

Truckline

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Commercial Vehicle Windscreen Adhesive

for immediate glazing of windscreens on trucks, buses, railway rolling stock, construction and agricultural machinery

Truck - Windscreen Adhesives ASK K107

TRUCKline

- Truck windscreen adhesive
- Meets OEM requirements
- Cold curing
- Specially suitable for vehicles with open window joints / UV and weather resistant
- Can be smoothed easily, high abrasion-proof / low particle
- Long skin formation time makes insertion of very big windscreens possible
- Working time 20-25 mins.
- Drive away time: from 6 hours
- Cartridge thread M15x1,5

Article No.	Article Description
6600 6135	WSA TRUCKLINE C(310ML) K107
6600 6136	SET WSA-TRUCKLINE C(310ML)K107
6600 18	PK WSA TRUCKLINE K(310ML) K107

Contents Art.-No. 6600 6136:

- 2x Art.-No. 6600 6135 cartridge ASK K107 310ml
- 1x Art.-No. 6600 6104 ASK Primer 10ml
- 1x Art.-No. 6600 6109 ASK windscreen bond cleaner R540 20ml
- 2x Art.-No. 6010 0008 ASK-nozzle
- 1x Art.-No. 5413 4 cleaning cloth

Contents Art.-No. 6600 18:

- 12x Art.-No. 6600 6135 cartridge ASK K107 310ml
- 12x Art.-No. 6600 6104 ASK Primer K110 10ml
- 1x Art.-No. 6110 1000 ASK windscreen bond cleaner 500ml
- 12x Art.-No. 6010 0008 ASK-nozzle



	Truckline K107
Product basis	1K-PUR
Processing	cold
Glazing time until set	max. 25 Min.
Special resistance (Ohms)	ca. 10 ⁶ Ω cm
Optimal high frequency response	Yes
Shear modulus	approx. 2 MPa
Stability	very good
Ready for use in accordance with US standard (50 km/h frontal impact) without double airbag	from abt 6 hrs
With double airbag	from abt 6 hrs
Recommended ambient temperature for application	≥ +15°C

Disc stand truck / bus

- adjustable work height
- 2 foam casings
- continuous support, also ideal for smaller discs (side discs)
- load capacity up to 120 kg
- dimensions HxBxD: 108 x 90 x 110cm



Article No.	Article Description	QTY
5437 11	WINDSCREEN SUPPORT TRUCK/BUS	1

Rust Off Magic S413 **TRUCKline**

- Silicone free
- Synthetic graphite based rust remover
- Fast acting
- Resistant to extreme pressures
- Infiltrates tightest tolerance and removes dampness and moisture
- Applies a long lasting durable lubricating film during disassembly
- Does not affect rubber
- Preserves and conserves
- Safety spray head
- Suitable use on suspension springs, spark plugs, injector nozzles and sleeves, latches and fixing parts, exhaust systems, turbochargers, nuts and bolts, seized joints, Bowden cables, chain drives, cable pulley's, checking instruments, wiper axles etc.



Article No.	Article Description
6700 0074	RUST OFF MAG.TRUCK S413 500ML

PTFE High-Performance Oil 416 **TRUCKline**

- High quality oil with PTFE
- Extremely penetrating
- Pressure resistant under extreme pressure fluctuations
- Resistant to water, salt, diluted acids and alkalis
- High-temperature resistant from -30°C to +250°C
- Very strong adhesion on many different substrates, leaves an adhesive-free PTFE-film and protects against corrosion without attracting dirt
- Aerosol with ball valve can be used in any position
- With safety spray nozzle

Application:

- For all lubricating spots at the vehicle which are exposed to weather and pressure fluctuations, pressure and dirt such as door locks, linkages, chains, locking cylinder, hinges, Bowden cables, screw connections, sliding rails etc...



Article No.	Article Description
6520 5578	TRUCK PTFE H.PERFORM.OIL 500ML

PTFE High-Performance Grease S417 **TRUCKline**

- Forms a drip free and high-pressure resistant lubrication
- Temperature resistant from -30°C to +250°C
- Biodegradable
- For heavy duty structural elements, chains and chain wheels, door and window mechanisms, hinges, sliding rails, wire ropes, bearing bushes, open running gear wheels etc...
- Abrasion-resistant, prevents claspings, creaking and squeaking
- Protects from corrosion
- >81% biodegradable according to CEC-L-33-T-82
- Aerosol with ball valve can be used in any position
- With safety spray nozzle



Article No.	Article Description
6500 5585	TRUCK PTFE H.PERF.GREASE 500ML

Cockpit Care P303 **TRUCKline**

- Silicone-free
- Cares and protects all rubber and plastic parts in the truck
- Prevents electrostatic charging
- Satin finish gloss
- With lemon odour



Article No.	Article Description
6100 0189	TRUCK COCKPIT CARE P303 500ML

Truckstar 'Active Multi Clean' Foam R585 **TRUCKline**

Active carefully balanced 'duo' solvent and cleaning agents enable Truckstar to effortlessly remove stubborn dirt and soiling from all Truck surfaces.

- Effortlessly cleans glass, chrome and plastic surfaces etc.
- Cab interiors, seat cushions, fabrics, textiles, roof linings etc.
- Eliminates dirt, grease, oil stains from all truck surfaces
- Engine and other metal parts...easily cleaned
- Biodegradable
- silicone-free



Article No.	Article Description
6100 1661	TRUCKSTAR ACTIVE CL.R585 600ML

Cargo Cleaner R525 **TRUCKline**

- Ideal cleaner for tarpaulins, platforms, case and tank superstructures, bodywork, engines and frames etc...
- Cleaning concentrate can be mixed with water from 1:1 to 1:20
- Suitable for the entire truck
- Biodegradable
- optimal usable in connection with a high pressure cleaner, a foam lance or other spraying devices
- Allow cleaner to react for 5 mins. then wash clean using a high pressure cleaner, foam lance or other spraying device
- AOX-free, NTA-free
- alkaline, pH-value undiluted: 11,3



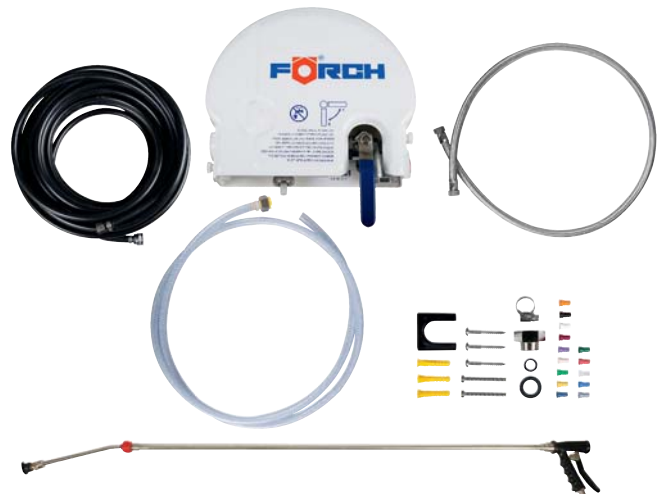
Article No.	Article Description
6100 1800	CARGO CLEANER R525 25L
6100 1801	CARGO CLEANER R525 60L
6100 1802	CARGO CLEANER R525 200L

Suitable spouts:

- 25 l: Art. No. 6000 0025/6000 0029
- 60 l: Art. No. 6000 0025
- 200 l: Art. No. 6000 0073

Metering Device Translav DV

- Suitable for the cleaning of cars and commercial vehicles
- Connect the metering device to water conduit and cleaning agent. Due to the suction effect of the water the medium will be attracted and mixed inside the metering device.
- various mixed concentrations can be achieved due to different nozzle inserts



Article No.	Article Description
6000 0063	METERING DEV.SPRAY LANCE 1,85M

Included in delivery:

Stainless steel telescopic spray lance (max. 1.85 m), metering device with Venturi system, 25 m hose with connections

Truck Grease S429 **TRUCKline**

- Roller-resistant, lithium soap grease which can be used for centralized lubrication systems as well as gear lubrication
- Water-resistant
- Resistant to corrosion and oxidation
- Certification according to DIN 51502: GP 00 K-40
- Certification according to ISO/DIS 6743-9: ISO-L-XDCHB00
- NLGI grade / DIN 51 818: 2
- Mercedes Benz approval 264.0 for Mercedes Benz vehicles and aggregates
- Lead, barium and chloride-free
- Provides excellent wear protection
- Temperature range from -40 °C to +120 °C



Article No.	Article Description
6550 5795	BUCKET(15KG)TRUCK GREASE S429
6550 5796	BUCKET(25KG)TRUCK GREASE S429

Filling Devices for Centralized Lubrication System

- For easy and clean filling of containers at trucks, agricultural machines and in the industrial sector
- With handle for easy removal of the piston

Art.-No. 2909 70:

- Adjustable dust cap protects from dirt and enables a view to the filling quantity at any time
- Star-mounting system for the fixation of the grease feed pump at different container diameters

Art.-No. 2909 80:

- Dust cap protects from dirt, with integrated pump fixation and fixing screws for the mounting of the grease feed pump at the container
- Piston for conical plastic containers from 300 to 350 mm



Technical Data

	Art.-No. 2909 70	Art.-No. 2909 80
Pressure pump		
Pumping medium:	Grease up to NLGI 2	Grease up to NLGI 2
Pressure pump / stroke:	30 cm ³	30 cm ³
Hose length:	1,500 mm	1,500 mm
Piston:	266 - 291 mm	300 - 350 mm
Length of suction pipe:	510 mm	680 mm
Connection:	Coupling Rectus, type 72	Coupling Rectus, type 72

Article No.	Article Description
2909 70	FILL.DEV.F.CENTR.LUBR.CON.15KG
2909 80	FILL.DEV.F.CENTR.LUBR.CON.25KG

Battery Grease Press Set for System Cartridges

Lube-Shuttle® System-Grease Press

- High performance electric DC-motor with planetary gear and crankshaft operation
- A working pressure of max. 400 bar, controlled by a pressure-relief valve
- High pressure safety hose 13 x 750 mm with 4-jaw hydraulic gripper mouthpiece
- Ideal for greases NLGI-class 000 to 2



Technical Data

Battery Grease Press	
Operating voltage:	14.4 V
Working pressure:	max. 400 bar
Output:	approx. 100 ccm/min
Connecting thread:	R1/8"
Rechargeable battery	
Nominal voltages:	14,4 V
Capacity:	Li-Ion 3.000 mAh
Charger	
Primary voltage:	230 V, 50 Hz, 35 W
Secondary voltage:	14.5 V, 1,500 mA
Charging time:	1.5 hrs.

Article No.	Article Description
2909 100	BATT.GREASE GUN KIT LS-SYSTEM
2909 100 1	HI-PRESS.HOSE WO.MP 13X750R1/8
2909 100 2	REPLAC.BATT.GREASE PRESS LS-SY
2909 100 3	CHARGER BATT.GREAS.PRESS LS-SY
2909 25 2	4-JAW HYD. MOUTHPIECE R1/8
2909 25 3	NOZ.PIPE BN.W4-JAW HYD.MP R1/8

Delivery scope:

- 1x Battery grease press
- 1x High-pressure hose 13 x 750 mm
- 1x 4-jaw hydraulic gripper mouthpiece
- 1x Li-Ion battery 3,000 mAh
- 1x Charger

Your Advantage / Benefit

- Clean loading and unloading of the grease cartridge
- No venting required
- Continuous fat feeding
- Extra-long high-pressure safety hose
- Cartridges can be completely emptied
- Refillable cartridges

Application

- For mobile greasing of all lubrication points at machinery and vehicles that are equipped with grease nipples



Related Products

- Commercial vehicle high performance grease bucket
Art.-No. 6550 5771



- Commercial vehicle high performance grease cartridge
Art.-No. 6550 5770



- Filling device for system cartridges LS
Art.-No. 2909 85



- Filling adapter for system cartridges LS
Art.-No. 2909 85 1



Battery Grease Press Set 18 V

- Suitable for 400 g Lube-Shuttle system cartridges, for 500 g threaded cartridges and 400 g Pull Off cartridges
- High performance electric DC-motor with planet gear and crankshaft operation
- A working pressure of max. 400 bar, controlled by a pressure-relief valve
- High pressure safety hose 13 x 750 mm with 4-jaw hydraulic gripper mouthpiece
- ideal for greases NLGI-class 000 to 2 (according to DIN 51818); do not use pastes without greasing capabilities (with grease gel parts) and silicone pastes

Your Advantage / Benefit

- Clean loading and unloading of the grease cartridge
 - No ventilation required
 - Continuous grease feeding
 - Extra-long high-pressure safety hose
 - Cartridges can be completely emptied
 - Working pressure of 400 bar
- Expansion possibilities:**
- Cartridge Adapter (Art. No. 2909 100 18 1) suitable for 500 g threaded cartridges
 - Li-ion Battery 4.000 mAh (Art. No. 2909 100 18 3)

Application

- for mobile greasing of all lubrication points at machinery and vehicles that are equipped with grease nipples



2909 100 18



2909 100 18 1



2909 100 18 3



2909 100 18 2



2909 100 18 4



2909 100 1



Technical Data

Art. No.:	2909 100 18
Operating voltage:	18 V
Working pressure:	approx. 400 bar
Output:	approx. 100 ccm/min
Connection thread for grip. mouthpiece:	R1/8"
Working temperature:	-18 to 50 °C
Art. No.:	2909 100 18 2 / 209 100 18 3
Nominal voltage:	18 V
Type:	Lithium-Ion
Capacity:	1,500 mAh/27Wh 4,000 mAh/72Wh
Art. No.:	2909 100 18 4
Primary voltage:	230 V AC, 50-60 Hz
Secondary voltage:	18 V DC
Charging time 1,500 mAh:	approx. 1.0 h
Charging time 4,000 mAh:	approx. 2.5 h

Scope of delivery:

- 1x battery grease press
- 1x high pressure hose 13 x 750 mm
- 1x 4-jaw hydraulic gripper mouthpiece
- 1x li-ion battery 1,500 mAh
- 1x charger
- 1x threaded pipe for 400 ml Pull-Off cartridges

Article No.	Article Description	QTY
2909 100 18	BATTERY GREASE PRESS SET 18 V	1
2909 100 18 1	ADAPTER F.THREADED CARTRIDGES	1
2909 100 18 3	REPL.BATT.F.GREASE PRE.4000MAH	1
2909 100 18 2	REPL.BATT.F.GREASE PRE.1500MAH	1
2909 100 18 4	CHARGER FOR GREASE PRESS 18 V	1
2909 100 1	HI-PRESS.HOSE WO.MP 13X750R1/8	1

Comm.Vehicle High Perf.Grease S495 **TRUCKline**

- for medium and heavy loaded lubrication points on commercial vehicles, construction and agricultural machinery
- silicone, acid and resin free
- NLGI (DIN 51 818): 2
- Marking (DIN 51 825): KP 2 N-30
- Colour: yellow-brown
- observe the operating rules of the power unit and commercial vehicle manufacturers
- not suitable for lubrication points where greases are prescribed with solid lubricant content

Art.-No. 6550 5770:

- to be used only in Lube-Shuttle® System Grease Presses (Art.-No. 2909 25, 2909 100)

Art.-No. 6550 5771:

- for reloading of empty systemka cartridges with filling device and filling adapter Art.-No. 2909 85, 2909 85 1)



Your Advantage / Benefit

- mechanically stable lithium complex soap grease with a wide field of application and high load carrying capacity
- highest quality by adhering to the leading vehicle manufacturers specifications
- corrosion and oxidation resistant
- water resistant
- temperature resistant from -30°C to + 150°C

Application

- for lubricating all lubrication points on machines and vehicles fitted with cone grease nipples acc. to DIN 71412, as for example wheel bearings, axle bearings, cardan shaft bearingAnhö, axle drive, tow coupling, wheel hubs, universal joints, suspension, lifting device, trailers, etc.



Article No.	Article Description
6550 5770	COMM.VEH.HL-LUBR. GREASE S495
6550 5771	(25KG)COMM.VEH.HL-LUBGREAS495

Related Products

- **Battery grease press set for System cartridges**
Art.-No. 2909 100



- **Hand lever grease press for system cartridges**
Art.-No. 2909 25



- **Filling system for system cartridges LS**
Art.-No. 2909 85



- **Filling adapter for system cartridges LS**
Art.-No. 2909 85 1



Filling device for system cartridges

- Lube-Shuttle-System®
- screw-on lid with 3 adjustable screws at the sides
- clean and economical grease loading due to piston operated filling



Article No.	Article Description
2909 85	FILL.DEVICE F.SYST.CARTRIDGES

Filling adapter for system cartridges

- Lube-Shuttle-System®
- simple reloading of empty cartridges
- filling adapter for system cartridges with protective cap
- suitable for filling device for System cartridges Art.-No. 2909 85



Article No.	Article Description
2909 85 1	FILLING ADAPTER F.SYST.CARTR.

HT-Longlife Axle Grease S494 **TRUCKline**

- Lubricates heavily stressed friction and antifriction bearings, wheel hubs and release bearings of clutches
- Water-resistant
- Roller-resistant lithium soap grease
- Resistant to corrosion and oxidation
- Wear protection
- Temperature range from -35 °C to +150 °C
- Suitable for 'Bergische' axles (ECO Li axles)
- EP alloyed certification according to DIN 51 502: KP 2 N-30; NLGI grade; DIN 51 818: 2
- Colour: blue



Article No.	Article Description
6550 5791	HT-LL AXLE GREASE S494 400G

Long-Life Grease S493 **TRUCKline**

- High-pressure grease
- Salt water resistant
- Extremely adhesive
- Ideally suitable for Trucks
- Corrosion and wear protection
- Temperature range -30 °C to +120 °C, short-time up to +130 °C
- Certification according to DIN 51 502: KP 2 K-30
- NLGI grade / DIN 51 818: 2
- Colour: yellow-green



Article No.	Article Description
6550 5793	TRUCK LO.LIFE GREASE S493 500G

Two-Hand Grease Gun

- Complete emptying due to vacuum method
- Suitable for 500 gram cartridges with thread
- With flexible pressure tube (length 30 cm) and connector
- Quick and clean change of cartridges
- Dimensions (L x W x H): 350 x 195 x 30 mm



Article No.	Article Description	QTY
2909 60	TWO-HAND GREASE GUN F.500G CART.	1

Cordless lubrication gun M12GG

- handy and light cordless lubrication gun
- balanced design and only 355 mm long
- possible to fill from cartridge and from containers
- vent valve for quick work progress
- ideal for greasing vehicles and machinery in the field
- REDLINK™ electronic overloading protection for longer battery, motor and gearbox life
- integrated hose support and suspension device for the shoulder strap
- handle with Softgrip support
- up to 7 cartridges per battery charging
- level of battery charge display



Technical Data

battery pack voltage / capacity:	12 V/4,0 Ah
capacity	
when filling from containers:	454 g
cartridge:	411 g
max operating pressure:	562 bar
rate of flow:	74 g/min
hose length:	914 mm
weight with battery:	3,3 kg

Article No.	Article Description	QTY
5325 1 12 193	12V4.0AH CORDL.LUBR.GUN M12GG	1
5325 1 12 42	12V CORDL.LUBR.GUN M12GG NO.AC	1

scope of delivery:

- 1x 12 V/4.0 Ah Red Li-Ion battery
- quick charging device C 12 C
- transport bag

Diesel Additive Common Rail 1:250 **TRUCKline**

- Especially suited for high-pressure diesel systems and direct injections e.g. Common-Rail, pump nozzle etc. developed for specific requirements of latest technology
- Recommended for Longlife Service intervals
- Suitable for soot particle filters
- Loosens and removes oxidation related deposits throughout the diesel system
- Provides for optimum atomisation, engine and fuel efficiency
- Supplies additional lubrication of the pressure pump and diesel system
- Reduces the risk of water ingress and absorbs moisture contamination

Fields of application:

- For all diesel engines. Especially recommended for catalytic converters, turbos and soot particle filter. Sufficient for up to 250 litres of fuel.

Application:

- Can be used by simply adding to diesel fuel in tank or by means of cleaning device.



Article No.	Article Description
6750 7025	DIESEL ADDITIVE COMMON RAIL 1L

Bio-Diesel System Clean **TRUCKline**

- Power and energy for all bio-diesel engines
- Effective removal of dirt, contaminants and resin formation throughout the bio-diesel system
- Absorbs harmful moisture and water ingress to improve bio-diesel combustion
- Improves flow properties and optimises injector nozzle atomisation, guarantees clean and powerful combustion
- Reduces soot deposits and engine knocking
- Improves cold start behaviour
- Suitable for turbos and catalytic converters

Fields of application:

- Bio-diesel engines, plant equipment and generators etc.

Application:

- Add to diesel system prior to filling the tank every 3 to 4 months. Sufficient for up to 250 litres of fuel.
- For commercial vehicles, plants, aggregations and generators empty contents into fuel tank, ensure at least 0.5 % of the tank capacity has bio-fuel content.



Article No.	Article Description
6750 7022	BIO-DIESEL SYSTEM CLEAN 1L

Diesel Bactericide **TRUCKline**

- High-performance diesel system agent with bactericide formula
- Power and efficiency for diesel engines
- Disinfects the whole diesel system of vehicles and tank plants
- Long term removal of bacteria, fungus and algae
- Avoids fuel filter blockages

Fields of application:

- Suitable for all diesel engines. Sufficient for 1000 litres of fuel

Application:

- Regularly add to diesel tank at 3-4 month intervals



Article No.	Article Description
6750 7028	DIESEL BACTERICIDE 1L

Diesel Conditioning and Anti-Gel 1:1000 **TRUCKline**

High performance diesel system care for diesel-flow improvement

- Prevents the thickening of the diesel fuel in extreme coldness (from -5°C) and prevents blocking of the fuel filter and fuel lines
- Ensures a better cold start behaviour and smooth warmup running
- Optimum lubrication of all movable parts in diesel engines
- Winter safe up to -33°C
- Suitable for all diesel engines and diesel engine systems

Application

- 1 l sufficient for 1000 l of fuel
- function only given at a product temperature > 0 °C



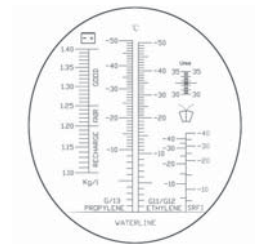
Article No.	Article Description
6750 7024	DIESEL COND.ANTI-GEL 1:1000 1L

Refractometer

- Optical test instrument for screen washer system additive, radiator antifreeze, battery acid and AdBlue
- Precise display of antifreeze value
- With visual acuity setting
- Includes pipette to apply the liquid

Contents Art.-No. 5439 20 2

- 10 pipettes, length: 175 mm



Article No.	Article Description
5439 20	REFRACTOMETER

Truck ice scraper with telescopic handle

- ideal for use with transporters, SUVs, buses, trucks construction machinery, etc.
- extendible telescopic handle 102 - 157 cm
- 90° angle-adjustable broom with locking mechanism
- dryer made from rubber
- non-slip soft handles
- material ice scraper: polycarbonate (PC)

Note:

The bristles must be kept clean in order to prevent scratching the paint-work! Only to be used on clean surfaces.



Article No.	Article Description	QTY
6160 0183	ICE SCRAP.TRUCK TELES.95-150CM	1

Screen and Surface Dryer Truck

- For protective drying of big surfaces e.g. trucks, busses, tarpaulins, screens etc.
- High productivity of big surfaces due to wide wiper blade
- Does not leave lime residues
- Soft rubber, protective to all surfaces
- Suitable for Vikan handles
- Ideal application with rods Art. No. 5410 117 and Art. No. 5410 114
- Material: Polyacetal (POM) / Rubber (SEBS)



Technical Data	
Width:	45 cm
Max. ambient temperature:	+100/-10°C
Weight:	0.23 kg

Article No.	Article Description	QTY
5410 142	SCREEN+SURFACE DRY.TRUCK 45CM	1

Rim Brush Truck

- For safe and effective cleaning of double and single steel rims e.g. trucks, busses etc.
- With water flow
- Suitable for Vikan telescopic rods/extensions
- Bristles: soft/split made of polyester
- Resistant against fuel, mineral oil, washing agent, antifreeze agent
- Material: Polyamide (PA) /Polyester (PBT)



Technical Data	
Dimension LxW:	23 x 11 cm
Bristle sizes LxØ:	5 x 0.025 cm
Max. ambient temperature:	+50/-0°C
Weight:	0.5 kg

Article No.	Article Description	QTY
5410 133	RIM BRUSH TRUCK WF 23X11CM	1

Truck Surface Washer

- For wet cleaning of all surfaces e.g. commercial vehicles, busses, trucks, tarpaulins etc.
- With water flow
- Suitable for Vikan telescopic rods/extensions
- Resistant to fuel, mineral oil, washing agent, antifreeze agent
- High productivity of bigger surfaces due to longer bristle head
- Dense and soft bristles made of polyester, permanently elastic
- With rubber edge to prevent damages of sensitive surfaces
- Material: Polyamide (PA) / Polyester (PBT)



Technical Data	
Dimension LxW:	35 x 7 cm
Bristle sizes LxØ:	5 x 0.025 cm
Max. application temperature:	+50/-0°C
Weight:	0.69 kg

Article No.	Article Description	QTY
5410 103	SURFACE WASHER TRUCK WF 35CM	1

Washing Brush Automobile High/Low

- For wet cleaning of all surfaces e.g. vehicles, commercial vehicles, tarpaulins etc.
- With water flow
- Angular form (High/Low) ensures efficient cleaning in every height
- Suitable for Vikan telescopic rods/extensions
- Resistant to fuel, mineral oil, washing agent, antifreeze agent, as well as to chemicals up to the PH-level 3-11
- Inclined bristles for accessing to all edges
- Bristles: soft/split made of polyester, permanently elastic
- Wit rubber edge to prevent damages of sensitive surfaces
- Material: Polyamide (PA) / Polyester (PBT)



Technical Data	
Dimension L x W:	28 x 15 cm
Bristle sizes L x Ø:	5 x 0.025 cm
max. application temperature:	+50/-0 °C
Weight:	0.55 kg

Article No.	Article Description	QTY
5410 106	WASHING BRUSH AUT.HI/LOW 28CM	1

Pad mob

- Pads fixed by retractable stainless steel hooks
- For cleaning walls and floors
- Suitable for removing stubborn dirt
- Handle: Art.-No. 5410 117, 5410 118
- Material: polypropylene (PP), stainless steel
- Dimensions: 23.5x10 cm
- Resistant to chemicals in pH range 2-8

Art.-No. 5410 235 1

- Suitable for removing dirt on smooth surfaces or glass panes
- Material: polyester
- Dimensions: 24.5x12 cm



5410 235



5410 235 1

Article No.	Article Description	QTY
5410 235	PAD HOLDER 235 MM	1
5410 235 1	PAD SOFT	10

Wall Suspension Bracket

- For protection and storage of all tools with handle
- 2 hooks + 1 or 4 rubber brackets (depending on model)
- Individually extendable due to side connector system
- Supports max. weight of 10 kg
- Material: polypropylene (PP) / rubber (SEBS)
- Resistant to chemicals in pH range 2-10.5

Article No.	Article Description	QTY
5410 116 1	WALL SUPSPENSION BRACKET 160MM	1
5410 116 2	WALL SUPSPENSION BRACKET 395MM	1



Wall Suspension Universal

- For protection and storage of all tools with handle
- With 3 hangers with soft rubber edges
- Material: Polypropylene (PP) / Rubber (SEBS)

Article No.	Article Description	QTY
5410 116	WALL SUSPENSION UNIVERSAL	1



Technical Data	
Dimensions LxHxW:	24 x 5.5 x 16.5 cm
Max. ambient temperature:	+100/-20°C
Weight:	0.22 kg

Telescopic Hand Automobile/Truck Aluminium

- Ergonomic telescopic handle with water flow and insulated handle
- With 1/2" quick coupling brass chromated, Vikan system
- Handle made of robust, impact-resistant plastic
- Material: Aluminium / Polypropylene (PP)

Art. No. 5410 113

- Automobile telescopic handle

Art. No. 5410 114

- Truck telescopic handle

Article No.	Article Description	QTY
5410 113	ALU-TELESC.HANDLE WF 100-160CM	1
5410 114	ALU-TELES.HA.TRUCK WF159-288CM	1



Technical Data		
Art. No.:	5410 113	5410 114
Max. water pressure:	6 bar	6 bar
Max. ambient temperature:	+50/-0°C	+50/-0°C
Max. washing temperature:	100 °C	100 °C
Handle-Ø:	5 cm	5 cm
Steplessly adjustable:	100 - 160 cm	159 - 288 cm
Weight:	0.64 kg	0.97 kg

Extension Rod Automobile Aluminium

- Ergonomic rod with insulated handle
- Handle made of robust, impact-resistant plastic
- Material: Aluminium / Polypropylene (PP)

Art. No. 5410 112

- With water flow

- With 1/2" quick coupling brass chromated, Vikan system

Art. No. 5410 117

- Without water flow

Article No.	Article Description	QTY
5410 112	ALU-EXTENSION ROD WF 190CM	1
5410 117	ALU-EXTENSION ROD 150CM	1



Technical Data			
Art. No.:	5410 112	5410 117	5410 118
Max. ambient temperature:	+50/-0°C	+50/-0°C	+80/-20 °C
Max. water pressure:	6 bar	-	-
Weight:	0.72 Kg	0.51 Kg	0.50 Kg
Handle-Ø:	3.4 cm	3.1 cm	3.4 cm
Length:	190 cm	150 cm	150 cm

Adapter Gardena with Hose Couling

- The adapter connects Vikan handles where water runs through with the Gardena socket system
- Quick coupling for rotation-free working
- Material: Brass chromated



Article No.	Article Description	QTY
5410 167	ADAPTER GARDENA 1/2"	1

Technical Data	
Max. pressure:	25 bar
Max. ambient temperature:	+80/-0°C
Weight:	0.13 kg

Adapter 1/2" with Quick Coupling

- The adapter connects Vikan handles where water runs through with a 1/2" hose
- Quick coupling for rotation-free working
- Material: Brass chromated



Article No.	Article Description	QTY
5410 168	ADAPTER W.QUICK COUPLING 1/2"	1

Technical Data	
Max. pressure:	25 bar
Max. ambient temperature:	+80/-0 °C
Weight:	0.09 kg

Air blow gun set for trucks

- 5 m spiral hose with quick coupling
- compresses air gun with 100 mm steel nozzle
- 6 mm external diameter of the hose
- incl. T-connector piece
- connection to compressed air line Ø 6 mm (e.g. driver's seat)
- easy to connect due to the quick coupling



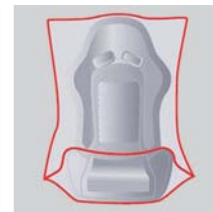
Article No.	Article Description	QTY
3940 6	AIR BLOW GUN SET F. TRUCKS 6MM	1

Truck 5 in 1 set of protection film

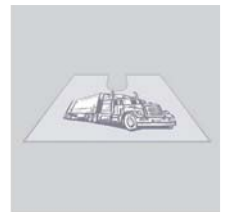
- Protective cover for commercial vehicles
- Each bag contains 5 protective covers, 1 each for steering wheel, seat cover, handbrake, foot mat with recess for steering column and gear lever
- Practical set of 100 in a box
- **Steering wheel protector:** Ø 550 mm
- **Seat protector:** 850 x 1400 mm
- **Floor mat:** 450 x 500 mm
- **Handbrake:** 130 x 140 mm
- **Gear lever:** 130 x 140 mm



Steering wheel protection



Seat protection



Foot mat



Handbrake



Shifter

Article No.	Article Description	QTY
5419 25	P(100)PROT.FOIL'CLEAN SET'5IN1	1

Tension Straps

- One-way strap made of high tear-proof polyester thread as a perfect alternative for steel straps
- Weather proof, no corrosion, no damages to sensitive surfaces
- Shock absorbent, can be repeatedly retightened if the packaged good loses volume



Technical Data

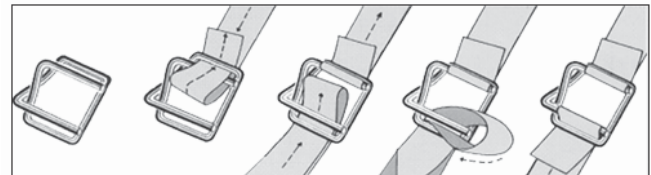
Art. No.	Traction	Running meters per reel m	Bandwidth mm
5446 13	408	1000	13
5446 16	495	850	16
5446 19	579	600	19
5446 25	1020	400	25

Article No.	Article Description	QTY
5446 13 2	RO(1100M)ZURRBAND 13MM	2
5446 16	RO(850M)TENS.STRAP 450KG 16MM	2
5446 19	RO(600M)TENS.STRAP 550KG 19MM	2
5446 25 2	RO(500M) ZURRBAND 25MM	2

Tension Strap Fastener

- Robust wire bending clamp for durable hold in the strapping
- Material: galvanized steel

Article No.	Article Description	QTY
5446 13 1	PK(1000)TEN.STR.FASTEN.GA 13MM	1
5446 16 1	PK(1000)TEN.STR.FASTEN.GA 16MM	1
5446 19 1	PK(1000)TEN.STR.FASTEN.GA 19MM	1
5446 25 1	PK(500)TEN.STR.FASTEN.GA 25MM	1



Tension Strap Dispenser

- for achieving the required preload forces with low effort
- Art.-No. 5446 13 19:**
- for straps between 13-19 mm strength
- Art.-No. 5446 19 32:**
- for straps between 19-32 mm strength

Article No.	Article Description	QTY
5446 13 19	TENS.STRAP TIGHTEN.FOR 13-19MM	1
5446 19 25	TENS.STRAP TIGHTEN F.19-25MM	1



5446 13 19



5446 19 25

Portable roll-up lashing belt

- Stable sturdy design
- Easy to carry or roll
- Both lashing-belt rollers are equipped with belt brakes
- Storage crate for accessories

Article No.	Article Description	QTY
5446 100 1	MOBILE ROLL-UP LASHING BELT	1
5446 200 1	PORTABL.ROLL-UP LASHING BELT	1

- Delivery without lashing belt



Manual Stretch Films

- For rapid packaging without cutting or sticking
- Different items are packaged, bundled, protected and secured
- Handy type, manual dispenser ensures comfortable processing

scope of delivery:

- 1x 12 V/4.0 Ah Red Li-Ion battery
- quick charging device C 12 C
- transport bag



Article No.	Article Description	QTY
5444 100	RO(150M)MAN.STRETCH FILM 100MM	e 40
5444 500	RO(300M)MAN.STRETCH FILM 500MM	e 6
5444 500 3	RO(250M)MAN.STRE.FI.BK 500MM	e 6

Technical Data	
Material strength μ :	Core \varnothing in mm:
23	38
17	50
23	50

Handles for Stretch Films

Article No.	Article Description	QTY
5419 22 3	MANUAL DISPENS.F.STRETCH FILM	1
5444 500 1	MET.MANUAL DISP.FOR 500MM FILM	1
5444 500 2	HANDLE FOR PACK.FILM 500MM	1



Load securing with FÖRCH



§ 22 of the Road Traffic Regulations (StVO) requires that loads must be stowed and secured so that they cannot shift, topple over, roll, fall off or cause avoidable noise, even when braking hard or taking evasive action.

The load securing in this case is differentiated into form-fit and force-fit connection techniques, which can be combined with one another.

Force-fit load securing

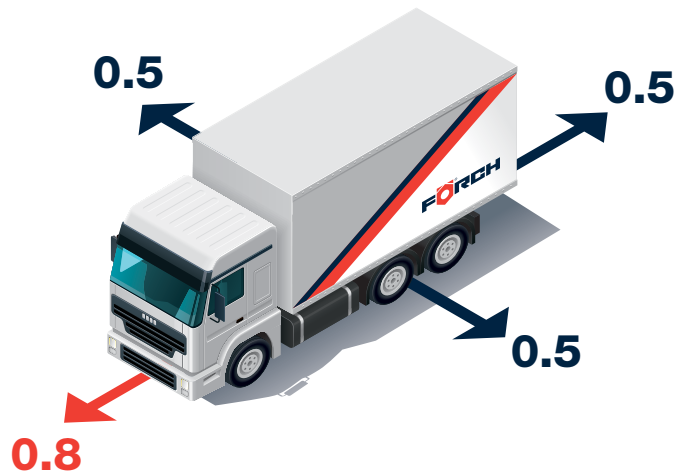
Force-fit load securing is achieved by lashing down. The load is pressed on to the loading surface, for example, by means of lashing straps, which increases the frictional force and ultimately prevents the load from slipping. This effect is enhanced by using underlays to increase the coefficient of friction ("anti-slip mats"), which are placed under the load. The coefficient of sliding friction is of vital importance here.

Form-fit load securing

Form-fit load securing is accomplished by placing the load unit directly against, e.g., the front wall, side walls, loading bars, blocking bars, clamping bars, or other freight, by filling intermediate spaces with intermediate structures or other load securing aids, as well as by slant/diagonal/horizontal lashing. Load securing solely by form-fit without additional lashing down is only permissible if the vehicle body exhibits stability sufficient for the absorption of the forces that arise. According to VDI 2700, 80 % of the load weight must be secured towards the front.

Form-fit (for evenly distributed loads) according to DIN EN 12195-1:2004 / VDI 2700 ff:

- Calculated
- μ_D = dynamic coefficient of sliding friction
- Vertical movements of the load units may require additional securing measures
- When loading, observe the maximum load capacity and the permissible load distribution
- The load units are designed for the potential pressure in the contact area at the form-fit.



FÖRCH form-fit calculation

Blocking force of the form fit	Max. weight of the load unit(s)					
	For μ_D 0.2		For μ_D 0.4		For μ_D 0.6	
	0.8	0.5	0.8	0.5	0.8	0.5
50 daN	80 kg	160 kg	120 kg	500 kg	250 kg	*
100 daN	160 kg	330 kg	250 kg	1.000 kg	500 kg	*
150 daN	250 kg	500 kg	370 kg	1.500 kg	750 kg	*
200 daN	330 kg	660 kg	500 kg	2.000 kg	1.000 kg	*
250 daN	410 kg	830 kg	620 kg	2.500 kg	1.250 kg	*
300 daN	500 kg	1.000 kg	750 kg	3.000 kg	1.500 kg	*
350 daN	580 kg	1.160 kg	870 kg	3.500 kg	1.750 kg	*
400 daN	660 kg	1.330 kg	1.000 kg	4.000 kg	2.000 kg	*
450 daN	750 kg	1.500 kg	1.120 kg	4.500 kg	2.250 kg	*
500 daN	830 kg	1.660 kg	1.250 kg	5.000 kg	2.500 kg	*
550 daN	910 kg	1.830 kg	1.370 kg	5.500 kg	2.750 kg	*
600 daN	1.000 kg	2.000 kg	1.500 kg	6.000 kg	3.000 kg	*
650 daN	1.080 kg	2.160 kg	1.620 kg	6.500 kg	3.250 kg	*
750 daN	1.250 kg	2.500 kg	1.870 kg	7.500 kg	3.750 kg	*
800 daN	1.330 kg	2.660 kg	2.000 kg	8.000 kg	4.000 kg	*
900 daN	1.500 kg	3.000 kg	2.250 kg	9.000 kg	4.500 kg	*
1.000 daN	1.660 kg	3.330 kg	2.500 kg	10.000 kg	5.000 kg	*
1.250 daN	2.080 kg	4.160 kg	3.120 kg	12.500 kg	6.250 kg	*
1.500 daN	2.500 kg	5.000 kg	3.750 kg	15.000 kg	7.500 kg	*
1.750 daN	2.910 kg	5.830 kg	4.370 kg	17.500 kg	8.750 kg	*
2.000 daN	3.330 kg	6.660 kg	5.000 kg	20.000 kg	10.000 kg	*
3.000 daN	5.000 kg	10.000 kg	7.500 kg	30.000 kg	15.000 kg	*
4.000 daN	6.660 kg	13.330 kg	10.000 kg	40.000 kg	20.000 kg	*
5.000 daN	8.330 kg	16.660 kg	12.500 kg	50.000 kg	25.000 kg	*

* The maximum load unit weight is directly related to the maximum load capacity and the permissible load distribution of the vehicle. The acceleration coefficient is less than the dynamic coefficient of sliding friction μ_D .

The lashing strap labels

Overview

Lashing straps may be **one-part** or **two-part**.

The one-part lashing strap consists of the webbing belt and a ratchet as the tensioning element. They are used for bundling or strapping load parts into a load unit.

The two-part lashing strap consists of a fixed end and a free end. The fixed end consists of a short, non-adjustable belt strap to which a ratchet and a hook are attached as the connecting element. The free end is, for example, an approximately 7.5 metre long belt strap to which a hook is fastened as the connecting element. All our ratchet lashing straps for the heavy load sector also include the Quick-View label.

User information

Only undamaged lashing straps with legible labels may be used. Improper load securing represents a danger to persons, animals, and goods in the danger area. It is absolutely essential to follow the practical information on the use and care of lashing straps according to EN 12195-2 Appendix B.

Identification – The label at the fixed end of a lashing strap

3 — Herstellungsjahr 2016 WIS
 8 — LC 2500 daN
 7 — DIN EN 12195-2 PES
 WTC 530W-006
 Code 888888
 1 — Werkstoff: PES
 Dehnung < 5%
 2 — Herstellungsjahr 2016
 3 — Darf nicht zum Heben verwendet werden!
 4 — Code 12.2016 WIS
 WIS 888888 WTC 530W-006
 5 — 1509205
 6 — Länge: 0,5 m German-assembled
 DIN EN 12195-2
 10 — SHF 50 daN LC 2500 daN
 11 — STF 300 daN
 9 — FÖRCH
 Art. 4981 5 5000 8

- 1 Material specification e.g., PED (on lashing straps with polyester webbing)
- 2 Elongation of the webbing belt in % (at the lashing force specified on the label)
- 3 Year of manufacture
- 4 Warning note
- 5 Traceability code and manufacturer's label
- 6 Length of strap
- 7 Specification of standard
- 8 Lashing Capacity LC
- 9 FÖRCH label with article number
- 10 Standard Hand Force SHF*
- 11 Standard Tension Force STF**
- 12 Lashing capacity LC***

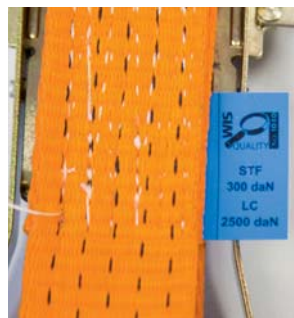
Examples of labels on the lashing strap



One-part lashing strap



Two-part lashing strap (internal)



Quick-View label

User information

Only undamaged lashing straps with legible labels may be used. Improper load securing represents a danger to the lives of persons and animals, or to goods in the danger area. It is absolutely essential to follow the practical information on the use and care of lashing straps according to DIN EN 12195-2 Appendix B.



Additional label and operating instructions

* The prescribed maximum force (= 50 daN) which the user must apply in order to achieve the pre-tensioning force / STF.
 ** The residual maximum force after the grip of a ratchet at the specified maximum hand tensile force of 50 daN has been released.
 *** The maximum force to be used in a straight pull for which a lashing strap in use is designed.

daN, decanewton (10 newtons), corresponds roughly to the weight acting on a mass of 1 kg. A lashing strap with a lashing force of 2.500 daN can be loaded up to about 2.500 kg in a straight pull.

One-piece Lashing Strap

- Fixation of light-weight cargo
- Produced and tested according to EN 12195-2
- Made of high-strength polyester fibre (100%)



Article No.	Article Description	QTY
4980 250	LASH.STRAP 200/ 400KG 25MM 3M	1
4980 250 5	LASH.STRAP 200/ 400KG 25MM 5M	1
4980 500 35	LASH.STRAP 250/500KG 25MM 3.5M	1

Technical Data			
Max. tension. LC (daN)	Strap length m	Strap width mm	Strap colour
250	3	25	green
400	5	25	green
500	3,5	25	green

Clamp lock lashing strap set 2-piece

- for attaching lighter items
- manufactured and tested in accordance with EN 12195-2
- made from high-strength polyester(100%)



Article No.	Article Description	QTY
4981 500 21 4	CL.LO.LA.STR 2P.250KG AIRL2.1M	1

Technical Data			
lashing force LC (daN) direct pull	strap length m	strap breadth mm	strap colour
250	2,1	25	green

One-piece Ratchet Strap

- Strap fixation on cargo beds, trailers etc. for medium weight cargo
- Prevents cargo from shifting, protects against opening and damaging
- Can also be use for restraining carcasses
- Complies with EN 12195
- Made of high-quality, high-strength polyester fibre (100%) Very low intrinsic weight, high loading capacity
- Strap helps prevent damage to surface even on sensitive cargo

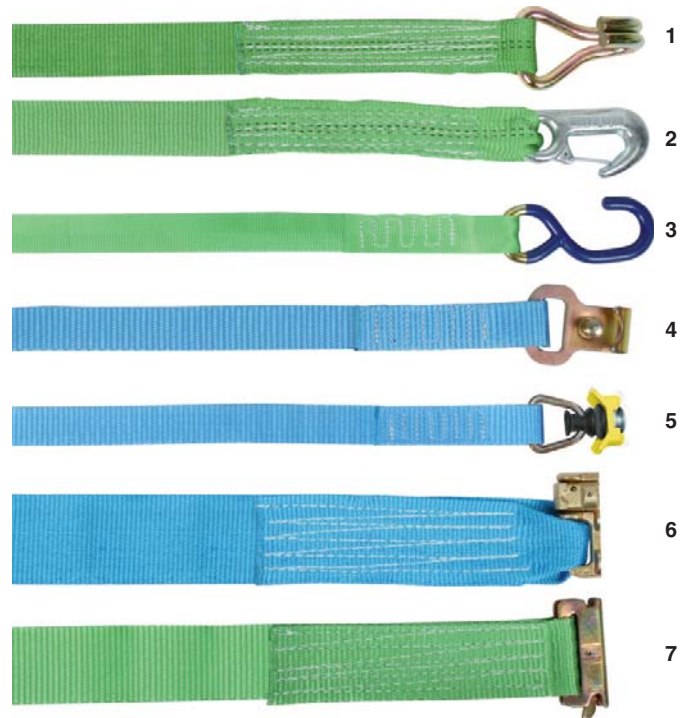


Article No.	Article Description	QTY
4980 500	STRAP 1-PART 400/800KG 25MM 4M	1
4980 500 6	STRAP ONE-PIE.400/800KG25MM6M	1
4980 1000 6	STRAP ONE-PI.500/1000KG50MM6M	1
4980 1000	STRAP ONE-PIE.500/1000KG50MM8M	1

Technical Data				
Lashing capacity LC (daN) strapping	Strap length m	Strap width mm	Strap colour	Regular Tension ST _F (daN)
800	4	25	green	320
800	6	25	green	320
1.000	6	25	green	400
1.000	8	25	green	400

Two-Piece Ratchet Strap

- Strap and mulit-point fixation on cargo beds, trailers etc., for all types of medium weight cargo
- Complies with EN 12195
- Made of high-quality, high-strength polyester fibre (100%)
- Very low intrinsic weight, high loading capacity
- Strap helps prevent damage to surface even on sensitive cargo



Article No.	Article Description	QTY
4981 500	RATCH.STRAP250/500KG S-HOOK 6M	1
4981 900 09 4	RAT.STRAP450/900KG E.AIRL.0.9M	1
4981 900 34 4	RAT.STRAP450/900KG E.AIRL.3.4M	1
4981 900 60 4	RAT.STRAP450/900KG E.AIRL.6M	1
4981 1000	RAT.STRAP500/1000KG POIN.H.6M	1
4981 1000 12 1	RAT.STRAP500/1000KG CAR.H.12M	1
4981 1000 34	RAT.STRAP500/1000KG CAR.H.3.4M	1
4981 1000 35	RAT.STRAP500/1000KG FL.HO.3.5M	1
4981 1000 60	RAT.STRAP500/1000KG CAR.H. 6M	1
4981 1500 1	RAT.STRAP750/1500KG F.VARIO 5M	1
4981 1500 33	RAT.STRAP750/1500KG VARIO 3.3M	1
4981 2000	RAT.STRAP1000/2000KG CAR.HO.6M	1
4981 2000 1	RAT.STRAP1000/2000KG POINT. 6M	1
4981 2000 12 1	RAT.STRAP1000/2000KG POINT.12M	1
4981 2000 30	RA.STR1000/2000KG DO.E.AIRL.3M	1

Technical Data				
Max. tension LC (daN) Direct tension	Max tension Circumfeential ST _F (daN)	Strap length m	Strap width mm	Strap colour
250	160	6.0	25	green
450	200	0.9	25	blue
450	200	3.4	25	blue
450	200	6.0	25	blue
500	200	6.0	25	green
500	200	12.0	25	green
500	200	3.4	25	blue
500	200	3.5	25	blue
500	200	6.0	25	blue
750	210	5.0	50	green
750	210	3.5	50	blue
1000	200	6.0	35	green
1000	200	6.0	35	green
1000	200	12.0	35	green
1000	200	3.0	50	blue

Assorted lashing straps, lightweight, **VAROBOXX**

- Product assortment in VAROBOXX 2
- Manufactured and tested in accordance with DIN EN 12195-2
- For securing light to medium weight items
- Claw hook

Contents

Article No.	Article Description	Quantity
4981N 1000	RA. STRAP 500/1000KG P.H.6M ECO	4
4981N 2000 1	RA. STRAP 1-2T. POINT H. 6M ECO	4
9003 2	VAROBOXX SIZE:2 EMPTY	1



Article No.	Article Description	QTY
9003 4981 1	VAROBOXX LASH.STR.LIGHT WEIGHT	1

Assorted lashing straps, heavy duty, **VAROBOXX**

- Product assortment in VAROBOXX 4
- Manufactured and tested in accordance with DIN EN 12195-2
- For securing heavy items
- Claw hook

Contents

Article No.	Article Description	Quantity
4981N 4000 1	RA. STRAP 2-4T. POINT H. 8M ECO	4
4981N 5000 1	R. STRAP 2.5-5T.S.HO.8M ECO	4
9003 4	VAROBOXX SIZE:4 EMPTY	1



Article No.	Article Description	QTY
9003 4981 2	VAROBOXX LASH.STR.HEAVY DUTY	1

Load securing kit **VAROBOXX**

- Assortment in VAROBOXX 3
- Load securing kit for many applications
- For securing lightweight to medium-weight goods

Contents

Article No.	Article Description	Quantity
4762 18 3	CUTTERKNIFE 18MM	1
4980 250	LASH.STRAP 200/ 400KG 25MM 3M	2
4981N 2000 1	RA. STRAP 1-2T. POINT H. 6M ECO	4
4984 3 600 150	ANTI-SKID MAT 600X150X3MM	10
4984 7 50 80	EDGE PROTECTION 50/80MM BLACK	10
4984 8 130 110	ANTI-SKID MAT 130X110X8MM	10
4984 8 300 200	ANTI-SKID MAT 300X200X8MM	6
4984 900	END FIT. FAIRL. TRACK W.EYELET	5
9003 3	VAROBOXX SIZE:3 EMPTY	1



Article No.	Article Description	QTY
9003 498	VAROBOXX LOAD SECURING KIT	1

Ratchet Lashing Strap 2-piece for heavy-duty use

Your Advantage / Benefit

- Polyester fabric with a special water-repellent, PU-impregnation
- Optimum properties even in frost
- In addition, well-protected against soiling by oil-based products
- With standard label on underside and additional quick-view label for rapid user information
- The strap can be put, stretched and as well solved at any position in the ratchet, due to the extendable winding shaft
- High time saving

Application

- Wickelwelle ausziehen, Gurt in Ratsche positionieren und festzurren



Technical Data

Article No.	Lashing length LC (daN)	Normal standard tension force STF (daN)	Strap length m	Strap width mm
4981 5 5000 8	2.500	300	8	50
4981 5 5000 10	2.500	300	10	50

Article No.	Article Description	QTY
4981 5 5000 8	RATCH.LASH.STRAP.F.H.D. 8M 5*	1
4981 5 5000 10	RATCH.LASH.STRAP.F.H.D.10M 5*	1

Related Products

- Edge protection
Art.-No. 4984 50 1
Art.-No. 4984 50 2
Art.-No. 4984 7 190



- Anti-skid mat truck
Art.-No. 4984 3 600 150
Art.-No. 4984 8 130 110
Art.-No. 4984 8 300 200



- Tension strap dispenser
Art.-No. 5446 100
Art.-No. 5446 200



- Manual stretch films
Art.-No. 5444 100
Art.-No. 5444 500



Ratchet Load Restraint, 2 pcs. Heavy Load

- to attach heavy items
- manufactured and tested in accordance with EN 12195-2
- made from high-strength polyester(100%)

Art.-No. 4981P 4000 1 10 and 4981P 5000 1:

- claw hooks
- continuous print with max 30 characters (incl. spaces)

Art.-No. 4981 4000 76, 4981 4000 96, 4981 5000 76 and 4981 500096:

- claw hooks
- lashing strap without ratchet

Art.-No. 4981P 5 and 4981P 10:

- Claw hook
1. Rave hook
 2. Claw hook
 3. Snap hook



Article No.	Article Description	QTY
4981 4000 02 1	STRAP 2000/4000KG POINT.HOOK2M	1
4981 4000 04 1	STRAP 2000/4000KG POINTHOOK 4M	1
4981 4000 1	STRAP 2000/4000KG POINT.HOOK8M	1
4981 4000	STRAP 2000/4000KG CLAW HOOK 8M	1
4981 4000 2	STRAP 2000/4000KG SNAP HOOK 8M	1
4981 4000 10 1	STRAP2000/4000KG POINT HO.10M	1
4981 4000 12 1	STRAP2000/4000KG POINT HO.12M	1
4981 5000 1	STRAP 2500/5000KG POINT HOOK8M	1
4981 5000	STRAP 2500/5000KG CLAW HOOK 8M	1
4981 5000 10 1	STRAP2500/5000KG POINT HO.10M	1
4981 5000 10	STRAP 2500/5000KG CLAW HO.10M	1
4981 5000 12 1	STRAP2500/5000KG POINT HO.12M	1
4981 4000 76	STRAP W.O.RACHET 4T.POI.H.7.6M	1
4981 4000 96	STRAP W.O.RACHET 4T.POI.H.9.6M	1
4981 5000 76	STRAP W.O.RACHET 5T.POI.H.7.6M	1
4981 5000 96	STRAP W.O.RACHET 5T.POI.H.9.6M	1
4981P 5	PK(5)STRAP 2000/4000KG 8M ECO	1
4981P 10	PK(10)STRAP 2000/4000KG 8M ECO	1
4981P 4000 1 10	PK(10)STRAP 4000KG PRINTED 8M	1
4981P 5000 1	PK(10)STRAP 5000KG PRINTED 8M	1

Technical Data				
lashing force LC (daN)	normal clamping force S _{TF} (daN)	strap length m	strap breadth mm	strap colour
2000	350	2	50	orange
2000	350	4	50	orange
2000	350	8	50	orange
2000	350	8	50	orange
2000	350	8	50	orange
2000	350	10	50	orange
2000	350	12	50	orange
2500	350	8	50	red
2500	350	8	50	red
2500	350	10	50	red
2500	350	10	50	red
2500	350	12	50	red
2000	-	7.6	50	orange
2000	-	9.6	50	orange
2500	-	7.6	50	red
2500	-	9.6	50	red
2000	350	8	50	orange
2000	350	8	50	orange
2000	350	8	50	orange
2500	350	8	50	red

Ratchet Load Restraint 2pcs Heavy Load, **ECO**

- claw hooks
- for attaching heavy items
- manufactured and tested in accordance with EN 195-2
- made from high-strength polyester(100 %)



Article No.	Article Description	QTY
4981N 4000 1	RA.STRAP 2-4T. POINT H. 8M ECO	e 10 l
4981N 5000 1	R.STRAP 2.5-5T.S.HO.8M ECO	e 8
4981P 5 2	PK(5)RA.STRA2000/4000KG 8M ECO	1
4981P 10 2	PK(10)RA.STR2000/4000KG 8M ECO	1

Technical Data				
lashing force LC (daN)	normal clamping force S _{TF} (daN)	strap length m	strap breadth mm	strap colour
2000	350	8	50	orange
2500	350	8	50	red
2000	350	8	50	orange
2000	350	8	50	orange

Straps with L-Ratchet, 2-Part

- L-ratchet, loading recommendation at e.g. wood transport
- Produced and tested according to EN 12195-2
- Straps with hooks
- Pre-tension performance up to 900 daN possible
- Due to higher pre-tensioning power the load can be secured with less straps, thus less expenditure of costs and time



Article No.	Article Description	QTY
4981 4000 3 02	STRAP 2000/4000KG L-RATCHET 2M	1
4981 4000 3 04	STRAP 2000/4000KG L-RATCHET 4M	1
4981 4000 3	STRAP 2000/4000KG L-RATCHET 8M	1
4981 4000 3 10	STRAP 2000/4000KG L-RATCHET 10M	1
4981 5000 3	STRAP 2500/5000KG L-RATCHET 8M	1
4981 5000 3 10	STRAP 2500/5000KG L-RATCHET 10M	1
4981 5000 4	STRAP 2500/5000KG L-R.550D 8M	1
4981 5000 4 10	STRAP 2500/5000KG L-R.550D 10M	1

Technical Data				
Lashing capacity LC (daN)	Normal Clamping force S_{TF} (daN)	Strap length m	Strap width mm	Strap colour
2.000	450	2	50	orange
2.000	450	4	50	orange
2.000	450	8	50	orange
2.000	450	10	50	orange
2.500	450	8	50	red
2.500	450	10	50	red
2.500	550	8	50	red
2.500	550	10	50	red

2-pce ratch.lashing straps w.lo.handle ratchet **ECO**

- loading recommendations e.g. for transport of wood and construction materials
- manufactured and tested in accordance with EN 12195-2
- lashing strap with claw hooks
- pre-load force possible up to 900 daN (using two fixed ends)
- the load can be secured with fewer lashing straps due to the higher pre-load force



Article No.	Article Description	QTY
4981N 4000 3	RA.STRAP 2000/4000 KG 8M ECO	1 z
4981N 4000 3 10	R.STRAP 2000/4000 10M ECO	1 z
4981N 5000 3	R.STR 2500/5000 KG 8M ECO	1 z
4981N 5000 3 10	R.STR 2500/5000 KG 10M ECO	1 a

Technical Data				
lashing force LC (daN)	normal clamping force S_{TF} (daN)	strap length m	strap breadth mm	strap colour
2000	450	8	50	orange
2000	450	10	50	orange
2500	450	8	50	red
2500	450	10	50	red

Automatic Load Restraint with Roll-Up Function

- for medium load tie-down and load securing for road, rail, air and shipping traffic
- polyester-quality strap with PU-coating
- according to DIN EN 12195-2
- simply unroll to the desired length and then tie down
- automatic roll-up function after release of the roll-up spindle:
 - no longer loose strap ends flapping in the wind
 - the strap is wind and dirt protected

Art.-No. 4981 250 24 1, 4981 900 28 1:

- on both sides with plastic-coated S-hooks

Art.-No. 4981 250 24 2, 4981 900 28 2:

- on both sides with pointed hooks

Art.-No. 4981 250 22 3

- Double-sided with end fitting for airline track



Article No.	Article Description	QTY
4981 250 24 1	LOAD RESTR.125/250KG S-H.2.4M	1
4981 250 24 2	LOAD RESTR.125/250KG P-H.2.4M	1
4981 250 22 3	LOAD RESTR.125/250KG F.ALS2.2M	1
4981 900 28 1	LOAD RESTR.450/900KG S-H.2.8M	1
4981 900 28 2	LOAD RESTR.450/900KG P-H.2.8M	1

Your Advantage / Benefit

- no longer loose strap ends flapping in the wind
- the strap is wind and dirt protected

Application

- simply unroll to the desired length and then tie down
- automatic roll-up function after release of the roll-up spindle:



Technical Data

Lashing strength LC (daN)	Normal tension force STF (daN)	Strap width mm	Strap length m
125	27	25	2.4
125	27	25	2.4
125	27	25	2.2
450	81	50	2.8
450	81	50	2.8

Related Products

- **Anti-skid mat truck**
Art.-No. 4984 3 600 150 –
Art.-No. 4984 8 5000 250



- **Edge protection**
Art.-No. 4984 50 1
Art.-No 4984 7 190



- **Round sling according to EN 1492-2 AGR 4982**



Two-Piece Ratchet Lashing Strap, Auto-Transport



- Made of high-strength polyester fabric (100%)
- Produced and tested according to EN 12195-2
- Performance according to VDI 2700 Page 8 - stretching ≤ 4%
- Lashing belt with pointed hook
- Normal tension force S_{TF} 240 daN

Art. No. 4981 02 23:

- Controller, solid rubber

Art. No. 4981 02 23 1:

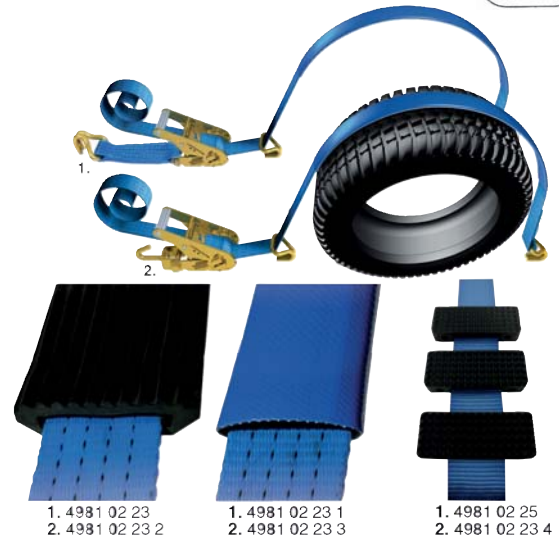
- Rubberized

Art. No. 4981 02 25:

- 3x plastic blocks

1.: Ratchet with belt and pointed hook

2.: Ratchet directly at the hook



Technical Data

Art. No.	Perm. tension Pre-tension(daN) Direct tension	Belt length m	Belt width mm	Belt colour
4981 02 23	1.500	2.5	50	blue
4981 02 23 1	1.500	2.5	50	blue
4981 02 25	1.500	2.7	50	blue
4981 02 23 2	1.500	2.5	50	blue
4981 02 23 3	1.500	2.5	50	blue
4981 02 23 4	1.500	2.5	50	blue

Article No.	Article Description	QTY
4981 02 23	AUT.TRANS.SP.STRAP W.CONTR.2.5M	1
4981 02 23 1	AUT.TRANS.SP.STRAP W.RUBBER 2.5M	1
4981 02 25	AUT.TRANS.SP.STRAP W.PLAST.2.7M	1
4981 02 23 2	AUT.TRANS.SP.STRAP W. CONTR.2.5M	1
4981 02 23 3	AUT.TRANS.SP.STRAP W.RUB.HOOK2.5M	1
4981 02 23 4	AUT.TRANS.SP.STRAP W.PLAST.2.5M	1



Auto-Transport Lashing Strap

- Made of high-strength polyester fibres (100%)
- Produced and tested according to EN 12195-2
- Lashing strap with pointed hook
- Lashing capacity LC: 1.000 daN
- Normal tension force S_{TF} : 200 daN

Art. No. 4981 02 25 1:

- Cross belt and protective hose included

Art. No. 4981 02 15:

- Protective hose included
- Hook directly at the ratchet



4981 02 25 1



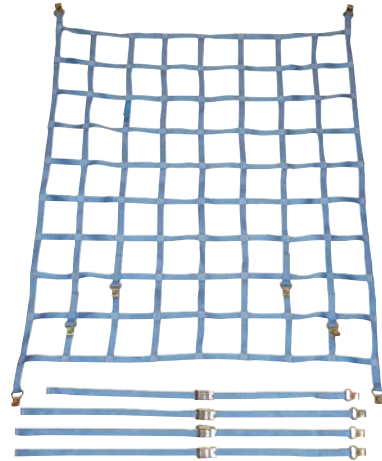
4981 02 15

Article No.	Article Description	QTY
4981 02 25 1	AUT.TRANS.SP.STR.W.HOSE TYRE 2.5M	1
4981 02 15	AUT.TRANSPORT BELT RIM 1.5M	1



Load safety net transporter / caddy

- one flat hook with safety back-up per corner
- 4 flat hooks with safety back-up, additionally sloping diagonally inwards
- 4 quick action belts (1 m) with flat hooks with safety back-up

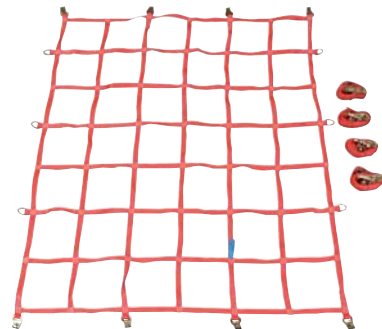


Technical Data	
dimensions:	1375 mm x 1225 mm
mesh width:	125 x 125 mm
strap breadth:	25 mm
breaking load fabric:	2.000 daN

Article No.	Article Description	QTY
4987 6 137 122	LASH.DOWN NET 1.37X1.22MESH125	1

Lashing Down Net

- Circumferential with 14 D-rings at the net and 4 clamping hooks at the front
- Including 4 belts with pointed hooks
- Dekra certificated



Technical Data	
Sizes:	1.575 mm x 1.350 mm
Mesh:	200 x 200 mm
Belt width:	25 mm
Breaking load:	2.000 daN

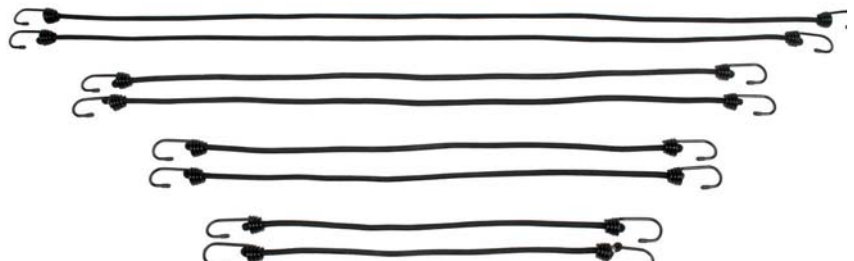
Article No.	Article Description	QTY
4987 6 157 135	LASH.DOWN NET 1.57X1.35MESH200	1

Tensioner Set 8-Piece

- With coated steel hooks
- End capas made of plastic
- Latex rubber strand with PP braiding, Ø 7 mm

Set consists of:

- 2x tensioner 45 cm
- 2x tensioner 60 cm
- 2x tensioner 80 cm
- 2x tensioner 100 cm



Article No.	Article Description	QTY
3400 8	TENSIONER SET 8-PIECE	1

Lashing strap reel

- For quick and easy coiling of lashing straps and clamping belts up to 50 mm wide
- Roll up an 8-metre lashing strap in only five seconds
- For hanging or bolting directly on trailer walls (15–35 mm)



Technical Data	
Art.-No.:	4980 5
Material:	Steel
Length:	200 mm
Width:	155 mm
Height:	40 mm
Colour:	Black (powder-coated)



Article No.	Article Description	QTY
4980 5	LASHING BELT REEL	1

Non-slip mat granules

- Suitable for normal and heavy loads
- Reduces the required preload force for lashing
- Sliding friction coefficient μ_D 0.6
- Calculation basis: DIN EN 12195-1 and VDI 2700ff



Technical Data				
Art.-No.:	4984 3 600 150	4984 8 130 110	4984 8 300 200	4984 8 5000 250
Material:	Rubber granules	Rubber granules	Rubber granules	Rubber granules
Sliding friction coefficient:	0.6 μ_D	0.6 μ_D	0.6 μ_D	0.6 μ_D
Colour:	Black	Black	Black	Black
Length:	600 mm	130 mm	300 mm	5,000 mm
Width:	150 mm	110 mm	200 mm	250 mm
Thickness:	3 mm	8 mm	8 mm	8 mm



Article No.	Article Description	QTY
4984 3 600 150	ANTI-SKID MAT 600X150X3MM	10
4984 8 130 110	ANTI-SKID MAT 130X110X8MM	10
4984 8 300 200	ANTI-SKID MAT 300X200X8MM	1
4984 8 5000 250	RO(5M)ANTI-SKID MAT 250X8MM	1 l

Non-slip coating

- For prevention of accidents on slippery surfaces and steps
- Strong, soft PVC with special non-slip surface coating (sandpaper-like)
- Oil and moisture-proof
- self-adhesive



Technical Data

Art.-No.:	5420 50	5420 100	5420 150
Material:	Soft PVC film	Soft PVC film	Soft PVC film
Thickness:	100 µm	100 µm	100 µm
Length:	9,000 mm	6,000 mm	3,000 mm
Width:	50 mm	100 mm	150 mm
Total thickness:	780 µm	780 µm	780 µm
Adhesive type:	LM acrylate	LM acrylate	LM acrylate
Tear-resistance:	17.5 N/cm	17.5 N/cm	17.5 N/cm
Elongation at fracture:	80%	80%	80%
Temperature range min./max.:	-5 °C to +50 °C	-5 °C to +50 °C	-5 °C to +50 °C
Colour:	Black	Black	Black

Article No.	Article Description	QTY
5420 50	RO(9M)NON-SLIP SURFACE B 50MM	1
5420 100	RO(6M)NON-SLIP SURFACE B 100MM	1
5420 150	RO(3M)NON-SLIP SURFACE B 150MM	1

Edge/Abrasion Protection Hose

- Protects belt webbing of **rough** goods to be transported
- Art.-No. 4984 50 5**
- Can be cut to required length

Technical Data

Art.-No.:	4984 50	4984 50 5
Material:	Polyester fabric	Rubber
Length:	300 mm	5.000 mm
Width:	50 mm	60 mm
Colour:	Blue	Blue

Article No.	Article Description	QTY
4984 50	EDGE PROTECTION HOSE 300X50MM	1
4984 50 5	RO(5M)EDGE PROTECT.HOSE 60MM	1



Edge Protection Angle

- Ideal belt fixation due to side guidance or slot
- For the protection of the belt strap in case of sharp-edged transport material

Art. No. 4984 7 80 80 and 4984 7 80 85:

- Suitable for load-securing of paper rolls and barrels



4984 7 25

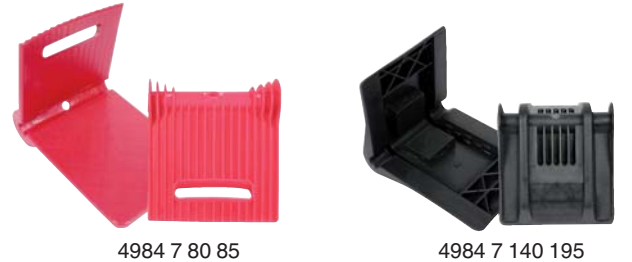
4984 7 50

4984 7 50 80



4984 7 60 90

4984 7 80 80



4984 7 80 85

4984 7 140 195

Article No.	Article Description	QTY
4984 7 25	EDGE PROTECTION 25MM BLACK	z 100
4984 7 50	EDGE PROTECTION 50MM BLACK	10
4984 7 50 80	EDGE PROTECTION 50/80MM BLACK	10
4984 7 60 90	EDGE PROTECTION 60/90MM GREY	1
4984 7 80 80	EDGE PROTECTION 80/80MM YELLOW	1
4984 7 80 85	EDGE PROTECTION 80/85MM RED	1
4984 7 140 195	EDGE PROTECTION 130/170MM BL.	1

Technical Data			
Side length mm	Width mm	Slot guidance up to mm	Guide edge up to mm
37x37	40	-	25
60 x 60	60	-	50
90 x 90	105	50	80
90 x 90	127	60	90
120 x 155	140	80	80
140 x 185	145	80	85
130 x 170	145	-	60

Edge Protection

- Protects belt webbing of **sharp-edged** goods to be transported

Art. No. 4984 50 1

- Made of polyurethane (PU), flexible

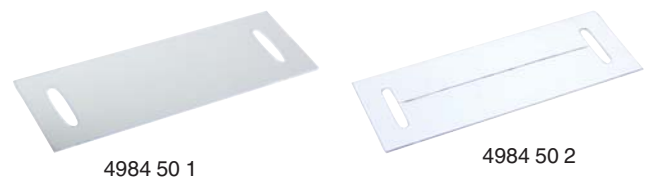
Art.-No. 4984 50 2

- made of polyurethane (PU), flexible, with slit for a better insertion of the belt

Art. No. 4984 7 190 190

- Made of polyethylene (PE)

Article No.	Article Description	QTY
4984 50 1	EDGE PROTECTION WHITE 320X95MM	1
4984 50 2	PK(5)EDGE PROT.TRANS.300X100MM	1
4984 7 190 190	EDGE PROTECT.ANGLE 1000X190MM	1
4984 7 190	EDGE PROTECTION 750/190MM	1



4984 50 1

4984 50 2



4984 7 190 190
4984 7 190

End fitting for airline tracks

Technical Data

art. no.	strip breadth	breaking strain FB
4984 900	25 mm	1000 daN
4984 901	25 mm	1000 daN

Article No.	Article Description	QTY
4984 900	END FIT. F.AIRL.TRACK W.EYELET	5
4984 901	END FIT. F.AIRL.TRACK W.RING	5



Double end fitting for airline tracks

Technical Data

art. no.	strip breadth	breaking strain FB
4984 902	25 mm	2000 daN
4984 903	50 mm	800 daN

Article No.	Article Description	QTY
4984 902	2-END FIT. F.AIRL.TRACK W.EYEL	5
4984 903	2-END FIT. F.AIRL.TRACK W.RING	5



Screw fitting for airline tracks

- M8 screw fitting consisting of:
- plate connector, screw and nut

Article No.	Article Description	QTY
4984 904 25	SCREW FITTING F.AIRLS. M8X25	10
4984 904	SCR.FIT. F. AIRL. TRACKS	10
4984 904 40	SCREW FITTING F.AIRLS. M8X40	10
4984 904 60	SCREW FITTING F.AIRLS. M8X60	10

Contents each Screw fitting:

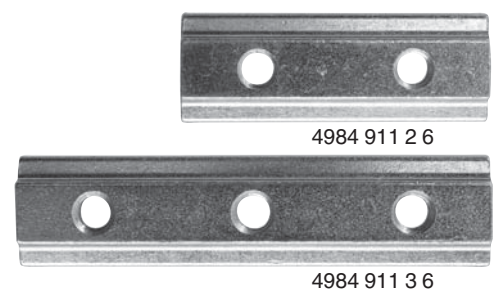
- plate connector
- screw and nut M8



Slot nut for airline rail

- Slot nut with M6 thread

Article No.	Article Description	QTY
4984 911 2 6	SLOT NUT 2XM6 GV	10
4984 911 3 6	SLOT NUT 3XM6 GV	10



Airline Part

- Material: Aluminium

Technical Data		
Length	Width	Hole dia.
45 mm	65 mm	M6

Article No.	Article Description	QTY
4984 905	AIRLINE-LASH.POINT EDGED ALU	10



Airline Lashing Point

- Material: Aluminium
- With two holes

Technical Data	
Dia.	Hole dia.
45 mm	M6

Article No.	Article Description	QTY
4984 906	AIRLINE-LASH.POINT ROUND ALU	10



Lashing Point

- Galvanised

Technical Data			
Art. No.	Length	Wide	Hole dia.
4984 908	105 mm	95 mm	M8
4984 910	103 mm	70 mm	M10

Article No.	Article Description	QTY
4984 908	LASH.POINT GA 800DAN	5
4984 910	LASH.POINT GA 350DAN	5



4984 908



4984 910

Flat Hooks for Lashing Tracks

- Lashing track protection

Technical Data		
Webbing width	Breaking strength FB	Length
25 mm	1.500 daN	55 mm

Article No.	Article Description	QTY
4984 909	FLAT-HOOK F.LASH.TRACK 25MM	5



Spring-Hook with Eye

Technical Data		
Webbing width	Breaking strength FB	Length
35 mm	2.000 daN	90 mm

Article No.	Article Description	QTY
4984 907	SPRING-HOOK35MM FOR LASH-POINT	5



Rods, lashing rails with skirting protection profi

- For installing or putting on the vehicle floor as well as on the side walls of the vehicle
- e.g. on trailers, in the transporter, van, bus camper or motor home
- for fastening applications of locking beams and lashing straps with the appropriate fittings



4984 60 15



4984 60 15 1

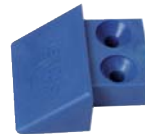
Article No.	Article Description	QTY
4984 60 15	RODS LASH.RAILS W. SKIR.P 1.5M	1
4984 60 15 1	END CAP F.LASH.RAIL SKIRT PROT	10

Rods, lashing rails

- For installing or putting on the vehicle floor as well as on the side walls of the vehicle
- e.g. on trailers, in the transporter, van, bus camper or motor home
- for fastening applications of locking beams and lashing straps with the appropriate fittings



4984 41 15



4984 41 15 1

Article No.	Article Description	QTY
4984 41 15	RODS LASHING RAILS ALU 1.5M	1
4984 41 15 1	END CAP F.RODS LASHING RAILS	10

Anchor combi lashing rails

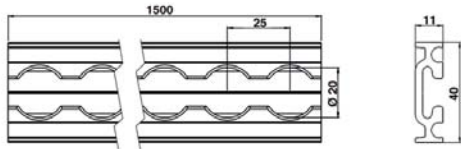
- For installing or putting on the vehicle floor as well as on the side walls of the vehicle
- e.g. on trailers, in the transporter, van, bus camper or motor home
- for fastening applications of locking beams and lashing straps with the appropriate fittings



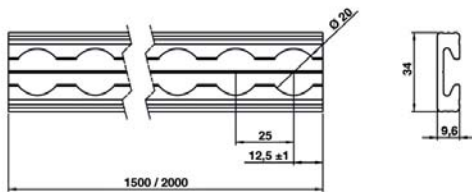
Article No.	Article Description	QTY
4984 131 15 1	ANCH.COMBI LASH.RAIL ST.S 1.5M	1
4984 131 15 2	ANCH.COMBI LASH.RAIL ALU 1.5M	1
4984 131 15 3	ANCH.COMBI LASH.RAIL ST 1.5M	1

Airline Rail, Aluminium

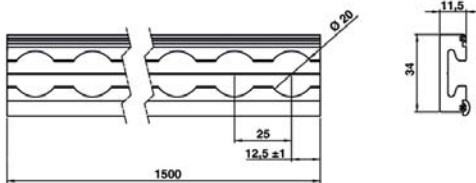
- For attaching or mounting on vehicle body floor as well as on the vehicle side panels
- E.g. trailer, in transporter, van, bus, camper or caravan
- Fixing shoring beams and lashing straps with the corresponding suitable fittings



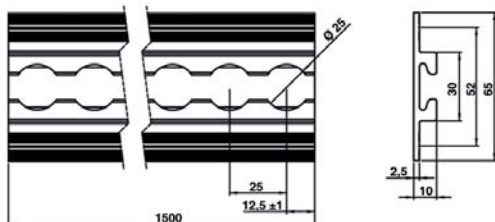
4984 40 15



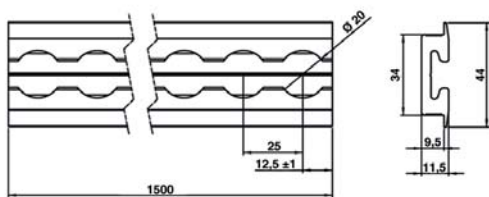
4984 34 2, 4984 34 15



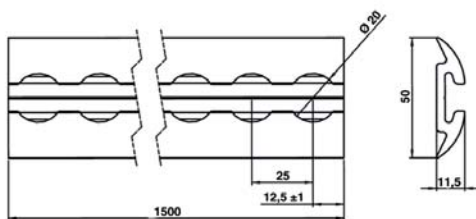
4984 34 15 1



4984 65 15



4984 44 15



4984 50 15

Article No.	Article Description	QTY
4984 40 15	AIRLINE RAIL ALU 40X11MM 1.5	1
4984 34 2	AIRLINE RAIL ALU 34X9.6MM 2M	1
4984 34 15	AIRLINE RAIL ALU 34X9.6MM 1.5M	1
4984 34 15 1	AIRL.RAIL ALU WITH RUBBER 1.5M	1
4984 65 15	AIRLINE RAIL ALU RECES. 1.5M	1
4984 44 15	AIRLINE RAIL ALU E. 1.5M	1
4984 50 15	AIRL. RAIL ALU SEMI-CIRC. 1.5M	1

End cap for airline tracks

Art.-No. 4984 40 15 1:

- Material: plastic
- Suitable with Art.-No. 4984 40 15

Art.-No. 4984 50 15 1 and 4984 50 15 2:

- Material: plastic
- Suitable with Art.-No. 4984 50 15

Article No.	Article Description	QTY
4984 40 15 1	END CAP F.AIRL.RAIL "CLICK"	1
4984 50 15 1	END CAP F. AIRL.RAIL SEMI-CIRC	10
4984 50 15 2	END CAP F.AIRL.RAIL SEMI-BLUE	10



4984 40 15 1



4984 50 15 1

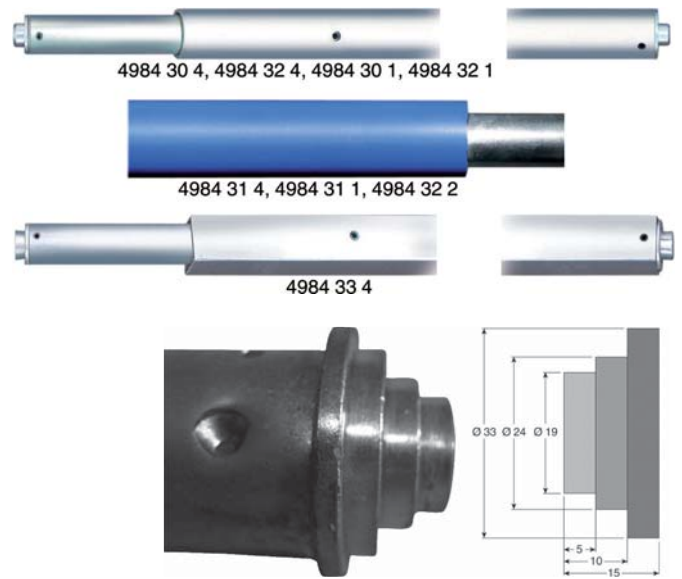


4984 50 15 2



Shoring Beam - Adjustable

- Usable in superstructures, lorries, containers etc.
- Used in combination with round hole or rail for positive securing of loads
- Adjustable length by means of straight pin (Art.-No. 2860 8 40)
- Extraction tool pin punch (Art.-No. 4708 08 1)
- End peg: conical peg 19 / 24 / 33 mm
- Profile: 40 x 40 mm



Article No.	Article Description	QTY
4984 30 4	PK(4)R.SHOR.BEAM ST W.CONI.PEG	1
4984 31 4	PK(4)R.SH.BEAM ST CON.PEG PVC	1
4984 32 4	PK(4)R.SH.BEAM ALU W.CON.PVC	1
4984 33 4	PK(4)SQUA.SHO.BEAM ST CON.PEG	1
4984 30 1	R.SHOR.BEAM ST W.CO.PEG 1925MM	1
4984 31 1	R.SH.BEAM ST CO.PEG PVC 1925MM	1
4984 32 1	R.SH.BEAM ALU CO.PEG 1925MM	1
4984 32 2	R.SH.BEAM ALU CO.PEG PVC1925MM	1

ST=steel CON=conical peg PVC=PVC coating

Technical Data		
Application range	Weight	Blocking Force BC
2190 - 2650 mm	7.0 kg	500 daN
2190 - 2650 mm	7.4 kg	500 daN
2190 - 2650 mm	4.0 kg	400 daN
2440 - 2520 mm	7.5 kg	500 daN
1430 - 1925 mm	6.0 kg	500 daN
1430 - 1925 mm	6.5 kg	500 daN
1430 - 1925 mm	3.3 kg	400 daN
1430 - 1925 mm	3.8 kg	400 daN

Clamping Beam

For superstructures and containers

- Can be used for vertical and horizontal securing of loads
- Spring in tube for more flexibility
- Material: Aluminium



Article No.	Article Description	QTY
4984 38 6	CLAMP.BEAM 38MM ALU RB 1670MM	1
4984 38 8	CLAMP.BEAM 38MM ALU WS 1670MM	1
4984 38 7	CLAMP.BEAM 38MM ALU RB 2050MM	1
4984 38 9	CLAMP.BEAM 38MM ALU WS 2050MM	1
4984 38 4	PK(4)CLAMP.BEAM 38MM ALU2630MM	1
4984 38 1	RUBBER FEET 20MM F.CLAMP.BEAM	1
4984 38 2	REP.KIT HOUSING+LEVER+RACK.	1
4984 42	REP.KIT HOUS.+LEVER+RACK.42	1
4984 42 3	CLAMP.BEAM 42MM ALU RB 1670MM	1
4984 42 5	CLAMP.BEAM 42MM ALU WS 1670MM	1
4984 42 4	CLAMP.BEAM 42MM ALU RB 2050MM	1
4984 42 6	CLAMP.BEAM 42MM ALU WS 2050MM	1
4984 42 1 4	PK(4)CLAMP.BEAM 42MM ALU2720MM	1
4984 42 2 4	PK(4)CLAMP.BEAM 42MM ALU3020MM	1

Technical Data					
Application Range	Tube-Ø	Type	Weight	Blocking force BC	
1300 - 1670 mm	38 mm	rubber base	3.5 kg	150 daN	
1300 - 1670 mm	38 mm	combo pin	3.0 kg	150 daN	
1680 - 2050 mm	38 mm	rubber base	3.5 kg	150 daN	
1680 - 2050 mm	38 mm	combo pin	3.3 kg	150 daN	
2260 - 2630 mm	38 mm	rubber base	4.0 kg	150 daN	
-	-	-	-	-	
-	-	-	-	-	
-	-	-	-	-	
1300 - 1670 mm	42 mm	rubber base	3.3 kg	150 daN	
1300 - 1670 mm	42 mm	combo pin	4.5 kg	150 daN	
1680 - 2050 mm	42 mm	rubber base	3.5 kg	150 daN	
1680 - 2050 mm	42 mm	combo pin	5.0 kg	150 daN	
2350 - 2720 mm	42 mm	rubber base	5.0 kg	150 daN	
2550 - 3020 mm	42 mm	rubber base	5.5 kg	150 daN	

Thumbscrews with webbing

for box bodies and container

- infinitely adjustable with strap
- for securing the load vertically and horizontally
- spring in the pipe adjusts the length variation using driving movement
- material: steel



Article No.	Article Description	QTY
4984 38 3	CLAMP.BEAM 38MM ST RB WS2630MM	1

(RB = rubber base, ST = steel, WS= with strap)

Technical Data				
application	pipe-Ø	design	weight	blocking-force BC
2260 - 2650 mm	38 mm	rubber base	4.85 kg	100 daN

Universal spanner

- easy to handle thanks to the feed lever
- can be used for transport and cargo securing in cars
- ball joint with non-slip base plate on both sides

Technical Data		
load:	60 kg	
length:	87 - 148 cm	
Article No.	Article Description	QTY
5433 87 148	UNIVERSAL SPANNER	1



Intermediate Wall Lock, Square

- For pushing on and clamping on tailboard or on tarpaulin frame
- Ideal for utility vehicles or trailers
- Can be used in longitudinal and transverse direction
- Material: zinc-plated steel
- End piece: steel with anti-skid rubber coating



Article No.	Article Description	QTY
4984 19 27	PK(4)IN.W.LOCK SQUARE 1.9-2.7M	1

Technical Data			
Steel profile zi	Application range	Clamping range	Weight
40 x 40 mm	1920 - 2720 mm	25 - 35 mm	7.5 kg

Intermediate Wall Lock

- For pushing on and clamping on tailboard or on tarpaulin frame
- Material: Aluminium
- End piece: Steel
- Blocking force BC = 400 daN in case of even wing load



Article No.	Article Description	QTY
4984 21 36	INTERMED.WALL LOCK 2.4-2.7M	1
4984 21 36 1	END PIECE FOR INTERM.WALL LOCK	1

Technical Data			
Alu profile	Application range	Clamp. range	Weight
125 x 30 mm	2400 - 2700 mm	21 - 36 mm	11 kg

Lifting technology

Load-lifting equipment/sling in accordance with BGR 500 chapter 2.8

Lifting straps in accordance with EN 1492-1 and polyester round slings in accordance with EN 1492-2.

WLL (Working Load Limit) lifting capacity for different sling methods

Rated lifting capacity	Vertical hitch Factor 1.0	Choker hitch Factor 0.8	Basket hitch Factor 2	45° bridle hitch Factor 1.4	60° bridle hitch Factor 1.0
1.000 kg	1.000 kg	800 kg	2.000 kg	1.400 kg	1.000 kg
2.000 kg	2.000 kg	1.600 kg	4.000 kg	2.800 kg	2.000 kg
3.000 kg	3.000 kg	2.400 kg	6.000 kg	4.200 kg	3.000 kg
4.000 kg	4.000 kg	3.200 kg	8.000 kg	5.600 kg	4.000 kg
5.000 kg	5.000 kg	4.000 kg	10.000 kg	7.000 kg	5.000 kg
6.000 kg	6.000 kg	4.800 kg	12.000 kg	8.400 kg	6.000 kg
8.000 kg	8.000 kg	6.400 kg	16.000 kg	11.200 kg	8.000 kg
10.000 kg	10.000 kg	8.000 kg	20.000 kg	14.000 kg	10.000 kg

Round Slings according to EN 1492-2

- Made of high-strength polyester
- Gentle treatment of delivery units
- Colour coding of slings according to European Standard CEN



Article No.	Article Description	QTY
4982 1000 2	ROUND SLING VIOLET 1000KG 2M	1
4982 1000	ROUND SLING VIOLET 1000KG 3M	1
4982 1000 4	ROUND SLING VIOLET 1000KG 4M	1
4982 1000 6	ROUND SLING VIOLET 1000KG 6M	1
4982 1000 8	ROUND SLING VIOLET 1000KG 8M	1
4982 1000 10	ROUND SLING VIOLET 1000KG 10M	1
4982 2000 2	ROUND SLING GREEN 2000KG 2M	1
4982 2000 3	ROUND SLING GREEN 2000KG 3M	1
4982 2000	ROUND SLING GREEN 2000KG 4M	1
4982 2000 6	ROUND SLING GREEN 2000KG 6M	1
4982 2000 8	ROUND SLING GREEN 2000KG 8M	1
4982 2000 10	ROUND SLING GREEN 2000KG 10M	1
4982 3000 2	ROUND SLING YELLOW 3000KG 2M	1
4982 3000 3	ROUND SLING YELLOW 3000KG 3M	1
4982 3000 4	ROUND SLING YELLOW 3000KG 4M	1
4982 3000 6	ROUND SLING YELLOW 3000KG 6M	1
4982 3000 8	ROUND SLING YELLOW 3000KG 8M	1
4982 3000 10	ROUND SLING YELLOW 3000KG 10M	1
4982 4000 2	ROUND SLING GREY 4000KG 2M	1
4982 4000 4	ROUND SLING GREY 4000KG 4M	1
4982 4000 6	ROUND SLING GREY 4000KG 6M	1
4982 4000 8	ROUND SLING GREY 4000KG 8M	1
4982 4000 10	ROUND SLING GREY 4000KG 10M	1
4982 6000 2	ROUND SLING BROWN 6000KG 2M	1
4982 6000 4	ROUND SLING BROWN 6000KG 4M	1
4982 6000 6	ROUND SLING BROWN 6000KG 6M	1
4982 6000 8	ROUND SLING BROWN 6000KG 8M	1
4982 8000 2	ROUND SLING BLUE 8000KG 2M	1
4982 8000 4	ROUND SLING BLUE 8000KG 4M	1
4982 8000 6	ROUND SLING BLUE 8000KG 6M	1
4982 8000 8	ROUND SLING BLUE 8000KG 8M	1

Technical Data			
Rated capacity in kg	Circumfer. length in m	Hose width	Colour code acc. to Euro-Standard CEN
1.000	2	45	violett
1.000	3	45	violett
1.000	4	45	violett
1.000	6	45	violett
1.000	8	45	violett
1.000	10	45	violett
2.000	2	50	green
2.000	3	50	green
2.000	4	50	green
2.000	6	50	green
2.000	8	50	green
2.000	10	50	green
3.000	2	60	yellow
3.000	3	60	yellow
3.000	4	60	yellow
3.000	6	60	yellow
3.000	8	60	yellow
3.000	10	60	yellow
4.000	2	65	grey
4.000	4	65	grey
4.000	6	65	grey
4.000	8	65	grey
4.000	10	65	grey
6.000	2	80	brown
6.000	4	80	brown
6.000	6	80	brown
6.000	8	80	brown
8.000	2	90	blue
8.000	4	90	blue
8.000	6	90	blue
8.000	8	90	blue

Lifting Slings according to EN 1492-1

- Made of high-strength polyester
- Gentle treatment of delivery units
- Colour coding of slings according to European Standard CEN



Article No.	Article Description	QTY
4983 1000 2	LIFTING SLINGS VIOL.1000KG 2M	1
4983 1000	LIFTING SLINGS VIOL.1000KG 4M	1
4983 1000 6	LIFTING SLINGS VIOL.1000KG 6M	1
4983 1000 8	LIFTING BELT VIOLET 1000KG 8M	1
4983 1000 10	LIFTING BELT VIOLET 1000KG 10M	1
4983 2000 2	LIFTING SLING GREEN 2000KG 2M	1
4983 2000 4	LIFTING SLING GREEN 2000KG 4M	1
4983 2000	LIFTING SLING GREEN 2000KG 6M	1
4983 2000 8	LIFTING BELT GREEN 2000KG 8M	1
4983 2000 10	LIFTING BELT GREEN 2000KG 10M	1
4983 3000 2	LIFTING SLING YELLOW 3000KG 2M	1
4983 3000 4	LIFTING SLING YELLOW 3000KG 4M	1
4983 3000 6	LIFTING SLING YELLOW 3000KG 6M	1
4983 4000 2	LIFTING BELT GREY 4000KG 2M	1
4983 4000 4	LIFTING BELT GREY 4000KG 4M	1
4983 4000 6	LIFTING BELT GREY 4000KG 6M	1
4983 4000 10	LIFTING BELT GREY 4000KG 10M	1
4983 6000 6	LIFTING BELT BROWN 6000KG 6M	1
4983 6000 10	LIFTING BELT BROWN 6000KG 10M	1
4983 8000 2	LIFTING BELT BLUE 8000KG 2M	1
4983 8000 8	LIFTING BELT BLUE 8000KG 8M	1
4983 8000 10	LIFTING BELT BLUE 8000KG 10M	1
4983 10000 8	LIFTING BELT ORANGE 10000KG 8M	1

Technical Data			
Rated capacity in kg	Circumfer. length m	Belt width mm	Colour code acc. to Euro-Standard CEN
1.000	2	30	violet
1.000	4	30	violet
1.000	6	30	violet
1.000	8	30	violet
1.000	10	30	violet
2.000	2	60	green
2.000	4	60	green
2.000	6	60	green
2.000	8	60	green
2.000	10	60	green
3.000	2	90	green
3.000	4	90	yellow
3.000	6	90	yellow
4.000	2	120	grey
4.000	4	120	grey
4.000	6	120	grey
4.000	10	120	grey
6.000	6	180	brown
6.000	10	180	brown
8.000	2	240	blue
8.000	8	240	blue
8.000	10	240	blue
10.000	8	300	orange

Chain Sling with Load Hooks, 1-Strand

- Load capacity: 2.000 kg, chain link thickness: 8 mm
- Load capacity: 3.150 kg, chain link thickness: 10 mm
- Load capacity: 5.300 kg, chain link thickness: 13 mm
- Quality class 8

Article No.	Article Description	QTY
4983 1 2 8	1-STRAND CHAIN SLING 2M/8MM	1
4983 1 2 10	1-STRAND CHAIN SLING 2M/10MM	1
4983 1 2 13	1-STRAND CHAIN SLING 2M/13MM	1
4983 1 4 8	1-STRAND CHAIN SLING 4M/8MM	1
4983 1 4 10	1-STRAND CHAIN SLING 4M/10MM	1
4983 1 4 13	1-STRAND CHAIN SLING 4M/13MM	1



Chain Sling with Load Hooks, 2-Strand

- Load capacity: 0° - 45° = 2800 kg, 45° - 60° = 2000 kg
- Chain link thickness: 8 mm

Article No.	Article Description	QTY
4983 2 2 8	2-STRAND CHAIN SLING 2M/8MM	1
4983 2 4 8	2-STRAND CHAIN SLING 4M/8MM	1
4983 2 2 10	2STRANG-ANSCHLAGKETTE 2M/10MM	1
4983 2 2 13	2STRANG-ANSCHLAGKETTE 2M/13MM	1
4983 2 4 10	2STRANG-ANSCHLAGKETTE 4M/10MM	1
4983 2 4 13	2STRANG-ANSCHLAGKETTE 4M/13MM	1



Chain Sling with Load Hooks, 3-Strand

- Load capacity: 0° - 45° = 4.250 kg, 45° - 60° = 3.000 kg
Chain link thickness: 8 mm
- Load capacity: 0° - 45° = 6.700 kg, 45° - 60° = 4.750 kg
Chain link thickness: 10 mm
- Load capacity: 0° - 45° = 11.200 kg, 45° - 60° = 8.000 kg
Chain link thickness: 13 mm
- Quality class 8

Article No.	Article Description	QTY
4983 3 2 8	3-STRAND CHAIN SLING 2M/8MM	1
4983 3 2 10	3-STRAND CHAIN SLING 2M/10MM	1
4983 3 2 13	3-STRAND CHAIN SLING 2M/13MM	1
4983 3 4 8	3-STRAND CHAIN SLING 4M/8MM	1
4983 3 4 10	3-STRAND CHAIN SLING 4M/10MM	1
4983 3 4 13	3-STRAND CHAIN SLING 4M/13MM	1



Chain Sling with Load Hooks, 4-Strand

- Load capacity: 0° - 45° = 4250 kg, 45° - 60° = 3000 kg
Chain link thickness: 8 mm
- Load capacity: 0° - 45° = 6.700 kg, 45° - 60° = 4.750 kg
Chain link thickness: 10 mm
- Load capacity: 0° - 45° = 11.200 kg, 45° - 60° = 8.000 kg
Chain link thickness: 13 mm
- Quality class 8

Article No.	Article Description	QTY
4983 4 2 8	4STRAND CHAIN SLING 2M/	1
4983 4 4 8	4STRAND CHAIN SLING 4M/8MM	1
4983 4 2 10	4-STRAND CHAIN SLING 2M/10MM	1
4983 4 2 13	4-STRAND CHAIN SLING 2M/13MM	1
4983 4 4 10	4-STRAND CHAIN SLING 4M/10MM	1
4983 4 4 13	4-STRAND CHAIN SLING 4M/13MM	1



Slinging chains with shortening hooks, 1 leg

- With shortening hooks
- Load carrying capacity: 2,000 kg, chain link thickness: 8 mm
- Load carrying capacity: 3,150 kg, chain link thickness: 10 mm
- Load carrying capacity: 5,300 kg, chain link thickness: 13 mm
- Quality class 8
- EN 818 - 4 + A1



Article No.	Article Description	QTY
4983 9 1 2 8	1-LEG-SLING.CHAIN VKH 2M/ 8MM	1
4983 9 1 2 10	1-LEG-SLING.CHAIN VKH 2M/ 10MM	1
4983 9 1 2 13	1-LEG-SLING.HAIN VKH 2M/ 13MM	1
4983 9 1 4 8	1-LEG-SLING.CHAIN VKH 4M/ 8MM	1
4983 9 1 4 10	1-LEG-SLING.CHAIN VKH 4M/ 10MM	1
4983 9 1 4 13	1-LEG-SLING.CHAIN VKH 4M/ 13MM	1

Slinging chains with shortening hooks, 2 leg

- With shortening hooks
- Load carrying capacity: 0° – 45° = 2,800 kg, 46° – 60° = 2,000 kg
Chain link thickness: 8 mm
- Load carrying capacity: 0° – 45° = 4,250 kg, 46° – 60° = 3,150 kg
Chain link thickness: 10 mm
- Load carrying capacity: 0° – 45° = 7,500 kg, 46° – 60° = 5,300 kg
Chain link thickness: 13 mm
- Quality class 8
- EN 818 - 4 + A1



Article No.	Article Description	QTY
4983 9 2 2 8	2-LEG-SLING.CHAIN VKH 2M/8MM	1
4983 9 2 2 10	2-LEG-SLING.CHAIN VKH 2M/10MM	1
4983 9 2 2 13	2-LEG-SLING.CHAIN VKH 2M/13MM	1
4983 9 2 4 8	2-LEG-SLING.CHAIN VKH 4M/8MM	1
4983 9 2 4 10	2-LEG-SLING.CHAIN VKH 4M/10MM	1
4983 9 2 4 13	2-LEG-SLING.CHAIN VKH 4M/13MM	1

Slinging chains with shortening hooks, 3 leg

- With shortening hooks
- Load carrying capacity: 0° – 45° = 4,250 kg, 46° – 60° = 3,000 kg
Chain link thickness: 8 mm
- Load carrying capacity: 0° – 45° = 6,700 kg, 46° – 60° = 4,750 kg
Chain link thickness: 10 mm
- Load carrying capacity: 0° – 45° = 11,200 kg, 46° – 60° = 8,000 kg
Chain link thickness: 13 mm
- Quality class 8
- EN 818 - 4 + A1



Article No.	Article Description	QTY
4983 9 3 2 8	3-LEG-SLING.CHAIN VKH 2M/8MM	1
4983 9 3 2 10	3-LEG-SLING.CHAIN VKH 2M/10MM	1
4983 9 3 2 13	3-LEG-SLING.CHAIN VKH 2M/13MM	1
4983 9 3 4 8	3-LEG-SLING.CHAIN VKH 4M/8MM	1
4983 9 3 4 10	3-LEG-SLING.CHAIN VKH 4M/10MM	1
4983 9 3 4 13	3-LEG-SLING.CHAIN VKH 4M/13MM	1

Slinging chains with shortening hooks, 4 leg

- With shortening hooks
- Load carrying capacity: 0° – 45° = 4,250 kg, 46° – 60° = 3,000 kg
Chain link thickness: 8 mm
- Load carrying capacity: 0° – 45° = 6,700 kg, 46° – 60° = 4,750 kg
Chain link thickness: 10 mm
- Load carrying capacity: 0° – 45° = 11,200 kg, 46° – 60° = 8,000 kg
Chain link thickness: 13 mm
- Quality class 8
- EN 818 - 4 + A1

Article No.	Article Description	QTY
4983 9 4 2 8	4-LEG-SLING.CHAIN VKH 2M/8MM	1
4983 9 4 2 10	4-LEG-SLING.CHAIN VKH 2M/10MM	1
4983 9 4 2 13	4-LEG-SLING.CHAIN VKH 2M/13MM	1
4983 9 4 4 8	4-LEG-SLING.CHAIN VKH 4M/8MM	1
4983 9 4 4 10	4-LEG-SLING.CHAIN VKH 4M/10MM	1
4983 9 4 4 13	4-LEG-SLING.CHAIN VKH 4M/13MM	1



Lashing chains for ratchet tensioner with hooks

- Chains Art.-No. 4983 10 1 8 and 4983 10 2 8 for ratchet tensioner Art.-No. 4983 10 8
- Chains Art.-No. 4983 10 1 10 and 4983 10 2 10 for ratchet tensioner Art.-No. 4983 10 10
- Chains Art.-No. 4983 10 1 13 and 4983 10 2 13 for ratchet tensioner Art.-No. 4983 10 13

Article No.	Article Description	QTY
4983 10 1 8	LASHING CHAIN 3.5MTR W.HOOK 8	1
4983 10 1 10	LASHING CHAIN 3.5MTR W.HOOK 10	1
4983 10 1 13	LASHING CHAIN 3.5MTR W.HOOK 13	1
4983 10 2 8	LASH.CHAIN 3.5MTR W.2 HOOKS 8	1
4983 10 2 10	LASH.CHAIN 3.5MTR W.2 HOOKS 10	1
4983 10 2 13	LASH.CHAIN 3.5MTR W.2 HOOKS 13	1



4983 10 1 8

4983 10 2 8

Ratchet tensioner

Technical Data

Art.-No.:	4983 10 8	4983 10 10	4983 10 13
Chain link thickness mm:	8 – 10	10 – 13	13 – 16
Test load kN	48,04	81,85	115,56
Minimum fracture load kN	84,52	146,80	204,63
Tensioning width mm	203,0	152,0	203,0
Dimension A mm	356,0	356,0	356,0
Dimension B mm	35,1	35,1	35,1
Dimension C mm	64,0	64,0	64,0
Dimension E mm	638,0	690,0	747,0
Dimension F mm	842,0	905,0	951,0
Dimension G mm	28,0	31,0	39,0
Dimension H mm	12,7	16,0	18,3



4983 10 8



4983 10 10



4983 10 13



Slings

- Belt width: 49 mm
- Total coverage:
 Art.-No. 4982 540 08: 0.8 m
 Art.-No. 4982 540 1: 1.0 m
 Art.-No. 4982 540 12: 1,2 m
- Belt colour: black

Article No.	Article Description	QTY
4982 540 08	BAND SLING 540KG 0.8M	ez 150
4982 540 1	BAND SLING 540KG 1M	1 z
4982 540 12	BAND SLING 540 KG 1.2M	e 10



Binding / Framing Cord

- With loop
- High tear strength
- With 4 strands
- Thickness: 8 mm

Article No.	Article Description	QTY
4982 25	PP BINDING CORD 2.5M	e 10
4982 25 1	JUTE BINDING CORD2.5M	e 10



4982 25



4983 25 1

Chain, galvanised

- Galvanised steel
- Long link version
- In accordance with DIN 5685 C
- Not suitable for lifting

Technical Data				
Art.No.	Chain thickness mm	Fracture load kg	Dimension A x B mm	Weight kg / m
4983 10 25	2,50	200	24 x 5	0,10
4983 10 30	3,00	280	26 x 6	0,15

Article No.	Article Description	QTY
4983 10 25	MTR CHAIN GV 2.5X24X5	25
4983 10 30	MTR CHAIN GV 3.0X26X6	25



Container Covering Net

- Made of high-strength PP (polypropylene)
- With solid closing edge

Technical Data

Colour: green
Mesh width: 45 mm
Material strength: 3.0 mm

Article No.	Article Description	QTY
4987 1 35 5 4	CONT.COVER.NET 3.5X5M GREEN3MM	1
4987 1 35 6 4	CONT.COVER.NET 3.5X6M GREEN3MM	1
4987 1 35 7 4	CONT.COVER.NET 3.5X7M GREEN3MM	1
4987 1 35 8 4	CONT.COVER.NET 3.5X8M GREEN3MM	1



Container Tarpaulin

- Air-permeable plastic tarpaulin
- Especially suitable for small particles such as sand, grit etc.
- UV resistant
- With edge strengthening
- Tarpaulin lugs in distance of 50 cm

Technical Data

Colour: dark-green
Weight: approx. 200 g/m²
Material: PE-small bands

Article No.	Article Description	QTY
4987 2 35 5 4	CONT.TARP.AIR-PERMEABLE 3.5X5M	1
4987 2 35 6 4	CONT.TARP.AIR-PERMEABLE 3.5X6M	1
4987 2 35 7 4	CONT.TARP.AIR-PERMEABLE 3.5X7M	1
4987 2 35 8 4	CONT.TARP.AIR-PERMEABLE 3.5X8M	1



Covering Net for Trailer/Platform

- Made of high-strength PP (polypropylene)
- For safe transport and coverage of loaded trailers or platforms
- With 6 mm rubber tensioning string

Technical Data

Colour: green
Mesh width: 45 mm
Material strength: 3. mm

Article No.	Article Description	QTY
4987 3 2 3 4	COV.NET TRAIL.2X3M TENS.STRING	1
4987 3 3 4 4	COV.NET TRAIL.3X4M TENS.STRING	1
4987 3 3 35 4	COV.NET TRAI.3X3.5M TEN.STRING	1
4987 3 25 35 4	COV.NET TRAI.2.5X3.5M T.STRING	1



Tarpaulin Ropes

- Made of plastic, in rolls
- 3400 1 6 250: transparent, with steel core = TIR cable
- 3400 1 8 100: transparent, with steel core = TIR cable
- 3400 2 8 100: transparent, nylon
- 3400 3 8 100: transparent, sisal
- 3400 5 8 100: transparent



Article No.	Article Description	QTY
3400 1 6 250	MTR.TARPAUL.CABLE STEEL CO 6MM	250
3400 1 8 100	MTR.TARPAUL.CABLE STEEL CO 8MM	100
3400 2 8 100	MTR.TARPAUL.CABLE NYLON 8MM	100
3400 3 8 100	MTR.TARPAUL.CABLE SISA 8MM	100
3400 5 8 100	MTR.TARPAUL.CABLE PL.TRANS.8MM	100

Stretch Cables

- Rubber, nylon jacket, white-black



Article No.	Article Description	QTY
3400 6 8 100	MTR.STRETCH CABLE BLA-.8MM	100
3400 6 10 100	MTR.STRETCH CABLE BLA-.10MM	100

Cutter for TIR Cable

Article No.	Article Description	QTY
3401 1	CUTTER FOR TIR CABLE	1



Cable End Fittings

- Complete with Simplex snaphook 55 mm, zinc-plated
- For 8 / 10 mm cable dia

Article No.	Article Description	QTY
3401 2 8	CABLE END FIT.+SIMPLEHO.8.5MM	50
3401 2 10	PVCTIR CABLE+SIMPLEXHOOK 10MM	25



Simplex Snaphook

- Zinc-plated
- Length 55 mm

Article No.	Article Description	QTY
3401 2 55	SIMPLEX SNAPHOOK ZI 55MM	25



Clamping Ring, Zinc-Plated

- For fabricating loops or connections / extensions with tarpaulin and stretch cables

Article No.	Article Description	QTY
3401 8 8	CLAMPING RINGS ZI 8MM	25
3401 8 10	CLAMPING RINGS ZI 10MM	25



Cable TIR End Fitting

- Zinc-plated

Article No.	Article Description	QTY
3401 3 6	CABLE TIR END CLOSURE 6MM	50
3401 3 8	CABLE TIR END CLOSURE 8MM	50



Brass Oval Rivet

Article No.	Article Description	QTY
3401 3 6 1	BRASS OVAL RIVET 6MM	100
3401 3 8 1	BRASS OVAL RIVET 8MM	100



Pointed Rivet

- For 6 and 8 mm TIR cable end fittings

Article No.	Article Description	QTY
3401 3 8 2	AL. POINTED RIVET 2.9X21 MM	100



Fixing Tool for Cable Ends

- 3401 4 6 1 and 3401 4 8 1: complete each with 1 spear, holder for spear, punch, lower part

Article No.	Article Description	QTY
3401 4 6 1	TOOL FOR CABLE ENDS 6MM	1
3401 4 6 3	REPLACEMENT HOLDER 6MM	1
3401 4 6 4	REPLACEMENT DIE 6MM	1
3401 4 8 1	TOOL FOR CABLE ENDS 8MM	1
3401 4 8 2	REPLACEMENT SPEAR 6+8MM	1
3401 4 8 3	REPLACEMENT HOLDER 8MM	1
3401 4 8 4	REPLACEMENT DIE 8MM	1



3401 4 6 1
3401 4 8 1



3401 4 6 3
3401 4 8 3



3401 4 6 4
3401 4 8 4



3401 4 8 2

Spiral Hook for Stretch Cables

- Plastic covered, black
- For 8 / 10 mm cable dia
- 3401 5 15: for spinhook 8 and 10 mm

Article No.	Article Description	QTY
3401 5 8	SPIRAL HOOK F.STRETCH CABLE8MM	25
3401 5 10	SPIR.HOOK F.STRETCH CABLE10MM	25
3401 5 15	PLASTIC WEDGE FOR SPIRAL HOOK	25



Carabiner Snaphook for Stretch Cables

- Plastic black
- For 8 mm cable dia

Article No.	Article Description	QTY
3401 6 8	KAR.SNAPH.F.ELAST.CABLE PL.8MM	25



S-Hook

Article No.	Article Description	QTY
3401 7 3 25	S-HOOK ZINC PLATED 3X25MM	25
3401 7 4 35	S-HOOK ZINC PLATED 4X35MM	25

(dia x total length in mm)



Shackle Bracket with Straight Plate

- With 2 holes, zinc-plated
- For round eyelets Ø 36 and 40 mm and oval eyelets 42 x 22 mm

Technical Data			
Art.-No.	Height	Wire Ø	Hole interval
3402 1 25	25 mm	4 mm	51 mm
3402 1 30	30 mm	4 mm	51 mm
3402 1 38	38 mm	4 mm	51 mm



Article No.	Article Description	QTY
3402 1 25	SHACKLE BRACK.EV.PLATE ZI 25MM	50
3402 1 30	SHACKLE BRACK.EV.PLATE ZI 30MM	50
3402 1 38	SHACKLE BRACK.EV.PLATE ZI 38MM	50

Shackle Bracket with Hexagonal Plate

- With 4 holes, zinc-plated
- For round eyelets Ø 36 und 40 mm and oval eyelets 42 x 22 mm

Technical Data			
Art.-No.	Height	Wire Ø	Hole interval
3402 2 25	25 mm	4 mm	51/26 mm
3402 2 30	30 mm	4 mm	51/26 mm



Article No.	Article Description	QTY
3402 2 25	SHACKLE BRACK.HEX.PLATE ZI25MM	50
3402 2 30	SHACKLE BRACK.HEX.PLATE ZI30MM	50

Curved Shackle Brackets with Straight Plate

- With 2 holes, zinc-plated
- For round eyelets Ø 40 mm and oval eyelets 42 x 22mm

Technical Data			
Art.-No.	Height	Rod Ø	Hole interval
3402 3 30	30 mm	4 mm	55 mm



Article No.	Article Description	QTY
3402 3 30	SHACKLE BRACKET CURV ZI 30MM	50

Pivoting Shackle Brackets

- Complies with customs regulations, with welded back plate, zinc-plated
- For round eyelets Ø 36 and 40 mm and oval eyelets 42 x 22 mm

Technical Data			
Art.-No.	Height	Rod Ø	Hole interval
3402 4 37	37 mm	4 mm	30 mm
3402 4 45	45 mm	4 mm	30 mm
3402 4 55	55 mm	4 mm	30 mm



Article No.	Article Description	QTY
3402 4 37	PIVOTING SHACKLE ZI 37MM	50
3402 4 45	PIVOTING SHACKLE ZI 45MM	50
3402 4 55	PIVOTING SHACKLE ZI 55MM	50

Pivoting Shackle Brackets

- Complies with customs regulations, with welded back plate, zinc-plated
- For round eyelets Ø 36 and 40 mm and oval eyelets 42 x 22 mm

Technical Data			
Art.-No.	Height	Rod Ø	Hole interval
3402 4 37	37 mm	4 mm	30 mm
3402 4 45	45 mm	4 mm	30 mm
3402 4 55	55 mm	4 mm	30 mm



Article No.	Article Description	QTY
3402 4 37	PIVOTING SHACKLE ZI 37MM	50
3402 4 45	PIVOTING SHACKLE ZI 45MM	50
3402 4 55	PIVOTING SHACKLE ZI 55MM	50

Strap Staples

- With straight plate, zinc-plated
- For eyelets 38 x 8 mm

Technical Data			
Art.-No.	Height	Rod Ø	Hole interval
3402 6 15	15 mm	4 mm	51 mm
3402 6 20	20 mm	4 mm	51 mm
3402 6 25	25 mm	4 mm	51 mm
3402 6 30	30 mm	4 mm	51 mm



Article No.	Article Description	QTY
3402 6 15	STRAP BRACKET ST.PLATE ZI 15MM	100
3402 6 20	STRAP BRACKET ST.PLATE ZI 20MM	100
3402 6 25	STRAP BRACKET ST.PLATE ZI 25MM	100
3402 6 30	STRAP BRACKET ST.PLATE ZI 30MM	100

Small Strap Staples

- With even plate, zinc-plated
- For eyelets 27 x 8 mm

Technical Data			
Art.-No.	Height	Rod -Ø	Hole distance
3402 7 12	12 mm	4 mm	34 mm
3402 7 16	16 mm	4 mm	34 mm



Article No.	Article Description	QTY
3402 7 12	SMALL STRAP BRACKET ZI 12MM	100
3402 7 16	SMALL STRAP BRACKET ZI 16MM	100

Rotary Catches

- Zinc-plated
- For oval eyelets 42 x 22 mm
- Hole interval 51 mm
- With stainless steel spring

Article No.	Article Description	QTY
3403 1 1 42	ROTARY CATCH ZI 42X22MM	25



Rotary Catches, Pivoting

- Zinc-plated
- Hole interval 51 mm
- With stainless steel spring

Article No.	Article Description	QTY
3403 1 2 42	ROT. CATCH; PIVOTING ZI42X22MM	25



Small Rotary Catch

- Nickel-plated brass
- With stainless steel spring

Technical Data		
Art.No.	For oval eyes	Hole interval
34031317	17x11 mm	23.5 mm
340313225	22.5x13 mm	34 mm

Article No.	Article Description	QTY
3403 1 3 17	ROT. CATCH FOR EYE 17X11MM	25
3403 1 3 225	ROT. CATCH FOR EYE 22.5X13	25

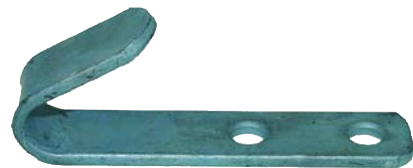


Flat Hook, Galvanized

- hole diameter 5 mm

Technical Data				
Art. No.	Length	Width	Material thickness	Hole interval
3403 2 1	68 mm	15 mm	3 mm	20 mm

Article No.	Article Description	QTY
3403 2 1	FLAT HOOK 15X3MM GAL L68MM	25



Flat Hook, Plastic

Technical Data			
Art. No.	Length	Width	Material thickness
3403 2 2	60 mm	19 mm	4 mm

Article No.	Article Description	QTY
3403 2 2	FLAT HOOK 19X4MM PLAST. L 60MM	25



Cover hooks

- galvanised

Technical Data				
art. no.	length	breadth	size of hole	hole spacing
3403 3 1	39 mm	47 mm	5 mm	34 mm

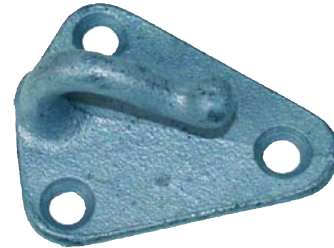


Article No.	Article Description	QTY
3403 3 1	COVER HOOKS GV L 39MM	25

Tarpaulin Hook

- Small version, galvanized

Technical Data			
Art.-No.	Length	Width	Hole Size
3403 3	34 mm	29 mm	5 mm



Article No.	Article Description	QTY
3403 3	TARP HOOK GALV L 50MM	25

Ring Hook

- Small version, galvanized

Technical Data			
Art.-No.	Length	Width	Hole Size
3403 4	34 mm	31 mm	5 mm



Article No.	Article Description	QTY
3403 4	3-HOLE RING HOOK GALV: L 50MM	25

Schiebe-Schnellverschluss

- For round eyelets dia 40 and oval eyelets 42 x 22 mm
- Aluminium



Article No.	Article Description	QTY
3403 5	SLIDING CATCH ALUMINIUM	25

Hoisting Lug with Cap Screw

- Lifting lug, galvanized
- Truss head cap screw, galvanized

Article No.	Article Description	QTY
3403 6	HOISTING LUG, GALVANIZED M8	25
1110 8 20	TRUSS HD CAP SCREW ZI M8X20	100
1110 8 30	TRUSS HD CAP SCREW ZI M8X30	100
1110 8 35	TRUSS HD CAP SCREW ZI M8X35	100
1110 8 40	TRUSS HD CAP SCREW ZI M8X40	100



Plastic Back Plates

- For covering with leather and fittings

Article No.	Article Description	QTY
3403 7 18	BACK PLATE PLAST. 1 HOLE D 18MM	100
3403 7 20	BACK PLATE PLAST. 2HOLE A 20MM	25
3403 7 25	BACK PLATE PLAST. 2HOLE A 25MM	25
3403 7 51	BACK PLATE PLAST. 2HOLE A 51MM	25

(Number of holes / hole distance in mm)



Aluminium Rivet TIR DIN 674

Article No.	Article Description	QTY
3404 1 12	ALUMINIUM RIVET DIN674 5X12MM	100
3404 1 15	ALUMINIUM RIVET DIN674 5X15MM	100
3404 1 30	ALUMINIUM RIVET DIN674 5X30MM	100
3404 1 35	ALUMINIUM RIVET DIN674 5X35MM	100

(dia x length in mm)



Belt Rivet DIN 675

- Aluminium

Article No.	Article Description	QTY
3404 2 10	AL. BELT RIVET DIN 675 4X10MM	100
3404 2 12	AL. BELT RIVET DIN 675 4X12MM	100
3404 2 15	AL. BELT RIVET DIN 675 4X15MM	100

(dia x length in mm)



Hollow Rivet

- With double head for belts, galvanized

Article No.	Article Description	QTY
3404 3 9	DOUBLE HOL. RIVET ZI 10/4X9MM	100
3404 3 12	DOUBLE HOL. RIVET ZI 13/4X12MM	100
3404 3 15	DOUBLE HOL. RIVET ZI 13/4X15MM	100

(Head dia. / dia x length in mm)



Rubber Tensioner

Article No.	Article Description	QTY
3404 4 200	RUBBER TENSIONER D 8MM L 200MM	25
3404 4 250	RUBBER TENSIONER D 8MM L 250MM	25
3404 4 400	RUBBER TENSIONER D 8MM L 400MM	25

(D = Diameter / L = length in mm)



Strapping Belt

- With hollow rivet, material 3 mm

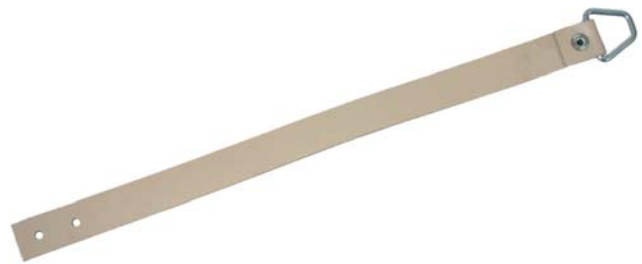
Article No.	Article Description	QTY
3404 5	STRAP BELT B 20MM L 350MM	1



Roll-up Strap

- With hollow rivet, material 3 mm
- Hole interval 20 mm

Article No.	Article Description	QTY
3404 6 400	ROLL-U P STRAP B20MML400MM	1



Straps

- Material 3 mm
- Hole interval 20 mm

Article No.	Article Description	QTY
3404 7 20	STRAPS B20MML170MM	e 10
3404 7 25	STRAPS B 25MM L 170MM	e 10



Buckle with Chafe Guard

- Hole interval 20 mm

Article No.	Article Description	QTY
3404 8 20	BUCKLE B20MM	e 10
3404 8 25	BUCKLE B25MM	e 10



Safety Chains

- For truck and small trailers with stop plates
- Chain length 180 mm
- Stop plates 34 mm
- S-hook dia. 30mm

Article No.	Article Description	QTY
3404 10 34	SA.CHAINW.PLATE.180MMP34MM	zf 100



Direct and belt tensioner

- DEKRA certified direct tensioner
- 45 mm adjustment rack
- can be loaded up to 10 kN
- suitable for skirting protection profiles
- material: Stainless steel



Article No.	Article Description	QTY
3403 10 1	DIREKT & BELT TENSIONER ST.S	e 5

Technical Data				
L	B	H	hole Ø	LA*
160	60	20	6.5	28

* hole spacing

Beyond dead centre clamp

- with long lever and spring mechanism
- maximum strap breadth 50 mm
- can be loaded up to 8 kN
- material: Stainless steel

art. no. 3403 10 2:

- Design without strap

art. no. 3403 10 3:

- Design with high strength polyester strap and flat hook stainless steel

art. no. 3403 10 4:

- Design with high strength polyester strap and galvanised wire hooks



3403 10 2



3403 10 3



3403 10 4

Article No.	Article Description	QTY
3403 10 2	BEYOND DEAD CENTRE CLAMP ST.S	e 5
3403 10 3	BEY.DEAD CE.CLAMP+FL.HOOK ST.S	e 5
3403 10 4	BEY.DEAD CE.CLAMP+WIRE.HOOK ZI	e 5

Technical Data				
L	B	H	hole Ø	LA*
152	57	24	6.5	28
152	57	24	6.5	28
152	57	24	6.5	28

* hole spacing

Safety against overturning - clamp

- DB certified
- maximum band breadth 50 mm
- with brake
- material: Stainless steel

Art.-No. 3403 10 5:

- Design without strap

Art.-No. 3403 10 6:

- Design with high strength polyester strap and flat hook stainless steel

Art.-No. 3403 10 7:

- Design with high strength polyester strap and galvanised wire hook

Art.-No. 3403 10 8:

- Design with high strength polyester strap and flat hook zinc-nickel



3403 10 5



3403 10 6



3403 10 7



3403 10 8

Article No.	Article Description	QTY
3403 10 5	SAFETY AGAINST-OVERT.CLAMP S.S	e 5
3403 10 6	SAF.AG-OVERT.CL.+FL.HOOK ST.S.	e 5
3403 10 7	SAF.AG-OVERT.CL.+WIRE HOOK ZI	e 5
3403 10 8	SAF.AG-OVERT.CL.+FL.HOOK ZN-N	e 5

Technical Data				
L	B	H	hole Ø	LA*
131	59	22	6.5	28
131	59	22	6.5	28
131	59	22	6.5	28
131	59	22	6.5	28

* hole spacing

Replacement web belt for belt tensioner

- high strength polyester belt
- strength 2400 kg

art. no. 3403 11 1:

- Design with galvanised wire hooks

art. no. 3403 11 2:

- Design with zinc-nickel flat hooks

art. no. 3403 11 3:

- Design with stainless steel flat hooks



3403 11 1

3403 11 2

3403 11 3

Article No.	Article Description	QTY
3403 11 1	REPL.W-BELT F.B-TENS. WI.HO.ZI	e 5
3403 11 2	REP.W-BELT F.B-TENS.FL.HO.ZN-N	e 5
3403 11 3	REPL.W-BELT F.B-TENS.FL.HO.S.S	e 5

Technical Data

L	B
650	48
650	48
650	48

Fixing plate for direct and belt tensioners

- counter plate with screws M6 x 14 mm, incl. 2x self-locking nuts
- material: Stainless steel

art. no. 3403 12 2:

- straight counter plate without screws

- material: Stainless steel



3403 12 1

3403 12 2

Article No.	Article Description	QTY
3403 12 1	COUNT.PLATE + SCREWS ST.S	25
3403 12 2	COUNTER PLATE ST.S	25

Technical Data

L	B	hole Ø	LA*	S
45	20	6.5	28	1.5
45	20	6.5	28	1.5

* hole spacing

Adapter for round profiles Ø 27 mm

Art. no. 3403 13 1:

- Angle bracket for adapter on top, material galvanised steel

art. no. 3403 13 1 1:

- Adapter on top with rounded head, material brass

art. no. 3403 13 1 2:

- Adapter underneath with internal square socket 12x12 mm, material stainless steel

art. no. 3403 13 1 3:

- Adapter underneath with slot, material stainless steel



3403 13 11

3403 13 12

3403 13 13

3403 13 1

Article No.	Article Description	QTY
3403 13 1	MOUNTING BRACKETS ZI UP27MM	1
3403 13 1 1	ADAPTER BRASS UP 27MM	1
3403 13 1 2	ADAPTER SQUARE ST.S. DOWN27MM	1
3403 13 1 3	ADAP.W. SLIT ST.S DOWN27MM	1

Adapter for round profiles Ø 34 mm

Art. no. 3403 13 2:

- Angle bracket for adapter on top, material galvanised steel

art. no. 3403 13 2 1:

- Adapter on top with rounded head, material brass

art. no. 3403 13 2 2:

- Adapter on top with pointed head, material brass

art. no. 3403 13 2 3:

- Adapter underneath with internal square socket 12x12 mm, material stainless steel

art. no. 3403 13 2 4:

- Adapter underneath with slot, material stainless steel



3403 13 2 1

3403 13 2 2

3403 13 2 3

3403 13 2 4

3403 13 2

Article No.	Article Description	QTY
3403 13 2	MOUNTING BRACKETS ZI UP 34MM	1
3403 13 2 1	ADAPTER BRASS UP 34MM	1
3403 13 2 2	ADAPBRASS W.POINT.TIP UP 34MM	1
3403 13 2 3	ADAPTER SQUARE ST.S. DOWN34MM	1
3403 13 2 4	ADAP.W. SLIT ST.S DOWN34MM	1

Tarpaulin Eyelets

Article No.	Article Description	QTY
3405 1 16	TARPAULIN EYELET ROUND16MM ZI	25
3405 1 20	TARPAULIN EYELET ROUND20MM ZI	25
3405 1 25	TARPAULIN EYELET ROUND25MM ZI	25
3405 1 36	TARPAULIN EYELET ROUND36MM ZI	50
3405 1 40	TARPAULIN EYELET ROUND40MM ZI	50
3405 2 17	TARPEYEL.OV17X11 BRASS NI-PL.	25
3405 2 225	TAR.EYEL.OV22.5X13 BRASS NI-PL	25
3405 2 42	TARPAULIN EYELET OVAL 42X22 ZI	50
3405 3 27	TARPAULIN EYEL.SQUARE 27X8 ZI	50



Plastic Washers

Article No.	Article Description	QTY
3405 5 16	PLAST.WASHER F.ROUND EYEL.16MM	25
3405 5 20	PLAST.WASHER F.ROUND EYEL.20MM	25
3405 5 25	PLAST.WASHER F.ROUND EYEL.25MM	25
3405 5 40	PLAST.WASHER F.ROUND EYEL.40MM	50
3405 6 42	PLAST.WASH.F.OVAL EYEL.42X22MM	50
3405 5 36	PLAST.WASHER F.ROUND EYEL.36MM	50



Hollow Punch

Article No.	Article Description	QTY
4739 16	HOLLOW PUNCH F.ROUND EYEL.16MM	1
4739 20	HOLLOW PUNCH F.ROUND EYEL.20MM	1
4739 25	HOLLOW PUNCH F.ROUND EYEL.25MM	1
4739 36	HOLLOW PUNCH F.ROUND EYEL.36MM	1
4739 40	HOLLOW PUNCH F.ROUND EYEL.40MM	1
4739 2 17	HOLLOW PUNCH OVAL EYEL.17X11MM	1
4739 2 225	HOLL.PUNCH OVAL EYEL.22.5X13MM	1
4739 2 42	HOLLOW PUNCH OVAL EYEL.42X22MM	1
4739 3 27	HOLL.PUNCH F.SLOTT.EYEL.27X8MM	1
4739 3 38	HOLL.PUNCH F.SLOTT.EYEL.38X8MM	1



Dies

Article No.	Article Description	QTY
3406 16	ROUND DIE16MM	1
3406 20	ROUND DIE20MM	1
3406 25	ROUND DIE25MM	1
3406 36	ROUND DIE36MM	1
3406 40	ROUND DIE40MM	1
3406 2 17	OVAL DIE 17X11 MM	1
3406 2 225	OVAL DIE 22.5X13MM	1
3406 2 42	OVAL DIE 42X22MMM	1
3406 3 27	SQUARE DIE 27X8MM	1
3406 3 38	SQUARE DIE 38X8MM	1



Tarpaulin Repair Set

- 5 Pieces in plastic case
- Suitable for bonding on all PVC coated tarpaulins such as truck and trailer tarpaulins

Working steps:

- Intensively clean the spot to be treated on the tarpaulin with ASK-Windscreen Bond Cleaner
- Suitably cut the replacement tarpaulin
- Equally heat up the tarpaulin and replacement tarpaulin with hot air blower HG 2310 LCD and press on with the wide band roller



Article No.	Article Description	QTY
5345 2310 1	TARPAULIN REPAIR SET	1

Contents:

- 1x Art.-No. 9027 1 Plastic case
- 1x Art.-No. 5345 2310 HG 2310 LCD hot air gun
- 1x Art.-No. 5345 13 reduction nozzle
- 1x Art.-No. 5345 10 Wide slot nozzle
- 1x Art.-No. 3407 8 Wide band roller
- 1x Art.-No. 6110 1001 1K- PUR/ASK Cleaner



Wide Band Roller

- Double arm, with rubber roller dia. 30 mm
- For strong and smooth pressing of tape etc...
- Width: 47 mm



Article No.	Article Description	QTY
3407 8	WIDE BAND ROLLER 40MM	1

Tarpaulin Repair Plaster

- Easy and professional repair
- Tarpaulin repair plaster with different dimensions and colours
- Self-adhesive plaster cutting or can be shortened individually on the roll
- Very high adhesive strength
- UV resistant
- Resistant against washing brushes
- Tarpaulin plaster in reclosable zip-bag

Fields of application:




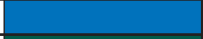






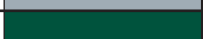

- Truck tarpaulins, tent tarpaulins, awnings, covering tarpaulins, scooter/motorcycle seats, industrial tents etc.

Application:

- Surface must be dry, clean and grease-free
- Clean surface to be repaired (ideal with 1K-Pur Cleaner Art. No. 6110 1000), pull of protection film and firmly press on the plaster
- Temperature and water resistant -40 °C to +80°C
- Best adhesion achieved at a processing temperature -15°C to 25°C
- Not to be processed under + 5°C



Article No.	Article Description	QTY
3409 10 5	RO(5M)TARP.REP.PLAST 10CM BLUE	1
3409 10 5 1	RO(5M)TARP.REP.PLAST10CM WHITE	1
3409 10 5 2	RO(5M)TARP.REP.PLAST 10CM GREY	1
3409 10 5 3	RO(5M)TARP.REP.PLAST10CM BLUE	1
3409 10 5 4	RO(5M)TARP.REP.PLAST 10CM GN	1
3409 10 5 5	RO(5M)TARP.REP.PLAST10CM L.GR	1
3409 10 5 6	RO(5M)TARP.REP.PLAST10CM YE	1
3409 10 5 7	RO(5M)TARP.REP.PLAST10CM OG	1
3409 10 5 8	RO(5M)TARP.REP.PLAST 10CM RED	1
3409 10 5 9	RO(5M)TARP.REP.PLAST 10CM BK	1
3409 10 5 10	RO(5M)TARP.REP.PLAST 10CM SR	1
3409 10 5 11	RO(5M)TARP.REP.PLAST 10CM MOSS	1
3409 27	TARP.PLAST.REP.SET 27PCS.BLUE	1
3409 27 1	TARP.PLAST.REP.SET 27PCS.WHITE	1
3409 27 2	TARP.PLAST.REP.SET 27PCS.GREY	1
3409 27 3	TARP.PLAST.REP.SET27PCS.L.BLUE	1
3409 27 4	TARP.PLAST.REP.SET 27PCS.GREEN	1
3409 27 6	TARP.PLAS.REP.SET 27PCS.YELLOW	1
3409 27 7	TARP.PLAS.REP.SET 27PCS.ORANGE	1
3409 27 8	TARP.PLAS.REP.SET 27PCS. RED	1
3409 27 9	TARP.PLAS.REP.SET 27PCS.BLACK	1
3409 27 10	TARP.PLAS.REP.SET 27PCS.SILVER	1
3409 30 20	TARPAULIN PLASTER 30X20CM BLUE	1
3409 30 20 1	TARPAULIN PLAST.30X20CM WHITE	1
3409 30 20 2	TARPAULIN PLAST.30X20CM GREY	1

blue	RAL 5002	
white	RAL 9016	
grey	RAL 7038	
light blue	RAL 5012	
opal green	RAL 6026	
light green	RAL 6018	
yellow	RAL 1003	
orange	011	
red	RAL 3002	
black	RAL 9005	
silver	RAL 9006	
moss green	RAL 6005	

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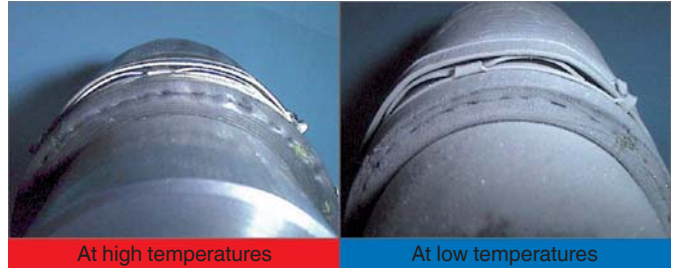
- 3x 30 x 20 cm
- 3x 20 x 20 cm
- 4x 30 x 10 cm
- 4x 20 x 10 cm
- 6x 10 x 10 cm
- 7x 20 x 5 cm

TORRO Hose Clamps with Wave Spring

- Integrated spring
- Compensates variations in diameter
- Also suitable for thermoplastic pipes
- W4 Wave spring



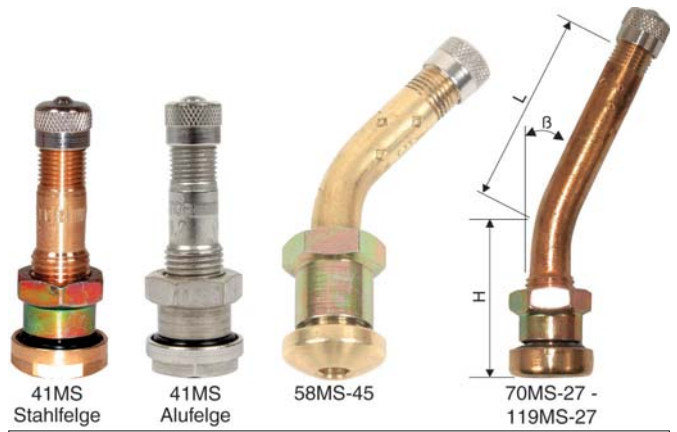
Article No.	Article Description	QTY
3205 30 45	TORRO HOSE CL. 12MMSW7W3 30-45	50
3205 35 50	TORRO HOSE CL. 12MMSW7W3 35-50	50
3205 40 60	TORRO HOSE CL. 12MMSW7W3 40-60	25
3205 50 70	TORRO HOSE CL. 12MMSW7W3 50-70	25
3205 60 80	TORRO HOSE CL. 12MMSW7W3 60-80	25
3205 70 90	HOSE CL.TORRO 12MMSW7 W3 70-90	25
3205 80 100	HOSE CL.TORRO12MMSW7 W3 80-100	25
3205 90 110	HOSE CL.TORRO12MMSW7 W3 90-110	20



- | | |
|--|---|
| At high temperatures | At low temperatures |
| <ul style="list-style-type: none"> • Increase of hose diameter • Spring is pressed | <ul style="list-style-type: none"> • Reduction of hose diameter • Springs expands • Clamping strength remains • Clamp seals perfectly |

Tire Valves Ø 9.7 mm

- For 15° tapered rims
- For tubeless tires on commercial vehicles
- With valve hole dia. 9.7 mm



Article No.	Article Description	QTY
3580 41	COM.VEH.VAL.TP.RIM D9.7MM41MS	e 10
3580 41 1	COM.VEH.VAL.ALU.RIMD9.7MM41MS	e 10
3580 28 45	COM.VE.VA.TP.RIM D9.7MM58MS-45	e 10
3580 70 27	COM.VE.VA.TP.RIM D9.7MM70MS-27	e 10
3580 90 27	COM.VE.VA.TP.RIM D9.7MM90MS-27	e 10
3580 119 12	COM.VE.VA.TP.R.D9.7MM119MS-12	e 10
3580 119 27	COM.VE.VA.TP.R.D9.7MM119MS-27	e 10

Technical Data					
Art. No.	Height H	Length L	Angle β	ETRTO No.	Compar.No. Alligator
3580 41	-	41 mm	-	V3.20.1	9764
3580 41 1	-	41 mm	-	V3.20.1EQ	770508
3580 28 45	28 mm	28 mm	45°	-	-
3580 70 27	28 mm	42 mm	27°	V3.20.5	9273
3580 90 27	28 mm	62 mm	27°	V3.20.4	9274
3580 119 12	55 mm	64 mm	12°	-	-
3580 119 27	30 mm	89 mm	27°	V3.20.6	9291

Tire Valves for Ø 16 mm

- For 15° tapered rims
- For tubeless tires on commercial vehicles
- With valve hole dia. 16 mm

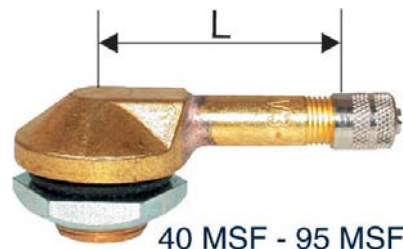


Article No.	Article Description	QTY
3581 32	COM.VEH.VAL.TP.RIM D16MM 32MS	e 10
3581 42	COM.VEH.VAL.TP.RIM D16MM 42MS	e 10
3581 54	COM.VEH.VAL.TP.RIM D16MM 54MS	e 10

Technical Data			
Art. No.	Length L	TR.No.	Comparison No. Alligator
3581 32	33 mm	575	9702
3581 42	42 mm	501	9708
3581 54	54 mm	500	9715

Tyre Valves for Ø 16° mm, 90°

- For 15° tapered rims
- For tubeless tires on commercial vehicles
- With valve hole dia. 16 mm

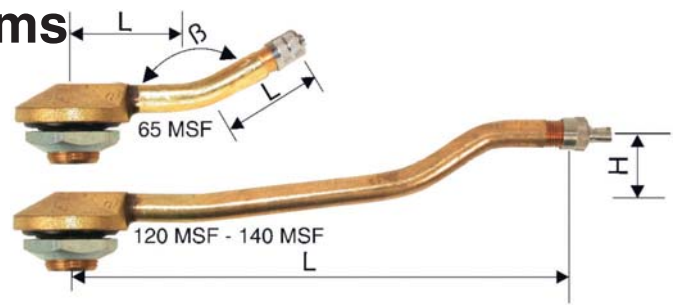


Article No.	Article Description	QTY
3582 40	COM.VEH.VAL.TP.RIM D16MM40MSF	e 10
3582 95	COM.VEH.VAL.TP.RIM D16MM95MSF	e 10

Technical Data			
Art. No.	Length L	ETRTO No.	Compar. No. Alligator
3582 40	40 mm	V3.12.1	9001
3582 95	95 mm	V3.12.2	9046

Tire Valves for Flat-base Rims

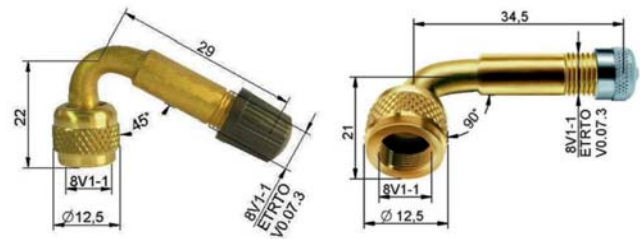
- for flat base rims
- For tubeless tires on commercial vehicles
- With valve hole dia. 20.5 mm



Technical Data					
Art. No.	Length L	Height H	Angle β	ETRTO No.	Compar. No. Alligator
3583 65	36/29 mm	W 150°	150°	V3.16.1	9132
3583 120	110 mm	19.5 mm	-	V3.18.4	9167
3583 140	138 mm	14.5 mm	-	V3.19.1	9179

Article No.	Article Description	QTY
3583 65	COM.VE.VA.FL-B.RI.D20.5MM65MSF	e 10
3583 120	COM.VE.VA.FL-B.R.D20.5MM120MSF	e 10
3583 140	COM.VE.VA.FL-B.R.D20.5MM140MSF	e 10

Brass Valve Extensions, Rigid



Technical Data			
Art. No.	Length L	Angle β	Height H
3584 29	29 mm	135°	22 mm
3584 35	35 mm	90°	21 mm

Article No.	Article Description	QTY
3584 29	VAL.EXTENTION RIGID 135° 29MM	10
3584 35	VAL.EXTENTION RIGID 90° 35MM	10

Plastic Valve Extensions, Rigid



Technical Data		
Art. No.	Length	Compar. No. Alligator
3584 71	71 mm	2190-071
3584 115	115 mm	2190-115
3584 150	150 mm	2190-150
3584 170	170 mm	2190-170

Article No.	Article Description	QTY
3584 71	VALVE EXTENS.RIGID PLAST.71 MM	10
3584 115	VALVE EXTENS.RIGID PLAST.115MM	10
3584 150	VALVE EXTENS.RIGID PLAST.150MM	10
3584 170	VALVE EXTENS.RIGID PLAST.170MM	10

Valve Extensions with Steel Jacket

- Steel jacketed air tube with additional guard sleeve
- Multiple layer design to prevent breakage and ensure flexibility
- Can be used without rim holder



Technical Data	
Art. No.	Length
3585 1 75	75 mm
3585 1 85	85 mm
3585 1 105	105 mm
3585 1 145	145 mm
3585 1 185	185 mm
3585 1 215	215 mm

Article No.	Article Description	QTY
3585 1 75	VAL.EXTENS.W. STEEL JACK. 75MM	1
3585 1 85	VAL.EXTENS.W. STEEL JACK. 85MM	1
3585 1 105	VAL.EXTENS.W. STEEL JACK.105MM	1
3585 1 145	VAL.EXTENS.W. STEEL JACK.145MM	1
3585 1 185	VAL.EXTENS.W. STEEL JACK.185MM	1
3585 1 215	VAL.EXTENS. W. STEEL JACK.215MM	1

Valve Extension, Flexible

- With rubber tube



Article No.	Article Description	QTY
3585 85	VALVE EXTENSION FLEX. 85MM	10
3585 105	VALVE EXTENSION FLEX. 105MM	10
3585 125	VALVE EXTENSION MOVABLE 125MM	10
3585 140	VALVE EXTENSION FLEX. 140MM	10
3585 180	VALVE EXTENSION FLEX. 180MM	10
3585 210	VALVE EXTENSION FLEX. 210MM	10

Technical Data		
Art. No.	Length	Comparison No. Alligator
3585 85	85 mm	2109- 85
3585 105	105 mm	2109-105
3585 125	125 mm	2109-125
3585 140	140 mm	2109-140
3585 180	180 mm	2109-180
3585 210	210 mm	2109-210

Valve Holder, Single

- For flexible valve extensions



Article No.	Article Description	QTY
3586 1	VALVE HOLDER SINGLE	10

Technical Data	
Art. No.	Comparison No. Alligator
3586 1	2149

Spherical Collar Nuts DIN 74361

- Phosphated, strength rating 10



Article No.	Article Description	QTY
2253 18 15	SPHE.COLL.NUTS74361-10 M18X1.5	25
2253 20 15	SPHE.COLL.NUTS74361-10 M20X1.5	25
2253 22 15	SPHE.COLL.NUTS74361-10 M22X1.5	25

Technical Data			
Art. No.	Dimensions	Head size mm	Fits
2253 18 15	M 18 x 1.5	24	Hanomag-Henschel, „Bergische Achsen“
2253 20 15	M 20 x 1.5	27	Hanomag-Henschel, „Bergische Achsen“
2253 22 15	M 22 x 1.5	27	Hanomag-Henschel, „Bergische Achsen“

Flat Collar Nuts DIN 74361

- Phosphated, strength rating 10



Article No.	Article Description	QTY
2263 14 15	FLAT.COLL.NUTS74361-10 M14X1.5	50
2263 18 15	FLAT.COLL.NUTS74361-10 M18X1.5	50
2263 22 15 30	FLAT.COLL.NUTS74361-10 M18X1.5	25

Technical Data			
Art.-Nr.	Abmessung	SW mm	passend für
2263 14 15	M 14 x 1,5	19	BPW, Mercedes, MAN
2263 18 15	M 18 x 1,5	24	BPW, Mercedes, Kässbohrer
2263 22 15 30	M 22 x 1,5	30	Iveco, MAN, Mercedes, Bergische Achsen/BPW

Flat Combination Collar Nut

- Phosphated, strength rating 10



Article No.	Article Description	QTY
2269 22 15	COMBI NUT M22X1.5 B SW 32	25

Technical Data			
Art. No.	Dimension	Head size mm	Fits
2269 22 15	M 22 x 1.5	32	different tapered rims

Limes Type Conical Spring Washer DIN 74361



Article No.	Article Description	QTY
2550 145	LIMES SPRING WASHER C 14.5MM	50
2550 165	LIMES SPRING WASHER C 16.5MM	50
2550 185	LIMES SPRING WASHER C 18.5MM	25
2550 205	LIMES SPRING WASHER C 20.5MM	25
2550 225	LIMES SPRING WASHER C 22.5MM	25

Technical Data		
Art. No.	Inner-Ø mm	Suitable for
2250 14 5	14.5	BPW, Mercedes
2250 16 5	16.5	diverse
2250 18 5	18.5	BPW, Mercedes
2250 20 5	20.5	BPW, Magirus, MAN, Mercedes
2250 22 5	22.5	BPW, Henschel, Kässbohrer, Magirus, MAN, Mercedes

Centering Ring



Article No.	Article Description	QTY
2551 142	CENTERING RING 14.2MM	25
2551 182	CENTERING RING 18.2MM	25
2551 202	CENTERING RING 20.2MM	25
2551 222	CENTERING RING 22.2MM	25

Technical Data		
Art. No.	Inner-Ø mm	Suitable for
2551 14 2	14.2	Mercedes
2551 18 2	18.2	Mercedes
2551 20 2	20.2	Magirus, Mercedes
2551 22 2	22.2	Mercedes

Balance weight for comm. vehicles type 527 **FÖRCH*******

- Balance weight Hofmann type 527 Made in Germany
- Material: lead (PB)

use:

- for tubeless tyres in commercial vehicles
- suitable for rim sizes 17.50x 5.25 to 22.50 x 6.00 inches



Article No.	Article Description	QTY
3500 527 50	BAL.WEIGHT C.V. TYP 527 50G	10
3500 527 75	BAL.WEIGHT C.V. TYP 527 75G	10
3500 527 100	BAL.WEIGHT C.V. TYP 527 100G	10
3500 527 150	BAL.WEIGHT C.V. TYP 527 150G	10
3500 527 200	BAL.WEIGHT C.V. TYP 527 200G	10
3500 527 250	BAL.WEIGHT C.V. TYP 527 250G	10
3500 527 300	BAL.WEIGHT C.V. TYP 527 300G	10



Balance weight for comm. veh. type 530 **FÖRCH*******

- Balance weight Hofmann type 530 Made in Germany
- Material: lead (PB)

use:

- for tubeless tyres in commercial vehicles
- suitable for rim sizes 22.50x 6.75 to 26.50x 12.00 inches



Article No.	Article Description	QTY
3500 530 25	BAL.WEIGHT C.V. TYP 530 25G	10
3500 530 50	BAL.WEIGHT C.V. TYP 530 50G	10
3500 530 75	BAL.WEIGHT C.V. TYP 530 75G	10
3500 530 100	BAL.WEIGHT C.V. TYP 530 100G	10
3500 530 150	BAL.WEIGHT C.V. TYP 530 150G	10
3500 530 200	BAL.WEIGHT C.V. TYP 530 200G	10
3500 530 250	BAL.WEIGHT C.V. TYP 530 250G	10
3500 530 300	BAL.WEIGHT C.V. TYP 530 300G	10
3500 530 350	BAL.WEIGHT C.V. TYP 530 350G	10
3500 530 400	BAL.WEIGHT C.V. TYP 530 400G	10



Glue- bal. weight for comm.veh. type 551 **FÖRCH*******

- Balance weight Hofmann type 551, Made in Germany
- Material: lead (PB) with shock-resistant plastic coating
- the adhesive strip is equipped with a protruding protective film to make it easier to handle

application:

- for light metal rims in commercial vehicles



Article No.	Article Description	QTY
3500 551 50	BAL.WEIGHT C.V. TYP 551 50G	10
3500 551 75	BAL.WEIGHT C.V. TYP 551 75G	10
3500 551 100	BAL.WEIGHT C.V. TYP 551 100G	10
3500 551 125	BAL.WEIGHT C.V. TYP 551 125G	10
3500 551 150	BAL.WEIGHT C.V. TYP 551 150G	10
3500 551 175	BAL.WEIGHT C.V. TYP 551 175G	10
3500 551 200	BAL.WEIGHT C.V. TYP 551 200G	10
3500 551 225	BAL.WEIGHT C.V. TYP 551 225G	10
3500 551 250	BAL.WEIGHT C.V. TYP 551 250G	10
3500 551 300	BAL.WEIGHT C.V. TYP 551 300G	10



Tyre fitting compound, TRUCK S436 **TRUCKline**

- Contents: 5 kg
- Specially developed for assembling truck, agricultural and industrial tyres (EM)
- Prevents cracks and ageing problems; you hardly need any to do the job and it is fast-drying
- Easy to assemble and disassemble because the tyre does not stick to the rim
- Requires minimal force and time due to high lubricity; has a beneficial effect on the tyre material
- Colour: brown

CAUTION: Not suitable for passenger car tyre assembly because of long evaporation characteristics.



Article No.	Article Description	QTY
6580 5960	TYRE FITT.COMP.TRUCK S436 -5KG	1

Quick Balance **TRUCKline**

Truck Quick Balance for easy and fast balancing of trucks, light trucks and camper wheels when mounting

- Reduces tyre wear
- Saves a lot of time and reduces costs
- Tyres are re-balanced each time the vehicle starts moving
- Powdered balancing material is resistant against moisture
- Does not attack tyre carcass
- Does not limit ability of tyre to be repaired or remoulded
- Excellent flow characteristics



Article No.	Article Description	QTY
3539 8	BUCK.(8KG)QUICK BALANCE GRANU.	1

Please note before using:

1. Use the application table to determine the correct Quick Balance fill level.
2. Clean the rim and use the tyre mounting paste sparingly.
3. Fill the correct amount of Quick Balance into the tyre using the measuring cup*.
4. Screw in the filter valve insert and fill the tyre air that is a dry as possible.

* The included measuring cup holds 50 ml, which corresponds to 80 grams of Quick Balance balancing granulate.
The filling quantities are always based on the enclosed measuring cup.

Filling quantity table for Quick Balance balancing granulate, Art.-No. 3539 8

Tyre dimensions	Quantity	Tyre dimensions	Quantity	Tyre dimensions	Quantity
700R15	1	8.75R16.5	1	37/12.50R15	2
7.50R15	1.5	9.50R16.5	1.5	38/15.50R15	2.5
8.25R15	2	265/70R17	1.5	40/17B15	3
9R15	2	8R17.5	1.5	44/18.50B15	4
10R15	2.5	8.5R17.5	2	33/14.50R16.5	2.5
215/75R15	1	9.5R17.5	2	33/16.50R16.5	2.5
235/75R15	1	10R17.5	2.5	35/12.50R16.5	2
265/70R15	1	11R17.5	2.5	36/16.50R16.5	2.5
315/70R15	1	195/70R17.5	1.5	37/12.50R16.5	2
325/60R15	1	195/60R17.5	1	38/15.50R16.5	2.5
185/70R15.5	1	205/80R17.5	1.5	40/17B16.5	3
7.50R16	1	205/75R17.5	1.5	44/18.50B16.5	4
8.25R16	2	205/60R17.5	1.5	8R19.5	2.5
11R16	3	215/75R17.5	1.5	9R19.5	2.5
175/75R16	1	215/70R17.5	1.5	18R19.5	4
195/75R16	1	225/90R17.5	2	225/70R19.5	2
195/65R16	1	225/80R17.5	1.5	245/70R19.5	2.5
215/85R16	1	225/75R17.5	1.5	265/70R19.5	2.5
225/85R16	1	225/60R17.5	1	275/70R19.5	2.5
225/75R16	1	235/75R17.5	2	285/75R19.5	3
235/85R16	1	235/70R17.5	1.5	285/70R19.5	2.5
235/70R16	1	245/75R17.5	2	305/70R19.5	3
245/85R16	1	7.50R18	2.5	385/65R19.5	4
245/75R16	1	4x4		445/65R19.5	5
245/65R16	1	30/9.5R15	1	7.50R20	2.5
255/85R16	1.5	31/10.50R15	1.5	8.25R20	2.5
255/70R16	1.5	31/11.50R15	1.5	9.00R20	3
265/85R16	1.5	31/12.50R15	1.5	10.00R20	3
265/75R16	1.5	31/14.50R15	2	11.00R20	4
275/85R16	1.5	32/12.50R15	2	12.00R20	5
275/70R16	1.5	33/9.50R15	1.5	12.5R20	5
285/75R16	1.5	33/12.50R15	2	13/80R20	4
295/75R16	1.5	33/14.50R15	2	14/80R20	5
305/65R16	1.5	33/16.50R15	2	14.00R20	5
345/65R16	1.5	35/12.50R15	2	365/80R20	5
8R16.5	1	36/16.50R15	2.5	365/80R20	6

Filling quantity table for Quick Balance balancing granulate, Art.-No. 3539 8 (cont'd)

Tyre dimensions	Quantity	Tyre dimensions	Quantity
525/65R20.5	6	350/75R22.5	5
615/65R20.5	6	365/80R22.5	5
10.00R22	4	365/70R22.5	4
11.00R22	4	385/65R22.5	5
9R22.5	2.5	425/65R22.5	6
10R22.5	3	445/65R22.5	6
11R22.5	3	305/60R22.5	3
11/70R22.5	3	11.00R24	4
12R22.5	4	12.00R24	5
13R22.5	5	14.00R24	6
15R22.5	5	445/70R24	6
16R22.5	6	495/70R24	7
16.5R22.5	6	11R24.5	3
18R22.5	6	12R24.5	4
235/80R22.5	2	275/80R24.5	3
235/70R22.5	2	285/75R24.5	3
245/75R22.5	2.5	295/80R24.5	4
255/80R22.5	2.5	305/75R24.5	4
255/70R22.5	2.5		
265/75R22.5	3		
265/70R22.5	2.5		
275/80R22.5	3		
275/70R22.5	3		
275/50R22.5	3		
285/75R22.5	3		
285/60R22.5	3		
295/80R22.5	4		
295/75R22.5	4		
295/60R22.5	3		
305/70R22.5	3		
305/60R22.5	3		
315/80R22.5	5		
315/75R22.5	4		
315/70R22.5	4		
315/60R22.5	4		
345/75R22.5	4		

The Perfect Tyre Repair

- tyre repair sticks pass all TÜV's lifetime and high-speed tests without difficulty
- system fully complies with all regulations for repair of radial and cross-ply, tubeless tyres
- tyre repair sticks and liquid patches are 100 % self-vulcanising
- tyre repair sticks in tyres and steel belts have high tensile and shear strength
- tyre liquid plaster (DBP-Pat. Pending) seals inner liner and repair sticks permanently and is the irrefutable evidence for the disassembly of radial tyres as described



6470 4700



6470 4710

Article No.	Article Description	QTY
6470 4700	REP SET FOR TUBELESS CAR TYRES	1
6470 4710	REP SET FOR TUBELESS NFZ TYRES	1

Contents of Art. No. 6470 4700:

- 1 x Art.-No. 4290 2: reamer
- 1 x inserting tool for cars
- 1 x Art.-No. 4751 4 1: knife blade
- 1 x Art.-No. 6470 4720: vulcanising solution 25 ml
- 1 x Art.-No. 6470 4701: (50 pcs.) tyre repair sticks for cars up to HR tyres with tyre liquid plaster

Contents of Art. No. 6470 4710

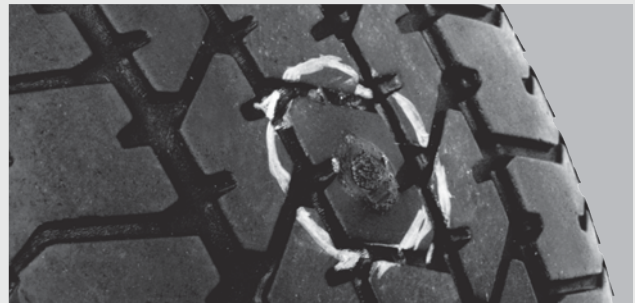
- as Art.-No. 6470 4700: repair kit for tubeless car tyres, but with 1 x inserting commercial vehicles
- 1 x Art.-No. 6470 4711: commercial vehicle tyre repair sticks (25 pcs.) with tyre liquid plaster

Your Advantage / Benefit

- rapid repair: repair time for radial tyres about 5 min. for cross-ply tyres about 1 min.
- any perforation on the tyre tread surface, whether straight or across the tread, can be repaired if the extent of the damage on the inside is no larger than:
6 mm up to and including H-rated tyres (210km/h)
3 mm up to and including W-rated tyres (270 km/h)
- repaired tyres are retreadable since drilling and buffing are dispensed with, thus no damage to the supporting and retaining construction (belt and carcass), there is no risk of toe-in
Note: at a 30 ° perforation angle, a 6 mm drill would destroy 12 mm of belt and carcass

Application

- for tubeless tyres
- can also be used for run-flat tyres



(Continued on next page)

The Perfect Tyre-Repair - Operation Instruction

Repairable zone: Tread, the following table applies:

	Vehicle	Vehicle	Truck/ C-Tyres	Truck / AS / EM	Motorcycle
Tyre:	up to 210 km/h even Run-Flat-Tyres	up to 270 km/h even Run-Flat-Tyres	and tyres with LI up to 122	Tyres with LI of 123 and more	up to 270 km/h
Tread damage:	max. 6 mm	max. 3 – 4 mm	max. 6 mm	max. 10 mm 2-3 mm graft for each repair	max. 3 – 4 mm
Art.-No. 6470 4701	●		●		
Art.-No. 6470 4702		●			●
Art.-No. 6470 4711			●	●	



1. Dismantle the tyre. Remove the object that caused the hole. Check the damaged spread. May not exceed up to back tyres (210 km/h) 6 mm and 3 mm in front tyres (240 km/h)
2. Clean the inner surface to a diameter of approx. 30 cm around the damaged spot with 1K-ASK-Cleaner.
3. Clean the hole duct with a square pricking awl.
4. Apply 1-2 drops of rubber solution to the eyelet of the induction awl and insert it into the hole duct. Repeat this process 3 or 4 times.



5. Pull the repair stick into the induction awl up through the centre. In case of repair sticks for front tyres, remove the red film beforehand. Attention! Prevent any impurity of the repair stick
6. Apply a bit of rubber solution to the top of the induction awl.



7. Press the induction awl with the repair stick into the hole until 10 cm of the repair stick is visible. Then turn it 90° under pressure.



8. Slowly pull out the insert awl and cut off the overlapping edges of the repair stick approx. 3 mm above the profile.



9. Apply approx. 3 cm of the repair fluid plaster around the repair stick from the inside.



10. Tyre can immediately be mounted.

Tyre Repair Set Spare Parts



6470 4701



6470 4702



6470 4711



6470 4730



6470 4720



6470 4737



6470 4735



6470 4736



4290 3

Article No.	Article Description	QTY
6470 4701	PK(50)TYRES REP.CAR HR	1
6470 4702	PK(50)TYRES REP.CAR VR	1
6470 4711	PK(25)TYRES REP.NFZ	1
6470 4720	RUBBER SOLUTION 25ML	1
6470 4730	TYRES FLUID PLASTER 50ML	1
6470 4735	REPL.INDUCT.AWL CAR WITHO.HAN.	1
6470 4736	REP.IN.AWL COM.VE.WITHO.HANDLE	1
6470 4737	REPL.HANDLE FOR INDUCTION AWL	1
4290 3	DRILLED REAMER	1

Contents Art.-No. 6470 4701:

- 50x Tyre Repair Sticks vehicle up to HR-tyres
- 1x Art.-No. 6470 4730 Tyre Fluid Plaster 50 ml

Contents Art.-No. 6470 4702:

- 50x Tyre Repair Sticks vehicle up to WR-tyres
- 1x Art.-No. 6470 4730 Tyre Fluid Plaster 50 ml

Contents Art.-No. 6470 4711:

- 25x Tyre Repair Sticks commercial vehicles
- 1x Art.-No. 6470 4730 Tyre Fluid Plaster 50 ml

Related Products

■ 1K-PUR/ASK-Cleaner
Art.-No. 6110 1000



■ Spunlace-Wipe creped
Art.-No. 5413 15 1



■ Fine Knitted Glove PU grey
Art.-No. 5405 91 7 – 11



Profile Cutting Device RF6

- For cutting profile grooves in rubber material
- Hitech Trafo with overheat protection for safe and quick 'non-stop' cutting
- Excellent flexible connection cable, ergonomical and user-friendly
- Ergonomical cutting grip
- Including blade setting gauge
- 4 heat levels, adjustable depending on the blade width
- External transformer
- TÜV/CE tested



Article No.	Article Description	QTY
3560 600	PROFILE CUTTING DEVICE RF6	1

Profile Blade Sets

- 'R' Round blades
- 'W' Angled blades

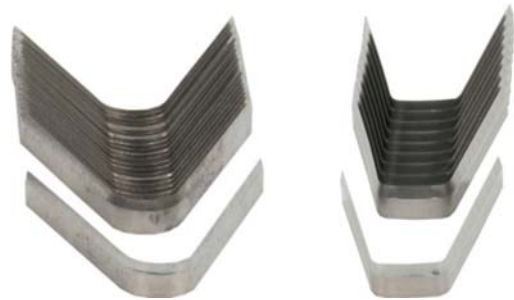
Article No.	Article Description	QTY
3560 6 1	PROFILE BLADE SET 'R' 100-PART	1
3560 7 1	PROFILE BLADE SET 'W' 110-PART	1

Art. No. 3560 6 1:

- 20x Art. No. 3560 6 3 4, 3560 6 5 6, 3560 6 6 8, 6560 6 9 10 und 3560 6 10 14 round blades

Art. No. 3560 7 1:

- 20x Art. No. 3560 7 3 4, 3560 7 5 6, 3560 7 6 8, 3560 7 9 10 and 3560 7 10 14 angled blades
- 10x Art. No. 3560 7 22 28 angled blades



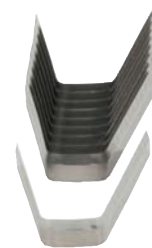
Profile Round Blades

Article No.	Article Description	QTY
3560 6 3 4	PCK(20)PROFILE BLADE R1 3- 4MM	1
3560 6 5 6	PCK(20)PROFILE BLADE R2 5- 6MM	1
3560 6 6 8	PCK(20)PROFILE BLADE R3 6- 8MM	1
3560 6 9 10	PCK(20)PROFILE BLADE R4 9-10MM	1
3560 6 10 14	PCK(20)PROFIL.BLADE R5 10-14MM	1



Profile Angular Blades

Article No.	Article Description	QTY
3560 7 3 4	PCK(20)PROFILE BLADE W1 3- 4MM	1
3560 7 5 6	PCK(20)PROFILE BLADE W2 5- 6MM	1
3560 7 6 8	PCK(20)PROFILE BLADE W3 6- 8MM	1
3560 7 9 10	PCK(20)PROFILE BLADE R4 9-10MM	1
3560 7 10 14	PCK(20)PROFIL.BLADE W5 10-14MM	1
3560 7 22 28	PCK(10)PROFIL.BLADE W6 22-28MM	1



Safety Indicator for Wheel Nuts

- Save time and money in the workshop due to fast and easy control of wheel nuts

Wheel Nut Indicator

- Attach the wheel nut indicator onto the wheel nut
- If a nut is detached, the orientation of the indicator changes clearly visible



Article No.	Article Description	QTY
3415 50 27	WHEEL NUT CONTROL YELLOW 27MM	100
3415 50 30	WHEEL NUT CONTROL YELLOW 30MM	100
3415 50 32	WHEEL NUT CONTROL YELLOW 32MM	100
3415 50 33	WHEEL NUT CONTROL YELLOW 33MM	100

Dust Protection Cap with Safety Indicator

- Dust protection cap with indicator below is a combination of safety indicator and dust protection cap
- Dust protection cap with indicator above is a combination of safety indicator and dust protection cap for wheels with rim covering or protection ring (front axle)
- Colour: yellow



Article No.	Article Description	QTY
3415 53 32	DUST PROT.CAP W.INDIC.BELOW 32	50
3415 53 33	DUST PROT.CAP W.INDIC.BELOW 33	50
3415 54 32	DUST PROT.CAP W.INDIC.ABOVE 32	50
3415 54 33	DUST PROT.CAP W.INDIC.ABOVE 33	50

Mud flaps for trucks

- dimensionally stable
- Shore hardness 85+/-5
- long product life
- temperature resistance from -30 °C to +60 °C
- incl. hot-dip galvanised fixing rails and screws
- cannot be printed on
- colour: black



Article No.	Article Description	QTY
3435 300 300	MUD FLAPS FOR TRUCKS 300X300MM	2
3435 350 300	MUD FLAPS FOR TRUCKS 350X300MM	2
3435 400 300	MUD FLAPS FOR TRUCKS 400X300MM	2
3435 500 300	MUD FLAPS FOR TRUCKS 500X300MM	2
3435 500 400	MUD FLAPS FOR TRUCKS 500X400MM	2
3435 550 300	MUD FLAPS FOR TRUCKS 550X300MM	2
3435 600 300	MUD FLAPS FOR TRUCKS 600X300MM	2
3435 600 400	MUD FLAPS FOR TRUCKS 600X400MM	2
3435 600 500	MUD FLAPS FOR TRUCKS 600X500MM	2

Hand Tyre Filler „Speed“ Calibrated, Analog

- Calibrated hand tyre filler with Speed mounting support
- Lightweight, robust and impact-resistant plastic housing
- The Speed mounting support enables loosening of the valve seat in order to fill the tyre with the unscrewed valve seat
- Transparent design which makes it easier for the user to see whether the insert is completely loosened in order to achieve maximum flow rate at the valve
- Saves up to 50% time due to extremely high filling speed and guided valve insert removal
- No injuries and loss caused by removal of valve inserts are a thing of the past now
- Ideal for truck and constructional machine tyres

15



Technical Data

Filling range:	0 - 12 bar
Max. filling speed:	910 l/min.
Max. inlet pressure:	15 bar
Length of fill. hose:	1.8 m
Hose-Ø:	8 mm
Connect. thread:	1/4"

Article No.	Article Description	QTY
5370 16	HAND TYRE FILLER SPEED CALIBR.	1

Impact buffer trucks

- elastic impact buffer
- protects the vehicle and loading ramp
- with vulcanised steel bar (except article 3436 74 38 24)
- hardness 75-80 Shore A

applications:

- trucks, transporters, ramps, l loading ramps, swap bodies etc.



Article No.	Article Description	QTY
3436 74 38 24	IMPACT BUFFER 2L 74X38X24 OVAL	1
3436 125 40 15	IMPACT BUFFER 2L 125X40X15	1
3436 125 40 40	IMPACT BUFFER 2L 125X40X40	1
3436 125 40 45	IMPACT BUFFER 2L 125X40X45	1
3436 125 43 50	IMPACT BUFFER 2L 125X43X50	1
3436 125 43 70	IMPACT BUFFER 2L 125X43X70	1
3436 170 90 70	IMP.BUFFER 2L 170X90X70 ROUND	1
3436 200 52 60	IMPACT BUFFER 2L 200X52X60	1
3436 200 52 80	IMPACT BUFFER 2L 200X52X80	1
3436 200 150 80	IMP.BUFFER 4L 200X150X80 SQUAR	1
3436 243 82 93	IMP.BUFFER 2L 243X82X93 OVAL	1
3436 300 52 60	IMPACT BUFFER 3L 300X52X60	1
3436 300 52 80	IMPACT BUFFER 3L 300X52X80	1
3436 400 50 50	IMPACT BUFFER 3L 400X50X50	1
3436 400 52 60	IMPACT BUFFER 3L 400X52X60	1
3436 400 52 80	IMPACT BUFFER 3L 400X52X80	1
3436 530 60 35	IMPACT BUFFER 4L 530X60X35	1

Technical Data						
L	B	H	L-no.	L-dim.	L-Ø	
74	38	24	2	50	M5	
125	40	15	2	60	M8	
125	40	40	2	60	M8	
125	40	45	2	60	M8	
125	40	50	2	60	M8	
125	43	70	2	60	M8	
170	90	70	2	82	M10	
200	52	60	2	120	M10	
200	52	80	2	120	M10	
200	150	80	4	75/115	M10	
243	82	93	2	120	M14	
300	52	60	3	115	M10	
300	52	80	3	115	M10	
400	50	50	3	162	M10	
400	52	60	3	165	M10	
400	52	80	3	165	M10	
530	60	35	4	157	M10	

H- Q = hole quantity; H-Sp = hole spacing;
H-Ø = hole diameter

Wiper Blades for Commercial Vehicles



- SWF wiper blade line guarantee highest quality
- Greater reliability and higher safety when driving
- Applicaton list Art.-No. 9890 25

Article No.	Article Description	QTY
3056 132400	WIPER BLADECOM.VEH. 400 MM	1
3056 132451	WIPER BLADECOM.VEH. 450 MM	1
3056 132502	WIPER BLADE COM.VEH. 500 MM/1	1
3056 132551	WIPER BLADE COM.VEH. 550 MM	1
3056 132601	(PAIR)WIP.BLADE COMM.VEH.600MM	1
3056 132602	(PAIR)WI.BLADE COM.VEH.600MM/1	1
3056 132603	WIPER BLADE COM.VEH. 600 MM	1
3056 132651	(PAIR)WIP.BLADE COMM.VEH.650MM	1
3056 132702	WIPER BLADE COM.VEH. 700 MM/1	1
3056 132703	WIPER BLADE COM.VEH. 700 MM/2	1

(ID-No. corresponds SWF No.)

Article No.	Article Description	QTY
3056 132704	WIPER BLADE COM.VEH. 700 MM	1
3056 132652	WIPER BLADE COM.VEH. 650 MM	1
3056 132801	WIPER BLADE COM.VEH. 800 MM	1
3056 132900	WIPER BLADE COM.VEH. 900 MM	1
3056 132901	WIPER BLADE COM.VEH. 900 MM/1	1
3056 132000	WIPER BLADECOM.VEH.1000 MM/1	1
3056 132001	WIPER BLADECOM.VEH.1000 MM/2	1
3056 132705	WIPER BLADES VEH.700 MM/3	1

(ID-No. corresponds SWF No.)

Modified flat wipers for commercial vehicles



- SWF modified flat wiper programme provides the highest quality
- quiet when wiping - no rattling or rubbing
- this type of wiper blade has a special adapter system to retro-fit vehicles with conventional wipers with the new Visioflex wipers

Article No.	Article Description	QTY
3056 133550	WIPER BLADE COM.VEH. 550 MM	1
3056 133600	WIPER BLADE COM.VEH. 600 MM	1
3056 133601	WIPER BLADE COM.VEH. 600 MM/1	1
3056 133602	WIPER BLADE COM.VEH. 600 MM/1	1
3056 133650	WIPER BLADE COM.VEH. 650 MM	1
3056 133651	WIPER BLADE COM.VEH. 650 MM/1	1

Article No.	Article Description	QTY
3056 133652	WIPER BLADE COM.VEH. 650 MM/2	1
3056 133653	WIPER BLADE COM.VEH. 650 MM/3	1
3056 133700	WIPER BLADE COM.VEH. 650 MM/3	1
3056 133702	WIPER BLADE COM.VEH. 700 MM/1	1
3056 133703	WIPER BLADE COM.VEH. 700 MM/2	1

Application List

Article No. 3056 133550 (Adapter U)

Vehicle manufacturer / Type	From
DAF	
XF95	03.97 -
XF105	03.06 -

Article No. 3056 133600 (Adapter U)

Vehicle manufacturer / Type	From
DAF	
CF65, CF75, CF85	03.98 -
F65, F75, F85	01.92 - 1998

Article No. 3056 133601 (Adapter U)

Vehicle manufacturer / Type	From
DAF	
LF55	04.01 -
OPEL	
Movano	02.02 -
RENAULT TRUCKS	
Midlum	01.01 -
Mascott, Master New	11.99 -
VOLVO	
FL	12.06 -

Article No. 3056 133602 (Adapter U)

Vehicle manufacturer / Type	From
MAN	
M2000	08.95 - 12.05

Article No. 3056 133650 (Adapter U)

Vehicle manufacturer / Type	From
MERCEDES-BENZ	
Atego	04.98 - 10.04
Atego 2	10.04 -
Axor	09.01 - 10.04
Axor 2	10.04 -

Article No. 3056 133651 (Adapter U)

Vehicle manufacturer / Type	From
RENAULT TRUCKS	
Kerax	01.06 -
Premium	01.06 -
VOLVO	
FE	12.06 -

Article No. 3056 133652 (Adapter U)

Vehicle manufacturer / Type	From
IVECO	
Eurocargo	01.91 - 08.05

Article No. 3056 133653 (Adapter U)

Vehicle manufacturer / Type	From
MAN	
TGA	05.04 -

Article No. 3056 133700 (Adapter U)

Vehicle manufacturer / Type	From
MERCEDES-BENZ	
Actros	01.97 -
Actros MP2/MP3	04.03 -

Article No. 3056 133702 (Adapter U)

Vehicle manufacturer / Type	From
VOLVO TRUCKS	
FL	12.95 - 09.98

Article No. 3056 133703 (Adapter U)

Vehicle manufacturer / Type	From
MERCEDES-BENZ	
Actros MP4	07.11 -
SCANIA	
P, G, R, T	09.05 -

Wiper Blades Commercial Vehicles universal **ECO.**

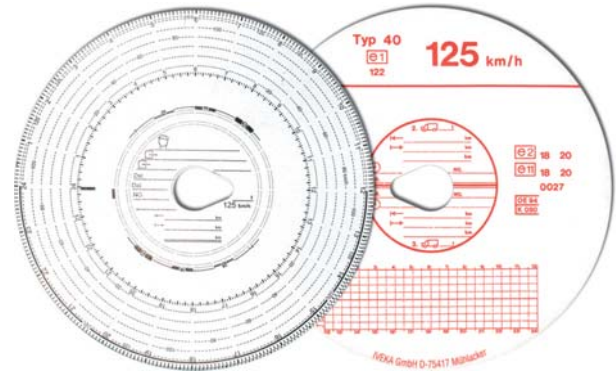
- Multi-adapter system for 95 % of all makes / types of commercial vehicle (supplied)
- Low storage costs and space requirement
- Practical packaging with Euro-standard holes
- Sturdy metal bracket system
- Patented EZ-Lock system
- Extra sturdy design



Artikel-Nr.	Artikel-Bezeichnung	VPE
3059J 9 600	WIPER BLADES COMM.600MM 24"ECO	e 10
3059J 9 650	WIPER BLADES COMM.650MM 26"ECO	e 10
3059J 9 700	WIPER BLADES COMM.700MM 28"ECO	e 10
3059J 9 800	WIPER BLADES COMM.800MM 32"ECO	e 5
3059J 9 900	WIPER BLADES COMM.900MM 36"ECO	e 5
3059J 9 1000	WIPER BLADES COM.1000MM 40"ECO	e 5

Tachograph Discs

- For tachographs from Kienzle, MotoMeter, VDO, etc.
- Officially approved for entire EC zone



Article No.	Article Description	QTY
3062 1	PK(100)TACHOGR.125KM/H AUTOMA.	1
3062 2	PK(100)TACHOGR.125KM/H COMBI	1
3062 3	PK(100)TACHO.125KM/H 3300COMBI	1
3062 5	PK(100)TACHO.125KM/H 4000COMBI	1
3062 7	PK(100)TACHO.100KM/H AUTOM.EA	1
3062 8	PK(100)TACHO.100KM/H 3300 AEA	1
3062 9	PK(100)TACHOGR.140KM/H COMBI	1
3062 10	PK(100)TACHOGRAPH 180KM/H EA	1
3062 12	PK(100)TACHO.125KM 3300U K4B	1

Technical Data				
Art.-Nr.	Geeignet für Geräte mit Zulassungsnummer e1...	Moto-Meter No.	Kienzle-No.	Article description
3062 1	23, 26, 31, 32, 37, 40, 45, 46, 55, 56, 57, 60, 63, 64, 69, 70, 72, 73, 74, 75, 78, 79, 82, 83	517 601 2505	125-24/2 EC-4B	Tachograph automatic 125 km/h, 24 h, electrical analysable
3062 2	03, 04, 07, 08, 09, 10, 11, 12, 15, 18, 21, 22, 23, 26, 29, 30, 31, 32, 35, 36, 37, 40, 41, 44, 45, 46, 47, 48, 53, 54, 55, 56, 57, 58, 59, 60, 63, 64, 65, 66, 67, 68, 69, 70, 72, 73, 74, 75, 78, 79, 80, 81, 82, 83	517 601 2506	125-24/EC-4K	Tachograph combi 125 km/h, 24 h
3062 3	13, 14, 16, 17, 24, 25, 27, 28, 33, 34, 38, 39, 42, 43, 49, 50, 51, 52, 61, 62, 71, 76, 77, 85	517 601 2510	125-3300-24/EC-4K	Tachograph combi 125km/h, 24h, 3300 r.p.m.
3062 5	13, 14, 16, 17, 24, 25, 27, 28, 33, 34, 38, 39, 42, 43, 49, 50, 51, 52	517 601 2512	125-4000-24/EC-4K	Tachograph combi 125 km/h, 24 h, 4000 r.p.m.
3062 7	23, 26, 31, 32, 37, 40, 45, 46, 55, 56, 57, 60, 63, 64, 69, 70, 72, 73, 74, 75, 78, 79, 82, 83	517 601 2514	100-24/2 EC-4B	Tachograph automatic 100 km/h, 24 h, electrical analysable
3062 8	24, 25, 38, 39, 51, 52, 61, 62, 71, 76, 77, 85	517 601 2515	100-3300-24/2 EC-4B	Tachograph automatic 100 km/h, 24 h, 3300 r.p.m., electrical analysable
3062 9	37, 40, 41, 44, 45, 46, 47, 48, 53, 54, 55, 56, 57, 60, 63, 64, 66, 67, 69, 70, 72, 73, 74, 75, 78, 79, 80, 81, 82, 83	517 601 4001	140-24/EC-4K	Tachograph combi 140 km/h, 24 h
3062 10	57, 60, 72, 73, 82, 83	517 601 8001	180-24/EC-4B	Tachograph automatic 180 km/h, 24 h, electrical analysable
3062 12	24, 25, 38, 39, 51, 52, 61, 62, 71, 76, 77, 85	517 601 2510	125-3300 24/2 EC4B	Tachograph combi 125 Km/h, 24 h, 3300 r.p.m., EC4B

Thermal Paper for Digital Tachographs

Thermal paper for digital EU tachographs

- Thermal paper for digital control devices according to the EU regulation 432/2004
- Last 50 cm of roll marked
- With completely removable label for resealing each roll
- Legibility and printability at least 10 years – under normal storage conditions.
- Each roll packed separately (sealed in special protective foil)
- High resistance to: Gasoline and diesel fuel, oil and grease, water, alcohol, softeners, cleaning and care agents
- dimensions L x W x outer dia.: 8m x 57 mm x 27,5 mm

Suitable for following digital tachographs:

- Siemens VDO, DTCO 1381, e1 84
- Actia, SmarTach STD, e2 25
- Actia, SmarTach ADR, e2 29
- Actia, e2 30
- Stoneridge, SE 5000, e5 0002



Article No.	Article Description	QTY
3062 11	PK(3)THERMAL PAP.F.DIG.TACHO	1
3062P 11 10	PK(30)THERMAL PAP.F.DIG.TACHO	11

Universal Side Rearview Mirror

- For universal applications
- Dimensions L x W: 380 x 190 mm
- Prism clamp
- Clamping range: dia. 16-25 mm

Article No.	Article Description	QTY
3417 1	UNIVERSAL REARVIEW MIRROR	1
3417 1 1	REPLACEMENT GLASS FOR 3417 1	1



Universal Rearview Mirror with Heater

- For universal applications with 24 Volt
- Dimensions L x W: 380 x 190 mm
- Prism clamp
- Clamping range: dia. 16-25 mm
- incl. 2-pol.connecting cable, length: 90cm

Article No.	Article Description	QTY
3417 2	UNIVER. REARVIEW MIRR.W.HEATER	1



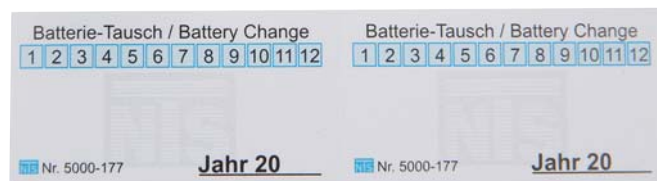
Back-up battery for Digital Tachographs (DTCO)

According to EC Regulation 1360/2002, Annex 1B is specified:

- that the DTCO must back up the data stored for one year after disconnection from external supply
- due to these legal requirements these batteries change cycles are specified
- due to its discharge characteristics, the condition of the lithium battery used in the DTCO cannot be judged by measuring

Replacement intervals and instructions must be strictly kept to and observed:

- according to §57b at each periodic inspection
- when the DTCO is installed, activated or initially calibrated if the production date is earlier than 12 months ago
- for devices from stock whose production date is older than 24 months ago
- temperature effects and the frequency and duration of disconnection from the external supply voltage significantly reduce the life of backup batteries
- incl. sticker for battery replacement



Article No.	Article Description	QTY
3062 25	PK(5)BATTERY F.DIG.TACHOGRAPHS	1

Cleaning card for card reader (DTCO)

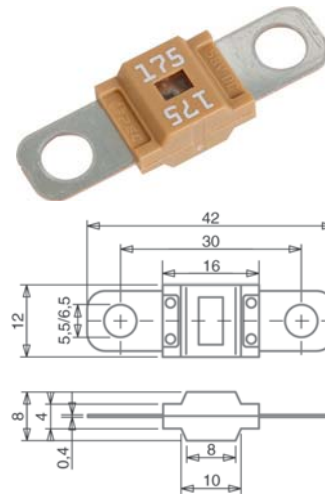
- regular cleaning prevents equipment failures due to dirt
- for use by the driver
- solvent-free cleaning of the chip card reader
- microfiber covering completely absorbs dirt, grease and abrasion debris
- perform cleaning every 4 to 6 weeks
- repeating several times increases the cleaning effect
- includes cloth for cleaning the chip on the driver card

Article No.	Article Description	QTY
3062 26	PK(5)CLEANING CARD F.CARD READ	1



Blade Fuse - Midi

- Usable for passenger cars, trucks, agricultural machines, busses, construction vehicles and truck campers
- Replaces old strip-type fuses
- Stability under heat (UL 94-V0)
- Visible fuse-element
- Extremely robust
- For BMW, Mercedes, Volvo



Article No.	Article Description	QTY
3819 30	MIDI BLADE FUSE 30A	5
3819 40	MIDI BLADE FUSE 40A	5
3819 50	MIDI BLADE FUSE 50A	5
3819 60	MIDI BLADE FUSE 60A	5
3819 70	MIDI BLADE FUSE 70A	5
3819 80	MIDI BLADE FUSE 80A	5
3819 100	MIDI BLADE FUSE 100A	5
3819 125	MIDI BLADE FUSE 125A	5
3819 150	MIDI BLADE FUSE 150A	5
3819 200	MIDI BLADE FUSE 200A	5

Technical Data			
Art. No.	Colours	Ampere	Volt
3819 30	orange	30 A	58 V
3819 40	green	40 A	58 V
3819 50	red	50 A	58 V
3819 60	yellow	60 A	58 V
3819 70	brown	70 A	58 V
3819 80	white	80 A	58 V
3819 100	blue	100 A	58 V
3819 125	pink	125 A	58 V
3819 150	grey	150 A	58 V
3819 200*	violet	200 A	32 V

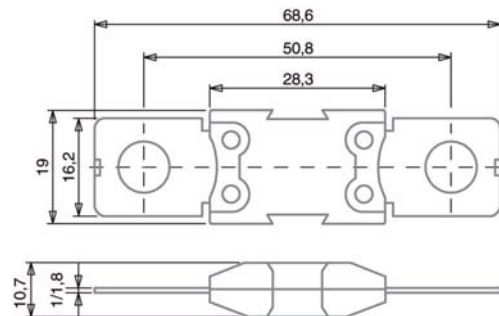
* thermoplastic transparent housing

Blade Fuse - Mega

- Usable for passenger cars, trucks, agricultural machines, busses, construction vehicles and truck campers
- Replaces old strip-type fuses
- Thermoplastic transparent housing
- Stability under heat (UL 94-V0)
- Visible fuse-element
- Extremely robust

Usage:

- e.g. Alfa Romeo, Audi, BMW, Chevrolet, Citroen, Fiat, Ford, Jaguar, Kia, Lancia, Landrover, Mercedes-Benz, Opel, Renault, Rover, Seat, Skoda, Volvo, Volkswagen



Article No.	Article Description	QTY
3819 100 1	MEGA BLADE FUSE 100A	5
3819 125 1	MEGA BLADE FUSE 125A	5
3819 150 1	MEGA BLADE FUSE 150A	5
3819 175 1	MEGA BLADE FUSE 175A	5
3819 200 1	MEGA BLADE FUSE 200A	5
3819 225 1	MEGA BLADE FUSE 225A	5
3819 250 1	MEGA BLADE FUSE 250A	5
3819 300 1	MEGA BLADE FUSE 300A	5
3819 400 1	MEGA BLADE FUSE 400A	5
3819 500 1	MEGA BLADE FUSE 500A	5

Technical Data			
Art. No.	Colours	Ampere	Volt
3819 100 1	yellow	100 A	32 V
3819 125 1	green	125 A	32 V
3819 150 1	orange	150 A	32 V
3819 175 1	white	175 A	32 V
3819 200 1	blue	200 A	32 V
3819 225 1	beige	225 A	32 V
3819 250 1	pink	250 A	32 V
3819 300 1	grey	300 A	32 V
3819 400 1*	violet	400 A	32 V
3819 500 1*	brown	500 A	32 V

* Fuse-element not visible

Midi Blade Fuses in Assortment

• 30A - 200A = 50 pieces

Contents:

Artikel-Nr.	Article Description	Quantity
3819 30	MIDI BLADE FUSE 30A	5
3819 40	MIDI BLADE FUSE 40A	5
3819 50	MIDI BLADE FUSE 50A	5
3819 60	MIDI BLADE FUSE 60A	5
3819 70	MIDI BLADE FUSE 70A	5
3819 80	MIDI BLADE FUSE 80A	5
3819 100	MIDI BLADE FUSE 100A	5
3819 125	MIDI BLADE FUSE 125A	5
3819 150	MIDI BLADE FUSE 150A	5
3819 200	MIDI BLADE FUSE 200A	5



Article No.	Article Description	QTY
9000 3819	ASSORTMENT BLADE FUSES MIDI	1
9000R 3819	TRAY BLADE FUSES MIDI	1

Mega Blade Fuses in Assortment

• 100A - 500A = 50 pieces

Contents:

Artikel-Nr.	Article Description	Quantity
3819 100 1	MEGA BLADE FUSE 100A	5
3819 125 1	MEGA BLADE FUSE 125A	5
3819 150 1	MEGA BLADE FUSE 150A	5
3819 175 1	MEGA BLADE FUSE 175A	5
3819 200 1	MEGA BLADE FUSE 200A	5
3819 225 1	MEGA BLADE FUSE 225A	5
3819 250 1	MEGA BLADE FUSE 250A	5
3819 300 1	MEGA BLADE FUSE 300A	5
3819 400 1	MEGA BLADE FUSE 400A	5
3819 500 1	MEGA BLADE FUSE 500A	5



Article No.	Article Description	QTY
9000 3819 1	ASSORTMENT BLADE FUSES - MEGA	1
9000R 3819 1	TRAY BLADE FUSES - MEGA	1

Fuse Holder - Midi/Mega

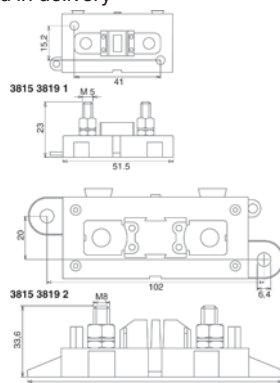
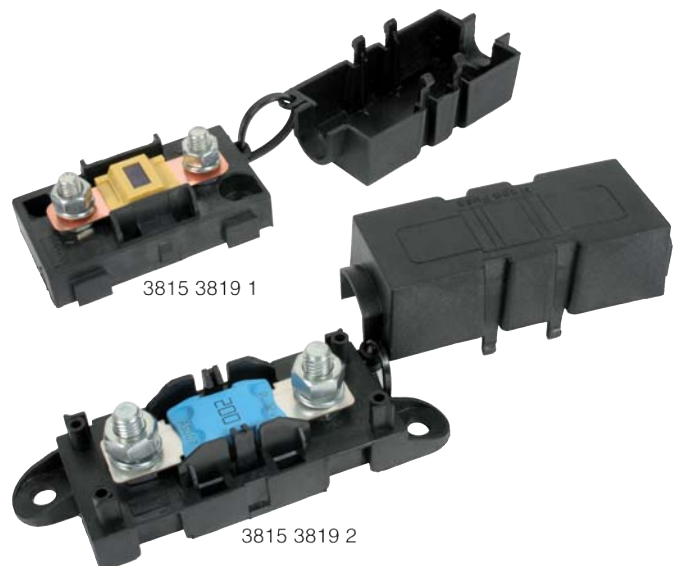
- Housing made of polyamide, glass fibre reinforced (PA 6.6 GF-30)
- Connection pins for Multi-Block-Configuration
- Extended plug system (slot and spring principle)

Art. No. 3815 3819 1:

- Suitable for flat-fuses
- Fuses up to 200A
- M5 threaded bolts, hex nuts and lock washer
- Fuses not included in delivery

Art. No. 3815 3819 2:

- Ideal for batteries and generator-protective use or areas with very big cable cross-sections
- Fuses up to 500A
- M8 threaded bolts, hex nuts and lock washer
- Fuses not included in delivery



Article No.	Article Description	QTY
3815 3819 1	MIDI FUSE HOLDER	1
3815 3819 2	MEGA FUSE HOLDER	1

Starter Cable for Commercial Vehicles

- Rugged starter cable for commercial vehicles and machinery
- With fully insulated clamps and flexible cables
- Cable cross section 50 mm²



3825 50 1



3825 50

Technical Data		
Art. No.	Version	Length
3825 50 1	without overvoltage protection 600A sheet steel clamps with 2 cast pole inserts both sides connected due to connecting band with overvoltage protection	5 m
3825 50	two individual conductors which are connected every 80 cm with clamps 1000A fully cast angled brass clamps in glass fibre reinforced armoured housing professional design in a rugged cloth bag	7 m

Article No.	Article Description	QTY
3825 50 1	START.CABLE F.COM.VEH.50MM ² 5M	1

PVC battery cable

Temperature stability:

- stationary usage -30 °C to +70 °C
- mobile usage +5 °C to +70 °C



Article No.	Article Description	QTY
3822 35	RI(25M)BATT.CABLE BLACK 35 QMM	1
3822 35 1	RI(25M)BATT.CABLE RED 35 QMM	1
3822 50	RI(25M)BATT.CABLE BLACK 50 QMM	1
3822 50 1	RI(25M)BATT.CABLE RED 50 QMM	1
3822 70	RI(25M)BATT.CABLE BL.70MM	1
3822 70 1	RI(25M)BATT.CABLE RED 70MM	1
3822 95	RI(25M)BATT.CABLE BLACK 95MM	1
3822 95 1	RI(25M)BATT.CABLE RED 95MM	1

Battery charger / starter Startium 680E 12 / 24 V

- Drivable, automatic 12 / 24V charging and starting device
- Monitoring-free charging operation with subsequent charge maintenance
- Fully-fledged charging device for all standard battery types:
- Wet, Gel, AGM, EFB, VRLA, Calcium
- Microprocessor-controlled charging, analyses the battery state and regulates the charging intensity
- Digital display shows voltage and the charging percentage of the battery in real time
- Electronic, monitoring and reverse polarity protection in Automatic mode
- Universal mode when the battery type is unknown
- Uncontrolled charging operation can detect deeply discharged batteries of 1 V or more using the timer function and can attempt to charge them
- Desulphatisation process integrated in the charging curve to enable possible regeneration of sulphatised batteries
- Automatic starting, device only supplies starting current when the engine is ignited, after which no further remote operation is required
- Starting device automatically detects damaged or sulphatised batteries. In this case, the starting device does not provide current, in order to protect the on-board network
- Automatic restarting with saving of the most recently used parameters
- Alternator test function for rapid error localisation

Technical Data

Nominal charging voltage:	12 V / 24 V
Mains voltage:	230 V 50/60 Hz
Mains protection:	16 A
Nominal power:	2 kW charging / 10 kW starting
Protection type:	IP 21
Battery capacity:	12 V: 20 – 675 Ah / 24 V: 20 – 525 Ah
Effective charging current:	75 A
Charging current (EN 60335):	30 A
Boost charging current:	45 A
Charging steps:	3 (5 – 15 – 30 A) + Boost + Start
Characteristic charging curve:	IWUoU
Cable cross-section:	25 mm ²
Cable length:	2.3 m
Max. starting current, 12 V:	380 A (1 V/cell), 550 A (0 V/Zelle)
Max. starting current, 24 V:	270 A (1 V/cell), 380 A (0 V/Zelle)
Starting operation:	5 s starting, 120 s pause
Device protection:	200 A
Weight:	30 kg
Dimensions, H x W x D:	795 x 475 x 305 mm

Article No.	Article Description	QTY
5439 680	GS680E START/CHARGER 12/24VAUT	1
5439 724 9	PROTECT.KIT F.GS724/680E ST.	1

Scope of delivery:

- Red & black charging cable with insulated terminals



Start-Truck Trolley 3400 A, 12/24 V

- Portable, boost device independent of the mains for 12 V and 24 V vehicle systems etc.
- Ideal solution for jump starts and voltage maintenance
- With analogue display showing the state of charge of the device's battery
- Alternative source of energy when changing the battery by connecting to the cigarette lighter, saved data on radio, on-board computers, clock etc. are not lost
- Acoustic and visual alarm in the event of reverse connection
- Electrical and electronic components are protected due to protection against voltage peaks



extendable trolley handle up to 103 cm

digital display for checking state of charge

switch 12 V / OFF / 24 V

connection 12 V battery charger and cigarette lighter

test button for checking state of charge

rubber wheels for soundless transport

Technical Data

Voltage:	12/24 V
Maximum performance:	3,400/1,700 A
Battery capacity:	2 x 16 Ah
Starting performance:	1360/680 A
Weight:	approx. 20.6 kg
Re-charging:	230 V
Charging current:	12 V, 4 A
Automatic charging unit:	yes
12V jump lead / charging cables:	yes
High performance brass clamp:	yes
Charging voltage:	max. 14.9 V
Battery life,	
At 50% discharge:	approx. 400 cycles
Start cable, copper (cross-section):	50 mm ²
Cable length:	180 cm
Protection against voltage peaks:	yes
Specially jacketed cables:	yes
Integrated trolley:	yes
Safety:	500 A
Additional safety:	yes
Alarm in event of reverse polarity:	yes
On/off switch:	yes
Battery (number):	2
IP safety class:	42
Charging time:	approx. 8 hrs.
Dimension H x W x D:	530 x 350 x 280 mm

Scope of delivery:

- 1 x home charger 220/12 V
- 1 x adapter cables to connect start truck with the cigarette lighter in the vehicle
- 1 x additional safety

Article No.	Article Description	QTY
5439 3400	START-TRUCK TROLLEY3400 12/24V	1
3819 500 1	MEGA BLADE FUSE 500A	5

Multi XT 4000 Battery Charger

- 24 Volt
- High frequency charging device with 8-phase automatic charging performance IUoIUp
- Without voltage peaks – batteries from 14 to 225 Ah can be charged when connected without damaging the electronic of the vehicle (motor-control)
- RECOND is a special mode to reactivate deep discharged batteries and to bring them back to full capacity
- Pulse trickle charging keeps batteries from 14 to 225 Ah on standby to 95%-100%
- The device can permanently be connected to the battery
- Charging steps: 1-2-3-4-5-6-7-8



Technical Data	
Voltage:	220 - 240 V AC; 50 - 60 Hz
Charging voltage:	26.4 V - 29.4 V, 31.4 V, nominal 24 V
Reverse current:	< 2.3 mA (corresponds to approx. 2.3 Ah/month, when the device is connected to the battery, but not connected to mains connection)
Charging current:	max. 4 A
Battery capacity:	14 to 225 Ah
Dimensions LxWxH:	191 x 89 x 48 mm
Protective system:	IP 65
Weight:	0.8 kg
Battery types:	open, maintenance-free AGM, GEL and lead-calcium battery

Article No.	Article Description	QTY
5439 114	MULTI XT 4000 BAT.CHAR.DEV.24V	1

Multi XT 14000 Battery Charger

- 24 Volt
- High frequency charging device with 8-phase automatic charging performance IUoIUp
- Without voltage peaks – batteries from 28 to 300 Ah can be charged when connected without damaging the electronic of the vehicle (motor-control)
- SUPPLY is a special mode, which allows the device to be used as a mains adapter for the equipment when the battery is dismantled (radiocode)
- RECOND is a special mode to reactivate deep discharged batteries and to bring them back to full capacity
- Pulse trickle charging keeps batteries from 28 to 500 Ah on standby to 95%-100%
- The device can permanently be connected to the battery
- Charging steps: 1-2-3-4-5-6-7-8



Technical Data	
Voltage:	220 - 240 V AC; 50 - 60 Hz
Charging voltage:	26.4 V - 29.4 V, 31.4 V, nominal 24 V
Reverse current:	< 2.3 mA (corresponds to approx. 2.3 A/month, when the device is connected to the battery, but not connected to mains connection)
Charging current:	max. 14 A
Battery capacity:	28 to 300 Ah
Dimesions LxWxH:	233 x 128 x 64 mm
Protective system:	IP 44
Weight:	1.4 kg
Battery types:	open, maintenance-free AGM, GEL and lead-calcium battery

Article No.	Article Description	QTY
5439 115	MULTI XT14000 BAT.CHAR.DEV.24V	1

Battery charger MXTS 40 12 / 24 V

- 12 / 24 volts
- High-frequency charger with 8-stage fully automatic charging characteristic IUoUp
- Without voltage peaks – batteries from 10 to 1200 Ah can be charged when connected without damaging the vehicle electronics (engine management system)
- Pulse trickle charging
- The device can be permanently connected to the battery
- SUPPLY is a special mode, in which the device can be used as a power supply unit for the equipment when the battery is removed (radio code)
- RECOND is a special mode, in which deeply discharged batteries are revived and returned to full capacity
- The device can be permanently connected to the battery
- With fully insulated battery clips
- Temperature-compensated
- Charging stages: 1-2-3-4-5-6-7-8



Technische Daten

Voltage:	220 – 240 AC, 50 – 60 Hz
Charging voltage:	13.6 V – 15.8 V nominal 12 V 24 V 27.2 V – 31.6 V nominal 24 V
Charging current:	12 V selectable with 10, 20, 30, 40 A 24 V selectable with 5, 10, 15, 20 A
Battery capacity	10 – 1200 Ah
Dimensions L x W x H:	254 x 160 x 87 mm
Protection type:	IP 20
Weight:	1.3 kg (without charging cable)
Battery types:	open, maintenance-free, AGM, EFB and lead/calcium
Cable length:	approx. 2.5 m

Article No.	Article Description	QTY
5439 118	BATT.CHARGER MXTS 40 12/24V	1

Battery charger MXTS 70 12 / 24 V

- 12 / 24 Volt
- Hochfrequenzladegerät mit 8-stufiger vollautomatischer Ladecharakteristik IUoUp
- ohne Spannungsspitzen – Batterien von 20 bis 1.500 Ah können im angeschlossenen Zustand geladen werden, ohne dass Schäden an der Fahrzeugelektronik (Motorsteuerung) auftreten
- Pulserhaltungsladung
- das Gerät kann dauerhaft an der Batterie angeschlossen werden
- SUPPLY ist ein spezieller Modus, in dem das Gerät als Netzgerät für die Ausrüstung verwendet werden kann, wenn die Batterie ausgebaut ist (Radiocode). Max. 70 A für 30 Sek. bei 12 V
- RECOND ist ein spezieller Modus, in dem tief entladene Batterien wiederbelebt und zur vollen Kapazität zurückgeführt werden
- das Gerät kann dauerhaft an der Batterie angeschlossen werden
- mit voll isolierten Ladezangen
- Temperaturkompensiert
- Ladeschritte: 1-2-3-4-5-6-7-8



Technische Daten

Voltage:	220 – 240 AC, 50 – 60 Hz
Chargin voltage:	13.6 V – 15.8 V nominal 12 V 24 V 27.2 V – 31.6 V nominal 24V
Charging current:	12 V selectable with 10, 20, 30, 40 A und 50 A 24 V selectable with 10, 20, 30, 40 A und 50 A
Battery capacity:	10 – 1,200 Ah
Dimensions L x W x H:	254 x 160 x 87 mm
Protection type:	IP 20
Weight:	3.3 kg (without charging cable)
Battery types:	open, maintenance-free AGM, EFB
Cable length:	approx. 5 m

Article No.	Article Description	QTY
5439 119	BATT.CHARGER MXTS 70 12/24V	1

Battery Jump Starter JPR 9024 24V

- Battery charge status and function display in form of a bar indicator
- Up to 10 jump starts with one battery charge
- Spark, low voltage, reverse polarity and overheating protection
- Automatic shutdown
- LED work light on left and right sides
- Front LED warning light
- Protective covers for sockets/gen
- For commercial vehicles up to 13,000 cm³



Technical Data

Battery type:	Lithium battery
Nominal capacity	9.000 mAh
Continuous power:	810 A
Maximum power:	max. 1.000 A
Charging time:	max. 18 hrs
Waiting time until next attempt:	15 sec
Number and jump starts at 15°C and fully charged battery:	10
Number of jump starts at -12°C and fully charged battery:	5
Battery performance /life:	1.600 cycles
Overheating protection:	yes
Reverse polarity protection:	yes
Overcharge protection:	yes
Reverse current protection:	yes
Ambient temperature when starting:	-15 to 45 °C
Storage temperature:	3 to 18 °C
Cable length/cable diameter:	1.000 mm / Ø 16 mm
IP protection class:	20
Charger input:	100 – 240 VAC, 50/60 Hz
Charger output:	24 VDC, 0,5 A
Charging cable length:	approx. 150 cm
12 V output:	no
USB-output:	5 V, 2.000 mA
Dimensions (L x W x H):	192 x 226 x 67 mm
Weight without cable	2,01 kg

Article No.	Article Description	QTY
5439 97	BATT.J.START.JPR 9014 24V1000A	1

Scope of delivery:

- 1x Mains charger
- 1x Charging cable for connecting the starter unit with the vehicle's cigarette lighter
- 1x Support bracket

Battery Charger Acctiva Easy 12/24V

- Charges batteries fully and automatically and until they reach their maximum capacity
- Charging or discharging of conventional lead-acid, lead-calcium / silver or fleece batteries (AGM, MF), as well as maintenance-free lead-gel batteries without disconnecting from the vehicle's power supply
- Test function for starting capability and light machine function
- Battery charge level display using bar chart on the display
- Charging of deeply discharged batteries possible
- Based on inverter technology



Technical Data	
Charging nominal voltage:	12/24 V
Max. charging current (effective):	4 A / 2.5 A
Max. battery capacity:	12 V: 2 - 135 Ah 24 V: 1.5 - 90 Ah
Mains voltage +/- 15%:	230 V
Max power consumption:	36 W / 43 W
End charge voltage:	12 V: 13.5 - 14.4 V 24 V: 27 - 28.8 V
Charging characteristic:	IUoU
Dimensions (LxWxH):	119 x 72 x 52 mm
Length charger cable:	1.95 m

Article No.	Article Description	QTY
5439 200 6	BATT.CHARG.AUTO.ACC.EASY12/24V	1

Scope of delivery:

- Charging cables with clamps

Battery Charger Acctiva Professional 35A

- Self-detecting pre-selection of battery voltage at 6 V, 12 V and 24 V
- Charging and recharging or charge preservation of conventional lead-acid, lead-calcium / silver or fleece batteries (AGM, MF) as well as maintenance-free lead-gel batteries without disconnecting the vehicle's power supply
- Fully automatic charging using Plug & charge
- Simple user interface and highest operational safety with the animated graphic display. All functions and charging data can be clearly set and read on the display
- Absolute safety for vehicles, power supply and battery due to electronics safety, short circuit protection, electronic reverse polarity protection, safety shut-down and thermal overload protection
- Based on inverter technology
- Charging and mains cables can be plugged in
- Sturdy, compact housing for flexible use in the workshop
- Edge protection to ensure stability and protection from paint damage

Application:

- **Charging:** automatic charging and buffering of parallel loads during limited service time
- **Diagnosis and software update:** the buffer mode provides the parallel loads with energy during the diagnosis and software updates. the battery charging system delivers up to 35 amps of electricity
- **Battery change:** the back-up mode preserves the user settings in the vehicle when the battery is changed
- **Power supply mode:** guarantees an external power supply with the support of the battery
- **Refresh mode:** regenerates deeply discharged batteries

Application range:

- In the workshop for cars, trucks, buses, motorbikes, replacement vehicles, construction machines and agricultural machines



Article No.	Article Description	QTY
5439 200 5	BAT.CHARG.AUTO.ACCT.PROF.35A	1
5439 200 5 1	WAND HOLDER F.ACCTI.PROF.35A	1
5439 200 5 2	MAINS CABLE 5M ACCTI.PROF.35A	1

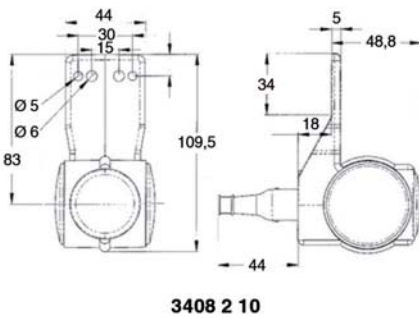
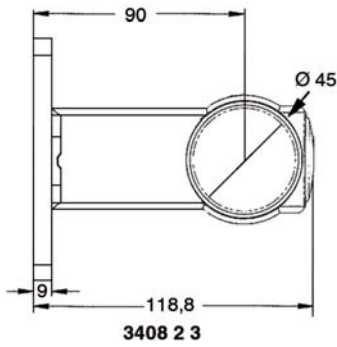
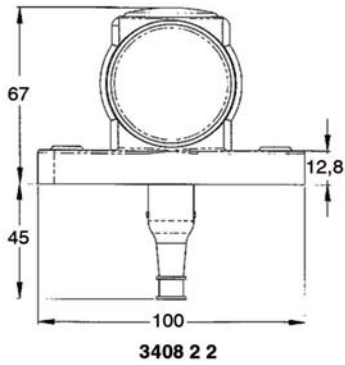
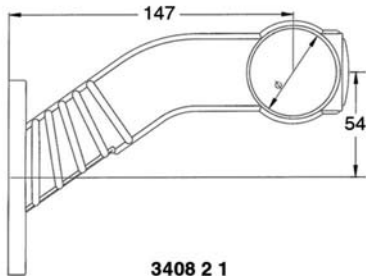
Scope of delivery:

- Charging cable 2.5 m with clamps, mains cable 2m, edge protection

Technical Data	
Charging nominal voltage:	6 V / 12 V / 24 V
Charging current:	35 A
Battery capacity:	3-350 Ah
Max power consumption:	1120 W
End charge voltage:	7.2 - 28.8 V
Mains voltage +/- 15% :	230 V
Charging characteristic:	IUoU / IU
Dimensions (LxWxH):	247 x 162 x 88 mm
Weight:	2.0 kg

Clearance Lamp LED SUPERPOINT III

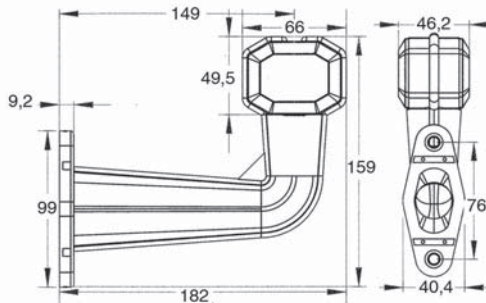
- With LED side marker lights and flexible fixing arm; long, short or as add-on casing version
- 3-sided illumination red/white/yellow
- Light element made of break-proof polycarbonate
- Cable 1.75 m 12/24V, 1W
- GGVS/ADR tested



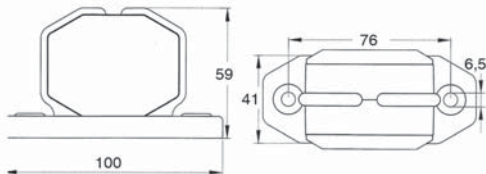
Article No.	Article Description	QTY
3408 2 1	LED-CL.LA.SUPERP.III 12/24V LF	1
3408 2 2	LED-CL.LA.SUPERP.III12/24V AGF	1
3408 2 3	LED-CL.LA.SUPERP.III 12/24V KF	1
3408 2 10	LED-CL.LA.SUPRP.III 12/24V PDL	1
3408 2 11	LED-LIGHT ELEM.F.CL.LA.SP III	1
3408 2 12	LED-ELEMENT F.CLEAR.LA.SP III	1

Clearance Lamp LED Superpoint, Red/White

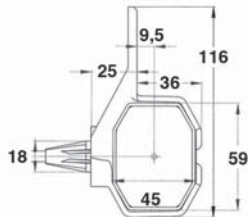
- Flexible fixing arm 90° or as flexibel mounted casing
- Both-sided illumination red/white
- Light element made of break-proof polycarbonate
- Cable 1.75 m, 24 V/0.85 W
- GGVS/ADR tested



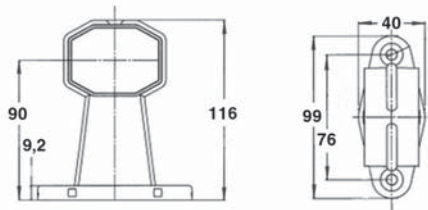
3408 2 5



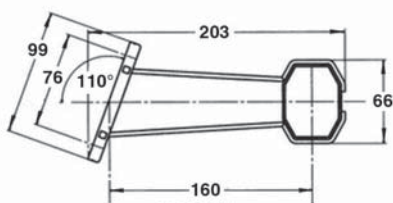
3408 2 6



3408 2 8



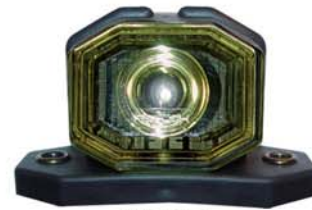
3408 2 9



3408 2 15



3408 2 5



3408 2 6



3408 2 8



3408 2 9



3408 2 15

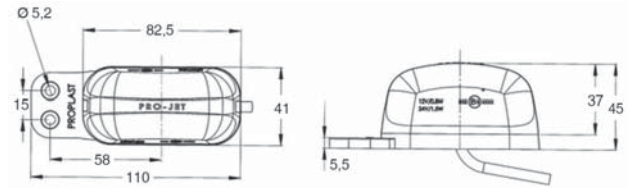


3408 2 5 1

Article No.	Article Description	QTY
3408 2 5	LED-CL.LA.SUPERPOINT 90° 24V	1
3408 2 6	LED-CL.LA.SUPERPOINT 24V AGF	1
3408 2 8	LED-CL.LA.SUPERPOINT 24V PDL	1
3408 2 9	LED-CL.LA.SUPERPOINT 24V KF	1
3408 2 15	LED-CL.LAMP SUPERPOINT 60° 24V	1
3408 2 5 1	LED-LIGHT ELEM.F.SUPERPOI.24V	1

LED clearance lights Pro-Jet, red/white

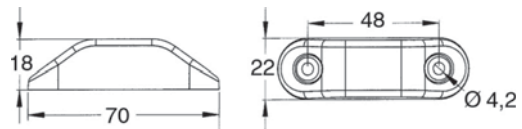
- LED clearance lights completely sealed water-tight, as mounting housing or flexible floating tool holder
- light exit on both sides red /white
- cable: 1.75 m
- 12 V - 0.8 W
- 24 V - 1.5 W
- GGVS/ADR tested



Article No.	Article Description	QTY
3408 10 1	LED-CL.LIGHT PRO-JET 12/24V	1
3408 10 2	LED-CL.LI. PRO-JET 12/24V PEND	1

Tail / Clearance Lamp LED Pro-Can, Red

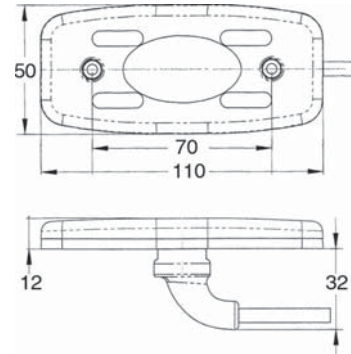
- Water-resistant and completely poured illuminated housing
- Cable 0.5 m, 24 V/0.8 W



Article No.	Article Description	QTY
3408 2 4	LED-CLEARANCE LAMP PRO-CAN 24V	1

Tail / Clearance Lamp LED Plug, Red

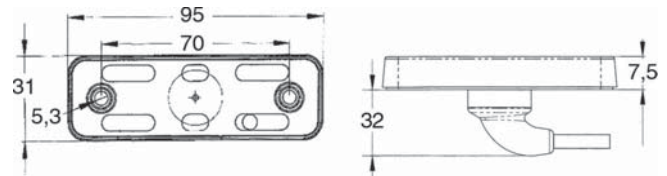
- 90° cable connection in 'Hotmelt processing' inserted in hot-melt adhesive
- Cable 0.5 m with P+R socket 24 V/1 W
- With reflector
- GGVS/ADR tested



Article No.	Article Description	QTY
3408 2 7	LED-CL.LAMP 90° RED 24V PLUG	1

Tail / Clearance Lamp LED Plug, Flat Red

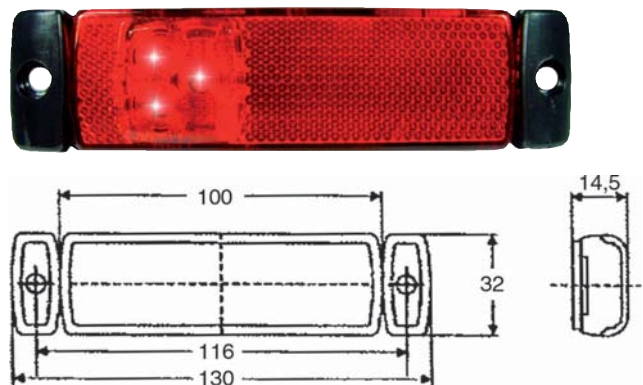
- 90° cable connection in 'Hotmelt processing' inserted in hot-meld adhesive
- Cable 0.5 m with P+R plug 24 V/0.8 W
- With reflector
- GGVS/ADR tested



Article No.	Article Description	QTY
3408 4 1	LED TAIL L.RED 24V WITH PLUG	1

Tail / Clearance Lamp LED, Flat Red

- Very flat design, water-resistant housing
- Cable 0.5 m, 24 V
- With reflector



Article No.	Article Description	QTY
3408 4 3	LED-TAIL/CLEAR.LAMP FLAT 24V	1

Tail / Clearance Lamp LED Monopoint, Red

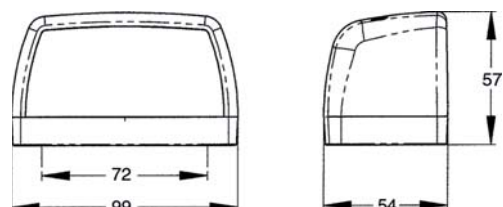
- Completely plastic coated, water-resistant element
- Cable 0.2 m, 24 V/0.85 W
- Fixing hole 21 - 22.5 mm
- GGVS/ADR tested



Article No.	Article Description	QTY
3408 4 4	LED-TAIL/CLEAR.LAMP MONOPOINT	1

Tail / License Plate Light LED, Red/White

- License plate light and tail light in LED technique
- Red and white light
- Cable 0.5 m, 24 V
- GGVS/ADR tested



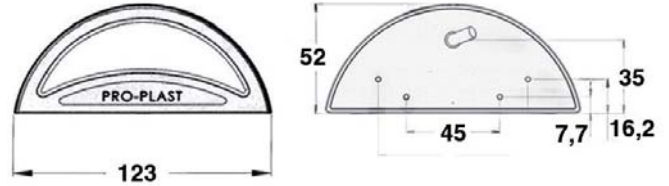
Article No.	Article Description	QTY
3408 4 5	LED-TAIL/LICEN.PLATE LIGHT 24V	1

LED tail lights / licence plate lights

- licence plate lights and tail light with LED technology
- light exit red / white
- cable: 0.5 m
- 12 V
- 24 V
- GGVS/ADR tested

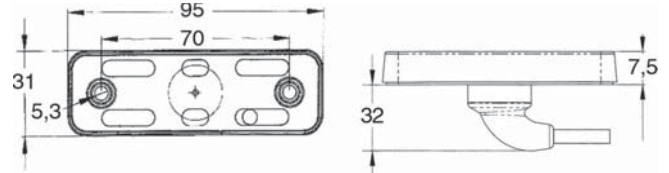


Article No.	Article Description	QTY
3408 4 6	LED-TAIL/LICEN.PLATE LIG. 24V	1
3408 4 7	LED-TAIL/LICEN.PLATE LIGHT 12V	1



Side Light LED Pro-Rep Plug, White

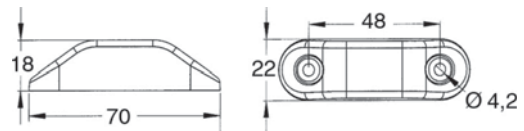
- 90° cable connection in 'Hotmelt processing' inserted in hot-melt adhesive
- Cable 0.5 m with P+R plug 24 V/0.8 W
- With reflector
- GGVS/ADR tested



Article No.	Article Description	QTY
3408 3 1	LED-SIDE LI.PRO-REP 24V W.PLUG	1

Side Light LED Pro-Can, White

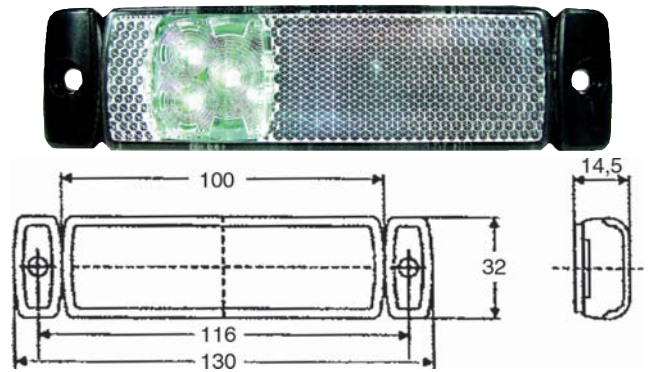
- Water-resistant, completely poured illumination housing
- Cable 0.5 m, 24 V/0.8W



Article No.	Article Description	QTY
3408 3 2	LED-SIDE LIGHT PRO-CAN 24V	1

Side Light LED, Flat White

- Water-resistant flat housing
- Cable 0.5 m, 24 V
- With reflector



Article No.	Article Description	QTY
3408 3 4	LED-SIDE LIGHT WHITE FLAT 24V	1

Clearance Lamp LED Monopoint, White

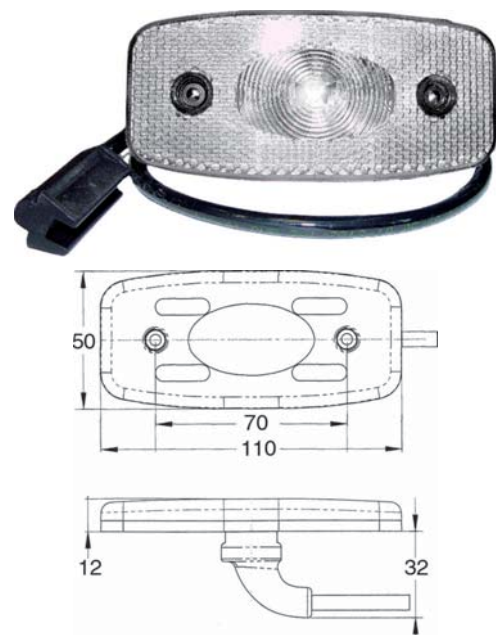
- Completely plastic coated water-resistant illumination element
- Cable 2.0 m, 24 V/0.85 W
- Fixing hole 21 - 22.5 mm
- GGVS/ADR tested



Article No.	Article Description	QTY
3408 3 5	LED-CLEARANCE LAMP MONOPOINT	1

Clearance Lamp LED Plug, White

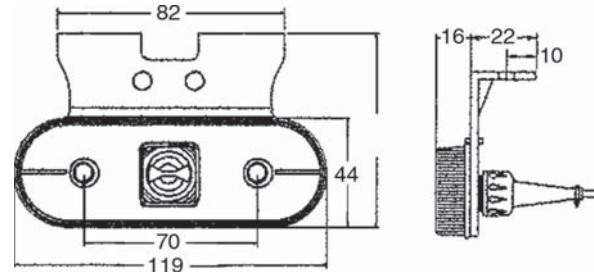
- 90° cable connection in 'Hotmelt processing' inserted in hot-melt adhesive
- Cable 0.5 m with P+R plug 24 W/1 W
- With reflector
- GGVS/ADR tested



Article No.	Article Description	QTY
3408 3 6	LED-CL.LA.90° WHITE 24V W.PLUG	1

Side Marker Lights LED Unipoint Angle, Yellow

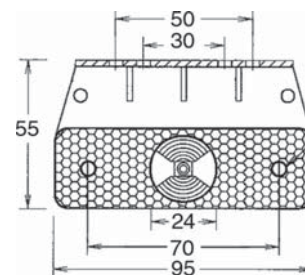
- Design with angle support 90°
- 24 V/1.3 W
- With reflector
- GGVS/ADR tested



Article No.	Article Description	QTY
3408 1 1	LED-SIDE MARK.LI.UNIP. 90° ABV	1

Side Marker Light LED Flatpoint, Yellow

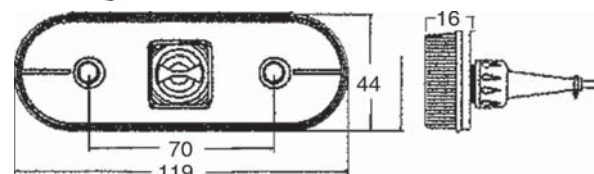
- With protective casing, Bayonet connection and grommet 90°, angle support 90°
- 24 V/1.3 W
- With reflector
- GGVS/AADR tested



Article No.	Article Description	QTY
3408 1 2	LED-SIDE MARKER LI.24V W.ANGLE	1

Side Marker Light LED Unipoint, Flat Yellow

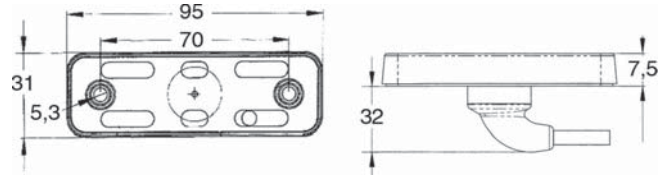
- For flat assembly
- Cable 0.5 m with P+R plug, 24 V/1.3 W
- With reflector
- GGVS/ADR tested



Article No.	Article Description	QTY
3408 1 3	LED-SIDE MARKER LIGHT UNIPOINT	1

Side Marker Light LED, Yellow

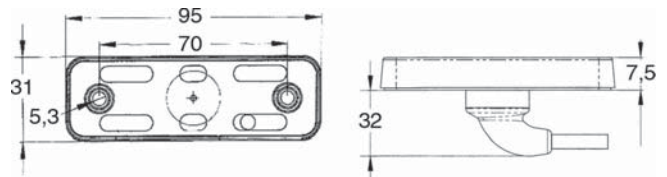
- 90° cable connection in 'Hotmelt processing' inserted in hot-melt adhesive
- Cable 0.5 m, 24 V/0.8 W
- With reflector
- GGVS/ADR tested



Article No.	Article Description	QTY
3408 1 4	LED-SIDE MARK.LIGHT YELLOW 24V	1

Side Marker Light LED Plug, Yellow

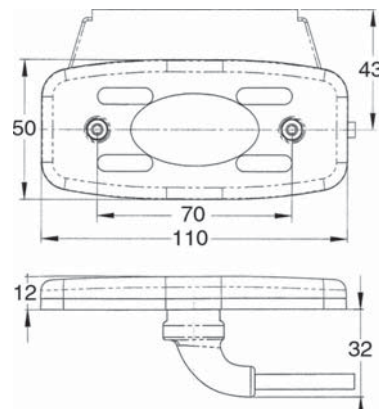
- 90° cable connection in 'Hotmelt processing' inserted in hot-melt adhesive
- Cable 0.5 m with P+R plug 24V/0.8W
- With reflector
- GGVS/ADR tested



Article No.	Article Description	QTY
3408 1 5	LED-SIDE MA.LI.YELL.24V W.PLUG	1

Side Marker Light LED Angle, Yellow

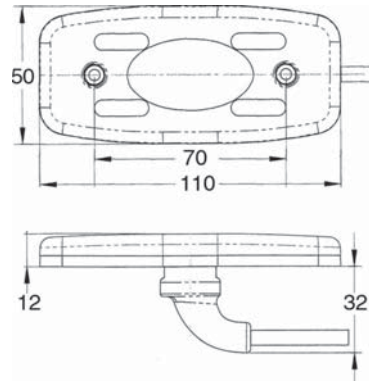
- 90° cable connection in 'Hotmelt processing' inserted in hot-melt adhesive
- Cable 0.5 m, 24 V/1 W
- Angle support
- With reflector
- GGVS/ADR tested



Article No.	Article Description	QTY
3408 1 12	LED-SIDE MARKER LIGHT 90° 24V	1

Side Marker Light LED Plug, Yellow

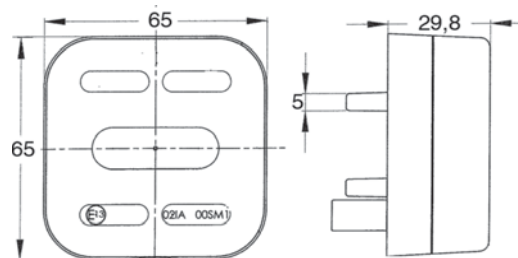
- 90° cable connection in 'Hotmelt processing' inserted in hot-melt adhesive
- Cable 0.5 m with P+R plug, 24V/1W
- With reflector
- GGVS/ADR tested



Article No.	Article Description	QTY
3408 1 13	LED-SIDE MARK.LI.90° 24V W.PL.	1

Side Marker Light LED Repair, Yellow

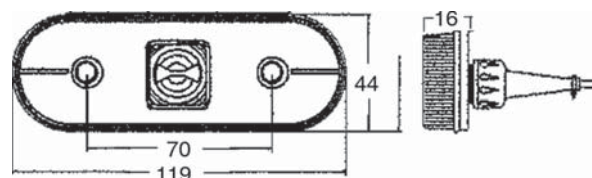
- Repair version, M.A.N
- Cable 0.5 m, 24 V
- With reflector



Article No.	Article Description	QTY
3408 1 14	LED-SIDE MARKER LIGHT MAN 24V	1

Side Marker Light LED Unipoint, Yellow

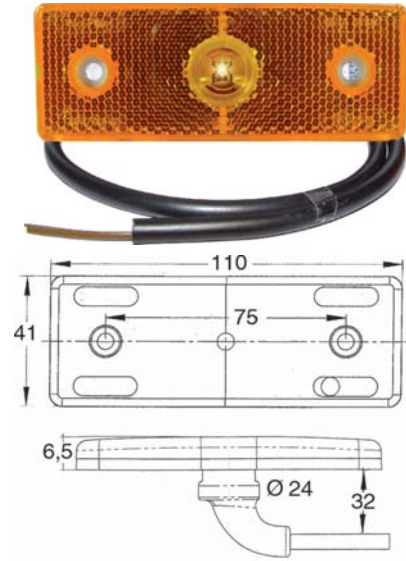
- Fitting version
- 24 V/1.3 W
- With reflector
- GGVS/ADR tested



Article No.	Article Description	QTY
3408 1 15	LED-SIDE MARK.LI.UNIPOINT EBV	1

Side Marker Light LED Pro-Flat, Yellow

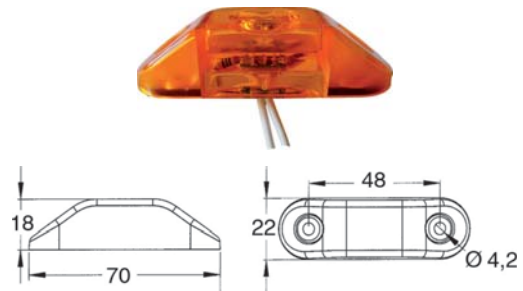
- 90° cable connection in 'Hotmelt processing' inserted in hot-melt adhesive
- Cable 0.5 m, 24 V/1 W
- With reflector
- GGVS/ADR tested



Article No.	Article Description	QTY
3408 1 6	LED-SIDE M.LI.FOR BUS.110X41MM	1

Side Marker Light LED Pro-Can, Yellow

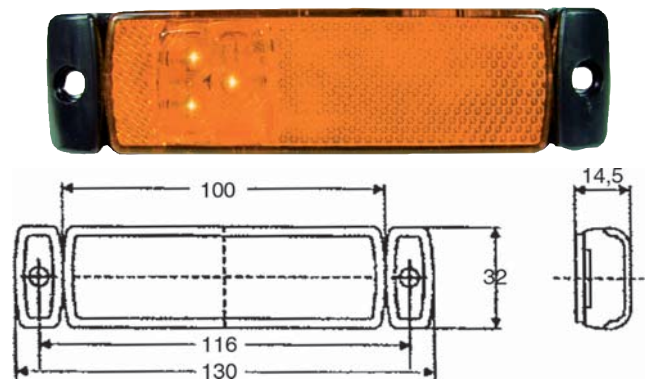
- Water-resistant, completely poured illumination housing
- Cable 0.5 m, 24 V/0.8 W



Article No.	Article Description	QTY
3408 1 7	LED-SIDE MARK.LI.PRO-CAN 24V	1

Side Marker Light LED, Flat Yellow

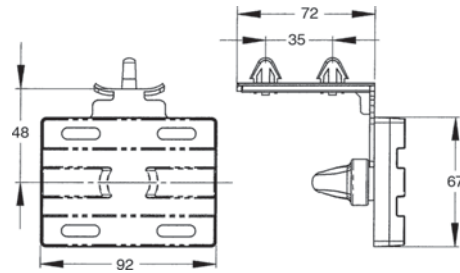
- Very flat version
- Cable 1.5 m poured 24 V
- With reflector



Article No.	Article Description	QTY
3408 1 8	LED-SIDE MARKER LIGHT FLAT 24V	1

Side Marker Light LED Plug Clips, Yellow

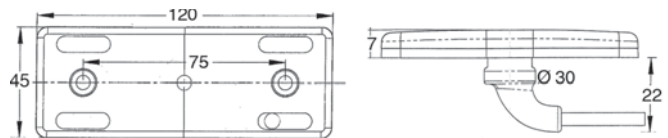
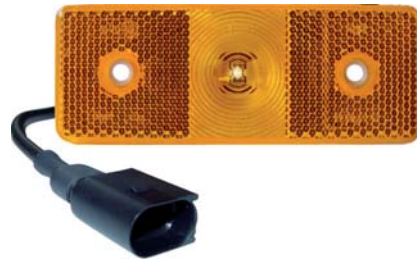
- Clip angular attachment 90°
- Cable 0.2 m with P+R plug 24 V/1 W
- With reflector
- GGVS/ADR tested



Article No.	Article Description	QTY
3408 1 9	LED-SIDE MARK.LIGHT 24V W.PLUG	1

Side Marker Light LED Plug Repair, Yellow

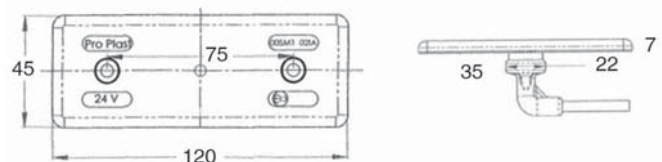
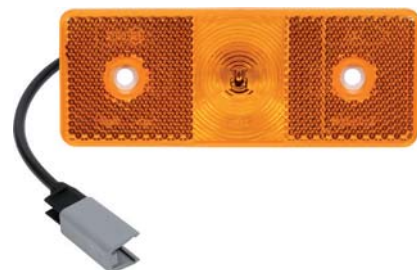
- 90° cable connection in 'Hotmelt processing' inserted in hot-melt adhesive
- Cable 0.2 m incl. connector plug, 24 V/1 W
- Repair version, MB ACTROS
- With reflector



Article No.	Article Description	QTY
3408 1 10	LED-SIDE MARK.LI.MB 24V W.PLUG	1

LED side-marker lights plug P&R yellow

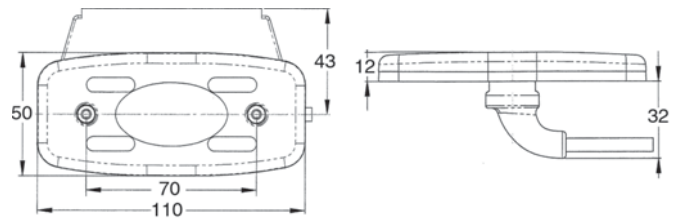
- 90° cable connection in hotmelt - process inserted into hotmelt adhesive
- cable 0.5 m incl. connecting plug, 24 V/1 W
- with reflector
- GGVS/ADR tested



Article No.	Article Description	QTY
3408 1 16	LED-SIDE MAR.LI.90° 24V P&R PL	1

Side Marker Light LED Plug Angle, Yellow

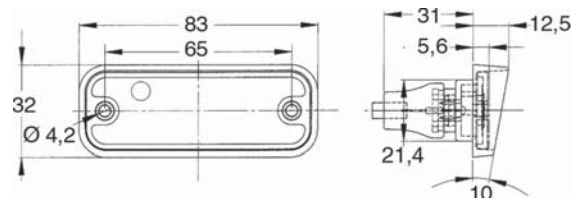
- 90° cable connection in 'Hotmelt processing' inserted in hot-melt adhesive
- Cable 0.5 m 12 V/1 W
- Angle support
- With reflector
- GGVS/ADR tested



Article No.	Article Description	QTY
3408 1 11	LED-SIDE MARKER LIGHT 90° 12V	1

License Plate Light LED Assembly, White

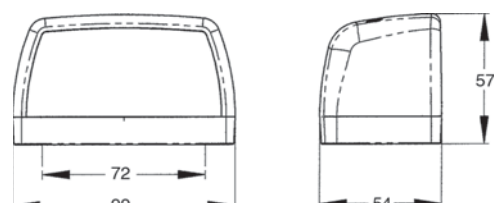
- For the fitting version
- Cable 0.5 m, 24 V/0.7 W
- GGVS/ADR tested



Article No.	Article Description	QTY
3408 5 1	LED-LICENSE PLATE LIGHT 24V EBV	1

License Plate Light LED Assembly, White

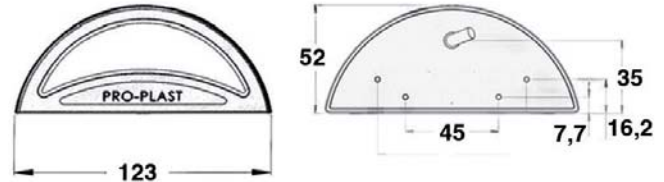
- For assembly, black
- Cable 0.5 m, 24 V
- GGVS/ADR tested



Article No.	Article Description	QTY
3408 5 2	LED-LICENSE PLATE LIGHT 24V ABV	1

Licence plate lights white LED

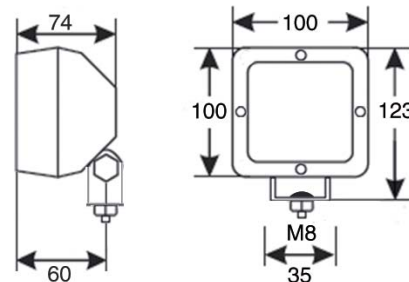
- licence plate lights with LED technology in mounted version
- 0.5 m
- 12 V
- 24 V
- GGVS/ADR tested



Article No.	Article Description	QTY
3408 5 3	LED-LICENSE PLATE LIGHT 24V	1
3408 5 4	LED-LICENSE PLATE LIGHT 12V	1

LED working lights, pure white

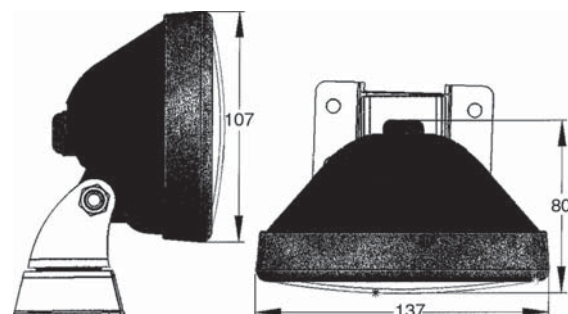
- for extensive and long-range illumination
- 9 Osram high-performance LEDs with sturdy diffusing lens
- robust plastic housing with cooling vents
- electric light part completely sealed (IP 68)
- strong light yield with 1300 lumen
- incl. fixing material
- cable 1.50 m, 10 - 50 V
- 12/24 V = 15 W



Article No.	Article Description	QTY
3408 7 4	LED-WORKLAMP 10/50V	1

LED Worklamp, White

- For large-area intensive near-field illumination
- 6 high-performance wide angle LED
- U-shaped fixing, small compact construction
- Resistant to strong impacts
- Cable 1.75 m, 12 - 30 V
- GGVS/ADR tested
- 12 V = 7,2 W
- 24 V = 7,9 W



Article No.	Article Description	QTY
3408 7 3	LED-WORKLAMP 12/24V	1

Working lights LED, 15 watts

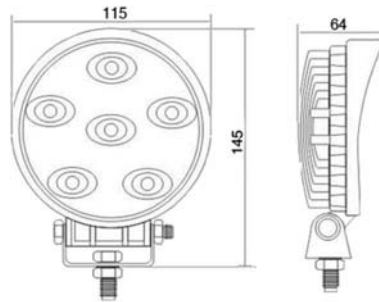
- 5 high performance LEDs
- Robust aluminium die-cast housing with cooling ribs
- Safety category: IP68/IP6K9K
- Powerful light output with 750 Lumens
- Extremely resistant to shaking and vibration
- Incl. fastening material
- Cable 0.4 m, 9 - 32 V
- Dimensions LxWxD: 145 × 50 × 78 mm
- 12/24 V = 15 W



Article No.	Article Description	QTY
3408 7 7	LED-WORKLA.15W RECTANG.9-32V	1

Working lights, LED 18 watts

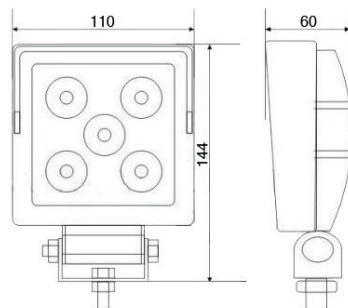
- 6 high-performance Cree LEDs
- Robust aluminium die-cast housing with cooling ribs
- Safety category: IP68/IP6K9K
- Powerful light output with 920 Lumens
- Incl. fastening material
- Cable 0.4 m, 9 - 32 V
- Dimensions LxWxD: 115 × 145 × 64 mm
- 12/24 V = 18 W



Article No.	Article Description	QTY
3408 7 8	LED-WORKLA.18W ROUND 9-32V	1

Working lights, LED 15 watts

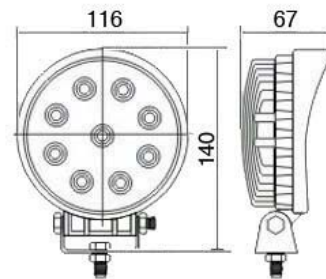
- 5 high-performance Cree LEDs
- Robust aluminium die-cast housing with cooling ribs
- Safety category: IP68/IP6K9K
- Powerful light output with 750 Lumens
- Incl. fastening material
- Cable 0.4 m, 9 - 32 V
- Dimensions LxWxD: 110 × 140 × 60 mm
- 12/24 V = 15 W



Article No.	Article Description	QTY
3408 7 9	LED-WORKLA.15W SQUARE 9-32V	1

Working lights, LED 27 watts

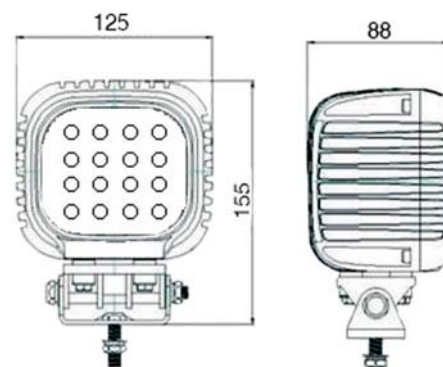
- 9 high-performance Cree LEDs
- Robust aluminium die-cast housing with cooling ribs
- Safety category: IP68/IP6K9K
- Powerful light output with 1400 Lumens
- Incl. fastening material
- Cable 0.4 m, 9 - 32 V
- Dimensions LxWxD: 116 x 145 x 67 mm
- 12/24 V = 27 W



Article No.	Article Description	QTY
3408 7 10	LED-WORKLA.27W ROUND 9-32V	1

Working lights, LED 48 watts

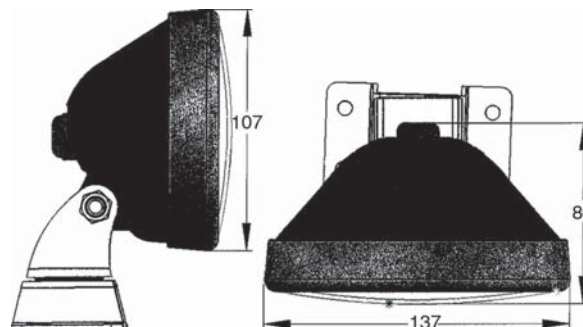
- 16 high-performance Cree LEDs
- Robust aluminium die-cast housing with cooling ribs
- Safety category: IP68 / IP6K9K
- Powerful light output with 3450 Lumens
- Incl. fastening material
- Cable 0.4 m, 9 - 32 V
- Dimensions LxWxD: 125 x 155 x 88 mm
- 12/24 V = 48 W



Article No.	Article Description	QTY
3408 7 11	LED-WORKLA.48W SQUARE 9-32V	1

LED Daytime-Running Lights Set, White

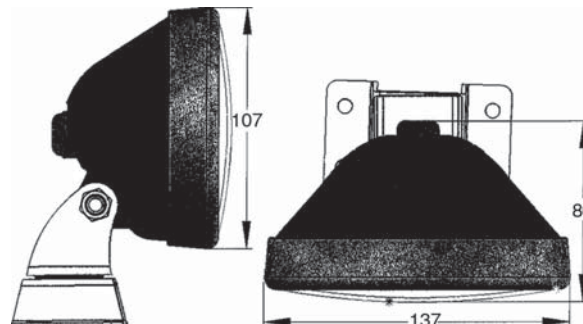
- Break-proof and watertight illumination element made of polycarbonate
- High-performance due to brilliant open-die design
- 6 high-performance LED of latest technology
- Resistant to strong impacts
- GGVS/ADR tested
- 12 V = 6,2 W
- 24 V = 7,7 W



Article No.	Article Description	QTY
3408 9	LED-DAYLIGHT-RUN.LI.SET 12/24V	1

Reversing Light LED, White

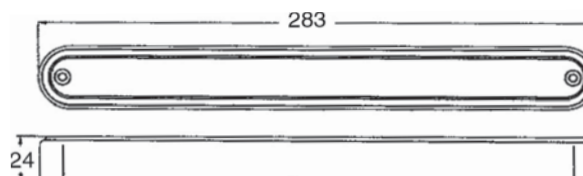
- Break-proof and watertight illumination element made of polycarbonate
- High luminous intensity due to brilliant open-die design
- 6 high-performance LED of latest technology
- Resistant to strong impacts
- Authorized for lateral and backward assembly
- Cable 1.75 m, 12 - 30 V
- GGVS/ADR tested
- 12 V = 6,2 W
- 24 V = 7,7 W



Article No.	Article Description	QTY
3408 7 2	LED-REVERSING LIGHT 12-30V	1

Interior Light LED, White

- 12 LED interior lights with clear light disk
- Plastic housing in mounting/assembly design
- With white illumination



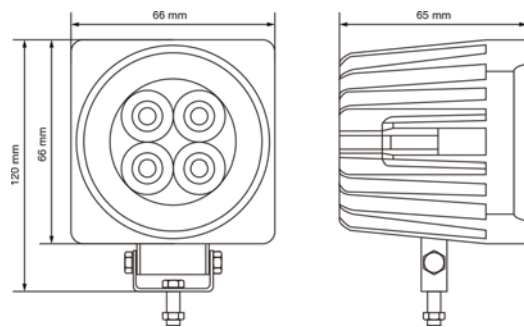
Article No.	Article Description	QTY
3408 8	LED-INTERIOR LIGHT24V 283X24MM	1

LED Working Lights ERound 12W

- Robust aluminium castings with cooling ribs
- Recommended angle for far-reaching light: 5°



Technical Data	
	Art. No. 3408 8 12
Type of illumination:	far-reaching light
Form:	quadratic
Light source technology:	LED
No. of light sources:	4
Luminosity:	900 Lm
Light colour:	6000 K
Cable connection:	yes
Cable length:	0,4 m
Min. voltage:	9 V
Max. voltage:	32 V
Wattage:	12 W
Width:	66 mm
Height:	120 mm
Depth:	65 mm
Weight:	0,5 kg
Upright mounting:	X
Upside down mounting:	X
Sideways mounting:	X
IP protection class:	IP67



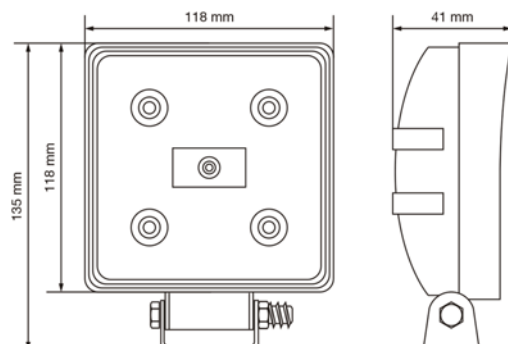
Article No.	Article Description	QTY
3408 8 12	LED WORK.LIGHTS 12W QUAD 9-32V	1

LED Working Lights EQuad 15W

- Robust aluminium castings with cooling ribs
- Recommended angle for far-reaching light: 5°



Technical Data	
	Art. No. 3408 8 15
Type of illumination:	far-reaching light
Form:	rectangular
Light source technology:	LED
No. of light sources:	5
Luminosity:	1.150 Lumen
Light colour:	6000 K
Cable connection:	yes
Cable length:	0,4 m
Min. voltage:	9 V
Max. voltage:	60 V
Wattage:	15 W
Width:	118 mm
Height:	135 mm
Depth:	41 mm
Weight:	1,1 kg
Upright mounting:	X
Upside down mounting:	X
Sideways mounting:	X
IP protection class:	IP67



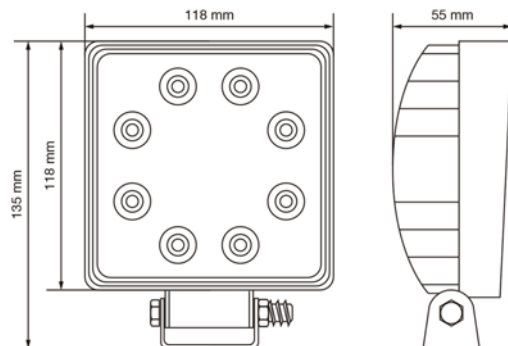
Article No.	Article Description	QTY
3408 8 15	LED WORK.LIGHTS 15W QUAD 9-60V	1

LED Working Lights EQuad 24W

- Robust aluminium castings with cooling ribs
- Recommended angle for far-reaching light: 5°

Technical Data

	Art. No. 3408 8 24
Type of illumination:	far-reaching light
Form:	rectangular
Light source technology:	LED
No. of light sources:	8
Luminosity:	1.600 Lm
Light colour:	6000 K
Cable connection:	yes
Cable length:	0,4 m
Min. voltage:	9 V
Max. voltage:	60 V
Wattage:	24 W
Width:	118 mm
Height:	135 mm
Depth:	55 mm
Weight:	1,2 kg
Upright mounting:	X
Upside down mounting:	X
Sideways mounting:	X
IP protection class:	IP67



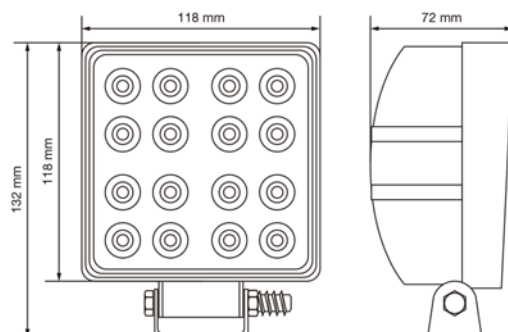
Article No.	Article Description	QTY
3408 8 24	LED WORK.LIGHTS 24W QUAD 9-60V	1

LED Working Lights EQuad 48W

- Robust aluminium castings with cooling ribs
- Recommended angle for far-reaching light: 5°

Technical Data

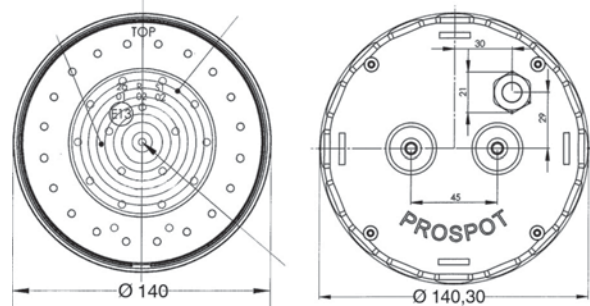
	Art. No. 3408 8 48
Type of illumination:	far-reaching light
Form:	rectangular
Light source technology:	LED
No. of light sources:	16
Luminosity:	3.600 Lm
Light colour:	6000 K
Cable connection:	yes
Cable length:	0,4 m
Min. voltage:	9 V
Max. voltage:	60 V
Wattage:	48 W
Width:	118 mm
Height:	132 mm
Depth:	72 mm
Weight:	1,4 kg
Upright mounting:	X
Upside down mounting:	X
Sideways mounting:	X
IP protection class:	IP67



Article No.	Article Description	QTY
3408 8 48	LED WORK.LIGHTS 48W QUAD 9-60V	1

LED 3-Chamber Light Pro-Spot, Red/White

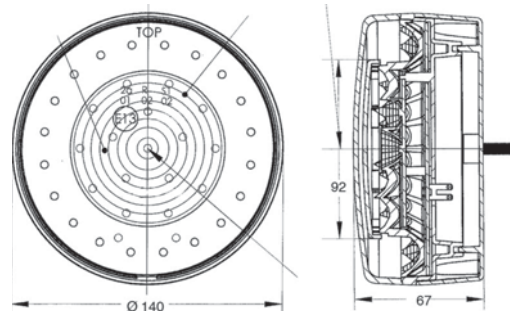
- Flash, stop and return light in LED-technology
- 10 - 30 V
- Cable inlet at the back due to PG screwing
- Light disk made of polycarbonate
- GGVS/ADR tested



Article No.	Article Description	QTY
3408 6 1	LED-3-CHAMBER LIGHT 10-30V	1

Rear Fog/Reversing Lamp LED Pro-Spot FR

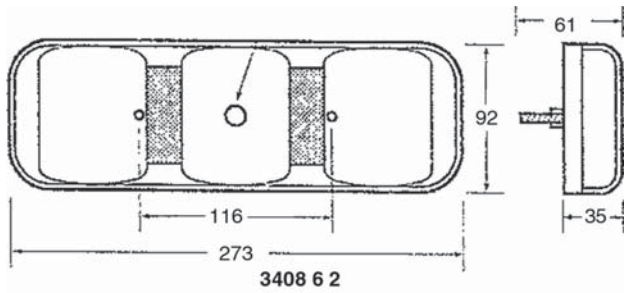
- Combined rear fog and reversing lamp in LED technology
- 10 - 30 V
- Cable inlet at the back due to PG screwing
- Light disk made of polycarbonate
- GGVS/ADR tested



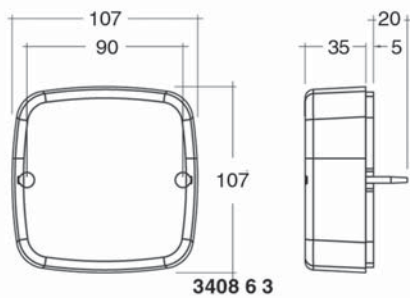
Article No.	Article Description	QTY
3408 7 1	LED-REAR FOG/REVERS.LAMP10-30V	1

LED 3-Chamber Light Pro, Yellow/Red

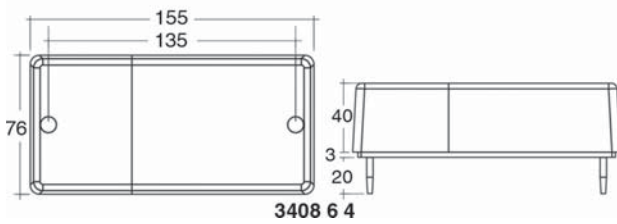
- Flash, stop and return light in LED-technology
- Made of break-proof polycarbonate, watertight with special flat construction
- Cable 0.5 m, 9 - 33 V
- With reflector
- GGVS/ADR tested



3408 6 2



3408 6 3

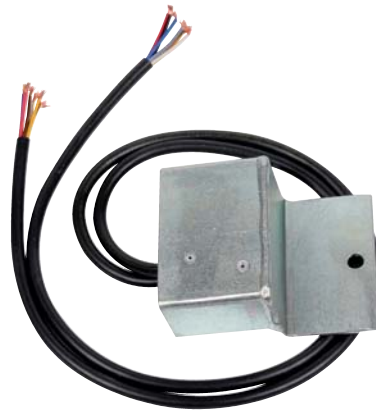


3408 6 4

Article No.	Article Description	QTY
3408 6 2	LED-3-CHAMB.LIGHT PRO-42 9-33V	1
3408 6 3	LED-3-CHAMB.LIGHT PRO-34 9-33V	1
3408 6 4	LED-3-CHAMB.LIGHT PRO-36 9-33V	1

LED control unit Pro-LCG1, 24 V

- to monitor the brake - indicator- tail light function
- electrical properties of the LED lights meet the requirements of the traction engine with on-board computer system
- sealed water-tight galvanised steel housing
- cable 0.65 m, 2 x 7-wire, sealed water-tight
- can only be used in 24 V operation
- one control unit per side of vehicle



Article No.	Article Description	QTY
3408 55	LED CONTROL UNIT PRO-LCG1 24V	1

PUR connecting cable with P&R plug

- connecting cable with PUR outer sheath and Press and Ready plug
- cable 0.5 m
- GGVS / ADR tested



Article No.	Article Description	QTY
3408 50	CONNECTING CABLE W.P&R PLUG	1

Angle Bracket 130 x 32 mm, 90°

- for fastening of side lights, side marker lights, tail lights and clearance lamps
- suitable for Art.-No. 3408 1 8, 3408 3 4 und 3408 4 3



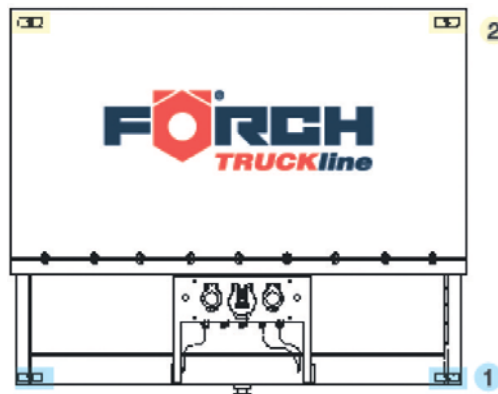
Article No.	Article Description	QTY
3408 20	ANGLE BRACKET 130X32MM 90°	2

Legal installation regulations for lighting fixtures

(Acc. ECE-Regulation R-48, EEC 76/756) last updated 11/2016

Motor vehicle classes	
M ₁	Motor vehicles up to 3.5 t and up to 9-person transport
M ₂	Motor vehicles up to 5 t and over 9-person transport
M ₃	Motor vehicles up to 5 t and over 9-person transport
N ₁	Motor vehicles for goods transportation up to 3.5 t
N ₂	Motor vehicles for goods transportation over 3.5 t up to 12 t
N ₃	Motor vehicles for goods transportation over 12 t
N _{3G}	Off-road vehicles

Vehicle classes	
O ₁	Trailers up to 0.75 t
O ₂	Trailers over 0.75 t up to 3.5 t
O ₃	Trailers over 3.5 t up to 10 t
O ₄	Trailers over 10 t

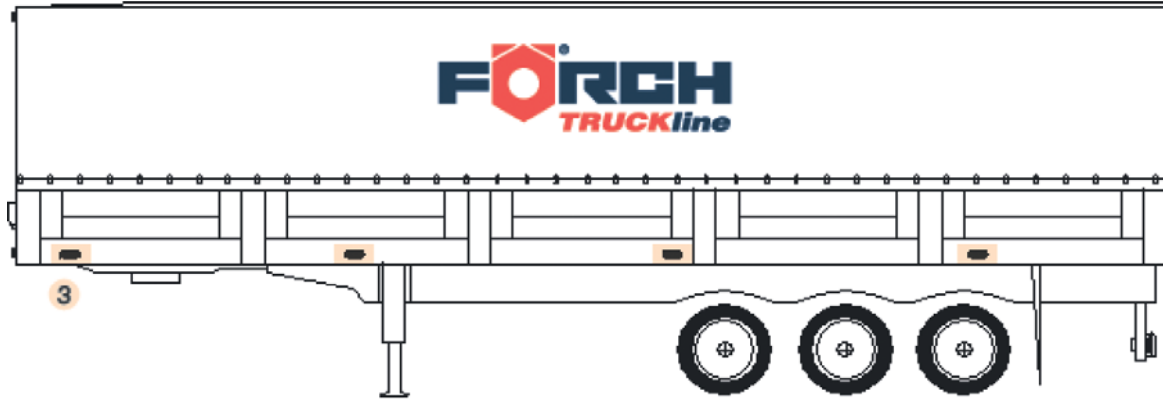


	1 - Position lights ECE-R48 § 6.9 and ECE-R7	2 - Front contour lights ECE-R48 § 6.9 and ECE-R7
Art.-No.	3408 3 / 3408 3 2 / 3408 3 4 / 3408 3 5	3408 3 / 3408 3 4 / 3408 3 5 / 3408 3 6
Number	2	2 optional, 2 additional possible
Colour	white	white
Mandatory for	All motor vehicle classes	Motor vehicles >2.1 m wide
Permissible for	-	Motor vehicles >1,8 m up to ≤2,1 m wide category A oder AM
Position in height	Min. 250 mm, max. 1500 mm (exception: 2100 mm)*	Motor vehicles >1.8 m up to ≤2.1 m wide, category A or AM
Position in width	Max. 400 mm from the extreme outer edge of the vehicle. Distance between the position lights for M1 vehicles. and N1 vehicles is not defined. For all other motor vehicle classes min. 600 mm between the two position lights, but min. 400 mm for vehicle widths of <1300 mm.	As far to the outside as possible, max. 400 mm from the extreme outer edge of the vehicle
Geometric visibility	Horizontal 45 ° inwards up to 80 ° outwards, vertical ± 15 °, but for a position in height of <750 mm also 5 ° downwards. Restriction possible for M1 and N1 vehicles. (See ECE R48 § 6.9.5.2).	Horizontal 80 ° outwards. Vertical 5 ° above and 20 ° below the horizontals.
Electrical connections	Must be designed so that the position lights, tail lights, side marker lights, and licence plate lights can only be switched on and off at the same time. Can be turned off under certain circumstances when the indicator is on.	Must be constructed so that the position lights, tail lights, contour lights, side marker lights, and licence plate lights can only be switched on and off at the same time.
Tell-tale	Mandatory. The tell-tale may not flash. Not necessary if the lighting equipment in the dashboard can only be switched on at the same time as the position lights.	Permissible. If a tell-tale is present, its function must be fulfilled by the mandatory control device for the position and tail lights.
Other regulations	-	The front white and rear red contour lights may be combined in one light, provided that the installation instructions and viewing angle ranges are adhered to. Distance to position light min. 200 mm.

*An exception is only possible if the vehicle geometry does not allow standard installation.

Legal installation regulations for lighting fixtures

(Acc. ECE-Regulation R-48.EEC 76/756) last updated 11/2016

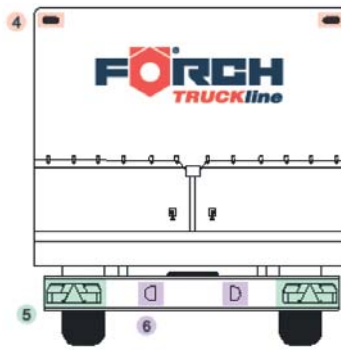


	3 - Side marker lights ECE-R48 § 6.18 and ECE-R91
Art.-No.	3408 1 1 / 3408 1 2 / 3408 1 3 / 3408 1 4 / 3408 1 5 / 3408 1 12 / 3408 1 13 / 3408 1 14 / 3408 1 15 / 3408 1 6 / 3401 7 / 3408 1 8 / 3408 1 9 / 3408 1 10 / 3408 1 16 / 3408 1 11 / 3408 2 1 / 3408 2 2 / 3408 2 3 / 3408 2 3 / 3408 2 8 / 3408 2 10
Number	see position in length
Colour	Amber (in combination with the tail light, red also possible)
Mandatory for	Mandatory for all vehicles >6 m except for chassis with cab. Authorized for all other vehicles. Mandatory for M1 vehicles and N1 vehicles. With vehicle lengths ≤6 m if the geometric visibility of the position lights and tail lights needs to be compensated.
Position in height	Min. 250 mm, max. 1500 mm (exception: 2100 mm)*
Position in length	Foremost max. 3 m from the front, rearmost max. 1 m from the rear, max. 3 m between the individual side marker lights (exception: 4 m). Min. one in the front and / or in the rear third. For vehicle lengths ≤6 m, alternatively min. one in the middle third. Vehicles M1 >6 m but <7 m one side marker light within 3 m from the front and one in the last third of the vehicle length.
Geometric visibility	Horizontal ±45 °. For vehicles in which the installation is optional, however, ± 30 °. Vertical ± 10 °, but for position in height <750 mm 5 ° downwards.
Electrical connections	For M1 vehicles and N1 vehicles that are <6 m long, side marker lights may also act as indicators. They must flash at the same frequency as the direction indicator on the
Tell-tale	Permissible. If present, its function must be fulfilled by the mandatory control device for position and tail lights.
Other regulations	The illuminating surface of the reflector may be integrated in the side marker light. The max. position in height of the reflector must be observed. The rear side marker lights must be amber if they flash with the rear direction indicator signal..

*An exception is only possible if the vehicle geometry does not allow standard installation.

Legal installation regulations for lighting fixtures

(Acc. ECE-Regulation R-48. EEC 76/756) last updated 11/2016



	4 – Rear contour lights ECE-R48 § 6.13 and ECE-R7	5 – Tail lights		
		Tail light ECE-R48 § 6.10 and ECE-R7	Rear reflector ECE- R48 § 6.14 and ECE- R3	Brake light ECE-R48 § 6.7 and ECE-R7
Art.-No.	3408 2 7 / 3408 4 1 / 3408 4 3 / 3408 4 4 / 3408 2 4	3408 3 / 3408 3 4 / 3408 3 5 / 3408 3 6		
Number	2 optional, 2 additional possible	2 optional + 2 for M ₂ , M ₃ , N ₂ , and N ₃ , without contour lights	2 more permissible.	2
Colour	red	red	red	red
Mandatory for	Motor vehicles >2.1 m wide	All motor vehicle classes, categories R, R1, or R2	All motor vehicle classes	All motor vehicle classes Category S1 or S2
Permissible for	For motor vehicles >1.8 m to ≤2.1 m wide	-	-	-
Position in height	As high and as far apart as possible	Min. 350 mm, Max. 1500 mm ²	Min. 250 mm, Max. 900 mm	Min. 350 mm, Max. 1500 mm ²
Position in width	Max. 400 mm from the outer edge	Max. 400 mm from the outer edge, min. 600 mm between both tail lights, however min. 400 mm for vehicle widths of <1300 mm	Max. 400 mm from the outer edge, min 600 mm between both reflectors, however min. 400 mm for vehicle widths of <1300 mm	For M ₁ vehicles and N ₁ vehicles max. 400 mm from the outer edge, otherwise min. 600 mm between both brake lights, however min. 400 mm for vehicle widths of <1300 mm
Geometric visibility	Horizontal 80 ° outwards, ver- tical 5 ° above and 20 ° below the horizontal	Horizontal 45 ° inwards up to 80 ° outwards. 45 ° for M1 and N1 when a side marker light is installed. Vertical ± 15 °, but for position in height of <750 mm 5 ° Downwards ³	Horizontal ± 30°. Vertical ±10°, but for position in height of <750 mm 5 ° downwards	Horizontal ±45 °. Vertical ± 15°, but for position in height of <750 mm also 5 ° downwards
Tell-tale	Permissible	Mandatory	-	Permissible
Other regulations	⁴	-	⁵	The distance between the brake light and the rear fog light must be ≥100 mm

¹ Except when brake lights in category S₃ oder S₄ (high-mounted brake lights) are installed, two additional brake lights in category S1 or S2 can be installed on vehicle classes M₂, M₃, N₂ und N₃.

² Only if the vehicle geometry does not permit installing at less than 1500 mm and if no additional indicators are installed). Position in height of the additional indicators: Min. 600 mm above the mandatory indicators.

³ For additional tail lights with a position in height of 2100 mm also 5 ° upwards.

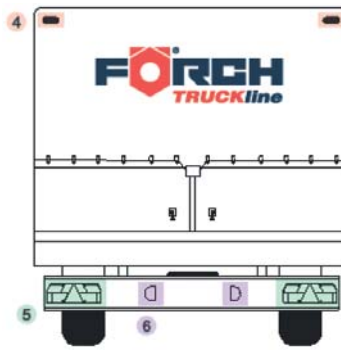
⁴ The front white and rear red contour lights may be combined in one light, provided that the installation instructions and viewing angle ranges are adhered to. Distance between the contour light and the tail light min. 200 mm.

⁵ Not triangular. The illuminating surface of the reflector may be installed together with any other feature. The max. position in height of the reflector must be observed!

⁶ For 1 rear fog light: Left of centre = right-hand traffic, right of centre = left-hand traffic. Installation in the centre permissible. The distance to the brake light must be >100 mm.

Legal installation regulations for lighting fixtures

(Acc. ECE-Regulation R-48. EEC 76/756) last updated 11/2016



	5 – Tail lights			6 – Licence plate lights ECE-R48 § 6.8 and ECE-R4
	Rear fog light ECE-R48 § 6.11 and ECE-R38	Reversing light ECE-R48 § 6.4 and ECE-R23	Rear direction indicator (blinking light) ECE-R48 § 6.5 and ECE-R6	
Art.-No.	3408 3 / 3408 3 4 / 3408 3 5 / 3408 3 6			3408 5 1 / 3408 5 2 / 3408 5 3 / 3408 5 4
Number	1 or 2	Motor vehicles <6 m long: 1, optional +1, otherwise 2, optional. 2	2, optional. +2 for M ₂ , M ₃ , N ₂ and N ₃	1 or more
Colour	red	white	amber	white
Mandatory for	All motor vehicle classes Category F, F1, F2.	All motor vehicle classes	All motor vehicle classes, category 2a or 2b	All motor vehicle classes
Permissible for	-	-	-	-
Position in height	Min. 250 mm, Max. 1000 mm	Min. 250 mm, Max. 1200 mm	Min. 350 mm max. 1500 mm (exception: 2100 mm) ²	-
Position in width	-	-	Max. 400 mm from the outer edge, min 600 mm between both indicators, however min. 400 mm for vehicle widths of <1300 mm	-
Geometric visibility	Horizontal ±25 °. Vertical ±5 °.	1 Light: Horizontal ±45°. 2 Lights: Horizontal 30° inwards 45° outwards. Vertical 15° upwards, 5° downwards.	Horizontal 45 ° inwards up to 80 ° outwards. 45 ° outwards for M1 and N1 vehicles if the side marker light blinks at the same time. Vertical ±15 °, but for a position in height of <750 mm also 5 ° downwards. Optional indicators with a position in height of 2100 mm also 5 ° upwards.	-
Tell-tale	Mandatory.	Permissible	Mandatory	Permissible
Other regulations	⁶	-	Installation of 2 additional indicators on all vehicles of classes M ₂ , M ₃ , N ₂ und N ₃ allowed	Install so that the licence plate is illuminated

¹ Except when brake lights in category S₃ oder S₄ (high-mounted brake lights) are installed, two additional brake lights in category S1 or S2 can be installed on vehicle classes M₂, M₃, N₂ und N₃.

² Only if the vehicle geometry does not permit installing at less than 1500 mm and if no additional indicators are installed). Position in height of the additional indicators: Min. 600 mm above the mandatory indicators.

³ For additional tail lights with a position in height of 2100 mm also 5 ° upwards.

⁴ The front white and rear red contour lights may be combined in one light, provided that the installation instructions and viewing angle ranges are adhered to. Distance between the contour light and the tail light min. 200 mm

⁵ Not triangular. The illuminating surface of the reflector may be installed together with any other feature. The max. position in height of the reflector must be observed!

⁶ For 1 rear fog light: Left of centre = right-hand traffic, right of centre = left-hand traffic. Installation in the centre permissible. The distance to the brake light must be >100 mm.

Reflectors

Reflector, Self-adhesive

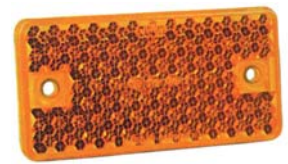
- Dia. 60 mm



Article No.	Article Description	QTY
3410 60 1	REFLECTOR SELF-ADHES. RED 60MM	10
3410 60 2	REFLECTOR SELF-ADHES. YELL. 60MM	10
3410 60 3	REFLECTOR SELF-ADHES. WHITE 60MM	10

Reflector with 2 Screw Holes

- Screw-on holes dia. 4.5 mm (interval 70 mm)
- Dimensions: L 91 x W 47 mm



Article No.	Article Description	QTY
3411 91 47 1	REFLECTOR W.2HOLES RED 91X47MM	10
3411 91 47 2	REFLECT.W.2HOLESYELL.91X47MM	10

Reflector with Screw Hole

- Dia. 60 mm
- Screw hole dia. 6 mm



Article No.	Article Description	QTY
3410 60 11	REFLECTOR HOLE 6MM RED 60MM	10
3410 60 12	REFLECTOR HOLE 6M M YELL. 60MM	10
3410 60 13	REFLECTOR HOLE 6MM WHITE 60MM	10

Reflector, Self-adhesive

- Size: L 94 x W 44 mm



Article No.	Article Description	QTY
3411 94 44 1	REFLECTOR SELF-ADH. RED 94X44MM	10
3411 94 44 2	REFLECTOR SELF/ADH AMBER 94X44	10
3411 94 44 3	REFLECTOR SELF/ADH WHITE 94X44	10

Reflector with Plastic Frame

- Screw M5 x 16
- Dia. 63 / 90 mm



Article No.	Article Description	QTY
3410 63	REFLE.PLAS.FR.SCR.5X16RED 63MM	10
3410 90	REFLE.PLAS.FR.SCR.5X16RED 90MM	10

Reflector, Self-adhesive

- Dimensions: L 122 x W 33 mm



Article No.	Article Description	QTY
3411 122 33	REFLEC.SELF-ADH.YELLOW122X33MM	10

Plastic Pendulum for Reflector



- With 2 steel spring clips, robust, resilient and torsion-resistant
- 2 screws M6 x 20 mm (interval 25 - 36 mm)

Article No.	Article Description	QTY
3411 200	PENDUL.W. 2 SCREWS PLAST.200MM	2

Reflector with Plastic Frame

- 4 part and 2 screws M5 x 14 mm (distance 70 mm)
- Sizes: L 180 x H 160 mm



Article No.	Article Description	QTY
3411 180 160	REFLECT.TRIANG.4PART180X160MM	2

Reflector with Plastic Base

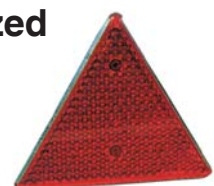
- 2 Screw holes dia. 5.2mm (distance 70 mm)
- Dimensions: L 159 x H 139 mm



Article No.	Article Description	QTY
3411 159 139	REFLECT.2HOLESTRIAN.159X139MM	2

Reflector with Galvanized Sheet Metal Frame

- 2 Screws M5 x 17 mm (interval 70 mm) for pendulum
- Dimensions: L 157 x H 138 mm



Article No.	Article Description	QTY
3411 157 138	REFLEC.2SCREWSTRIAN.157X138MM	2

Clearance Lamp with Attached Lens

- Lens red/white

Art. No. 3412 92 43 37:

- For direct attachment
- Dimensions: L 92 x W 43 x D 37 mm
- Suitable bulbs:
 - 3801 1401:12 V, 5 W spherical bulb
 - 3802 1402:24 V, 5 W spherical bulb

Art. No. 3412 124 43 64:

- With resilient angle suspension bracket
- For attachment below vehicle platform
- Dimensions: L 124 x W 43 x D 64 mm
- Suitable bulbs: 3412 92 43 37 3412 124 43 64
 - 3801 1401:12 V, 5 W spherical bulb
 - 3802 1402:24 V, 5 W spherical bulb

Art. No. 3412 122 43 42:

- With resilient suspension
- Dimensions: L122xW43xD42mm
- Suitable bulbs:
 - 3801 1401:12 V, 5 W spherical bulb
 - 3802 1402:24 V, 5 W spherical bulb

Art. No. 3412 88:

- With resilient suspension
- Dimensions: L 92.2 x W 50 x D 37.6 mm
- Suitable bulbs:
 - 3801 1401:12 V, 5 W bulb soffits
 - 3802 1402:24 V, 5 W bulb soffits 3412 122 43 42 3412 88
- Valeo: FES 88A
- Renault: 5000409926



3412 92 43 37 3412 124 43 64



3412 122 43 42 3412 88

Article No.	Article Description	QTY
3412 92 43 37	CL.LAMP DIR.CONST.R/W 92X43MM	2
3412 124 43 64	CL.LAMP W.ANG.SUS.R/W124X43MM	2
3412 122 43 42	CL.LAMP W.SUSPENSION R/W122X43	2
3412 88	CLEAR.LAMP VIGNAL FES 88A R/W	1

Clearance Lamp with Screwed Lens

- Lens red/white, screwed
- GGVS tested
- Suitable bulbs:
 - 3801 1401: 12 V, 5 W spherical bulb
 - 3802 1402: 24 V, 5 W spherical bulb

Art. No. 3412 92 42 37:

- For direct attachment
- Dimensions: L 92 x W 43 x D 37 mm

Art. No. 3412 117 42 64:

- With resilient angle suspension bracket
- For attachment below vehicle platform
- Dimensions: L 120 x W 42 x D 64 mm

Art. No. 3412 114 42 43:

- With resilient suspension bracket
- Dimensions: L 116 x W 42 x D 37 mm



3412 92 42 37 3412 117 42 64



3412 114 42 43

Article No.	Article Description	QTY
3412 92 42 37	CLEAR.LAMP DI.CONST.SCR.92X42	2
3412 117 42 64	CLEAR.LAMP ANG.SUS.SCR.117X42	2
3412 114 42 43	CLEAR.LAMP W.SUSPEN.SCR.114X42	2

Clearance Lamp, Straight

- Colour white/red
- Flexible arm
- Prewired
- Without bulb

Article No.	Article Description	QTY
3413 1	CLEARANCE LAMP STRAIGHT R/W	1

Clearance Lamp, Angled

- Colour white/red
- Flexible arm
- Prewired
- Without bulb

Article No.	Article Description	QTY
3413 2	CLEARANCE LAMP ANGLED R/W	1



Bulbs for Clearance Lamps

Article No.	Article Description	QTY
3801 1401	12V 5W BULB SPHER BA15S	10
3802 1402	24V 5W BULB SPHER BA15S	10

Lenses

- Suitable for straight and angled clearance lamps

Article No.	Article Description	QTY
3413 10	REPLACE.GLASS RED F.CLEAR.LAMP	2
3413 11	REPL.GLASS WHITE F.CLEAR.LAMP	2



Bulb Holder

- Suitable for straight and angled clearance lamps

Article No.	Article Description	QTY
3413 12	BULB HOLDER F.CLEARANCE LAMPS	1



„Superpoint“ Clearance Lamp

- GGVS tested
- Bonded lens unit of impact-resistance polycarbonate, waterproof
- Holder housing with bayonet fitting
- With bulb 24V/4W and cable (approx. 30 cm), prewired

Article No.	Article Description	QTY
3413 3	CLEARANCE LAMP SUPERPOINT	2



Side-marker lights, inserted lens

- black plastic base plate
- lens with reflector
- cables installed using rubber grommets
- suitable bulbs (glass base lamps):
 12V 5W W2, 1x9, 5d art. no. 3801 1621
 24V 5W W2, 1x9, 5d art. no. 3802 1622

Art.-No. 3414 5:

- for attaching to the side of the bodywork

Art.-No. 3414 6:

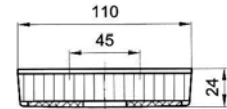
- with flexible floating tool holder

Art.-No. 3414 7:

- with flexible floating angle tool holder



3414 5



3414 6



3414 7

Article No.	Article Description	QTY
3414 5	SML INSERTED FL.ASSEMB. 12/24V	1
3414 6	SML INSERTED W. HOLDER 12/24V	1
3414 7	SML INSERTED W.ANGLE BR. 12/24V	1

Side Marker Lamp, Screwed Lens

- GGVS tested
- Suitable bulbs:
 C5W 12V/5W Art. No. 3801 1711
 C5W 24V/5W Art. No. 3802 1712
- Dimensions: L 86 x W 39 x D 22

Art.-No. 3414 11:

- For lateral mounting on cross beam

Art.-No. 3414 21:

- With flexible angle suspension bracket for mounting cross beam



Article No.	Article Description	QTY
3414 11	SIDE MARKER LAMP SCREWED	10
3414 21	SIDE MARK.LAMP SCR.W.ANG.SUS.	10

Side Marker Lamp, Flat

- **GGVS tested**
- Flat mounting on body or or superstructure by inserting lamp socket into 25mm, dia. hole.
- 2 Holes dia. 4.2 mm, hole interval 90 mm
- 8 mm flat lamp, depth with bulb holder: 74 mm
- Dimensions: L 100 x W 44 x D 74/8
- Suitable bulbs (glass base bulbs):
 - W3W 12 V 3W Art. No. 3801 1611
 - W3W 24 V 3W Art. No. 3802 1612



Article No.	Article Description	QTY
3414 50	SIDE MARKER LAMP FLAT	1

XENON flashing beacon

- 9 - 32 V
- integral xenon pipes
- single or double operation possible
- three-point fastening (no fastening material)
- polycarbonate light dome with bayonet catch
- ECE 65 tested
- dimensions H x Ø: 162 x 146 mm



Article No.	Article Description	QTY
3414 75	XEN.FLASH REV.BEACON 3P.FIXING	1

XENON flashing beacon with flexible plug-in socket

- 9 - 32 V
- integral xenon pipes
- single or double operation possible
- fastened using flexible pipe brackets Ø 24 mm
- polycarbonate light dome with bayonet catch
- ECE 65 tested
- dimensions H x Ø: 260 x 146 mm



Article No.	Article Description	QTY
3414 76	XEN.FLASH REV.BEACON PL-IN SOC	1

XENON flashing beacon with magnet

- 9 - 32 V
- integral xenon pipes
- single or double operation possible
- fastened using magnet
- spiral cable can be extended up to 3 m with 2-pin plug for the cigarette lighter
- polycarbonate light dome with bayonet catch
- ECE 65 tested
- dimensions H x Ø: 160 x 146 mm



Article No.	Article Description	QTY
3414 77	XEN.FLASH REV.BEACON W. MAGNET	1

Replacement dome for XENON flashing beacon

- polycarbonate replacement dome in orange
- suitable for art. no. 3414 75, 3414 76, 3414 77
- dimensions H x Ø: 120 x 136 mm



Article No.	Article Description	QTY
3414 78	REPL.DOME F.XEN.FLASH BEACON	1

Flashing beacon XENON 12-110 V

- 12 - 110 V
- integral single flash xenon pipes
- specially designed for forklift trucks and electric vehicles
- three-point fastening (incl. fixing material)
- polycarbonate light dome with screw connection
- dimensions H x Ø: 93 x 128 mm



Article No.	Article Description	QTY
3414 80	FLASHING BEACON XENON 12-110V	1

Rotating beacon 12 / 24 V vacuum / magnet

- 12 V: H1 55 W
- 24 V: H1 70 W
- max allowed speed 112 km/h
- attached using a magnet supported by vacuum suction
- cover with bayonet catch
- can be used in 12 V and 24 V mode (by changing the drive rubber on the drive wheel)
- spiral cable can be extended up to 2 m with 2-pin plug
- for cigarette lighter
- supplied without a light bulb
- dimensions: H x Ø: 190 x 200 mm



Article No.	Article Description	QTY
3414 33	ROTA.BEACON 12/24V VACU/MAGNET	1

Replacement dome for rotating beacon vacuum/magnet

- polycarbonate replacement dome in orange
- suitable for art. no. 3414 33
- dimensions H x Ø: 140 x 126 mm



Article No.	Article Description	QTY
3414 33 1	REPL.DOME F. ROTAT.BEACON VACU	1

Revolving Beacon 12/24V

- 12 V: H1 55 W
- 24 V: H1 70 W
- For mounting with 3 M6 screws on body
- Hood with bayonet fitting
- Operates with 12V and 24 V systems (by replacing rubber on drive wheel)
- Supplied without bulb
- Dimensions H 179 mm x dia. 153 mm

Article No.	Article Description	QTY
3414 30	REVOLV.BEACONTHREEPFIXING	1



Revolving Beacon 12V/24V with Attachment Socket

- 12 V: H1 55 W
- 24 V: H1 70 W
- Mounting dia. 24 mm
- Hood with bayonet fitting
- Operates with 12V and 24 V systems (by replacing drive wheel)
- Supplied without bulb
- Dimensions H 236mm x dia. 149 mm

Article No.	Article Description	QTY
3414 31	REVOLVING BEACON SOCKET	1



Revolving Beacon 12V/24V with Flexible Socket

- 12 V: H1 55 W
- 24 V: H1 70 W
- Mount dia. 24 mm
- Hood with bayonet fitting
- Dimensions: 290mm x 149 mm
- Operates with 12V and 24 V systems (by replacing rubber on drive wheel)
- Supplied without bulb

Article No.	Article Description	QTY
3414 32	REVOLV.BEACON FLEX.SOCKET	1



Extension Bars for Revolving Beacon

- For use with Art.-No. 3414 31, 3414 32, 3414 76
- With plug
- Dimensions 121 mm x dia. 24 mm
- For welding on

Article No.	Article Description	QTY
3414 36	EXTENS.BARS F.REVOLV.BEACON	1



Replacement Cap for Revolving Roof Lamp

- Fits Art. No. 3414 30, 3414 31, 3414 32
- Polycarbonate version

Article No.	Article Description	QTY
3414 35	REPLACE.CAP F.REVOLV.BEACON	1



Bulbs

- to fit Art.-No. 3414 30, 3414 31, 3414 32, 3414 33

Article No.	Article Description	QTY
3802 1112	24V H1 HALOGEN BULB 70W 5*	e 10
3801 1111	12V H1 HALOGEN BULB 55W 5*	e 10

Searchlight, Round

- H3 searchlight with glass lens for extensive, wide-range illumination
- Housing with handle and switch
- U-clamp mount
- H3 12V/24V

Article No.	Article Description	QTY
3416 1	SEARCHLIGHT 130MM	1



Round working lights 143 mm

- H3 12/24 V
- H3 working lights with cover lens for extensive wide-ranging lighting
- reflector made from sheet metal with cover lens glued to it
- polypropylene housing with handle and switch
- U-bracket fixing

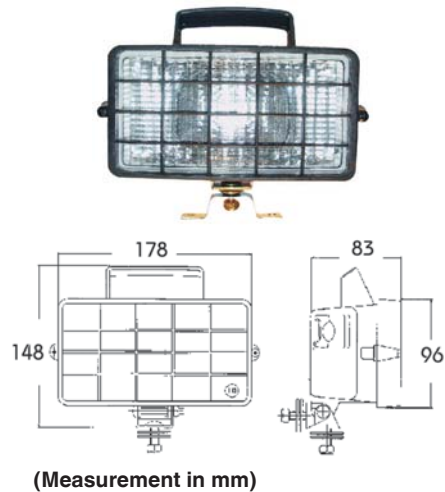
Article No.	Article Description	QTY
3416 1 11	SEARCHLIGHT 143MM	1



Searchlight with Bars

- H3 searchlight with glass lens for extensive, wide-range illumination
- Housing with handle and switch
- U-clamp mount
- H312V/24V

Article No.	Article Description	QTY
3416 2	SEARCHLIGHT 178X98MM	1



Searchlight with Double Reflector

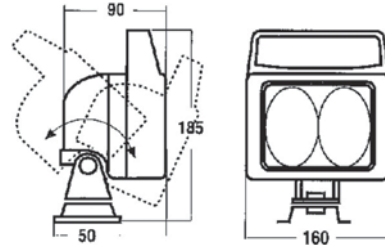
- H3 searchlight with glass lens und double reflector for extensive, intensive close-in illumination
- U-clamp mount
- 2 x H3 12V/24V

Article No.	Article Description	QTY
3416 56	SEARCHLIGHT 56	1



Searchlight with Handle

- H3 searchlight with glass lens and double reflector for extensive, intensive close-in illumination
- With handle and switch
- U-clamp mount
- 2 x H3 12V/24V



(Measurement in mm)

Article No.	Article Description	QTY
3416 57	SEARCHLIGHT W.HANDLE57	1

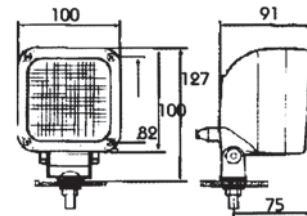
Searchlight

- H3 searchlight with glass lens for extensive, intensive close-in illumination
- Housing in small, compact design
- U-clamp mount
- Art. No. 3416 58 is completely wired and assembled with H3 bulb 24V/70W and ADR/GGVS approved



3416 58

3416 59

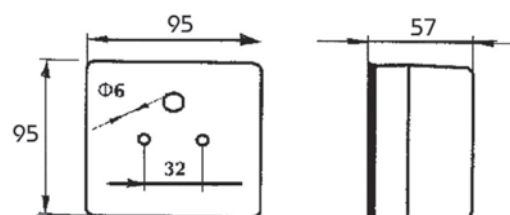


(Measurement in mm)

Article No.	Article Description	QTY
3416 58	SEARCHLIGHT 58	1
3416 59	SEARCHLIGHT 59	1

Rear Fog Lamp

- Suitable bulb BA 15s, 21W in 12 or 24 Volt

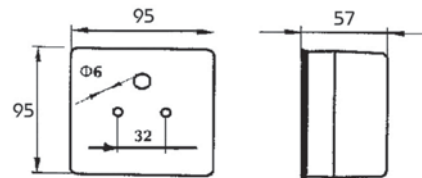


(Measurement in mm)

Article No.	Article Description	QTY
3416 3	REAR FOG LAMP 95X95X57MM	1

Reversing Lamp

- Mounting hole interval 32 mm
- Suitable bulbs BA 15s, 21W, 12 or 24 Volt
- Dimensions L 95 x W 95 x D 57 mm

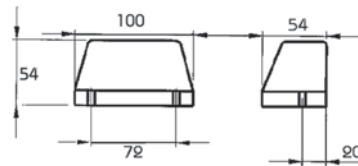


(Measurement in mm)

Article No.	Article Description	QTY
3416 4	REVERSING LAMP 95X95X57MM	1

Licence Plate Lamp

- Licence-plate lamp black
- 12V/24V
- BA 15s, 5W

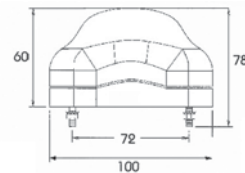


(Measurement in mm)

Article No.	Article Description	QTY
3416 5	LICENCE PLATE LAMP	1

Licence Plate Lamp PG

- Licence-plate lamp, black
- Cable entry PG screw connector
- 12V/24V
- 5V 8,5/5W



(Measurement in mm)

Article No.	Article Description	QTY
3416 55	LICENCE PLATE LAMP PG	1

Rear Warning System

- To reduce volume, quickly shift into reverse twice
- 90 dB (A) and 78 dB (A) at distance of 1.00 m
- Medium version
- 12-24VDC
- Cable length 250 mm
- Presswater-proof, no soiling
- Plastic housing potted with epoxy resin
- **e- and CE approval symbols**
- Easy to install on rear of vehicles



Article No.	Article Description	QTY
3415 20	REAR WARNING SYST.BA-42NS (NX)	1

Reversing warning 24 V design

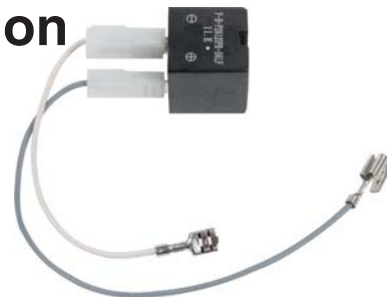
- can be used universally, for direct mounting to vehicle frames or to tail light housing
- central fixing for 28 mm hole
- pulsating warning tone 98 dB.
- 2400 Hz
- protection class IP 68, sealed water-tight
- cable 1.20 m
- GGVS/ADR tested



Article No.	Article Description	QTY
3415 21	REVERSING WARNING 24V DESIGN	1

Reversing warning 24 V installation

- for installing in the tail light housing
- warning tone 92 dB
- 3300 - 500 Hz
- dimensions L x B x H: 25 x 25 x 25 mm
- GGVS/ADR tested



Article No.	Article Description	QTY
3415 22	REVERSING WARNING 24V INSTALL.	1

Magnetic Illumination Set 12 V

- with tail lamp, brake lamp, turn signal lamp, license plate lamp
- measurement: 110 x 100 mm
- without bulb



Article No.	Article Description	QTY
3416 84	MAGNET.ILLUMINAT.SET 12V7.5M	1

Lamp Set on Telescopic Bars 12 V

- Cross beam length adjustable from 1.40 m to 2.10 m
- with bulbs



Article No.	Article Description	QTY
3416 85	LAMP SET TELESCOPIC BARS 12V	1

Rear Lamps, Round

- With rear, brake, flashing licence-plate lamp
- Clipped light glass
- Measurement: Ø 140 x 80 mm
- Fixing: 2 x M6.45 mm distance
- Without bulb



Article No.	Article Description	QTY
3416 86	REAR LAMP, ROUND 86	1

Taillamp

- For trailers, campers etc.
- Right: Taillamp, brake lamp, turn signal
- Left: Taillamp, brake lamp, turn signal, licence plate lamp
- Mounting: 2 x M6.55 mm interval
- Without bulb



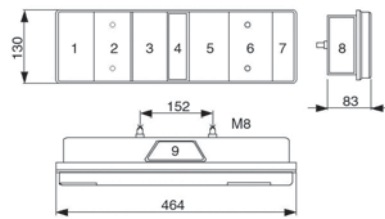
Article No.	Article Description	QTY
3416 81	REAR LAMP WITHOUT LIC.PLAMP81	1
3416 82	REAR LAMP WITH LICENCE PL L.82	1
3416 83	LENS REAR LAMP 83	1

Chamber Light 7-fold

- GGSV tested
 - With brake lamp, turn signal, tail lamp, licence plate lamp, back-up lamp and rear fog lamp, clearance lamp, reflector
 - No equipped with bulb
- Art. No. 3416 15 and 3416 16:**
- Cable entry at the bottom of the housing



Article No.	Article Description	QTY
3416 6	MK LAMP DAF MAN STEYR LE+RIGHT	1
3416 7	MK LAMP DAF MAN STEYR LEFT+LPL	1
3416 8	MK LAMP DAF LEFT+RIGHT	1
3416 9	MK LAMP DAF LEFT+LICEN.PL.LAMP	1
3416 10	MK LAMP IVECO LEFT	1
3416 11	MK LAMP IVECO RIGHT	1
3416 12	MK LAMP IVECO LEFT+LIC.PL.LAMP	1
3416 13	MK LAMPVOLVO RIGHT	1
3416 14	MK LAMPVOLVO LEFT+LIC.PL.LAMP	1
3416 15	MK LAMP SCANIA RIGHT	1
3416 16	MK LAMP SCANIA LEFT+LI.PL.LAMP	1
3416 17	MK LAMP RENAULT/UNI.LEFT+RIGHT	1
3416 18	MK LAMP RENAULT/UNIV.LEFT+LPL	1
3416 19	LENS 464X130MM	1



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4

Technical Data

Article No.	Manufacturer - Application	Cable connection	Stud interval	Version
3416 6	M.A.N./STEYER: Housing: 81.25228-6030 Lens: 81.25229-6051	1	152 mm	left and right
3416 7	M.A.N./STEYER: Housing: 81.25228-6029 Light glass: 81.25229-6051	1	152 mm	left, with license-plate lamp
3416 8	DAF: 1284211	2	152 mm	left and right
3416 9	DAF: 1284212	2	152 mm	left, with license-plate lamp
3416 10	IVECO: 99 46 32 43	3	152 mm	left
3416 11	IVECO: 99 46 32 42	3	152 mm	right
3416 12	IVECO: 99 46 32 44	3	152 mm	left, with license-plate lamp
3416 13	VOLO/universal	4	160 mm	right
3416 14	VOLO/universal	4	160 mm	left, with license-plate lamp
3416 15	SCANIA: 136 59 64	-	152 mm	right
3416 16	SCANIA: 136 59 63	-	152 mm	left, with license-plate lamp
3416 17	RENAULT: 50 01 832 999 UNIVERSAL	4	152 mm	left and right
3416 18	RENAULT: 50 01 831 194 UNIVERSAL	4	152 mm	left, with license-plate lamp

Chamber Light 7-fold **ECO**

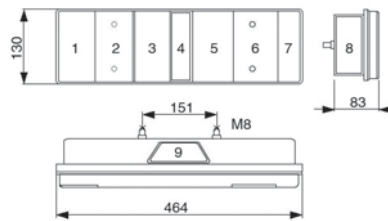
- With clearance lamp, turn signal, brake, tail, rear fog, back-up and license-plate lamp, side marker lamp, reflector
- Not equipped with light bulb

Art. No. 3416N 15 and 3416N 16:

- Cable entry at the bottom of the housing
- Mount: 4 x M6



Article No.	Article Description	QTY
3416N 6	MK LAMP DAF/MAN/STEY.RE ECO	1
3416N 7	MK LAMP DAF/MAN/S.LEFT+LPL ECO	1
3416N 11	MK LAMP IVECO RIGHT ECO	1
3416N 12	MK LAMP IVECO LEFT+LPL ECO	1
3416N 13	MK LAMP VOLVO RIGHT ECO	1
3416N 14	MK LAMP VOLVO LEFT+LPL ECO	1
3416N 15	MK LAMP SCANIA RIGHT ECO	1
3416N 16	MK LAMP SCANIA LEFT+LPL ECO	1
3416N 17	MK LAMP RENAULT RIGHT ECO	1
3416N 18	MK LAMP RENAULT LEFT+LPL ECO	1
3416N 19	LENS 464X130MM ECO	1



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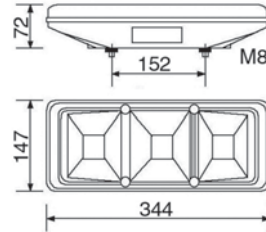
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Technical Data

Article No.	Cable connection	Stud interval	Version	Connecting system
3416N 6	1	151 mm	right	8-pole bayonet connection
3416N 7	1	151 mm	left with license-plate lamp	8-pole bayonet connection
3416N 11	2	190 x 60 mm	right	Vehicle specific plug
3416N 12	2	190x 60 mm	left with license-plate lamp	Vehicle specific plug
3416N 13	3	151 mm	right	Cable and rubber bushing
3416N 14	3	151 mm	left with license-plate lamp	Cable and rubber bushing
3416N 15	-	151 mm	right	Cable and rubber bushing
3416N 16	-	151 mm	left with license-plate lamp	Cable and rubber bushing
3416N 17	3	151 mm	right	Cable and rubber bushing
3416N 18	3	151 mm	left with license-plate lamp	Cable and rubber bushing

Chamber Lamp, 3-fold, Universal

- For trailers
- With turn signal, brake and back-up lamp, license-plate lamp
- Not equipped with light bulb
- Cable entry on back

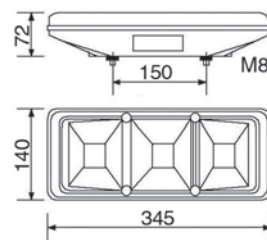


Technical Data		
Article No.	Version	Hella comparison on.
3416 60	right and left	2SD 003 167011
3416 61	left with license-plate lamp	2SE 003 167031
3416 62	right	
3416 63	left and right	

Article No.	Article Description	QTY
3416 60	MK UNIVERSAL LAMP RIGHT+LEFT	1
3416 61	MK UNIVERSAL LAMP LEFT	1
3416 62	MK UNIVERSAL LAMP RIGHT	1
3416 63	LENS 340X143 3CHAMB.LA.	2

Chamber Lamp, 3-fold, Universal *ECO*

- For trailers
- With turn signal, brake, tail and license-plate lamp
- Not equipped with light bulb
- Cable entry on back

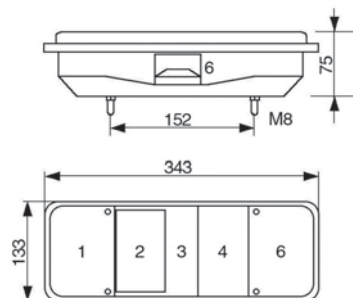


Technical Data		
Article No.	Version	Connection
3416N 61	left with license-plate lamp	Cable entry rubber grommet
3416N 62	right	Cable entry rubber grommet
3416N 63	left and right	

Article No.	Article Description	QTY
3416N 61	MK LAMP TRAIL.UNI.LEFT+LPL ECO	1
3416N 62	MK LAMP TRAILER UNI.RIGHT ECO	1
3416N 63	LENS TRAILER UNI.ECO	1

Chamber Lamp, 5-fold, Universal

- For trailers and semi-trailers
- With brake lamp, turn signal, tail lamp, back-up and rear fog lamp without reflector
- Not equipped with light bulb
- Cable entry on back of housing

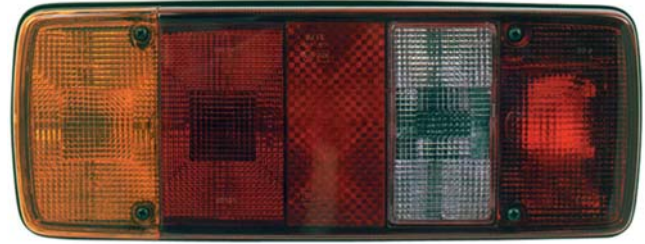


Technical Data	
Article No.	Hella Comparison No.
3416 23	9EL 122772-071

Article No.	Article Description	QTY
3416 20	MK LAMP TRAILER UNIVERSAL LEFT	1
3416 21	MK LAMP TRAILER UNIV.RIGHT	1
3416 22	MK LAMP TRAILER UNI.LEFT+LPL	1
3416 23	LENS 343X133MM	2

Chamber Lamp, 5-fold, Universal **ECO**

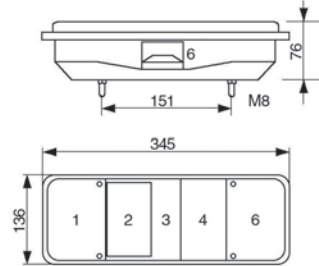
- For trailers
- With turn signal, tail, brake, rear fog, back-up and license-plate lamp
- Not equipped with light bulb
- Cable entry on back



Technical Data

Article No.	Version	Connection
3416N 21	right	Cable entry rubber grommet
3461N 22	left with license-plate lamp	Cable entry rubber grommet
3416N 23	left and right	

Article No.	Article Description	QTY
3416N 21	MK LAMP TRAILER RIGHT ECO	1
3416N 22	MK LAMP TRAILER LEFT+LPL ECO	1
3416N 23	LENS TRAILER RIGHT-LEFT ECO	1



Chamber Lamp, 4-fold, Mercedes Left

- With brake lamp, turn signal, tail and rear fog lamp as well as reflector
- Not equipped with light bulb
- Cable entry on back of housing



Technical Data

Article No.	Hella Comparison No.
3416 24	2VA004887-031
3416 25	9EL131420-001

Article No.	Article Description	QTY
3416 24	MK LAMP MERCEDES LEFT	1
3416 25	LENS MB 425X110MM LEFT	2



Chamber Lamp, 4-fold, Mercedes Right

- With brake lamp, turn signal, tail and back-up lamp as well as reflector
- Not equipped with light bulb
- Cable entry on back of housing



Technical Data

Article No.	Hella Comparison No.
3416 26	2VP004887-021
3416 27	9EL131420-011

Article No.	Article Description	QTY
3416 26	MK LAMP MERCEDES RIGHT	1
3416 27	LENS MB 425X110MM RIGHT	2



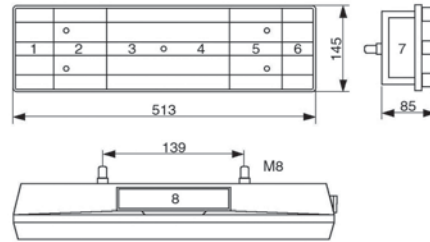
Chamber Lamp, 6-fold, Mercedes

- Suitable for Mercedes-SK serie (heavy class)
- With brake lamp, turn signal, tail, back-up, rear fog and clearance lamp as well as reflector and yellow side marker lamp
- Cable connection: 1.200 mm cable with cylindrical pin, back of housing
- Not equipped with light bulb



Technical Data		
Article No.	Version / Use	Manufact. ref.
3416 28	left, with license-plate lamp	MB 001 540 1770
3416 29	right, without license-plate lamp	MB 001 540 1870
3416 30	lens left	MB 002 544 1290
3416 31	lens right	MB 002 544 1390

Article No.	Article Description	QTY
3416 28	MK LAMP MERCEDES SK LEFT+LPL	1
3416 29	MK LAMP MERCEDES SK RIGHT	1
3416 30	LENS MB SK/ACTROS LEFT	1
3416 31	LENS MB SK/ACTROS RIGHT	1



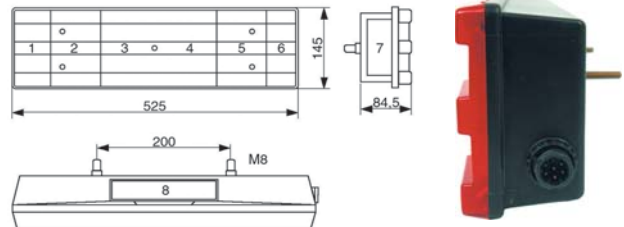
Chamber Lamp, 6-fold, Mercedes Actros

- Cable connection: over lateral compact plug
- Not equipped with light bulb



Technical Data		
Article No.	Manufact. ref.	Version / Use
3416 32	MB 001 540 5770	left, with licence-plate lamp
3416 33	MB 001 540 6370	right, without licence-plate lamp
3416 30	MB 002 544 3790	lens left
3416 31	MB 002 544 3690	lens right

Article No.	Article Description	QTY
3416 32	MK LAMP MB ACTROS LEFT+LPL	1
3416 33	MK LAMP MB ACTROS RIGHT	1
3416 30	LENS MB SK/ACTROS LEFT	1
3416 31	LENS MB SK/ACTROS RIGHT	1



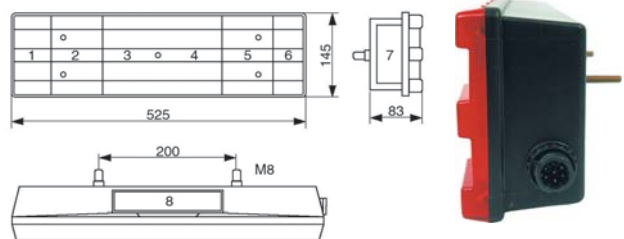
Chamber Lamp, 6-fold MB Actros **ECO**

- With clearance lamp, turn signal, brake, stop, rear fog, back-up, li-
cense-plate and side marker lamp, reflector
- Not equipped with light bulb
- Cable connection over lateral compact plug



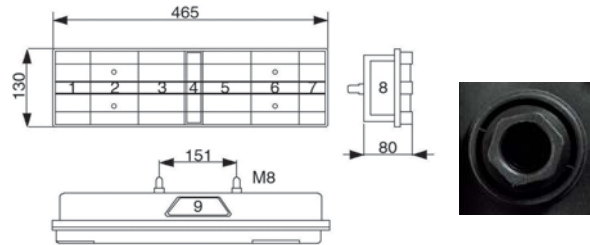
Technical Data		
Article No.	Version	Connection
3416N 32	left with license-plate lamp	AMP plug
3416N 33	right	AMP plug
3416N 30	left and right	
3416N 31	right	

Article No.	Article Description	QTY
3416N 32	MK LAMP ACTROS LEFT+LPL ECO	1
3416N 33	MK LAMP ACTROS RIGHT ECO	1
3416N 30	LENS ACTROS LEFT ECO	1
3416N 31	LENS ACTROS RIGHT ECO	1



Chamber Lamp, 7-fold, Mercedes Sprinter

- GGVS tested
- Suitable for Mercedes Sprinter
- With brake lamp, turn signal, tail and clearance lamp, reflector, yellow side marker lamp
- Not equipped with light bulb
- PG connection, on back of housing

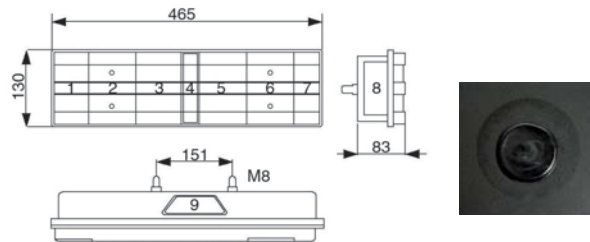


Technical Data		
Article No.	Version / Use	Manufac. ref.
3416 34	left and right	MB 002 544 5403
3416 35	left, with rear fog and licence-plate lamp	MB 002 544 5503
3416 38	lens left and right	MB 002 544 4790

Article No.	Article Description	QTY
3416 34	MK LAMP MB SPRINTER LEFT+RIGHT	1
3416 35	MK LAMP MB SPRINTER LEFT+LPL	1
3416 38	LENS MB SPRINTER/ATEGO L+R	1

Chamber Lamp, 7-fold, MB Sprinter *ECO*

- With clearance lamp, turn signal, brake, tail, rear fog, back-up, li-cense-plate and side marker lamp, reflector
- Not equipped with light bulb
- Cable entry on back

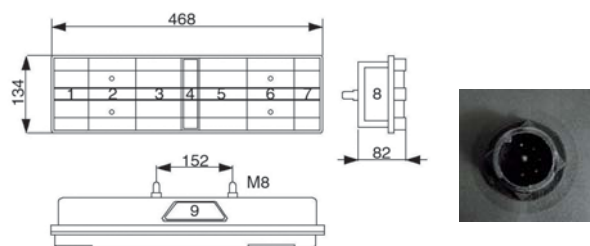


Technical Data		
Article No.	Version	Connection
3416N 34	right	Cable entry rubber grommet
3416N 35	left with license-plate lamp	Cable entry rubber grommet
3416N 38	left and right	

Article No.	Article Description	QTY
3416N 34	MK LAMP SPRINTER RIGHT ECO	1
3416N 35	MK LAMP SPRINTER LEFT+LPL ECO	1
3416N 38	LENS SPRINTER/ATEGO ECO	1

Chamber Lamp, 7-fold, Mercedes Atego

- GGVS tested
- Suitable for Mercedes Atego
- Cable connection: compact plug MB, on back of housing
- Not equipped with light bulb



Technical Data		
Article No.	Version / Use	Manufac. ref.
3416 36	left and right	MB 003 544 5403
3416 37	left, with rear fog and licence-plate lamp	MB 003 544 5303
3416 38	lens left and right	MB 002 544 4790

Article No.	Article Description	QTY
3416 36	MK LAMP MB ATEGO LEFT+RIGHT	1
3416 37	MK LAMP MB ATEGO LEFT+LPL	1
3416 38	LENS MB SPRINTER/ATEGO L+R	1

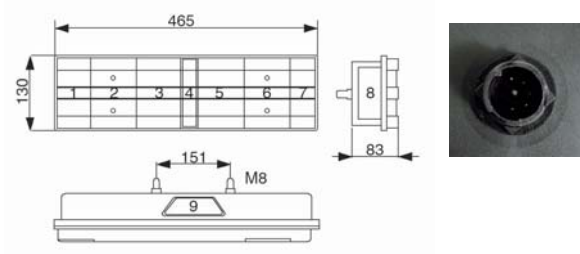
Chamber Lamp, 7-fold, MB Atego **ECO**

- With clearance lamp, turn signal, brake, tail, rear fog, back-up, license-plate and side marker lamp, reflector
- Not equipped with light bulb
- Compact plug on back of housing



Technical Data		
Article No.	Version	Connection
3416N 36	right	8-pole bayonet plug
3416N 37	left with license-plate lamp	8-pole bayonet plug
3416N 38	left and right	

Article No.	Article Description	QTY
3416N 36	MK LAMP ATEGO RIGHT ECO	1
3416N 37	MK LAMP ATEGO LEFT+LPL ECO	1
3416N 38	LENS SPRINTER/ATEGO ECO	1



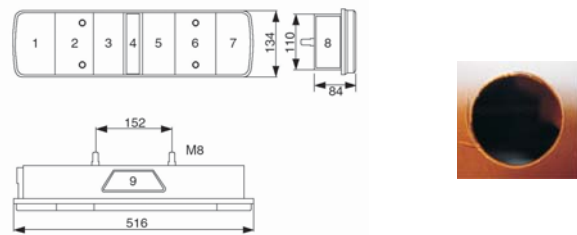
Multi-Chamber Lamp, Scania

- TÜV tested
- With turn signal, brake, tail, rear fog, back-up, clearance, license-plate and side marker lamp, reflector
- Not equipped with light bulb
- Cable entry on back



Technical Data		
Art.-No.	Version / Use	Manufact. ref.
3416 39	left with licence-plate lamp	Scania 1436867
3416 40	right	Scania 1436868
3416 43	lens left and right	Scania 1380819

Article No.	Article Description	QTY
3416 39	MK LAMP SCANIA LEFT 39	1
3416 40	MK LAMP SCANIA RIGHT 40	1
3416 43	LENS SCANIA, VOLVO 43	1

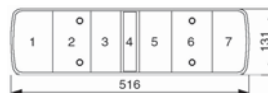


Chamber Lamp, 7-fold, Scania **ECO**

- With clearance lamp, turn signal, brake, tail, rear fog, back-up, license-plate and side marker lamp, reflector
- Not equipped with light bulb
- Cable entry on back

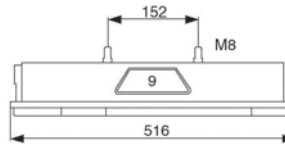
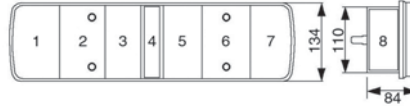


Article No.	Article Description	QTY
3416N 43	LENS SCANIA/VOLVO ECO	1



Multi-Chamber Lamps, Volvo

- TÜV tested
- With turn signal, brake, tail, rear fog, back-up, clearance, licence-plate and side marker lamp, reflector
- Not equipped with light bulb
- Lateral plug connection



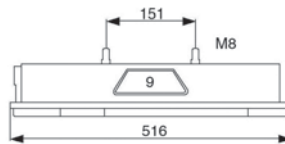
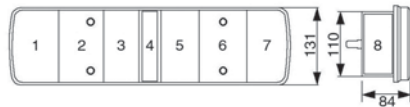
Technical Data

Article No.	Version / Use	Manufact. ref.
3416 41	left with licence-plate lamp	Volvo 08/98 3981455
3416 42	left and right	Volvo 08/98 3981456
3416 43	lens left and right	Volvo 08/98 3981782

Article No.	Article Description	QTY
3416 41	MK LAMP VOLVO LEFT 41	1
3416 42	MK LAMP VOLVO RIGHT 42	1
3416 43	LENS SCANIA, VOLVO 43	1

Multi-Chamber Lamp, 7-fold, Volvo *ECO*

- With clearance lamp, turn signal, brake, tail, rear fog, back-up, li- cense-plate and side marker lamp, reflector
- Not equipped with light bulb
- Lateral plug connection



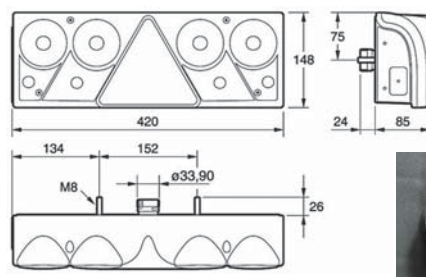
Technical Data

Article No.	Version	Connection
3416N 41	left with license-plate lamp	AMP plug
3416N 42	right	AMP plug
3416N 43	left and right	

Article No.	Article Description	QTY
3416N 41	MK LAMP VOLVO LEFT+LPL ECO	1
3416N 42	MK LAMP VOLVO RIGHT ECO	1
3416N 43	LENS SCANIA/VOLVO ECO	1

Multi-Chamber Lamps EUROPOINT II

- TÜV-tested
- GGVS-/ADR tested
- With turn signal, brake, tail, rear fog, back-up, clearance, side marker lamp, triangular reflector
- Lens with clear glass optic
- Equipped with bulbs
- 2 bulbs for parking and brake lights
- Universally applicable for trailers



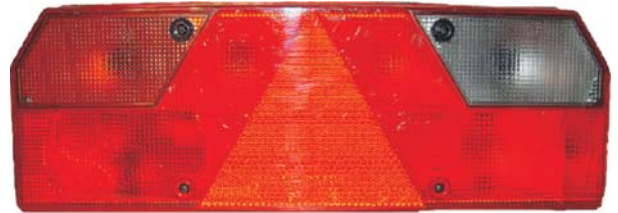
Technical Data

Article No.	Version	Manufact. reference	Connection
341690	right	25-6400-507	Aspöck-compact plug
341691	left	25-6000-507	Aspöck-compact plug
341692	left and right	18-8560-002	

Article No.	Article Description	QTY
3416 90	MK-LAMP EUROPOINT II RIGHT	1
3416 91	MK-LAMP EUROPOINT II LEFT	1
3416 92	LENS EUROPOINT II LEFT/RIGHT	1 i

Multi-Chamber Lamp, Europoint

- With integrated triangular reflector
- TÜV tested
- With turn signal, brake, tail, rear fog, back-up, clearance and side marker lamp, triangular reflector
- Not equipped with light bulb
- Mount: 2x M8, 152 mm distance



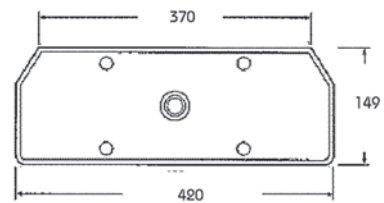
Technical Data			
Article No.	Version / Use	Cable connection	Manufact. ref.
3416 44	left		Aspöck 25-5100-501
3416 45	left with licence-plate lamp	2	Aspöck 25-5101-501
3416 46	right	2	Aspöck 25-5500-501
3416 64	right	2	Aspöck 25-5400-511
3416 65	left with licence-plate lamp	1	Aspöck 25.5001-511
3416 47	lens left and right	1	Aspöck 18-8550-002



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Article No.	Article Description	QTY
3416 44	MK LAMP EUROPOINT LEFT 44	1
3416 45	MK LAMP EUROPOINT LEFT 45	1
3416 46	MK LAMP EUROPOINT RIGHT 46	1
3416 64	MK LAMP EUROPOINT RIGHT 64	1
3416 65	MK-LAMP EUROPOINT LEFT 65	1
3416 47	LENS EUROPOINT LEFT/RIGHT 47	1

Multi-Chamber Lamp, Europoint *ECO*

- With clearance lamp, turn signal, tail, rear fog, back-up, license-plate and side marker lamps, reflector
- Not equipped with light bulb



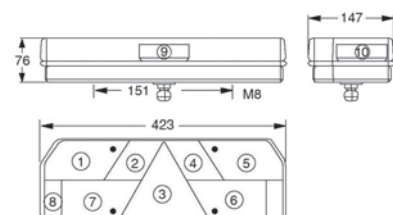
Technical Data			
Article No.	Version	Cable connection	Connection
3416N 45	left with licence-plate lamp	2	Cable entry rubber grommets
3416N 46	right	2	Cable entry rubber grommets
3416N 64	right	1	Aspöck compact plug
3416N 65	left with licence-plate lamp	1	Aspöck compact plug
3416N 47	left		
3416N 47 1	right		



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Article No.	Article Description	QTY
3416N 45	MK LAMP EUROP.LEFT+LPL ECO 45	1
3416N 46	MK LAMP EUROPOINT RIGHT ECO 46	1
3416N 64	MK LAMP EUROPOINT RIGHT ECO 64	1
3416N 65	MK LAMP EUROP.LEFT+LPL ECO 65	1
3416N 47	LENS EUROPOINT LEFT ECO	1
3416N 47 1	LENS EUROPOINT RIGHT ECO	1

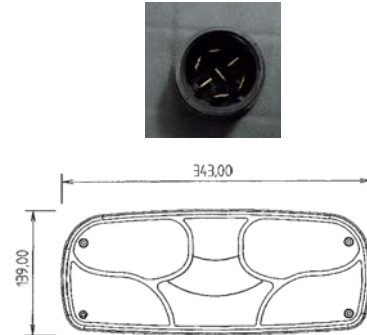
Multi-Chamber Lamp, Ecopoint

- Universal
- With turn signal, brake, tail, rear fog, back-up and license-plate lamp, reflector
- Mount: 2 x M8, 152 distance
- Equipped with light bulb
- Aspöck compact plug, on back of housing



Technical Data			
Article No.	Version / Use	Manufact. ref.	Connection
3416 77	left	Aspöck 25-2000-507	Compact plug
3416 78	right	Aspöck 25-2400-507	Compact plug
3416 79	left with license-plate lamp	Aspöck 25-2001-507	Compact plug
3416 80	lens Ecopoint	Aspöck 18-8520-002	

Article No.	Article Description	QTY
3416 77	MK LAMP ECOPOINT LINKS 77	1
3416 78	MK LAMP ECOPOINT RIGHT 78	1
3416 79	MK LAMP ECOPOINT LEFT+LPL 79	1
3416 80	LENS ECOPOINT 80	2

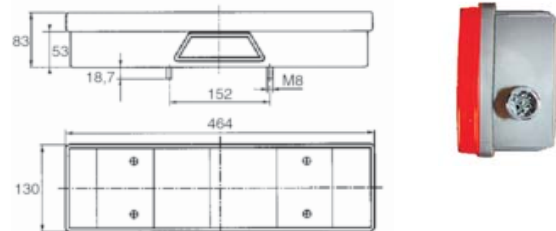


Multi-Chamber Lamp, M.A.N.TG-A/Renault

- TÜV tested
- With turn signal, brake, tail, rear fog, back-up, clearance, license-plate and side marker lamp, reflector
- Not equipped with light bulb

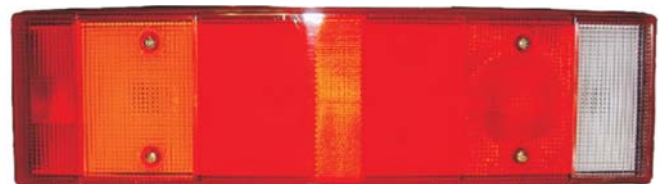
Technical Data		
Art. No.	Version / Use	Manufact. ref.
3416 49	right	M.A.N.TG-A 81.25225.6523 Renault 5001847585
3416 50	left with licence plate lamp	M.A.N.TG-A 81.25225.6524 Renault

Article No.	Article Description	QTY
3416 49	MK LAMP MAN,RENAULT RIGHT 49	1
3416 50	MK LAMP MAN,RENAULT LEFT 50	1



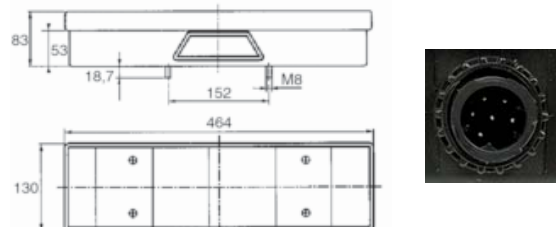
Multi-Chamber Lamp, M.A.N.T.G-A/Renault **ECO**

- With clearance lamp, turn signal, brake, tail, rear fog, back-up, license-plate and side marker lamp, reflector
- Not equipped with light bulb
- Lateral plug connector



Technical Data		
Article No.	Distance of stud	Version
3416N 49	151 mm	right
3416N 50	151 mm	left with license-plate lamp

Article No.	Article Description	QTY
3416N 49	MK LAMP MAN/RENAULT RIGHT ECO	1
3416N 50	MK LAMP MAN/REN.LEFT+LPL ECO	1
3416N 19	LENS 464X130MM ECO	1



Multi-Chamber Lamp, Kögel/Schmitz

- TÜV tested
- With turn signal, brake, tail, rear fog, back-up and side marker lamp
- Not equipped with light bulb

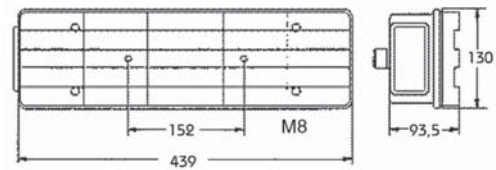


Technical Data

Article No.	Version / Use	Manufact. ref.	Connection
3416 52	left and right	Kögel 333 423 Schmitz	Cable 1.44 m + Plug 6-pin
3416 53	left and right	Kögel 324 944 Schmitz 062 345/062 423	Connecting plug 6-pin
3416 54	Lens left and right	Kögel 324 945 Schmitz 062 447	



Article No.	Article Description	QTY
3416 52	MK LAMP KÖGEL, SCHMITZ L+R 52	1
3416 53	MK LAMP KÖGEL, SCHMITZ L+R 53	1
3416 54	MK LAMP KÖGEL, SCHMITZ L+R 54	1



Multi-Chamber Lamp Kögel/Schmitz **ECO**

- With turn signal, brake, tail, rear fog, back-up and side marker lamp
- Not equipped with light bulb

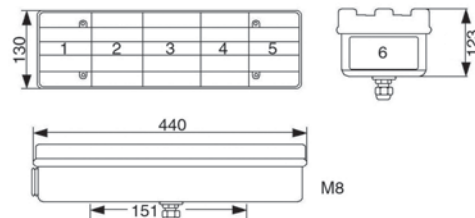


Technical Data

Article No.	Version	Connection
3416N 51	left	1.5 m cable with 6-pin plug
3416N 52	right	1.5 m cable with 6-pin plug
3416N 53	left	6-pin compact plug
3416N 54	right	6-pin compact plug
3416N 55	left	Cable entry rubber grommet
3416N 56	right	Cable entry rubber grommet
3416N 57	left and right	



Article No.	Article Description	QTY
3416N 51	MK LAMP KÖG./SCHM.LEFT ECO 51	1
3416N 52	MK LAMP KÖG./SCH.RIGHT ECO 52	1
3416N 53	MK LAMP KÖG./SCH.LEFT ECO 53	1
3416N 54	MK LAMP KÖG./SCH.RIGHT ECO 54	1
3416N 55	MK LAMP KÖG./SCH.LEFT ECO 55	1
3416N 56	MK LAMP KÖG./SCH.RIGHT ECO 56	1
3416N 57	LENS KÖGEL/SCHMITZ ECO	1



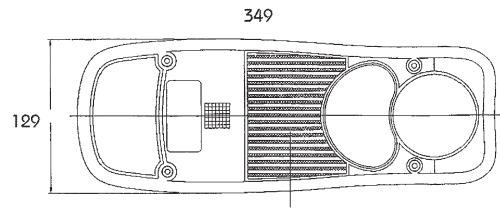
Chamber Lamp, 5-fold

- Universal, Renault, Nissan, DAF
- With turn signal, brake, tail, rear fog, back-up, license-plate, LED side marker lamp, reflector
- Not equipped with light bulb
- Mount: 2 x M8, 152 mm distance



Technical Data		
Art.-No.	Version / Use	Connection
3416 67	left and right	Compact plug
3416 68	left with license-plate lamp	Compact plug
3416 69	right with license-plate lamp	Compact plug
3416 73	lens left and right	

Article No.	Article Description	QTY
3416 67	MK UNIVERSAL LAMP RI+LE 67	1
3416 68	MK UNIVERSAL LAMP LEFT 68	1
3416 69	MK UNIVERSAL LAMP RIGHT 69	1
3416 73	LENS 73	1



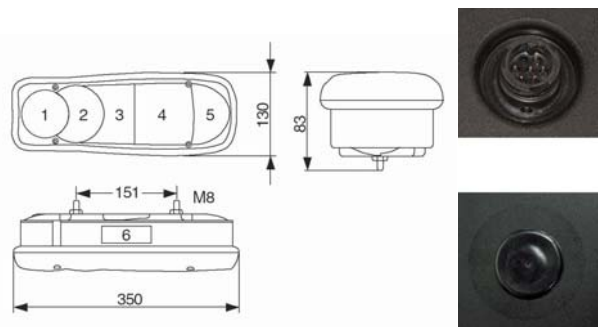
Chamber Lamp, 5-fold **ECO**

- Universal, Renault, Nissan, DAF
- With turn signal, brake, rear fog, back-up and licens-plate lamp, reflector
- Not equipped with light bulb



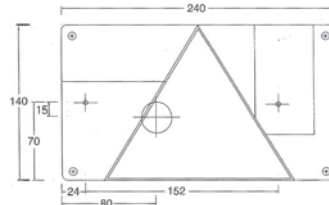
Technical Data		
Article No.	Version	Connection
3416N 67	right	AMP plug
3416N 68	left with license-plate	
3416N 70	lamp	AMP plug
3416N 71	right	Cable entry rubber grommet
3416N 73	left with license-plate lamp left and right	Cable entry rubber grommet

Article No.	Article Description	QTY
3416N 67	MK LAMP UNIVERSAL RIGHT ECO	1
3416N 68	MK LAMP UNIVERSAL LEFT-LPL ECO	1
3416N 70	MK LAMP RIGHT ECO	1
3416N 71	MK LAMP LEFT-LPL ECO	1
3416N 73	LENS UNIVERSAL LE+RI ECO	1



Multiple chamber lights Multipoint I

- universal multi-functional rear lights
- with flashing, stop, rear, fog, reversing, licence plate and integrated triangular reflector
- fixing: 2x M6, 152 mm gap
- with light bulb mounting 12 V
- 5-pin Aspöck plug



Article No.	Article Description	QTY
3416 96	MK-LAMP MULTIPOINT LEFT	1
3416 97	MK-LAMP MULTIPOINT RIGHT	1
3416 96 1	LENS MULTIPOINT LEFT	1
3416 97 1	LENS MULTIPOINT RIGHT	1

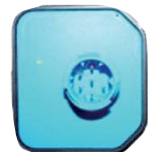
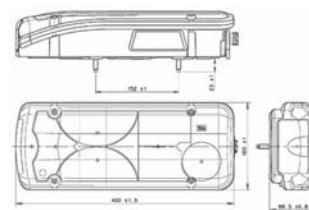
Multiple chamber lights MAN TGA / TGX

- TÜV tested
- GGVS-/ADR tested
- Original Vignal LC8 rear lights
- With flashing, stop, rear, rear fog, reversing, clearance, licence plate, side-marking lights, reflector lno light bulb mounting
- E- test mark no. (E2) 2040
- Cable connection via side compact plug
- Not equipped with light bulbs



Technical Data			
article no.	design	manufacturer's reference	connection system
3416 93	left with KZL	81-25225-6544, 81-25225-6548	AMP plug
3416 93 1	left	81-25229-6059	
3416 94	right	81-25225-6545, 81-25225-6549	AMP plug
3416 94 1	right	81-25229-6060	

Article No.	Article Description	QTY
3416 93	MK-LAMP MAN TGA/TGX LEFT	1
3416 93 1	LENS MAN TGA/TGX LEFT	1
3416 94	MK-LAMP MAN TGA/TGX RIGHT	1
3416 94 1	LENS MAN TGA/TGX RIGHT	1



Vibration damper kit for tail lights

- can be used universally
- consists of 2 flexible damper elements
- incl. fixing material 2 x M8

Article No.	Article Description	QTY
3416 150	VIBR. DAMPER KIT FOR MK-LIGHTS	1



5-pin Aspöck compact connector

- Connector plug for chamber lights with Aspöck compact plug (Art.-No. 13-0546-004)
- Made up of connector housing, contact housing, contact pins and sealing plugs

Article No.	Article Description	QTY
3416 101 5	COMPACT CONNECTOR 5-PIN	1



7-pin Aspöck compact connector, left

- connector plug for chamber lights with Aspöck compact plug (Aspöck no. 13-5626-941)
- made up of connector housing, contact housing, contact pins and sealing plugs
- incl. rubber grommets for different cable cross sections

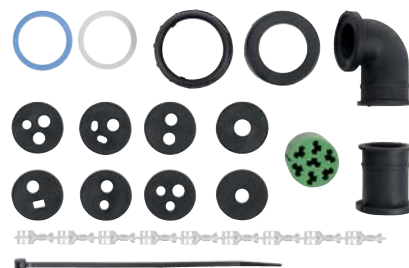
Article No.	Article Description	QTY
3416 101 3	COMPACT CONNECTOR 7-PIN LEFT	1



7-pin Aspöck compact connector, right

- connector plug for chamber lights with Aspöck compact plug (Aspöck no. 13-5626-951)
- made up of connector housing, contact housing, contact pins and sealing plugs
- incl. rubber grommets for different cable cross sections

Article No.	Article Description	QTY
3416 101 4	COMPACT CONNECTOR 7-PIN RIGHT	1



Compact connector 7-pin

- connector plug 90° for chamber lights with AMP plug
- made up of connector housing, contact housing, contact pins and sealing plugs

Article No.	Article Description	QTY
3416 101 1	COMPACT CONNECTOR 7-PIN 90°	1



Compact connector 8-pin

- connector plug 90° for chamber lights with 8-pin bayonet plug
- made up of connector housing, contact housing, contact pins and sealing plugs

Article No.	Article Description	QTY
3416 101 2	COMPACT CONNECTOR 8-PIN 90°	1



Plug and Socket 3-Pole

- Plastic version
- With screw connection



Article No.	Article Description	QTY
3830 12 24 1	SOCKET 6-24V 3-POLE	1
3830 12 24 2	SOCKET 6-24V 3-POLE	1

Plug and Socket 7-Pole (Type N)

- according to ISO 3731
- With screw connection



Article No.	Article Description	QTY
3830 24 1	PLUG ALU N SCREW 7-POLE 24V	1
3830 24 1 1	PLUG PLST.N SCREW 7-POLE 24V	1
3830 24 2	SOCKET ALU N SCREW 7-POLE 24V	1
3830 24 2 1	SOCK.PLST.N SCREW 7-POLE 24V	1

Plug and Socket 7-Pole (Type S)

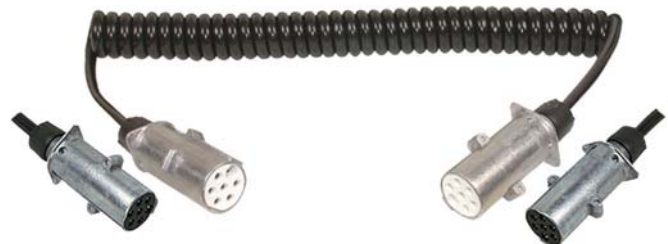
- According to ISO 3731
- With contacts 31 reversed (Type S)
- With screw connection



Article No.	Article Description	QTY
3830 24 3	PLUG ALU S SCREW 7-POLE 24V	1
3830 24 3 1	PLUG PLST. S SCREW 7-POLE 24V	1
3830 24 4	SOCKET ALU S SCREW 7-POLE 24V	1
3830 24 4 1	SOCK.PLST. S SCREW 7-POLE 24V	1

Spiral cable, N/S 7-pin

- Type N as per ISO 1185
- Type S as per ISO 3731
- Cable: 6 x 1.0 mm² + 1 x 1.5 mm²



Article No.	Article Description	QTY
3830 24 10	SPIRALK.GW.N-AUSF.AL-ST-24V 3M	1
3830 24 10 1	SPIRALK.GW.S-AUSF.AL-ST-24V 3M	1
3830 24 24	SPI.CABLE N-VERS.7-CORE24V3.5M	1
3830 24 24 1	SPI.CABLE S-VERS.7-CORE24V3.5M	1

Technical Data			
article-no.	CoilØ	Material	working length
3830 24 10	90 mm	Polyamide(PA)	3.000 mm
3830 24 10 1	90 mm	Polyamide (PA)	3.000 mm
3830 24 24	40 mm	Polyurethane (PU)	4.500 mm
3830 24 24 1	40 mm	Polyurethane (PU)	4.500 mm

Spiral cable N/S 7-pin water-tight

- type N according to ISO 1185
- type S according to ISO 3731
- with sealed plastic plug
- cable: 6 x 1.0 mm² + 1 x 1.5 mm²



Article No.	Article Description	QTY
3830 24 24 10	SP.CAB. WT TYP.N 7P./24V 3,5M	1
3830 24 24 11	SP.CAB. WT TYP.S 7P./24V 3,5M	1
3830 24 24 100	SP.CAB. GW WT TYP.N 7P./24V 3M	1
3830 24 24 101	SP.CAB. GW WT TYP.S 7P./24V 3M	1

Technical Data			
article no.	coil Ø	material	work length
3830 24 24 10	40 mm	Polyurethane (PU)	3500 mm
3830 24 24 11	40 mm	Polyurethane (PU)	3500 mm
3830 24 24 100	90 mm	Polyamide (PA)	3000 mm
3830 24 24 101	90 mm	Polyamide (PA)	3000 mm

Spiral Cable 7-Core

- Cable: 7 x 1.5 mm²
- With one plug, 7-pole 24V N and one plug, 7-pole 12V



Article No.	Article Description	QTY
3830 24 12	SPIRAL CABLE 7-CORE24-12V3.5M	1

Technical Data			
Art.-No.	Coil Ø	Material	Working Length
3830 24 12	40 mm	Polyurethane (PU)	4.500 mm

Spiral Cable 12 V 7-Wire

- Without plug
- Suitable for 12 V and 24 V
- 200 mm long ends to process, both sides
- Cable: 6 x 1.0 mm² + 1 x 1.5 mm²



Article No.	Article Description	QTY
3830 12 24 10	SPIRAL CABLE 7WIR.SC 12-24V 3M	1
3830 12 24 11	SPIRAL CABLE 7WIR.LC 12-24V 3M	1

Technical Data			
Art. No.	Coil Ø	Material	Work length
3830 12 24 10	40 mm	polyurethane (PU)	3000 mm
3830 12 24 11	90 mm	polyamide (PA)	3000 mm

Plug and Socket 15-Pole

Art. No. 3833 24 11 / 3833 24 12:

- With crimp contact

Art. No. 3833 24 11 1 / 3833 24 12 1:

- With screwed contact



Article No.	Article Description	QTY
3833 24 11	PLUG 24V 15-POLE	1
3833 24 11 1	PLUG 24V 15-POLE SCREW.CONTACT	1
3833 24 12	SOCKET 24V 15-POLE	1
3833 24 12 1	SOCKET 24V 15-POLE SCR.CONTACT	1

Spiral Cable 15-Core

- Cable: 12 x 1.5 mm² + 3 x 2.5 mm²
- With 2 plugs, 15-pole 24V



Article No.	Article Description	QTY
3833 24 13	SPIRAL CABLE 15-CORE 24V 3.5M	1
3833 24 13 1	SPIRAL CAB.GW 15-CORE 24V 3.5M	1

Technical Data			
Artikel-No.	Coil Ø	Material	Working length
3833 24 13	35 mm	polyurethane (PU)	4,500 mm
3833 24 13 1	70 mm	polyamide (PA)	4,500 mm

Spiral Adapter Cable 15 / 2 x 7-Core

- For connecting towing vehicles with 15-pole socket to trailer with S/N socket
 - With plug, 15-pin and one plug each 7-pole S/N
 - 2x cables: 6 x 1.0 mm² + 1 x 2.5 mm²
 - With 9 contacts
- Art. No. 3833 24 25 1:
- With potted S/N plastic plugs = 100% waterproof



Article No.	Article Description	QTY
3833 24 25	SPIR.ADAP.CABLE15/2X7 24V3.5M	1
3833 24 25 1	AD.SP.CAB.15/2X7PLAST.24V 3.5M	1

Technical Data			
Artikel-No.	Coil Ø	Material	Working length
3833 24 25	40 mm	polyurethane (PU)	4,500 mm
3833 24 25 1	40 mm	polyurethane (PU)	4,500 mm

Adapter Cable 15-/2x 7-Core

- For connecting towing vehicles with 15-pole sockets and trailers with S/N-plugs
- With one plug 15-pole and one socket each 7-pole S/N
- 2x cables: 6 x 1.0 mm² + 1 x 2.5 mm²
- With 9 contacts



Article No.	Article Description	QTY
3833 24 26	ADAPT.CAB.15/2X7-CORE 24V 0.5M	1

Short Adapter 15-/2x 7-Pole

- Adapter fro, 15-pole to 7-pole N/S

Art.-No.: 3833 24 33

- Y- shape
- With 9 contacts

Art.-No.: 3833 24 33 1

- Straight form
- With 15 contacts



Article No.	Article Description	QTY
3833 24 33	SHORT ADAP.24V 15/2X7-POLE N+S	1
3833 24 33 1	SHORT ADAPT.24V 15/2X7-POLE G	1

Parking Socket

- For holding plug (5, 7, 15-pole) on uncoupled vehicles



Article No.	Article Description	QTY
3833 24 3	PARK.SOCKET F.PLUG 5/7/15-POLE	1

ABS Plug and Socket 5-Pole

- For trailers or semi-trailers with ABS



Article No.	Article Description	QTY
3833 24 1	ABS-PLUG 24V 5-POLE	1
3833 24 2	ABS-SOCKET 24V 5-POLE	1

EBS-Plug and Socket 7-Pole

- For trailers and semi-trailers with electronic brake system

Art. No. 3833 24 30 / 3833 24 31:

- With crimp contact

Art. No. 3833 24 30 1 / 3833 24 31 1:

- With screwed contact



Article No.	Article Description	QTY
3833 24 30	EBS-PLUG 24V 7-POLE	1
3833 24 30 1	EBS-PLUG 24V 7-POLE SCR.CONTA.	1
3833 24 31	EBS-SOCKET 24V 7-POLE	1
3833 24 31 1	EBS-SOCK.24V 7-POLE SCR.CONTA.	1

ABS-Spiral Cable 5-Core

- For trailer and semi-trailer with ABS
- Cable 3 x 1.5 mm² + 2 x 4 mm²
- With 2 ABS-plugs, 5-pole 24V



Technical Data

Article-No.	Spiral Ø	Material	Working length
3833 24 4	60 mm	Polyurethane (PU)	4.500 mm
3833 24 4 1	100 mm	Polyamide (PA)	4.500 mm

Article No.	Article Description	QTY
3833 24 4	ABS-SPIRAL CABLE W. 2PLUGS 24V	1
3833 24 4 1	ABS-SPIR.CAB. GW W. 2PLUGS 24V	1

EBS-Spiral Cable 7-Core

- For trailers or semi-trailers with electronic brake system
- Cable 5 x 1.5 mm² + 2 x 4 mm²
- Working length: 3.5 m
- With 2 EBS plugs, 7-pole 24 V

Technical Data

Article-No.	Spiral Ø	Material	Working length
3833 24 32	60 mm	Polyurethane (PU)	4.500 mm
3833 24 32 1	100 mm	Polyamide (PA)	4.500 mm

Article No.	Article Description	QTY
3833 24 32	EBS SPIRAL CABLE W. 2PLUGS 24V	1
3833 24 32 1	EBS SPIR.CAB. GW W. 2PLUGS 24V	1



Contact Sleeves

- For 5 and 15-pin plug connectors 24V
- For cables from 1.0 to 6.0 mm²
- Material: German silver



Article No.	Article Description	QTY
3833 24 14	CONTACT SLEEVE 1.0-2.5	e 10
3833 24 16	CONTACT SLEEVE 4.0	e 10
3833 24 17	CONTACT SLEEVE 6.0	e 10

Contact Pins

- For 5 and 15-pin plug connectors 24V
- For cable from 1.0 to 6.0 mm²
- Material: German silver



Article No.	Article Description	QTY
3833 24 18	CONTACT PIN 1.0-2.5	e 10
3833 24 20	CONTACT PIN 4.0	e 10

Demounting Tool

- For replacing contact parts on 5 and 15-pin plug connectors 24V



Article No.	Article Description	QTY
3794 815	PIN-TYPE TOOL 815	1

Sleeves for Demounting Tool

Article No.	Article Description	QTY
3794 815 1	REMOV.SLEEVE F.PIN-TYPET.815	1
3794 815 2	MOUNT.SLEEVE F.PIN-TYPET.815	1



Crimping Pliers

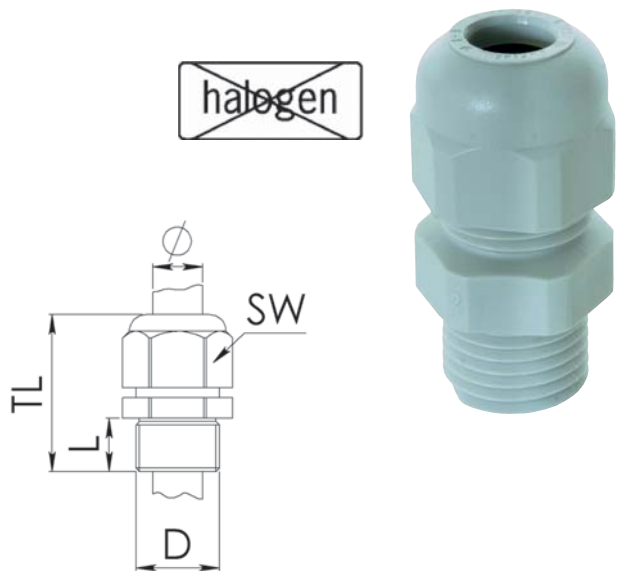
Article No.	Article Description	QTY
3790 2	CRIMP TOOL FOR UN-INSUL.CNCTR.	1



Cable Connection PG

PG threaded cable connection made of polyamide with strain relief

- Optimum sealing and strain relief due to patented lamellar system
- Colour: light grey, RAL 7035
- **Protective class according to EN 60 529:**
IP 68 to 5 bar (30 min); PG 7 - 29 with integrated sealing lip
PG 36 - 48 with sealing ring
- **Nonflammability:** heating wire 750° C according to EN 60695-2-11
- **Application temperature:** -20°C to +80°C, short-term up to approx. +120°C
- **Material:** polyamide with EPDM-sealing
- **Chemical resistance:** acetone, fuel, benzene, diesel oil, greases, oils, solvents for colour and paints
- **Risk of stress crack:** low
- **Application fields:**
 - Construction of car bodies, machines, plants etc.
 - Measuring and controlling construction
 - Buildings



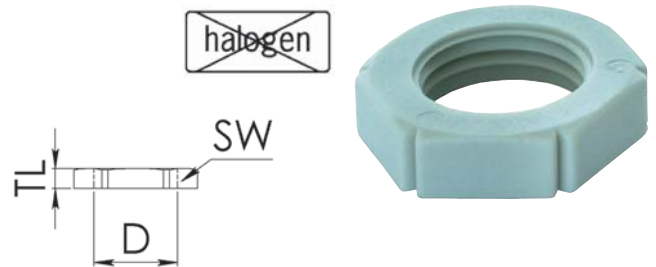
Article No.	Article Description	QTY
8448 1 1 07	CABLE CONNECTION PG 7	100
8448 1 1 09	CABLE CONNECTION PG 9	50
8448 1 1 11	CABLE CONNECTION PG 11	50
8448 1 1 13 5	CABLE CONNECTION PG 13.5	50
8448 1 1 16	CABLE CONNECTION PG 16	50
8448 1 1 21	CABLE CONNECTION PG 21	25
8448 1 1 29	CABLE CONNECTION PG 29	25
8448 1 1 36	CABLE CONNECTION PG 36	10
8448 1 1 42	CABLE CONNECTION PG 42	10
8448 1 1 48	CABLE CONNECTION PG 48	4

Technical Data				
D	L mm	Ø mm	SW mm	TL mm
PG 7	9	3 - 6	15	28 - 32
PG 9	9	4 - 8	19	32 - 36
PG 11	9	5 - 10	22	33 - 39
PG 13.5	10	6 - 12	24	35 - 41
PG 16	11	8 - 14	27	38 - 44
PG 21	11	10 - 18	33	43 - 50
PG 29	12	16 - 25	42	47 - 56
PG 36	14	22 - 32	53	56 - 65
PG 42	14	28 - 38	60	58 - 67
PG 48	15	36 - 44	65	60 - 68

Counternut PG

PG threaded counternut made of polyamide, glass fibre reinforced

- Colour: light grey, RAL 7035
- **Application temperature:** -20°C to +60°C, short-term up to approx. +80°C
- **Material:** polyamide, glass fibre reinforced
- **Chemical resistance:** acetone, fuel, benzene, greased, oils, solvents for colours and paints
- **Risk of stress crack:** low



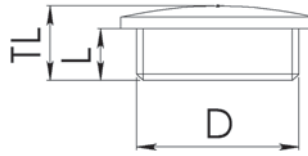
Article No.	Article Description	QTY
8448 2 1 07	COUNTERNUT PG 7	100
8448 2 1 09	COUNTERNUT PG 9	50
8448 2 1 11	COUNTERNUT PG 11	50
8448 2 1 13 5	COUNTERNUT PG 13.5	50
8448 2 1 16	COUNTERNUT PG 16	50
8448 2 1 21	COUNTERNUT PG 21	50
8448 2 1 29	COUNTERNUT PG 29	50
8448 2 1 36	COUNTERNUT PG 36	50
8448 2 1 42	COUNTERNUT PG 42	25
8448 2 1 48	COUNTERNUT PG 48	25

Technical Data		
D	SW mm	TL mm
PG 7	19	5
PG 9	22	5
PG 11	24	5
PG 13.5	27	6
PG 16	30	6
PG 21	36	7
PG 29	46	7
PG 36	60	8
PG 42	73	8
PG 48	78	8

Screw Plugs PG

PG threaded screw plugs made of impact-resistant polystyrene

- For safe locking of threads or through holes that are not in use
- Colour: light grey, RAL 7035
- **Protective class according to EN 60 529:**
IP 56, when assembly with sealing ring IP 68
- **Application temperature:** -20°C to +60°C, short-term up to approx. +80°C
- **Material:** impact-resistant polystyrene
- **Chemical resistance:** alkalis, alcohol, most acids
- **Risk of stress crack:** relatively high
- **Note:** The use of products made of polystyrene can cause stress cracks in the exterior area!



Article No.	Article Description	QTY
8448 5 1 07	SCREW PLUG PG 7	100
8448 5 1 09	SCREW PLUG PG 9	50
8448 5 1 11	SCREW PLUG PG 11	50
8448 5 1 13 5	SCREW PLUG PG 13.5	50
8448 5 1 16	SCREW PLUG PG 16	50
8448 5 1 21	SCREW PLUG PG 21	50
8448 5 1 29	SCREW PLUG PG 29	50
8448 5 1 36	SCREW PLUG PG 36	50
8448 5 1 42	SCREW PLUG PG 42	25
8448 5 1 48	SCREW PLUG PG 48	25

Technical Data		
D	L mm	TL mm
PG 7	6	8
PG 9	6	9
PG 11	6	9
PG 13.5	6	9.5
PG 16	6	9.5
PG 21	8	11
PG 29	8	12
PG 36	10	15
PG 42	10	16
PG 48	12	16

Sealing Rings PG

O-ring for PG screw plugs

- For additional sealing of connections and screwings
- **Application temperature:** -40°C to +120°C
- **Material:** EPDM rubber (ethylene propylene diene rubber)
- **Chemical resistance:** alcohol, ketone, hot steaming, brake fluids, washing agent, natron, silicone oil, grease and many organical and inorganic acids



Article No.	Article Description	QTY
8448 6 1 07	SEALING RING PG 7	100
8448 6 1 09	SEALING RING PG 9	50
8448 6 1 11	SEALING RING PG 11	50
8448 6 1 13 5	SEALING RING PG 13.5	50
8448 6 1 16	SEALING RING PG 16	50
8448 6 1 21	SEALING RING PG 21	50
8448 6 1 29	SEALING RING PG 29	50
8448 6 1 36	SEALING RING PG 36	50
8448 6 1 42	SEALING RING PG 42	25
8448 6 1 48	SEALING RING PG 48	25

Technical Data		
D	Ø mm	S mm
PG 7	9	1.5
PG 9	14	1.5
PG 11	17	1.5
PG 13.5	19	1.5
PG 16	21	1.5
PG 21	27	2.0
PG 29	36	2.5
PG 36	45	3
PG 42	52	3
PG 48	58	3

Cable Connector Boxes -GGVS/ADR, Unassembled

- Bakelite shell with aluminium cover, water-protected
- Design with 4 inputs and outputs

Technical Data

Connection thread:	4x hole ø 18.5 mm
Seal:	2 x clamping brackets
Type of protection:	IP 54 (with seal)
Fixing ø:	2x 5,5 mm
Gap ø:	100 mm
Dimensions L x W x H:	151 x 93 x 55 mm



Article No.	Article Description	QTY
3837 2	CABLE CONN.BOX. 4E/A UNASS.ADR	1

Accessories:Art. No. 3837

- 1 11:
- Cable gland SZ PG 11 (reaming from PG 11 to PG 13.5)
- Art. No. 3837 1 13 5:**
- Cable gland SZ PG 13,5
- Art. No. 3837 8 32:**
- KVD plug insert 8/32 or
- Art. No. 3837 16 48:**
- Cable connector boxes plug insert 16/48

Cable Connector Boxes - GGVS/ADR, Assembled

- Polyamide shell with aluminium cover, water-protected
- Design with 4 inputs and outputs

Technical Data

Type of assembly:	flat plug connection
Number of poles:	12
Number of connections:	76
Connection technology:	8x4 + 3x8 + 1x20
Connection thread:	4x M20x1,5 alternatively also PG 13.5
Seal:	4 x screws A2 4x20
Protection type:	IP 69K
Fixing ø:	2x 5,5 mm
Gap ø:	150 mm
Dimensions L x W x H:	158 x 99 x 63 mm



Article No.	Article Description	QTY
3837 3	CABLE CONN. BOXES 4E/A ASS.ADR	1

Scope of delivery:

- 2x seal shutters M20
- 2x neoprene seal ring
- 1x multiple seal insert
- 2x sealing discs
- 1x Art. No. 3837 12 76 KVD plug insert 12/76

Cable Connector Boxes -GGVS/ADR, Unassembled

- Bakelite shell with aluminium cover, water-protected
- Design with 8 inputs and outputs

Technical Data

Connection thread:	4x holes ø 18.5 mm 4x holes ø 23.0 mm
Seal:	2 x clamping brackets
Type of protection:	IP 69K
Fixing ø:	2x 5.5 mm
Gap ø:	100 mm
Dimensions L x W x H:	190 x 135 x 80 mm



Article No.	Article Description	QTY
3837 5	CABLE CONN.BOX. 8E/A UNASS.ADR	1

Accessory:

- Art. No. 3837 1 11:**
• Cable gland SZ PG 11 (drilling of PG 11 on PG 13.5)
- Art. No. 3837 1 13 5:**
• Cable gland SZ PG 13.5
- Art No. 3837 14 56:**
• KVD plug insert 14/56 or
- Art. No. 3837 28 84:**
• Cable connector boxes plug insert 28/84 or
- Art. No. 3837 28 112:**
• Cable connector boxes plug insert 28/112

Cable Connector Boxes - GGVS/ADR, Assembled

- Polyamide shell with aluminium cover, water-protected
- Design with 16 inputs and outputs

Technical Data

Type of assembly:	flat plug connection
Number of poles:	16
Number of connections:	112
Connection technology:	8x4 + 4x8 + 2x14 + 1x20
Connection thread:	10xPG 9 + 5x PG 13,5 1x PG 16
Seal:	2x clamping brackets 4x 4x20 screws A2
Protection type:	IP 69K
Fixing ø:	4x 5.5 mm
Gap ø:	110/65 mm
Dimensions L x W x H:	167 x 157 x 99 mm



Article No.	Article Description	QTY
3837 7	CABLE CONN.BOXES 16E/A ASS.ADR	1

Scope of delivery:

- 4x seal shutters PG 9
- 2x seal shutters PG 13.5
- 1x seal shutters PG 16
- 1x multiple seal insert
- 8x seal rings
- 1x art. no. 3837 16 112 KVD plug insert 16/112

Standard Cable Connector Boxes, Assembled

- Polyamide shell with aluminium cover, water-protected
- Design with 4 inputs and outputs

Technical Data

Type of assembly:	flat plug connection
Number of poles:	8
Number of connections:	32
Connection technology:	8x4
Connection thread:	4 x cable bushing
Inlet ø:	1x9.5 / 1x7 + 1x5.0 mm
Outlet ø:	1x9.5 / 1x7 + 1x5.0 mm
Seal:	2 x clamping brackets
Type of protection:	IP 54
Fixing ø:	2x5.5 mm
Gap ø:	90 mm
Dimensions L x B x H:	150 x 93 x 45 mm



Article No.	Article Description	QTY
3837 1	CABLE CONNECTOR BOXES 4E/A ASS	1

Scope of delivery:

- 2x cable bushing 1 hole 9.5 mm
- 2x cable bushing 2 hole 7.0 + 5.0 mm
- 1x Art. No. 3837 8 32 KVD plug insert 8/32

Standard Cable Connector Boxes, Unassembled

- Bakelite shell with aluminium cover, water-protected
- Design with 6 inputs / outputs

Technical Data

Connection thread:	6 x cable bushings
Lock:	2 x clamping brackets
Type of protection:	IP 54 (with seal)
Fixing ø:	2x5.5 mm
Gap ø:	100 mm
Dimensions L x W x H:	151 x 93 x 55 mm



Article No.	Article Description	QTY
3837 4	CABLE CONN. BOXES 6E/A UNASS.	1

Accessoires:

- Art. No. 3837 7 1:**
 - Cable bushing 7 mm
- Art. No. 3837 9 1:**
 - Cable bushing 9.5 mm
- Art. No. 3837 13 1:**
 - Cable bushing 13 mm
- Art. No. 3837 20:**
 - Small dummy sleeve
- Art. No. 3837 8 32:**
 - KVD plug insert 8/32 or
- Art. No. 3837 16 48:**
 - KVD plug insert 16/48

Standard Cable Connector Boxes, Unassembled

- Bakelite shell with aluminium cover, water-protected
- Design with 8 inputs and outputs

Technical Data

Connection thread:	8 x cable bushings
Lock:	2 x clamping brackets
Type of protection:	IP 54 (with seal)
Fixing ø:	2x5.5 mm
Gap ø:	100 mm
Dimensions L x W x H:	190 x 135 x 80 mm



Article No.	Article Description	QTY
3837 6	CABLE CONN. BOXES 8E/A UNASS.	1

Accessoires:

- Art. No. 3837 17 1:**
 - Cable bushing 17 mm
- Art. No. 3837 21:**
 - Large dummy sleeve
- Art. No. 3837 7 1:**
 - Cable bushing 7 mm
- Art. No. 3837 9 1:**
 - Cable bushing 9.5 mm
- Art. No. 3837 13 1:**
 - Cable bushing 13 mm
- Art. No. 3837 20:**
 - Small dummy sleeve
- Art. No. 3837 14 56:**
 - Cable connector boxes plug insert 14/56 or
- Art. No. 3837 28 84:**
 - Cable connector boxes plug insert 28/84 or
- Art. No. 3837 28 112:**
 - Cable connector boxes plug insert 28/112

Cable Connector Boxes Plug Insert 8/32

- Made from plastic with tin-plated flat pin connectors 6.3x 0.8mm

Technical Data

Number of poles:	8
Number of connections:	32
Connection technology:	8 x 4
Dimensions L x W x H:	76 x 31 x 24 mm



Article No.	Article Description	QTY
3837 8 32	CABLE CONN.BOX. PLUG INS. 8/32	1

Cable Connector Boxes Plug Insert 12/76

- Made from plastic with tin-plated flat pin connectors 6.3x 0.8mm
- With 2 bridges

Technical Data

Number of poles:	12
Number of connections:	76
Connection technology:	8x4 + 3x8 + 1x20
Dimensions L x W x H:	76 x 31 x 47 mm



Article No.	Article Description	QTY
3837 12 76	CABLE CONN.BOX. PLUG INS.12/76	1

Cable Connector Boxes Plug Insert 14/56

- Made from plastic with tin-plated flat pin connectors 6.3x 0.8mm

Technical Data	
Number of poles:	14
Number of connections::	56
Connection technology:	14 x 4
Dimensions L x W x H:	120 x 31 x 23 mm



Article No.	Article Description	QTY
3837 14 56	CABLE CONN.BOX. PLUG INS.14/56	1

Cable Connector Boxes Plug Insert 16/48

- Made from plastic with tin-plated flat pin connectors 6.3x 0.8mm

Technical Data	
Number of poles:	16
Number of connections:	48
Connection technology:	8 x 4 + 8 x 2
Dimensions L x W x H:	76 x 31 x 35 mm



Article No.	Article Description	QTY
3837 16 48	CABLE CONN.BOX. PLUG INS.16/48	1

Cable Connector Boxes Plug Insert 16/112

- Made from plastic with tin-plated flat pin connectors 6.3x 0.8mm
- With 4 bridges

Technical Data	
Number of poles:	16
Number of connections:	112
Connection technology:	8x4 + 4x8 + 2x14 + 1x20
Dimensions L x W x H:	138 x 31 x 48 mm



Article No.	Article Description	QTY
3837 16 112	CABLE CON.BOX. PLUG INS.16/112	1

Cable Connector Boxes Plug Insert 28/84

- Made from plastic with tin-plated flat pin connectors 6.3x 0.8mm

Technical Data	
Number of poles:	28
Number of connections:	84
Connection technology:	14 x 4 + 14 x 2
Dimensions L x W x H:	120 x 31 x 35 mm



Article No.	Article Description	QTY
3837 28 84	CABLE CONN.BOX. PLUG INS.28/84	1

Cable Connector Boxes Plug Insert 28/112

- Made from plastic with tin-plated flat pin connectors 6.3 x 0.8mm

Technical Data

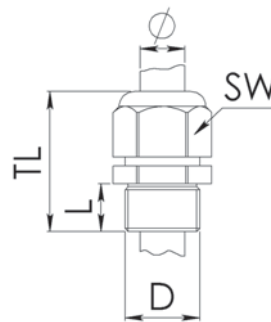
Number of poles:	28
Number of connections:	112
Connection technology:	28 x 4
Dimensions L x W x H:	120 x 31 x 48 mm



Article No.	Article Description	QTY
3837 28 112	CABLE CON.BOX. PLUG INS.28/112	1

Cable Gland PG, Black

- PG thread locking nuts made from polyamide with GGVS approval / construction part number TÜ.EGG.020-95
- Neoprene sealing ring for hermetic sealing
- Colour: black, RAL 9005 / UV resistant
- **Protection class according to EN 60 529:** IP 68 to 5 bar
- **Flame resistance:** glow wire test 750°C according to EN 60695-2-11
- **Operating temperature:** -20°C to +80°C
- **Chemical resistance:** alcohol, ether, petrol, ester, grease, oils, fluorocarbon, ketones
- **Applications:**
 - car body, machine, apparatus and equipment construction
 - measurement, control regulation technology,
 - building installation

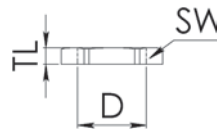


Article No.	Article Description	QTY
3837 1 7	CABLE GLAND PG 7 BLACK	10
3837 1 9	CABLE GLAND PG 9 BLACK	10
3837 1 11	CABLE GLAND PG 11 BLACK	10
3837 1 13 5	CABLE GLAND PG 13.5 BLACK	10
3837 1 16	CABLE GLAND PG 16 BLACK	10
3837 1 21	CABLE GLAND PG 21 BLACK	10

Technical Data				
D	L mm	ø mm	SW mm	TL mm
PG 7	8	1.5 - 5	15	32
PG 9	8	2 - 6	19	36
PG 11	8	2 - 7	22	38
PG 13.5	9	4 - 9	24	41
PG 16	10	6 - 12	27	44
PG 21	11	9 - 16	33	49

Locking Nuts PG, Black

- PG thread locking nuts made from polyamide, glass fibre reinforced
- Colour: black, RAL 9005 / UV resistant
- **Operating temperature:** -20°C to +100°C
- **Chemical resistance:** alcohol, ether, petrol, benzol | ester, grease, oils, fluorocarbon, ketones



Article No.	Article Description	QTY
3837 1 1 7	LOCKING NUTS PG 7 BLACK	10
3837 1 1 9	LOCKING NUTS PG 9 BLACK	10
3837 1 1 11	LOCKING NUTS PG 11 BLACK	10
3837 1 1 13 5	LOCKING NUTS PG 13.5 BLACK	10
3837 1 1 16	LOCKING NUTS PG 16 BLACK	10
3837 1 1 21	LOCKING NUTS PG 21 BLACK	10

Technical Data		
D	AF mm	TL mm
PG 7	19	5
PG 9	22	5
PG 11	24	5
PG 13.5	27	5
PG 16	30	5
PG 21	36	5

Cable Support Sleeves

- Made from chloroprene rubber (neoprene)
- Operating temperature: -45°C to +100°C
- Stability: 50 +/- 5 Shore
- Acid and abrasion resistant
- Resistant to oils and grease
- Various inlet diameters



3837 7 1



3837 9 1



3837 13 1



3837 17 1



3837 20



3837 21

Article No.	Article Description	QTY
3837 7 1	CABLE SUPPORT SLEEVE 7MM	2
3837 9 1	CABLE SUPPORT SLEEVE 9.5MM	2
3837 13 1	CABLE SUPPORT SLEEVE 13MM	2
3837 17 1	CABLE SUPPORT SLEEVE 17MM	1
3837 20	SMAL DUMMY SLEEVE	2
3837 21	LARGE DUMMY SLEEVE	2

Technical Data	
L mm	ø mm
42	7
42	9.5
42	13
42	17
6	0
6	0

Splash-Proof Cable Connector Boxes

- With replaceable screw terminals
- Water-protected



3835 6 6



3835 8 6



3835 16 10

Article No.	Article Description	QTY
3835 6 6	CABLE CNCTR.BOX SC.TERM 6/6	1
3835 8 6	CABLE CNCTR.BOX SC.TERM 8/6	1
3835 16 10	CABLE CNCT.BOX SC.TERM. 16/10	1

Technical Data			
Art. No.	Number of poles	Cable width mm ²	L x W x H mm
3835 6 6	6-pole	6.0	120 x 69 x 34
3835 8 6	8-pole	6.0	120 x 69 x 34
3835 16 10	16-pole	10.0	137 x 90 x 50

Water Protected Cable Connector Boxes

- With 6.3 mm spade connectors
- Water-protected



3836 8



3836 8 1



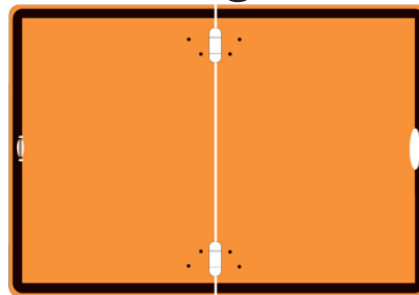
3836 12

Article No.	Article Description	QTY
3836 8	CABLE CNST.BOX SPADE CON.8POLE	1
3836 8 1	CABLE CNCT.BOX SPADE CO.12POLE	1
3836 12	CABLE CNCT.BOX SPADE CO.12POLE	1

Technical Data		
Art. No.	Number of poles	L x W x H mm
3836 8	8-pole, 8 double spade connectors	120 x 69 x 34
3836 8 1	8-pole, 8 double spade connectors	137 x 90 x 50
3836 12	12-pole, 8 double spade connectors 4 triple-in connectors	127 x 100 x 42

Hazardous Goods - Warning Sign, Folding

- Neutral warning sign according to ADR/GGVSE
- For road and rail transports of general cargo - hazardous goods
- Orange reflective tape type 1 (fluorescent)
- Material: aluminium with edge protector
- Vertical foldable with rotation vertebra closure
- Dimensions WxH: 400 x 300 mm
- Application forwards and backwards



Article No.	Article Description	QTY
3430 13	HAZARDOUS GOODS - WARNING SIGN	1

Warning sign hazardous materials, universal

- universal warning sign according to ADR / GGVSEB
- with exchangeable digits
- for transport of bulk items and tank and container transport of hazardous goods on the roads and railways
- when running empty it suffices to simply turn the amber frame round
- material: galvanised sheet metal with swivel closing mechanism
- completely black, fire-resistant up to 15 mins
- dimensions WxH: 400 x 300 mm

scope of delivery:

- Art.-No. 3430 100 1
- Art.-No. 3430 100 2
- Art.-No. 3430 100 3
- Art.-No. 3430 100 1 27



Article No.	Article Description	QTY
3430 100	ADR UNI FLIP SIGN COMPLETE	1

Warning sign hazardous materials, universal, number

- interchangeable frames for interchangeable numbers
- material: galvanised sheet metal
- completely black, fire-resistant up to 15 mins
- dimensions WxH: 400 x 140 mm



Article No.	Article Description	QTY
3430 100 1	SET(2)ADR FLIP SIGN PLATE NUM.	1

Warning sign hazardous materials, universal, basic

- support for number frames - mounting
- material: galvanised sheet metal
- completely black, fire-resistant up to 15 mins
- dimensions WxH: 400 x 300 mm



Article No.	Article Description	QTY
3430 100 2	ADR FLIP SIGN BASE	1

Warning sign hazardous materials, univ. mounting

- for mounting on a vehicle for the mounting of the ADR universal warning sign
- incl. fixing material (2 x M6 x 20)
- material: galvanised sheet metal
- dimensions WxH: 357 x 75 mm



Article No.	Article Description	QTY
3430 100 3	ADR UNIVERSAL FLIP SIGN HOLDER	1

Warning sign hazardous mater. univ.27-pce number

- suitable for all classes of hazardous materials, all hazardous material numbers can therefore be represented
- material: sheet metal with raised numbers
- orange reflective tape type 1 (fluorescent)
- dimensions WxH: 93 x 135 mm



Article No.	Article Description	QTY
3430 100 1 27	ADR FLIP SIGN PLATE SET 27PCS.	1

Warning sign hazardous materials, universal, number

- interchangeable numbers for identifying the hazard
- material: galvanised sheet metal with raised numbers
- orange reflective tape type 1 (fluorescent)
- dimensions WxH: 93 x 135 mm



Article No.	Article Description	QTY
3430 100 1 0	ADR FLIP SIGN PLATE NO. 0	1
3430 100 1 1	ADR FLIP SIGN PLATE NO. 1	1
3430 100 1 2	ADR FLIP SIGN PLATE NO. 2	1
3430 100 1 3	ADR FLIP SIGN PLATE NO. 3	1
3430 100 1 4	ADR FLIP SIGN PLATE NO. 4	1
3430 100 1 5	ADR FLIP SIGN PLATE NO. 5	1
3430 100 1 6	ADR FLIP SIGN PLATE NO. 6	1
3430 100 1 7	ADR FLIP SIGN PLATE NO. 7	1
3430 100 1 8	ADR FLIP SIGN PLATE NO. 8	1
3430 100 1 9	ADR FLIP SIGN PLATE NO. 9	1
3430 100 1 10	ADR FLIP SIGN PLATE EMPTY	1
3430 100 1 11	ADR FLIP SIGN PLATE X	1

Warning sign, wide load / over-length

- to make it easier to recognise vehicles with wide and over-length loads, as well as overhanging cargo according to § 32 StVZO (traffic regulations) (in connection with § 22 (2) StVO (Road Traffic Act) and § 29 VwVstO. certificate of exemption: (§ 46 StVO, § 70 u. 71 StVZO, § 49 a (7) StVZO)
- bears left / right
- material: galvanised sheet metal with edge protection
- red white reflective tape type 1 (fluorescent)
- dimensions WxH: 423 x 423 mm



Article No.	Article Description	QTY
3430 55	OVERLWIDTH/OVERLENGTH SIGN	1

Night-time Parking - Warning Sign, Folding

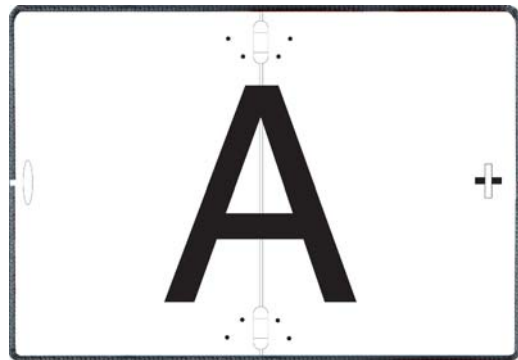
- Indicates the ends of a parked vehicle sideways
- For vehicles parked in town with permissible total weight of more than 3.5 t trailer and caravan according to § 17 (4) StVO
- Type approval in compliance with § 22a StVZO
- Red/white high-reflective prismatic reflective tape type 3 (retro-reflective)
- Material: hard aluminium plate with swivel lock
- Dimensions: 285 x 285 mm
- Front use: pointing right
- Back use: pointing left



Article No.	Article Description	QTY
3430 45	NIGHT PARK.WARN.SIGN-FRONT	1
3430 46	NIGHT PARK.WARN.SIGN-BACK	1

Waste Warning Sign, Folding

- With edge protector
- White reflective
- Dimensions: 400 x 300 mm



Article No.	Article Description	QTY
3430 53	WASTE- WARNING SIGN	1

TIR Information Sign

- TIR = Transports Internationaux Routiers
- Folding version
- Dimensions WxH: 400 x 250 mm



Article No.	Article Description	QTY
3430 14	FOLDING TIR APPROVAL SIGN	1

Rear Marker Signs for Trailers and Semi-trailers

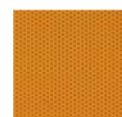
- Comply with ECE Reg.No. 70
- Yellow reflective with red fluorescent edge

Art. No. 3430 42:

- Dimensions 200 x 565 mm

Art. No. 3430 44:

- Dimensions 200 x 1130 mm



ECE 70.00:



ECE 70.01:

Article No.	Article Description	QTY
3430 42	SET(2PC)REAR MARK.TRAIL./S.TR.	1
3430 42 1	S(2)REAR MATER.TRAILER 70.00KF	1
3430 42 2	S(2)REAR MATER.TRAILER 70.01	1
3430 42 3	S(2)REAR MATER.TRAILER 70.01KF	1
3430 44	REAR MARK.TR./S.TR.1130X200MM	1
3430 44 1	REAR MATERIAL TRAILER 70.00KF	1
3430 44 2	REAR MATERIAL TRAILER 70.01	1
3430 44 3	REAR MATERIAL TRAILER 70.01KF	1

Rear Marker Signs for Trucks/Towing Vehicles

- Comply with ECE Reg. No.70
- Yellow / red reflective

Art. No. 3430 40:

- Dimensions 140 x 565 mm

Art. No. 3430 43:

- Dimensions 140 x 1130 mm



ECE 70.00:



ECE 70.01:

Article No.	Article Description	QTY
3430 40	SET(2P)REAR MARK.TRUCK/T.VEHI.	1
3430 40 1	S(2)REAR MA.TRU/TE.SPR.70.00KF	1
3430 40 2	S(2)REAR MA.TRU/TE.SPR.70.01	1
3430 40 3	S(2)REAR MA.TRU/TE.SPR.70.01KF	1
3430 43	REAR MA.TRUCK/T.VEH.1130X140MM	1
3430 43 1	REAR MAT.TRUCK/TEN.SPR.70.00KF	1
3430 43 2	REAR MAT.TRUCK/TEN.SPR.70.01	1
3430 43 3	REAR MAT.TRUCK/TEN.SPR.70.01KF	1

Speed Stickers, reflecting

- Reflecting stickers
- Indicate maximum speed reliably
- Suitable for buses, trucks and semi-trailer trucks
- Reflecting foil in compliance with DIN 75069 makes vehicle easier to recognize day and night
- Dimensions: Dia. 200 mm

Article No.	Article Description	QTY
3430 10 15	SPEED STICKER 15KM/H	1
3430 10 40	SPEED STICKER 40KM/H	1
3430 10 60	SPEED STICKER 60KM/H	1
3430 10 70	SPEED STICKER 70KM/H	1
3430 10 80	SPEED STICKER 80KM/H	1
3430 10 100	SPEED STICKER 100KM/H	1



Speed Stickers

- PVC FOIL
- Suitable for agricultural machines, trailers, throttled cars, etc.
- Dimensions: Dia. 200 mm

Article No.	Article Description	QTY
3430 30 16	STICKER BLACK/WHITE.16KM/H	1
3430 30 20	STICKER BLACK/WHITE.20KM/H	1
3430 30 25	STICKER BLACK/WHITE.25KM/H	1
3430 30 40	STICKER BLACK/WHITE.40KM/H	1
3430 30 50	STICKER BLACK/WHITE.50KM/H	1
3430 30 60	STICKER BLACK/WHITE.60KM/H	1
3430 30 70	STICKER BLACK/WHITE.70KM/H	1
3430 30 80	STICKER BLACK/WHITE.80KM/H	1
3430 30 100	STICKER BLACK/WHITE.100KM/H	1



Special Signs S/G/L

Art. No. 3430 50 1:

- S for marking low pollution vehicle in compliance with EURO 2 Standard for use in international traffic

Art. No. 3430 50 2:

- G for marking low noise vehicle

Art. No. 3430 50 3:

- L for marking low noise vehicle, indicating not subject to night-time operating prohibition existing on certain freeways in Austria (with engine noise measured driving downhill), Austria does not recognize G



Article No.	Article Description	QTY
3430 50 1	SPECIAL SIGN S PVC FOIL 200MM	1
3430 50 2	SPECIAL SIGN G PVC FOIL 200MM	1
3430 50 3	SPECIAL SIGN L PVC FOIL 200MM	e 12

Red Reflectors

- Round and rectangular version
- For marking doors and frames
- Reflectors for cargo platforms

Article No.	Article Description	QTY
3430 19 2	REFLECTOR SELF-ADHES.RECT. RED	6



Stop Block

- PVC, yellow, complies with DIN 76051-53
- Dimensions WxH: 495 x 200 mm

Article No.	Article Description	QTY
4984 60	PVC STOP BLOCK	1
4984 60 1	HOLDER FOR STOP BLOCK	1



Fire extinguisher boxes

- ergonomic catch with double-action lever prevents unintentional opening
- fire extinguisher protection against release and vibration due to the lashing strap and quick release button
- dust and water-protected as well as water-proof due to broad rubber rim
- also suitable for wall mounting
- supplied without fixing material
- includes fire extinguisher symbol plate



3415 47 6

3415 47 12

Technical Data

art. no.	dimensions:	weight:	suitable for:
3415 47 6	620 x 250 x 314 mm	3.40 kg	6 kg fire extinguisher
3415 47 12	775 x 251 x 313 mm	4.85 kg	9 / 12 kg fire extinguisher

Article No.	Article Description	QTY
3415 47 6	FIRE EXTINGUISHER BOXES 6KG	1
3415 47 12	FIRE EXTINGUISHER BOXES 9/12KG	1

Flasher Lamps for Loading Platform

Art. No. 3415 8

- Incl. 2 bulbs 24V 5W
- Easy to change bulbs for 12 and 24V
- Replacement bulb 12V: Art. No. 3801 1621
- Replacement bulb 24V: Art. No. 3801 1622

Art. No. 3415 8 1

- For 24V vehicles
- With 12 LEDs
- Service life of LEDs: at least 10.000 hours



Article No.	Article Description	QTY
3415 8	FLASH.LAMP F.LOADING PLATFORM	1
3415 8 1	24V FLASH.LAMP LOAD.PLATF.LED	1

Flasher Lamps for LED Loading Platforms

- Suitable for 12 and 24 V
- 2 Power LED, latest LED technology
- With cable 2x 0.75 mm², 20 cm length
- Compatible to all LED loading platform lamps on the market such as Hella, Cargo Flash and MBB by two oblong holes



Article No.	Article Description	QTY
3415 8 2	LED FLASH.F.LOAD.PLATF.12-24V	1

LED Flasher Lamps EU for Loading Platforms

- Suitable for 12 and 24 V
- 2 Power LED, latest LED technology
- With cable 2x 0.75 mm², 20 cm length
- More safety due to flashing light at the side and at the back
- LED in 90° angle in order to mount the lamp at the right and left side



Article No.	Article Description	QTY
3415 8 3	LED FLASH.F.LOAD.PLAT.EU12-24V	1

LED Warning Lamp

- TÜV and GGVS tested and approved
- It is regulated by law to have a LED warning lamp for vehicles with more than 2.8 t
- Also ideal for glove compartment due to small size
- Flasher light or continuous light as well as battery tester
- **Operating time:** - Flash light: \geq 150 hrs- Continuous light: \geq 5 hrs
- Dimension LxWxD: 208 x 90 x 30 mm
- Power supply: 2 batteries Art. No. 3880 15 (not included in delivery)



Article No.	Article Description	QTY
3415 1 1 1	LED WARNING LAMP	1

Hazard Warning Lamp

- Required by law for vehicles over 2.8t
- TÜV tested and approved according to GGVS, with work light
- Power supply: 5 batteries Art. No.3880 15 not included
- Available In plastic box for attachment to vehicle



Article No.	Article Description	QTY
3415 1	HAZARD WARNING LAMP	1
3415 2	HAZARD WARN.LAMP IN PLAST.BOX	1
3415 3	BULB 6V 2,4W F.HAZA.WARN.LAMP	1
3415 4	HALO.BULB 6V 2,4W F.HAZ.W.LAMP	1

Warning Flags for Hoisting Loading Platforms

- Quick-change mount for easy replacement
- Dimensions: 250 x 400 mm
- Supplied without quick-change mount



Article No.	Article Description	QTY
3415 5	WARN FLAG LEFT F.LOAD.PLATFORM	1
3415 6	WARN FLAG RIGHT F.LOAD.PLATFO.	1

Quick-Change Mount

- For attaching warning flags to loading platform
- 2 holes dia. 6.3 mm, hole interval 200 mm
- For use on left and right
- Material: aluminium



Article No.	Article Description	QTY
3415 7	QUICK-CHANGE MOUNT	1

LED Warning lights set FLASHPOINT

- signal light can be used universally to effectively identify accident and danger sites
- with 9 different functions and settings, e.g. flashing, continuous and centrifugal light
- excellent visibility due to the 16 red LEDs
- can be fixed quickly and safely to the car with a magnet
- shock-resistant housing thanks to overall rubber coating, water-tight and also buoyant
- 6-fold case with charging function in 230 V or 12/24 V possible
- especially for use in the dark, rain, fog or smoke
- can be used by the fire brigade, police, technical relief organisations, medical services, emergency services, towing companies, professional drivers or private individuals as well as for securing building sites



Article No.	Article Description	QTY
3415 75	LED WARNING LIGHTS-SET FLASHP.	1

Delivery of scope art. no. 3415 75:

- 6x art. no. 3415 76 warning lights
- 1x charging case
- 1x art. no. 3415 75 2 charging adapter 12/24 V
- 1x art. no. 3415 75 1 charging adapter 230 V

LED warning lights FLASHPOINT

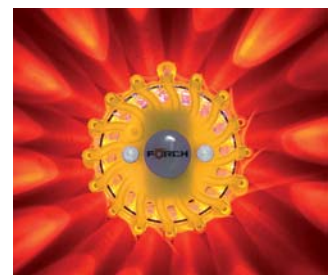
- signal light can be used universally to effectively identify accident and danger sites
- with 9 different functions and settings, e.g. flashing, continuous and centrifugal light
- excellent visibility due to the 16 red LEDs
- can be fixed quickly and safely to the car with a magnet
- shock-resistant housing thanks to overall rubber coating, water-tight and also buoyant
- charging station with charging adapter 12 /24 V, 230 V or using a USB cable that can be connecting directly to the PC
- especially for use in the dark, rain, fog or smoke
- can be used by the fire brigade, police, technical relief organisations, medical services, emergency services, towing companies, professional drivers or private individuals as well as for securing building sites



3415 76



3415 76 1



Article No.	Article Description	QTY
3415 76	LED WARNING LIGHTS FLASHPOINT	1

Delivery of scope art. no. 3415 76:

- 1x warning lights
- 1x art. no. 3415 76 1: 1x charging station, 1x USB cable, 1x charging adapter 12/24 V, 1x charging adapter 230 V

LED Hand Lamp 6 V

- Extremely bright working light
- CREE XR-E High-Performance LED
- Robust aluminium housing
- 2 levels of brightness
- 145° pivotable lamp heads
- Acid-resistant and oil-resistant
- High-Energy-Alkaline Battery life up to 200 hours

Technical Data

Light colour:	cold white
Illuminant:	1x 4 W CREE-LED
Luminous flux:	190 lumen
Levels of brightness:	Level 1: 100% brightness Level 2: 50% brightness
Light duration:	Level 1: up to 100 hours Level 2: up to 200 hours
Lighting distance:	215 m
Battery type:	6 V 4LR25-2
Dimension (LxWxH):	250 x 140 x 295 mm
Weight:	approx. 1.9 kg



Article No.	Article Description	QTY
3885 250	LED HAND LAMP 6V	1
3885 250 1	REPL.BATT.FOR 3885 250 200HRS	1
3885 250 2	REPL.BATT.FOR 3885 250 25HRS	1

Included in delivery:

- 1x Hand lamp
- 1x Shoulder belt
- 1x Art. No. 3885 250 1 High-Energy-Alkaline Battery

USB Vehicle Charging Socket 12 / 24 V

- compact universal USB charging socket
- Power-LED

Technical Data

Input:	12 / 24V
Output voltage:	5V
Output current:	max. 1,000 mA

Article No.	Article Description	QTY
5423 53 3	USB VEH.CHARG.SOCK 12/24V 1A	1

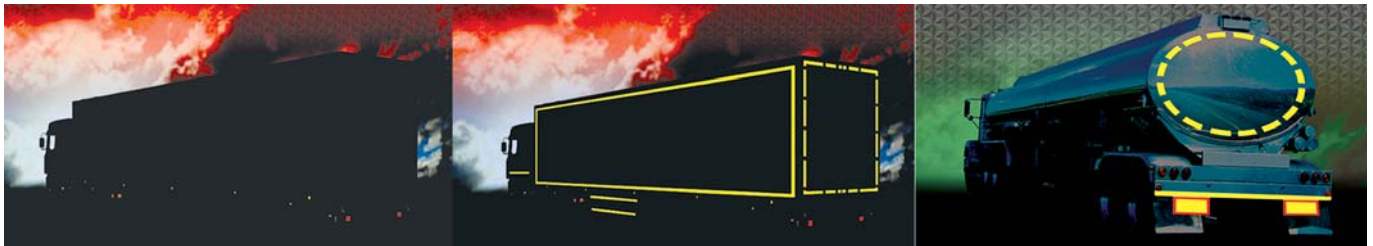


Reflecting Marking Tape ECE 104

- For marking contour of vehicles
- Can be used without special approval on vehicles with total weight of 3.5t and length of 6 according to ECE 104
- Very thin, single-layer tape is resistant to mechanical damage, petrol and cleaning agents Also suitable for high pressure cleaning
- Suitable for high-pressure cleaning
- Can also be applied around edges without problems
- Micro-prism technology provides reflection capacity far beyond required minimum, even when wet.
- Improves the image of company Approx. 100 m are required for one complete vehicle including trailer
- The contour markings for tarpaulins are also equipped with a very strong adhesive, heati-p with hot air gun not required
- In Germany, use of the red contour marking is permissible only on fenced company grounds



- Regulation from July 2011 according to european guidelines 2007/35/EG
- Trucks from total weight up to 7.5 t
- Trailers from total weight up to 3.5 t
- More security in road transport
- Improved detection in fog, rain, darkness
- From October 10th, 2011 EU-wide obligation according to UN ECE regulation 48



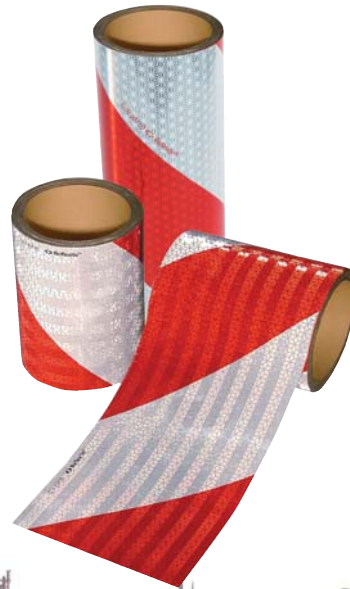
Article No.	Article Description	QTY
3415 30	RO(50M)CONT.MARK.ECE104 WHITE	1
3415 32	RO(50M)CONT.MARK.ECE104YELLOW	1
3415 40	RO(50M)CONTOUR MARK.ECE104 RED	1
3415 31	RO(12.5M)CONT.MARK.ECE104 WHIT	1
3415 33	RO(12.5M)CONT.MARK.ECE104YELL	1
3415 41	RO(12.5M)CONT.MARK.ECE104 RED	1
3415 35	C(60M)CONT.STICKER ECE104YELL	1

Technical Data				
Art. No.	Colour	Application	Length	Width
3415 30	white	Fixed structures	50.0 m	50 mm
3415 32	yellow	Fixed structures	50.0 m	50 mm
3415 40*	red	Fixed structures	50.0 m	50 mm
3415 32 1	yellow	Tarpaulins	50.0 m	50 mm
3415 31	white	Fixed structures (Truck rear side)	12.5 m	50 mm
3415 33	yellow	Fixed structures (Truck rear side)	12.5 m	50 mm
3415 41*	red	Fixed structures (Truck rear side)	12.5 m	50 mm
3415 35	yellow	Fixed structures (Tank rear side)	60 stickers à 16 cm	50 mm

*= in Germany, only allowed for locked up company grounds!

Automotive Warning Tape

- Complies with DIN 30710
- For vehicles with special rights Complies with § 35.6 StVO, such as construction, wastage, winter service, harvester, measuring and maintenance vehicles
- Reflection performance beyond the required minimum performance, also in wet condition
- Maximum safety for persons and vehicles
- Resistant against petrol and cleaning agents, also suitable for high pressure cleaning
- For a standard marking left/right wise material is necessary
- Standard Dimensions: 141 mm x 9m



Article No.	Article Description	QTY
3415 9 141	WARN.TAPE SET RI/LE2X9MX141MM1	1
3415 9 141 1	WARN.TAPE LEFT E9MX141MM	e 2
3415 9 141 2	WARN.TAPE RIGHT E9MX141MM	e 2
3415 9 282 1	WARN.TAPE SET RI/LE 2X9MX282MM	1
3415 9 282 2	WARN.TAPE LEFT 9MX282MM	1
3415 9 282 3	WARN.TAPE RIGHT 9MX282MM	1

Hazard markings red / neon yellow

- according to DIN EN 14502-3
- hazard markings for special vehicles, e.g. fire brigade, ambulance service etc.
- with French approval TPESC B 07105
- for German emergency vehicles only in the context of specific permission, with reference to DIN 14502-3
- micro-prismatic neon yellow fluorescent and red reflecting foil
- very good daytime luminosity
- excellent visibility at night, even at a great distance
- highly resilient, even under high pressure cleaning
- dimensions BxL: 282 mm x 9000 mm



Article No.	Article Description	QTY
3415 9 282	WARN.TAPE SET RI/LE RED/STR.9M	1

Anti-slip warning tape yellow/black

- marking and warning
- ideal for accident prevention
- sticks also to problematic substrates

Your Advantage / Benefit

- soft PVC carrier material with special anti-slip surface coating (sandpaper-like)
- permanent bond by highly aggressive acrylic adhesive, sticks also on substrates with poor adhesive features
- oil and moisture resistant
- UV-resistant
- for indoor and outdoor use

Application

- for securing of stairs, steps, resting places, stairways, hoists, working pits, brake testers, ladders, loading ramps, etc.
- adheres to stone, tiles, flooring screed, warehouse floors and metal



Article No.	Article Description	QTY
5404 1850	(18M) ANTI-SLIP WARN.TAPE 50MM	1

Related Products

- **Barrier Tape**
Art.-No. 5404 500



- **Non-slip surface**
Art.-No. 5420 50
Art.-No. 5420 100
Art.-No. 5420 150



- **Anti-Skid Mat**
Art.-No. 4984 3 600 150
Art.-No. 4984 8 130 110
Art.-No. 4984 8 300 200
Art.-No. 4984 8 5000 250



Container Warning Tape

- For marking of containers and interchangeable tanks in compliance with DIN 67520 Part 2
- Self-adhesive, highly reflexive foil, 4 pieces pointing to left and right (141 x 705 mm)



Article No.	Article Description	QTY
3415 15	CONTAINER WARNING TAPE SET	1

Safety Equipment for Commercial Vehicles 1

- Complies with law governing road transport of hazardous goods (GGVS)
- Case size WxHxD: 230 x 220 x 75 mm

Article No.	Article Description	QTY
3415 11	SAFETY EQUIPMENT 1 ACC.GGVS	1

Contents:

Tight-fitting protective goggles, gloves (PVC with cotton jersey lining), eye wash bottle with aseptic filling



Safety Equipment for Commercial Vehicles 2

- Complies with law governing road transport of hazardous goods (GGVS)
- Case size WxHxD: 350 x 285 x 120 mm

Article No.	Article Description	QTY
3415 12	SAFETY EQUIPMENT 2 ACC. GGVS	1

Contents:

Tight-fitting protective goggles, gloves (PVC with cotton jersey lining), eye wash bottle with aseptic filling, light protective clothing (coat), over-shoes



Safety Equipment for Commercial Vehicles 3

- Complies with law governing road transport of hazardous goods (GGVS)
- Case size WxHxD: 430 x 330 x 170 mm

Article No.	Article Description	QTY
3415 13	SAFETY EQUIPMENT 3 ACC. GGVS	1
3415 14 1	MULTI FILTER DIN 3183	1
5403 14	PANORAMA FULL-FACE MASK	1

Contents:

Sealed protective goggles, gloves (PVC tricot padded), eye spray flask with aseptic filling, light protective clothing (coat), boots for covering, Panorama full protective mask, combi filter DIN 3183 A2, B2, E2, K2; Hg, P3



Safety Equipment for Commercial Vehicles 4

- Complies with law governing road transport of hazardous goods (GGVS)
- Case size WxHxD: 430 x 330 x 170 mm

Article No.	Article Description	QTY
3415 14	SAFETY EQUIPMENT 4 ACC.GGVS	1
3415 14 1	MULTI FILTER DIN 3183	1
5403 14	PANORAMA FULL-FACE MASK	1

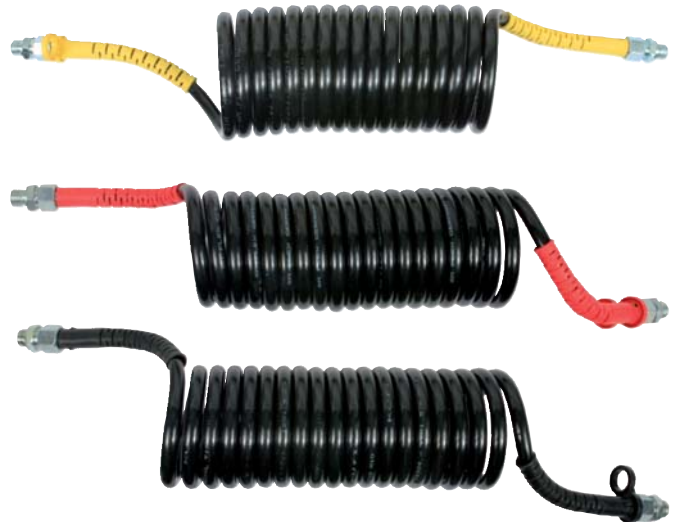
Contents:

Tight-fitting protective goggles, gloves (PVC with cotton jersey lining), eye wash bottle with aseptic filling, protective clothing with hood (overalls), overshoes, Full face mask with panorama view, combi filter, DIN 3183A2, B2, E2, K2, Hg, P3, first aid kit in compliance with DIN 13164, rescue blanket 2200 x 1600 mm



PA Spiral Hose

- With kink protection spring
- **Caution:** PA spiral hoses are equipped with M16x 1.5 adapters (2x). Other adapters are available separately.

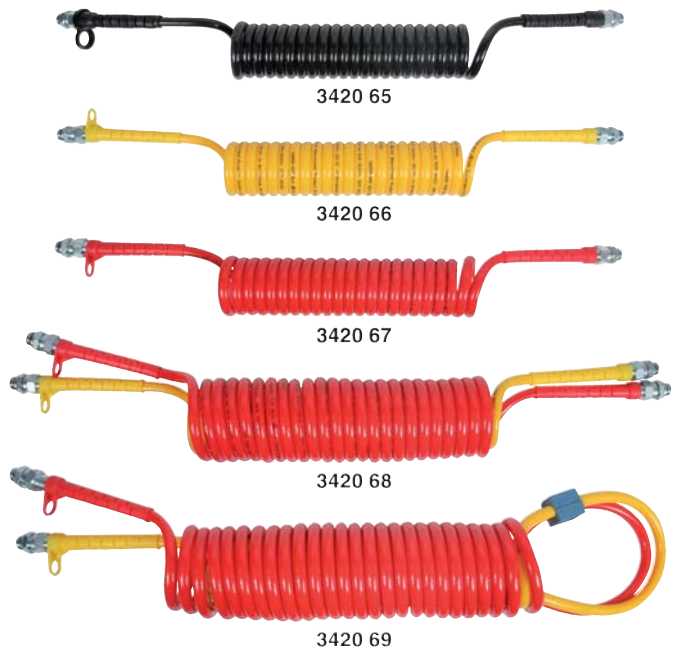


Article No.	Article Description	QTY
3420 10	SPI.HOSEYELL.PAM16X1.519WIN	1
3420 20	SPI R. HOSE RED PA M16X1.5 19W	1
3420 30	SP.HOSE BLACK PA M16X1.5 19WIN	1

Technical Data				
Art. No.	Thread	Coils	Effective length	Total length
3420 10	M 16 x 1.5	19	3.66 m	4.20 m
3420 20	M 16 x 1.5	19	3.66 m	4.20 m
3420 30	M 16 x 1.5	19	3.66 m	4.20 m

Spiral cables PUR

- ester-polyurethane and ether-polyurethane coil provide high mechanical stability and flexibility
- high elasticity, good abrasion and break resistance, even at low temperatures (-40°C)
- resistant to UV rays and aggressive materials such as oil, fuel, acids, alkali and ozone
- polyamide and strain relief spring on each side prevents fractures at the joints
- fulfils all relevant requirements according to DIN 74323 and DIN 74324
- warning: PUR spiral cables are equipped with M16 x 1.5 adapter (2x). If using other adapters, these must be ordered separately.



Article No.	Article Description	QTY
3420 65	SPIRAL CABL. BLACK PUR M16X1.5	1
3420 66	SPIRAL CABL. YEL. PUR M16X1.5	1
3420 67	SPIRAL CABL. RED. PUR M16X1.5	1
3420 68	DUO.SP.CA.PUR YEL/RED M16X1.5K	1
3420 69	DUO.SP.CA.PUR YEL/RED M16X1.5L	1

Technical Data		
thread	coils	working length
M16 x 1.5	23	4.00 m
M16 x 1.5	23	4.00 m
M16 x 1.5	23	4.00 m
M16 x 1.5	23	4.00 m
M16 x 1.5	26	4.50 m

Extension Sleeves

- For air coils and coupling head with thread M 16 x 1.5
- Safe use due to ergonomic formed handle
- Suitable for air coils with steel or plastic bend protection

Article No.	Article Description	QTY
3420 75	EXTENSION SLEEVES SET	1

Included in delivery: 1x red, 1x yellow



Adaptor for Spiral Hoses

- 2 adaptors are required for each spiral hose

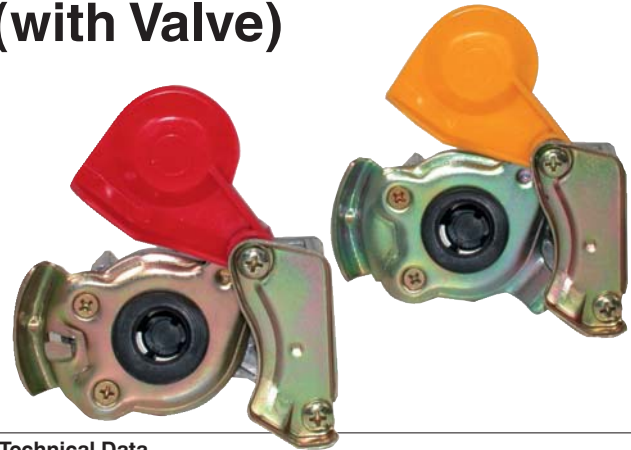
Technical Data		
	Adapter.	Art. No.
Mercedes-Benz / DAF	M18 nut	-
	M18 nut with sealing cone M16 x 1.5	Attached to hose 3420 18 16
MAN	M16 x 1.5 (34 mm)	3420 18 16 1
	M18 x 1.5 (34 mm)	3420 18 18 1
Scania / Iveco	M16 x 1.5	3420 18 16
	M18 x 1.5 (34 mm)	3420 18 18 1
Volvo	M16 x 1.5	3420 18 16
	M16 x 1.5	3420 18 16
Renault	M16 x 1.5 (34 mm)	3420 18 16 1
	M16 x 1.5	3420 18 16

Article No.	Article Description	QTY
3420 18 16	ADAPTER M18X1.5/M 16X1.5	1
3420 18 16 1	ADAPTER M18X1.5/M 16X1.5 LONG	1
3420 18 18 1	ADAPTER M18X1.5/M 18X1.5 LONG	1
3420 18 22	ADAPTER M18X1.5/M22X1.5	1



Automatic Coupling Heads (with Valve)

- Suitable for tractors
- When coupled, the valve opens allowing air to flow

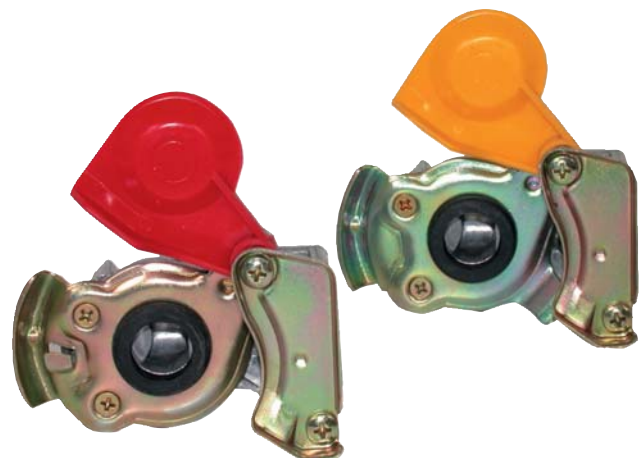


Article No.	Article Description	QTY
3420 102	COUPL.HEADYELL.AUTOM.M16X1.5	1
3420 103	COUPL.HEAD YELL.AUTOM.M22X1.5	1
3420 202	COUPL.HEAD RED AUTOM.M16X1.5	1
3420 203	COUPL.HEAD RED AUTOM.M22X1.5	1

Technical Data			
Art. No.	Version	Thread	Wabco Comparison no.
3420 102	Brake yellow	M 16 x 1.5	952 200 2220
3420 103	Brake yellow	M 22 x 1.5	452 200 2120
3420 202	Stock red	M 16 x 1.5	952 200 2210
3420 203	Stock red	M 22 x 1.5	452 200 2110

Standard Coupling Heads

- Suitable for trailers
- After uncoupling air streams out and the trailer brake locks
- Defective rubber seal can be replaced



Article No.	Article Description	QTY
3420 100	COUPL.HEAD YELL.STAND.M16X1.5	1
3420 101	COUPL.HEAD YELL.STAND.M22X1.5	1
3420 200	COUPL.HEAD YELL.STAND.M22X1.5	1
3420 201	COUPL.HEAD RED STAND.M22X1.5	1
3420 4	REPLACE.SEAL.COUPL.HEAD STAND.	25

Technical Data			
Art. No.	Version	Thread	Wabco Comparison no.
3420 100	Brake yellow	M 16 x 1.5	952 200 0220
3420 101	Brake yellow	M 22 x 1.5	452 200 0120
3420 200	Stock red	M 16 x 1.5	952 200 0210
3420 201	Stock red	M 22 x 1.5	452 200 0110

Gate Valve

- Can be turned 180° for installation on either side
- Connection thread: M 22 x 1.5



Article No.	Article Description	QTY
3420 3	GATE VALVE	1

Line Filter

- For cleaning compressed air in trailer circuit
- Connection thread: M 22 x 1.5



Article No.	Article Description	QTY
3420 1	LINE FILTER	1

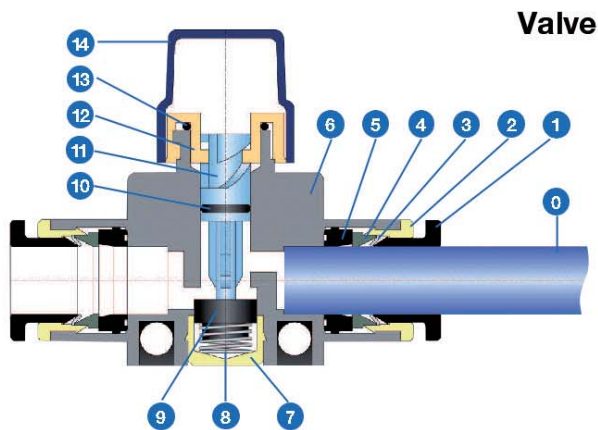
Tyre inflation connection

- for inflating the vehicle with an external compressor
- suitable for all tyre inflation and test connections with M16 x 1.5 thread
- for hoses with 5 - 6 mm inner diameter



Article No.	Article Description	QTY
5370 11 0	TYRE INFL.CONNEC.M16X1.5 F.5MM	e 5

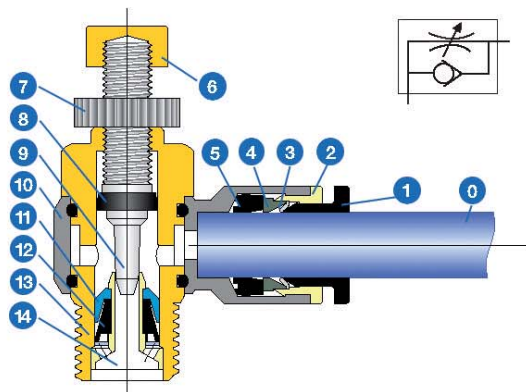
Self-locking connector



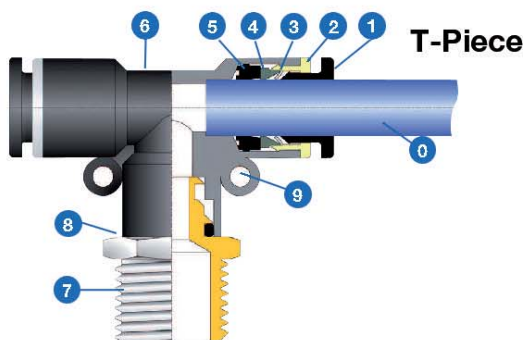
Valve

- 0 Hose
- 1 Unlocking ring
- 2 Metal bushing
- 3 Stainless steel grippers
- 4 End stop
- 5 Lip seal
- 6 Polymer housing
- 7 Seat
- 8 Spring
- 9 Flat gasket
- 10 O-ring
- 11 Valve set adjustable via knurled knob
- 12 Nozzle screw connector
- 13 O-ring
- 14 Valve head

Flow controller



- 0 Hose
- 1 Unlocking ring
- 2 Metal bushing
- 3 Stainless steel grippers
- 4 End stop
- 5 Lip seal
- 6 Knurled screw
- 7 Locknut
- 8 Lip seal
- 9 Stud
- 10 Polymer housing
- 11 End stop
- 12 Lip seal
- 13 Thread with Teflon coating
- 14 Nottle

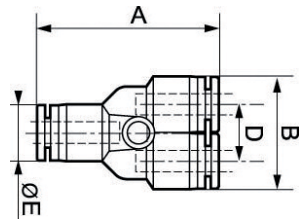


T-Piece

- 0 Hose
- 1 Unlocking ring
- 2 Metal bushing
- 3 Stainless steel grippers
- 4 End stop
- 5 Lip seal
- 6 Polymer housing
- 7 Cylindrical thread with Teflon coating and seal
- 8 Rotatable housing
- 9 Eyelets

- for connecting PU or PA pipe to a consumer such as a pneumatic driver's seat, door locking mechanism etc.
- for supplying machines and equipment with compressed air or vacuum
- safe and lightweight installation without tools
- simple pushing in of the hose into the connector
- stainless steel claws ensure an excellent hold in the connector as well as on the outside of the hose
- releasable by pressure on the unlocking ring
- rotatable connector housing
- Eyelets for optimum positioning
- Conical thread precoated with PTFE
- Cylindrical thread with NBR seal ring in the groove
- Temperature range: 0°C up to +60°C
- Operating pressure: up to 10 bar

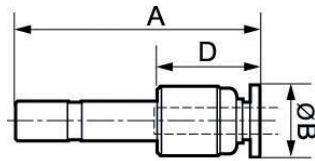
Y-form plug connector



Article No.	Article Description	QTY
3428 5 4	Y-FORM PLUG CONNECTOR 4MM	5
3428 5 6	Y-FORM PLUG CONNECTOR 6MM	5
3428 5 8	Y-FORM PLUG CONNECTOR 8MM	5

Technical Data						
Art.-No.	A	B	D	E	Ø	
3428 5 4	34	20	10.5	10	4	
3428 5 6	37	25.6	13	12.8	6	
3428 5 8	37.6	27.6	14.5	13.8	8	

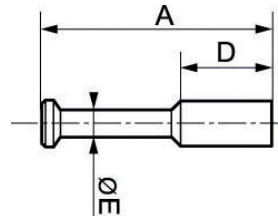
Reducing plug connector



Article No.	Article Description	QTY
3428 10 6 4	REDUCING PLUG CONNECTOR 6/4 MM	5
3428 10 8 4	REDUCING PLUG CONNECTOR 8/4 MM	5
3428 10 8 6	REDUCING PLUG CONNECTOR 8/6 MM	5
3428 10 10 6	REDUCING PLUG CONNECTOR 10/6MM	5
3428 10 10 8	REDUCING PLUG CONNECTOR 10/8MM	5
3428 10 12 8	REDUCING PLUG CONNECTOR 12/8MM	5
3428 10 12 10	REDUCING PLUG CONNECTOR 12/10MM	5

Technical Data						
Art.-No.	A	B	D	Ø I	Ø A	
3428 10 6 4	37	10	15.5	6	4	
3428 10 8 4	37	10	15.5	8	4	
3428 10 8 6	37.5	12.8	16	8	6	
3428 10 10 6	41	12.8	16	10	6	
3428 10 10 8	44	13.8	19	10	8	
3428 10 12 8	43	13.8	18	12	8	
3428 10 12 10	42.5	16.8	17.5	12	10	

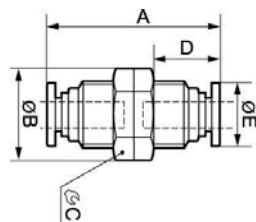
Closing plugs



Article No.	Article Description	QTY
3428 15 4	CLOSING PLUGS 4 MM	5
3428 15 6	CLOSING PLUGS 6 MM	5
3428 15 8	CLOSING PLUGS 8 MM	5
3428 15 10	CLOSING PLUGS 10 MM	5

Technical Data					
Art.-No.	A	D	E	Ø	
3428 15 4	30	15.5	2	4	
3428 15 6	34	18	3	6	
3428 15 8	37	18.5	4	8	
3428 15 10	39.5	20.5	5	10	

Connector for a partition wall

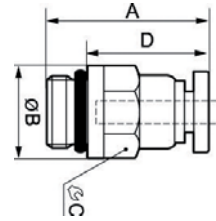


Article No.	Article Description	QTY
3428 20 4	CONNECTOR F.PARTITION WALL 4MM	5
3428 20 6	CONNECTOR F.PARTITION WALL 6MM	5
3428 20 8	CONNECTOR F.PARTITION WALL 8MM	5
3428 20 10	CONNECTOR F.PARTITION WALL 10MM	5
3428 20 12	CONNECTOR F.PARTITION WALL 12MM	5

Technical Data						
Art.-No.	A	B	C	D	E	Ø
3428 20 4	34	16.5	14	13	10	4
3428 20 6	36	20	17	14	12.8	6
3428 20 8	39.5	22	19	15.8	13.8	8
3428 20 10	40.6	28	24	16.5	16.8	10
3428 20 12	44.5	30.5	26	17.8	19.8	12

Straight screw-in connector with cylindrical outer

- Cylindrical outer thread

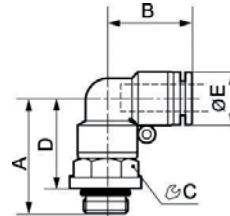


Article No.	Article Description	QTY
3428 25 4	STR.SCREW-IN CONNECT.M5 4MM	5
3428 25 4 1	STR.SCREW-IN CONNECT.G1/4 4MM	5
3428 25 4 2	STR.SCREW-IN CONNECT.G1/8 4MM	5
3428 25 6	STR.SCREW-IN CONNECT.M5 6MM	5
3428 25 6 1	STR.SCREW-IN CONNECT.G1/4 6MM	5
3428 25 6 2	STR.SCREW-IN CONNECT.G1/8 6MM	5
3428 25 6 3	STR.SCREW-IN CONNECT.G3/8 6MM	5
3428 25 8 1	STR.SCREW-IN CONNECT.G1/4 8MM	5
3428 25 8 2	STR.SCREW-IN CONNECT.G1/8 8MM	5
3428 25 8 3	STR.SCREW-IN CONNECT.G3/8 8MM	5
3428 25 10 1	STR.SCREW-IN CONNECT.G1/4 10MM	5
3428 25 10 2	STR.SCREW-IN CONNECT.G1/8 10MM	5
3428 25 10 3	STR.SCREW-IN CONNECT.G3/8 10MM	5
3428 25 10 4	STR.SCREW-IN CONNECT.G1/2 10MM	5
3428 25 12 1	STR.SCREW-IN CONNECT.G1/4 12MM	5
3428 25 12 3	STR.SCREW-IN CONNECT.G3/8 12MM	5
3428 25 12 4	STR.SCREW-IN CONNECT.G1/2 12MM	5
3428 25 14 3	STR.SCREW-IN CONNECT.G3/8 14MM	5
3428 25 14 4	STR.SCREW-IN CONNECT.G1/2 14MM	5

Technical Data							
Art.-No.	A	B	C	D	Ø	AG	
3428 25 4	21.5	12	10	17.5	4	M5	
3428 25 4 1	19	16.5	14	13	4	1/4	
3428 25 4 2	20	14	12	14.5	4	1/8	
3428 25 6	24	14	12	20	6	M5	
3428 25 6 1	21	16.5	14	15	6	1/4	
3428 25 6 2	24	14	12	18.5	6	1/8	
3428 25 6 3	21	20	17	20.5	6	3/8	
3428 25 8 1	22	16.5	14	16	8	1/4	
3428 25 8 2	25.5	16.5	14	20	8	1/8	
3428 25 8 3	21	20	17	14.5	8	3/8	
3428 25 10 1	27.8	20	17	21.8	10	1/4	
3428 25 10 2	27.8	20	17	22.3	10	1/8	
3428 25 10 3	25.8	22	19	19.3	10	3/8	
3428 25 10 4	26.3	25	21	18.3	10	1/2	
3428 25 12 1	30	22	19	24	12	1/4	
3428 25 12 3	26.5	22	19	20	12	3/8	
3428 25 12 4	28	25	21	20	12	1/2	
3428 25 14 3	30.8	25.5	22	24.3	14	3/8	
3428 25 14 4	28	28	24	20	14	1/2	

90° angle connector with cylindrical outer thread

- Cylindrical outer thread

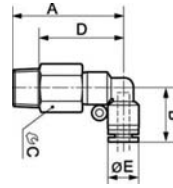


Article No.	Article Description	QTY
3428 30 4	ANGLE CONNECT.CYL.90° M5 4MM	5
3428 30 4 1	ANGLE CONNECT.CYL.90°G1/4 4MM	5
3428 30 4 2	ANGLE CONNECT.CYL.90°G1/8 4MM	5
3428 30 6 1	ANGLE CONNECT.CYL.90°G1/4 6MM	5
3428 30 6 2	ANGLE CONNECT.CYL.90°G1/8 6MM	5
3428 30 6 3	ANGLE CONNECT.CYL.90°G3/8 6MM	5
3428 30 8 1	ANGLE CONNECT.CYL.90°G1/4 8MM	5
3428 30 8 2	ANGLE CONNECT.CYL.90°G1/8 8MM	5
3428 30 8 3	ANGLE CONNECT.CYL.90°G3/8 8MM	5
3428 30 10 1	ANGLE CONNECT.CYL.90°G1/4 10MM	5
3428 30 10 3	ANGLE CONNECT.CYL.90°G3/8 10MM	5
3428 30 10 4	ANGLE CONNECT.CYL.90°G1/2 10MM	5
3428 30 12 1	ANGLE CONNECT.CYL.90°G1/4 12MM	5
3428 30 12 3	ANGLE CONNECT.CYL.90°G3/8 12MM	5
3428 30 12 4	ANGLE CONNECT.CYL.90°G1/2 12MM	5
3428 30 14 3	ANGLE CONNECT.CYL.90°G3/8 14MM	5
3428 30 14 4	ANGLE CONNECT.CYL.90°G1/2 14MM	5

Technical Data							
Art.-No.	A	B	C	D	E	Ø	AG
3428 30 4	25	17.5	10	21	10	4	M5
3428 30 4 1	24.7	17.5	14	18.7	10	4	1/4
3428 30 4 2	24.1	17.5	12	18.6	10	4	1/8
3428 30 6 1	27.5	20.5	14	21.5	12.8	6	1/4
3428 30 6 2	27	20.5	12	21.5	12.8	6	1/8
3428 30 6 3	29	20.5	17	22.5	12.8	6	3/8
3428 30 8 1	29.2	22.5	14	23.2	13.8	8	1/4
3428 30 8 2	29.2	22.5	14	23.7	13.8	8	1/8
3428 30 8 3	30.7	22.5	17	24.2	13.8	8	3/8
3428 30 10 1	34.2	26.3	17	28.2	16.8	10	1/4
3428 30 10 3	34.2	26.3	17	27.7	16.8	10	3/8
3428 30 10 4	35.2	26.3	21	27.2	16.8	10	1/2
3428 30 12 1	35	27.8	19	29	19.8	12	1/4
3428 30 12 3	34.5	27.8	19	28	19.8	12	3/8
3428 30 12 4	36	27.8	21	28	19.8	12	1/2
3428 30 14 3	38.2	29.8	22	31.7	22.7	14	3/8
3428 30 14 4	37.2	29.8	24	29.2	22.7	14	1/2

90° angle connector with long conical outer thread

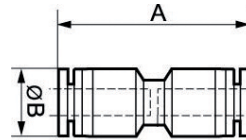
- Conical outer thread



Article No.	Article Description	QTY
3428 35 4 1	ANGLE CONNECT.W.L.90°R1/4 4MM	5
3428 35 4 2	ANGLE CONNECT.W.L.90°R1/8 4MM	5
3428 35 6 1	ANGLE CONNECT.W.L.90°R1/4 6MM	5
3428 35 6 2	ANGLE CONNECT.W.L.90°R1/8 6MM	5
3428 35 6 3	ANGLE CONNECT.W.L.90°R3/8 6MM	5
3428 35 8 1	ANGLE CONNECT.W.L.90°R1/4 8MM	5
3428 35 8 2	ANGLE CONNECT.W.L.90°R1/8 8MM	5
3428 35 8 3	ANGLE CONNECT.W.L.90°R3/8 8MM	5
3428 35 10 3	ANGLE CONNECT.W.L.90°R3/8 10MM	5

Technical Data							
Art.-No	A	B	C	D	E	Ø	AG
3428 35 4 1	37	17.5	14	28	10	4	1/4
3428 35 4 2	35.5	17.5	10	28	10	4	1/8
3428 35 6 1	43.5	20.5	14	34.5	12.8	6	1/4
3428 35 6 2	40.5	20.5	12	33	12.8	6	1/8
3428 35 6 3	46	20.5	17	35	12.8	6	3/8
3428 35 8 1	45.5	22.5	14	36.5	13.8	8	1/4
3428 35 8 2	44	22.5	14	36.5	13.8	8	1/8
3428 35 8 3	48	22.5	17	37	13.8	8	3/8
3428 35 10 3	54.7	26.3	17	43.7	16.8	10	3/8

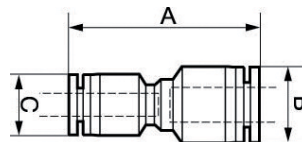
Straight, equal plug connector



Article No.	Article Description	QTY
3428 40 4	STRAIGHT EQ.PLUG CONNECTOR 4MM	5
3428 40 6	STRAIGHT EQ.PLUG CONNECTOR 6MM	5
3428 40 8	STRAIGHT EQ.PLUG CONNECTOR 8MM	5
3428 40 10	STRAIGHT EQ.PLUG CONNECTOR 10MM	5
3428 40 12	STRAIGHT EQ.PLUG CONNECTOR 12MM	5

Technical Data			
Art.-No	A	B	Ø
3428 40 4	30	10	4
3428 40 6	36.7	12.8	6
3428 40 8	39	13.8	8
3428 40 10	42.2	16.8	10
3428 40 12	44.3	19.8	12

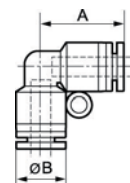
Straight plug connector, unequal



Article No.	Article Description	QTY
3428 45 4 6	STRAI. UNEQ.PLUG CONN. 4/ 6MM	5
3428 45 6 8	STRAI. UNEQ.PLUG CONN. 6/ 8MM	5
3428 45 8 10	STRAI. UNEQ.PLUG CONN. 8/10MM	5
3428 45 10 12	STRAI. UNEQ.PLUG CONN. 10/12MM	5

Technical Data					
Art.-No.	A	B	C	Ø	Ø
3428 45 4 6	33.1	12.8	10	4	6
3428 45 6 8	38.3	13.8	12.8	6	8
3428 45 8 10	41.1	16.8	13.8	8	10
3428 45 10 12	45.3	19.8	16.8	10	12

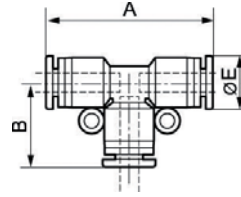
90° angle connector, equal



Article No.	Article Description	QTY
3428 50 4	90°ANGL.CONNECT.EQUAL 4MM	5
3428 50 6	90°ANGL.CONNECT.EQUAL 6MM	5
3428 50 8	90°ANGL.CONNECT.EQUAL 8MM	5
3428 50 10	90°ANGL.CONNECT.EQUAL 10MM	5
3428 50 12	90°ANGL.CONNECT.EQUAL 12MM	5

Technical Data			
Art.-No.	A	B	Ø
3428 50 4	17.5	10	4
3428 50 6	20.5	12.8	6
3428 50 8	22.5	13.8	8
3428 50 10	22.8	13.8	10
3428 50 12	27	16.8	12

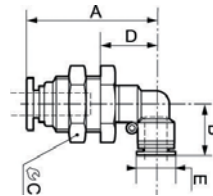
T-shaped plug connector, equal



Article No.	Article Description	QTY
3428 55 4	PLUG CONNETOR T-SHAPED 4MM	5
3428 55 6	PLUG CONNETOR T-SHAPED 6MM	5
3428 55 8	PLUG CONNETOR T-SHAPED 8MM	5
3428 55 10	PLUG CONNETOR T-SHAPED 10MM	5
3428 55 12	PLUG CONNETOR T-SHAPED 12MM	5

Technical Data					
Art.-No.	A	B	E	Ø	
3428 55 4	35	17.5	10	4	
3428 55 6	40	20	12.8	6	
3428 55 8	45.6	22.8	13.8	8	
3428 55 10	54	27	16.8	10	
3428 55 12	55.6	27.8	19.8	12	

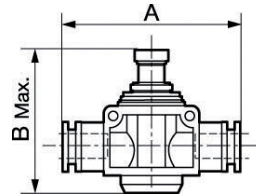
90° angle connector for partition wall



Article No.	Article Description	QTY
3428 60 4	90°ANGLE CONNECT.F.PART.W.4MM	5
3428 60 6	90°ANGLE CONNECT.F.PART.W.6MM	5
3428 60 8	90°ANGLE CONNECT.F.PART.W.8MM	5
3428 60 10	90°ANGLE CONNECT.F.PART.W.10MM	5
3428 60 12	90°ANGLE CONNECT.F.PART.W.12MM	5

Technical Data						
Art.-No.	A	B	C	D	E	Ø
3428 60 4	37	17.5	14	18	10	4
3428 60 6	40.5	20.5	17	21,5	12,8	6
3428 60 8	45	22.8	19	24	13,8	8
3428 60 10	48	26.3	24	25	16,8	10
3428 60 12	54	27.8	26	27	19,8	12

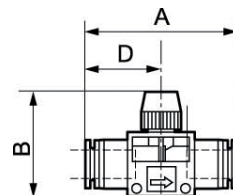
Flow regulator for one directional flow



Article No.	Article Description	QTY
3428 65 4	FLOW REG.F.O.DIRECT.FLOW 4MM	1
3428 65 6	FLOW REG.F.O.DIRECT.FLOW 6MM	1
3428 65 8	FLOW REG.F.O.DIRECT.FLOW 8MM	1
3428 65 10	FLOW REG.F.O.DIRECT.FLOW 10MM	1
3428 65 12	FLOW REG.F.O.DIRECT.FLOW 12MM	1

Technical Data			
Art.-No.	A	B	Ø
3428 65 4	38	29	4
3428 65 6	49	43	6
3428 65 8	55	48	8
3428 65 10	63	54	10
3428 65 12	75	58	12

Micro-valve, equal tubes

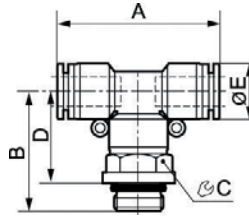


Article No.	Article Description	QTY
3428 70 6	MICRO-VALVE EQUAL TUBES 6MM	1
3428 70 8	MICRO-VALVE EQUAL TUBES 8MM	1
3428 70 10	MICRO-VALVE EQUAL TUBES 10MM	1
3428 70 12	MICRO-VALVE EQUAL TUBES 12MM	1

Technical Data				
Art.-No.	A	B	D	Ø
3428 70 6	51	40.3	25.5	6
3428 70 8	51.6	40.3	25.8	8
3428 70 10	62.2	44.5	31.1	10
3428 70 12	63.6	44.5	31.8	12

T-form plug connector with cylindrical outer threa

- Cylindrical outer thread

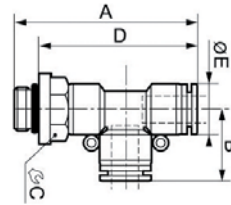


Article No.	Article Description	QTY
3428 75 4	T-FORM PL.CONNECT.AG M5 4MM	5
3428 75 4 2	T-FORM PL.CONNECT.AG G1/8 4MM	5
3428 75 6 1	T-FORM PL.CONNECT.AG G1/4 6MM	5
3428 75 6 2	T-FORM PL.CONNECT.AG G1/8 6MM	5
3428 75 6 3	T-FORM PL.CONNECT.AG G3/8 6MM	5
3428 75 8 1	T-FORM PL.CONNECT.AG G1/4 8MM	5
3428 75 8 2	T-FORM PL.CONNECT.AG G1/8 8MM	5
3428 75 10 1	T-FORM PL.CONNECT.AG G1/4 10MM	5
3428 75 12 1	T-FORM PL.CONNECT.AG G1/4 12MM	5
3428 75 12 3	T-FORM PL.CONNECT.AG G3/8 12MM	5

Technical Data							
Art.-No.	A	B	C	D	E	Ø	AG
3428 75 4	35	25	10	21	10	4	M5
3428 75 4 2	35	23.6	12	18.1	10	4	1/8
3428 75 6 1	41	27.5	14	21.5	12.8	6	1/4
3428 75 6 2	41	27	12	21.5	12.8	6	1/8
3428 75 6 3	41	29	17	22.5	12.8	6	3/8
3428 75 8 1	45	29.5	14	23.5	13.8	8	1/4
3428 75 8 2	45	29.5	14	24	13.8	8	1/8
3428 75 10 1	52.6	34.2	17	28.2	16.8	10	1/4
3428 75 12 1	55.6	35	19	29	19.8	12	1/4
3428 75 12 3	55.6	34.5	19	28	19.8	12	3/8

T-form plug connector cylindrical outer thread, la

- Cylindrical outer thread

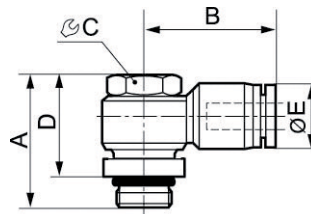


Article No.	Article Description	QTY
3428 80 4	T-FORM PL.CONNECT.AG M5 4MM	5
3428 80 4 2	T-FORM PL.CONNECT.AG G1/8 4MM	5
3428 80 6 1	T-FORM PL.CONNECT.AG G1/4 6MM	5
3428 80 6 2	T-FORM PL.CONNECT.AG G1/8 6MM	5
3428 80 6 3	T-FORM PL.CONNECT.AG G3/8 6MM	5
3428 80 8 1	T-FORM PL.CONNECT.AG G1/4 8MM	5
3428 80 8 2	T-FORM PL.CONNECT.AG G1/8 8MM	5
3428 80 10 1	T-FORM PL.CONNECT.AG G1/4 10MM	5
3428 80 10 3	T-FORM PL.CONNECT.AG G3/8 10MM	5
3428 80 12 1	T-FORM PL.CONNECT.AG G1/4 12MM	5
3428 80 12 3	T-FORM PL.CONNECT.AG G3/8 12MM	5
3428 80 12 4	T-FORM PL.CONNECT.AG G1/2 12MM	5

Technical Data							
Art.-No.	A	B	C	D	E	Ø	AG
3428 80 4	42.5	17.5	10	38.5	10	4	M5
3428 80 4 2	41.1	17.5	12	35.6	10	4	1/8
3428 80 6 1	48	20.5	14	42	12.8	6	1/4
3428 80 6 2	47.5	20.5	12	42	12.8	6	1/8
3428 80 6 3	49.5	20.5	17	43	12.8	6	3/8
3428 80 8 1	52	22.5	14	46	13.8	8	1/4
3428 80 8 2	52	22.5	14	46.5	13.8	8	1/8
3428 80 10 1	60.5	26.3	17	54.5	16.8	10	1/4
3428 80 10 3	60.5	26.3	17	54	16.8	10	3/8
3428 80 12 1	62.8	27.8	19	56.8	19.8	12	1/4
3428 80 12 3	62.3	27.8	19	55.8	19.8	12	3/8
3428 80 12 4	63.3	27.8	21	55.3	19.8	12	1/2

Corner swivel-type screw with cylindrical outer th

- Cylindrical outer thread



Article No.	Article Description	QTY
3428 85 4	CORNER SWIVEL-TYPE AG M5 4MM	5
3428 85 4 2	CORNER SWIVEL-TYPE AG G1/8 4MM	5
3428 85 6	CORNER SWIVEL-TYPE AG M5 6MM	5
3428 85 6 1	CORNER SWIVEL-TYPE AG G1/4 6MM	5
3428 85 6 2	CORNER SWIVEL-TYPE AG G1/8 6MM	5
3428 85 6 3	CORNER SWIVEL-TYPE AG G3/8 6MM	5
3428 85 8 1	CORNER SWIVEL-TYPE AG G1/4 8MM	5
3428 85 8 2	CORNER SWIVEL-TYPE AG G1/8 8MM	5
3428 85 8 3	CORNER SWIVEL-TYPE AG G3/8 8MM	5
3428 85 10 3	CORNER SWIVEL-TY.AG G3/8 10MM	5

Technical Data							
Art.-No.	A	B	C	D	E	Ø	AG
3428 85 4	20	19.7	8	16	10	4	M5
3428 85 4 2	23.5	23.5	10	18	10	4	1/8
3428 85 6	20	19.7	8	16	12.8	6	M5
3428 85 6 1	28	28	14	22	12.8	6	1/4
3428 85 6 2	23.5	23.5	10	18	12.8	6	1/8
3428 85 6 3	34	34	19	27.5	12.8	6	3/8
3428 85 8 1	28	26.8	14	22	13.8	8	1/4
3428 85 8 2	23.5	24.6	10	18	13.8	8	1/8
3428 85 8 3	34	28.8	19	27.5	13.8	8	3/8
3428 85 10 3	34	31	19	27.5	16.8	10	3/8

Anti-Slip Warning Tape Yellow / Black

- For marking and warning
- Ideal for accident prevention



Your Advantage / Benefit

- Soft PVC carrier material with special anti-slip surface coating (sandpaper-like)
- Permanent bond by highly aggressive acrylic adhesive, sticks also on substrates with poor adhesive features
- Oil and moisture resistant
- UV-resistant
- For indoor and outdoor use

Application

- For securing of stairs, steps, resting places, stairways, hoists, working pits, brake testers, ladders, loading ramps, etc.
- Adheres to stone, tiles, flooring screed, warehouse floors and metal



Article No.	Article Description	QTY
5404 1850	(18M) ANTI-SLIP WARN.TAPE 50MM	1

Related Products

■ **Barrier Tape**
Art.-No. 5404 500



■ **Non-slip surface**
Art.-No. 5420 50
Art.-No. 5420 100
Art.-No. 5420 150



■ **Anti-Skid Mat**
Art.-No. 4984 3 600 150
Art.-No. 4984 8 130 110
Art.-No. 4984 8 300 200
Art.-No. 4984 8 5000 250



Container Warning Tape

- For marking of containers and interchangeable tanks in compliance with DIN 67520 Part 2
- Self-adhesive, highly reflexive foil,
- Colour: red / white
- Process- and storage temperature: from 15 °C up to max. 30 °C

Technical Data

Art.-No.	Film width	Film height	Design driving direction
3415 15	705 mm	141 mm	4× pointed left 4× pointed right



Article No.	Article Description	QTY
3415 15	CONTAINER WARNING TAPE SET	e 10

Safety Equipment for Commercial Vehicles 1

- Complies with law governing road transport of hazardous goods (GGVS)
- Case size WxHxD: 230 x 220 x 75 mm

Technical Data

Art.-No.: 3415 11
Width: 230 mm
Height: 220 mm
Depth: 75 mm



Article No.	Article Description	QTY
3415 11	SAFETY EQUIPMENT 1 ACC.GGVS	1

Contents:

Tight-fitting protective goggles, gloves (PVC with cotton jersey lining), eye wash bottle with aseptic filling

Safety Equipment for Commercial Vehicles 2

- Complies with law governing road transport of hazardous goods (GGVS)

Technical Data

Art.-No.: 3415 12
Width: 350 mm
Height: 285 mm
Depth: 120 mm



Article No.	Article Description	QTY
3415 12	SAFETY EQUIPMENT 2 ACC. GGVS	1

Contents:

Tight-fitting protective goggles, gloves (PVC with cotton jersey lining), eye wash bottle with aseptic filling, light protective clothing (coat), overshoes

Safety Equipment for Commercial Vehicles 3

- Complies with law governing road transport of hazardous goods (GGVS)

Technical Data

Art.-No.: 3415 13
Width: 430 mm
Height: 330 mm
Depth: 170 mm



Article No.	Article Description	QTY
3415 13	SAFETY EQUIPMENT 3 ACC. GGVS	1
3415 14 1	MULTI FILTER DIN 3183	1
5403 14	PANORAMA FULL-FACE MASK	1

Contents:

Sealed protective goggles, gloves (PVC tricot padded), eye spray flask with aseptic filling, light protective clothing (coat), boots for covering, Panorama full protective mask, combi filter DIN 3183 A2, B2, E2, K2; Hg, P3

Polyurethane pipes

- Finely calibrated polyester-polyurethane pipe
- Very good resistance to abrasion and tearing
- Grease and oil resistant
- Satisfies standard NF E 49 101
- Colour: blue

Application:

- Connection or feeding of pressurised air components

Article No.	Article Description	QTY
3428 1 4 6	RO(25M)PU-TUBE BLUE 4 X6MM	1
3428 1 7 10	RO(25M)PU-TUBE BLUE 7 X10MM	1
3428 1 25 4	RO(25M)PU-TUBE BLUE 2.5X4MM	1
3428 1 55 8	RO(25M)PU-TUBE BLUE 5.5X8MM	1
3428 1 95 14	RO(25M)PU-TUBE BLUE 9.5X14MM	1



Technical Data					
Art.-No.	OuterØ	Wall thickness.	Band radius.	BD	
3428 1 4 6	6.0 mm	1.0 mm	15.0 mm	9 bar	
3428 1 7 10	10.0 mm	1.5 mm	25.0 mm	8.5 bar	
3428 1 25 4	4.0 mm	0.75 mm	12.0 mm	10 bar	
3428 1 55 8	8.0 mm	1.25 mm	20.0 mm	8.5 bar	
3428 1 95 14	14.0 mm	2.25 mm	45.0 mm	9 bar	

Polyamide Tubing

- DIN 74324/ 73378, 25 m ring

Article No.	Article Description	QTY
3423 4 10	RO(25M) POLYAMIDETUBE 4X1.0MM	1
3423 5 10	RO(25M) POLYAMIDETUBE 5X1.0MM	1
3423 6 10	RO(25M) POLYAMIDETUBE 6X1.0MM	1
3423 8 10	RO(25M) POLYAMIDETUBE 8X1.0MM	1
3423 9 15	RO(25M) POLYAMIDETUBE 6X1.0MM	1
3423 10 10	RO(25M) POLYAM.TUBE 10X1.0MM	1
3423 11 15	RO(25M) POLYAM.TUBE 11X1.5MM	1
3423 12 15	RO(25M) POLYAM.TUBE 12X1.5MM	1
3423 13 15	RO(25M)POLYAM.TUBE 13X1.5MM	1
3423 15 15	RO(25M) POLYAM.TUBE 12X1.5MM	1
3423 16 20	RO(25M)POLYAM.TUBE 16X2.0MM	1



Technical Data					
Art. No.	Outside Ø	Thick-ness.	Bending radius	Working/Burst pressure	
3423 4 10	4 mm	1.0 mm	25 mm	45 / 135 bar	
3423 5 10	5 mm	1.0 mm	30 mm	34 / 102 bar	
3423 6 10	6 mm	1.0 mm	35 mm	27 / 81 bar	
3423 8 10	8 mm	1.0 mm	55 mm	19 / 57 bar	
3423 9 15	9 mm	1.5 mm	55 mm	27 / 81 bar	
3423 10 10	10 mm	1.0 mm	90 mm	15 / 45 bar	
3423 11 15	11 mm	1.5 mm	75 mm	21 / 63 bar	
3423 12 15	12 mm	1.5 mm	75 mm	19 / 57 bar	
3423 15 15	15 mm	1.5 mm	100 mm	15 / 45 bar	

Brake Hoses

- DIN 74310, 20 m ring
- EPDM

Article No.	Article Description	QTY
3423 11	20M BRAKE HOSE11X3.5/18	1
3423 13	20M BRAKE HOSE13X6/25	1



Technical Data		
Art. No.	Size	Operating/Burstingpressure
3423 11	11 x 3.5 mm	15 / 50 bars
3423 13	13 x 6.0 mm	15 / 50 bars

PVC protective spiral for hydraulic hoses

- Protects hydraulic and pneumatic hoses
- Material: PVC, black
- Temperature resistance: -30 to +70 °C (melting point: 80 °C)
- Resistant to UV and chemicals
- In accordance with UL-94-V-O (UL-94 = Test for flammability of plastics, V-O = Flames extinguished within 10 s)

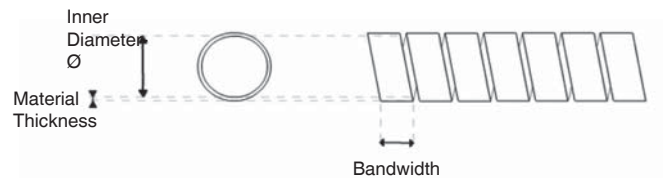


Technical Data				
Art.-no.	Inner-Ø mm	Material thickness mm	Bandwidth mm	Length m
3738 15 1	15	1	16	10
3738 22 1	22	1	16	10
3738 35 2	35	2	16	10
3738 60 2	60	2	16	5
3738 80 2	80	2	16	5

Article No.	Article Description	QTY
3738 15 1	CL(10M)SPIR.HO.GUARD16X1 Ø15MM	1
3738 22 1	CL(10M)SPIR.HO.GUARD16X1 Ø22MM	1
3738 35 2	CL(10M)SPIR.HO.GUARD16X2 Ø35MM	1
3738 60 2	CL(10M)SPIR.HO.GUARD16X2 Ø60MM	1
3738 80 2	CL(10M)SPIR.HO.GUARD16X2 Ø80MM	1

Application:

- Construction and agricultural machinery, e.g. cranes, diggers, road rollers, trucks, dump trucks, wheel loaders, tunnel drilling machines, forklifts and telescope lifts, earth boring machinery, etc.



Cutting Tool

- Used for cuts of compressed-air brake lines made out of plastic-pipe

Product no. 3423 1:

- Pipe dia. 4 - 28 mm

Product no. 3423 3:

- Small and compact construction
- Pipe dia. 4 - 12 mm

Article No.	Article Description	QTY
3423 1	CUTTING TOOL F. PLASTIC PIPE	1
3423 2	REPL. BLADE F. CUTTING TOOL	2
3423 3	LINE CUTTER FOR PLASTIC PIPE	1
3423 4	REPL. BLADE FOR LINE CUTTER	1



Clamping forceps for polyamide pipes

- to securely hold compressed air and fuel lines
- it is possible to collect the connection and connecting pieces
- mobile use directly in the vehicle
- Vernier adjustment using the knurled screw
- for pipe diameter: 6, 8, 10, 12, 16 mm
- multiple use with most types of truck



Article No.	Article Description	QTY
4920 15	CLAMP. FORCEPS F. POLYAM. PIPES	1

Compressed-Air Brake System Cutting Ring Connection

- Galvanized steel
- OEM quality

Connection types

- Slip joint



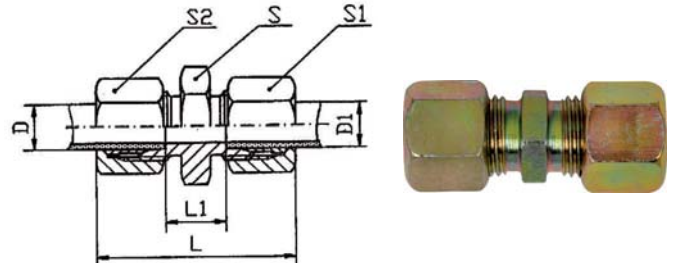
- Butt joint



Straight Connections

Technical Data									
Art. No.	3425 40 4	3425 40 5	3425 40 6	3425 40 8	3425 40 9	3425 40 10	3425 40 12	3425 40 12 10	3425 40 15
D	4	5	6	8	8	10	12	12	15
D1	4	5	6	8	6	10	12	10	15
L	34	36	39	40	40	42	43	43	68
L1	8	9	10	11	11	13	14	14	37
S	9	11	12	14	14	17	19	19	27
S1	10	12	14	17	14	19	22	19	27
S2	10	12	14	17	17	19	22	22	27
DIN	2353	2353	2353	2353	-	2353	2353	-	74298
max. BD	250 bar	250 bar	250 bar	250 bar	250 bar	250 bar	250 bar	250 bar	25 bar
Conn. type	Slip joint	Slip joint	Slip joint	Slip joint	Slip joint	Slip joint	Slip joint	Slip joint	Butt joint

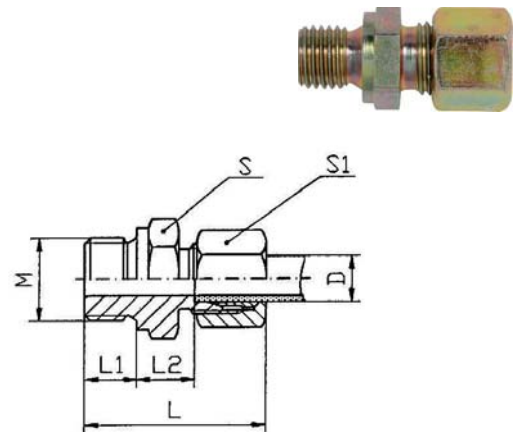
Article No.	Article Description	QTY
3425 40 4	STRAIGHT THREAD.CONNECT.4/4MM	5
3425 40 5	STRAIGHT THREAD.CONNECT.5/5MM	5
3425 40 6	STRAIGHT THREAD.CONNECT.6/6MM	5
3425 40 8	STRAIGHT THREAD.CONNECT.8/8MM	5
3425 40 9	STRAIGHT THREAD.CONNECT.8/6MM	5
3425 40 10	STRAIGHT THREAD.CONNEC.10/10MM	5
3425 40 12	STRAIGHT THREAD.CONNEC.12/12MM	5
3425 40 12 10	STRAIGHT THREAD.CONNEC.12/10MM	5
3425 40 15	STRAIGHT THREAD.CONNEC.15/15MM	5



Straight Inserted Connections

Technical Data			
Art. No.	3425 41 8 12	3425 41 12 16	3425 41 15
D	8	12	15
L	37	39	41
L1	12	12	12
L2	10	12,5	15
S	17	22	27
S1	17	22	27
M	12x1.5	16x1.5	22x1.5
DIN	2353	2353	74299
max. BD	25 bar	25 bar	25 bar
Conn. type	Slip joint	Slip joint	Butt joint

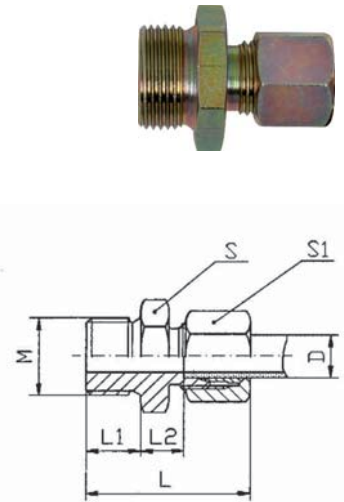
Article No.	Article Description	QTY
3425 41 8 12	STRAI.INSERT.CONNE.8MM M12X1.5	5
3425 41 12 16	STRAI.INSERT.CONN.12MM M16X1.5	5
3425 41 15	STRAI.INSERT.CONN.15MM M22X1.5	5



Straight Inserted Connections

Technical Data						
Art. No.	3425 41 6 16	3425 41 6 22	3425 41 8 16	3425 41 8 22	3425 41 10	3425 41 12 22
D	6	6	8	8	10	12
L	36	36	36	36	38	39
L1	12	12	12	12	12	12
L2	9	9	9	9	10	10
S	22	27	22	27	27	27
S1	14	14	17	17	19	22
M	16x1.5	22x1.5	16x1.5	22x1.5	22x1.5	22x1.5
DIN	74327	74327	74327	74327	74327	74327
max. BD	25 bar	25 bar	25 bar	25 bar	25 bar	25 bar
Conn. type	Slip joint	Slip joint	Slip joint	Slip joint	Slip joint	Slip joint

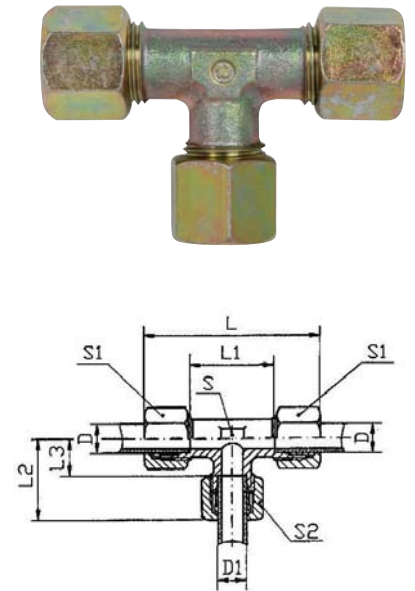
Article No.	Article Description	QTY
3425 41 6 16	STRAI.INSERT.CONN.6MM M16X1.5	5
3425 41 6 22	STRAI.INSERT.CONN.6MM M22X1.5	5
3425 41 8 16	STRAI.INSERT.CONN.8MM M16X1.5	5
3425 41 8 22	STRAI.INSERT.CONN.8MM M22X1.5	5
3425 41 10	STRAI.INSERT.CONN.10MM M22X1.5	5
3425 41 12 22	STRAI.INSERT.CONN.12MM M22X1.5	5



T-Threaded Connections

Technical Data						
Art. No.	3425 30 4	3425 30 6	3425 30 8	3425 30 10	3425 30 12	3425 30 15
D	4	6	8	10	12	15
D1	4	6	8	10	12	15
L	44	54	58	60	64	72
L1	16	24	28	30	34	42
L2	24	27	29	30	32	36
L3	9	12	14	15	17	21
S	11	12	12	14	17	19
S1	10	14	17	19	22	27
S2	10	14	17	19	22	27
DIN	2353	2353	2353	2353	2353	2353
max. BD	100 bar	250 bar	250 bar	250 bar	250 bar	250 bar
Conn. type	Slip joint	Slip joint	Slip joint	Slip joint	Slip joint	Slip joint

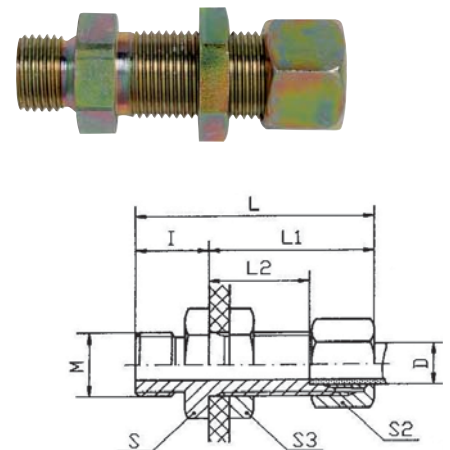
Article No.	Article Description	QTY
3425 30 4	T-THREADED CONNECT. 4/ 4/ 4MM	5
3425 30 6	T-THREADED CONNECT. 6/ 6/ 6MM	5
3425 30 8	T-THREADED CONNECT. 8/ 8/ 8MM	5
3425 30 10	T-THREADED CONNECT.10/10/10MM	5
3425 30 12	T-THREADED CONNECT.12/12/12MM	5
3425 30 15	T-THREADED CONNECT.15/15/15MM	5



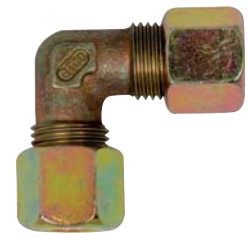
Straight Bulkhead Connections

Technical Data			
Art. No.	3425 42 12	3425 42 12 1	3425 42 15
D	12	12	15
I	12	12	12
L	62	62	73
L1	42	42	53
L2	27	27	37
S	22	27	27
S2	22	22	27
S3	24	24	27
M	16x1.5	22x1.5	22x1.5
DIN	74327	74327	-
max. BD	20 bar	20 bar	20 bar
Conn. type	Slip joint	Slip joint	Butt joint

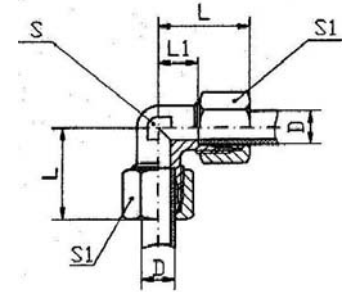
Article No.	Article Description	QTY
3425 42 12	STRA.BULK.STUF.BOX12MM M16X1.5	5
3425 42 12 1	STRA.BULK.STUF.BOX12MM M22X1.5	5
3425 42 15	STRA.BULK.STUF.BOX15MM M22X1.5	5



Elbow Threaded Connections



Technical Data				
Art. No.	3425 50 6	3425 50 8	3425 50 10	3425 50 12
D	6	8	10	12
L	27	29	30	32
L1	12	14	15	17
S	12	12	14	17
S1	14	17	19	22
DIN	2353	2353	2353	2353
max. BD	250 bar	250 bar	250 bar	250 bar
Conn. type	Slip joint	Slip joint	Slip joint	Slip joint

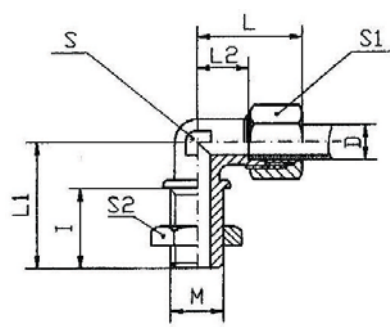


Article No.	Article Description	QTY
3425 50 6	ELBOW THREAD.CONN. 6/6MM	5
3425 50 8	ELBOW THREAD.CONN. 8/8MM	5
3425 50 10	ELBOW THREAD.CONN. 10/10MM	5
3425 50 12	ELBOW THREAD.CONN. 12/12MM	5

Elbow Inserted Threaded Connections



Technical Data				
Art. No.	3425 51 10	3425 51 12	3425 51 12 1	3425 51 15
D	10	12	12	15
I	25	25	25	25
L	32	32	32	52
L1	45	45	45	45
L2	17	17	17	36
S	17	17	17	19
S1	19	22	22	27
S2	22	22	27	27
M	16x1.5	16x1.5	22x1.5	22x1.5
DIN	-	74327	74327	74301
max. BD	20 bar	20 bar	20 bar	20 bar
Conn. type	Slip joint	Slip joint	Slip joint	Butt joint

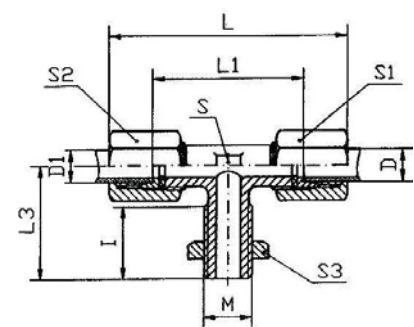


Article No.	Article Description	QTY
3425 51 10	ELBOW INSERT.CONN. 10MM M16X1.5	5
3425 51 12	ELBOW INSERT.CONN. 12MM M16X1.5	5
3425 51 12 1	ELBOW INSERT.CONN. 12MM M22X1.5	5
3425 51 15	ELBOW INSERT.CONN. 15MM M22X1.5	5

Inserted Connections T-Form



Technical Data		
Art. No.	3425 5 12 16	3425 5 15 22
D	12	15
D1	12	15
I	21	25
L	64	122
L1	34	90
L2	37	-
L3	-	42
S	17	-
S1	22	27
S2	22	27
S3	22	27
M	16x1.5	22x1.5
DIN	-	74302
max. BD	20 bar	20 bar
Conn. type	Slip joint	Butt joint



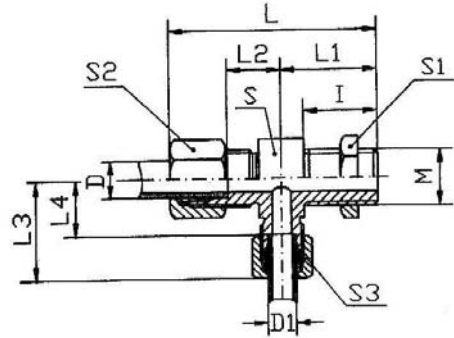
Article No.	Article Description	QTY
3425 5 12 16	T-FORM INS.CON. 12/12MM M16X1.5	5
3425 5 15 22	T-FORM INS.CON. 15/15MM M22X1.5	5

Insert Threaded Elbow-Connections



Technical Data

Art. No.	3425 6 12 16	3425 6 15 22
D	12	15
D1	6	6
I	24	25
L	70	72
L1	38	33
L2	17	23
L3	32	33
L4	17	18
S	17	27
S1	22	27
S2	22	27
S3	14	14
M	16X1.5	22X1.5
DIN	74327	74302
max. BD	20 bar	20 bar
Conn. type	Slip joint	Butt joint



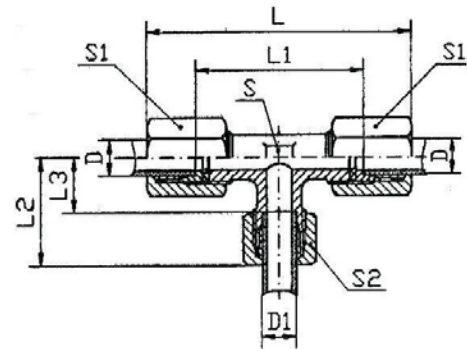
Article No.	Article Description	QTY
3425 6 12 16	L-FORM INS.CON.12/6MM M16X1.5	5
3425 6 15 22	L-FORM INS.CON.15/6MM M22X1.5	5

Threaded Reduction T-Connection



Technical Data

Art. No.	3425 7 12 6	3425 7 12 8
D	12	12
D1	6	8
L	64	64
L1	34	34
L2	32	32
L3	17	17
S	17	17
S1	22	22
S2	14	17
DIN	74327	74327
max. BD	250 bar	250 bar
Conn. type	Slip joint	Slip joint



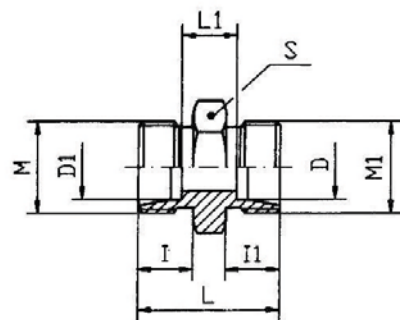
Article No.	Article Description	QTY
3425 7 12 6	T-REDUCTION THR.CONN.12/6/12MM	5
3425 7 12 8	T-REDUCTION THR.CONN.12/8/12MM	5

Straight Connection Pieces



Technical Data

Art. No.	3425 8 12	3425 8 22	3425 8 6 6	3425 8 8 8	3425 8 10 10	3425 8 12 12
D	-	-	6	8	10	12
D1	-	-	6	8	10	12
I	10	12	10	10	11	11
I1	10	12	10	10	11	11
L	24	30	26	25	27	28
L1	-	-	12	11	13	14
S	12	27	17	14	17	19
M	12x1,5	22x1.5	12x1.5	14x1.5	16x1.5	18x1.5
M1	12x1,5	22x1.5	12x1.5	14x1.5	16x1.5	18x1.5
DIN	3902	74298	74298	3902	3902	3902
max. BD	20 bar	20 bar	250 bar	250 bar	250 bar	250 bar
Conn. type	Slip joint	Butt joint	Slip joint	Slip joint	Slip joint	Slip joint

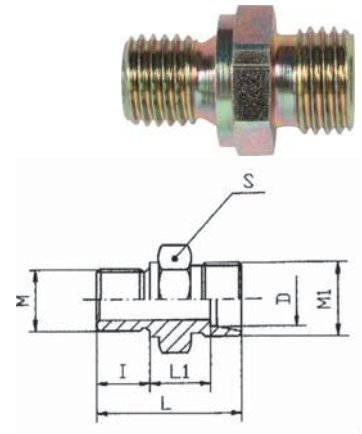


Article No.	Article Description	QTY
3425 8 12	STRAI.CONN.PIE.M12X1.5/M12X1.5	5
3425 8 22	STRAI.CONN.PIE.M22X1.5/M22X1.5	5
3425 8 6 6	STRAIGHT CONNECT.PIECES 6/6MM	5
3425 8 8 8	STRAIGHT CONNECT.PIECES 8/8MM	5
3425 8 10 10	STRAIGHT CONNec.PIECES 10/10MM	5
3425 8 12 12	STRAIGHT CONNec.PIECES 12/12MM	5
3425 8 15 15	STRAIGHT CONNec.PIECES 15/15MM	5

Straight Insert Connection Piece

Technical Data			
Art. No.	3425 9 8 12	3425 9 12 16	3425 9 15 22
D	8	12	15
I	12	12	14
L	29	32	36
L1	10	12	15
S	17	22	27
M	12x1.5	16x1.5	22x1.5
M1	14x1.5	18x1.5	22x1.5
DIN	3901	3901	-
max. BD	20 bar	20 bar	20 bar
Conn. type	Slip joint	Slip joint	Slip joint

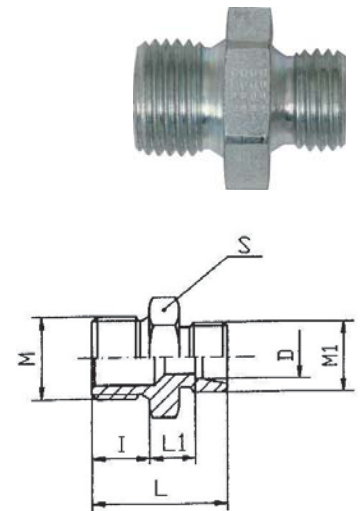
Article No.	Article Description	QTY
3425 9 8 12	S.INS.CON.PC.8MM 12X1.5/14X1.5	5
3425 9 12 16	S.INS.CON.PC.12MM16X1.5/18X1.5	5
3425 9 15 22	S.INS.CON.PC.15MM22X1.5/22X1.5	5



Straight Insert Connection Piece

Technical Data						
Art. No.	3425 9 6 16	3425 9 6 22	3425 9 8 16	3425 9 8 22	3425 9 10 22	3425 9 12 22
D	6	6	8	8	10	12
I	12	12	12	12	12	12
L	28	28	28	28	29	29
L1	9	9	9	9	10	10
S	22	27	22	27	27	27
M	16x1.5	22x1.5	16x1.5	22x1.5	22x1.5	22x1.5
M1	12x1.5	12x1.5	14x1.5	14x1.5	16x1.5	18x1.5
DIN	74313	74313	74313	74313	74313	74313
max. BD	20 bar	20 bar	20 bar	20 bar	20 bar	20 bar
Conn. type	Slip joint	Slip joint	Slip joint	Slip joint	Slip joint	Slip joint

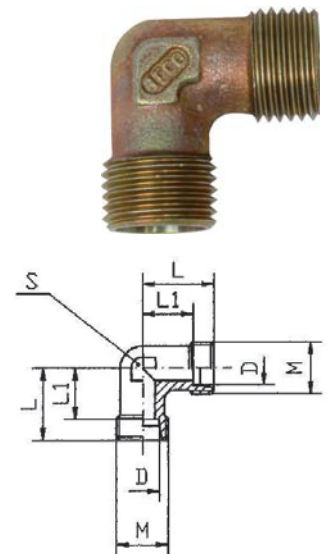
Article No.	Article Description	QTY
3425 9 6 16	S.INS.CON.PC.6MM 16X1.5/12X1.5	5
3425 9 6 22	S.INS.CON.PC.6MM 22X1.5/12X1.5	5
3425 9 8 16	S.INS.CON.PC.8MM 16X1.5/14X1.5	5
3425 9 8 22	S.INS.CON.PC.8MM 22X1.5/14X1.5	5
3425 9 10 22	S.INS.CON.PC.10MM22X1.5/16X1.5	5
3425 9 12 22	S.INS.CON.PC.12MM22X1.5/18X1.5	5



Angular Connection Pieces

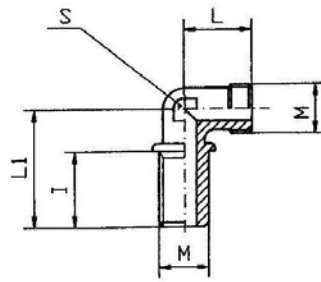
Technical Data					
Art. No.	3425 11 6 12	3425 11 8 14	3425 11 10 16	3425 11 12 18	3425 11 15 22
D	6	8	10	12	15
L	19	21	22	24	28
L1	12	14	15	17	21
S	12	12	14	17	19
M	12x1.5	14x1.5	16x1.5	18x1.5	22x1.5
DIN	3905	3905	3905	3905	3905
max. BD	250 bar	250 bar	250 bar	250 bar	250 bar
Conn. type	Slip joint	Slip joint	Slip joint	Slip joint	Slip joint

Article No.	Article Description	QTY
3425 11 6 12	ANGUL.CONNECT.PIEC.6MM M12X1.5	5
3425 11 8 14	ANGUL.CONNECT.PIEC.8MM M14X1.5	5
3425 11 10 16	ANGUL.CONNEC.PIEC.10MM M16X1.5	5
3425 11 12 18	ANGUL.CONNEC.PIEC.12MM M18X1.5	5
3425 11 15 22	ANGUL.CONNEC.PIEC.15MM M22X1.5	5



Angular Insert Connection Piece - Outside Thread

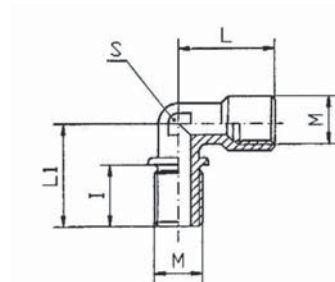
Technical Data	
Art. No.	3425 12 15
I	25
L	33
L1	45
S	19
M	22x1.5
DIN	74315
max. BD	20
Conn. type	Butt joint



Article No.	Article Description	QTY
3425 12 15	A.INS.CON.P.15MM 22X1.5/22X1.5	5

Angular Insert Connection Piece - Inside Thread

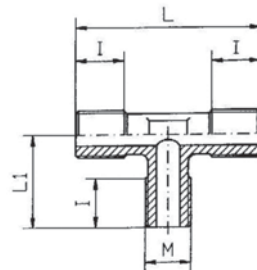
Technical Data	
Art. No.	3425 12 16
I	25
L	36
L1	48
S	19
M	22x1.5
DIN	74315
max. BD	20
Conn. type	Butt joint



Article No.	Article Description	QTY
3425 12 16	ANG.INS.CON.P.M22X1.5/M22X1.5	5

T-Connection Pieces

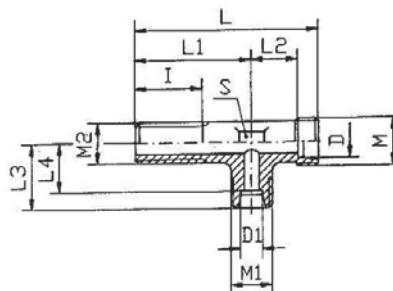
Technical Data	
Art. No.	3425 13 15
I	24
L	84
L1	42
M	22x1.5
DIN	743102
max. BD	20
Conn. type	Butt joint



Article No.	Article Description	QTY
3425 13 15	T-CONNEC.PIECE 15MM M22X1.5	5

L-Connection Pieces

Technical Data		
Art. No.	3425 14 12	3425 14 15
D	12	15
D1	6	6
I	24	25
L	62	55
L1	38	34
L2	17	-
L3	24	24
L4	17	17
S	17	19
M	18x1.5	22x1.5
M1	12x1.5	22x1.5
M2	16x1.5	22x1.5
DIN	74317	74317
max. BD	20	20
Conn. type	Slip joint	Butt joint

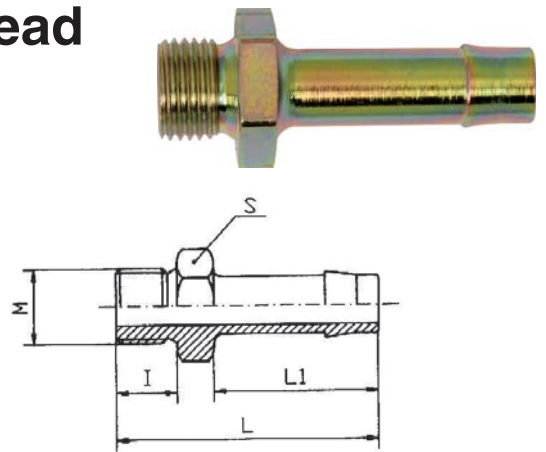


Article No.	Article Description	QTY
3425 14 12	L-CONNEC.PIECE 12/6MM M16X1.5	5
3425 14 15	L-CONNEC.PIECE 15/6MM M22X1.5	5

Hose Connection Piece with Thread

Technical Data				
Art. No.	3420 5	3420 6	3420 7	3420 8
Ø	11	11	13	13
I	12	12	12	12
L	58	59	58	59
L1	40	40	40	40
S	22	27	22	27
M	16x1.5	22x1.5	16x1.5	22x1.5
DIN	74304	-	-	74304
max. BD	20	20	20	20

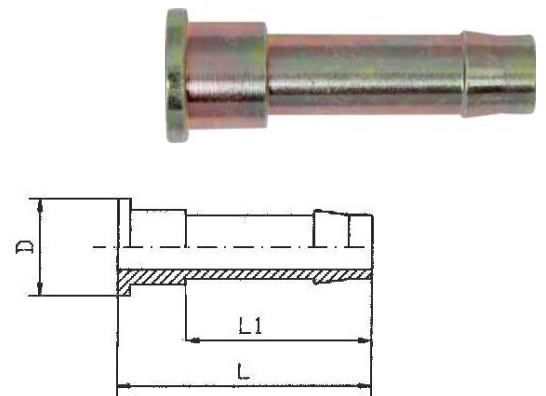
Article No.	Article Description	QTY
3420 5	HOSE CONNEC.PIECE 11MM M16X1.5	5
3420 6	HOSE CONNEC.PIECE 11MM M22X1.5	5
3420 7	HOSE CONNEC.PIECE 13MM M16X1.5	5
3420 8	HOSE CONNEC.PIECE 13MM M22X1.5	5



Hose Connection Piece

Technical Data		
Art. No.	3420 11	3420 13
Ø	11	13
D	20	20
L	55	55
L1	40	40
DIN	-	74304
max. BD	20	20
Conn. type	Butt joint	Butt joint

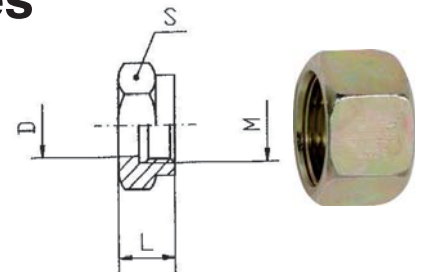
Article No.	Article Description	QTY
3420 11	HOSE CONNECTION PIECE 11MM	5
3420 13	HOSE CONNECTION PIECE 13MM	5



Union Nut for Hose Connection Pieces

Technical Data	
Art. No.	3420 14
D	17
L	17
S	27
M	22x1.5
DIN	3870

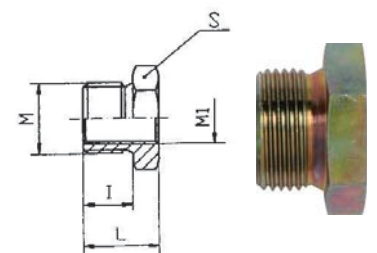
Article No.	Article Description	QTY
3420 14	UNION NUT F.HO.CNCT.PC.M22X1.5	5



Reducing Connection Pieces

Technical Data	
Art. No.	3425 15 16
M	22x1.5
M1	16x1.5
I	12
L	19
S	27

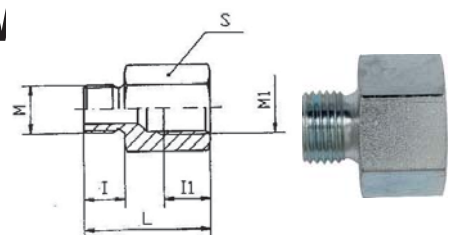
Article No.	Article Description	QTY
3425 15 16	RED.CONN.PIECE M16X1.5/M22X1.5	5



Reducing Connection Piece Long SV

Technical Data	
Art. No.	3425 15 22
M	16x1.5
M1	22x1.5
I	12
I1	14
L	35
S	27

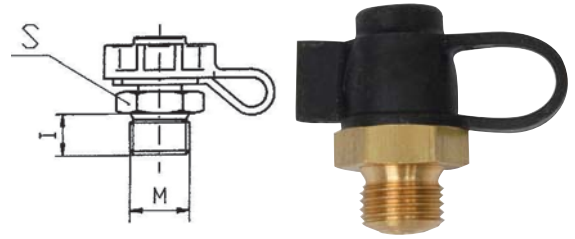
Article No.	Article Description	QTY
3425 15 22	RED.CONN.PIECE M22X1.5/M16X1.5	5



Test Connectors Outside Thread

Technical Data				
Article No.	I	S	M	max. BD
3421 2	12		16x1.5	20 bar
3421 3	12	27	22x1.5	20 bar

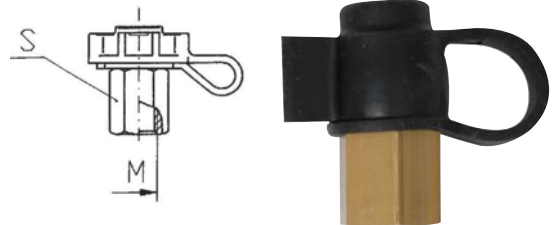
Article No.	Article Description	QTY
3421 2	TEST CONNECT.OUTSIDE M16X1.5	5
3421 3	TEST CONNECT.OUTSIDE M22X1.5	5



Test Connectors Inside Thread

Technical Data			
Article No.	S	M	max. BD
3421 4	17	12x1.5	20 bar

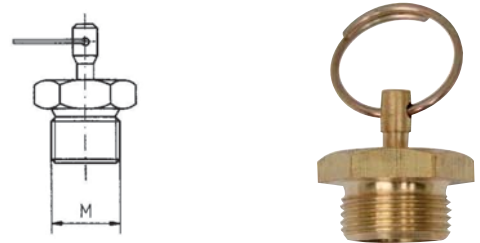
Article No.	Article Description	QTY
3421 4	TEST CONNECTION INSIDE M12X1.5	5



Water Discharge Valve

Technical Data			
Art. No.	M	DIN	max. BD
3421 1	22x1,5	74292	20 bar

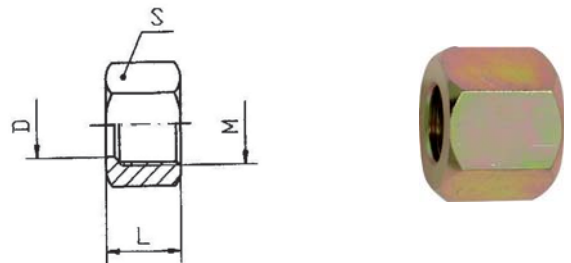
Article No.	Article Description	QTY
3421 1	WATER DISCHARGE VALVE	e 10



Union Nuts

Technical Data						
Art. No.	D	L	S	M	DIN	Conn. type
3425 16 6	6	14.5	14	12x1.5	3870	Slip joint
3425 16 8	8	14.5	17	14x1.5	3870	Slip joint
3425 16 10	10	15.5	19	16x1.5	3870	Slip joint
3425 16 12	12	15.5	22	18x1.5	3870	Slip joint
3425 16 15	15	17	27	22x1.5	3870	Slip joint

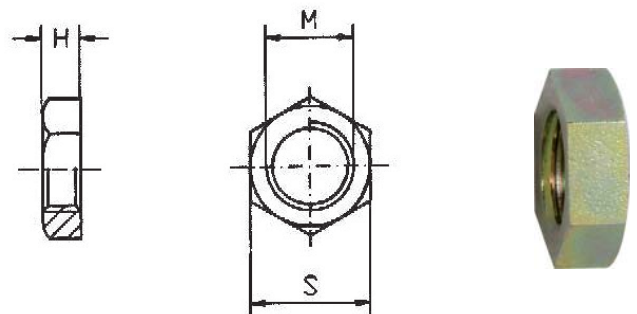
Article No.	Article Description	QTY
3425 16 6	UNION NUT 6MM M12X1.5	5
3425 16 8	UNION NUT 8MM M14X1.5	5
3425 16 10	UNION NUT 10MM M16X1.5	5
3425 16 12	UNION NUT 12MM M18X1.5	5
3425 16 15	UNION NUT 15MM M22X1.5	5



Hexagon Nuts

Technical Data				
Art. No.	H	S	M	DIN
3425 17 12	6	17	12x1.5	80705
3425 17 14	6	19	14x1.5	80705
3425 17 16	6	22	16x1.5	80705
3425 17 18	6	24	18x1.5	80705
3425 17 22	8	27	22x1.5	74305

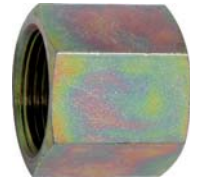
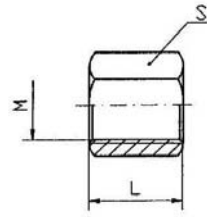
Article No.	Article Description	QTY
3425 17 12	HEXAGON NUTS M12X1.5	5
3425 17 14	HEXAGON NUTS M14X1.5	5
3425 17 16	HEXAGON NUTS M16X1.5	5
3425 17 18	HEXAGON NUTS M18X1.5	5
3425 17 22	HEXAGON NUTS M22X1.5	5



Sockets

Technical Data

Art. No.	L	S	M	max. BD
3425 18 22	25	27	22x1.5	20 bar

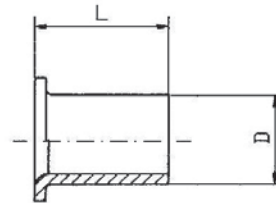


Article No.	Article Description	QTY
3425 18 22	SOCKETS M22X1.5	5

Support Sleeves Brass

Technical Data

Article No.	Pipe-Ø	D	L	max. BD
3425 10 2	4x1	2	-	25 bar
3425 10 3	5x1	3	-	25 bar
3425 10 4	6x1	4	10	25 bar
3425 10 6	8x1	6	15	25 bar
3425 10 7	9x1.5	7	15	25 bar
3425 10 8	10x1	8	15	25 bar
3425 10 9	11x1.5	9	15	25 bar
3425 10 10	12x1.5	10	15	25 bar
3425 10 115	15x1.5	11.5	15	25 bar
3425 10 12	15x1.5	12	15	25 bar

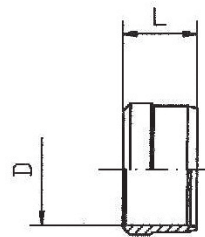


Article No.	Article Description	QTY
3425 10 2	SUPPORT SLEEVE BRASS 2/4MM	50
3425 10 3	SUPPORT SLEEVE BRASS 3/5MM	50
3425 10 4	SUPPORT SLEEVE BRASS 4/6MM	25
3425 10 6	SUPPORT SLEEVE BRASS 6/8MM	25
3425 10 7	SUPPORT SLEEVE BRASS 7/10M	25
3425 10 8	SUPPORT SLEEVE BRASS 8/10M	25
3425 10 9	SUPPORT SLEEVE BRASS 9/12MM	25
3425 10 10	SUPPORT SLEEVE BRASS 10/12MM	25
3425 10 12	SUPPORT SLEEVE BRASS 12/15MM	10

Cutting Rings

Technical Data

Article No.	D	L	DIN	max. BD
3425 70 4	4	9	3861	100 bar
3425 70 6	6	9.5	3861	250 bar
3425 70 8	8	9.5	3861	250 bar
3425 70 10	10	10	3861	250 bar
3425 70 12	12	10	3861	250 bar
3425 70 14	14	10	3861	630 bar
3425 70 15	15	10	3861	315 bar

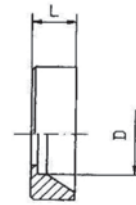


Article No.	Article Description	QTY
3425 70 4	CUTTING RING 4MM	25
3425 70 6	CUTTING RING 6MM	25
3425 70 8	CUTTING RING 8MM	25
3425 70 10	CUTTING RING 10MM	25
3425 70 12	CUTTING RING 12MM	25
3425 70 14	CUTTING RING 14MM	25
3425 70 15	CUTTING RING 15MM	10

Thrust Ring

Technical Data				
Article No.	D	L	DIN	max. BD
3425 19 15	15	9	3867	20 bar

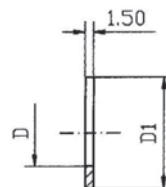
Article No.	Article Description	QTY
3425 19 15	THRUST RING 15MM	5



Sealing Ring

Technical Data					
Article No.	D	D1	Pipe-Ø	DIN	max. BD
3425 20 15	12	19	15	7603	20 bar

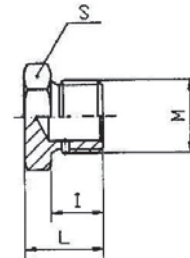
Article No.	Article Description	QTY
3425 20 15	SEALING RING 15MM	5



Hollow Screw Plugs

Technical Data						
Article No.	I	L	S	M	DIN	max. BD
3425 21 22	12	19	27	22x1.5	74305	20 bar

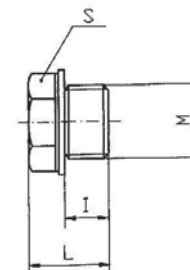
Article No.	Article Description	QTY
3425 21 22	HOLLOW SCREW PLUG M22X1.5	5



Screw Plugs

Technical Data					
Article No.	I	L	S	M	DIN
3425 22 16	9	17	22	16x1.5	7604

Article No.	Article Description	QTY
3425 22 16	SCREW PLUG M16X1.5	5



Ring eye nipple

- ring eye nipple according to DIN 7642 form E
- with wrench flat for resistance when tightening the wooden screw (except art. no. 3421 14 710)
- material: galvanised steel
- max pressure: 34 bar



Article No.	Article Description	QTY
3421 8 4 6	RING EYE NIP.SCØ 8 F.PP.Ø 4X 6	5
3421 8 5 8	RING EYE NIP.SCØ 8 F.PP.Ø 5X 8	5
3421 10 4 6	RING EYE NIP.SCØ 8 F.PP.Ø 4X 6	5
3421 10 6 8	RING EYE NIP.SCØ 8 F.PP.Ø 6X 8	5
3421 12 4 6	RING EYE NIP.SCØ 8 F.PP.Ø 4X 6	5
3421 12 5 8	RING EYE NIP.SCØ 8 F.PP.Ø 5X 8	5
3421 12 6 8	RING EYE NIP.SCØ 8 F.PP.Ø 6X 8	5
3421 12 8 10	RING EYE NIP.SCØ 8 F.PP.Ø 8X10	5
3421 14 4 6	RING EYE NIP.SCØ 8 F.PP.Ø 4X 6	5
3421 14 5 8	RING EYE NIP.SCØ 8 F.PP.Ø 5X 8	5
3421 14 6 8	RING EYE NIP.SCØ 8 F.PP.Ø 6X 8	5
3421 14 7 10	RING EYE NIP.SCØ 8 F.PP.Ø 7X10	5
3421 14 8 10	RING EYE NIP.SCØ 8 F.PP.Ø 8X10	5
3421 14 9 12	RING EYE NIP.SCØ 8 F.PP.Ø 9X12	5
3421 16 4 6	RING EYE NIP.SCØ 8 F.PP.Ø 4X 6	5
3421 16 6 8	RING EYE NIP.SCØ 8 F.PP.Ø 6X 8	5
3421 16 8 10	RING EYE NIP.SCØ 8 F.PP.Ø 8X10	5
3421 16 9 12	RING EYE NIP.SCØ 8 F.PP.Ø 9X12	5

(SC = slit coil, F.PP = for polyamidepipe)

Technical Data				
Art.-No.	slit coil Ø	for hose-internal-Ø	wall thick-ness	SW
3421 8 46	8 mm	4 mm	1.0 mm	14
3421 8 58	8 mm	5 mm	1.5 mm	14
3421 10 46	10 mm	4 mm	1.0 mm	17
3421 10 68	10 mm	6 mm	1.0 mm	17
3421 12 46	12 mm	4 mm	1.0 mm	20
3421 12 58	12 mm	5 mm	1.5 mm	20
3421 12 68	12 mm	6 mm	1.0 mm	20
3421 12 810	12 mm	8 mm	1.0 mm	20
3421 14 46	14 mm	4 mm	1.0 mm	24
3421 14 58	14 mm	5 mm	1.5 mm	24
3421 14 68	14 mm	6 mm	1.0 mm	22
3421 14 710	14 mm	7 mm	1.5 mm	-
3421 14 810	14 mm	8 mm	1.0 mm	24
3421 14 912	14 mm	9 mm	1.5 mm	24
3421 16 46	16 mm	4 mm	1.0 mm	27
3421 16 68	16 mm	6 mm	1.0 mm	27
3421 16 810	16 mm	8 mm	1.0 mm	27
3421 16 912	16 mm	9 mm	1.5 mm	27

Ring eye nipple in product range

- 76 pieces

Contents

Article No.	Article Description	Quantity
3421 8 4 6	RING EYE NIP.SCØ 8 F.PP.Ø 4X 6	5
3421 8 5 8	RING EYE NIP.SCØ 8 F.PP.Ø 5X 8	5
3421 10 4 6	RING EYE NIP.SCØ 8 F.PP.Ø 4X 6	5
3421 10 6 8	RING EYE NIP.SCØ 8 F.PP.Ø 6X 8	5
3421 12 4 6	RING EYE NIP.SCØ 8 F.PP.Ø 4X 6	3
3421 12 5 8	RING EYE NIP.SCØ 8 F.PP.Ø 5X 8	5
3421 12 6 8	RING EYE NIP.SCØ 8 F.PP.Ø 6X 8	5
3421 12 8 10	RING EYE NIP.SCØ 8 F.PP.Ø 8X10	3
3421 14 4 6	RING EYE NIP.SCØ 8 F.PP.Ø 4X 6	5
3421 14 5 8	RING EYE NIP.SCØ 8 F.PP.Ø 5X 8	5
3421 14 6 8	RING EYE NIP.SCØ 8 F.PP.Ø 6X 8	5
3421 14 7 10	RING EYE NIP.SCØ 8 F.PP.Ø 7X10	5
3421 14 8 10	RING EYE NIP.SCØ 8 F.PP.Ø 8X10	5
3421 14 9 12	RING EYE NIP.SCØ 8 F.PP.Ø 9X12	3
3421 16 4 6	RING EYE NIP.SCØ 8 F.PP.Ø 4X 6	3
3421 16 6 8	RING EYE NIP.SCØ 8 F.PP.Ø 6X 8	3
3421 16 8 10	RING EYE NIP.SCØ 8 F.PP.Ø 8X10	3
3421 16 9 12	RING EYE NIP.SCØ 8 F.PP.Ø 9X12	3

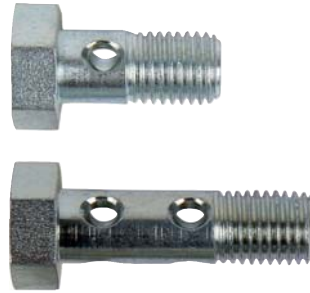
Article No.	Article Description	QTY
9000 3421 1	RING EYE NIPPLE ASSORTMENT	1
9000R 3421 1	INSERT RING EYE NIPPLES	1

(SC = slit coil, F.PP = for polyamidepipe)



Banjo screws

- banjo screws according to DIN 7643
- material: galvanised steel
- for ring eye nipple in connection with a copper or vulcan fibre washer
- max pressure: 34 bar



Article No.	Article Description	QTY
3421 1 8 1	BANJO SCREWS 1-HOLE M 8X1	5
3421 1 10 1	BANJO SCREWS 1-HOLE M 10X1	5
3421 1 12 15	BANJO SCREWS 1-HOLE M 12X1.5	5
3421 1 14 15	BANJO SCREWS 1-HOLE M 14X1.5	5
3421 1 16 15	BANJO SCREWS 1-HOLE M 16X1.5	5
3421 1 18 15	BANJO SCREWS 1-HOLE M 18X1.5	5
3421 2 8 1	BANJO SCREWS 2-HOLE M 8X1	5
3421 2 10 1	BANJO SCREWS 2-HOLE M 10X1	5
3421 2 12 15	BANJO SCREWS 2-HOLE M 12X1.5	5
3421 2 14 15	BANJO SCREWS 2-HOLE M 14X1.5	5
3421 2 16 15	BANJO SCREWS 2-HOLE M 16X1.5	5
3421 2 18 15	BANJO SCREWS 2-HOLE M 18X1.5	5

Technical Data			
Art.-No.	external thread	shaft length	SW
3421 1 8 1	M 8x1	17 mm	12
3421 1 10 1	M 10x1	19 mm	14
3421 1 12 15	M 12x1.5	24 mm	17
3421 1 14 15	M 14x1.5	26 mm	19
3421 1 16 15	M 16x1.5	28 mm	22
3421 1 18 15	M 18x1.5	32 mm	24
3421 2 8 1	M 8x1	28 mm	12
3421 2 10 1	M 10x1	30 mm	14
3421 2 12 15	M 12x1.5	38 mm	17
3421 2 14 15	M 14x1.5	42 mm	19
3421 2 16 15	M 16x1.5	46 mm	22
3421 2 18 15	M 18x1.5	54 mm	24

Banjo screws in product range

- 69 pieces

Contents

Article No.	Article Description	Quantity
3421 1 8 1	BANJO SCREWS 1-HOLE M 8X1	10
3421 1 10 1	BANJO SCREWS 1-HOLE M 10X1	10
3421 1 12 15	BANJO SCREWS 1-HOLE M 12X1.5	10
3421 1 14 15	BANJO SCREWS 1-HOLE M 14X1.5	5
3421 1 16 15	BANJO SCREWS 1-HOLE M 16X1.5	5
3421 1 18 15	BANJO SCREWS 1-HOLE M 18X1.5	5
3421 2 8 1	BANJO SCREWS 2-HOLE M 8X1	5
3421 2 10 1	BANJO SCREWS 2-HOLE M 10X1	5
3421 2 12 15	BANJO SCREWS 2-HOLE M 12X1.5	5
3421 2 14 15	BANJO SCREWS 2-HOLE M 14X1.5	3
3421 2 16 15	BANJO SCREWS 2-HOLE M 16X1.5	3
3421 2 18 15	BANJO SCREWS 2-HOLE M 18X1.5	3



Article No.	Article Description	QTY
9000 3421	BANJO SCREWS ASSORTMENT	1
9000R 3421	INSERT BANJO SCREWS	1

Plug Connectors for Compressed-Air Brake Systems

Screw-in Connector Straight, Removable

- Snap-in design, can be disassembled

Article No.	Article Description	QTY
3424 050 097	SCREW-IN CONNECTOR 6MM M10X1.0	5
3424 052 097	SCREW-IN CONNECTOR 6MM M12X1.5	5
3424 054 097	SCREW-IN CONNECTOR 6MM M22X1.5	5
3424 056 097	SCREW-IN CONNECTOR 8MM M12X1.5	5
3424 058 097	SCREW-IN CONNECTOR 8MM M12X1.5	5
3424 060 097	SCREW-IN CONNECTOR 8MM M22X1.5	5
3424 062 097	SCREW-IN CONNECTOR 8MM M16X1.5	5
3424 064 097	SCREW-IN CONNECTOR 8MM M22X1.5	5
3424 065 097	SCREW-IN CONNECTOR 8MM M12X1.5	5
3424 066 097	SCREW-IN CONNECTOR 8MM M16X1.5	5
3424 068 097	SCREW-IN CONNECTOR 8MM M22X1.5	5
3424 072 097	SCREW-IN CONNECTOR 8MM M16X1.5	5
3424 074 097	SCREW-IN CONNECTOR 8MM M22X1.5	5

(Pipe outside-Ø mm)



Plug Connectors, Straight

- TÜV tested and approved for compressed air brake systems
- For polyamide tubing according to DIN 73378 / 74324
- Operating pressure: up to 15 bars
- Temperature range: -40°C to +100°C
- Easy to assembly and disassembly without tools
- Material: housing - brass, O-rings - nitrile rubber

Article No.	Article Description	QTY
3422 06 1	PLUG CNCTR.STRAIGHT BRASS 6MM	5
3422 08 1	PLUG CNCTR.STRAIGHT BRASS 8MM	5
3422 09 1	PLUG CNCTR.STRAIGHT BRASS 9MM	5
3422 10 1	PLUG CNCTR.STRAIGHT BRASS 10MM	5
3422 11 1	PLUG CNCTR.STRAIGHT BRASS 11MM	5
3422 12 1	PLUG CNCTR.STRAIGHT BRASS 12MM	5
3422 14 1	PLUG CNCTR.STRAIGHT BRASS 14MM	5
3422 15 1	PLUG CNCTR.STRAIGHT BRASS 15MM	5
3422 16 1	PLUG CNCTR.STRAIGHT BRASS 16MM	5

Technical Data		
Art. No.	For pipe outside-Ø	Wall thickness
3422 06 1	6 mm	1,0 mm
3422 08 1	8 mm	1,0 mm
3422 09 1	9 mm	1,5 mm
3422 10 1	10 mm	1,0 mm
3422 11 1	11 mm	1,5 mm
3422 12 1	12 mm	1,5 mm
3422 14 1	14 mm	2,0 mm
3422 15 1	15 mm	1,5 mm
3422 16 1	16 mm	2,0 mm

Plug Connector, 90° Angle

- TÜV tested and approved for compressed air brake systems
- For polyamide tubing according to DIN 73378 / 74324
- Operating pressure: up to 15 bars
- Temperature range: -40°C to +100°C
- Easy to assembly and disassembly without tools
- Material: housing - brass, O-rings - nitrile rubber

Article No.	Article Description	QTY
3422 06 2	PLUG CNCTR.ANGLED BRASS 6MM	5
3422 08 2	PLUG CNCTR.ANGLED BRASS 8MM	5
3422 10 2	PLUG CNCTR.ANGLED BRASS 10MM	5
3422 12 2	PLUG CNCTR.ANGLED BRASS 12MM	5
3422 15 2	PLUG CNCTR.ANGLED BRASS 15MM	5



Technical Data		
Art. No.	For pipe outside-Ø	Wall thickness
3422 06 2	6 mm	1,0 mm
3422 08 2	8 mm	1,0 mm
3422 10 2	10 mm	1,0 mm
3422 12 2	12 mm	1,5 mm
3422 15 2	15 mm	1,5 mm

T-Connector

- TÜV tested and approved for compressed air brake systems
- For polyamide tubing according to DIN 73378 / 74324
- Operating pressure: up to 15 bars
- Temperature range: -40°C to +100°C
- Easy to assembly and disassembly without tools
- Material: housing - brass, O-rings - nitrile rubber

Article No.	Article Description	QTY
3422 06 3	PLUG CNCTR.T-SHAPE BRASS 6MM	5
3422 08 3	PLUG CNCTR.T-SHAPE BRASS 8MM	5
3422 10 3	PLUG CNCTR.T-SHAPE BRASS 10MM	5
3422 12 3	PLUG CNCTR.T-SHAPE BRASS 12MM	5



Technical Data		
Art.-No.	For pipe outside-Ø	Wall thickness
3422 06 3	6 mm	1.0 mm
3422 08 3	8 mm	1.0 mm
3422 10 3	10 mm	1.0 mm
3422 12 3	12 mm	1.5 mm

Plastic plug connector for compressed air brake sy

- 30 pieces
- 1 x art. no. 3423 3 pipe cutter for plastic pipes

Contents

Article No.	Article Description	Quantity
3422 06 1	PLUG CNCTR.STRAIGHT BRASS 6MM	5
3422 06 3	PLUG CNCTR.T-SHAPE BRASS 6MM	2
3422 08 1	PLUG CNCTR.STRAIGHT BRASS 8MM	5
3422 08 3	PLUG CNCTR.T-SHAPE BRASS 8MM	2
3422 09 1	PLUG CNCTR.STRAIGHT BRASS 9MM	2
3422 10 1	PLUG CNCTR.STRAIGHT BRASS 10MM	4
3422 10 3	PLUG CNCTR.T-SHAPE BRASS 10MM	2
3422 11 1	PLUG CNCTR.STRAIGHT BRASS 11MM	2
3422 12 1	PLUG CNCTR.STRAIGHT BRASS 12MM	2
3422 12 3	PLUG CNCTR.T-SHAPE BRASS 12MM	2
3422 15 1	PLUG CNCTR.STRAIGHT BRASS 15MM	1
3423 3	LINE CUTTER FOR PLASTIC PIPE	1

Article No.	Article Description	QTY
9000 3422 1	PLUG.CON.F.C.AIR BR-SYS.ASSORT	1
9000R 3422 1	INSERT PLUG CONNECTORS	1



Screw-in Plug and Socket Connector RO 15

Article No.	Article Description	QTY
3424 040 010	SOCKET RO15 M 10X1.0	5
3424 040 020	SOCKET RO15 M 12X1.5	5
3424 040 030	SOCKET RO15 M 14X1.5	5
3424 040 040	SOCKET RO15 M 16X1.5	5
3424 040 050	SOCKET RO15 M 22X1.5	5



Screw Adaptor

Article No.	Article Description	QTY
3424 060 010	SCREW ADAPTER M16/22/22X1.5	5
3424 060 020	SCREW ADAPTER M16/16/22X1.5	5



Screw-in Connector 90° Angle

Article No.	Article Description	QTY
3424 110 010	ANGLE 90° M16X1.5A/ M16X1.5I	5



Screw / Plug Connector 90° Angle RO13/RO15

Article No.	Article Description	QTY
3424 120 010	ANGLE 90° RO13 M12X1,5	5
3424 120 020	ANGLE 90° RO15 M16X1,5	5



Screw / Plug Connector Angle 135° RO15

Article No.	Article Description	QTY
3424 090 010	ANGLE 135° RO15 M16X1.5	e 5



Screw Connector 90° Angle

Article No.	Article Description	QTY
3424 130 020	ANGLE 90° M16X1.5	5



T-Screw / Plug Connector RO15 Centred



Article No.	Article Description	QTY
3424 140 020	T-FITTING RO15T2X16X1.5	5

T-Screw / Plug Connector RO15 Lateral



Article No.	Article Description	QTY
3424 150 020	T-FITTING RO15 L 2X16X1.5	5

T-Screw Connector



Article No.	Article Description	QTY
3424 160 020	T-PI ECE 3XM16X1.5	5
3424 160 030	T-FITTING 3XM22X1.5	5

Crosswise Screw / Plug Connector RO15



Article No.	Article Description	QTY
3424 180 020	CROSSWISE PIECE RO15 3XM16X1.5	5

Reduction Screw Connector



Article No.	Article Description	QTY
3424 210 010	REDUCTION M16X1.5 M22X1.5	5

ABC System Plug Connectors

The carefully developed, well-engineered and sophisticated ABC Couplings screwed connection system comprises the following components:

- straight plug connectors
- ABC quick-fit connectors
- ABC modular parts
- Bulkhead screwed connectors
- Test port
- Test connection
- Hose spigot

ABC Couplings can be used on polyamide pipes (PA 11/PA 12) and on hytrel pipes that comply with the following standards:

- ISO 7628
- DIN 74324
- DIN 73378
- SAE J844

The rated operating temperature for ABC Couplings ranges from -40°C to 100°C with a peak temperature rating of +130°C (depressurised for a duration of approx. 2 hours).

The permitted operating pressure is 12.5 bar. Please note that the max. permitted operating pressure of these pipes.

Product	Material specification
Brass system components	EN 12164 CW617N (CuZn39Pb3)
ABC housing	PA 12 GF50
O-rings	EPDM
Steel components	EN 10087 9SMnPb28



Small

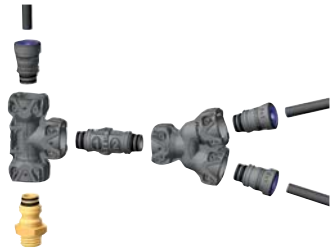


Regular



Heavy Duty

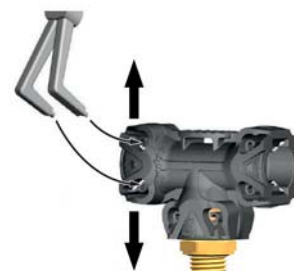
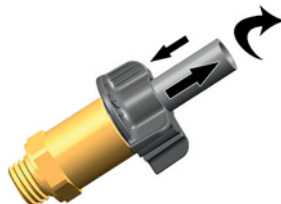
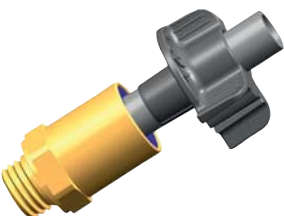
Assembly note:



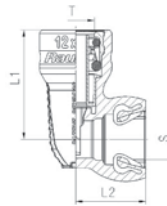
Rotolock assembly note:



Dismantling note:



Connector 90°



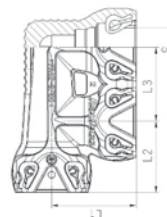
Article No.	Article Description	QTY
3427 10 1 6 10	CONNECTOR SML 6X1.0 90°	5
3427 10 1 8 10	CONNECTOR SML 8X1.0 90°	5
3427 10 6 10	CONNECTOR REG 6X1.0 90°	5
3427 10 8 10	CONNECTOR REG 8X1.0 90°	5
3427 10 10 10	CONNECTOR REG 10X1.0 90°	5
3427 10 10 125	CONNECTOR REG 10X1.25 90°	5
3427 10 12 15	CONNECTOR REG 10X1.5 90°	5
3427 11 15 15	CONNECTOR HD 15X1.5 90°	5
3427 11 16 20	CONNECTOR HD 16X2.0 90°	5

Technical Data			
Art.-No.	S	L1	L2
3427 10 1 6 10	Small	32	18
3427 10 1 8 10	Small	34	18
3427 10 6 10	Regular	31	21
3427 10 8 10	Regular	33	21
3427 10 10 10	Regular	35	24
3427 10 10 10	Regular	35	24
3427 10 12 15	Regular	37	24
3427 11 15 15	Heavy Duty	46	24
3427 11 15 15	Heavy Duty	46	24

F-Piece

Technical Data				
Art.-No.	S (3x)	L1	L2.	L3
3427 12 1	Small	27	22	23
3427 12	Regular	31	26	27

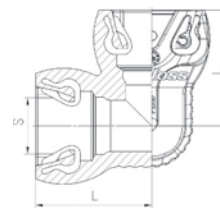
Article No.	Article Description	QTY
3427 12 1	F-PIECE SML	5
3427 12	F-PIECE REG	5



Angle 90°

Technical Data		
Art.-No.	S (2x)	L
3427 13	Regular	29
3427 13 1	Heavy Duty	34

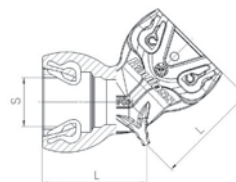
Article No.	Article Description	QTY
3427 13	ANGLE REG 90°	5
3427 13 1	ANGLE HD 90°	5



Angle 45°

Technical Data		
Art.-No.	S (2x)	L
3427 14	Regular	25

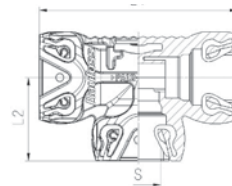
Article No.	Article Description	QTY
3427 14	ANGLE REG 45°	5



T-Piece

Technical Data			
Art.-No.	S (3x)	L1	L2
3427 15 1	Small	53	22
3427 15	Regular	62	26
3427 16	Heavy Duty	73	31

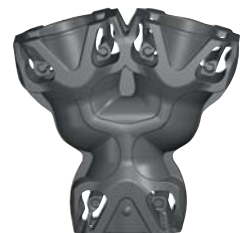
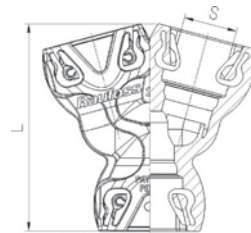
Article No.	Article Description	QTY
3427 15 1	T-PIECE SML	5
3427 15	T-PIECE REG	5
3427 16	T-PIECE HD	5



Y-Piece

Technical Data		
Art.-No.	S (3x)	L
3427 17 1	Small	47
3427 17	Regular	55

Article No.	Article Description	QTY
3427 17 1	Y-PIECE SML	5
3427 17	Y-PIECE REG	5



Test Connector

Technical Data	
Art.-No.	S
3427 18	Regular

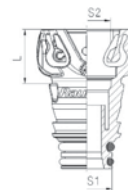
Article No.	Article Description	QTY
3427 18	TEST CONNECTOR REG	5



Reducing Adaptor

Technical Data			
Art.-No.	S	S2	L
3427 19	Heavy Duty	Regular	15

Article No.	Article Description	QTY
3427 19	REDUCING ADAPTOR	5



Connector Threadless

Technical Data		
Art.-No.	S1	S2
3427 20 1	Small	Small
3427 20 2	Regular	Small
3427 20	Regular	Regular
3427 21	Heavy Duty	Regular
3427 21 1	Heavy Duty	Heavy Duty

Article No.	Article Description	QTY
3427 20 1	CONNECTOR THREADLESS SML	5
3427 20 2	CONNECTOR THREADLESS REG-SML	5
3427 20	CONNECTOR THREADLESS REG	5
3427 21	CONNECTOR THREADLESS HD-REG	5
3427 21 1	CONNECTOR THREADLESS HD-HD	5



Connector Straight

Technical Data

Art.-No.	S (2x)	L
3427 22 1	Small	39
3427 22	Regular	45

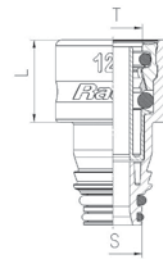


Article No..	Article Description	QTY
3427 22 1	CONNECTOR STRAIGHT REG	5
3427 22	CONNECTOR STRAIGHT REG	5

Connector threadless

Technical Data

Art.-No.	T	S	L	Cap
3427 8 1 8 10	8 x 1.0	Small	10	white
3427 8 6 10	6 x 1.0	Regular	4	green
3427 8 8 10	8 x 1.0	Regular	8	green
3427 8 10 10	10 x 1.0	Regular	11	green
3427 8 10 125	10 x 1.25	Regular	11	green
3427 8 12 15	12 x 1.5	Regular	18	green
3427 9 12 15	12 x 1.5	Heavy Duty	18	blue
3427 9 15 15	15 x 1.5	Heavy Duty	21	blue
3427 9 16 20	16 x 2.0	Heavy Duty	21	blue



Article No.	Article Description	QTY
3427 8 1 8 10	CONNECTOR THREADL.SML 8X1.0	5
3427 8 6 10	CONNECTOR THREADL.REG 6X1.0	5
3427 8 8 10	CONNECTOR THREADLESS REG 8X1.0	5
3427 8 10 10	CONNECTOR THREADLESS REG 10X1.0	5
3427 8 10 125	CONNECTOR THREADL. REG 10X1.25	5
3427 8 12 15	CONNECTOR THREADL. REG 12X1.5	5
3427 9 12 15	CONNECTOR THREADL. HD 12X1.5	5
3427 9 15 15	CONNECTOR THREADL. HD 15X1.5	5
3427 9 16 20	CONNECTOR THREADL. HD 16X2.0	5

Stopper for connector

Technical Data

Art.-No.	T
3427 23 8 10	8 x 1.0
3427 23 12 15	12 x 1.5

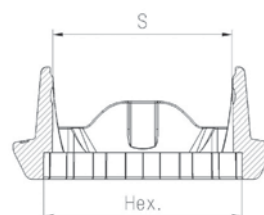


Article No.	Article Description	QTY
3427 23 8 10	STOPPER F.CONNECTOR 8X1.0	5
3427 23 12 15	STOPPER F.CONNECTOR 12X1.5	5

Rotolock

Technical Data

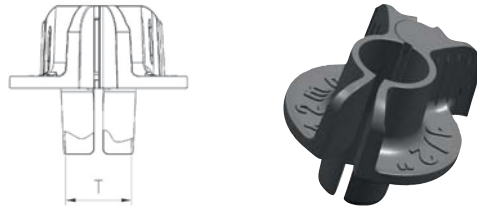
Art.-No.	S	Hex	Colour-code
3427 24 18	Regular	18	light grey
3427 24 22	Regular	22	light grey
3427 24 28	Regular	28	dark grey
3427 25 22	Heavy Duty	22	light grey
3427 25 28	Heavy Duty	28	dark grey



Article No.	Article Description	QTY
3427 24 18	ROTOLOCK 18 REG	5
3427 24 22	ROTOLOCK 22 REG	5
3427 24 28	ROTOLOCK 28 REG	5
3427 25 22	ROTOLOCK 22 HD	5
3427 25 28	ROTOLOCK 28 HD	5

Disassembling tool

Technical Data			
Art.-No.	T	T	T
3427 26 6 10	6 x 1.0		
3427 26 8 10	8 x 1.0		
3427 26 10 10	10 x 1.0	10 x 1.25	10 x 1.5
3427 26 12 15	12 x 1.5		
3427 26 15 15	15 x 1.5		
3427 26 16 20	16 x 2.0		



Article No.	Article Description	QTY
3427 26 6 10	DISASSEMBL.TOOL 6X1.0	5
3427 26 8 10	DISASSEMBL.TOOL 8X1.0	5
3427 26 10 10	DISASSEMBL.TOOL 10X1.0-1.5	5
3427 26 12 15	DISASSEMBL.TOOL 12X1.5	5
3427 26 15 15	DISASSEMBL.TOOL 15X1.5	5
3427 26 16 20	DISASSEMBL.TOOL 16X2.0	5

Disassembling Pliers

- According to DIN 471 and 983
- For shaft retainer

Technical Data	
Art.-No.	for ring-Ø mm
4076 2	19 – 60
4076 21	19 – 60

Article No.	Article Description	QTY
4076 2	SEEGER CIRC.PLIERS STRAIGHT A2	1 z
4076 21	SEEGER CIRC.PLIERS CURVED A 21	1 z



4076 2



4076 21

Connector straight

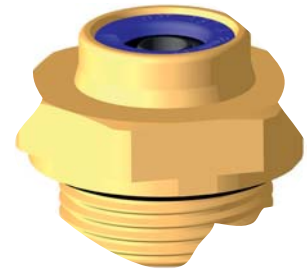
Technical Data			
Art.-No.	T	D	L
3427 1 6 10 12	6 x 1,0	M12 x 1,5	24
3427 1 6 10 14	6 x 1,0	M14 x 1,5	16
3427 1 6 10 16	6 x 1,0	M16 x 1,5	12
3427 1 8 10 12	8 x 1,0	M12 x 1,5	26
3427 1 8 10 14	8 x 1,0	M14 x 1,5	25
3427 1 8 10 16	8 x 1,0	M16 x 1,5	17
3427 1 8 10 22	8 x 1,0	M22 x 1,5	13
3427 1 10 10 12	10 x 1,0	M12 x 1,5	28
3427 1 10 10 14	10 x 1,0	M14 x 1,5	28
3427 1 10 10 16	10 x 1,0	M16 x 1,5	28
3427 1 10 15 16	10 x 1,5	M16 x 1,5	28
3427 1 10 15 22	10 x 1,5	M22 x 1,5	17
3427 1 12 15 12	12 x 1,5	M12 x 1,5	31
3427 1 12 15 16	12 x 1,5	M16 x 1,5	30
3427 1 12 15 22	12 x 1,5	M22 x 1,5	19
3427 1 15 15 22	15 x 1,5	M22 x 1,5	31
3427 1 16 20 16	16 x 2,0	M16 x 1,5	33
3427 1 16 20 22	16 x 2,0	M22 x 1,5	31



Article No.	Article Description	QTY
3427 1 6 10 12	CONN.STRAIGHT 6X1.0 M12X1.5	5
3427 1 6 10 14	CONN.STRAIGHT 6X1.0 M14X1.5	5
3427 1 6 10 16	CONN.STRAIGHT 6X1.0 M16X1.5	5
3427 1 8 10 12	CONN.STRAIGHT 8X1.0 M12X1.5	5
3427 1 8 10 14	CONN.STRAIGHT 8X1.0 M14X1.5	5
3427 1 8 10 16	CONN.STRAIGHT 8X1.0 M16X1.5	5
3427 1 8 10 22	CONN.STRAIGHT 8X1.0 M22X1.5	5
3427 1 10 10 12	CONN.STRAIGHT 10X1.0 M12X1.5	5
3427 1 10 10 14	CONN.STRAIGHT 10X1.0 M14X1.5	5
3427 1 10 10 16	CONN.STRAIGHT 10X1.0 M16X1.5	5
3427 1 10 15 16	CONN.STRAIGHT 10X1.5 M16X1.5	5
3427 1 10 15 22	CONN.STRAIGHT 10X1.5 M22X1.5	5
3427 1 12 15 12	CONN.STRAIGHT 12X1.5 M12X1.5	5
3427 1 12 15 16	CONN.STRAIGHT 12X1.5 M16X1.5	5
3427 1 12 15 22	CONN.STRAIGHT 12X1.5 M22X1.5	5
3427 1 15 15 22	CONN.STRAIGHT 15X1.5 M22X1.5	5
3427 1 16 20 16	CONN.STRAIGHT 16X2.0 M16X1.5	5
3427 1 16 20 22	CONN.STRAIGHT 16X2.0 M22X1.5	5

Connector straight, short

Technical Data			
Art.-No.	T	D	L
3427 2 6 10 16	6x1.0	M16x1.5	12
3427 2 8 10 16	8x1.0	M16x1.5	17
3427 2 8 10 22	8x1.0	M22x1.5	13
3427 2 10 10 22	10x1.0	M22x1.5	17
3427 2 12 15 22	12x1.5	M22x1.5	19



Article No.	Article Description	QTY
3427 2 6 10 16	CONN.STR. SHORT 6X1.0 M16X1.5	5
3427 2 8 10 16	CONN.STR. SHORT 8X1.0 M16X1.5	5
3427 2 8 10 22	CONN.STR. SHORT 8X1.0 M22X1.5	5
3427 2 10 10 22	CONN.STR. SHORT 10X1.0 M22X1.5	5
3427 2 12 15 22	CONN.STR. SHORT 12X1.0 M22X1.5	5

Connection nozzle

Technical Data

Art.-No.	S	D	Kappe
3427 3 1 10 10	Small	M 10 x 1.0	white
3427 3 1 12 15	Small	M 12 x 1.5	white
3427 3 1 16 15	Small	M 16 x 1.5	white
3427 3 10 10	Regular	M 10 x 1.0	green
3427 3 12 15	Regular	M 12 x 1.5	green
3427 3 14 15	Regular	M 14 x 1.5	green
3427 3 16 15	Regular	M 16 x 1.5	green
3427 3 22 15	Regular	M 22 x 1.5	green
3427 4 16 15	Heavy Duty	M 16 x 1.5	blue
3427 4 22 15	Heavy Duty	M 22 x 1.5	blue

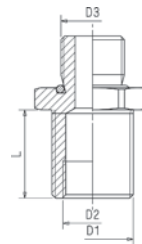


Article No.	Article Description	QTY
3427 3 1 10 10	CONNECTION NOZZLE SML M10X1.0	5
3427 3 1 12 15	CONNECTION NOZZLE SML M12X1.5	5
3427 3 1 16 15	CONNECTION NOZZLE SML M16X1.5	5
3427 3 10 10	CONNECTION NOZZLE REG M10X1.0	5
3427 3 12 15	CONNECTION NOZZLE REG M12X1.5	5
3427 3 14 15	CONNECTION NOZZLE REG M14X1.5	5
3427 3 16 15	CONNECTION NOZZLE REG M16X1.5	5
3427 3 22 15	CONNECTION NOZZLE REG M22X1.5	5
3427 4 16 15	CONNECTION NOZZLE HD M16X1.5	5
3427 4 22 15	CONNECTION NOZZLE HD M22X1.5	5

Bulkhead nozzle with O-ring

Technical Data

Art.-No.	D1	D2	D3
3424 32 22 1616	M22x1.5	M16x1.5	M16x1.5
3424 32 22 1622	M22x1.5	M16x1.5	M22x1.5

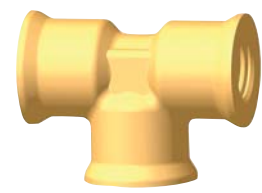
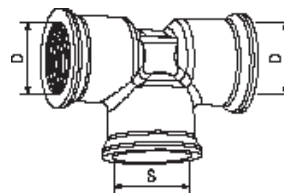


Article No.	Article Description	QTY
3424 32 22 1616	BULKHEAD NZ M22X1.5/16/16X1.5	5
3424 32 22 1622	BULKHEAD NZ M22X1.5/16/22X1.5	5

Bulkhead nozzle with O-ring

Technical Data

Art.-No.	D1	D2
3424 32 22 1616	M22x1.5	M16x1.5
3424 32 22 1622	M22x1.5	M16x1.5

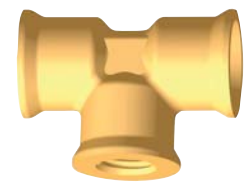
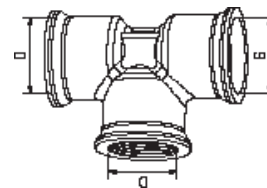


Article No.	Article Description	QTY
3424 32 22 1616	BULKHEAD NZ M22X1.5/16/16X1.5	5
3424 32 22 1622	BULKHEAD NZ M22X1.5/16/22X1.5	5

L-Connector with P5 port

Technical Data

Art.-No.	S	D
3424 34 16 15	P5	M16x1.5

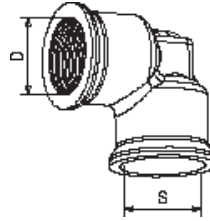


Article No.	Article Description	QTY
3424 34 16 15	L-CONNECT.W.P5 PORT M16X1.5	5

Angle connector 90° for P5 port

Technical Data		
Art.-No.	S	D
3424 35 16 15	P5	M16x1.5

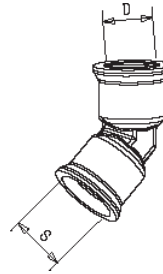
Article No.	Article Description	QTY
3424 35 16 15	ANG-CONNECT.F.P5 90° M16X1.5	5



Angle connector 45° for P5 port

Technical Data		
Art.-No.	S	D
3424 36 16 15	P5	M16x1.5

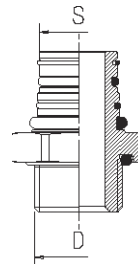
Article No.	Article Description	QTY
3424 36 16 15	ANG-CONNECT.F.P5 45° M16X1.5	5



Connection nozzle for P5 port

Technical Data		
Art.-No.	S	D
3424 37 10 10	P5	M10x1.0
3424 37 12 15	P5	M12x1.5
3424 37 14 15	P5	M14x1.5
3424 37 16 15	P5	M16x1.5
3424 37 22 16	P5	M22x1.6

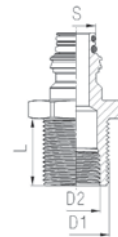
Article No.	Article Description	QTY
3424 37 10 10	CONNECT-NZ.P5 PORT M10X1.0	5
3424 37 12 15	CONNECT-NZ.P5 PORT M12X1.5	5
3424 37 14 15	CONNECT-NZ.P5 PORT M14X1.5	5
3424 37 16 15	CONNECT-NZ.P5 PORT M16X1.5	5
3424 37 22 16	CONNECT-NZ.P5 PORT M22X1.5	5



Connection bulkhead nozzle 22x1.5

Technical Data					
Art.-No.	S	D1	D2	L	Cap
3427 5 22 15	Regular	M22x1.5	M16x1.5	23	green

Article No.	Article Description	QTY
3427 5 22 15	CONNECT-BULKH.NZ REG M22X1.5	5



Connection bulkhead nozzle K24°

Technical Data					
Art.-No.	S	D1	L	K	Cap
3427 7 18 15	Regular	M18x1.5	42	24°	green

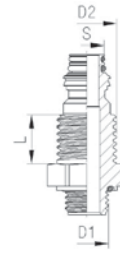
Article No.	Article Description	QTY
3427 7 18 15	CONNECT-BULKH.NZ K24° M18X1.5	5



Connection bulkhead nozzle 16x1.5

Technical Data					
Art.-No.	S	D1	D2	L	Cap
3427 6 16 22	Regular	M16x1.5	M22x1.5	18	green

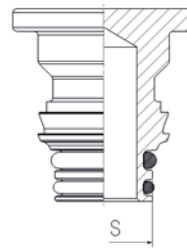
Article No.	Article Description	QTY
3427 6 16 22	CONNECT-BULKH.NZ M16/M22X1.5	5



Stopper, Threadless

Technical Data	
Art.-No.	S
3427 27	Small

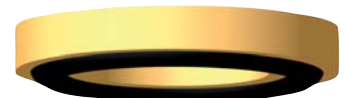
Article No.	Article Description	QTY
3427 27	STOPPER, THREADLESS SML	5



Pressure ring with O-ring

Technical Data	
Art.-No.	D
3424 27 12 15	M12x1.5
3424 27 16 15	M16x1.5
3424 27 22 15	M22x1.5

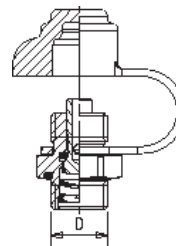
Article No.	Article Description	QTY
3424 27 12 15	PRESSURE RING W.O-RING M12X1.5	5
3424 27 16 15	PRESSURE RING W.O-RING M16X1.5	5
3424 27 22 15	PRESSURE RING W.O-RING M22X1.5	5



Test connection with O-ring

Technical Data	
Art.-No.	D
3424 28 16 15	M16x1.5
3424 28 22 15	M22x1.5

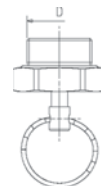
Article No.	Article Description	QTY
3424 28 16 15	TEST CONNEC.W.O-RING M16X1.5	5
3424 28 22 15	TEST CONNEC.W.O-RING M22X1.5	5



Drainage connection with O-ring

Technical Data	
Art.-No.	D
3424 29 22 15	M22x1.5

Article No.	Article Description	QTY
3424 29 22 15	DRAIN.CONNECT.W.O-RING M22X1.5	5

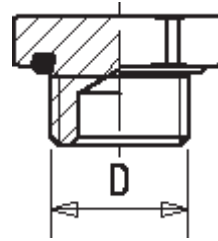


Stopper with O-ring

Technical Data

Art.-No.	D
3424 30 16 15	M16x1.5
3424 30 22 15	M22x1.5

Article No.	Article Description	QTY
3424 30 16 15	STOPPER W.O-RING M16X1.5	5
3424 30 22 15	STOPPER M 22X1.5	5

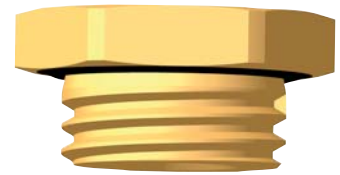
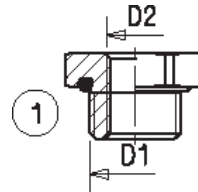


Adaptor with O-ring

Technical Data

Art.-No.	D1	D2
3424 31 22 16	M22x1.5	M16x1.5

Article No.	Article Description	QTY
3424 31 22 16	ADAPTOR M22X1.5 M16X1.5	5



Plug Connectors for Compressed-Air Brake Systems

Straight Screw-in Connector, Not Removable

- Snap-in design, cannot be disassembled

Article No.	Article Description	QTY
3424 010 010	SCREW.STRAIGHT 2X4 M12X1.5	5
3424 010 020	SCREW.STRAIGHT 4X6 M12X1.5	5
3424 010 030	SCREW.STRAIGHT 4X6 M14X1.5	5
3424 010 040	SCREW.STRAIGHT 4X6 M16X1.5	5
3424 010 070	SCREW.STRAIGHT 6X8 M12X1.5	5
3424 010 080	SCREW.STRAIGHT 6X8 M14X1.5	5
3424 010 090	SCREW.STRAIGHT 6X8 M16X1.5	5
3424 010 100	SCREW.STRAIGHT 6X8 M22X1.5	5
3424 010 130	SCREW.STRAIGHT 7X10 M16X1.5	5
3424 010 140	SCREW.STRAIGHT 7X10 M22X1.5	5
3424 010 190	SCREW.STRAIGHT 7.5X10 M22X1.5	5
3424 010 200	SCREW.STRAIGHT 8X10 M14X1.5	5
3424 010 210	SCREW.STRAIGHT 8X10 M16X1.5	5
3424 010 220	SCREW.STRAIGHT 8X10 M22X1.5	5
3424 010 230	SCREW.STRAIGHT 9X12 M12X1.5	5
3424 010 240	SCREW.STRAIGHT 9X12 M14X1.5	5
3424 010 250	SCREW.STRAIGHT 9X12 M16X1.5	5
3424 010 260	SCREW.STRAIGHT 9X12 M22X1.5	5
3424 010 300	SCREW.STRAIGHT 12X15 M16X1.5	5
3424 010 310	SCREW.STRAIGHT 12X15 M22X1.5	5
3424 010 320	SCREW.STRAIGHT 12X16 M16X1.5	5
3424 010 330	SCREW.STRAIGHT 12X16 M22X1.5	5
3424 010 340	SCREW.STRAIGHT 14X18 M22X1.5	5



(Pipe inside-Ø mm x pipe outside-Ø mm)

Straight Double Connector, Not Removable

- Snap-in design, cannot be disassembled

Article No.	Article Description	QTY
3424 020 005	CONNECTOR STRAIGHT 2X4	5
3424 020 010	CONNECTOR STRAIGHT 4X6	5
3424 020 020	CONNECTOR STRAIGHT 6X8	5
3424 020 025	CONNECTOR STRAIGHT 6X9	5
3424 020 030	CONNECTOR STRAIGHT 7X10	5
3424 020 035	CONNECTOR STRAIGHT 7.5X10	5
3424 020 050	CONNECTOR STRAIGHT 8X10	5
3424 020 055	CONNECTOR STRAIGHT 8X11	5
3424 020 060	CONNECTOR STRAIGHT 9X12	5
3424 020 070	CONNECTOR STRAIGHT 12X15	5
3424 020 080	CONNECTOR STRAIGHT 12X16	5
3424 020 090	CONNECTOR STRAIGHT 14X18	5



(Pipe inside-Ø mm x pipe outside-Ø mm)

ABC plug connectors selection

- 101 pieces
- 1x Art.-No. 4076 21: Fuse tweezers, curved

Contents:

Article No.	Article Description	Quantity
9000 3427 1	ASSORT.PLUG CONNECTOR ABC 1	1
9000 3427 2	ASSORT.PLUG CONNECT.ABC 2	1

Article No.	Article Description	QTY
9000 3427	ASSORT.PLUG CONNECTOR ABC 1+2	1
9000 3427 1	ASSORT.PLUG CONNECTOR ABC 1	1
9000R 3427 1	INLETT PLUG CONNECTOR ABC 1	1
9000 3427 2	ASSORT.PLUG CONNECT.ABC 2	1
9000R 3427 2	INLETT PLUG CONNECTOR ABC 2	1

Contents Art.-No. 9000 3427 1:

- 3x 3427 1 6 10 12: Plug connector, straight 6x1.0 M12x1.5
- 5x 3427 1 8 10 12: Plug connector, straight 8x1.0 M12x1.5
- 5x 3427 1 12 15 16: Plug connector, straight 12x1.5 M16x1.5
- 2x 3427 1 16 20 16: Plug connector, straight 16x2.0 M16x1.5
- 3x 3427 1 16 20 22: Plug connector, straight 16x2.0 M22x1.5
- 3x 3427 2 6 10 16: Plug connector, straight, short 6x1.0 M16x1.5
- 5x 3427 2 8 10 16: Plug connector, straight, short 8x1.0 M16x1.5
- 3x 3427 2 8 10 22: Plug connector, straight, short 8x1.0 M22x1.5
- 3x 3427 2 12 15 22: Plug connector, straight, short 12x1.5 M22x1.5

Contents Art.-No. 9000 3427 2:

- 1x 4076 21: Circlip tweezers, angled A 21
- 2x 3427 8 6 10: Plug connector, threadless REG 6x1.0
- 5x 3427 8 8 10: Plug connector, threadless REG 8x1.0
- 5x 3427 8 12 15: Plug connector, threadless REG 12x1.5
- 2x 3427 9 16 20: Plug connector, threadless HD 16x2.0
- 5x 3427 13: Angle REG 90°
- 2x 3427 13 1: Angle HD 90°
- 3x 3427 15: T-piece REG
- 1x 3427 16: T-piece HD



9000 3427 1



9000 3427 2

Aluminium Telescopic Leaning Ladder

- 13 Steps
- Length: 3.80 m (extended)
- Length: 1.24 m (retracted)
- Weight: 14 kg
- Maximal loading capacity: 150 kg
- With spacers (finger protection)
- Tested according to EN-131



Article No.	Article Description	QTY
4986 380	ALU TEDESC.LEAN.LADDER3.80M	1

Safe Assembly Platform

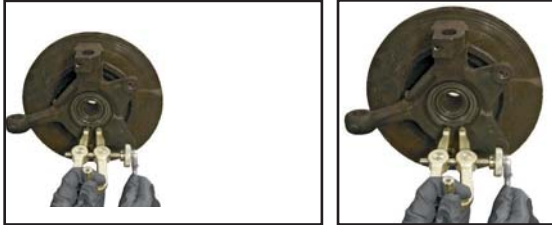
- 2 security locking positions
- Space saving storage
- Plastic edges on the feet protect the platform and the floor
- Non slip, rubberised tread
- Load capacity up to 150 kg
- Dimension of surface area : LxW: 100 x 30 cm
- Total dimensionLxWxH: 134.5 x 40.5 x 40.8 cm
- Weight: 7.4 kg



Article No.	Article Description	QTY
5436 2	SAFE ASSEMBLY PLATFORM	1

Securing collar - tool

- makes it easier to remove the securing collars that are frequently stuck on the inside of the wheel bearings
- gap for adjusting screw of 6.3 mm = 1/4" ratchet for maximum power and quick removal
- suitable for cars, transport vehicles and trucks
- unique construction always ensures the correct angle of the pin, irrespective of the size of the securing collar
- very easy to change the pin
- 7-pieces
- 5-95 mm working diameter



Article No.	Article Description	QTY
4914 2867	SECURING COLLAR TOOL V2867	1
4914 2867 25	E-TIPS F.V2867 Ø2.5MM 4PCS	1
4914 2867 30	E-TIPS F.V2867 Ø3.0MM 4PCS	1
4914 2867 35	E-TIPS F.V2867 Ø3.5MM 4PCS	1

Snap ring pliers set Maxi

- with the set of pliers 4 different fuse tongs can be put together by simply changing the tips
- work area:
 - integral: 165-300 mm
 - external: 165-300 mm



Article No.	Article Description	QTY
4076 500	SNAP RING PLIERS SET MAXI	1
4076 500 1	PAAR ERS.-SPITZEN 65MM GERADE	1
4076 500 2	PAAR ERS.-SPITZ. 100MM GEB.90°	1

Contents:

- 1 x basic device for inner rings , shank length 500 mm
- 1 x basic device for outer rings 500 mm
- 4 pairs of tips: 2 x Ø 3.6 mm straight 2 x Ø 3.6 mm 90°

Seeger Circlip Pliers Set with Ring Fixing

- With these pliers you can create 6 different circlip pliers by changing the points
- Working range:
 - Internal: 78 - 159 mm
 - External: 89 - 159 mm



Article No.	Article Description	QTY
4076 90	SNAP RING PLIERS SET RINGFIX	1
4076 90 1	PAIR REPL.POINTS STRAIGHT	1
4076 90 2	PAIR REPL.POINTS 45° CURVED	1
4076 90 3	PAIR REPL.POINTS 90° CURVED	1

Contents:

- 1x basis tool for internal shafts, jaw length 400 mm
- 1x basis tool for external shafts, jaw length 400 mm
- 6 pairs of points: 3x Ø 2.75 mm: straight, 45°, angled 90° 3x Ø 3.00 mm: straight, 45°, angled 90°

Thread Chasing Tool

- For recutting and cleaning of damaged outside threads
- Suitable for left and right-hand threads for metric and inch threads
- Cutting jaws in magazine for quick conversion
- Soft holding and guide jaws for cutting thread without damage
- Flank angle for inch cutting jaws 60°

Application:

- Truck axle drums, hydraulic cylinder fittings, steering rods, etc.

For thread pitches:

- Metric 1/1.25/1.5/1.75/2/2.5/3/3.5
- Inch: 4/5/6/7/7.5/8/9/10/11/11.5/12/14/16/18/20/24 threads per inch



Article No.	Article Description	QTY
4965 25 140	THREAD CHASER 25-140MM M+"	1

Stud Bolt Recutting Set, Vehicle 5 pcs

- For the cleaning and thread-chasing of wheel studs and wheel nuts on which the front threads have been damaged
- Contrary to conventional thread chasing, the tool is placed on the rear thread passes and is the rotated forwards
- This eliminates the problems of positioning and possibly the chasing the thread obliquely that can occur with normal thread-tapping tools
- For threads: M18 x 1.5, M20 x 1.5, M22 x 1.5, 7/8"-11 BSF (Scania)



Article No.	Article Description	QTY
5569 5	THREAD CHAS.KIT STUD BOLTS5PCE	1

Contents:

- Art.-No. 5569 5 1 Drive adapter
- Art.-No. 5569 5 3 Threading die M18 x 1,5
- Art.-No. 5569 5 4 Threading die M20 x 1,5
- Art.-No. 5569 5 5 Threading die M22 x 1,5
- Art.-No. 5569 5 6 Threading die 7/8-11 BSF

Set of Oil Filter Removal Caps 1/2", 9-Piece

- 9-piece removal cap set for profiled oil filter cartridges in case
- High quality, deep drawn steel with reinforced plate and 1/2" square drive
- Including belt wrench for dia. up to 160 mm with 1/2" square drive and 21 mm hex shaft and 21mm 12 point offset box wrench

Technical Data

SW mm	Number of grooves	Application e.g.
36	6	MERCEDES BENZ (AXOR BR400, ATEGO BR900, ACTROS BR500), SCANIA (PDE V8-Motor, HPI-Motor)
74	14	MERCEDES BENZ (Sprinter Motor Version 600), VW (Transporter)
106	15	MAN (8-10 To. - Serie L 2000), SCANIA (PDE-Motor), FIAT (DUCATO 2.5 D/TD), IVECO
107	15	VOLVO, IVECO, RENAULT, SCANIA
108	15	VOLVO, IVECO, RENAULT, SCANIA
108	18	RENAULT Transporter (Master, Traffic 2.4/2.5/2.8 D/TD), OPEL (Movano)
135	18	MAN (18-48 To. Serie F2000, TGA)



Article No.	Article Description	QTY
4926 91	1/2"TL OIL FILT.REM CAP SET9PC	1

Chains oil filter remover 160 mm trucks

- heavy oil filter remover
- double chain 520 mm
- clamping range 60 -160 mm
- handle can be twisted
- plastic coated handle
- for trucks, agricultural machinery, construction machinery etc.



Article No.	Article Description	QTY
4926 160	OIL FILT.WREN.DOUBL.CHAI.160MM	1

Oil filter pliers 180 mm truck

- can be adjusted 8- times
- clamping range 80 -180 mm
- serrated support jaw
- with opening spring
- 500 mm long
- plastic coated handle



Article No.	Article Description	QTY
4926 180	OIL FILTER PLIERS TRUCK 180MM	1

Axle Oil Collection Pan - Truck

- for collecting the planetary drive oil of the driving axles
- suitable for different wheel rim diameters
- impact-resistant polyethylene plastic, resistant to gasoline, oil, chemicals, acids and solvents
- with two handles and one discharge

Technical Data

Capacity:	3 l
Dimension (B x H x T):	315 x 155 x 240 mm
Weight:	417 g



Article No.	Article Description	QTY
9100 3000	OIL SUMP TRUCK AXLE 3L	1

Torque Replicator

- Robust tightening and releasing tool for high-tensile screw connections
- A planetary gear triples the torque applied at the handle
- Enables an increased threefold torque in combination with a torque wrench

Application:

- Construction machines, trucks, agricultural machines, service vehicles etc.



Article No.	Article Description	QTY
4642 1	TORQUE REPLICATOR 1400N	1
4642 2	TORQUE REPLICATOR 2700N	1

Technical Data				
Art. No.	Drive	Drive	max. Nm Input	max. Nm Output
4642 1	1/2"	3/4"	450	1,400
4642 2	3/4"	1"	900	2,700

Torque multiplier 3200 Nm

- transmission 1:56 using a planetary gear
- very easy to remove the wheel bolts
- ideal for mobile use, trucks, agriculture, tool kit of service vehicles, buses and long distance vehicles



Article No.	Article Description	QTY
4642 3 1	TORQUE REPLICATOR 3200N	1

Contents:

- 1 x torque multiplier 3200 Nm
- 1 x extension 210 mm
- 1 x crank
- 1 x each power socket 1" SW 32/SW 33

Technical Data	
transmission ratio:	1:56
max output torque:	3200 Nm
drive:	1" external 4-edge
output:	1" external 4-edge
weight:	8.5 kg

“BLACK” Torque Wrench with Ratchet Comm.Vehicles

- For the professional use on vehicles, in industry and in construction

Your Advantage / Benefit

- Simple adjustment of the torque value by turning the handle
- Very good handling properties as a result of the two-component handle
- Version with ratchet switch-over head for controlled clockwise tightening and with anti-clockwise blocking without torque wrench function
- Large viewing window with magnifying glass for precise setting and reading of the torque
- Micrometer scale for fine and precise setting
- Good repeatability and precise up to 5,000 load changes
- The scale is shown in Nm and Lbf-ft
- ± 3 % triggering precision from the scale value
- Certificated in accordance with DIN EN ISO 6789:2003

Application

- For tightening and releasing of screwed fittings, such as wheel nut even on commercial vehicles
- Tightening and releasing at a controlled torque possible by using the version with ratchet switch-over head



4645 34 100 550 4

4645 1 300 1000 4

Technical Data

Art.-No.	Measuring range Nm	Measuring range ft. Lb.	Weight kg	Length mm	Note
4645 34 100 550 4	100 – 550	75 – 405	3,8	960	Square switch-over
4645 1 300 1000 4	200 – 1.000	150 – 730	5,8	1.500	Square switch-over

Article No.	Article Description	QTY
4645 34 1005504	3/4"TORQ.WR.SW.BLACK 100-550NM	1
4645 130010004	1"TORQ.WR.SW.BLACK 200-1000NM	1

Torque wrench system 6000 CT

- Accuracy of the scale value (in actuating direction) according to DIN EN ISO 6789:2003 (D)
- Ideally suitable for industrial climbers
- In the pocket - carry in your hand or on your back (Art.-No. 4645 34 400 and Art.-No. 4645 34 800 in safe box)
- Can be dismantled using an unlocking tool (except Art.-No. 4645 34 400 and Art.-No. 4645 34 800)
- With serial number and certificate



Technical Data

Art.-No.	drive	test range Nm	length mm	tolerance ± %	division Nm	release force	weight kg	note
4645 34 400	3/4"	100-400	803	2	2.5	580N at 400 Nm	5	one-part
4645 34 800	3/4"	300-800	1280	2	2.5	685 N at 800 Nm	8.3	one-part
4645 34 1000 1	3/4"	400-1000	1788	3	5	590 N at 1000 Nm	10	two-part
4645 1 1600	1"	600-1600	2455	3	5	685 N at 1600 Nm	14	two-part
4645 1 2000	1"	800-2000	3034	4	6	685 N at 2000 Nm	18	two-part

Article No.	Article Description	QTY
4645 34 400	3/4" TORQUE WRENCH 100-400NM	1
4645 34 800	3/4" TORQUE WRENCH 300-800NM	1
4645 34 1000 1	3/4" TORQUE WRENCH 400-1000NM	1
4645 1 1600	1" TORQUE WRENCH 500-1600NM	1
4645 1 2000	1" TORQUE WRENCH 500-2000NM	1

Torque Wrench with Ratchet

- High precision and accuracy of ±4 % relative to the actual setting
- Easy and accurate adjustment by turning the handle
- All wrenches with draw lead square heads are suitable for tightening clockwise/anti-clockwise
- Acoustic and haptic perception of torque release point
- Plant manufacturer's test certificate in accordance with DIN



Technical Data

Art.-No.	Measuring range Nm	Measuring range ft. Lb.	Weight kg	Length mm	Comment
4645 34	110 – 550	82 – 410	4.0	845	Draw-lead square-head
4645 34 1000	300 – 1.000	225 – 740	5.8	1.750	Draw-lead square-head including extension
4645 1	500 – 1.500	370 – 1.150	6.7	2.070	Draw-lead square-head including extension

Article No.	Article Description	QTY
4645 34	3/4" TORQUE WRENCH 110-550NM	1
4645 34 1000	3/4" TORQUE WRENCH 300-1000NM	1
4645 1	1" TORQUE WRENCH 500-1500NM	1

Torque wrench

- High precision and accuracy from plusmn; 4 % of the value currently set
- Easy and accurate to adjust by turning the lever in the handle
- Double scale in Nm and ft. Lb.
- Acoustic and tangible perception of the torque release
- Works manufacturer certificate according to DIN
- Light metal housing with double 4-edge for left and right-hand thread



Technical Data

art. no.	test range Nm	test range ft. Lb.	weight g	length mm	note
4641 34	140 - 760	100 - 550	2900	812	
4641 1	750 - 2000	-	11100	1998	with socket pipe

Article No.	Article Description	QTY
4641 34	TORQUE SPANNER 3/4" 140-760NM	1
4641 1	TORQUE SPANNER 1" 750-2000NM	1

Slip-on Ratchet

- Clockwise for the rational use of torque wrench

Article No.	Article Description	QTY
4641 12 1	SLIP-ON RATCHET 1/2"	1
4641 34 1	SLIP-ON RATCHET 3/4"	1
4641 1 1	SLIP-ON RATCHET 1"	1



Wheel spider TL

- DIN 3119 / ISO 6788
- chrome-vanadium-steel

Technical Data

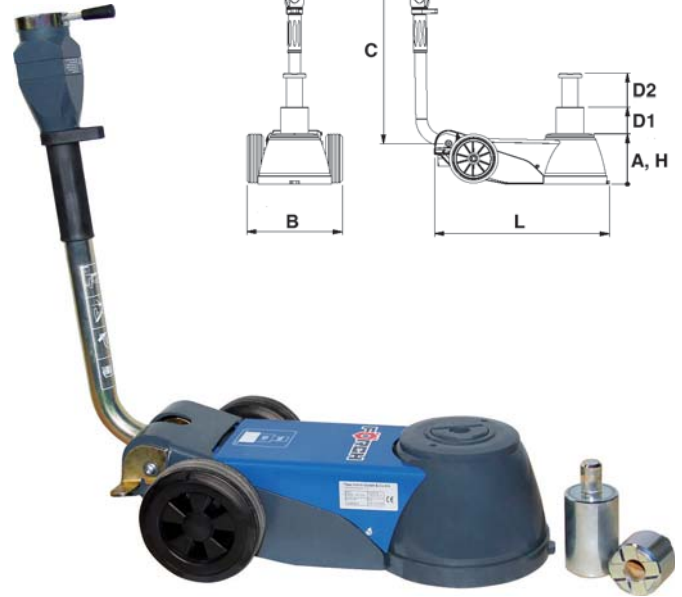
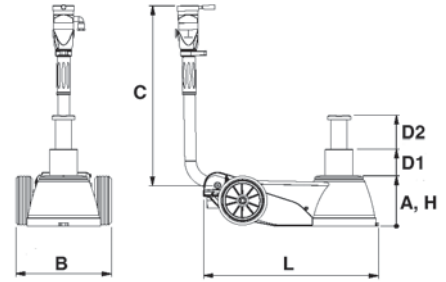
art. no.	dimensions	design
4951 5	600 x 600 mm	
4951 6	750 x 750 mm	with 3/4"-4-edge socket wrench insert
4951 7	750 x 750 mm	with 3/4"-4-edge socket wrench insert and heavy centrepiece

Article No.	Article Description	QTY
4951 5	RADKREUZSCHL. 19X22X24X27	1
4951 6	RADKREUZSCHL. 27X32X24X3/4-4K	1
4951 7	RADKREUZSCHL. 27X30X32X3/4-4K	1



Truck / bus lever air hydraulics can lift 10 - 25

- handy design and low weight (27 kg) for mobile use
- hard chrome-plated piston rod for long product life
- built-in safety valve to prevent overloading
- protection against uncontrolled lowering (dead man control)
- standard 2 extensions 50 / 100 mm
- air connection: 1/4" inner thread



Technical Data

weight:	27 kg
lift height A min:	161 mm
dimensions L x W:	534 x 292 mm
chassis height H:	161 mm
operating pressure:	9 x 12 bar
min. air consumption:	350 l/min
length lever C:	550 mm
extensions:	50 / 100 mm
1. level:	
lifting capacity:	25 t
lift height D1 max:	234 mm
2nd level:	
lifting capacity:	10 t
lift height D2 max:	317 mm

Article No.	Article Description	QTY
5430 10 25	TRUCK-/BUS LEV.AIR HYDR.10-25T	1

Air-Hydraulic Lifter for Truck/Bus 20 t

Technical Data

Load cap.:	20 t
Weight:	53 kg
Pressure:	7 - 10 bar
Air required:	270 l/min.
Hydraulic lifting:	110 mm
Extension 1 (Ø x height in mm):	70 x 20
Extension 2 (Ø x height in mm):	50 x 20
Extension 3 (Ø x height in mm):	50 x 60
Extension 4 (Ø x height in mm):	50 x 100
Min. height in mm:	235
Max. height in mm:	
- with adapter 1 + 2	365
- with adapter 3	405
- with adapter 4	445
Dimension LxW:	530 x 320 mm



Article No.	Article Description	QTY
5430 20 1	AIR-HYDRAUL.LIFT.TRUCK/BUS 20T	1

Jack 10 t

- Solid, blue steel frame
- Oil and acid resistant plastic wheels
- With pump lever for load and foot pedal for bridging idle stroke
- Patented LCS lowering valve guarantees the lowering with a controlled rate of descent when working with heavy loads

Technical Data

Art. No.	Load cap.y t	Str. height max. mm	Str. height min. mm	Frame height mm	Length mm	Weight kg
5430 10	10	575	195	260	1600	112

Article No.	Article Description	QTY
5430 10	JACK 10T	1



Hydraulic car jack 5t

- hydraulic car jack with quick foot pedal to quickly span the lifting point
- protection against uncontrolled dropping (dead man's control)
- built-in safety valve to prevent overloading
- ergonomic handle

Technical Data

lifting capacity:	5 t
weight:	170 kg
lift height A min:	140 mm
lift height D max:	975 mm
dimensions LxB:	1290 x 525 mm
chassis height H:	265 mm
length lever C:	1200 mm

Article No.	Article Description	QTY
5430 5000	HYDRAULIC CAR JACK 5T	1



rubber wheel air filled

- for easy manoeuvring and for better steering
- suitable with 5 t trolley jack art. no. 5430 5000

Article No.	Article Description	QTY
5430 5001	P(2)RUBB.WHEELS F.CAR JACK 5T	1



Hydraulic Jack

- Colour: anthracite

Technical Data

Art. No.	Min. height mm	Max. height mm
5431 2	158	308
5431 4	180	350
5431 6	197	382
5431 8	205	390
5431 12	214	399
5431 20	242	449

Article No.	Article Description	QTY
5431 2	HYDRAULIC JACK 2T	1
5431 4	HYDRAULIC JACK 4T	1
5431 6	HYDRAULIC JACK 6T	1
5431 8	HYDRAULIC JACK 8T	1
5431 12	HYDRAULIC JACK 12T	1
5431 20	HYDRAULIC JACK 20T	1



Tire Changing Aid for Commerical Vehicles

- Allows tires to be changed easily on trucks, buses and forklifts
- Enormous time savings
- Adjustable, rotating support pin
- For tires from 5.6 to 22.5"
- Pin interval adjustable in 3 stages
- No damage of wheel studs
- Maximum load: 250 kg
- Weight: 12kg
- Total width :70 cm



Article No.	Article Description	QTY
5433 5	TIRE CHANGING AID FOR COM VEH.	1

Laser for Camber/Castor Alignment

- Vehicle repair/camber and castor transfer without axle measurement
- Suitable for trucks, semi-trailer trucks and buses
- Simple-to-use tool
- Incl. 1 replacement laser



Article No.	Article Description	QTY
4930 3	LAS. TRU. CASTOR/CAMB. ALIGN. TOOL	1

Ratchet - Adjustable for Air Conditioners

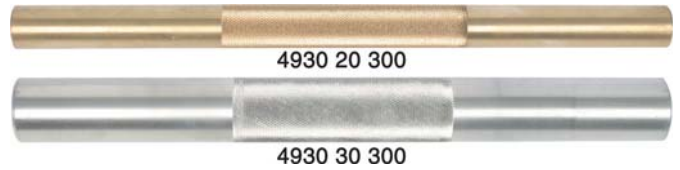
- 3/16", 1/4", 5/16", 3/8"
- Right/left adjustable
- For opening/closing of spindle valves at air conditioners
- Suitable for vintage cars, buses, agricultural, forestry and municipal vehicles



Article No.	Article Description	QTY
5380 5	RATCHET RIGHT-LEFT ADJUSTABLE	1

Assembly Plug

- For bearings, studs and sleeves



Article No.	Article Description	QTY
4930 20 300	BRASS - PLUG 20X300MM	1
4930 30 300	ALU - PLUG 30X300MM	1

Dead Blow Hammer

- Careful fitting or loosening of work pieces / connections that require high power with cars, machinery, steel construction and trade
- To loosen jammed wheels when removing tyres on cars / trucks
- Better residue-free impact due to moving steel balls in the hammer-head
- Heavy duty design for excessive impact
- Elastic material (polyurethane / rubber mix) prevents further damage to the work piece



Article No.	Article Description	QTY
4726 4800	DEAD BLOW HAMMER 4800G	1
4726 1000	DEAD BLOW HAMMER 1000G	1 s

Technical Data		
	Art. No. 4726 4800	Art. No. 4726 1000
Head (L x B x H):	170 x 105 x 105 mm	115 x 55 x 55 mm
Length:	900 mm	355 mm
Weight:	4800 g	1000 g
Material:	polyurethane (PU)	polyurethane (PU)

Hex Socket Wrench Set 3/4", 21-Part **TRUCKline**



Article No.	Article Description	QTY
4415 34 21	3/4" FÖRCH-TL SOC.WR.SET.21PCS.	1

Included in set:

- 1x Art. No. 4401 34 1 Reversible ratchet 3/4" 500 mm
- 1x Art. No. 4402 34 T-handle 450 mm
- 1x Art. No. 4423 100 Square extension 100 mm
- 1x Art. No. 4423 200 Square extension 200 mm
- 1x Art. No. 4423 400 Square extension 400 mm
- AGR 4428 3/4" Hex sockets, Sizes
19/21/22/23/24/26/27/29/30/32/35/36/38/41/46/50

Hex Socket Wrench Set 1", 22-Part **TRUCKline**



Article No.	Article Description	QTY
4415 1 22	1" TL WRENCH SOCKET SET 22PART	1

Included in set:

- 1x Reversible ratchet 1"
- 1x Sliding head 1"
- 1x Extension 550 mm (to be used as ratchet grip and together with the sliding head as T-handle)
- 1x Square extension 200 mm
- 1x Square extension 400 mm
- 1x 1" Hex socket wrench inserts SW
36/38/41/46/50/54/55/58/60/63/65/67/70/71/75/77/80 mm

Kraft-TX/Allen Key Set 3/4", 15-Part **TRUCKline**

- Usable for trucks, agricultural and construction machines, digger, big machines etc.
- Also suitable for impact wrench

Article No.	Article Description	QTY
4578 34 16	3/4" TL KRAFT TX/A.KEY SET 15PA	1

Contents:

- Art. No. 4156 4 Hex-Plus angled screw driver 4
- Art. No. 4572 1 Bit intake socket 1"
- Art. No. 4572 1 60 Kraft Bit TX60 107 mm
- Art. No. 4572 1 70 Kraft Bit TX70 107 mm
- Art. No. 4572 1 90 Kraft Bit TX90 107 mm
- Art. No. 4572 1 100 Kraft Bit TX100 107 mm
- Art. No. 4572 2 17 Kraft Bit Allen Key SW17 107 mm
- Art. No. 4572 2 19 Kraft Bit Allen Key SW19 107 mm
- Art. No. 4572 2 22 Kraft Bit Allen Key SW22 107 mm
- Art. No. 4572 2 24 Kraft Bit Allen Key SW24 107 mm
- Art. No. 4572 34 Bit intake socket 3/4"
- Art. No. 4572 3 18 Kraft Bit socket TX E18 107 mm
- Art. No. 4572 3 20 Kraft Bit socket TX E20 107 mm
- Art. No. 4572 3 22 Kraft Bit socket TX E22 107 mm
- Art. No. 4572 3 24 Kraft Bit socket TX E24 107 mm



Bit adapter socket

Article No.	Article Description	QTY
4572 1	1" BIT SOCKET	1
4572 34	3/4" BIT SOCKET	1



Torx impact bit

Article No.	Article Description	QTY
4572 1 60	KRAFT BIT TX60 107MM	1
4572 1 70	KRAFT BIT TX70 107MM	1
4572 1 80	KRAFT BIT TX80 107MM	1
4572 1 90	KRAFT BIT TX90 107MM	1
4572 1 100	KRAFT BIT TX100 107MM	1



Allen impact bit

Article No.	Article Description	QTY
4572 2 17	KRAFT BIT ALLEN KEY SW17 107MM	1
4572 2 19	KRAFT BIT ALLEN KEY SW19 107MM	1
4572 2 22	KRAFT BIT ALLEN KEY SW22 107MM	1
4572 2 24	KRAFT BIT ALLEN KEY SW24 107MM	1



Torx impact bit socket

Article No.	Article Description	QTY
4572 3 18	KRAFT ST-BIT TX E18 107MM	1
4572 3 20	KRAFT ST-BIT TX E20 107MM	1
4572 3 22	KRAFT ST-BIT TX E22 107MM	1
4572 3 24	KRAFT ST-BIT TX E24 107MM	1



Kraft - Hex Socket Wrench Insert 3/4" Short

- SW 17 - 27, length: 50 mm
- SW 30 - 33, length: 53 mm
- SW 36, length: 55 mm
- SW 38, length: 57 mm



Article No.	Article Description	QTY
4570 34 17	3/4"KRAFT SOCK.W.IN.SHORT SW17	1
4570 34 19	3/4"KRAFT SOCK.W.IN.SHORT SW19	1
4570 34 22	3/4"KRAFT SOCK.W.IN.SHORT SW22	1
4570 34 24	3/4"KRAFT SOCK.W.IN.SHORT SW24	1
4570 34 27	3/4"KRAFT SOCK.W.IN.SHORT SW27	1
4570 34 29	3/4"KRAFT SOCK.W.IN.SHORT SW29	1
4570 34 30	3/4"KRAFT SOCK.W.IN.SHORT SW30	1
4570 34 32	3/4"KRAFT SOCK.W.IN.SHORT SW32	1
4570 34 33	3/4"KRAFT SOCK.W.IN.SHORT SW33	1
4570 34 36	3/4"KRAFT SOCK.W.IN.SHORT SW36	1
4570 34 38	3/4"KRAFT SOCK.W.IN.SHORT SW38	1

Kraft - Hex Socket Wrench Insert 3/4" Long

- Length: 100 mm



Article No.	Article Description	QTY
4571 34 17	3/4"KRAFT SOCK.W.INS.LONG SW17	1
4571 34 19	3/4"KRAFT SOCK.W.INS.LONG SW19	1
4571 34 22	3/4"KRAFT SOCK.W.INS.LONG SW22	1
4571 34 24	3/4"KRAFT SOCK.W.INS.LONG SW24	1
4571 34 27	3/4"KRAFT SOCK.W.INS.LONG SW27	1
4571 34 29	3/4"KRAFT SOCK.W.INS.LONG SW29	1
4571 34 30	3/4"KRAFT SOCK.W.INS.LONG SW30	1
4571 34 32	3/4"KRAFT SOCK.W.INS.LONG SW32	1
4571 34 33	3/4"KRAFT SOCK.W.INS.LONG SW33	1
4571 34 36	3/4"KRAFT SOCK.W.INS.LONG SW36	1

Kraft - Hex Socket Wrench Insert 1" Short

- SW 24 - 27 length: 57 mm
- SW 30 - 36 length: 62 mm
- SW 38 - 41 length: 66 mm
- SW 46 - 50 length: 70 mm
- SW 55 - 70 length: 75 mm
- SW 75 length: 80 mm
- SW 80 length: 85 mm
- SW 85 length: 90 mm
- SW 90 length: 95 mm
- SW 95 length: 100 mm



Article No.	Article Description	QTY
4570 1 24	1"KRAFT SOCK.WRENCH SHORT SW24	1
4570 1 27	1"KRAFT SOCK.WRENCH SHORT SW27	1
4570 1 29	1"KRAFT SOCK.WRENCH SHORT SW29	1
4570 1 30	1"KRAFT SOCK.WRENCH SHORT SW30	1
4570 1 32	1"KRAFT SOCK.WRENCH SHORT SW32	1
4570 1 33	1"KRAFT SOCK.WRENCH SHORT SW33	1
4570 1 36	1"KRAFT SOCK.WRENCH SHORT SW36	1
4570 1 38	1"KRAFT SOCK.WRENCH SHORT SW38	1
4570 1 41	1"KRAFT SOCK.WRENCH SHORT SW41	1
4570 1 46	1"KRAFT SOCK.WRENCH SHORT SW46	1
4570 1 50	1"KRAFT SOCK.WRENCH SHORT SW50	1
4570 1 55	1"KRAFT SOCK.WRENCH SHORT SW55	1
4570 1 60	1"KRAFT SOCK.WRENCH SHORT SW60	1
4570 1 65	1"KRAFT SOCK.WRENCH SHORT SW65	1
4570 1 70	1"KRAFT SOCK.WRENCH SHORT SW70	1
4570 1 75	1"KRAFT SOCK.WRENCH SHORT SW75	1
4570 1 80	1"KRAFT SOCK.WRENCH SHORT SW80	1
4570 1 85	1"KRAFT SOCK.WRENCH SHORT SW85	1
4570 1 90	1"KRAFT SOCK.WRENCH SHORT SW90	1
4570 1 95	1"KRAFT SOCK.WRENCH SHORT SW95	1

Kraft - Hex Socket Wrench Insert 1" Long

- Length: 108 mm
- Medium-long (MLG) especially for torque replicator Art. No. 4642 3 1 and Art. No. 4642 3
- Length: 76 mm



Article No.	Article Description	QTY
4571 1 24	1"KRAFT SOCK.WRENCH LONG SW 24	1
4571 1 27	1"KRAFT SOCK.WRENCH LONG SW 27	1
4571 1 29	1"KRAFT SOCK.WRENCH LONG SW 29	1
4571 1 30	1"KRAFT SOCK.WRENCH LONG SW 30	1
4571 1 32	1"KRAFT SOCK.WRENCH LONG SW 32	1
4571 1 33	1"KRAFT SOCK.WRENCH LONG SW 33	1
4571 1 36	1"KRAFT SOCK.WRENCH LONG SW 36	1
4571 1 38	1"KRAFT SOCK.WRENCH LONG SW 38	1
4571 1 41	1"KRAFT SOCK.WRENCH LONG SW 41	1
4571 1 46	1"KRAFT SOCK.WRENCH LONG SW 46	1
4571 1 50	1"KRAFT SOCK.WRENCH LONG SW 50	1
4571 1 55	1"KRAFT SOCK.WRENCH LONG SW 55	1
4571 1 60	1"KRAFT SOCK.WRENCH LONG SW 60	1
4571 1 65	1"KRAFT SOCK.WRENCH LONG SW 65	1
4571 1 70	1"KRAFT SOCK.WRENCH LONG SW 70	1
4571 1 75	1"KRAFT SOCK.WRENCH LONG SW 75	1
4571 1 80	1"KRAFT SOCK.WRENCH LONG SW 80	1
4571 1 85	1"KRAFT SOCK.WRENCH LONG SW 85	1
4571 1 90	1"KRAFT SOCK.WRENCH LONG SW 90	1
4571 1 1 24	1"KRAFT SOCK.WRENCH MLG SW 24	1
4571 1 1 27	1"KRAFT SOCK.WRENCH MLG SW 27	1
4571 1 1 30	1"KRAFT SOCK.WRENCH MLG SW 30	1
4571 1 1 32	1"KRAFT SOCK.WRENCH MLG SW 32	1
4571 1 1 33	1"KRAFT SOCK.WRENCH MLG SW 33	1
4571 1 1 36	1"KRAFT SOCK.WRENCH MLG SW 36	1
4571 1 1 38	1"KRAFT SOCK.WRENCH MLG SW 38	1
4571 1 1 41	1"KRAFT SOCK.WRENCH MLG SW 41	1

Extension for Kraft - Socket Wrench Insert

Article No.	Article Description	QTY
4575 34 175	3/4"KRAFT EXTENSION 175MM	1
4575 34 250	3/4"KRAFT EXTENSION 250MM	1
4575 1 175	1" KRAFT EXTENSION 175MM	1
4575 1 330	1" KRAFT EXTENSION 330MM	1



Adapter for Kraft - Socket Wrench Insert

- R = Decrease
- V = Increase

Article No.	Article Description	QTY
4576 12 34	1/2" - 3/4" KRAFT-ADAPTER	1
4576 34 1	3/4" - 1" KRAFT-ADAPTER	1
4576 34 12	3/4" - 1/2" KRAFT-ADAPTER	1
4576 1 34	1" - 3/4" KRAFT-ADAPTER	1

(Square drive - square output)



Impact socket wrench joint piece

art. no. 4577 34:

- with ball locking device

art. no. 4577 1:

- with hole
- for fuse terminal

Article No.	Article Description	QTY
4577 34	3/4" KRAFT-ARTICULATION PIECE	1
4577 1	1" KRAFT-ARTICULATION PIECE	1



Safety Clamps for Kraft - Socket Wrench Insert

Article No.	Article Description	QTY
4579 12 14	1/2" SAFTETY CLAMP UP TO SW 14	1
4579 12 15	1/2" SAFTETY CLAMP FROM SW 15	1
4579 34	3/4" SAFTETY CLAMP	1
4579 1	1" SAFTETY CLAMP	1



Lever for Truck

- Developed according to the special requirements of truck workshops
- Impact-resistant, ergonomic plastic handle, suitable for the work with both hands
- Complete square special steel blade (16x16 mm) with robust head for heavy loads
- Hardened and tempered, can be re-ground

Application:

- Test free motion of fifth wheel plates
- Removal of rotary shaft seal from wheel hub
- Mount the wheels to the vehicle
- Check the ball-and-socket joint of track and steering rod
- Test free motion of silent-bearing
- Spring bolt eyes, wheel bearing play at front axle
- Rubber bearing trailer-tractor
- Test cardan shaft play
- Check the cab etc...

Article No.	Article Description	QTY
4953 4	TRUCK - LEVER SET 4-PART	1
4953 4 1	TRUCK - LEVER 900MM STRAIGHT	1
4953 4 2	TRUCK - LEVER 900MM 45°	1
4953 4 3	TRUCK - LEVER 600MM 75°	1
4953 4 4	TRUCK - LEVER 600 90°	1

Art. No. 4953 4:

- 1x 4953 4 1 Lever Truck 900 mm straight
- 1x 4953 4 2 Lever Truck 900 mm 45°
- 1x 4953 4 3 Lever Truck 900 mm 75°
- 1x 4953 4 4 Lever Truck 900 mm 90°



Pin Punch XXL

- Octagonal
- With two-component hand protection
- Stable design, ideally suitable for construction machines, trucks etc.

Technical Data

Art. No.	Length mm	Octagonal mm	Ø mm
4708 08 2	225	14	8
4708 10 2	240	14	10
4708 12 2	260	14	12
4708 14 2	275	18	14
4708 16 2	290	18	16

Article No.	Article Description	QTY
4708 08 2	PIN PUNCH W.HAND PROT.8MM XXL	1 ü
4708 10 2	PIN PUNCH W.HAND PROT.10MM XXL	1 ü
4708 12 2	PIN PUNCH W.HAND PROT.12MM XXL	1 ü
4708 14 2	PIN PUNCH W.HAND PROT.14MM XXL	1 ü
4708 16 2	PIN PUNCH W.HAND PROT.16MM XXL	1 ü
4708 092	PIN PUNCH SET XXL 5-PIECE	1

Art. No. 4708 092:

- 1x pin punch Ø 8/10/12/14/16 mm



Hydraulic-Straightening Set 10 t

- 17-piece
- The straightening set can be used for many body works due to its high pressure power of 10 t
- The extensive accessories make a big application area for pressing, lifting and spreading possible
- The connectors of the single parts provide a safe and quick application

Article No.	Article Description	QTY
4909 10	HYDRAULIC-STRAIGHTEN.SET 17(P)	1

Delivery scope each 1x:

- Art.-No. 4909 10 1: Plastic case
- Art.-No. 4909 10 2: Extension pipe 525 mm
- Art.-No. 4909 10 3: Extension pipe 400 mm
- Art.-No. 4909 10 4: Extension pipe 300 mm
- Art.-No. 4909 10 5: Extension pipe 170 mm
- Art.-No.4909 10 6: Attachment cylinder 60 mm
- Art.-No. 4909 10 7: Extension device 0.5 t
- Art.-No. 4909 10 8: Attachment rubber ball 80 mm
- Art.-No. 4909 10 9: Attachment foot plate 150 x 93 mm
- Art.-No.4909 10 10: Tension shoe with inside thread
- Art.-No. 4909 10 11: Attachment tension shoe
- Art.-No.4909 10 12: Attachment V-form
- Art.-No.4909 10 14: Plug adapter 100 mm
- Art.-No. 4909 10 15: Hand pump for hydraulic cylinder
- 1x Art.-No. 4909 10 16: Hydraulic pressure cylinder
- 1x Art.-No. 4909 10 17: Hydraulic hose 1.5 m
- Attachment prism-from



Individual Parts Hydraulic-Straightening Set

Article No.	Article Description	QTY
4909 10 1	KUNSTSTOFFKOFFER 780X430X190MM	1
4909 10 2	VERLÄNGERUNGSROHR 525MM	1
4909 10 3	VERLÄNGERUNGSROHR 400MM	1
4909 10 4	VERLÄNGERUNGSROHR 300MM	1
4909 10 5	VERLÄNGERUNGSROHR 170MM	1
4909 10 6	STECKAUFSATZ-ZYLINDER 60MM	1
4909 10 7	SPREIZGERÄT 0,5T	1
4909 10 8	STECKAUFSATZ GUMMIKUGEL 80MM	1
4909 10 9	STECKAUFSATZ FUSSPL. 150X93MM	1
4909 10 10 1	SPANNSCHUH MIT INNENGEWINDE"E"	1
4909 10 11	STECKAUFSATZ SPANNSCHUH	1
4909 10 12	STECKAUFSATZ KEILFORM	1
4909 10 14	STECKADAPTER 100MM	1
4909 10 15	HANDPUMPE F.HYDR-ZYLINDER	1
4909 10 16	HYDRAULIK-DRUCKZYLINDER	1
4909 10 17	HYDRAULIKSCHLAUCH 1,5M	1
4909 10 18	KUPPLUNG F.ZYLINDER U.SPREIZER	1
4909 10 19	KUPPLUNG HYDRAULIKSCHLAUCH	1



Cooling System Test Device Kit for Trucks

- For diagnosis of leaks in the cooling system
- 7 radiator adapters for all commonly used makes of truck, e.g. DAF, IVECO, MAN, Mercedes-Benz, Scania, Renault and Volvo
- Fast assembly and dismantling with a quick-release coupling system
- Optimum and secure seat, as per the original cap
- Robust metal hand pump and pressure gauge with rubber protection cap
- Measuring range 0 - 2.5 bar



Article No.	Article Description	QTY
5377 8	TRUCK COOL SYST.INSPE.SET 9-PCE	1

Contents:

- 1x Pump
- 1x Hose for pump
- 7 x Adapters

Test Device Components f.Truck Cooling System



Article No.	Article Description	QTY
5377 8 1	PUMP F.TRUCK C.SYST.TEST-SET	1
5377 8 2	HOSE F.TRUCK C.SYST.TEST-SET	1
5377 8 3	ADAPTER NO.3 TRUCK C.SYS.T-SET	1
5377 8 4	ADAPTER NO.4 TRUCK C.SYS.T-SET	1
5377 8 5	ADAPTER NO.5 TRUCK C.SYS.T-SET	1
5377 8 6	ADAPTER NO.6 TRUCK C.SYS.T-SET	1
5377 8 7	ADAPTER NO.7 TRUCK C.SYS.T-SET	1
5377 8 8	ADAPTER NO.8 TRUCK C.SYS.T-SET	1
5377 8 9	ADAPTER NO.9 TRUCK C.SYS.T-SET	1

Radiator Adapter Application List

Vehicle Type	Adapter
DAF	
LF 55 2001->	6
XF 95 2002 - 2006	7
XF 105 2005->	7
Deutz	
1015	3
ERF	
EC Range 1996 - 2003	7
Iveco	
Eurocargo 1991->	6
Eurostar 1993 - 2001	6
EuroTech 1993 - 2001	6
EuroTrakker1993 - 2001	6
EuroTrakker Cursor 2002 ->	6
EuroTrakker Cursor 13 2001->	6
EuroTruck	6
Stalis Crusor 2002 ->	6

Vehicle Type	Adapter
MAN	
E2000 2002->	6
F2000 1995 - 2003	6
F90 1987 - 1996	6
L2000 1993 - 200	5
EC Range 1996 - 2003	6
TGA 2000->	5/8
TAG / L / M S 2005->	6
Mercedes-Benz	
Actros 1997	6
Atego 1998	6
Axor 2001	6
Eco 8401	6
IKW 1728	6
Sprinter-> 2006	3
Vito-> 2006	3

Vehicle Type	Adapter
Renault	
Kerax 1999->	5/8
Magnum 1990 - 2003	5/8
Midlum 2000->	5/8
Premium 1997->	5/8
Scania	
4er Serie 1995 - 2004	9
93	9
94 1996 - 2004	9
113	9
114 1996 - 2004	9
124 1996 - 2004	9
144 1996 -2002	9
164 1999 - 2004	9
Volvo	
FH12 1993->	4/6
FL 2000->	6
FM 1998->	6

Turbo bead breaker set for trucks

- 6 parts
- For rapid diagnostics on the charge air system
- Locate leaks quickly and easily
- Leaks can be detected audibly and visually (using leak detector, Art.-No. 6730 0800)
- The system can be observed over a longer period of time using the pressure gauge on the adapter
- The multi-stage remote adapters are suitable for most common charge-air system hoses
- Tyres are filled using a hand-held tyre filler – no special tools required
- Professional, time-saving troubleshooting



Article No.	Article Description	VPE
4920 5	TURBO BEAD BR.SET TRUCK 6-PART	1
4920 5 105	TURBO ADAP.105/110MM 2-PCE	1
4920 5 115	TURBO ADAP.115/120MM 2-PCE	1
4920 5 125	TURBO ADAP.125/130MM 2-PCE	1



Filling and Bleeding Device for Mineral Oil 20HY

- One-man operation
- Suitable for hydraulic couplings
- Steplessly adjustable operating pressure from 0 to 4 bar
- Flow rate >45 l/h
- Pressure is relieved before disconnecting from vehicle
- Switches off automatically when supply reservoir is empty
- Suitable for Actros with HPS2, Atego, AXOR and MAN-TGA
- Oil storage tank: **20l container**

Technical Data	
Filling hose length:	3.6 m
Mains voltage:	230 V
Dimension: HxWxD	960 x 500 x 400 mm
Empty weight:	28 kg
Colour:	RAL 6001, emerald green

Article No.	Article Description	QTY
5374 2	MINER.OIL FILL.A.BLEE.DEV.20HY	1
5374 2 10	ADAPTER A+B+C F. MERCEDES BENZ	1
5374 2 11	ADAPTER D FOR MERCEDES BENZ	1
5374 2 12	ADAPTER E FOR MERCEDES BENZ	1
5374 2 13	ADAPTER F FOR MERCEDES BENZ	1
5374 2 14	ADAPTER G FOR MERCEDES BENZ	1
5374 2 15	ADAPTER H FOR MERCEDES BENZ	1
5374 2 16	ADAPTER I FOR MERCEDES BENZ	1
5374 2 17	ADAPTER K FOR MERCEDES BENZ	1
5374 2 18	ADAPTER L FOR MERCEDES BENZ	1
5374 2 97	ADAPTER G45 MAN TGL FOR 20HY	1
5374 2 98	ADAPTER SET MAN TGA FOR 20HY	1

Mercedes Benz commercial vehicles:

- **Article No. 5374 2 10 Hand pump for level setting**
Designation: Hand pump A, connecting hose B or C
 1x Hand pump for level setting FGG, KGG and coupling with 2 different connecting hoses
- **Article No. 5374 2 11 Return hose hatch**
Designation D
 1x Adapter with transparent hose
- **Article No. 5374 2 12 Return hose coupling 6 mm**
Designation E
 1x Transparent coupling 6 mm, with coupling
- **Article No. 5374 2 13 Return hose coupling 8 mm**
Designation F
 1x Transparent, length 2.5 m with coupling
- **Article No. 5374 2 14 Return hose FGG for secondary equalizing tank**
Designation G
 1x Transparent hose with 2 CPC couplings, additionally 4 CPC-coupling individually
- **Article No. 5374 2 15 Reservoir**
Designation H
 Reservoir 10 litres volume with Rectus-connection
- **Article No. 5374 2 16 Filling hose (Y-hose)**
Designation I
 1x Y-hose with 1 quick-coupling and gauge glass
- **Article No. 5374 2 17 Y-Adapter for device bleeding**
Designation K
 1 Y-Adapter with 2 plugs and one coupling
- **Article No. 5374 2 18 Filling adapter for reservoir**
Designation L
 1x Adapter for reservoir (coupling), RAL 6001 anodized

MAN commercial vehicles:

- **Article No. 5374 2 98 Set for TGA**
 Vehicles with Kongsberg gearshift
 1 Adapter with 2 litres collecting bottle
- **Article No. 5374 2 97 G45 HY for TGL**
 1x Screw adapter



Selection aid for FÖRCH jacks for commercial vehicles

How do I select the right hydraulic jack?

There are three things to consider when selecting the right jack:

1. How much weight has to be lifted?
2. How much space is available?
3. What is the maximum lift height that is required?

1. How much weight has to be lifted?

You will need different equipment depending on whether you want to lift a vehicle or a machine. To find a suitable jack, first pay attention to the load-bearing capacity of the jack. To find a suitable jack, first pay attention to the load-bearing capacity of the jack. On the market today, you can find a wide range of sizes of hydraulic jacks, starting at 15 t and going up to 150 t and more.

Did you know that...?

The latest generations of hydraulic jacks have two or three telescoping stages. In the following example, you will see that depending on the required height, the maximum load capacity varies between 25 t (Stage 1) and 15 t (Stage 2) for the same jack.

2. How much space is available?

The best jack in the world is of little use if you cannot get it under the vehicle. This applies particularly to commercial vehicles, since they have ever less ground clearance and consequently require ever more compact lifting tools.

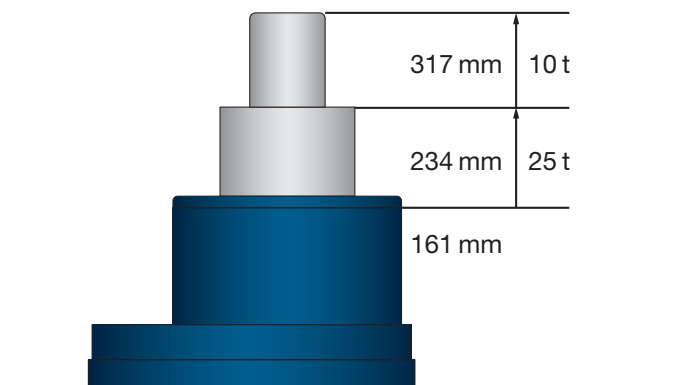
Ground clearance is an important aspect when selecting a jack, as the jack has to be positioned under the vehicle without damaging it.

Take note: The ground clearance is reduced when the tyres are underinflated!

3. What is the maximum lift height that is required?

To make the best choice, compare the lift height with the maximum height of all the jacks.

Example of a 25 t hydraulic jack



FÖRCH jacks

Art.-No.	1. Lifting force	2. Minimum lift height (=Ground Clearance)	3. Maximum lift height
5430 201	20 t	235 mm	445 mm
5430 10	10 t	175 mm	605 mm
5430 5000	5 t	140 mm	975 mm
5430 10 25	10–25 t	161 mm	317 mm

Power impact wrench

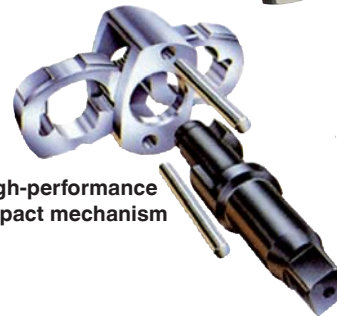
- high performance impact mechanism with pressure lubrication system
 - simple to maintain as it is assembled from only four moving parts
 - provides a powerful, balanced impact - for better performance and less vibration
- motor with power amplification when dismantling and patented speed setting
- 4-level power control for the tightening torque
- one-handed push button control
- durable motor housing made from glass fibre reinforced composite with steel hammer housing
- exhaust air managed via the handle
- integrated swivelling air inlet



5350 2145



5350 2155



high-performance impact mechanism

Technical Data		
art. no.	5350 2145	5350 2155
max release torque:	1830 Nm	1830 Nm
working torque:	271 – 1491 Nm	271 – 1491 Nm
square drive:	3/4"	1"
operating pressure:	6.3 bar	6.3 bar
continuous air consumption:	906 l/min	906 l/min
average air consumption:	240 l/min	240 l/min
sound level (LpA):	96.3 dB(A)	96.3 dB(A)
vibration:	8.7 m/s ²	5.9 m/s ²
weight:	3.35 kg	3.4 kg
recommended hose-Ø:	13 mm	13 mm
air connection:	3/8"	3/8"
suitable male coupling:	art. no. 3926 38 1	art. no. 3926 38 1

Article No.	Article Description	QTY
5350 2145	3/4" POWER-IMPACT WRENCH 2145	1
5350 2155	1" POWER-IMPACT WRENCH 2155	1

Impact Wrench 3/4" 1500 Nm DG 2023 / 2023-3

- Easy to use due to solid make
- Slim design of front housing to reach even deep lying screw connections
- Ari connection at handle
- Double hammer beater
- Exhaust air release downwards through handle
- Rubber coating on handle insulates against cold

Art.-No. 5350 2023 3:

- With 76mm long drive spindle



5350 2023

5350 2023 3

Technical Data	
max. torque:	1.500 Nm
Square drive:	3/4"
Working pressure:	6.3 bar
Continuous air need:	990 l/min
Average air need	340 l/min
Noise level (LpA):	89.5 dB(A)
Vibration:	3.4 m/s ²
Weight	Art.-No. 5350 2023: 4,7 kg Art.-No. 5350 2023 3: 4,8 kg
Recommended hose- Ø:	8 mm
Air connection:	3/8" IG
Suitable plug nipple:	Art.-No. 3926 38 1

Article No.	Article Description	QTY
5350 2023	3/4" IMPACTWRENCH. 1500NM 2023	1
5350 2023 3	3/4" IMPACT WR.1500NM LG2023-3	1

Impact Wrench 3/4" 1424 Nm DG 2551

- 2-phase power control (2 forward / 2 backwards)
- Outlet support due to handle



Technical Data

Max. torque:	1,424 Nm
Working torque:	1,085 Nm
Square drive:	3/4"
Working pressure:	6.3 bar
Coninuous air consumption:	852 l/min
Average air consumption:	228 l/min
Sound level (LpA):	96.5 dB(A)
Vibration:	6.4 m/s ²
Weight:	4.0 kg
Recommended hose-Ø:	13 mm
Air connection:	3/8" IG
Suitable plug nipple:	Art.-No. 3926 38 3

Article No.	Article Description	QTY
5350 2551	3/4"IMPACT WRENCH IR259	1

Impact Wrench 1" 2200 Nm DG 2190/2190 6

- The titanium hammer case reduces the weight and extends the service life at the same time
- Lower weight: approx. 50% lower than other 1" impact wrenches
- High power and speed with 2200 Nm and 6800 1/min
- Modern handle design which enables a professional use and easy working
- Makes work easier, less expenditure of force for e.g. shoulders, arms

Art. No. 5350 2190 6:

- Spindle length = 152 mm



Technical Data

Art. No.	5350 2190	5350 2190 6
Max. torque:	2,200 Nm	2,200 Nm
Working torque:	200 – 1,630 Nm	200 – 1,630 Nm
Square drive:	1"	1"
Working pressure:	6.3 bar	6.3 bar
Air consumption:	1,644 l/min	1,644 l/min
Sound level (LpA):	336 l/min	336 l/min
Vibration:	103.8 dB(A)	103.8 dB(A)
Weight/total length:	8.3 m/s ²	9.8 m/s ²
Recomm. hose-Ø:	6.3 kg / 386 mm	7.0 kg / 546 mm
Air connection:	13 mm	13 mm
Recomm. max screw size:	1/2" IG	1/2" IG
Suitable plug nipple:	M32	M32
	Art.-No. 3926 12 8	Art.-No. 3926 12 8

Article No.	Article Description	QTY
5350 2190	1"IMPACT WRENCH IR 2190TI	1
5350 2190 6	1"IMPACT WRENCH LONG IR 2190-6	1

Impact Wrench 1" 2450 Nm DG 2425/2426

- The 3-phase torque adjustment and the clockwise and anticlockwise rotation occur at the push of one button situated on the back of the engine cover.
 - Exhaust air flow
- Art. No. 5350 2426:**
- Spindle length = 150 mm



Technical Data

Torque:	2450 Nm
Drive:	1"
Working pressure:	6.3 bar
Air consumption:	370 l/min.
Sound Level (LpA):	88.4 dB(A)
Vibration:	7.2 m/s ²
Weight:	11.5 kg
Recommended hose-Ø:	13 mm
Air connection:	1/2" IG
Suitable plug nipple:	3926 12 3

Article No.	Article Description	QTY
5350 2425	1"IMPACT WRENCH 2425	1
5350 2426	1"IMPACT WR.LONG SPINDLE 2426	1

Impact wrench 1" 2900 Nm

- high performance impact wrench with metal housing
 - runs right -left with the current 3-level torque setting
 - very robust and almost maintenance-free due to closed hammer system
- art. no. 5350 2476:**
- spindle length= 204 mm



Technical Data

art. no.	5350 2466	5350 2476
max torque:	2900 Nm	2900 Nm
square drive:	1"	1"
operating pressure:	6.3 bar	6.3 bar
continuous air consumption:	1130 l/min.	1130 l/min
average air consumption:	370 l/min.	370 l/min
sound level (LpA):	100 dB(A)	100 dB(A)
vibration:	6.5 m/s ²	7.8 m/s ²
weight / total length:	10.6 kg/360 mm	10.6 kg/510 mm
recommended hose-Ø:	13 mm	13 mm
air connection:	1/2" IG	1/2" IG
suitable male coupling:	art. no. 3926 12 8	art. no. 3926 12 8

Article No.	Article Description	QTY
5350 2466	1"IMPACT WRENCH 2466	1
5350 2476	1"IMPACT WR.LONG SPINDLE 2476	1

Impact wrench 1" 2900 Nm Xi

- high performance impact wrench with metal housing for a very good power-weight ratio
- runs right-left with the current 3-level torque setting
- extra narrow front with 89 mm Ø enables access to narrow spots
- side handle can be rotated 360°
- ergonomic handle with cold insulating rubber coating
- spindle length = 180 mm



Technical Data	
art. no.	5350 2477
max torque:	2.900 Nm
square drive:	1"
operating pressure:	6.3 bar
continuous air consumption:	920 l/min
average air consumption:	300 l/min
sound level (LpA):	106 dB(A)
vibration:	9.8 m/s ²
weight / total length:	8.1 kg / 490 mm
recommended hose Ø:	13 mm
air connection:	1/2" IG
suitable male coupling:	art. no. 3926 12 8

Article No.	Article Description	QTY
5350 2477	1"IMPACT WR.LONG SPINDLE2477XI	1

Special Oil for Pneumatic Tools

- Provides longer service life of pneumatic tools



Article No.	Article Description	QTY
5354 100	SPECIAL AIR OIL 1000ML	1

Special hammer oil for compressed air tools

- for greasing the hammer part with regards impact wrenches with pin clutch impact mechanisms



Article No.	Article Description	QTY
5354 101	SPEC.STRIKING MECH.OIL 1000ML	1

Tool Kit 238-pcs.



Allocation VAROsoft system:

- 8 VS-system tray A+, BxT: 144 x 405 mm
- 5 VS-system tray 1/2 A+, BxT: 72 x 405 mm
- 5 VS-system tray A, WxD: 144 x 328 mm
- 1 VS-system tray B, WxD: 144 x 164 mm
- 7 VS-system tray D, WxD: 144 x 77 mm

Art. No. 4415 14 47:

- 47-piece in VAROsoft tool deposit
- Art. No. 4401 14 36 reversible ratchet 1/4"
- Art. No. 4403 141 twist handle
- Art. No. 4402 14 T-handle
- Art. No. 4407 14 articulation piece
- Art. No. 4418 50 square extension 50 mm
- Art. No. 4418 125 square extension 125 mm
- Art. No. 4417 14 150 square extension flexible 150 mm
- Art. No. 4361 14 64 plug adapter 1/4" hexagonal x 1/4" square
- AGR 4425 socket wrench inserts short 25 mm SW 4/5/5.5/6/7/8/9/10/11/12/13
- AGR 4425 socket wrench inserts long 50 mm SW 6/7/8/10/11/12/13
- AGR 4450 Hex bit socket wrench SW 3/4/5/6/7/8
- AGR 4470 Cross recessed bit socket wrench insert PH 1/2/3
- AGR 4471 Bit slotted socket wrench insert 4/5
- AGR 4455 Bit Torx socket wrench insert with drilled head TX 10/15/20/25/27/30/40
- AGR 4462 Bit socket wrench insert - multiple teeth M5/M6/M8

Art. No. 4415 12 25:

- 25-piece in VAROsoft tool deposit
- Art. No. 4401 12 36 reversible ratchet 1/2"
- Art. No. 4420 125 square extension 125 mm
- Art. No. 4420 250 square extension 250 mm
- Art. No. 4407 12 articulation piece
- Art. No. 4402 12 T-handle
- AGR 4427 Hex socket wrench inserts SW 8/9/10/11/12/13/14/15/16/17/18/19/20/21/22/24/27/30/32/34

Art. No. 4430 58:

- 57-piece in VAROsoft tool deposit
- AGR 4440 insert 1/4"-drive TX E4, E5, E6, E7, E8
- AGR 4442 insert 1/2"-drive TX E10, E11, E12, E14, E16, E18, E20
- AGR 4320 Special bit TX-long TX 20/25/27/30/40/45/50/55/60
- AGR 4320 Special bit TX-short with face drilling TX 20/25/27/30/40/45/50/55/60
- AGR 4322 Internal serration bit long XZN 6/8/10/12
- AGR 4322 Internal serration bit short XZN 5/6/8/10/12
- AGR 4323 Hex socket bit long SW 5/6/7/8/10
- AGR 4323 Hex socket bit short SW 4/5/6/7/8/10/12
- AGR 4324 Slotted bit short LS 8/10
- AGR 4325 Philips bit short PH 2/3
- Art. No. 4361 12 10 Bit adapter 1/2"
- Art. No. 4401 10 10 mm bit ratchet, length 112 mm

Art. No. 4159 20:

- Hex-Plus-Allen wrench set
- 9-piece
- With ball head SW 1.5/2/2.5/3/4/5/6/8/10

Art. No. 4751 1:

- Gasket scraper 260x150x23

Art. No. 4751 1 0:

- Gasket scraper Mini 140x80x23

Art. No. 4652V 02:

- 2-piece in VAROsoft tool deposit
- 4650 180 Knipex waterpump pliers 180 mm
- 4650 300 Knipex waterpump pliers 300 mm

Art. No. 4099V 04:

- 4-piece in VAROsoft tool deposit
- 4000 180 Combination pliers 180 mm
- 4010 180 Side cutter 180 mm
- 4030 200 Flat-nosed pliers straight 200 mm
- 4040 200 Flat-nosed pliers angled 200 mm

(Continued on next page)

Tool Kit 238-pcs.

Art. No. 4749V 1:

- 5-piece in VAROsoft tool deposit
- 1 file flat, round, half-round, triangle and square stroke 2

Art. No. 4582V 007:

- 7-piece in VAROsoft tool deposit
- AGR 4582 Offset double-end ring spanner SW 6x7/8x9/10x11/12x13/14x15/16x17/18x19

Art. No. 5509 5501:

- 19-piece in plastic cassette
- Twist drills DIN 338 ground Ø 1.0-10 (increments of 0.5 mm)

Art. No. 4200 10:

- M4 screwdriver DG KL 10

Art. No. 4201 3:

- M4 screwdriver DG KL PH3

Art. N. 4209V 1:

- 6-piece in VAROsoft tool deposit
- AGR 4200 MK screwdriver DG.KL.LS 3,5/4,5/5,5/7
- AGR 4205 MK screwdriver DG.KL.PH 1/2

Art. No. 4681 220:

- Rabbit pliers DIN 9242, 220 mm

Art. No. 4923 20:

- Feeler gauge 0.05 – 1.00 mm 20 sheets

Art. No. 4582V 003:

- 3-piece in VAROsoft tool deposit
- AGR 4582 Offset double-end ring spanner SW 20x22/24x27/30x32

Art. No. 4584V 013:

- 13-piece in VAROsoft tool deposit
- AGR 4584 Angled combination wrench SW 8/9/10/11/12/13/14/15/16/17/18/19/21

Art. No. 4584V 5:

- 5-piece in VAROsoft tool deposit
- AGR 4584 Angled combination wrench SW 22/24/27/30/32

Art. No. 4701 26:

- Flat chisel DIN 6453 26x250 mm

Art. No. 4703 6:

- Cross chisel DIN 6451 6x150 mm

Art. No. 5850 5:

- Hand wire brush, steel, 5-row

Art. No. 5422 40 1:

- Spatula 40 mm

Art. No. 4715 160:

- In plastic bag - caliper rule 150 mm

Art. No. 4715 2:

- Pocket rule 2 m

Art. No. 4580V 010:

- 10-piece in VAROsoft tool deposit
- AGR 4580 Double-end spanner SW 6x7/8x9/10x11/12x13/14x15/16x17/18x19/20x22/24x27/30x32

Art. No. 4708 092:

- 5-piece AGR 4708 Pin punch XXL Ø 8/9/10/12/14/16

Art. No. 4708V 091:

- 5-piece in VAROsoft too deposit
- AGR 4708 Pin punch FÖRCH 5* Ø 3/4/5/6/8 mm

Art. No. 4720 400:

- Engineer's hammer according to DIN 400 g

Art. No. 4720 800:

- Engineer' hammer according to DIN 800 g

Art. No. 4726 40:

- Soft face hammer recoil-free Ø 40 mm

Art. No. 4990 179 314:

- Divider set for workshop trolley 179

Art. No. 9026 701:

- 5x VAROsoft tool deposit empty 1/2 A +

Art. No. 9026 70:

- 2x VAROsoft tool deposit empty A +

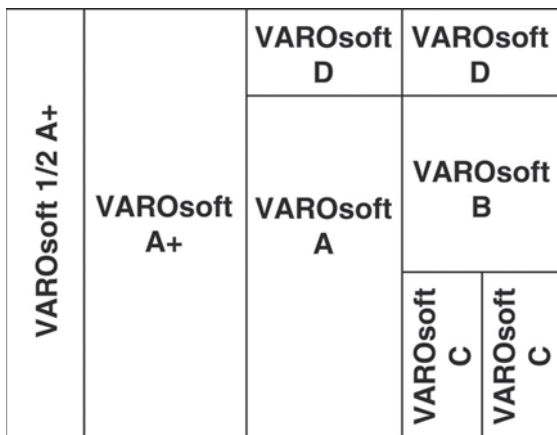
Art. No. 9026 90:

- 7x VAROsoft tool deposit empty D

Article No.	Article Description	QTY
4990 237	TOOL KIT SET 238 PIECES	1

Tool Trolley Mechanic with 238-pcs. Tool Kit

- Assembled
- Application example of VAROsoft-System tray in the drawer of tool trolley mechanic 179



Article No.	Article Description	QTY
4990 179 200	T.TROLLEY179BLUE W.T-KIT238PCS	1
4990 179 200 1	T.TROLLEY179 RED W.T-KIT238PCS	1
4990 179 200 2	T.TROL.179 BLACK.W.T-KIT238PCS	1
4990 179 200 01	T.TROL.179BL/ANT W.T-KIT238PCS	1
4990 179 200 11	TROLLEY 179 RED/ANT W.T-KIT238	1
4990 179 200 21	T.TROL.179BL/ANT.W.T-KIT238PCS	1

Angle Core Drill Press RS 5e

- Magnetic stand allows horizontal, vertical and overhead operation
- Electronic safety switch prevents starting motor unintentionally when magnet is not activated
- Ideal for steel, industry, machine, plant, boat, bridge, crane construction and assembly in metal workshops
- For optimal use in extremely confined space, e.g., iron girders, tight steel constructions or truck frames

Drilling range:

- Core drill: up to dia. 35 mm
- Cutting depth: 30 mm
- Power supply: 230 Volt
- Complies with: VDE, CEE



Technical Data

Magnetic attraction force*:	10.000 N
Power input:	1200 Watt
Speed:	140 - 350 r.p.m.
Height:	182 mm
Stroke:	38 mm
Contact area:	160 x 80 mm
Weight:	10 kg
Chuck:	Weldon shank 19 mm (3/4")

*actual magnetic adhesive force complies with DIN EN 10002 on a steel-plate with a thickness of 30 mm (St 37)

Article No.	Article Description	QTY
5323 1	ANGLE CORE DRILLPRESS RS 5E	1
5323 2	ANGLE COR.DR.PRESS.RS5E+6DRILL	1

Core Drill Set HSS with Weldon Shank, Ground

- 7-piece in industrial box
- Handling:**
 - Insert guide pin into core drill
 - Insert core drill into chuck and tighten Allen screws firmly
 - Ensure that core drill is correctly seated in the chuck
 - EasyLock quick-clamping device automatically adjusts core drill
 - Allows immediate drilling to final dimension, no pilot holes or center punching required
 - Core drill cutting geometry enables fast upward chip removal
 - Resilient guide pin mounted helps loosen cut pieces
 - Observe speed table and use cooling agent



Article No.	Article Description	QTY
5323 90	CORE.DR.HSS WELDON SHANK 7-PCS	1

Set includes:

- 7x AGR 5323 core drill HSS with Weldon shank, 30 mm dia. 12/14/16/18/20/22 mm
- 1x Art. No. 5323 3 guide pin dia. 6.35 mm x 77 mm for core drill HSS

HSS Core Drill with Weldon Shank, 30 mm

- Cutters: HSS
- CBN ground
- Cutting depth: 30 mm
- Chuck: Weldon shank dia. 19 mm (3/4")
- Right-hand cutting
- Suitable for core drilling machine: RS 5e, RS 10, RS 20, RS 25e, RS 30e, RS 40e
- **Applications:**
steel (T-girders, large sheets), cast steel, non-ferrous and light metals



Article No.	Article Description	QTY
5323 12	CORE DRILL HSS 12.0MM	1
5323 13	CORE DRILL HSS 13.0MM	1
5323 14	CORE DRILL HSS 14.0MM	1
5323 15	CORE DRILL HSS 15.0MM	1
5323 16	CORE DRILL HSS 16.0MM	1
5323 17	CORE DRILL HSS 17.0MM	1
5323 18	CORE DRILL HSS 18.0MM	1
5323 19	CORE DRILL HSS 19.0MM	1
5323 20	CORE DRILL HSS 20.0MM	1
5323 21	CORE DRILL HSS 21.0MM	1
5323 22	CORE DRILL HSS 22.0MM	1
5323 23	CORE DRILL HSS 23.0MM	1
5323 24	CORE DRILL HSS 24.0MM	1
5323 25	CORE DRILL HSS 25.0MM	1
5323 26	CORE DRILL HSS 26.0MM	1
5323 27	CORE DRILL HSS 27.0MM	1
5323 28	CORE DRILL HSS 28.0MM	1
5323 29	CORE DRILL HSS 29.0MM	1
5323 30	CORE DRILL HSS 30.0MM	1
5323 31	CORE DRILL HSS 31.0MM	1
5323 32	CORE DRILL HSS 32.0MM	1
5323 33	CORE DRILL HSS 33.0MM	1
5323 34	CORE DRILL HSS 34.0MM	1
5323 35	CORE DRILL HSS 35.0MM	1
5323 108 236	CORE DRILL HSS 36.0MM	1
5323 108 237	CORE DRILL HSS 37.0MM	1
5323 108 238	CORE DRILL HSS 38.0MM	1
5323 108 239	CORE DRILL HSS 39.0MM	1
5323 108 240	CORE DRILL HSS 40.0MM	1
5323 108 241	CORE DRILL HSS 41.0MM	1
5323 108 242	CORE DRILL HSS 42.0MM	1
5323 108 243	CORE DRILL HSS 43.0MM	1
5323 108 244	CORE DRILL HSS 44.0MM	1
5323 108 245	CORE DRILL HSS 45.0MM	1
5323 108 246	CORE DRILL HSS 46.0MM	1
5323 108 247	CORE DRILL HSS 47.0MM	1
5323 108 248	CORE DRILL HSS 48.0MM	1
5323 108 249	CORE DRILL HSS 49.0MM	1
5323 108 250	CORE DRILL HSS 50.0MM	1
5323 108 251	CORE DRILL HSS 51.0MM	1
5323 108 252	CORE DRILL HSS 52.0MM	1
5323 108 253	CORE DRILL HSS 53.0MM	1
5323 108 254	CORE DRILL HSS 54.0MM	1
5323 108 255	CORE DRILL HSS 55.0MM	1
5323 108 256	CORE DRILL HSS 56.0MM	1
5323 108 257	CORE DRILL HSS 57.0MM	1
5323 108 258	CORE DRILL HSS 58.0MM	1
5323 108 259	CORE DRILL HSS 59.0MM	1
5323 108 260	CORE DRILL HSS 60.0MM	1

Technical Data				
Ø mm	Dia Weldon shank mm	Total length mm	Quantity Teeth	Cutting depth mm
12-15	19	62	4	30
16-19	19	62	4	30
20-25	19	62	6	30
26-28	19	62	7	30
29-34	19	62	8	30
35-37	19	62	9	30
38-41	19	62	10	30
42-60	19	62	12	30

Core Drill HSS with Weldon Shank, 30 mm

- Cutting: 5% cobalt alloy
- CBN ground
- Cutting depth: 30 mm
- Chuck: Weldon shank 19 mm (3/4")
- Suitable for core drilling machines:
max. dia. 35 mm: RS 5e, RS 10, RS 20, RS 25e, RS 30e, RS 40e
from dia. 36 mm: RS 20, RS 25e, RS 30e, RS 40e
- Right-hand cutting
- **Application:**
steel (T-girders, large sheets), cast steel, high chrome alloyed steels such as V2VA and V4VA, non-ferrous and light metals



Article No.	Article Description	QTY
5323 1 12	CORE DRILL HSS CO5 12.0MM	1
5323 1 13	CORE DRILL HSS CO5 13.0MM	1
5323 1 14	CORE DRILL HSS CO5 14.0MM	1
5323 1 15	CORE DRILL HSS CO5 15.0MM	1
5323 1 16	CORE DRILL HSS CO5 16.0MM	1
5323 1 17	CORE DRILL HSS CO5 17.0MM	1
5323 1 18	CORE DRILL HSS CO5 18.0MM	1
5323 1 19	CORE DRILL HSS CO5 19.0MM	1
5323 1 20	CORE DRILL HSS CO5 20.0MM	1
5323 1 21	CORE DRILL HSS CO5 21.0MM	1
5323 1 22	CORE DRILL HSS CO5 22.0MM	1
5323 1 23	CORE DRILL HSS CO5 23.0MM	1
5323 1 24	CORE DRILL HSS CO5 24.0MM	1
5323 1 25	CORE DRILL HSS CO5 25.0MM	1
5323 1 26	CORE DRILL HSS CO5 26.0MM	1
5323 1 27	CORE DRILL HSS CO5 27.0MM	1
5323 1 28	CORE DRILL HSS CO5 28.0MM	1
5323 1 29	CORE DRILL HSS CO5 29.0MM	1
5323 1 30	CORE DRILL HSS CO5 30.0MM	1
5323 1 31	CORE DRILL HSS CO5 31.0MM	1
5323 1 32	CORE DRILL HSS CO5 32.0MM	1
5323 1 33	CORE DRILL HSS CO5 33.0MM	1
5323 1 34	CORE DRILL HSS CO5 34.0MM	1
5323 1 35	CORE DRILL HSS CO5 35.0MM	1
5323 1 108 236	CORE DRILL HSS CO5 36.0MM	1
5323 1 108 237	CORE DRILL HSS CO5 37.0MM	1
5323 1 108 238	CORE DRILL HSS CO5 38.0MM	1
5323 1 108 239	CORE DRILL HSS CO5 39.0MM	1
5323 1 108 240	CORE DRILL HSS CO5 40.0MM	1
5323 1 108 241	CORE DRILL HSS CO5 41.0MM	1
5323 1 108 242	CORE DRILL HSS CO5 42.0MM	1
5323 1 108 243	CORE DRILL HSS CO5 43.0MM	1
5323 1 108 244	CORE DRILL HSS CO5 44.0MM	1
5323 1 108 245	CORE DRILL HSS CO5 45.0MM	1
5323 1 108 246	CORE DRILL HSS CO5 46.0MM	1
5323 1 108 247	CORE DRILL HSS CO5 47.0MM	1
5323 1 108 248	CORE DRILL HSS CO5 48.0MM	1
5323 1 108 249	CORE DRILL HSS CO5 49.0MM	1
5323 1 108 250	CORE DRILL HSS CO5 50.0MM	1
5323 1 108 251	CORE DRILL HSS CO5 51.0MM	1
5323 1 108 252	CORE DRILL HSS CO5 52.0MM	1
5323 1 108 253	CORE DRILL HSS CO5 53.0MM	1
5323 1 108 254	CORE DRILL HSS CO5 54.0MM	1
5323 1 108 255	CORE DRILL HSS CO5 55.0MM	1
5323 1 108 256	CORE DRILL HSS CO5 56.0MM	1
5323 1 108 257	CORE DRILL HSS CO5 57.0MM	1
5323 1 108 258	CORE DRILL HSS CO5 58.0MM	1
5323 1 108 259	CORE DRILL HSS CO5 59.0MM	1
5323 1 108 260	CORE DRILL HSS CO5 60.0MM	1

Technical Data				
Ø mm	Weldon shank mm	Total length mm	Quantity Teeth	Cutting depth mm
12 - 15	19	62	4	30
16 - 19	19	62	4	30
20 - 25	19	62	6	30
26 - 28	19	62	7	30
29 - 34	19	62	8	30
35 - 37	19	62	9	30
38 - 41	19	62	10	30
42 - 60	19	62	12	30

HSS TIAN Core Drill with Weldon Shank, 30 mm

- Cutters: titanium-aluminium-nitride coating
- CBN ground
- Cutting depth: 30 mm
- Chuck: Weldon shank dia. 19 mm (3/4")
- Right-hand cutting
- Suitable for core drilling machines
 max. dia. 35 mm: RS 5e, RS 10, RS 20, RS 25e, RS 30e, RS 40e
 from dia. 36 mm: RS 20, RS 25e, RS 30e, RS 40e



- **Applications:**
 steel (T-girders, large sheets), cast steel, high chrome alloyed steels such as V2A and V4A, non-ferrous and light metals

Article No.	Article Description	QTY
5323 2 12	CORE DRILL HSSTIAN 12.0MM	1
5323 2 13	CORE DRILL HSSTIAN 13.0MM	1
5323 2 14	CORE DRILL HSSTIAN 14.0MM	1
5323 2 15	CORE DRILL HSSTIAN 15.0MM	1
5323 2 16	CORE DRILL HSSTIAN 16.0MM	1
5323 2 17	CORE DRILL HSSTIAN 17.0MM	1
5323 2 18	CORE DRILL HSSTIAN 18.0MM	1
5323 2 19	CORE DRILL HSSTIAN 19.0MM	1
5323 2 20	CORE DRILL HSSTIAN 20.0MM	1
5323 2 21	CORE DRILL HSSTIAN 21.0MM	1
5323 2 22	CORE DRILL HSSTIAN 22.0MM	1
5323 2 23	CORE DRILL HSSTIAN 23.0MM	1
5323 2 24	CORE DRILL HSSTIAN 24.0MM	1
5323 2 25	CORE DRILL HSSTIAN 25.0MM	1
5323 2 26	CORE DRILL HSSTIAN 26.0MM	1
5323 2 27	CORE DRILL HSSTIAN 27.0MM	1
5323 2 28	CORE DRILL HSSTIAN 28.0MM	1
5323 2 29	CORE DRILL HSSTIAN 29.0MM	1
5323 2 30	CORE DRILL HSSTIAN 30.0MM	1
5323 2 31	CORE DRILL HSSTIAN 31.0MM	1
5323 2 32	CORE DRILL HSSTIAN 32.0MM	1
5323 2 33	CORE DRILL HSSTIAN 33.0MM	1
5323 2 34	CORE DRILL HSSTIAN 34.0MM	1
5323 2 35	CORE DRILL HSSTIAN 35.0MM	1
5323 2 108 236	CORE DRILL HSSTIAN 36.0MM	1
5323 2 108 237	CORE DRILL HSSTIAN 37.0MM	1
5323 2 108 238	CORE DRILL HSSTIAN 38.0MM	1
5323 2 108 239	CORE DRILL HSSTIAN 39.0MM	1
5323 2 108 240	CORE DRILL HSSTIAN 40.0MM	1
5323 2 108 241	CORE DRILL HSSTIAN 41.0MM	1
5323 2 108 242	CORE DRILL HSSTIAN 42.0MM	1
5323 2 108 243	CORE DRILL HSSTIAN 43.0MM	1
5323 2 108 244	CORE DRILL HSSTIAN 44.0MM	1
5323 2 108 245	CORE DRILL HSSTIAN 45.0MM	1
5323 2 108 246	CORE DRILL HSSTIAN 46.0MM	1
5323 2 108 247	CORE DRILL HSSTIAN 47.0MM	1
5323 2 108 248	CORE DRILL HSSTIAN 48.0MM	1
5323 2 108 249	CORE DRILL HSSTIAN 49.0MM	1
5323 2 108 250	CORE DRILL HSSTIAN 50.0MM	1
5323 2 108 251	CORE DRILL HSSTIAN 51.0MM	1
5323 2 108 252	CORE DRILL HSSTIAN 52.0MM	1
5323 2 108 253	CORE DRILL HSSTIAN 53.0MM	1
5323 2 108 254	CORE DRILL HSSTIAN 54.0MM	1
5323 2 108 255	CORE DRILL HSSTIAN 55.0MM	1
5323 2 108 256	CORE DRILL HSSTIAN 56.0MM	1
5323 2 108 257	CORE DRILL HSSTIAN 57.0MM	1
5323 2 108 258	CORE DRILL HSSTIAN 58.0MM	1
5323 2 108 259	CORE DRILL HSSTIAN 59.0MM	1
5323 2 108 260	CORE DRILL HSSTIAN 60.0MM	1

Technical Data				
Ø mm	Weldon shank mm	Total length mm	Quantity Teeth	Cutting depth mm
12 - 15	19	62	4	30
16 - 19	19	62	4	30
20 - 25	19	62	6	30
26 - 28	19	62	7	30
29 - 34	19	62	8	30
35 - 37	19	62	9	30
38 - 41	19	62	10	30
42 - 60	19	62	12	30

Solid HSS Drill with Weldon Shank, 30 mm

- Cutters: HSS
- CBN ground
- Cutting depth: 30 mm
- Chuck: Weldon shank Ø 19 mm (3/4")
- Right-hand cutting
- Suitable for core drilling machines: RS 5e, RS 10, RS 20, RS 25e, RS 30e, RS 40e
- **Applications:** steel (T-girders, large sheets), cast steel, non-ferrous and light metals
- Slotted 3-cutter geometry provides for extremely high stability of the solid drill and prevents risk of breakage of the cutting edge caused by overstraining or jamming of chippings



Article No.	Article Description	QTY
5323 3 10	SOLID DRILL HSS 10.0MM	1
5323 3 11	SOLID DRILL HSS 11.0MM	1
5323 3 12	SOLID DRILL HSS 12.0MM	1
5323 3 13	SOLID DRILL HSS 13.0MM	1
5323 3 14	SOLID DRILL HSS 14.0MM	1
5323 3 15	SOLID DRILL HSS 15.0MM	1

Technical Data			
Dia. mm	Weldon shank dia. mm	Total length mm	Cutting depth mm
1 - 15	19	64	30

Guide Pins for Core Drill

Technical Data		
Art. No.	Characteristics	For cutting depth mm
5323 108 310	for Step Drill HSS dia. 6,35 x 95 mm with Weldon-/Quick IN Shank	15
5323 108 306	for core drill HSS and HM dia. 6,35 x 87 mm with Quick IN Shank	35
5323 3	for core drill HSS dia. 6,35 x 77 mm with Weldon shank	30
5323 108 305	for core drill HSS dia. 6,35 x 102 mm with Weldon shank	50
5323 108 110	for core drill HSS and HM dia. 6,35 x 123 mm with Weldon-/Quick IN Shank	50 + Adaptor
5323 108 701	for core drill HM dia. 8 x 112 mm with Weldon shank	50



Article No.	Article Description	QTY
5323 108 310	GUIDE PIN FOR STEP DRILL HSS	1
5323 108 306	GUIDE PIN FOR HSS+HM QUICK IN	1
5323 3	GUIDE PIN FOR CORE DRILL HSS	1
5323 108 305	GUIDE PIN FOR HSS 102MM	1
5323 108 110	GUIDE PIN FOR HSS+HM WDS/QIN	1
5323 108 701	GUIDE PIN FOR HM WDS 8X11.2MM	1