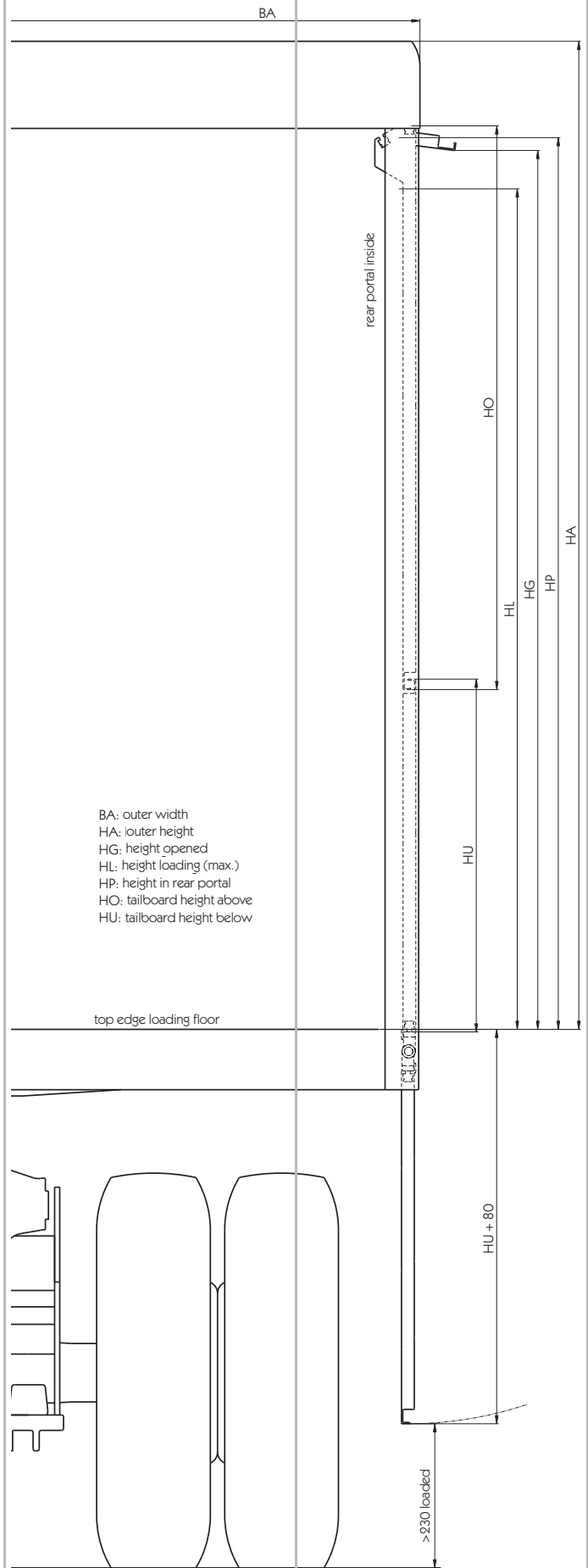
Special designs:

- Roof pre-assembled including sheeting.
- Rear portal as closed wall.
- Rear portal with upper shutter (opens via gas strut) for tail lift or tail gate.
- Rear portal with multiple winged PWP-portal doors.
- Centre board locking.
- Centre pillar portal with integrated pulleys and pre-fitted cables.
- Side board locking with simultaneously closing locks.
- Side boards powder coated on one side (outer), serves as primer coat.
- Side boards with integrated lashing ring rails.
- Deviations from standard outside widths.

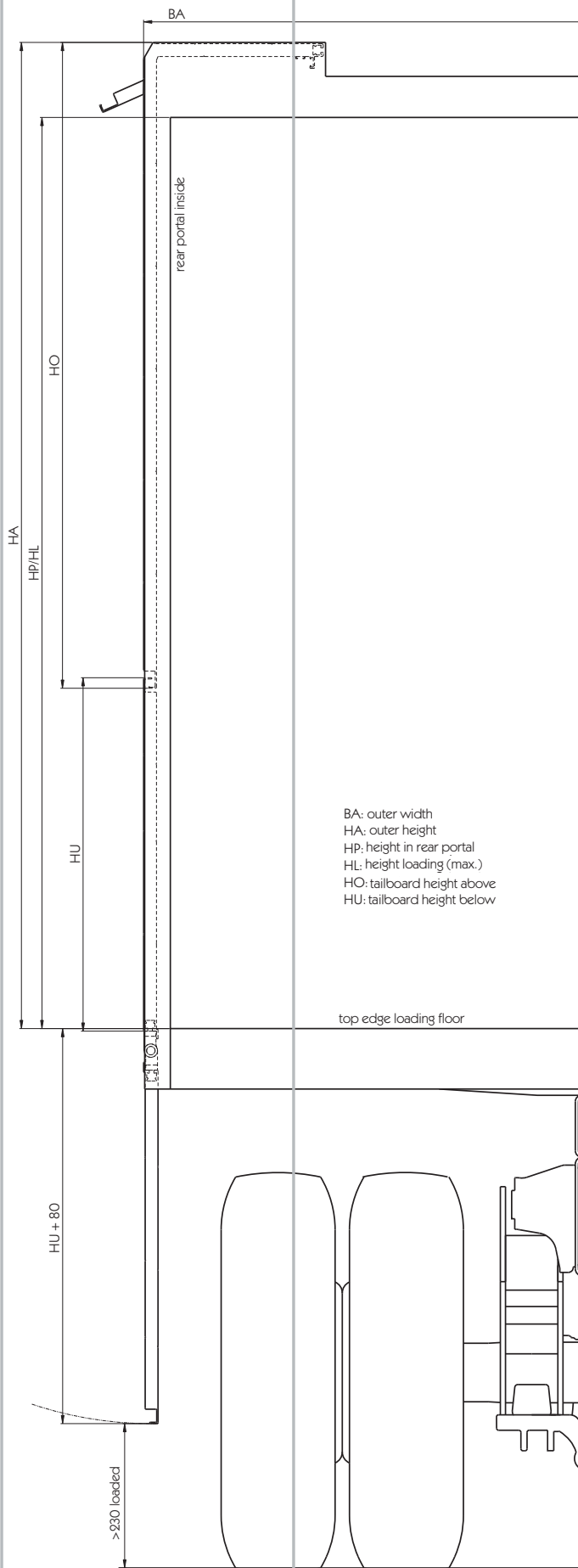
Variants

Variant	Dim. HL [mm]	Dim. HG [mm]	Dim. HA [mm]	Dim. HP [mm]	Dim. HU [mm]	Dim. HO [mm]
SUED 1.0	1625	1675	1935	1655	700	1100
SUED 2.0	1675	1725	1985	1705	700	1150
SUED 3.0	1725	1775	2035	1755	700	1200
SUED 4.0	1775	1825	2085	1805	750	1200
SUED 5.0	1825	1875	2135	1855	750	1250
SUED 5.1	1825	1875	2135	1855	800	1200
SUED 6.0	1875	1925	2185	1905	800	1250
SUED 6.1	1875	1925	2185	1905	850	1200
SUED 7.0	1925	1975	2235	1955	800	1300
SUED 7.1	1925	1975	2235	1955	850	1250
SUED 8.0	1975	2025	2285	2005	850	1300
SUED 8.1	1975	2025	2285	2005	900	1250
SUED 9.0	2025	2075	2335	2055	900	1300
SUED 9.1	2025	2075	2335	2055	950	1250
SUED 10.0	2075	2125	2385	2105	950	1300

Under-roof cable SUD



Over-roof cable UED



BA: outer width
 HA: outer height
 HP: height in rear portal
 HL: height loading (max.)
 HO: tailboard height above
 HU: tailboard height below

Beverage body kits with over-roof construction whereby the upper and lower side boards of one side or section are interconnected via cables. This over-roof variant offers two decisive advantages against the under-roof versions: on the one hand, available loading space can be fully utilised, and on the other, the roof can be utilised for mounting lashing ring rails for load securing approaching vehicle width. When open, the upper side boards stand up to 500 mm above the given body height HA.

- Included are the steel pillar portals with tilt drives for front and rear areas, the aluminium side boards, the pre-assembled aluminium headboard with loose headboard supports, prepared parts for the aluminium roof including sealant but without roof sheeting, and also seals for the side board and roof areas. Including fitting instructions.
- Side board cable can also be adjusted when fully loaded.
- Open rear portal.
- Automatic opening of the upper side boards when dropping the lower side boards.
- Cable pulleys with maintenance free bearings.
- Each lower side board fitted with 2 x 500 mm long moveable folding steps 621281 (integrated into the side board profile).
- Large advertising area on the aluminium side boards.
- Standard outside width 2550 mm.
- Length up to 13600 mm, lengths over 7400 mm are equipped as standard with 1 fixed centre pillar portal with tilt drives.
- Centre board locking as standard with side loading length (in one sector) of over 6000 mm.
- Pillar portals for the headboards zinc plated, headboard supports black KTL coated, aluminium parts self colour.

Special designs:

- Rear portal as closed wall.
- Rear portal with upper shutter (opens via gas strut) for tail lift or tail gate.
- Rear portal with multiple winged PWP-portal doors.
- Centre board locking.
- Centre pillar portal with tilt drives.
- Side board locking with simultaneously closing locks.
- Side boards powder coated on one side (outer), serves as primer coat.
- Side boards with integrated lashing ring rails.
- Deviations from standard outside widths.
- Deviation from standard side board heights/combinations on request.

Variants

Variant	Dim. HP/HL [mm]	Dim. HA [mm]	Dim. HU [mm]	Dim. HO [mm]
UED1	1855	2045	800	1250
UED2	1905	2095	850	1250
UED3	1955	2145	900	1250
UED4	2005	2195	900	1300
UED5	2055	2245	950	1300
UED6	2105	2295	1000	1300
UED7	2155	2345	1000	1350
UED8	2205	2395	1050	1350
UED9*	2255	2445	1050	1400
UED10*	2305	2495	1100	1400

*The variants ÜD9 and ÜD10 can only be opened on one side. Please confer about option for two sided opening.

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