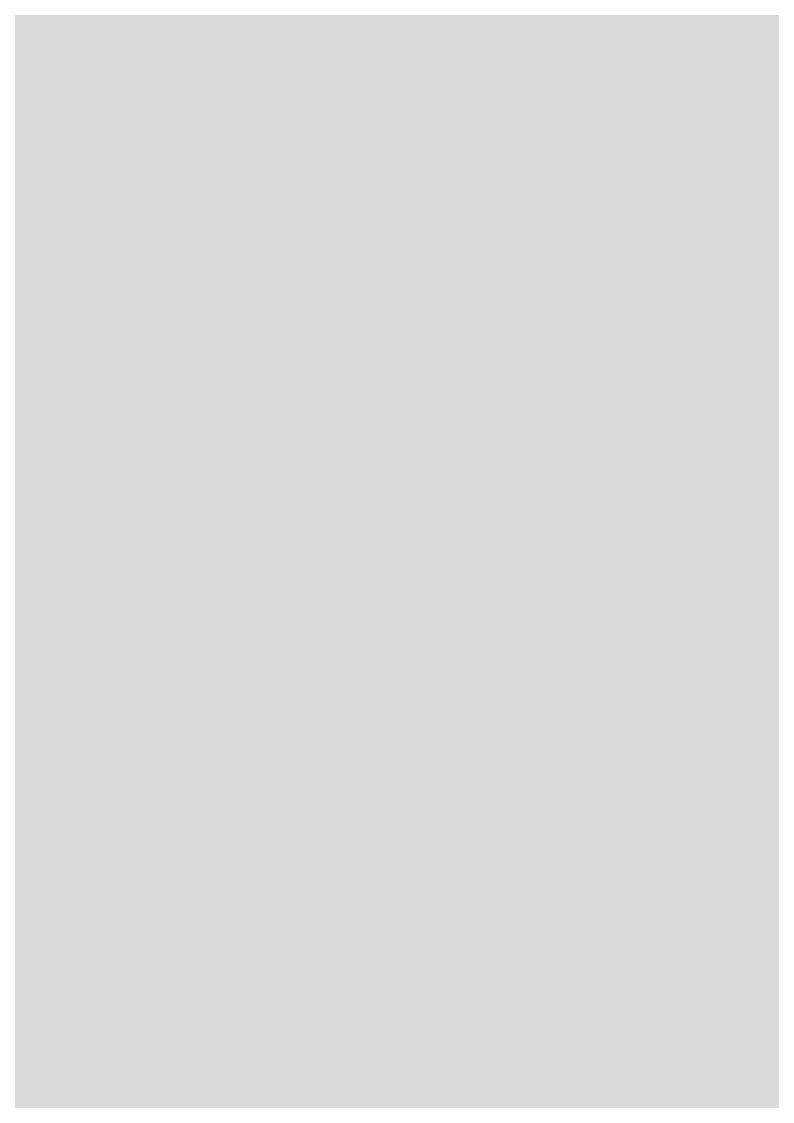


Lean Catalogue 9.4

LEAN PRODUCTION COMPONENTS AND SOLUTIONS

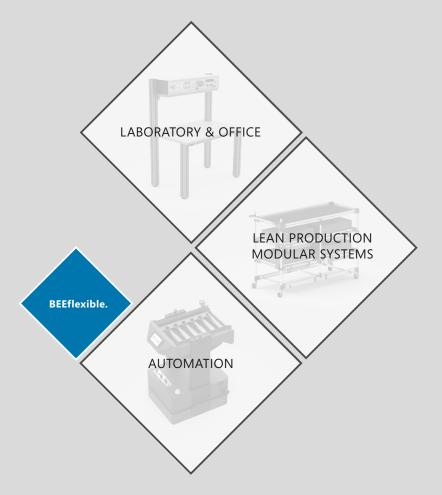
Modular system for process optimizers, workplace builders and cost reducers.







SIMPLE. FLEXIBLE. INDIVIDUAL.



To get LEAN rolling, you have to be flexible. BEEflexible.

The BeeWaTec Group, headquartered in Pfullingen, Swabia, is internationally networked with a flexible and innovative product portfolio centred around Lean Manufacturing, Agile Production and Industry 4.0 and has a decentralized presence through its own subsidiaries.

Every day, we ensure that our innovative modular system for lean manufacturing makes us one of the leading providers of lean and material flow solutions and, as a system provider, offer you both stand-alone solutions as well as complete concepts with networked solutions.

As a medium-sized company, we consistently focus on a continuously high quality standard – this applies for the production of our products as well as to the application of these systems at our customers.

BeeWaTec is your perfect partner if you are looking for solutions for a flexible and economical working and production environment.



The BeeWaTec modular system offers everything that is needed for lean production.

The lean production MODULAR SYSTEMS – short & simple

The perfect implementation of Kaizen and Lean manufacturing principles

There are good reasons to build production accessories like Kanban/flow racks, transport trolleys and supply shelves or entire workplaces on your own. The most important prerequisite for this is a stable, production-compatible and at once economical modular system.

The solution: The BeeWaTec pipe racking system by G.S ACE with its limitless design freedom, with many additional structural components – and the professional service of BeeWaTec.

Friendly advice, technical competence and experience and lots of personal commitment – BEEWATEC SERVICE

Speed, reliability and professionalism are essential for efficient working processes, manufacturing processes and logistics processes, but also the service we offer to you.

We accompany you as a customer consistently in the planning support, installation, commissioning, training and further development.

You want to plan independently? Use our planning tools.



Technical support Our BeeWaTec experts will provide you with a solution that will fulfill your needs.



Training & support With BEETrained you will be excellently prepared in theory and practice.



Planning tools Realize exciting projects with our planning software BEEVisio & BEELopt .



The BeeWaTec modular system – easy and flexible planning, mounting, changing and re-using.

No more rigid solutions to last for eternity. Today, flexible and intelligent approaches are customary and processes can be adapted instantly – this makes the modular system the ideal solution for the continuous implementation of your improvement processes, increasing your efficiency and profitability!

BeeWaTec is well-known for its **versatile pipe racking system** by G.S. ACE. For the round pipe racking system BeeWaTec offers the **steel product range** and the **aluminum product range**.

Spoilt for choice? Not with BeeWaTec.

The aluminum round pipe racking system is the perfect complement for the steel round pipe racking system. The metal joints, mounting brackets, accessories and so on can be combined with the aluminum round pipe racking system and existing systems.

To round it off, BeeWaTec makes it square – the modular system for tugger train construction and logistics planning

For constructions with the requirements for a high load BeeWaTec offers a specially developed square system (MC-system). The modular structure for self-assembly offers flexible construction and fast adaptation possibilities.

Compatibility with pipe racking system:

Due to the numerous joints series, the square Profiles can be adapted to the round pipe Profiles. So the possibilities become even more diverse.

Your benefits at a glance











Compatible



High efficiency



For self-builders: Build your individual solution with individual components

Lean production - solution-oriented, simple, scalable equipment construction

Efficient in-house logistics by means of flow racks, assembly workstations, Kanban, FIFO, material provision racks & Co.

Use our modular system and select the suitable delivery form for you

With the modular pipe plug-in system we offer you the hardware components you need to build equipment yourself according to the principles of lean production. Besides steel round pipes we also offer aluminium round pipes. Without welding and with little effort, all components of the pipe plug-in system offer you a simple and adaptable possibility to build equipment (e.g. shelves, workstations, material transport trolleys, Kanban, flow rack, staging rack, ergonomic workstations etc.).

Depending on the load requirements of your construction, you can choose the pipes in different wall thicknesses. All steel pipes offer a constant pipe outer diameter so that you can use our connecting elements across the entire pipe range (different colours, wall thicknesses).

Thanks to relatively low investment costs, you can already dentify enormous savings potential and optimisation potential in your production environment / logistics environment. Thus, you can also realise short-term environmental changes mostly within the scope of your limited budget yourself.

Advantages:

- No standard constructions relatively cheap, flexible, individual solutions
- Fast responsiveness and flexibility for your productions and logistic environment
- Pipe racking system is scalable
- Ideal for self-builderss
- Individual components or ready-made solutions
- **Ergonomics** at the workstations lifting systems



Hardware components for Lean Production

Discover our variety of components in this Lean catalogue.

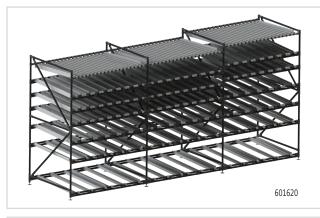


Discover our digital showroom















Made easy: Material provision in flow racking/FIFO racking

A flow/supply rack is a rack that you load with goods/containers on one side of the rack. On the other side (removal side), the previously stored goods are removed.

Advantages:

- Accessible from both sides storage space compaction A flow rack is accessible from both sides, enabling supply and removal to proceed smoothly.
- **Compact storage** small area A flow rack can be individually customised in all dimensions. You define the height, width and depth according to your requirements and create as many levels as you need.
- Flexibly expandable and scalable All shelving units and trolleys can also be changed later.
- FIFO principle (first in first out) is provided for efficient supply chain management
- Gentle gradient allows sliding of the next unit Due to the roller tracks used and the gentle gradient, load carriers/ transport boxes can move up.

The assembly islands: More effectiveness and productivity through flow production (one-piece flow)

An assembly island describes a U-shaped cell. All the necessary work steps are combined in a small space and the material is located directly at the workstation (e.g. in the form of feed units / flow racks).

Advantages:

- Saves space
 All value-added work steps and materials in a small space directly accessible at the workplace.
- Fast reaction possibilities with high flexibility workplace can be easily adapted to the process
- Ergonomic superstructures
- Accessories individually expandable and scalable Assembly workstations can be further improved with a wide range of accessories.
- ESD compatible design All materials (pipes, joints, table tops, etc.) are also available in an electrically conductive version (ESD).
- Can be combined with Kanban, flow and material supply racks













Your assembly workstation: flexible, ergonomic, efficient and (optionally) height-adjustable

Your assembly workstation: flexible, ergonomic, efficient and (optionally) height-adjustable. Lean workstations or lean assembly workstations serve as individual assembly workstations, assembly islands or entire assembly lines. Workstations can be individually aligned to your process and workers. Standardised workstations made of pipe racking systems can be used, but their dimensions and equipment can be individually modified and adapted.

Advantages:

- Ergonomics and healthy working posture for increased productivity
- Flexibility: The workplace can be easily adapted to the process
- Efficiency through optimized processes Throughput times are minimised by optimally arranged work steps and supply of the assembly material.
- Optional continuously adjustable working height: Linear units and height adjustment
- Ergonomic superstructures
- Accessories individually expandable and scalable
- ESD compatible design
- Can be combined with Kanban, flow and material supply racks

Efficient internal transport through material transport trolleys

Unnecessary transport routes are among the most common types of waste in production and logistics environments. Material handling trolleys should be constructed in such a way that they can be used in different areas. The material stays on a trolley and if possible passes through the entire production process on it (e.g. from the ESD room, cold room to quality assurance).

Advantages:

• Reduction of stock transfers

Material handling trolleys are built on castors. No additional forklifts or pallet trucks are needed to move the material transport trolley.

- Automation of material flows possible Autonomous mobile robots from BeeWaTec can take over such material transports by driving under the racks/trolleys,undocking and picking them up.
- Flexibly expandable and scalable All shelving units and transport trolleys can be changed later.
- Individually designable

Each material transport trolley can be configured according your needs. Special load carriers can be transported as well.

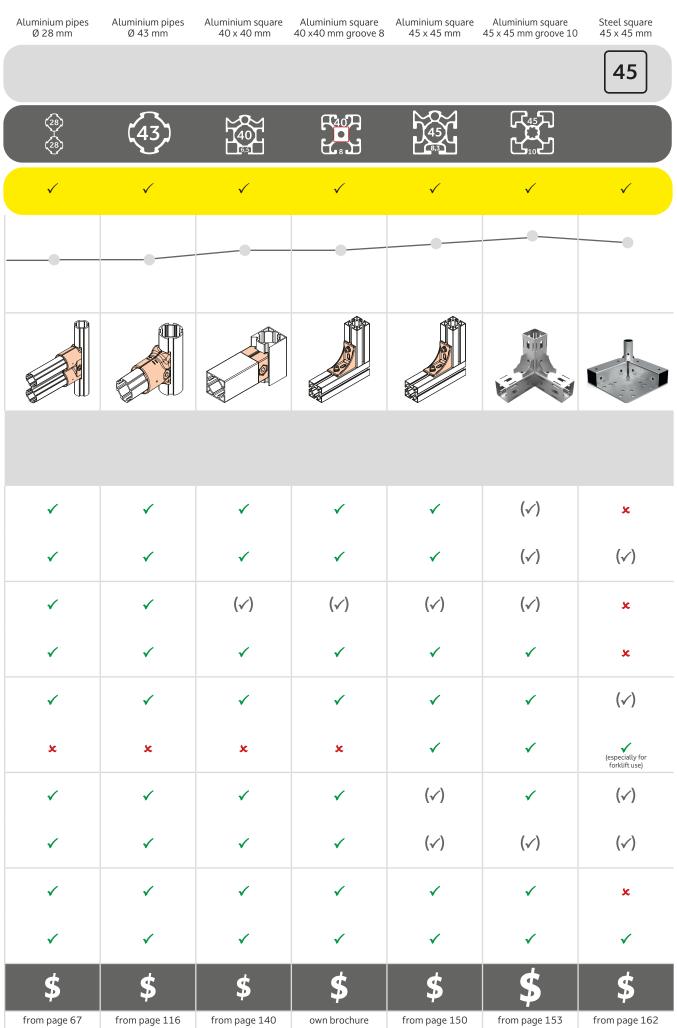


Roller tracks	171	Support feet	217	Add-on parts/accessories
Castors	221	Panels	239	;/accessories
Lifting technology	249	Lighting	271	
Additional accessories	279	Workshop equipment	289	
Assembly workplaces	327	AMR	111 332	
Application examples	334	Software	1000 Contraction (1000 Contrac	

Profile series overview

		Aluminium pipes Ø 28 mm	Steel pipes Ø 28 mm	Aluminium pipes Ø 28 mm	Aluminium square 28 x 28 mm	Aluminium square 28 x 28 mm
STEEL PROFILES Different designs (wall ses, colours, etc.) avail	thicknes- able		28			
ALUMINIUM PROF Different designs (wall ses, profiles, etc.) avail	thicknes-	28		(28)	Ê	
ESD (Variants available ESD assembly possible	2	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
LOAD CAPACITY Depending on the choice thickness and outer prof le increase in stability of constructions possible t e.g. double tube technol	e of wall file. Flexib- findividual hrough	•				
JOINING TECHNOLO Primary joining technolo ported by a variety of in joints for maximum flexi compatibility between o pipes and profiles.	ogy sup- dividual ibility and					
APPLICATION ARE/ Different versions (wall nesses, profile character etc) available. (*depend requirements)	thick- ristics,	✓ (√) ×	possible, recommende possible, recommende not possible, not recor	ed with restrictions*		
Shelf systems	Structure	\checkmark	✓	✓	✓	~
	Basic frame	\checkmark	\checkmark	\checkmark	\checkmark	~
Workplace systems	Structure	✓	✓	✓	✓	\checkmark
	Basic frame	\checkmark	~	✓	✓	\checkmark
Tugger train trailer (high dynamic load)	Structure	✓	✓	✓	✓	✓
	Basic frame	×	×	×	×	×
Order picking trolley (hand-pulled)	Structure	✓	✓	✓	✓	✓
	Basic frame	\checkmark	~	✓	✓	~
Superstructures/shelf systems for mobile robots	Structure	\checkmark	\checkmark	\checkmark	\checkmark	~
	Basic frame	\checkmark	\checkmark	\checkmark	\checkmark	~
COMPARSION OF P Price per metre (depend design and material thic	ing on	\$	\$	\$	\$	\$
CATALOGUE		from page 67	from page 14	from page 68	from page 132	from page 134





10 | PIPE RACKING SYSTEMS BY G.S. ACE



PIPE RACKING SYSTEMS by G.S. ACE

With the BeeWaTec round pipe racking system you can realize your ideas for your individual production environment quickly and easily.

Implementation:

The pipe racking system by G.S. ACE offers everything for professional use: **Stability** and **lightness**, a **wide range of versions** (also electronically conductive) and a growing product range of joints and accessories. In addition, the pipe racking system is very easy to handle and with little tools.

The joints provide optimal stability and can be mounted easily and quickly. Moreover, they are reusable, just as the pipe elements.

Please have a look at our **user manual** where you can find lots of practical tips for the design and realization of pipework.

Steel or Aluminium?

For the round pipe racking system BeeWaTec offers the **steel product range** and the **aluminum product range**.

Choose the solutions that fits your application from our comprehensive product range or use the **compatibility** between the steel round pipe racking system and the aluminum round pipe racking system.



STEEL PIPE RACKING SYSTEMS by G.S. ACE

BeeWaTec offers the **steel round pipe** in three different versions:

- D-COAT pipe
- SUS pipe
- ECCO pipe (ECCO-Star)

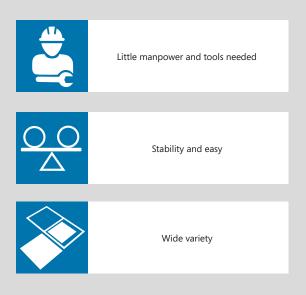
The pipes and profiles have one thing in common: the 28 mm basic diameter. Occasionally 32 mm diameter is available.

Due to the numerous wall thicknesses and colours there are numerous possibilities expending on the application and the customer requirements there are numerous possibilities of wall thicknesses and colours.

Easy to assemble, easy to convert:

Just cut the pipes to the desired length and supplement them with the corresponding joint elements. Change work processes or workpieces the tubes can be shortened in no time and reassembled.

An economical solution for the requirements of the modern production.





Light, stable, enormously versatile: The right framework for production processes. Pipe racking systems by G.S. ACE.

Electrical conductivity (ELF) 🔝

ELF is the abbreviation for "electrically conductive" and limits the electrical leakage resistance range of a body.

For electrically conductive design, all essential parts of a construction, including the rollers, must be electrically conductive. In principle, our electrically conductive components/structures have an electrical resistance of < $10^9 \Omega$. You as the customer must check whether the components/structures meet your requirements for electrostatic discharges.

If it is not possible for all components to have a desired resistance value and/or the floor is not conductive, the construction or only the electrically conductive tabletop can be dissipated via an earthing plug.

For the steel joints, the WZ version (white galvanised) should be selected. The BK joints do not have sufficient conductivity.

Note:

With the aluminium round pipe system, these are initially not conductive due to the anodised coating on the surface. Only when the matching aluminium joints or also the steel joints from the round steel pipe system are screwed onto the aluminium pipes with clamping, the joints penetrate the thin anodised layer and thus establish conductivity. If the resistance value is still too high, this can be reduced with the matching ESD plate (LP2800, 117718).





These contact plates are installed on the outer contour of the aluminium tube and the aluminium joint to be clamped. In the case of roller rail holders, it may be necessary to fix them with self-drilling screws to ensure safe conductivity.

When using aluminium square profiles, please note the following:

The bar material also has a surface resistance of greater than 10⁹ Ω due to the anodised coating. With correct assembly of the joining elements, a resistance value from joining element to joining element of < 10⁶ Ω can be achieved. The basis for the design of a system is the standard according to DIN EN 61340-5-1.

STEEL Ø 28 mm

<u>PIPES</u>

D-Coat pipes	14
Sliding pipes	14
Ecco-Star pipes	15
SUS pipes	15
<u>Cover caps</u>	16

<u>JOINTS</u>

Basic joints	20
Swivel joints	24
Anglejoints	26
Joints for panel fastening	29
Swivel and sliding joints	33
Attachment joints	36
Parallel joints	37
Joints for holding round and sliding pipes	40
Holders	41
Joining elements	42
Wheel mounting elements	43
Drive-in sleeves	46

ADD-ON PARTS

Deflection joints	50
Shooter	53
<u>C-rail</u>	54
Fixations	55
Further add-on parts	56
Stoppers	58
Hook with adaption to the pipe	60
Band holder	61

STEEL pipes Ø 28 mm



14 | STEEL PIPES

Steel pipes overview

ORDERING INFORMATION

Article number |Name

•

- 100231 | DP2810-N
- Standard pipes Ø28x0.7mm means 28 mm outer diameter and 0.7 mm wall thickness of steel pipe.
- Reference is made in the following pages to a simplified Ø 28 mm; the exact diameter is 27.6 +0.15/-0.10 mm.

• Warehouse status

Priority available on request "Priority goods" can be supplied immediately; in the case of "on request" product delivery times of around 8 weeks should be reckoned with.

Standard pipe length: 4 m; shorter pipe lengths on application.

 The colours shown may vary from the actual ones due to printing limitations



D-Coat pipe

• ABS coating

Steel pipe is coated with ABS plastic with an additional coating of the new PA-ABS material

• Best chemical resistance

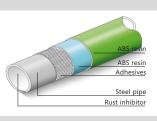
Compared to the conventional ABS coating pipe, D-COAT pipe is outstanding in oil resistance and chemical resistance; in particular, salinity, rust preventative oil or cutting oil does not cause cracks or discolouration of the pipe

Colourful

Comes in a variety of colours for use in various items or per company's image

• Excellent durability

With outstanding durability, this pipe is easily processed; rustproof coating inside the pipe provides superior corrosion resistance



	Colour	D-Coat Pip	D-Coat Pipe					Pipe	L-Slide	Flat Slide
				on run-out						Pipe
Standard pipes	similar RAL	Ø28x0.7mm	Ø28x0,9mm	Ø28x1.0mm	Ø28x2.0mm	Ø32x0.7mm	Ø28x1.0mm	Ø28x2.0mm	Ø28x1.0mm	Ø28x1.0mm
Inner diameter		24.0 mm	23,6 mm	23.4 mm	21.8 mm	28.0 mm	23.4 mm	23.4 mm	23.4 mm	23.4 mm
Green (-N)	6018		⁹ 609198 DP2809-N	100174 DP2810-N	100181 DP2820-N					
Sky blue (-S)	5012		609203 DP2809-S	100188 DP2810-S	100203 DP2820-S					
Dark blue (-K)	5010	100168 DP2807-K	609199 DP2809-K	100175 DP2810-K	100182 DP2820-K	116361 DP3207-K	100555 CS2810-K			100272 CF2810-K
Red (-R)	3002		609201 DP2809-R	100179 DP2810-R	100186 DP2820-R					
Orange (-O)	2009		609206 DP2809-0	100199 DP2810-0						
Yellow (-YE)	1021		609205 DP2809-YE	100196 DP2810-YE	100197 DP2820-YE					
lvory (-i)	1013	100173 DP2807-i	609202 DP2809-i	100180 DP2810-i	100187 DP2820-i					
Grey (-G)	7035	100169 DP2807-G	609200 DP2809-G	100176 DP2810-G	100183 DP2820-G		100556 CS-2810-G		100281 LS2810-G	
Metallic grey (-VG)	9022	109999 DP2807-VG	609208 DP2809-VG	110000 DP2810-VG	109747 DP2820-VG	121094 DP3207-VG		114561 CS 2820-VG		
Stone grey (-HG)	7037									100278 CF2810-HG
White (-W)	9003	100191 DP2807-W	609204 DP2809-W	100192 DP2810-W	100193 DP2820-W					
Spiral shaped yellow/black	1021/9005		113741 SP2809							

🔼 ESD version

Black (-B)	9005	100231 EP2807-B	609209 EP2809-B	100232 EP2810-B	100233 EP2820-B		100238 ES2810-B			100230 EF2810-B
Grey (-G)	7035									
Polished steel (-										
Weight (kg/per metre)		0.505 kg	0.630 kg	0.700 kg	1.130 kg	0.620 kg	0.767 kg	1.170 kg	0.750 kg	0.790 kg



Ø28x0.7mm	Ø28x0.9mm	Ø28x1.2mm	Ø28x2.0mm	Ø28x0.7mm	Ø28x1.2mm	Ø32x1.2mm
26.1 mm	25.7 mm	25.1 mm	23.9 mm	26.2 mm	25.2 mm	29.6 mm
	401566 C2000 V	100223 G2812-K	121022 C2020 V			
	401566 G2809-K	100223 62812-K	131833 G2820-K			
	402776 G2809-G	402777 G2812-G	402778 G2820-G			
	401565 G2809-VG	112884 G2812-VG	130562 G2820-VG			

402629 EG2807-B	401573 EG2809-B	100212 EG2812-B	402630 EG2820-B			
100208 EG2807-G		100211 EG2812-G	402631 EG2820-G			
				100572 S2807-PF	100573 S2812-PF	112627 \$3212-PF
0.475kg	0.600 kg	0.800 kg	1.100 kg	0.448 kg	0.760 kg	0.770 kg



GAP-4... Cover caps internal, made of plastic

Cover caps

- A pipe end without a visibly opening does not only look better, it also reduces the risk of accident and the risk of pollution
- Available in different versions, colours and diameters
- The cover caps are also available with electrical conductivity

			Art. No.	Name	Pipe	Ø Pipe	Colour	Material	
	•		126215	GAP-4-P-B			Black		52
		All .	126269 盆	GAP-4-P-BE	For all steel pipes	28 mm	Black	Plastic	
			126270	GAP-4-P-G			Grey		
	۵		126290	GAP-4R B	For all D coat nine	²⁰ mm	Black	Plastic	
		126278	GAP-4R G	For all D-coat pipe	28 mm	Grey	FIdSUL	R	

GAM-07S Cover caps internal, made of steel

 Art. No.	Name	Pipe	Ø Pipe	Colour	Material	
120541 🙆	GAM-07S	For ECCO-Star pipe and SUS pipe	28x0.7mm	() wz	Steel	R28

GAS-... Steel caps for insertion in the pipe

	Art. No.	Name	Pipe	Ø Pipe	Material	
	100033 🔼	GAS-07A	For D-coat pipe —	28x0.7mm	- Steel galvanised	Ø 28
	100034 🙆	GAS-10A		28x1.0mm	steel galvallised	
	100031 🛕	GAS-07S	For ECCO-Star pipe	28x0.7mm	Charl columnized	12
	100032 🔼	GAS-12S	and SUS pipe	28x1.2mm	Steel galvanised	

SPACE FOR NOTES					

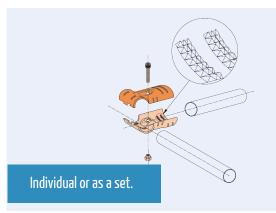
18 | STEEL JOINTS



Joining technology made easy

The steel joints of the pipe racking system by G.S.ACE have a special design with a **pyramid-shaped grip structure** at the contact surfaces (at the right) and show therefore **excellent adhesive properties**.

Cut-off tolerances and angle errors are also compensated by the joint elements without affecting the holding force. Another advantage are the markings at the joint shells to indicate the minimum/maximum plug-in depth which makes it easier to work with the joints.



Joint as a set

The G-1S joint is a half shell without accessories.

The **half shells** are highlighted in blue.

The **GA-1S** comprises the complete **Set** that is necessary for assembly.

2 half shells + screw and nut. This example is valid for all joints.

The **sets** are highlighted in anthracite.

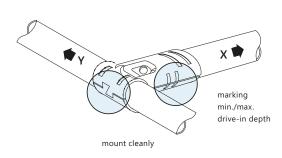
Surfaces



BK: Black coating, chrome-free



White zinc plating, for ESD use





Ni: Nickel plating, chrome-free, for ESD use (fittet with galvanized screws/ nuts)

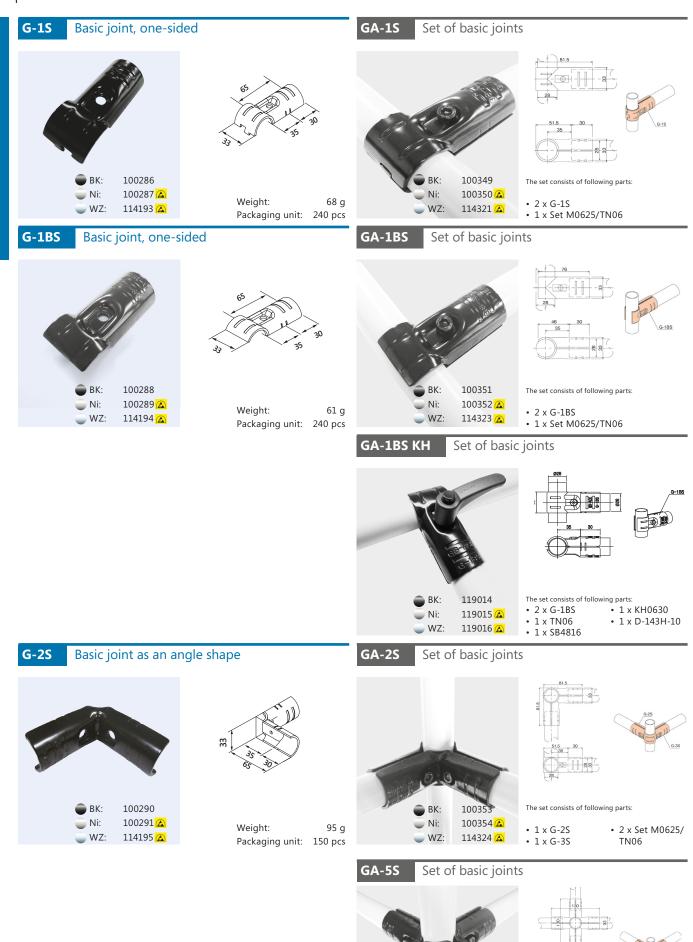
Ordering information

- Standard packing units supplied with the number of pieces given in each instance. All joints can also be ordered in other piece numbers.
- Kits of joints are supplied as individual parts (e.g. GA-1S: 2x base element G-1S and 1x screw set M0625/TN06)

STEEL joints Ø 28 mm

Basic joints	20	Swiveljoints	24
Angle joints	26	Joint for panel fastening	29
Swivel and sliding joints	33	Attachment joints	36
Parallel joints	37	Joining elements	42
Joint for holding round and sliding pipes	40	Holders	41
Wheel mounting elements	43	Drive-in sleeves	46

Basic joints



The set consists of following parts:

BK:

🔵 Ni:

WZ:

100359

100360 🙆

114327 🙆

• 4 x G-2S • 4 x Set M0625/TN06



Basic joints



Basic joints



Application example for the joint sets





Swivel joints

STEEL JOINTS | 25



G-1585

PS-C

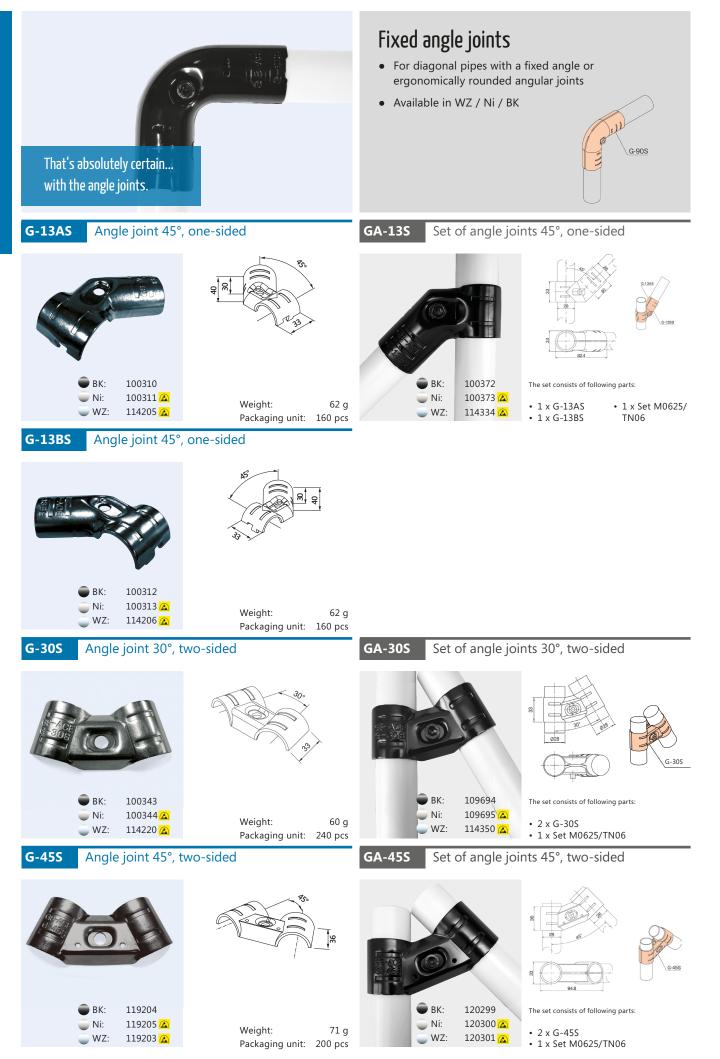
The set consists of following parts:

133012

133026 🛕

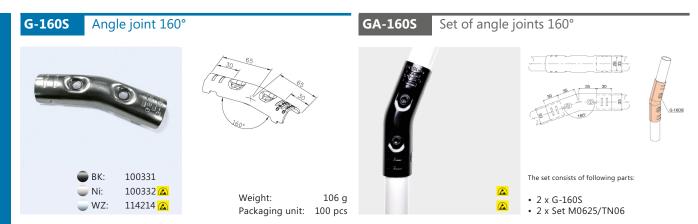
• 1 x G-15BS • 1 x PS-C • 1 x M0610 **Swivel joints**

Angle joints

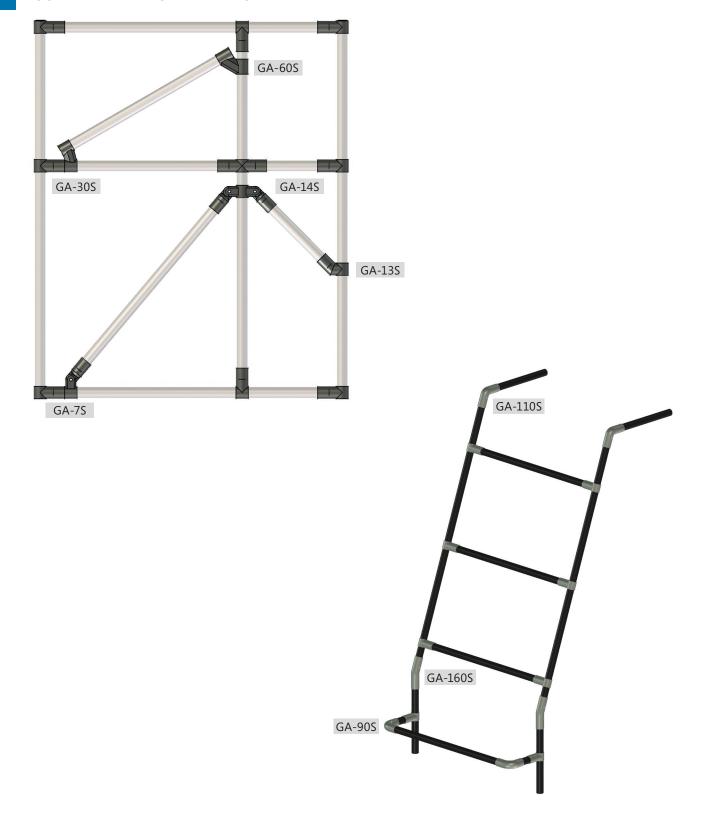


Angle joints



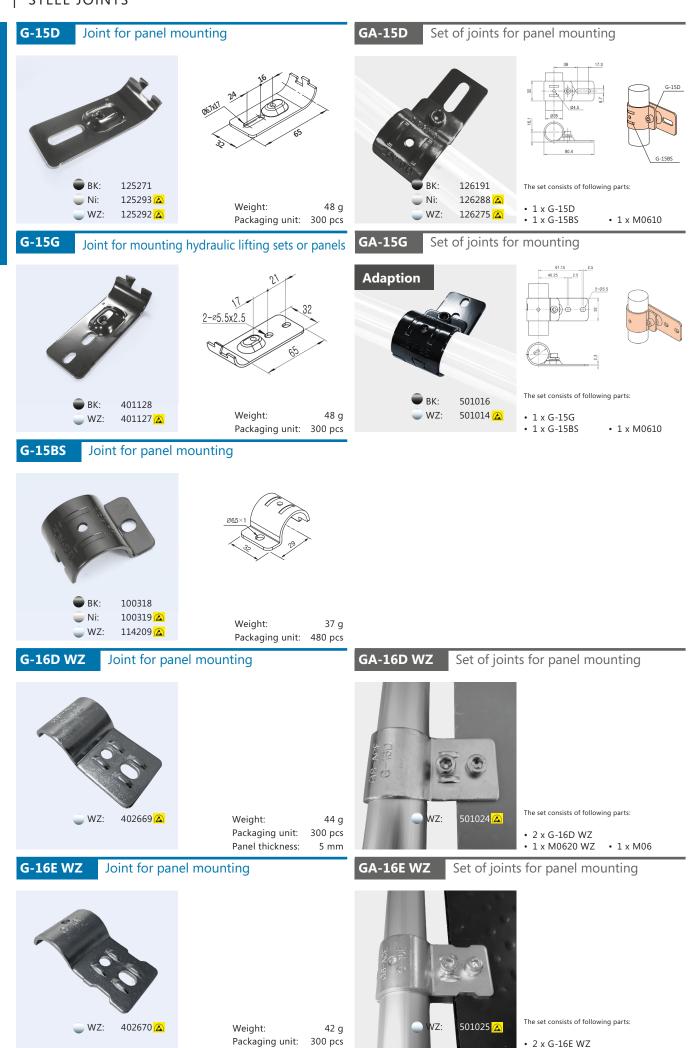


Application example for the joint sets





Panel mounting

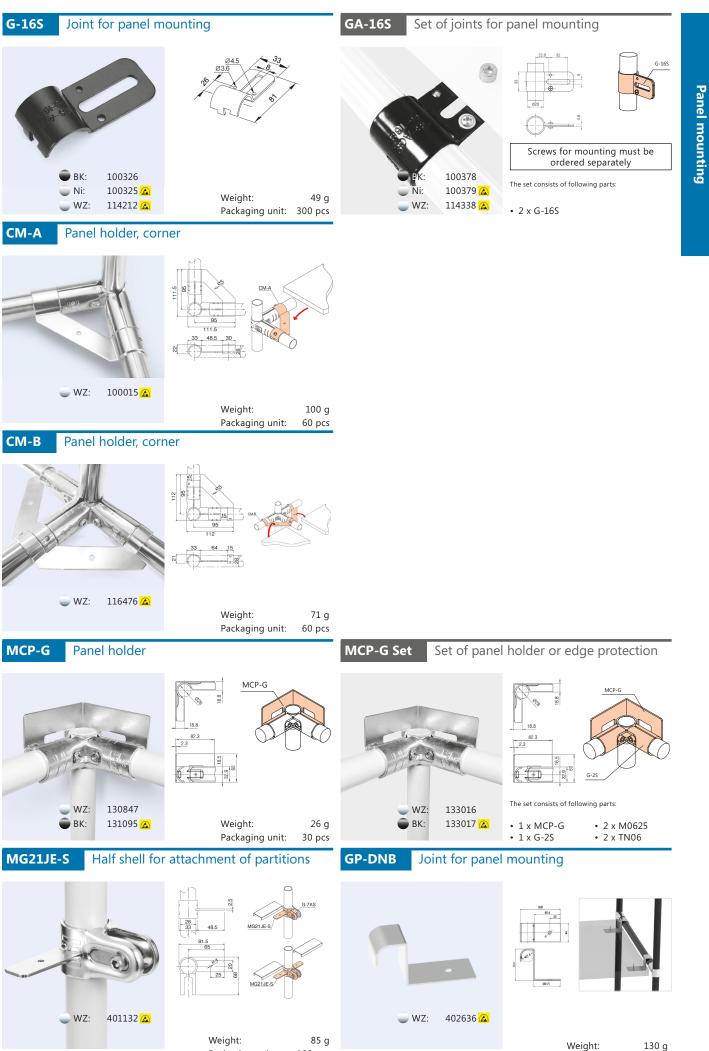


Panel thickness:

10 mm

• 2 x G-16E WZ • 1 x M0620 WZ • 1 x M06

STEEL JOINTS | 31

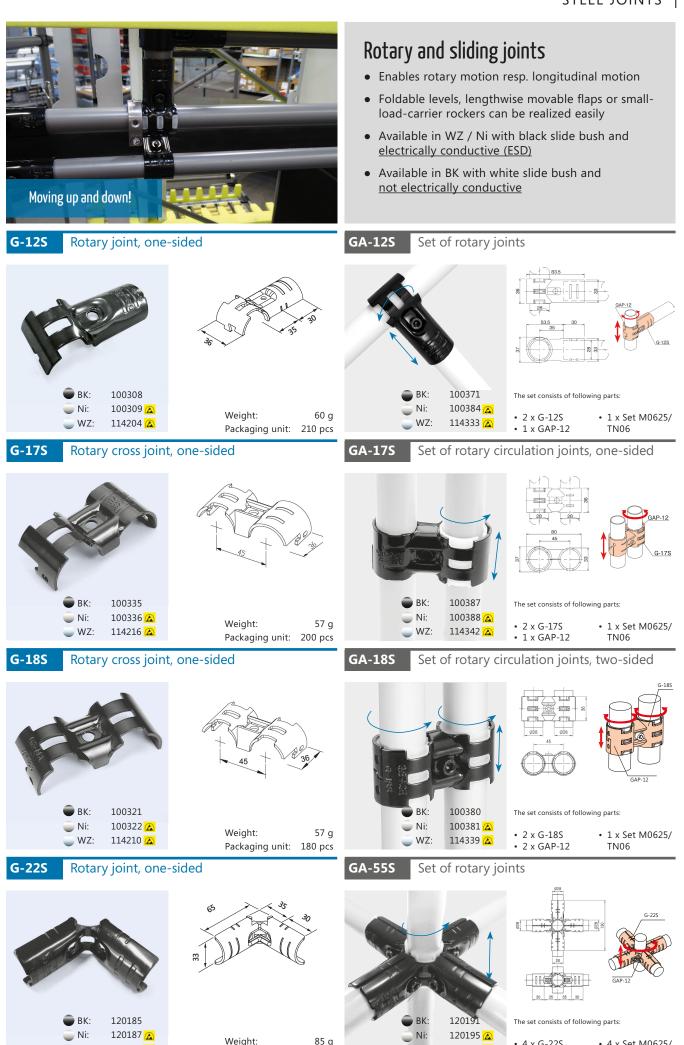


100 pcs

Packaging unit:

130 g





85 g

WZ:

120194 🔼

Weight:

Packaging unit: 150 pcs

WZ:

120186 🔼

• 4 x Set M0625/ TN06

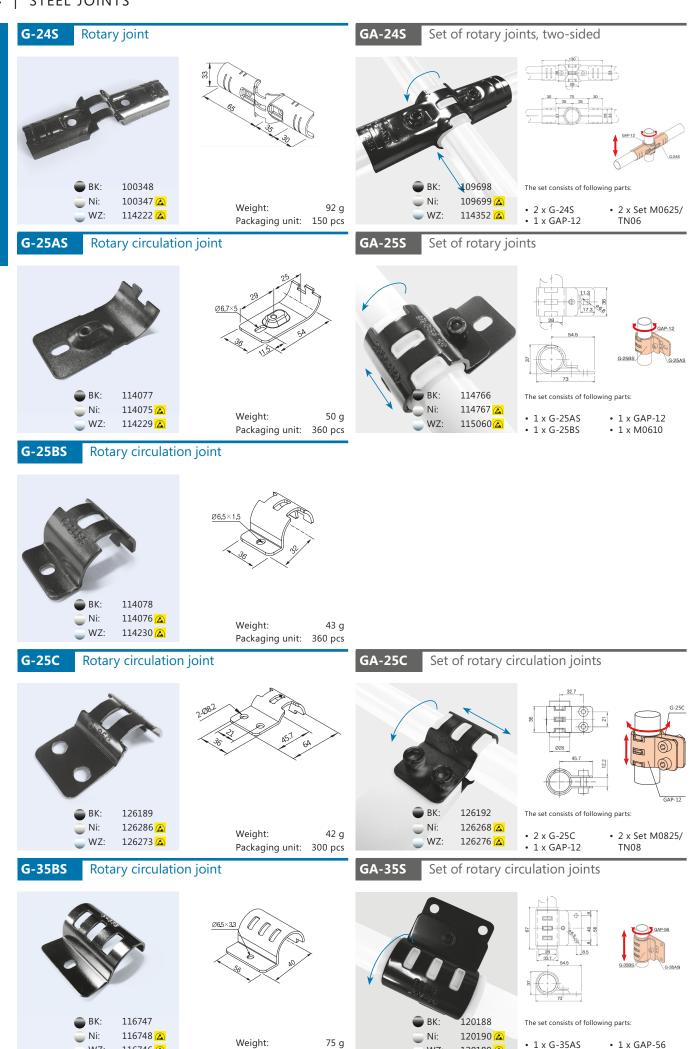
4 x G-22S

• 1 x GAP-12

WZ:

116746 🔼

Rotary and sliding joints



1 x G-35AS • 1 x GAP-56 • 1 x G-35BS • 1 x M0610

WZ:

_

Packaging unit: 240 pcs

120189 🔼

Rotary and sliding joints



G-103



Attachment joint, one-sided

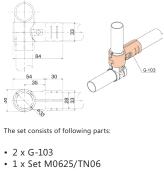
Attachment joints

- Space-saving and flexible
- Enables direct connection on the shaft of the basic joint with Ø33mm
- Available in WZ / Ni / BK



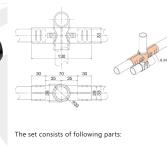
GA-103 Set of attachment joints, one-sided





GA-34S Set of attachment joints, two-sided





• 2 x G-34S • 2 x Set M0625/TN06

GA-6B-33 Set of basic joints as a strut



The set consists of following parts:

The set consists of following pa

2 x G-6B-33 1 x Set M0625/TN06

G-34S Attachment joint, two-sided

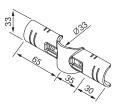
🔵 ВК:

🔵 Ni:

● BK: 114079 Ni: 114080 🙆 WZ: 114231 🙆

100337

100338 🙆

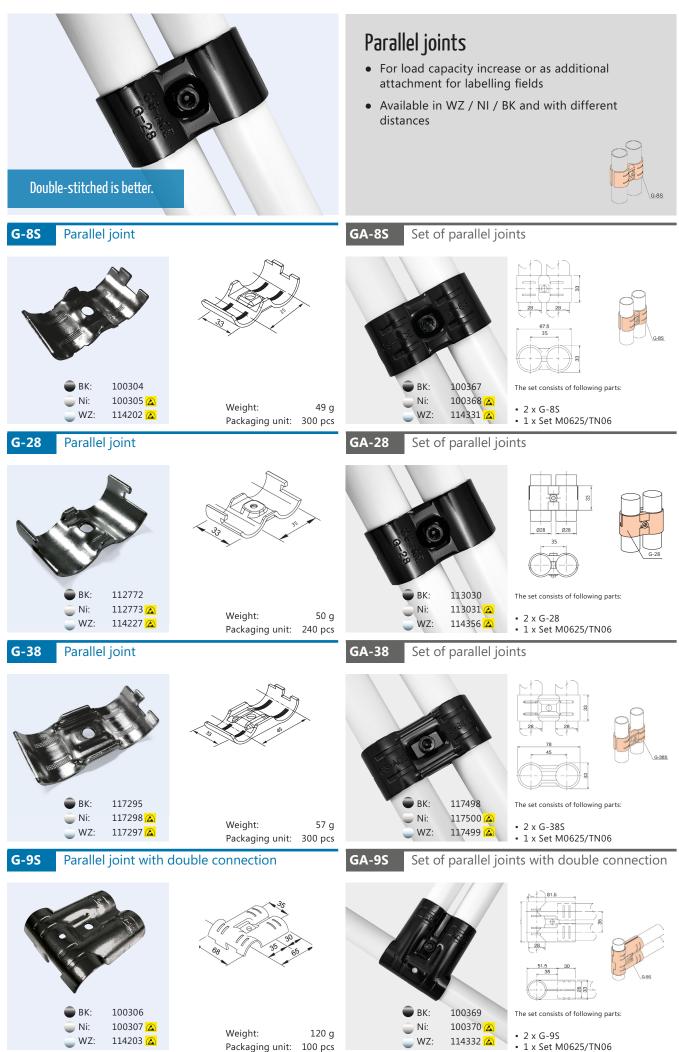


Weight:

70 g

Weight: 106 g Packaging unit: 180 pcs

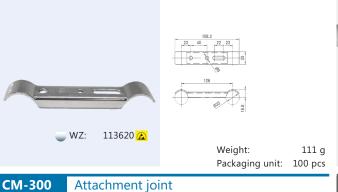
Packaging unit: 240 pcs



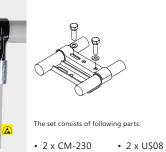


Set of parallel joints • • 🔘 (2) 602149 🙆 WZ: • 2 x CM-200K • 4 x US08 • 2 x SA0845 8.8 • 2 x MS08

• 2 x SA0840 8.8 • 2 x MS08 • • WZ: 108798 🛕 Weight: 107 g Packaging unit: 120 pcs BS-CM230 **CM-230** Attachment joint Set of attachment joints







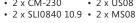
The set consists of following parts:

The set consists of following parts:

• 2 x CM-200

• 2 x CM-100 • 1 x SA0830 8.8 • 1 x US08 • 1 x MS08

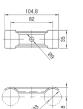
• 4 x US08



BS-CM300

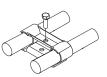
Set of attachment joints





Weight: 78 g Packaging unit: 300 pcs





The set consists of following parts:

• 2 x CM-300 • 1 x US08 • 2 x SA0830 8.8 • 1 x MS08

STEEL JOINTS | 39





116 g

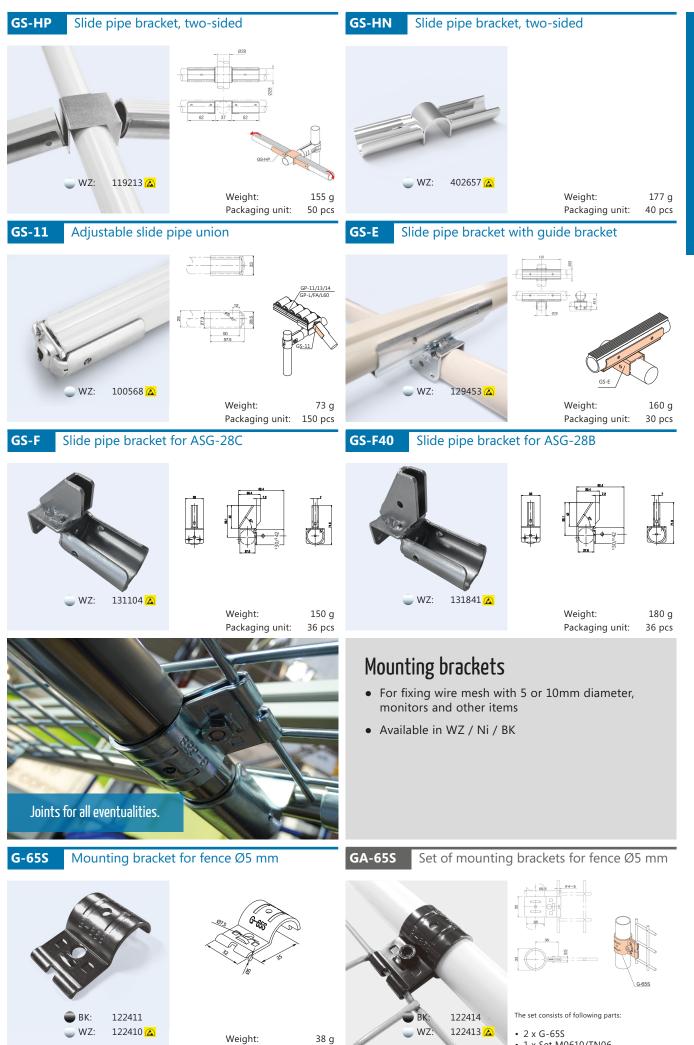
80 pcs

Weight:

Packaging unit:

¹⁶⁰ g Weight: 80 pcs Packaging unit:

Receiving joints



Packaging unit: 480 pcs

• 1 x Set M0610/TN06

42 | STEEL JOINTS

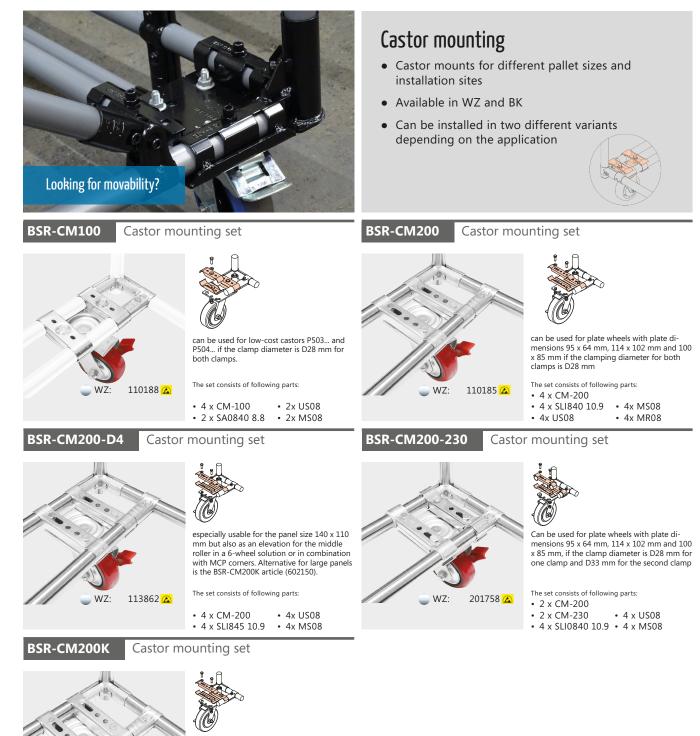
Mounting brackets



Packaging unit: 120 pcs

Weight: 46 g Packaging unit: 120 pcs

Castor mounting



Can be used for plate wheels with plate dimensions 95 x 64 mm, 114 x 102 mm, 100 x 85 mm and 140 x 110 mm, if the clamping diameter of both clamps is D28 mm.

The set consists of following parts:

WZ:

602150 🙆

*see category "Installation supports and Castors" - "Castor variants and nomenclature"

- 4 x CM-200K 4x US08
- 4 x SA0850 8.8 4x MS08

44 | STEEL JOINTS

Castor mounting



Weight: 1110 g Packaging unit: 12 pcs

Weight: 1550 g Packaging unit: 12 pcs BK:

W7·

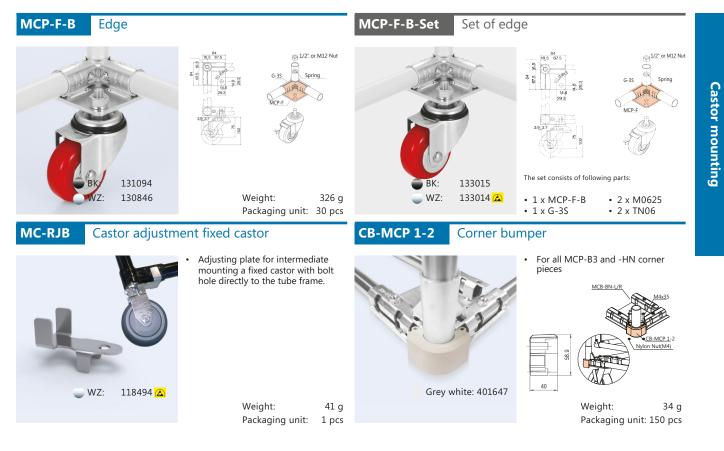
123195

123196 🙆

132

WZ:

132098



Hold firm!



Drive-in sleeves

- Attachment for feet, castor and all add-ons that shall be mounted to the pipes at the front face
- Available for different pipe types and pipe inside diameters



Overview - Drive-in sleeves and steel pipe

				Туре		DRIV	E-IN SLEEVES WI	TH INTERNAL THE	READ	
				Name	BC2807A/B/D 🔼	BC2809A/B/D 🔼	BC2810A/B/D 🛕	BC2820A/B/D 🔼	BS07A/B/D 🛕	AS2807A/B 🔼
				lmage						
				Use	Standard	Standard	Standard	Standard	Standard	Lightweight cons- truction
				Material	Galvanised steel	Galvanised steel	Galvanised steel	Steel	Galvanised steel	Aluminium
				Internal thread	1/2" / M12 / M10	1/2" /M12 / M10	1/2" /M12 / M10	1/2" / M12 / M10	1/2" / M12 / M10	1/2" / M12
				Art. No.	100104 100105 101663	609451 609452 609453	100101 100102 100114	100107 100108 101664	100109 100110 <i>109723</i>	126211 126212
		Name	approx. wall thickness	OD*	Ø 24.1 mm	Ø 23.7 mm	Ø 23.5 mm	Ø 21.9 mm	Ø 26.4 - 26.8 mm	Ø 26.5 mm
	d and profile pipe	DP/EP2807-xx	0.7 mm	24.0 mm	х					
		DP/EP2809-xx	0.9 mm	23.6 mm		х				
ipe		DP/EP2810-xx	1.0 mm	23.4 mm			х			
d p		DP/EP2820-xx	2.0 mm	21.8 mm				х		
rour	t round	CS/ES2810-xx					х			
teel	D-Coat	LS2810-xx	1.0 mm	2.4 mm			х			
m s		CF/EF2810-xx					х			
32m		G/EG2807-xx	0.7 mm	26.1 mm					х	x
	pipe	G/EG2809-xx	0.9 mm	25.7 mm						
Ø28mm Ø32mm steel round pipe	ECCO	G/EG2812-xx	1.2 mm	25.1 mm						
Ø28		G/EG2820-xx	2.0 mm	23.9 mm						
	pipe	S2807-PF	0.7 mm	26.2 mm					х	х
	SUS	S2812-PF	1.2 mm	25.2 mm						
	* ID	= Inner diamet	ter pipe OD = O	Outer diameter of	drive-in sleeve					

STEEL JOINTS | 47

Drive-in sleeves	Art. No.	Name	Pipe	Ø Pipe	inner Ø pipe	Thread	Material	Ø drive-in sleeve (A)	
	402672 🔼	BS20A			24.0 mm	1/2"-12N		Ø24.1 mm	
	402673 🔼	BS20A		28 x 0.7 mm		M12 x 1,75			
	402745 🔼	BS20D				M10 x 1,5			
	609451 🔼	BC2809A				1/2"-12N			
	609452 🔼	BC2809B		28 x 0.9 mm	23.6 mm	M12 x 1,75		Ø23.7 mm	
	609453 🔼	BC2809D	D-coat pipe			M10 x 1,5	Steel		
	100101 🔼	BC2810A*	D-coat pipe			1/2"-12N	Steel		
	100102 🔼	BC2810B*		28 x 1.0 mm	23.4 mm	M12 x 1,75		Ø23.5 mm	
	100114 🔼	BC2810D*				M10 x 1,5			- A
	100107 🔼	BC2820A		28 x 2,0 mm	21.8 mm	1/2"-12N		Ø21.9 mm	28
(Inserver)	100108 🔼	BC2820B				M12 x 1,75			
	101664 🔼	BC2820D				M10 x 1,5			
	100109 🔼	BS07A	ECCO-Star pipe SUS pipe	28 x 0.7 mm		1/2"-12N	Steel	Ø26.8 mm	
	100110 🔼	BS07B			26.1 mm	M12 x 1,75			
	109723 🔼	BS07D				M10 x 1,5		Ø26.3 mm	
	126382 🔼	BS10A	ECCO-Star pipe	28 x 0.9 mm	25.7 mm	1/2"-12N		Ø26.1 mm	
	402271 🔼	BS10B				M12 x 1,75			
	402744 🔼	BS10D				M10 x 1,5			
	100111 🔼	BS12A	ECCO-Star pipe	28 x 1.2 mm		1/2"-12N		Ø25.5 mm	
	100112 🔼	BS12B	SUS pipe		25.1 mm	M12 x 1,75			
	100113 🔼	BS12D	1 ses pipe			M10 x 1,5		Ø25.3 mm	
	402672 🔼	BS20A				1/2"-12N			
	402673 🔼	BS20B	ECCO-Star pipe	28 x 2.0 mm	23.9 mm	M12 x 1,75		Ø24.1 mm	
	402745 🖾	BS20D				M10 x 1,5			
	126211 🛕	AS2807A	ECCO-Star pipe	28 x 0.7 mm	26.1 mm	1/2"-12N		Ø26.5 mm	A
	126212 🔼	AS2807B	SUS pipe	20 % 0.7 1111	20.1 1111	M12 x 1.75	Aluminium		
	126213 🔼	AC2809A	D-coat pipe	28 x 1.0 mm	23.4 mm	1/2"-12N	Aluminium	Ø23.8 mm	₩U,÷
	126214 🔼	AC2809B	D cour pipe	20 / 1.0 1111	23.7 1111	M12 x 1.75		023.0 mm	Ø27.6

*Suitable also for aluminium pipe AL2820

DRIVE-IN SL	EEVES WITH INTER	NAL THREAD	DRIVE-IN SLEEVES WITH STOP					
BS10A/B/D 🙆	BS12A/B/D 🙆	BS20A/B/D 🙆	GS-2070C 0,7 🛕	GS-2070C 0,9 🕰	GS-2070C 1,0 🔼	GS-2070C 2,0 🔼	GS-2070C ES0,7 🙆	GS-2070C ES1,2 🙆
						\$		
Standard	Standard	Standard			S	pecial		
Galvanised steel	Galvanised steel	Galvanised steel			Galva	nised steel		
1/2" / M12 / M10	1/2" / M12 / M10	1/2" / M12 / M10				-		
126382 402271 402744	100111 100112 100113	402672 402673 402745	100053	617880	100067	100068	100070	100069
Ø 26.1 mm	Ø 25.5 mm	Ø 24.1 mm	Ø 24.1 mm	Ø 23.7 mm	Ø 23.5 mm	Ø 21.9 mm	Ø 26.3 mm	Ø 25.3 mm
		х	x					
				x				
					x			
						x		
							х	
х								
	x							x
		x						
							x	
	x							х
							-	-

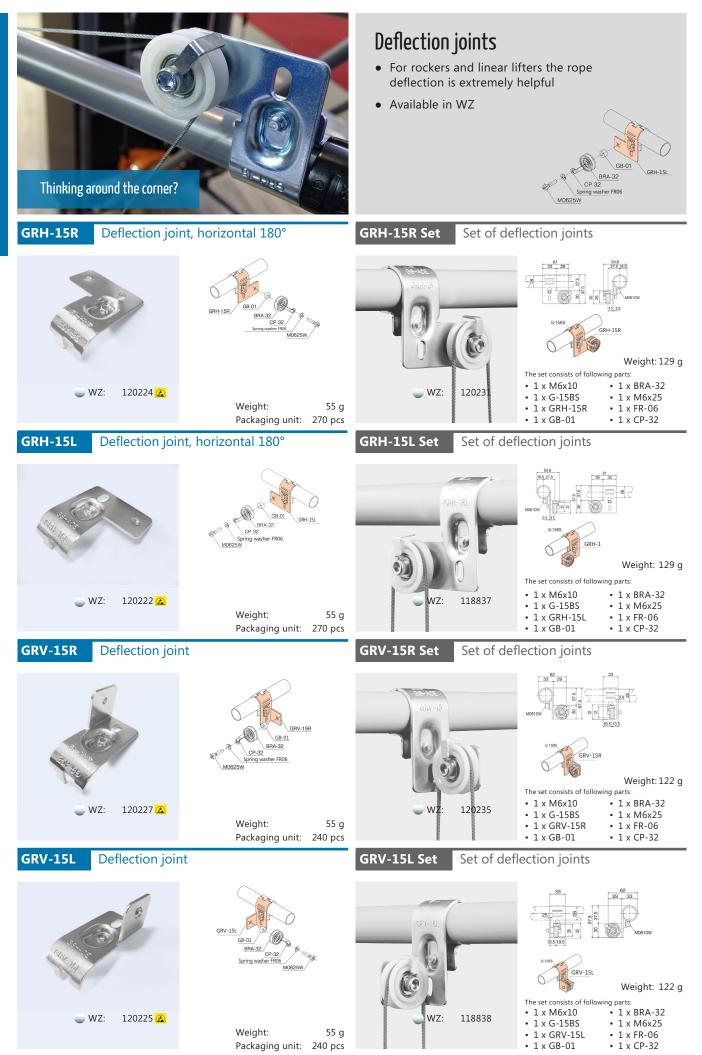
Drive-in sleeves

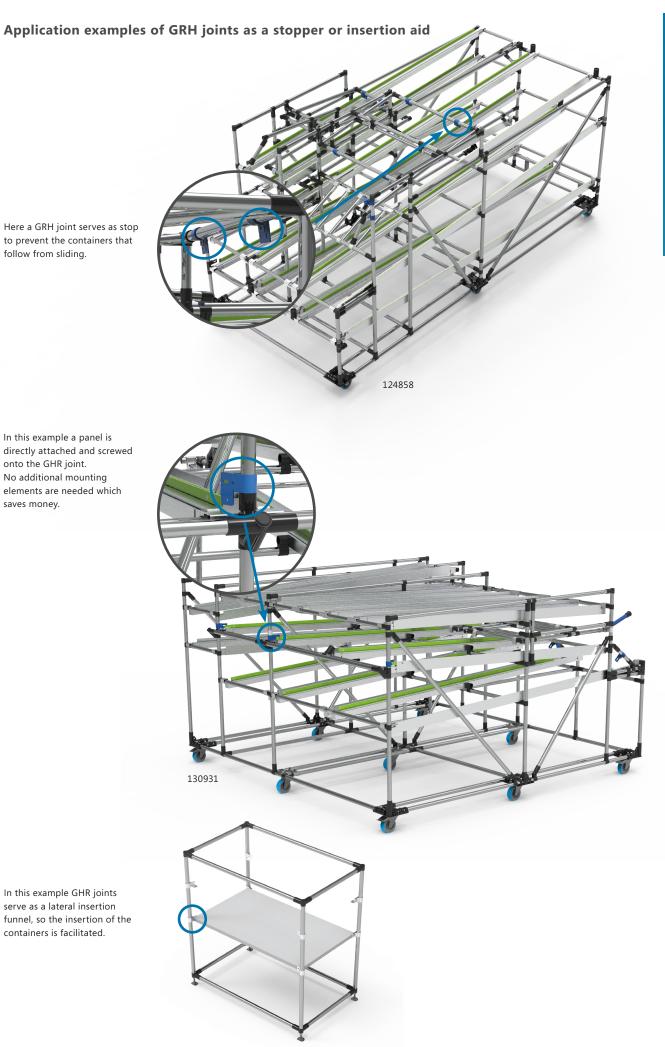
SPACE FOR NOTES		

STEEL Add-on parts Ø 28 mm

Deflection joints	CPR-102 50	Shooter	
C-rail	54	Fixations	55
Further add-on parts	56	Stoppers	4 58
Hook with adap- tation to the pipe		Band holder	61

Deflection joints



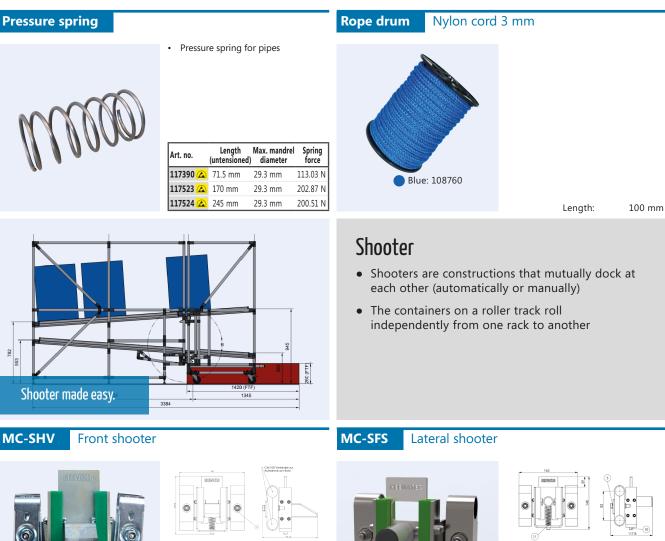


Deflection joints

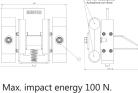


ADD-ONS | 53

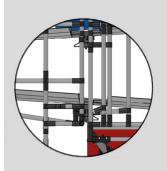
Shoote



123901 🛕



Attachment to the pipe racking system with 2 pieces of CM-100 Optional with magnets to hold the shooter position on request.



The MC-SHV is triggered by late-ral drive-up to the rack. After docking the bolt is pushed down and the containers are released and move independently.



120808 🕰

The MC-SFS is triggered by fron-tal drive-up to the rack. After docking the bolt is pushed down and the containers are released and move independently.

Shooter locking **MC-SHA**



🔵 115584 🔼



Locking via attachment joints and MC -SHA

- Prevents a trolley from rolling away during shooter operations.
- Fixing the pipe with drilling screw SB3916 possible.

54 | ADD-ONS





PC-A Pipe clamp, single fixing



PC-CN Pipe clamp, double fixing

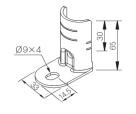


PC-D Pipe lock (metal)



G-104 Connection to flat surfaces

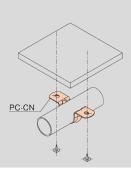




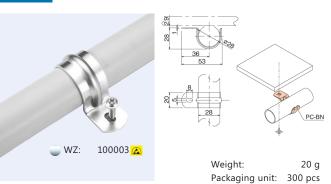
Weight: 70 g Packaging unit: 240 pcs

Fixations

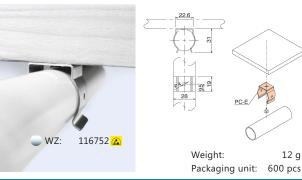
• Available in WZ / Ni / BK



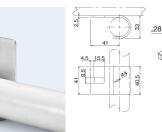
PC-BN Pipe clamp, single fixing

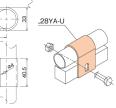


PC-E Pipe clamp, double fixing possible



BL28YA-U Suspension hook





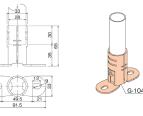
12 g

WZ: 109991 🔼



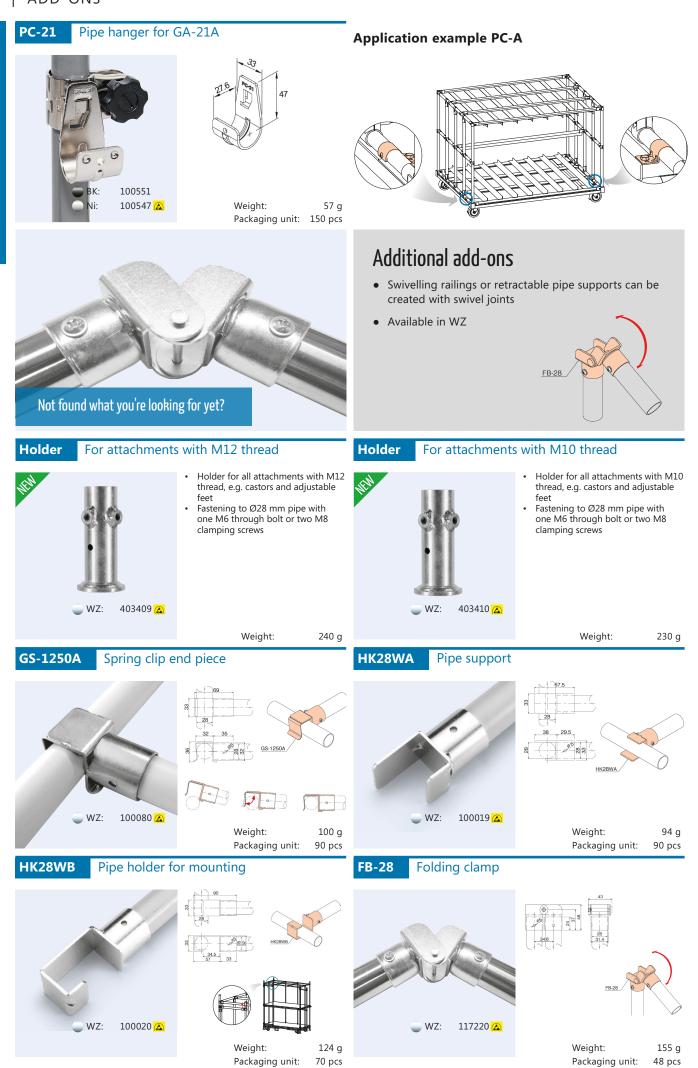
GA-104 Set of joints to flat surfaces





The set consists of following parts:

• 2 x G-104 • 1 x Set M0625/TN06 **Additional add-ons**



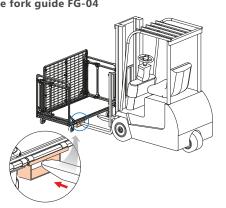
ADD-ONS | 57

Additional add-ons



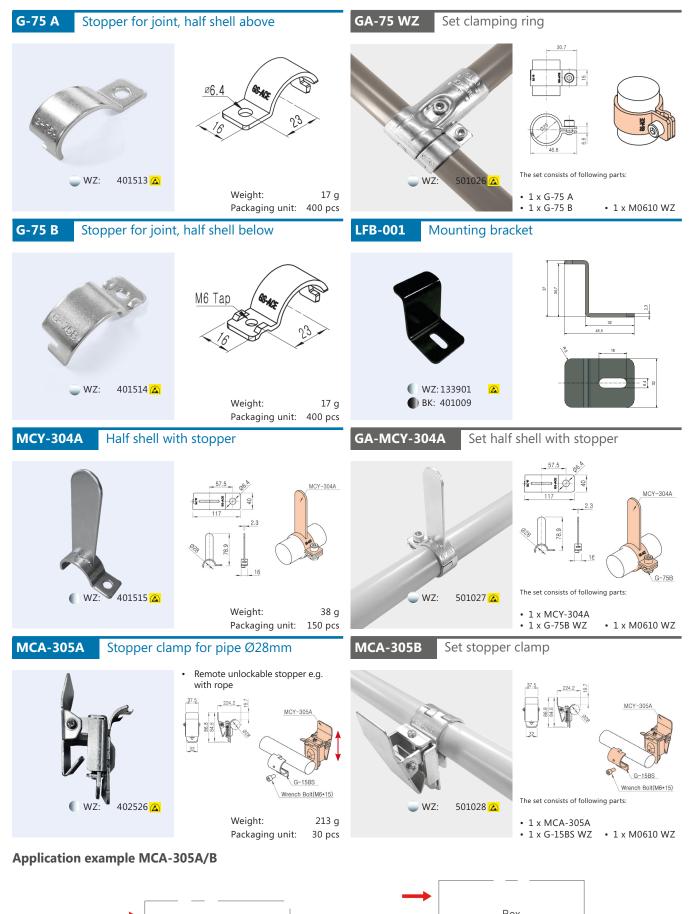
Application example for pipe support HK28WA

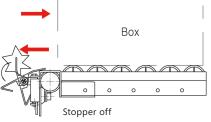


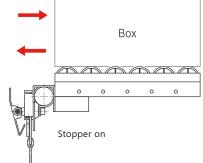




Stopper







60 | ADD-ONS

Hook



WZ:

111392 🔼

100023 🔼

Weight:

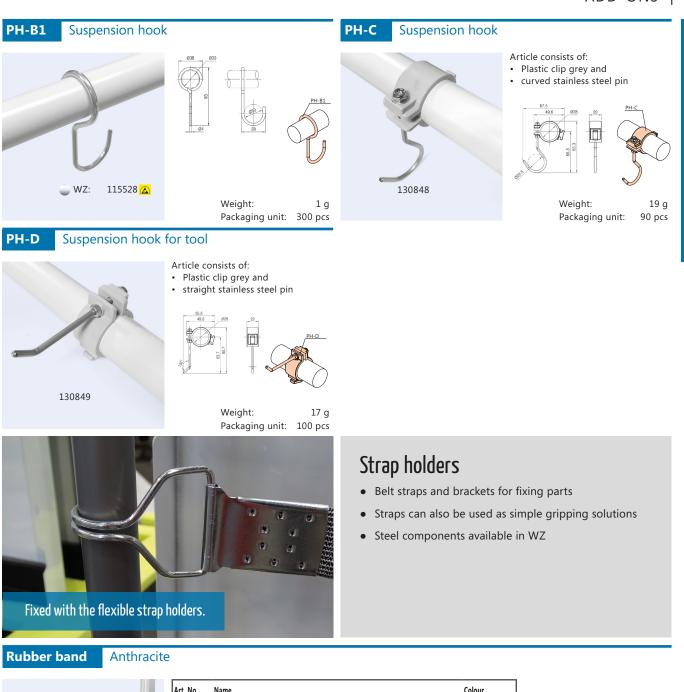
Packaging unit: 500 pcs

1 g

WZ:

Weight: 1 g Packaging unit: 300 pcs

Strap holders





Art. No.	Name	Colour
115581	Rubber band 58mm anthracite (sold by the metre)/ "lightly" stretchable	 Anthracite
115582 🔼	Eyelet for rubber band anthracite	€ WZ
115583 🛕	Clap for rubber band anthracite	€ WZ
402045 🙆	Wire hook 35mm	Ĵ wz

FSB Rubber belt strap

Art. No.	Name Description
402044	Rubber strap 35mm (sold by the metre) for simple load securing/ "heavy" stretchable
402045 🔼	Wire hook 35mm for easy attachment to rubber strap
402046 🔼	Eylet 35mm for easy attachment to rubber strap



SPACE FOR NOTES

ALUMINIUM Ø 28 mm

PIPESRound pipes67Double pipes67Profile pipes68Sliding pipes70Cover caps71

<u>JOINTS</u>

Basic joints	74
Swivel joints	77
Angle joints	80
Joints for panel fastening	83
Swivel and sliding joints	84
Parallel joints	85
Joining elements	86
Wheel mounting elemetns	87
Drive-in sleeves	89

ADD-ON PARTS

Profiles for panel attachment	92
Profil tracks	93
Stopper	93
Profile covers	94
Further add-on parts	95

64 | ALUMINIUM PIPES (Ø28 MM)

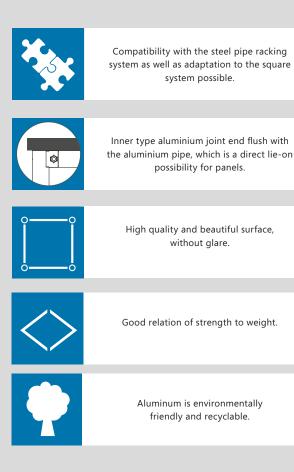


Aluminium pipe racking system

The aluminium round pipe profile represents an ideal complement to the steel pipe racking system. The pipes are available with 28 mm diameter and thus compatible with the steel pipe racking system. You can choose from internal and external clamping joints for your joint technology.

Existing metal joint series, mounting brackets and accessories can be combined with the aluminium round pipe profiles and also be adapted with the corresponding joints to the new square profile.

Your benefits at a glance



With the new aluminum joint series, the possibilities are even more diverse.



The appropriate pipe for every application. Aluminium pipes Ø28 mm by G.S. ACE.

Aluminium pipe racking system

BeeWaTec provides you with four different designs for aluminium pipes and profiles:

- ROUND PIPES
- SLIDE PIPES
- PROFILE PIPES
- DOUBLE PIPES

The pipes and profiles have one thing in common: a basic diameter of 28mm.

Thanks to a wide range of wall strengths and load capacities, there are numerous opportunities, depending on application and customer requirements.

Easy to construct, universally adaptable:

Simply saw the pipes to the required length and add the corresponding joint. The pipes can quickly be shortened and re-assembled should workflows or parts change.

Economic solutions for state-of-the-art production requirements can thus be created in no time



ALUMINIUM pipes Ø 28 mm

Round pipes	67	Double pipes	67
Profile pipes	68	Sliding pipes	70
Cover caps	71		

Overview aluminium pipes

Round pipes

• Aluminium round pipe for

and live assemblies

• Available with various

wall strengths and load

• Adaption to all steel pipes

Appealing looks

capacities

possible.

•

lightweight constructions

Double pipes

- Aluminium double pipes for wide spans and great loads
- Available with various wall strengths and load capacities
- Mountable with: Steel joint: G(A)-9S Aluminium joint: A(A)-009

Profile pipes

- Aluminium profile pipe for creating simple angled constructions
- Available with various wall strengths and load capacities
- Also available as a heavy load version

Slide pipes

 Slide pipes made of aluminium, for holding components

					2		
Round pipes		Double pipes		Profile pipes		Slide pipes	
			14 MA		R		
		Standard	Heavy double	Standard	Heavy double		
125274 AL2818 🕰	124797 AR2812 🕰	126929 AD2812 🕰	128273 AD2812H 🕰	126927 AP2812 🔼	130804 AP2812H 🕰	119039 ALS2812 🕰	119041 ACF2812 🕰
403447 AL2812 🕰			126018 AD2829 🔼	126928 AP2820 🔼			117691 AFS2812 🕰
	126021 AR2829 🕰			125253 AP2829 🔼			
				126022 AT2829 🔼			
				130801 AGP-28A 🔼			
				401497 AGP-28B 🕰			
				401678 ASGP-08 🕰			
				126930 ATF2812 🔼			
				126020 ALF2812 🔼			
				401069 AQ2812 🔼			
				403194 AP2812R			

ORDERING INFORMATION

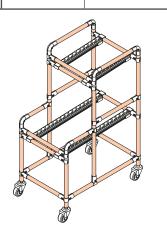
.

- Legend: Article number | Name 125274 | AL2818
- Standard pipes Ø28 x 1.8 mm means 28 mm pipe diameter and 1.8 mm wall thickness.
- Reference is made in the following pages to a simplified Ø 28 mm; the exact diameter is 27.6 +0.15/-0.10 mm.

Warehouse status

Priority available on request "Priority goods" can be supplied immediately; in the case of "on request" product delivery times of around 6 – 8 weeks should be reckoned with.

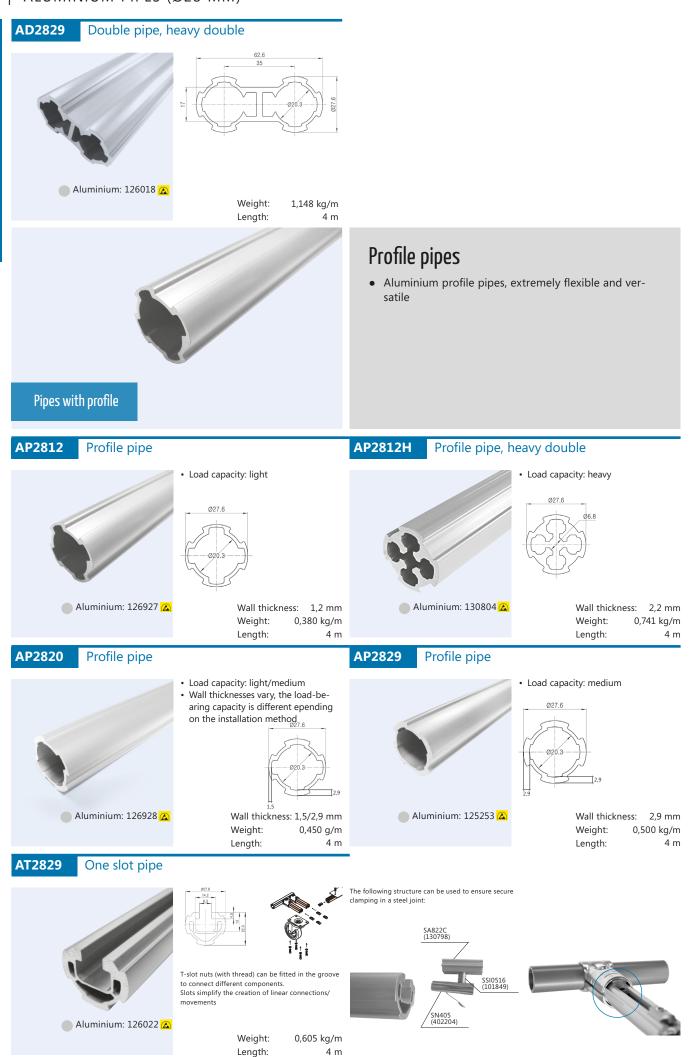
- Standard pipe length: 4 m; shorter pipe lengths on application
- The colours shown may vary from the actual ones due to printing limitations













🔵 Aluminium: 117691 🔼



020.3

Weight:

Length:

0,379kg/m

4 m



SPACE FOR NOTES

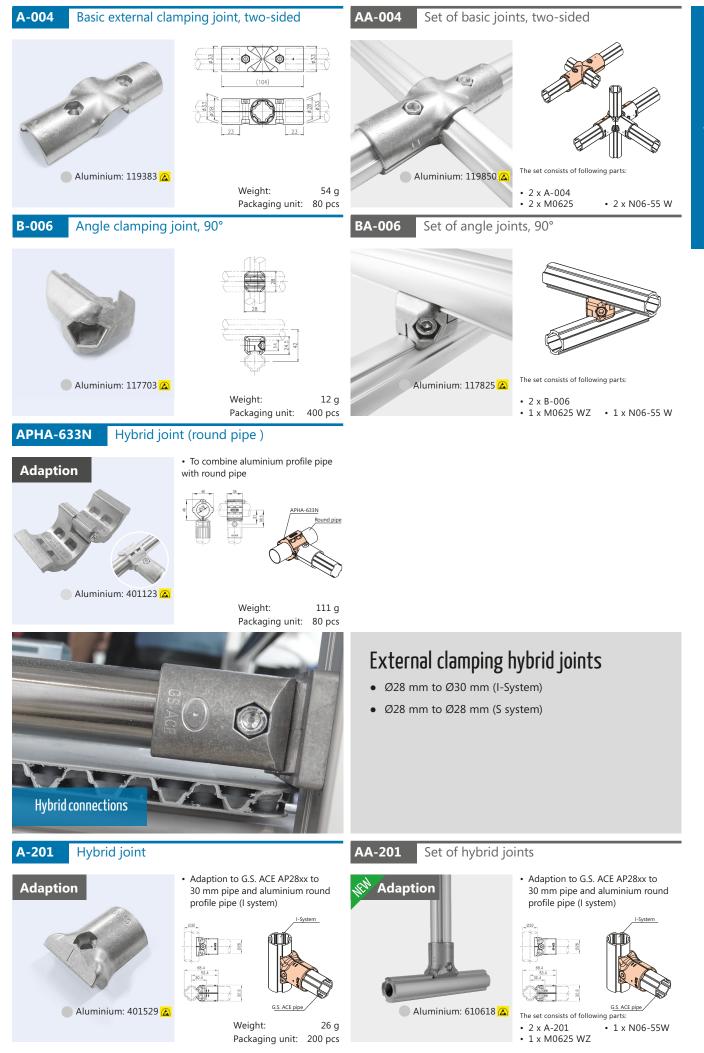
ALUMINIUM joints Ø 28 mm

Basic joints	74	Swivel joints	OO 77
Angle joints	80	Joint for panel fastening	83
Swivel and sliding joints	84	Parallel joints	85
Joining elements	86	Wheel mounting elements	140 - 87
Drive-in sleeves	89		

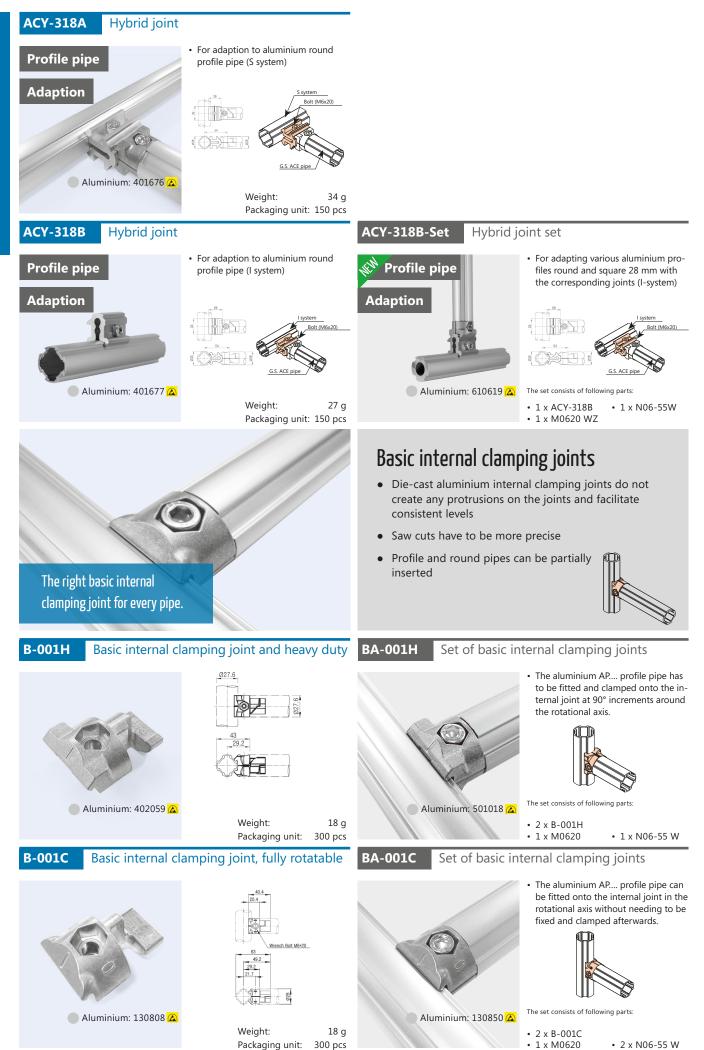
74 | ALUMINIUM JOINTS (Ø28 MM)

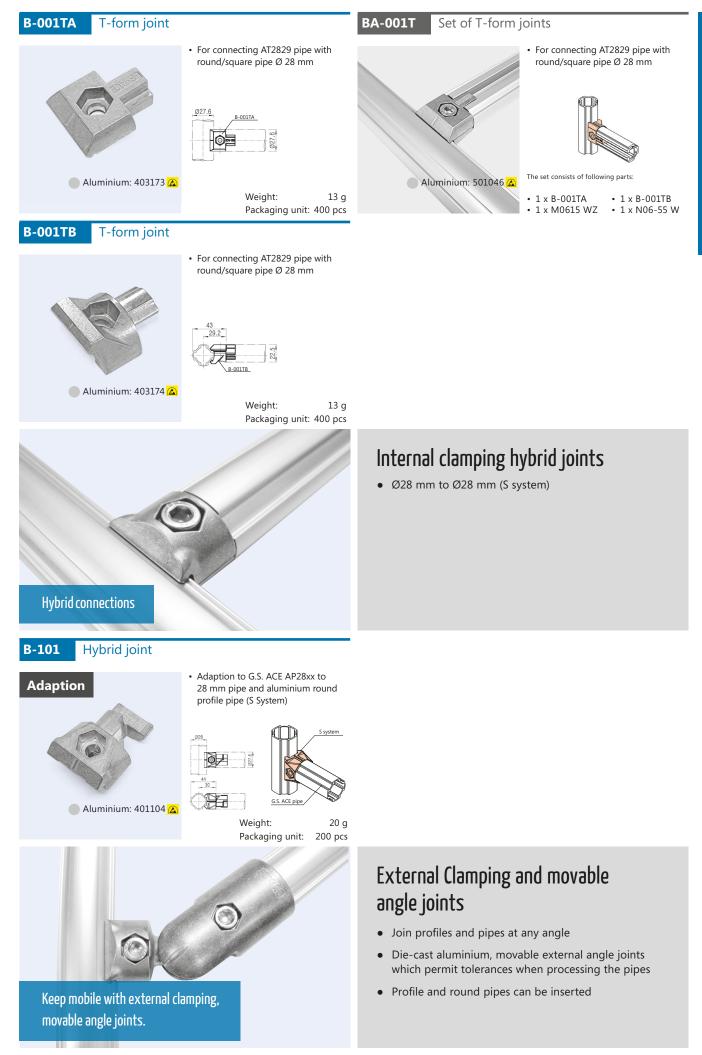
Basic joints



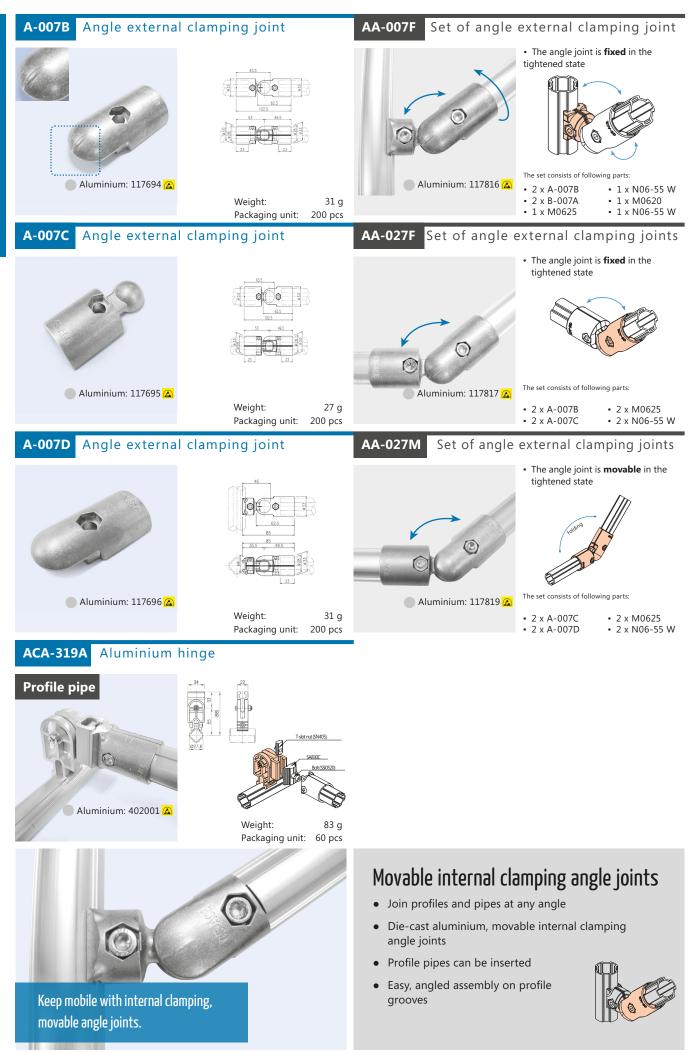


Basic joints

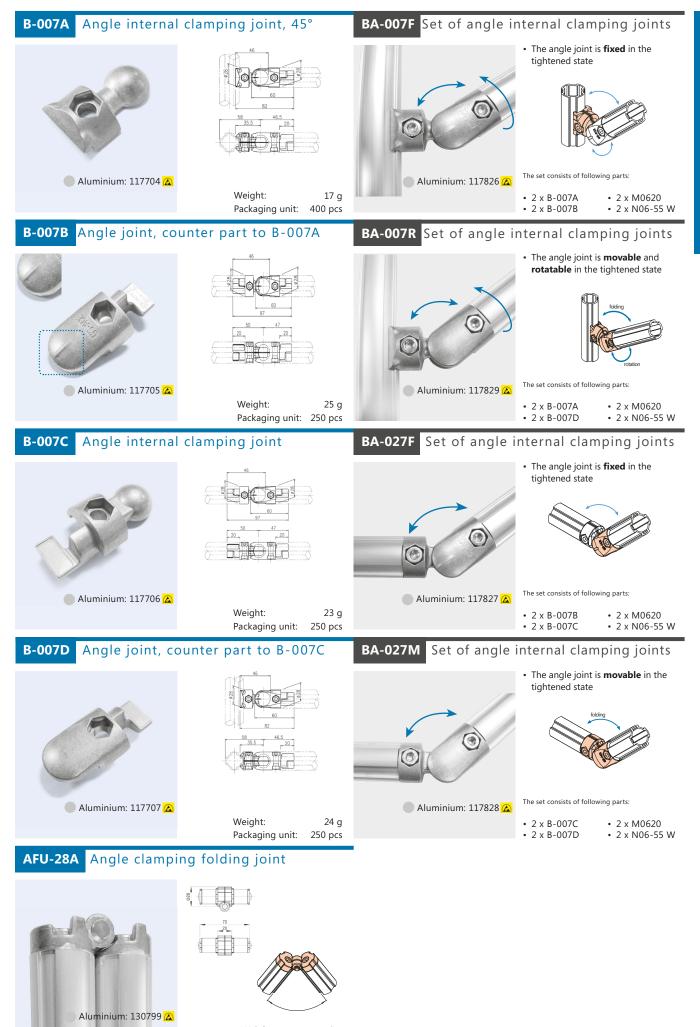




Swivel joints



Swivel joints



Weight: 8 g Packaging unit: 80 pcs



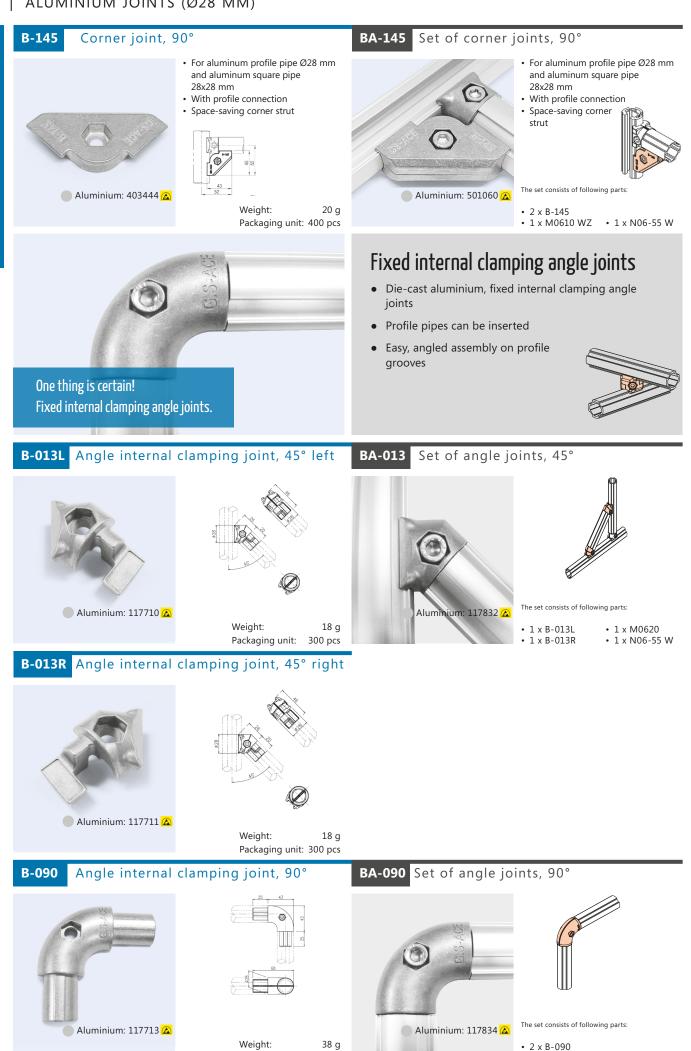
Angle joints



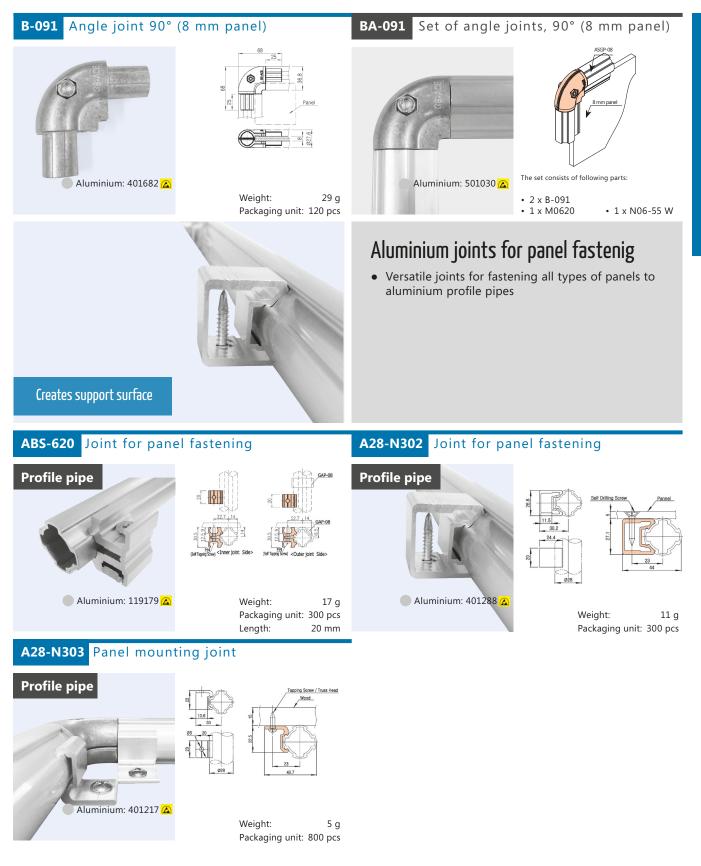


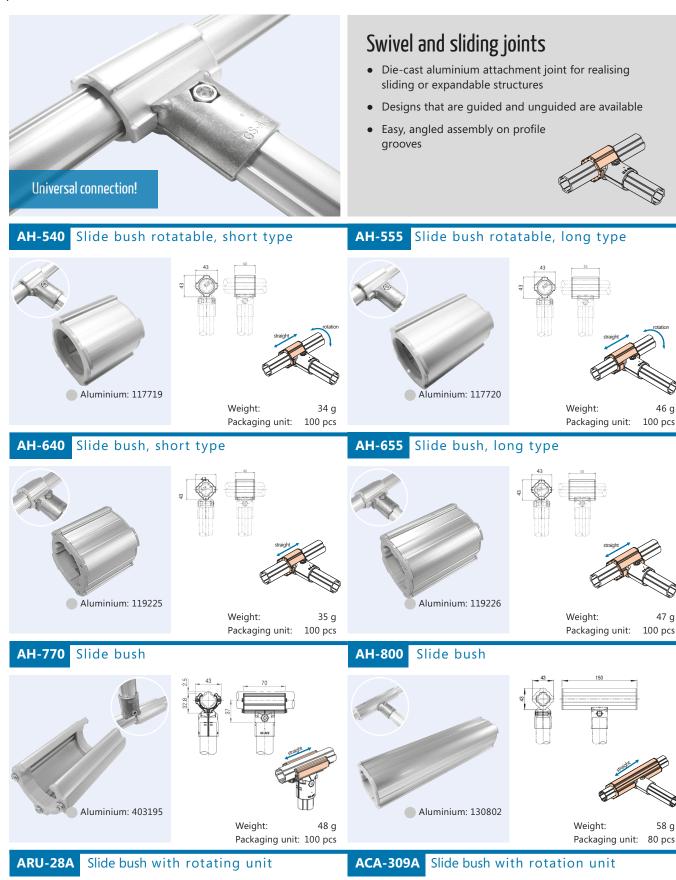
🔵 Aluminium: 403450 🙆

Weight: 24 g Packaging unit: 200 pcs Angle joints

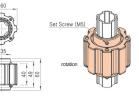


Packaging unit: 120 pcs



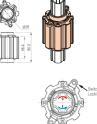






Weight:240 gPackaging unit:40 pcs

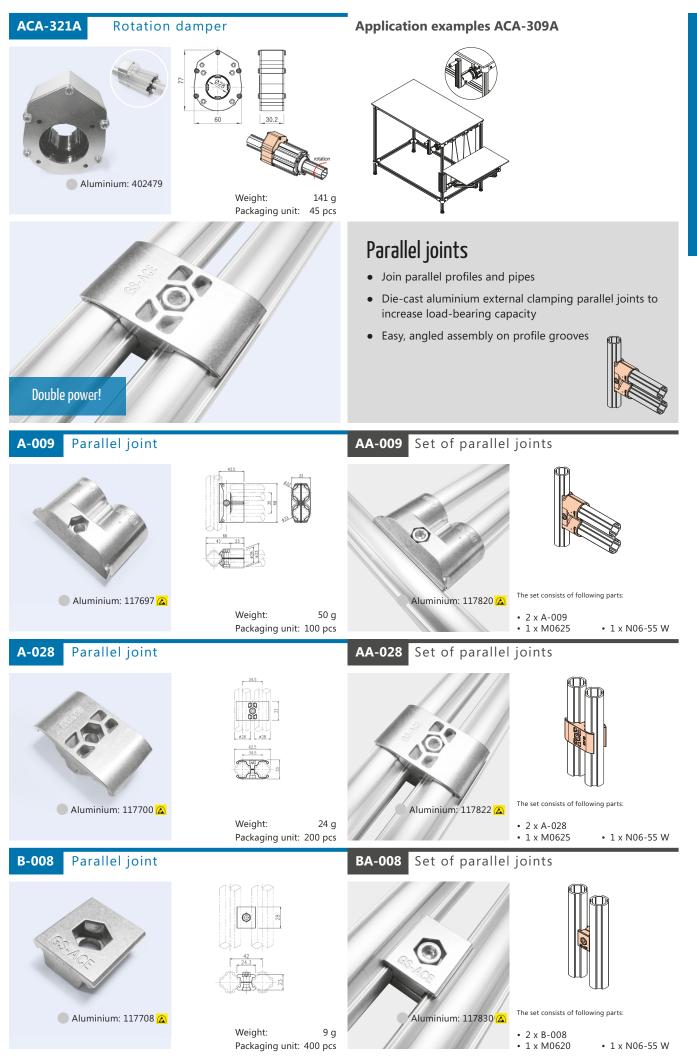


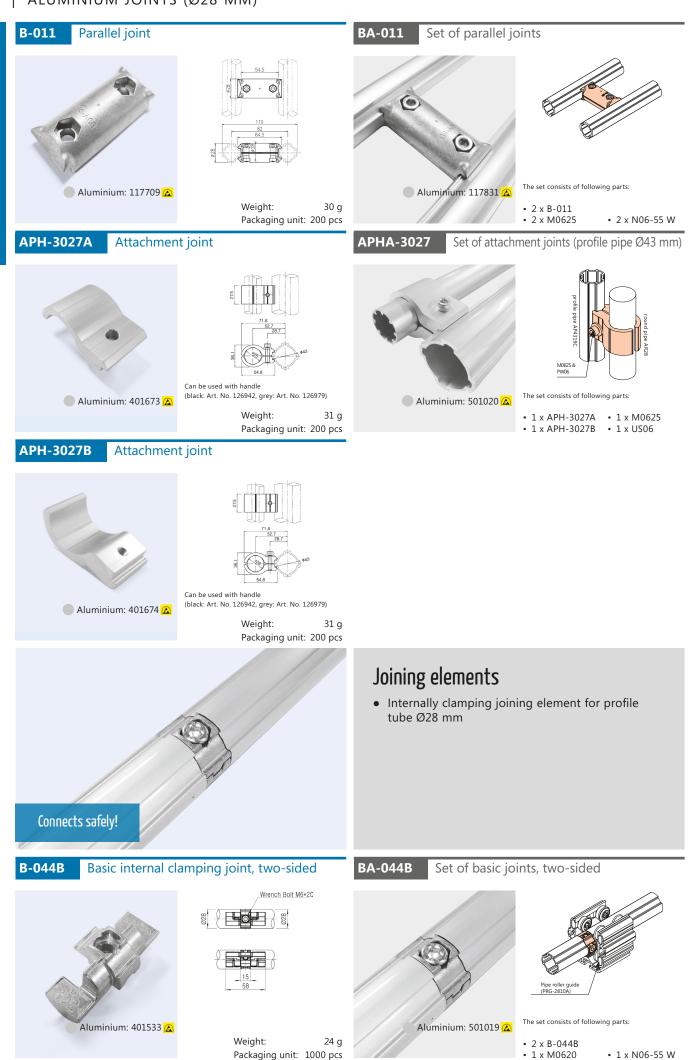


Solution Control Contr

Weight: 42 g Packaging unit: 160 pcs

Parallel joints





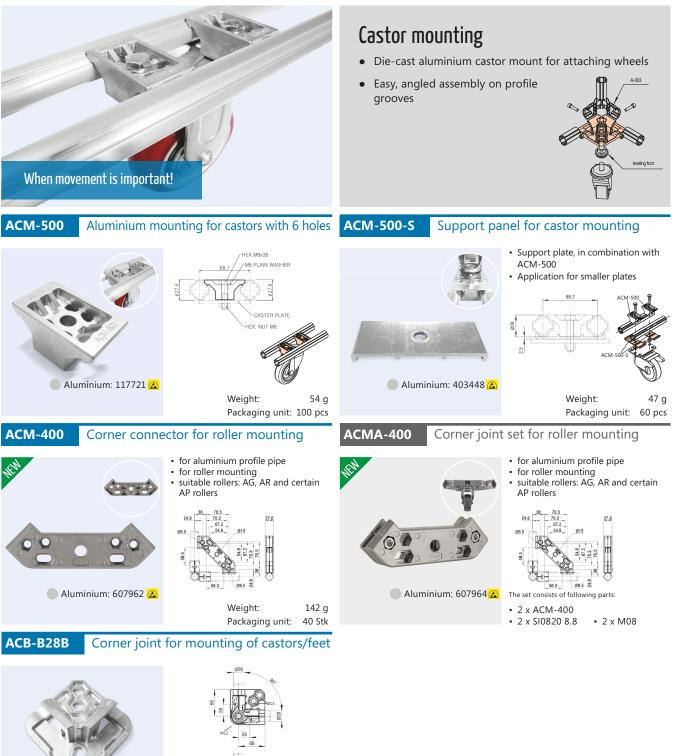
ALUMINIUM JOINTS (Ø28 MM) | 87

Application examples B-044B



The B-044B is used to connect two profile pipes. It thus makes it possible to use it as a guide rail for trolleys. Attached to the SUS pipe is the GA-15S joint set which connects the basic joint B-044B by a screw M6. The profile pipe is held in the middle by the B-044B, on which the flexible pipe guide rail PRG-2810A is mounted.

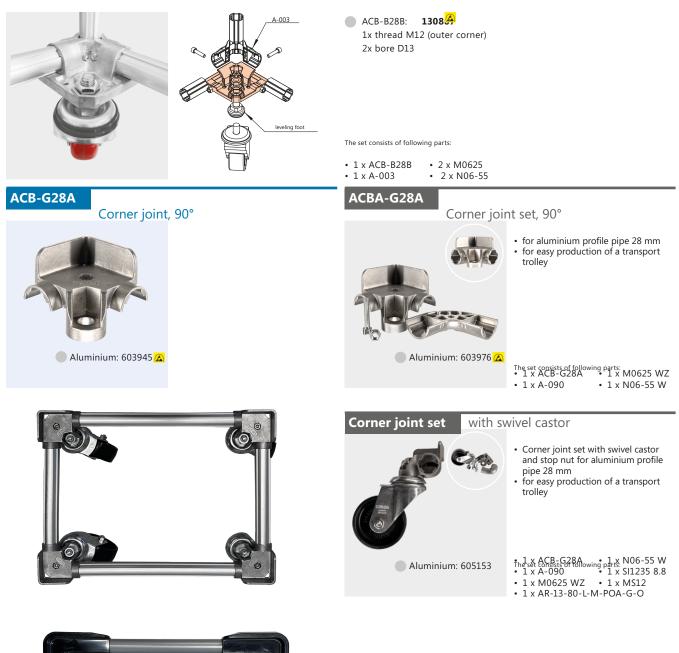
Under the pipe guide rail there is the end piece GS-1014CH located on which loads can be attached.







Weight: 208 g Packaging unit: 24 pcs **Castor mounting**



Set of corner joints for mounting of castors/feet



• M12 and M10 drive-in sleeves with 1/2" thread for screwing in wheels or mounting brackets

• The aluminium and steel drive-in sleeves have a

great retention force in the pipe

Pipe

Aluminium

profile pipe

Ø Pipe

28 mm

Threads

1/2"-12N

M12 x 1,75

Material

Aluminium

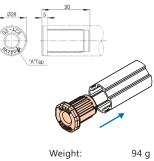
and conduct electricity

Drive-in sleeves



BA2800A/B Aluminium drive-in sleeve





Art. No.

117714 🔼

117715 🙆 BA2800B

Name

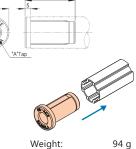
BA2800A

Packaging unit: 160 pcs

BA280LA/LB/LD/LE Steel drive-in sleeve

Ø28



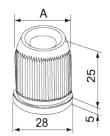


Art. No.	Name	Pipe	Ø Pipe	Threads	Material
402039 盆	BA280LA			1/2"-12N	
402040 🛕	BA280LB	Aluminium	28 mm	M12 x 1,75	Steel
402041 🛕	BA280LD	profile pipe 28 mm -		M10	SIEEI
401512 🔼	BA280LE			M8	

Packaging unit: 160 pcs

BC2807A/B/D Steel drive-in sleeve



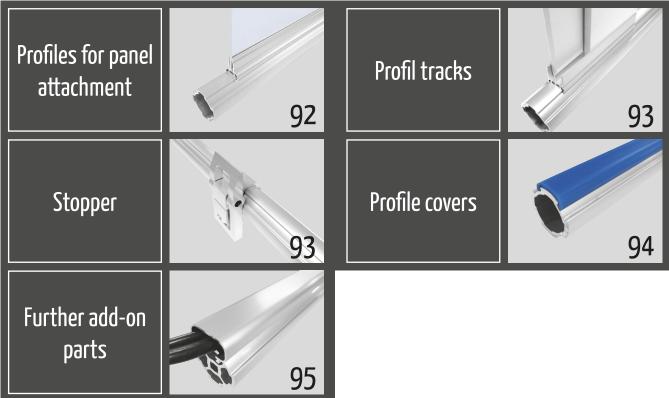


Art. No.	Name	Pipe	Ø Pipe	Threads	Material
100104 🛕	BC2807A			1/2"-12N	
100105 🔼	BC2807B	For pipe AL2818	28 x 1.8 mm	M12 x 1,75	Steel
101663 🔼	BC2807D	, LEOIO		M10 x 1,5	

Overview - Drive-in sleeves and aluminium pipe

over	/erview - Drive-in sleeves and aluminium pipe									
			Туре			I SLEEVES WITH INTERNAL			DRIVE-IN SLEEVES WITH STOP	
			Name	BA280LA/LB/LD/LE	BA2800A/B	BP2800H Set 1/2"/M12	BC2807A/B/D	BS12A/B/D	GS-2070C 0.7	GS-2070C ES1.2
			Image							
			Use	Heavy load	Standard	Lightweight construction	Standard	Standard	Sp	pecial
			Material	Galvanised steel	Aluminium	Plastic with steel nut	Steel	Galvanised steel	Galvan	ised steel
			Internal thread	1/2"/M12/M10/M8	1/2"/ M12	1/2" / M12	1/2"/M12/M10	1/2" /M12/M10		-
			Art. No.	402039 🙆 402040 🙆 402041 🙆 401512 🙆	117714 🙆 117715 🙆	126887 126889	100104 🙆 100105 🙆 101663 🙆	100111 🙆 100112 🙆 100113 🟠	100053 🛕	100069 🛕
	Image	Name	AD*	20.5 mm	20.4 mm	20.7 mm	24.1 mm	25.5 mm	24.1 mm	25.3 mm
		AL2818	24.0 mm				х		х	
		AP2812	20.3 mm	x	x	х				
		AP2820	20.3 mm	x	x	х				
		AP2829	20.3 mm	х	х	х				
	8	AP2812H	-							
oipe		AD2812	20.3 mm	x	х	x				
28mm Aluminium round pipe	8.12	AD2812H	-							
nm ro		AR2812	20.3 mm	x		x				
imini		AR2829	20.3 mm	х		X				
im Alt	S	AT2829	-							
Ø28m	**	AGP-28A	-							
		AGP-28B	-							
		ALS2812	25.2 mm					x		x
		ACF2812 ALF2812	25.2 mm 20.3 mm	Y	v	Y		x		X
	*	ATF2812	20.3 mm	x	x	x				
		ASGP-08	20.3 mm	x	x	x				
		AFS2812	20.3 mm	x	x	x				
		AL2812								
		AP2812R	20.3 mm	х	x	х				
		AQ2812	20.3 mm	x	x	х				
	* ID = Ir	ner diameter pi	 pe OD = Outer	diameter of drive-i	n sleeve					

ALUMINIUM Add-on parts Ø 28 mm



92 | ADD-ONS FOR PROFILE PIPES (Ø28 MM)

🔵 Aluminium: 401511 🔼

Ø28

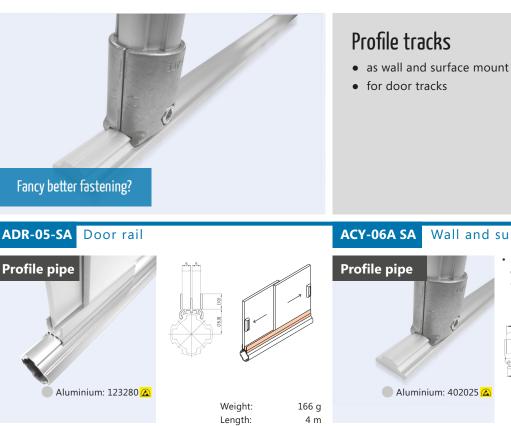
Weight:

Length:

220 g

4 m





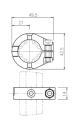
AMB-0600 Wall and surface mount





A-023 Attachment joint as stopper

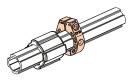




17 g Weight: Packaging unit: 300 pcs



🔵 Aluminium: 120172 🔼



The set consists of following parts:



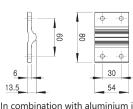
• 1 x N06-55 W

Wall and surface mount



AMB-0654 Wall and surface mount





- In combination with aluminium joints
- Material: Aluminium • Size: 54 x 80 mm

547 g

4 m

Weight: 83 g Packaging unit: 100 pcs

Aluminium stopper

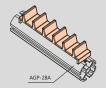
- Attachment joint as stopper •
- Stopper, must be lifted and repositioned by hand •

AA-023 Set of attachment joints as stopper



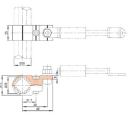
Add-ons

- Various add-ons for joining panels to the profile pipe. Material: Aluminium
- The lift locking mechanism engages on one side • and can be released by hand. Material: Steel









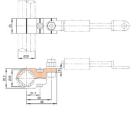
The set consists of following parts:

• 1 x A28-A301A • 1 x M0625 • 1 x A28-A301B • 1 x N06-55 W



A28-A301A Attachment for gas spring





Weight: 27 g Packaging unit: 80 pcs

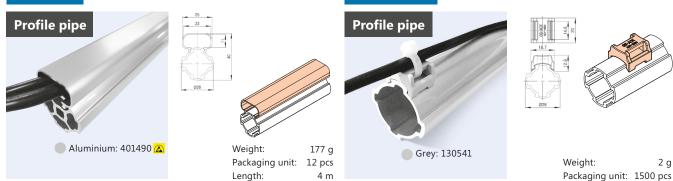
A28-A301B Attachment for gas spring



19 g Packaging unit: 80 pcs



ACY-N301 G Plastic cable holder in grey



Slide guide element, left, without castors **PRG-2810R PRG-2810L** Slide guide element, right, without castors

79 g

100 mm



Add-ons



🔵 Aluminium: 602868 🔼

Weight: 79 g Packaging unit: 24 pcs Length: 100 mm

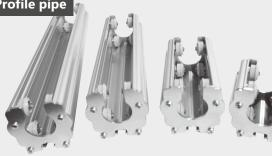
PRG-28..B Pipe roller guide (with cover plate)

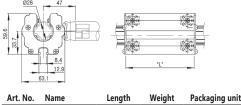
Weight:

Length:

Packaging unit: 24 pcs

Profile pipe





Art. NO.	Name	Length	weight	Packaging unit
401525	PRG-2805B	50 mm	290 g	20 pcs
401526	PRG-2810B	100 mm	370 g	10 pcs
401527	PRG-2820B	200 mm	530 g	5 pcs
401528	PRG-2830B	300 mm	680 g	4 pcs



Steel bright: 117718 🔼

Weight for easy automation

Weight: 0.2 g Packaging unit: 10000 pcs

126979 126942 Weight: Packaging unit: 150 pcs

₽

Ø28

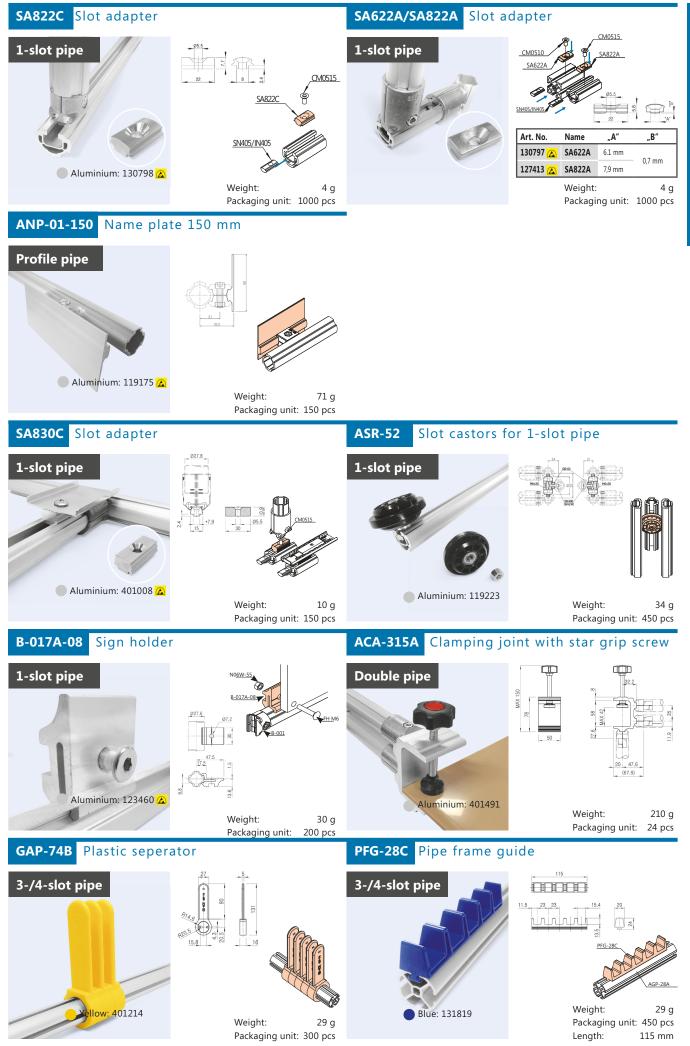


68 g



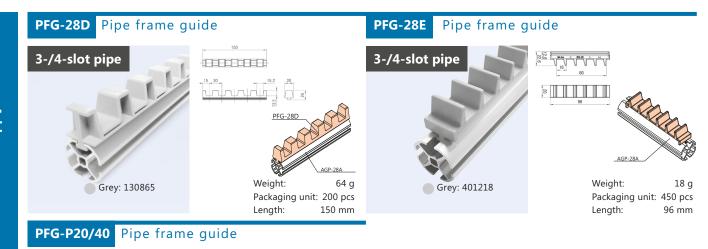
WT-...

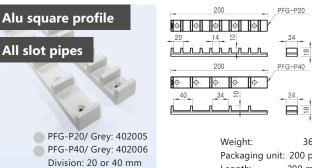
				\square
Art. No.	Name	"A" full length	"B" pipe length	Weight
126465 🔼	WT-2802	79 mm	70.0 mm	0.25kg±0.01kg
126466 🔼	WT-4305	64 mm	55.8 mm	0.5kg±0.01kg
126467 🔼	WT-4310	134 mm	125.9 mm	1.0kg±0.01kg
126468 🔼	WT-4320	276 mm	267.3 mm	2.0kg±0.01kg



Add-ons

98 | ADD-ONS FOR PROFILE PIPES (Ø28 MM)





36 g Packaging unit: 200 pcs Length: 200 mm

ACCESSORIES Ø28 mm round pipe

Labelling panels	100
Plastic joints	103
Pipe protection	104
Joint protection	104
Further add-on parts	108



Accessories for Ø28 mm round pipe •

- BeeWaTec provides various accessories for the 28mm round pipe racking system
- The label cases can be placed directly on the pipe or stuck on brackets, depending on the type of application
- Standard lengths or bulk goods are available that can be cut to size

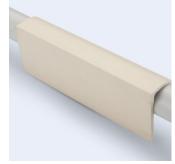


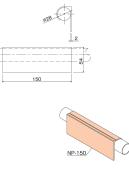
11 g

Versatile, intelligent and comfortable...For every problem, there are suitable accessories.

NP-C

NP-A-... Name panels, round





Art. No.	Name	Colour	Length
100037	NP-A-150-i	lvory	150 mm
113417	NP-A-150-G	Grey	120 1000
100039	NP-A-300-i	lvory	300 mm
100040	NP-A-1000-i	lvory	1000 mm
113416	NP-A-1000-G	Grey	1000 mm
113579	NP-A-3000-G	Grey	3000 mm

NP-F Transparent runners



	Insertion height: 28 mm To be attached directly to the pipe			
		GAP-58	,	
<u></u>	20	928 A	8 6 7	
Art	. No.	Name	Colour	Length
10	0085	NP-F-150)	150 mm
119	9848	NP-F-100	0 Transparent	1000 mm

1500 mm

GAP-58 Holder for NP-F name panel

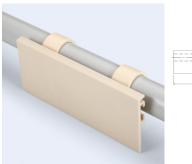


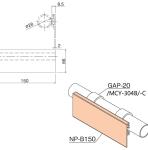
NP-R Self-adhesive name badge holder, round



)% Name Plate - Round Type : NP-R G: 125058 Weight: Packaging unit: 1000 pcs Length: 150 mm

NP-B Name panels, angular





Art. No.	Name	Colour	Length
123470	NP-B-50- i	Ivory	
123471	NP-B-50-G	Grey	50 mm
113581	NP-B-100-G	Grey	100 mm
100042	NP-B-150-i	Ivory	
113420	NP-B-150-G	Grey	150 mm
100066	NP-B-1000-i	Ivory	
112406	NP-B-1000-G	Grey	1000 mm
113421	NP-B-3000-i	Ivory	
112250	NP-B-3000-G	Grey	3000 mm

Labelling panels

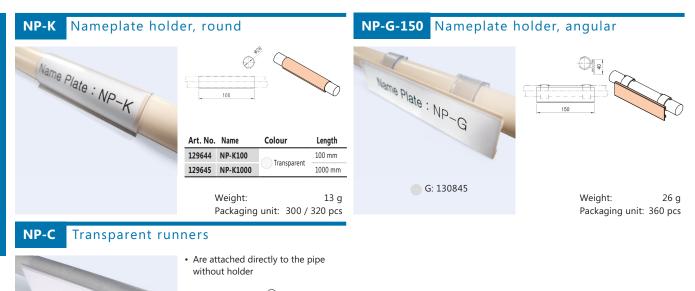








102 | ACCESSORIES Ø28 MM ROUND PIPE



Length

100 mm

150 mm

250 mm

350 mm

Height

50 mm

NP-D



NP-C

	50		A
Art. No.	Name	Height	Length
113611	NP-D-100		100 mm
109776	NP-D-150	33 mm	150 mm
109779	NP-D-1000		1000 mm

9:

Art. No. Name

113608 NP-C-100

109775 NP-C-150

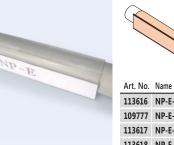
113609 NP-C-250

113610 NP-C-350

NP-E

LA-D

GAP-6B



)

Art. No.	Name	Height	Length
113616	NP-E-100	23 mm	100 mm
109777	NP-E-150		150 mm
113617	NP-E-250		250 mm
113618	NP-E-350		350 mm
109780	NP-E-1000		1000 mm

LA-B/C Transparent plastic pockets

· Are attached to the pipe with holder GAP-06





Transparent plastic pockets





Art. No.	Name	Format	Weight	Packaging uni
100035	LA-B	300x120mm	50 g	100 pcs
112991	LA-CA3	430x320mm	180 g	200 pcs
100059	LA-CA4	300x220mm	88 g	100 pcs
109982 🔼	LA-CA4-E	300x220mm	75 g	100 pcs
109983 🔼	LA-CA6-E	150x115mm	32 g	100 pcs

Transparent: 100036

Holder for LA-D

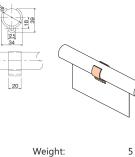
Packaging unit: 300 pcs

12 g

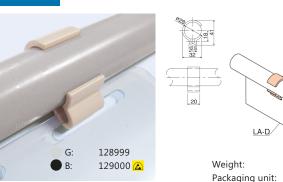
Weight:

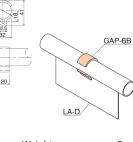
GAP-06 Holder for LA-B/LA-CA





5 g Packaging unit: 1200 pcs

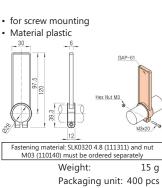




Plastic joints







104 | ACCESSORIES Ø28 MM ROUND PIPE

Pipe protection





Material:

PP

106 | ACCESSORIES Ø28 MM ROUND PIPE



SPACE FOR NOTES

108 | ACCESSORIES Ø28 MM ROUND PIPE

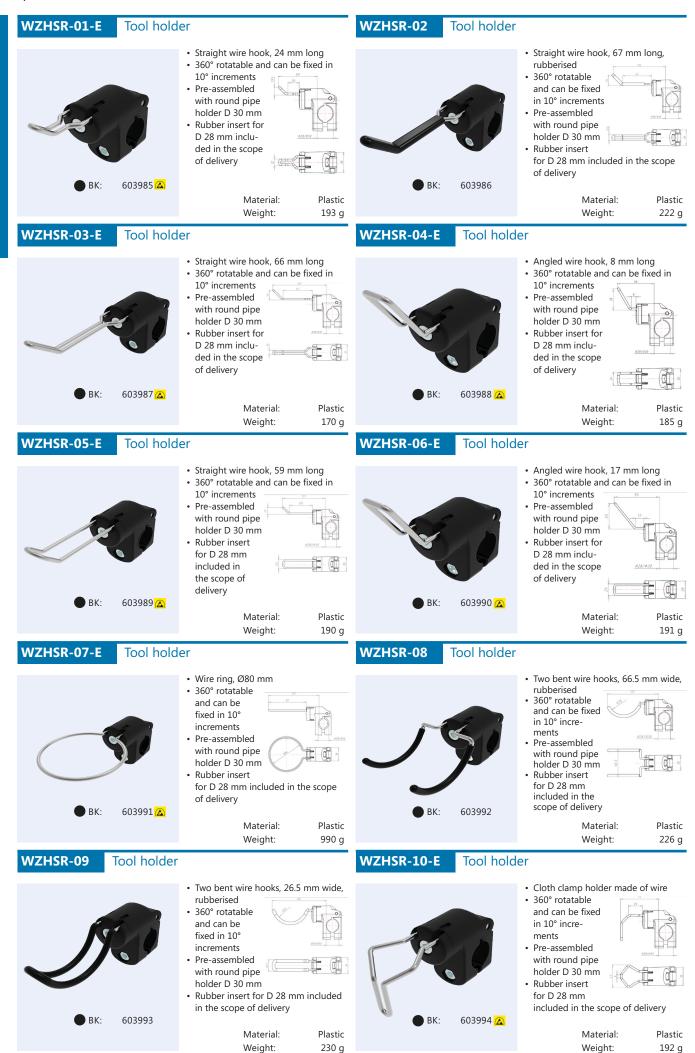
Fleece | Mats | ESD accessories



Tool holder



110 | ACCESSORIES Ø28 MM ROUND PIPE

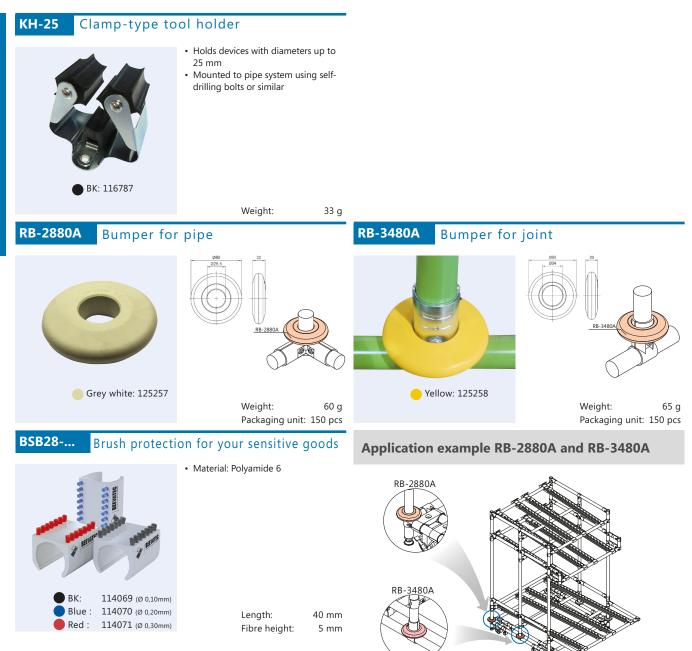


Tool holde



112 | ACCESSORIES Ø28 MM ROUND PIPE

Holding elements



ALUMINIUM Ø 43 mm

116
116
116

<u>JOINTS</u>

Basicjoints	118
<u>Swivel joints</u>	119
Anglejoints	121
Parallel joints	122
Joining elements	123
Drive-in sleeves	123

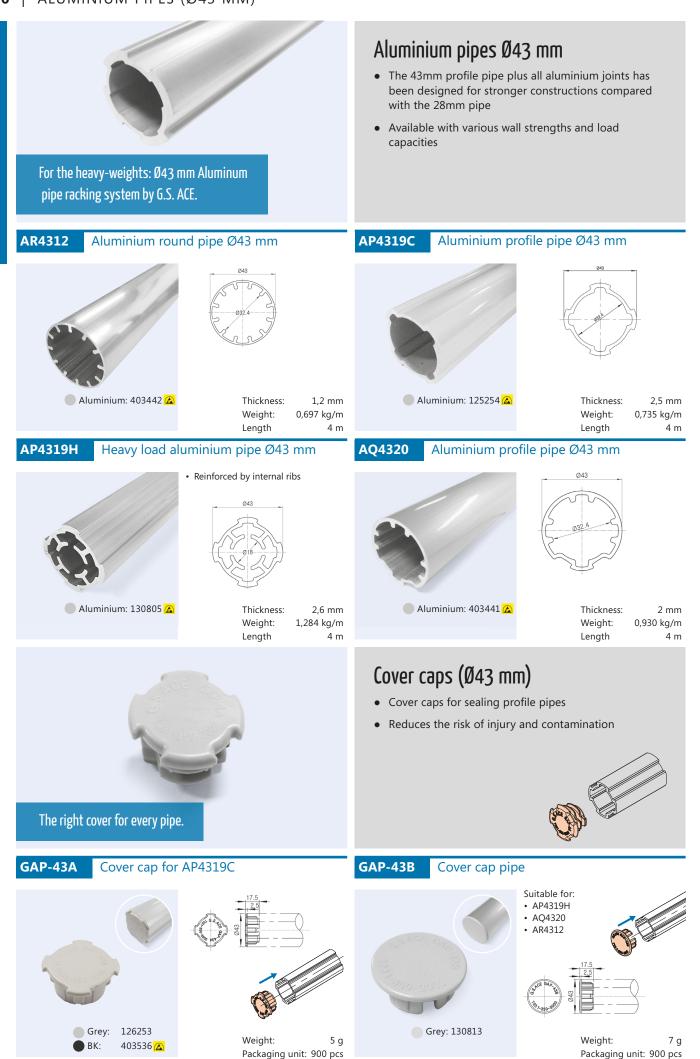
ADD-ON PARTS

Profiles for panel attachment	126
Further add-on parts	127

SPACE FOR NOTES

ALUMINIUM pipes Ø 43 mm

Round pipes	116	Profile pipes	116
Cover caps	116		



ALUMINIUM joints Ø 43 mm

Basic joints	118	Swivel joints	9 (1) 119
Angle joints	121	Parallel joints	122
Joining elements	123	Drive-in sleeves	123

Basic joints



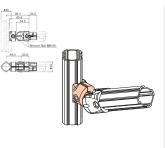




Keep mobile! With the internal clamping movable angle joint.

B-407A Angle internal clamping joint

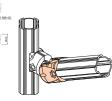




Weight: 49 g Packaging unit: 120 pcs

Angle joint, counter part to B-407A B-407B





Weight: 83 g Packaging unit: 60 pcs

A-407C Angle internal clamping joint



6 (77.6)

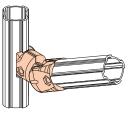
Weight: 70 g Packaging unit: 60 pcs

Movable internal clamping angle joints

- Die-cast aluminium, movable internal clamping joints
- Profile pipes can be inserted •
- Easy, angled assembly on profile grooves •

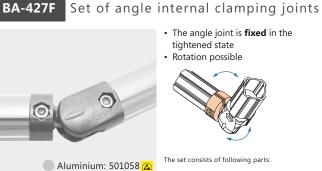
BA-407F Set of angle internal clamping joints





The set consists of following parts:

• 2 x B-407A • 2 x M08 • 2 x B-407B • 2 x SI0830



• 2 x B-407C • 2 x SI0830 8.8

• 2 x B-407B • 2 x M08

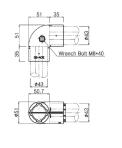
Fixed external clamping angle joints

- Die-cast aluminium, movable external clamping joints which permit tolerances when processing the pipes
- Profile and round pipes can be inserted

It's solid! With the external clamping fixed angle joint.

A-490 Angle external clamping joint, 90°





Weight: 131 g Packaging unit: 30 pcs

A-413L Angle external clamping joint, 45° left





82 g Packaging unit: 50 pcs

A-413R Angle external clamping joint, 45° right





One thing you can rely on! With the internal clamping fixed angle joint.

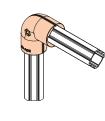
Fixed internal clamping angle joints

- Die-cast aluminium, fixed internal clamping joints
- Profile pipes can be inserted •
- Easy, angled assembly on profile grooves •



AA-490 Set of angle clamping joints, 90°





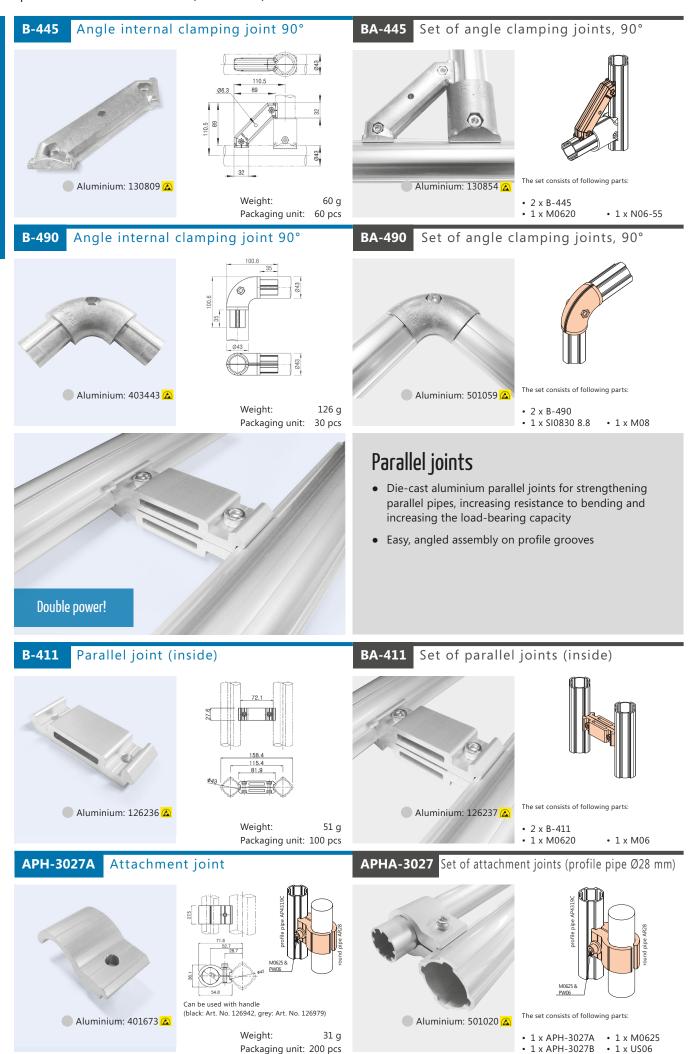
The set consists of following parts: • 2 x A-490

• 1 x SI0840 8.8 • 1 x M08

AA-413 Set of angle clamping joints, 45°



Angle and parallel joints

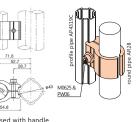


Attachment joints | Drive-in sleeves

APH-3027B Attachment joint



🔵 Aluminium: 401674 🔼



Can be used with handle (black: Art. No. 126942, grey: Art. No. 126979)

> 31 g Weight: Packaging unit: 200 pcs

> > Ø43



Attachment joints

- Die-cast aluminium attachment joint for realising sliding or expandable structures
- Designs that are guided and unguided are available
- Easy, angled assembly on profile grooves

B-444 Basic internal clamping joint





Drive-in sleeves (Ø43 mm)

- M12 and M10 drive-in sleeves with 1/2" thread for screwing in wheels or mounting brackets
- The aluminium drive-in sleeves have a great • retention force in the pipe and conduct electricity



Drive-in sleeves

Stay solid!

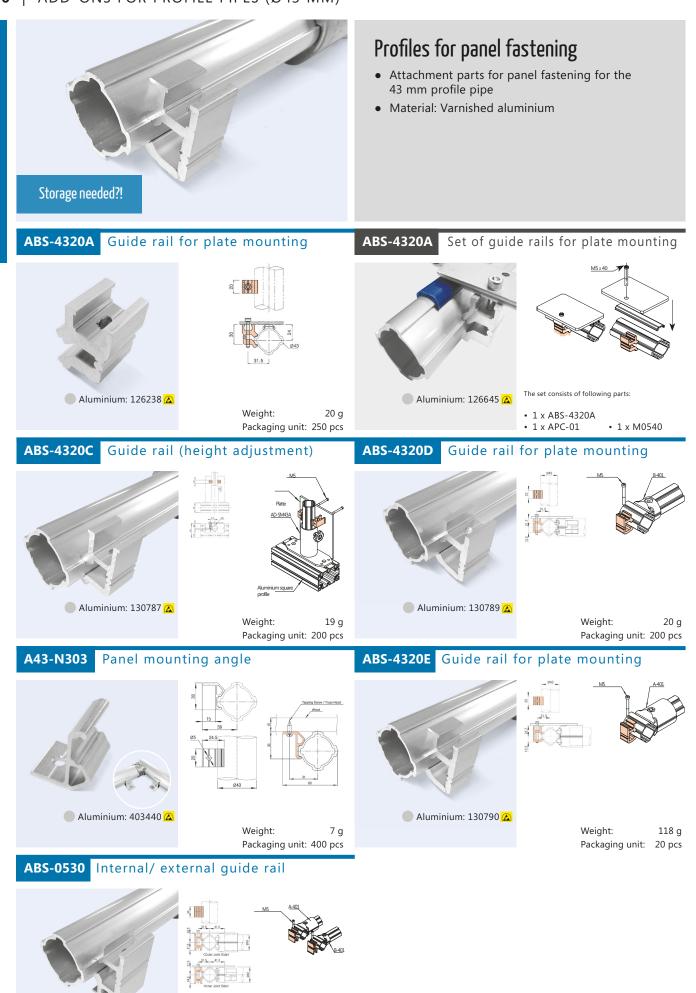
With Thread	Art. No.	Name	Pipe	Ø Outer	Ø Internal	Thread	Material	
	130810 🛕	BA4300A				1/2"-12N		20
1 al	130811 🔼	BA4300B	Aluminium pro- file pipe	43 mm	32,4 mm	M12 x 1,75	Aluminium	05×00
and the	130812 🙆	BA4300D	ine pipe			M10		(
	IJUUIL (A)	DA4300D				M10		
	130012	DA4300D				M10		
Without Tread	ArtNo.	Name	Pipe	Ø Pipe		Mito	Set	w

SPACE FOR NOTES

ALUMINIUM add-on parts Ø 43 mm



Panel fastenings



Weight: 37 g Packaging unit: 100 pcs

Aluminium: 130786

ADD-ONS FOR PROFILE PIPES (Ø43 MM) | 127

The set consists of following parts:

R

• 1 x ACH-

6040A-L

• 1 x SN406

M

• 1 x ACP-

6062A-R

• 1 x M0625

• 1 x AD-SM43A

M6×12

The set consists of following parts:

• 1 x ACP-

Set of connector pieces

6026A-L

• 1 x HM0615

Set of component holders

Set of connector pieces



Add-ons for profile pipes (Ø43 mm)

- Add-ons for the 43mm aluminium profile pipe
- The numerical code of the add-ons specifically developed for the 43mm pipe contains a 43...
- Material: Varnished aluminium

Set of mounts

ACH-6040A

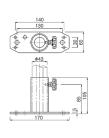
ACP-H6026A

ACP-V6026A

Joints that securely hold profiles.

AD-SM43A Mount (foot)





Weight: 680 g Packaging unit: 50 pcs

ACH-6040A-R Component holder, right



> Weight: 33 g Packaging unit: 150 pcs

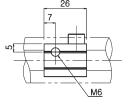
Aluminium: 126239 • 1 x ACH-6040A-R • 1 x M0612

🔵 Aluminium: 126246 🔼

🔵 GVZ: 129042 🙆

ACP-H6026A- L Connector piece, left



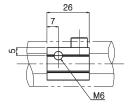


Weight:

Weight: 7 g Packaging unit: 800 pcs

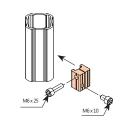
ACP-V6026A-L Connector piece, left





Weight: 7 g Packaging unit: 800 pcs





🔵 Aluminium: 126249 🙆

The set consists of following parts:

128 | ADD-ONS FOR PROFILE PIPES (Ø43 MM)



SQUARE SYSTEMS

Aluminium 28 x 28 mm Profiles 131 Joints 131 Add-on parts 131 <u>Aluminium 40 x 40 mm</u> Profiles 139 Joints 139 Add-on parts 139 Aluminium 45 x 45 mm Profiles 149 Joints 149 Add-on parts 149 Steel 45 x 45 mm Profiles 161 Joints 161 Add-on parts 161

130 | SQUARE PROFILES



Square profiles

In order to stay true to the modular system principle, but to have more stable connections, the round pipe racking system has been extended to include the square system.

On one hand, we offer a square profile with the dimensions 28 x 28 mm, which is compatible with the 28mm aluminium round pipe system and is suitable for lighter constructions.

As an extension to the fact that you also want to produce more stable structures and transport systems, we have developed the BeeWaTec square system MC or MC-4 system joint.

The core of the MC system is a 45x45mm aluminium square pipe or a 45x45mm galvanised steel square pipe. The aluminium or steel frame is held together by the specially developed BeeWaTec MC or MC4 system joints, complemented by various brackets and accessories.

The difference between the MC and MC4 system MC system

The MC system (Mounting Corner System) refers to BeeWaTec's square system

- · Base frame made from square profile (steel or aluminium) and matching corners (Mount Corners)
- Superstructures made of round pipe profile (steel or aluminium)

MC4 system

The MC4 system (Mounting Corner square system) is BeeWaTec's fully comprehensive square system. Both the base frame and the superstructure are made of square pipe for even higher load-bearing capacities compared to the MC system.

- · Base frame made of square profile (steel or aluminium) and matching corners (mount corners)
- · Superstructures also made of square profile (steel or aluminium)

ALUMINIUM SQUARE PROFILE

The aluminium square system can be used very easily without further processing - drilling is not necessary as the corners are simply inserted and fastened with T- slot nuts and screws or hammerhead screws and nuts. As the material is softer than steel pipe and has a lower resistance, it is not suitable for use as a base frame in forklift operations. For large dynamic loads, a base frame construction of aluminium square system is not advisable.

Purpose

The aluminium square profile is used for fixed structures, such as heavy-duty shelves and tables, as well as for structures with castors which are moved by hand.

It creates a stable, load-bearing basis (base frame) for further structures made of pipe racking system.

In principle, the aluminium profile should be used in the base frame for dynamic loads, as is the case with the shoring used in the MC or MC4 system in trailers and milkruns. However, the aluminium profile can also be used in the further construction.



Features

Material¹

Aluminium natural anodised, profile dimensions 45 x 45 mm with groove 10 (compatible with typical aluminium profile)

Available as heavy and light profile Assembly:

Simple assembly with matching screw type; no preparatory work necessary.

STEEL SQUARE PROFILE

The 45x54mm steel square profile has a very high load capacity with a resistant surface, so that an even more stable and safe use is possible, e.g. for transport trailers. However, the preparation or processing time is somewhat more time-consuming, as screw connections have to be drilled.

Purpose

The steel square system (4kant steel system) enables the assembly of heavy-duty racks, fixed or with castors, as well as transport trailers and tugger trailers.

Square steel profile is the more stable, load-bearing basis for superstructures made of pipe racking system and square profiles.

- · Fixed structures (e.g. shelves, tables)
- Hand-pushed trollevs
- Trailer systems, transport trailers
- · Assembly of base frames for e.g. tugger trains, transport trailers, forklift traffic
- Assembly of platforms

In principle, the steel square profile should be used in the base frame for dynamic loading, as is the case with the mounting in the MC or MC4 system in the trailer and milkrun. The aluminium profile can also be used in the further assembly.

Features

- Material:
- Galvanised steel, profile dimensions 45 x 45 x 3 mm.
- Very high load capacity even under dynamic load
 Excellent for forklift traffic, as the surface is very resistant and high safety is ensured by through bolts. Assembly:
- Screwed connections are drilled; simple assembly with the suitable type of screw connection (through bolt and nut).

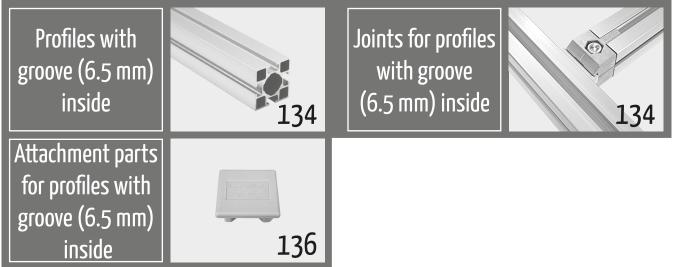
Building blocks for tugger train builders and logistics planners

Particuarly in intralogistics, it is easy to build your own trolleys for transporting various types of containers such as Euro pallets, box pallets, large load carriers, small load carriers or cardboard. The trolleys can be made into standard tugger trains and are easily modified. The drawbar and coupling system is compatible with other transport systems.

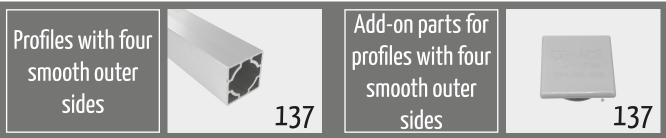
ALUMINIUM 28 x 28 mm External clamping profile

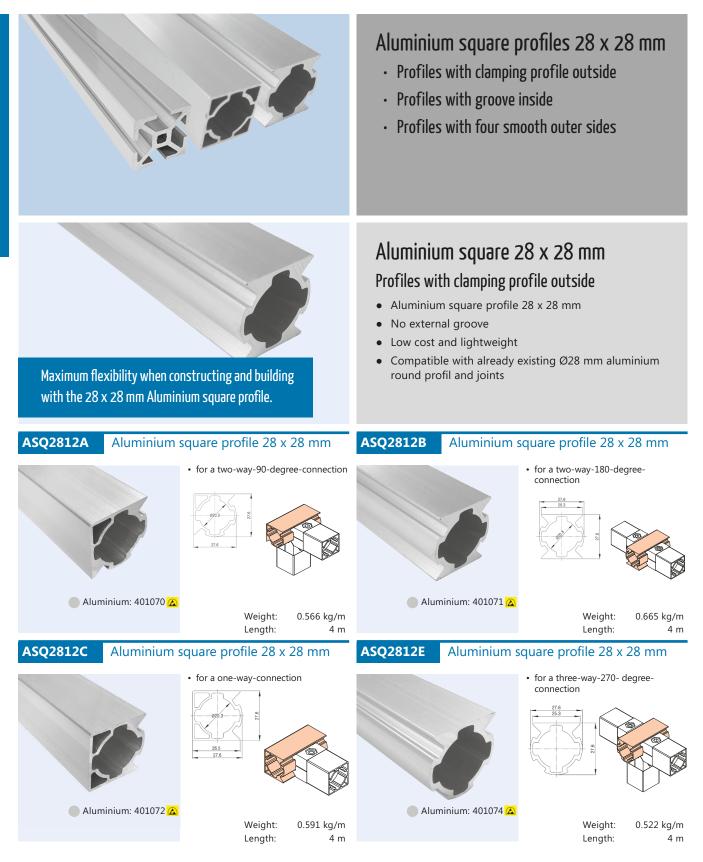
Profiles with ex- ternal clamping profile	132	Joints for profiles with external clamping profile	133
Attachment parts for profiles with external clamping profile	133		

ALUMINIUM 28 x 28 mm groove (6.5 mm) inside

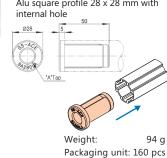


ALUMINIUM 28 x 28 mm four smooth outer sides

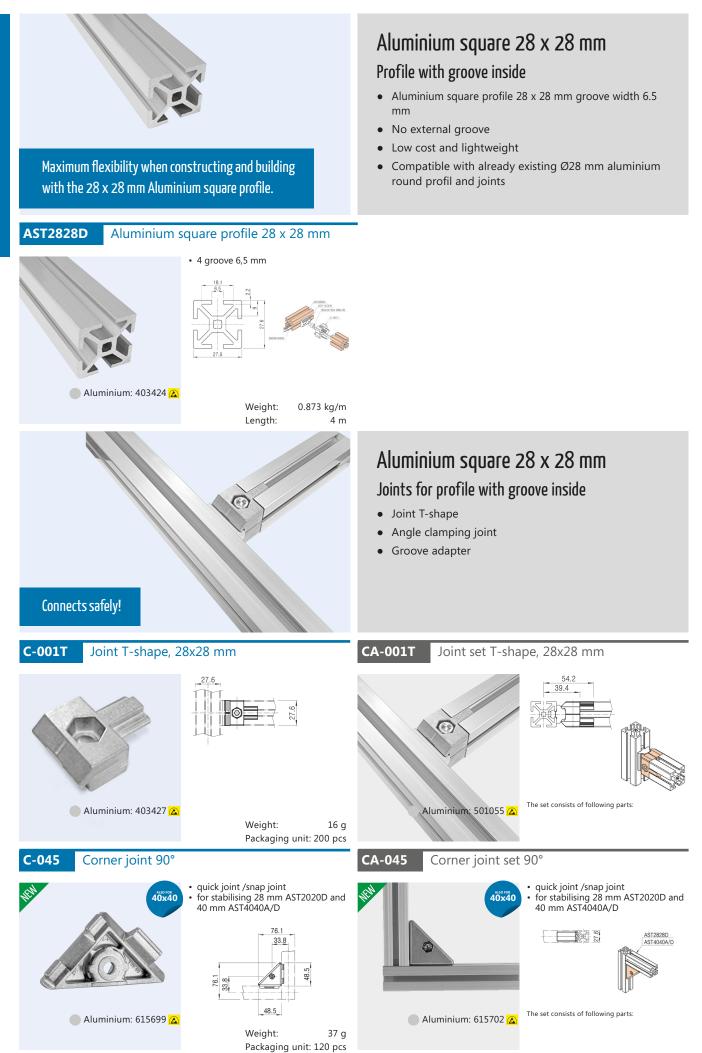




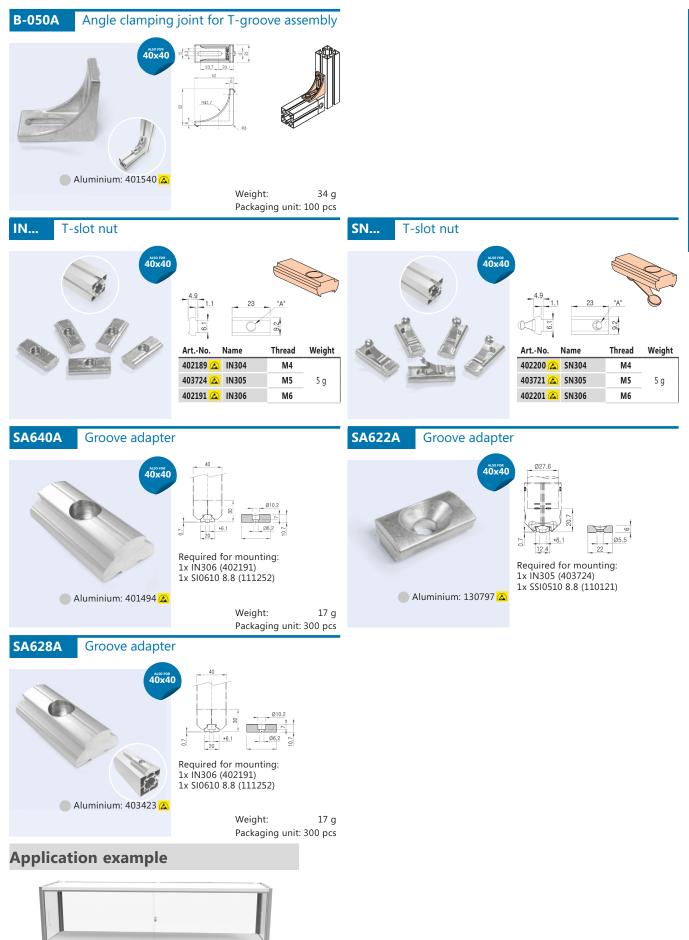




402039 (A) BA280LA Aluminium pipe Ø 28 mm 1/2"-12N 402040 (A) BA280LB Aluminium square profile M12 x 1,75 Steel 402041 (A) BA280LD 28 x 28 mm with internal hole M10	Art. No.	Name	Pipe	Threads	Material
	402039 🛕	BA280LA	Aluminium pipe Ø 28 mm	1/2"-12N	
402041 BA280LD 28 x 28 mm with internal hole M10	402040 🙆	BA280LB	Aluminium square profile	M12 x 1,75	Steel
	402041 盆	BA280LD	28 x 28 mm with internal hole	M10	

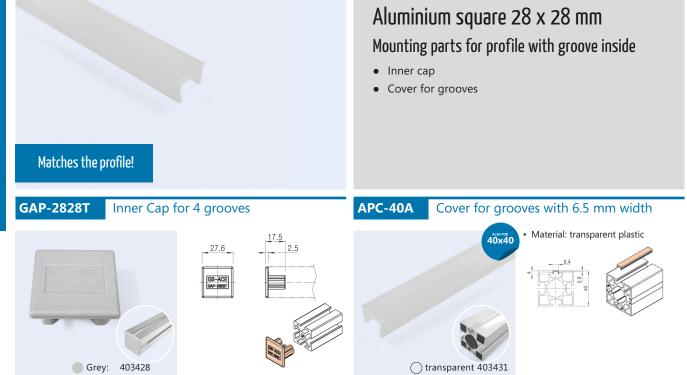


28 x 28 mm





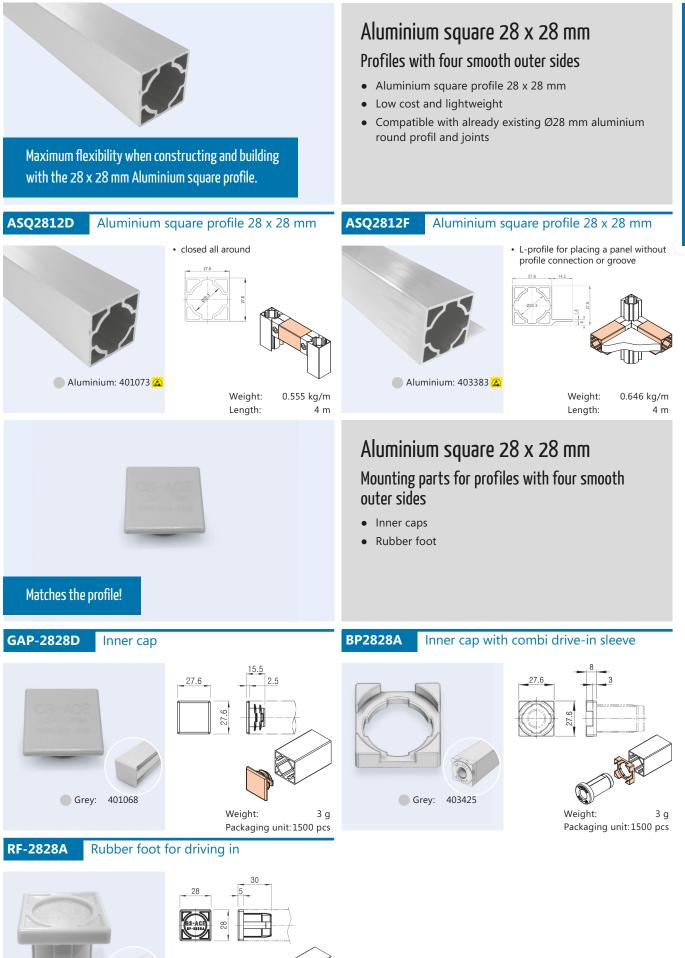
28 x 28 mm



Weight: 3 g Packaging unit: 1500 pcs O transparent 403431

Weight: 0,012kg/m Length: 3 m

28 x 28 mm

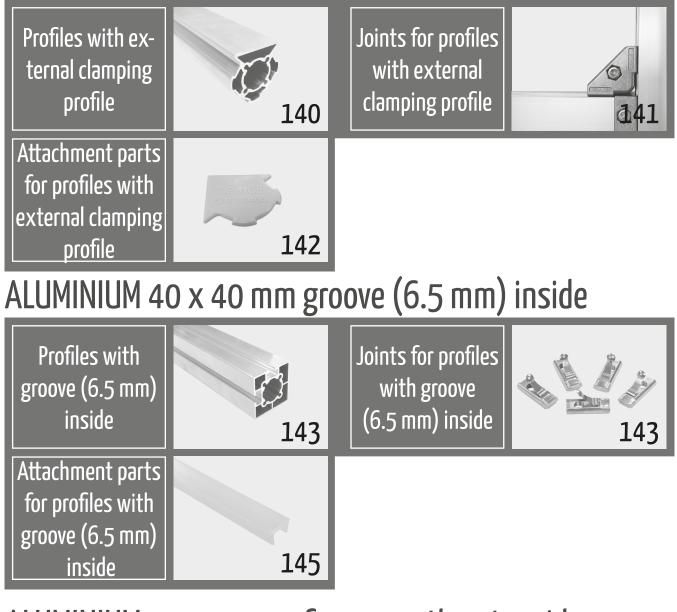


Grey: 403429

Weight: 7 g Packaging unit:1500 pcs

SPACE FOR NOTES		

ALUMINIUM 40 x 40 mm External clamping profile



ALUMINIUM 40 x 40 mm four smooth outer sides

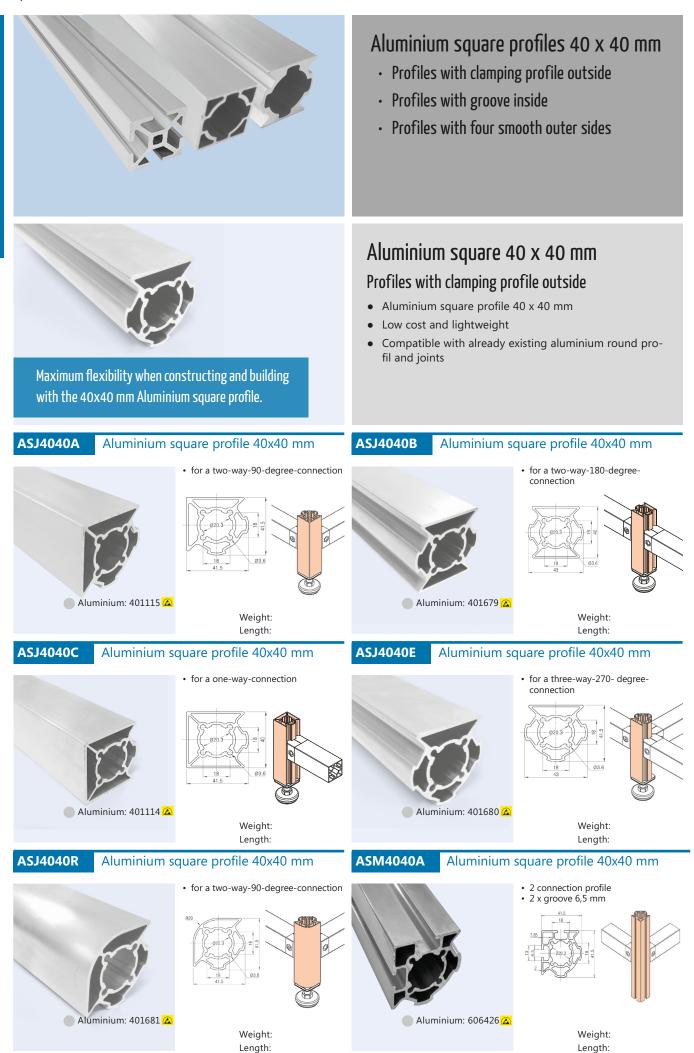


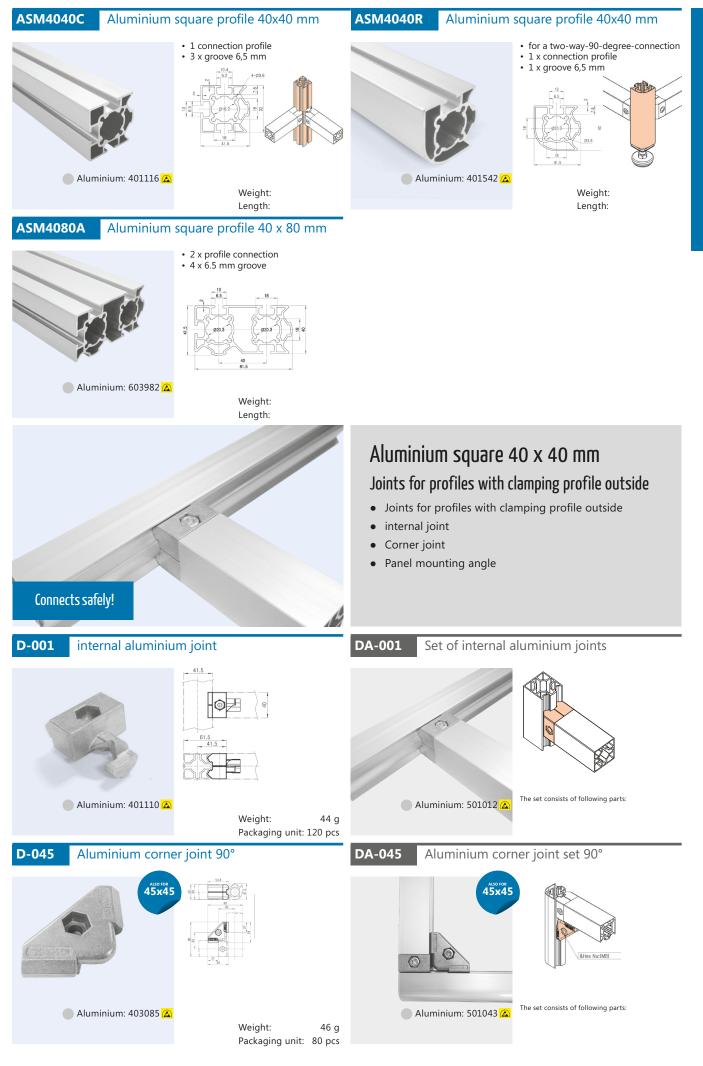
ALUMINIUM 40 x 40 mm groove (8 mm) inside

Profiles with groove (8 mm) inside

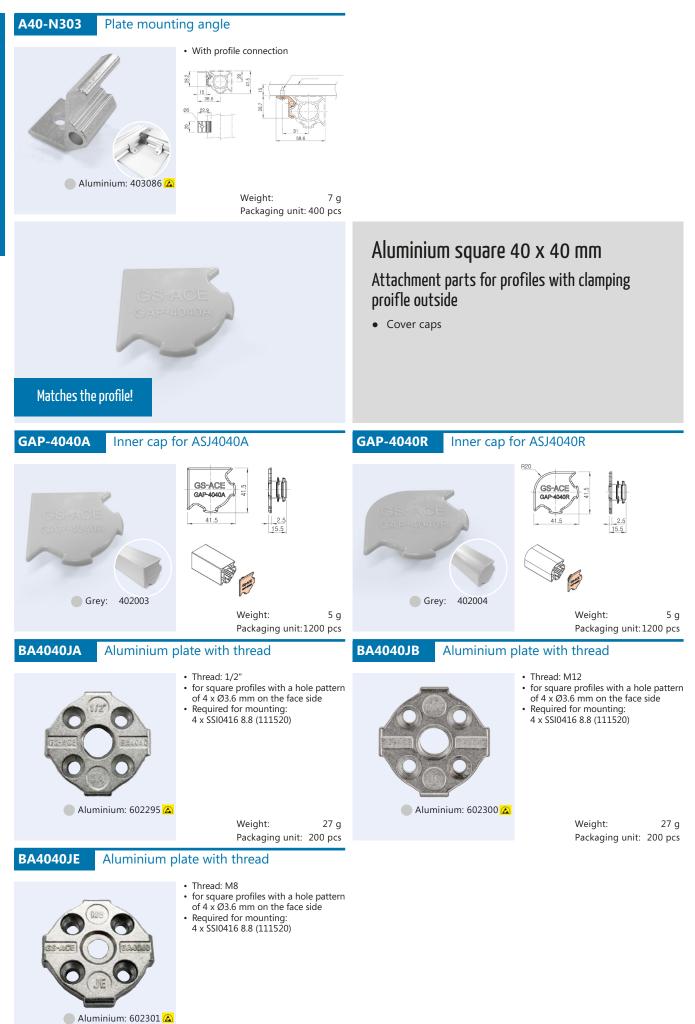


40 x 40 mm





142 | SQUARE PROFILES (40 X 40 MM)

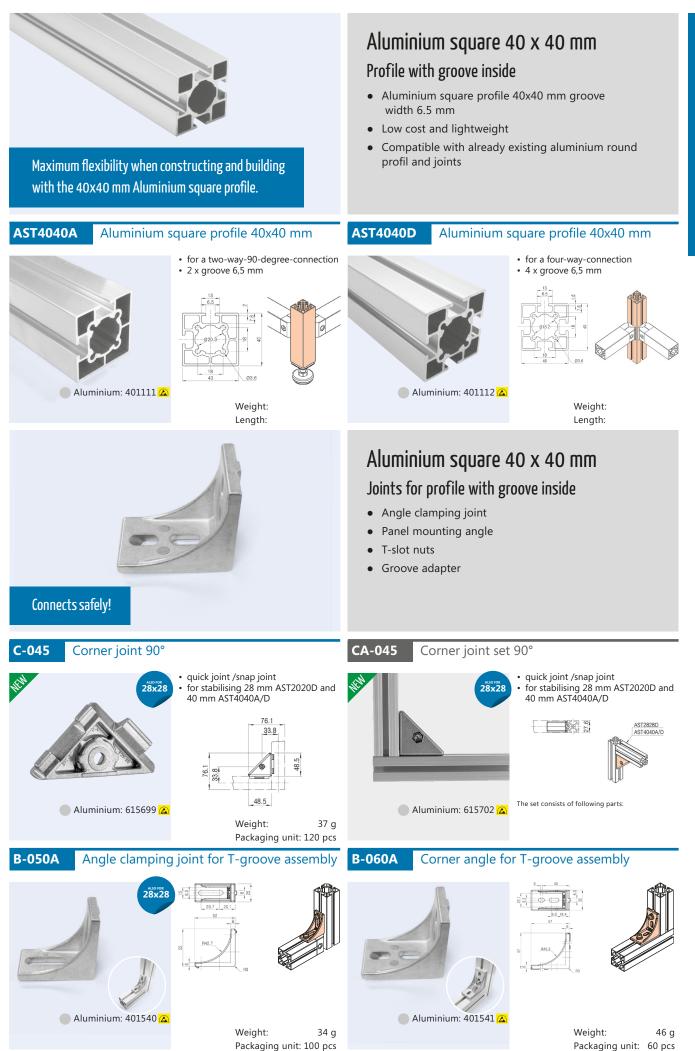


27 g

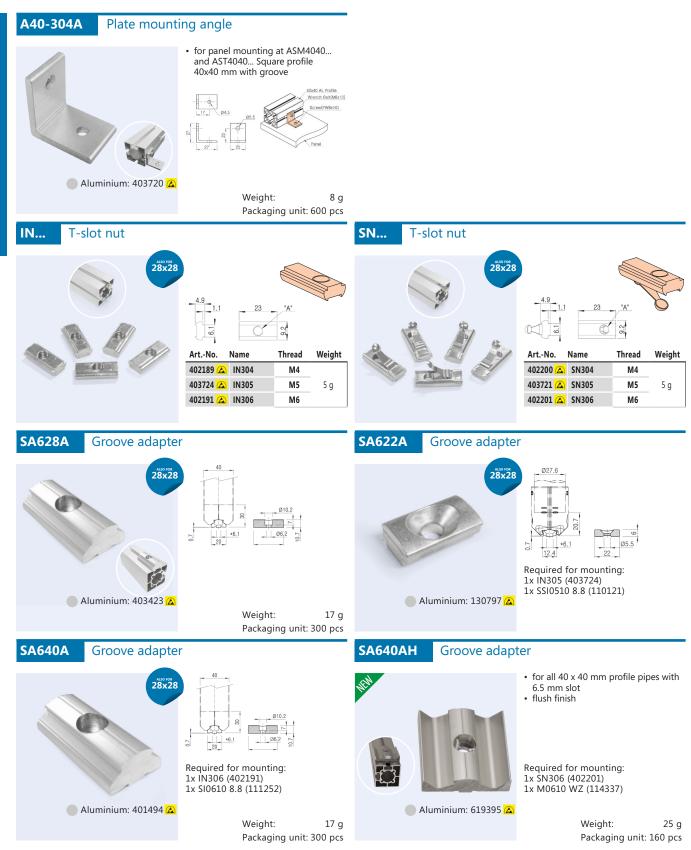
Weight:

Packaging unit: 200 pcs

40 x 40 mm



144 | SQUARE PROFILES (40 X 40 MM)



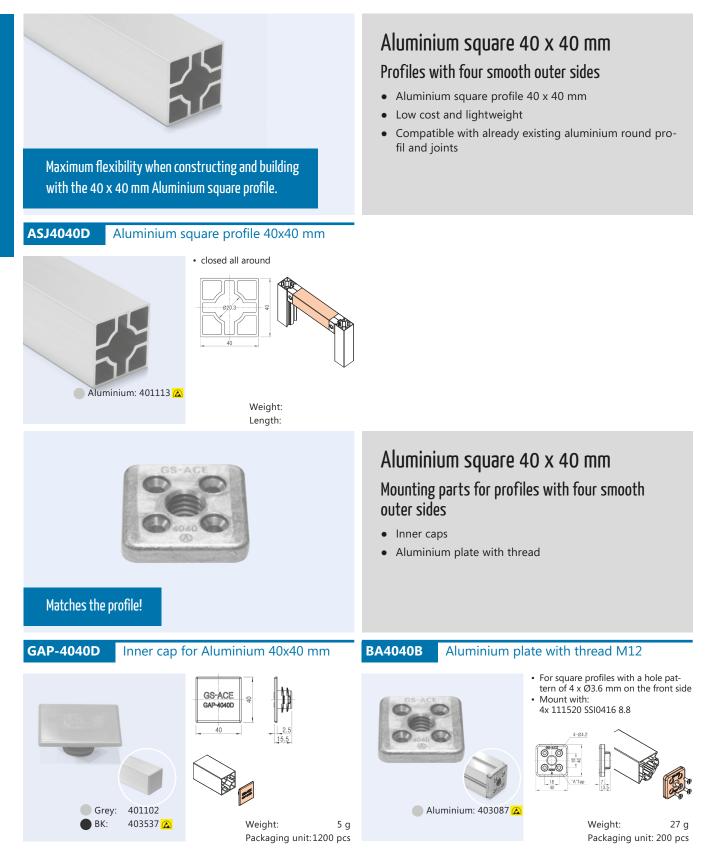
Matches the profile!



- Aluminium square 40 x 40 mm Mounting parts for profile with groove inside
- Cover for grooves

146 | SQUARE PROFILES (40 X 40 MM)

40 x 40 mm



Aluminium square profile 40x40 mm

Compatible with standard profile 40x40 mm

• Aluminium square profile 40x40 mm

• Low cost and lightweight

groove 8 mm

•



Maximum flexibility when constructing and building with the 40x40 mm Aluminium square profile.

P4040A-I Aluminium square profile 40x40 mm



4 x groove 8 mm Apodised surface electric

 Anodised surface, electrically conductive

> Weight: Length:



For this profile we have designed an extra brochure for you.

With information about:

- Joints,
- attachments
- and technical data.



SPACE FOR NOTES		

ALUMINIUM 45 x 45 mm External clamping profile



ALUMINIUM 45 x 45 mm groove (8.3 mm) inside

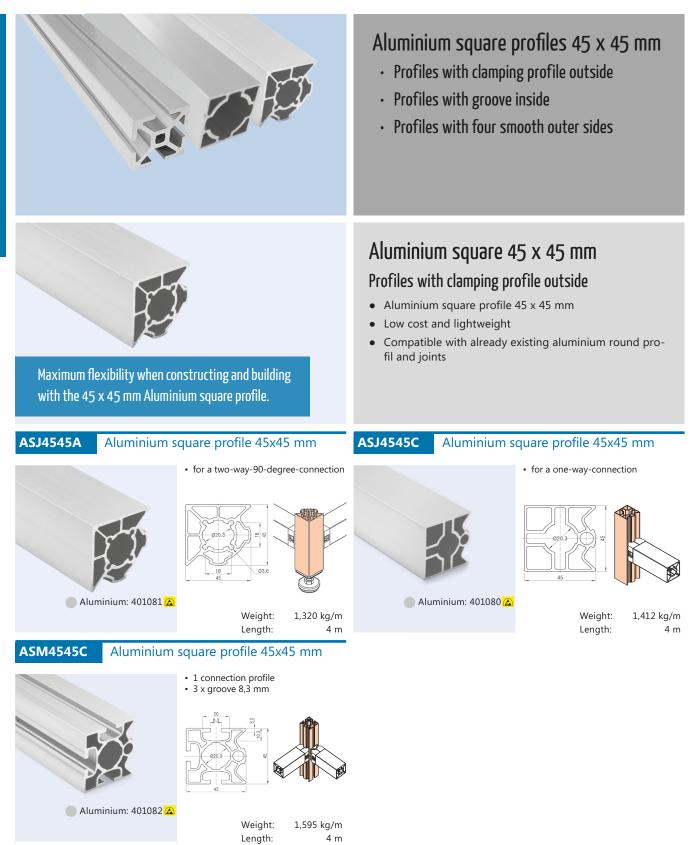
Profiles with groove (8.3 mm) inside	152	Joints for profiles with groove (8.3 mm) inside	a a a a a a a a a a a a a a a a a a a
Attachment parts for profiles with groove (8.3 mm) inside	153		

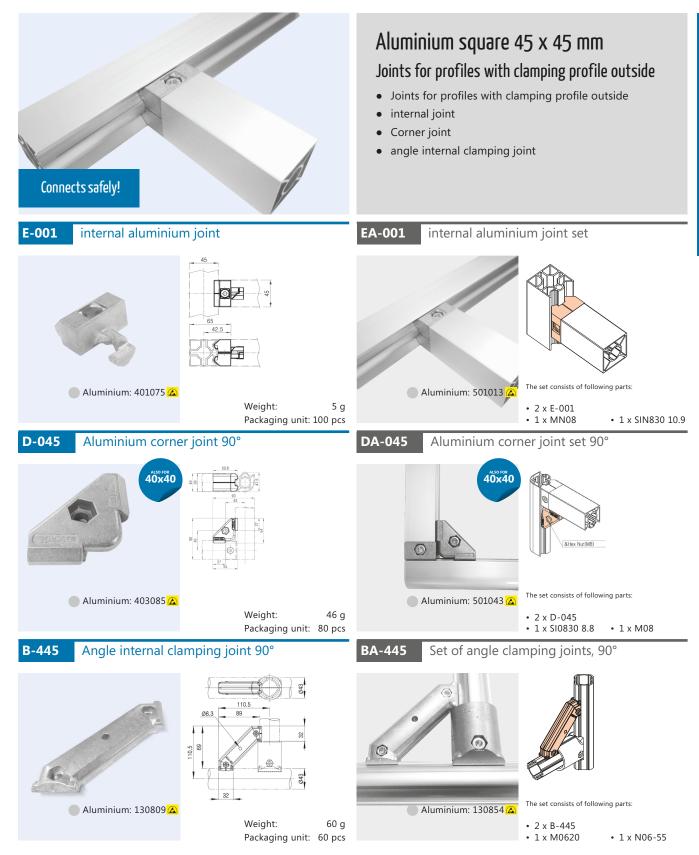
ALUMINIUM 45 x 45 mm four smooth outer sides

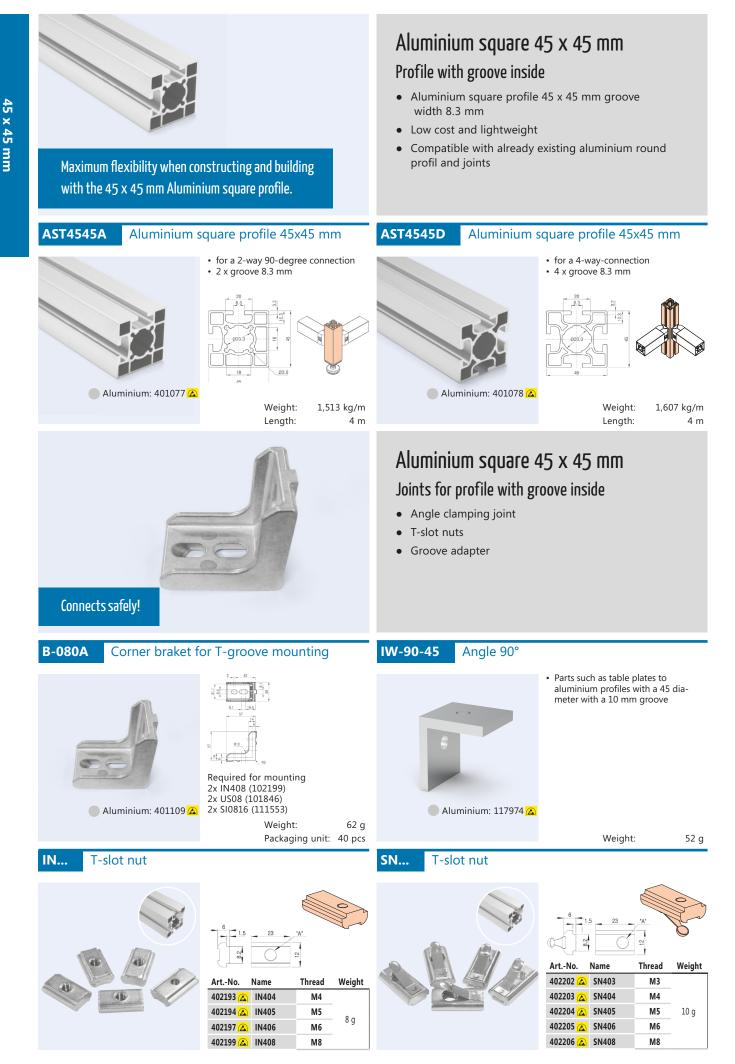
Profiles with four smooth outer sides	154	Add-on parts for profiles with four smooth outer sides	
	154	sides	154

ALUMINIUM 45 x 45 mm groove (10 mm) inside



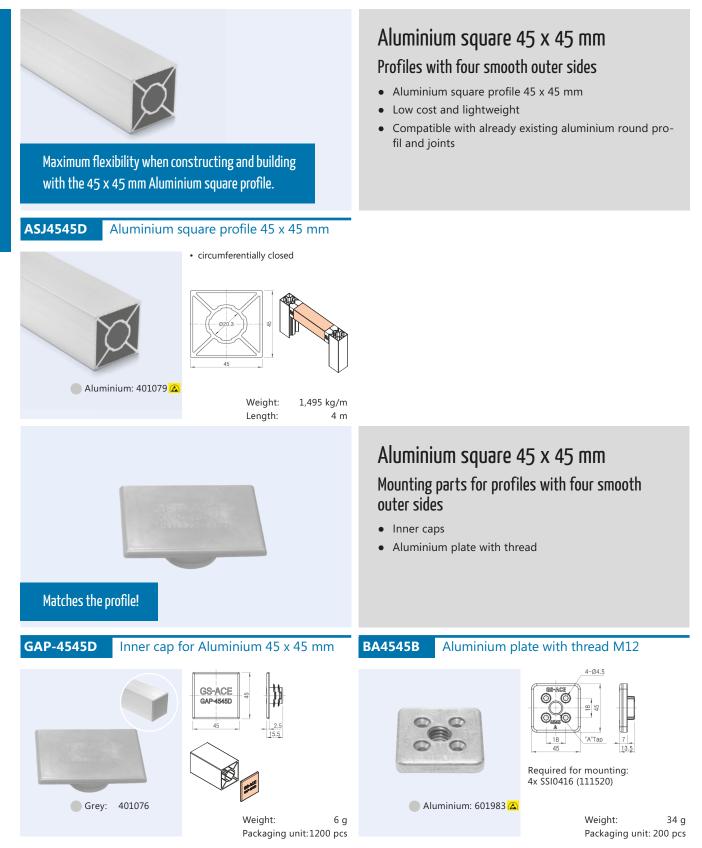


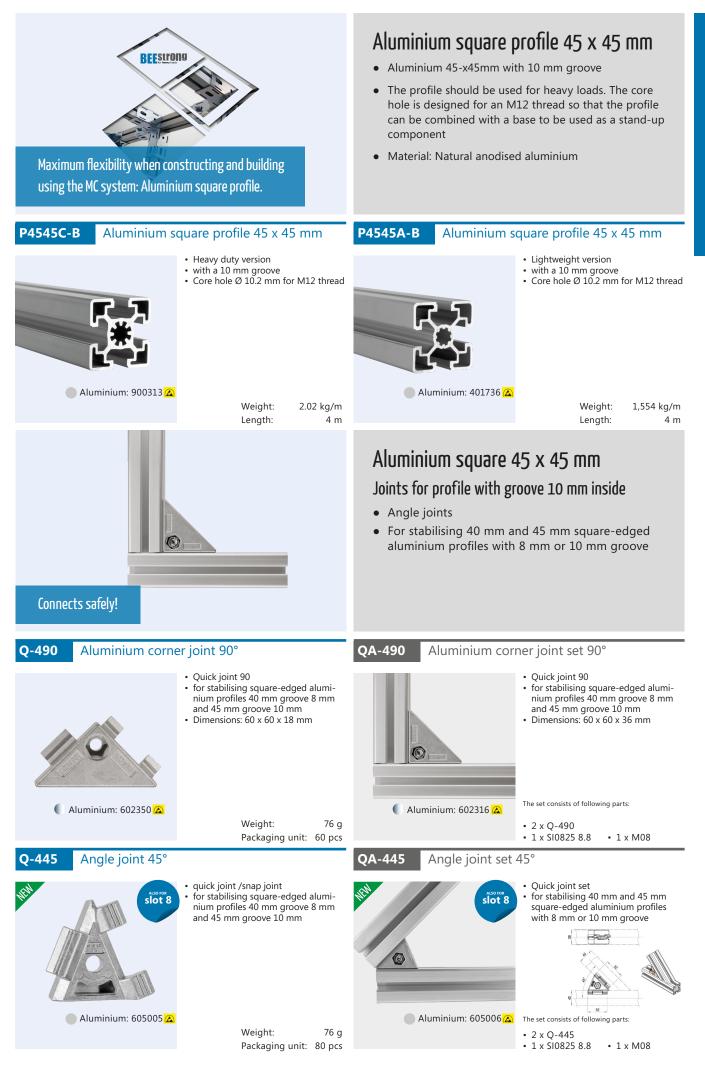




45 x 45 mm







45 x 45 mm



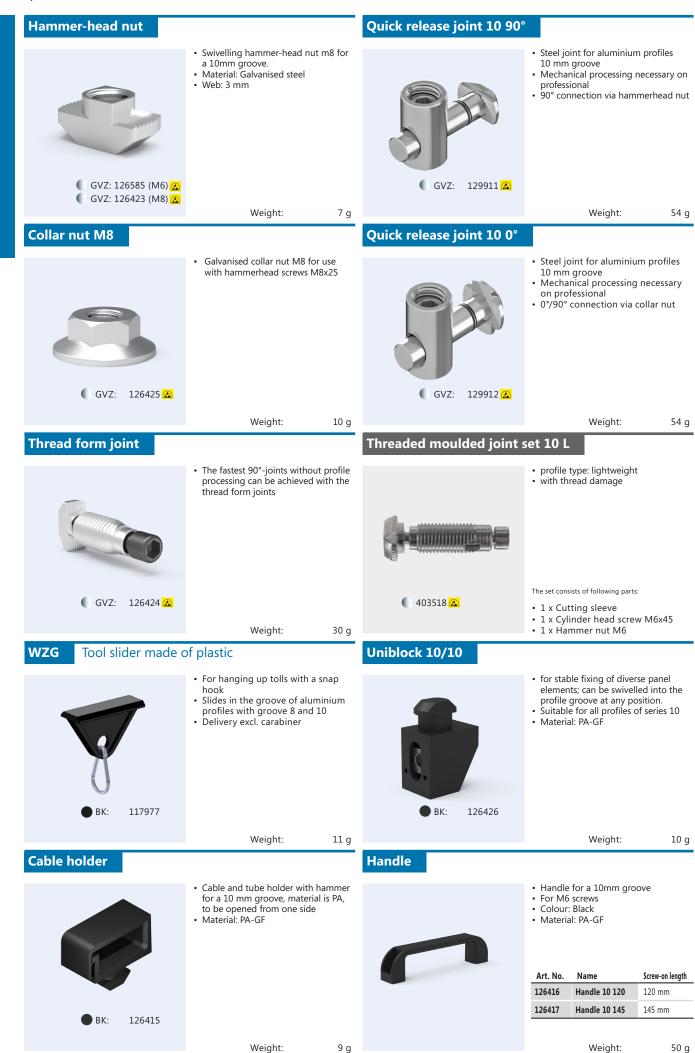
Weight:

BK: 403373

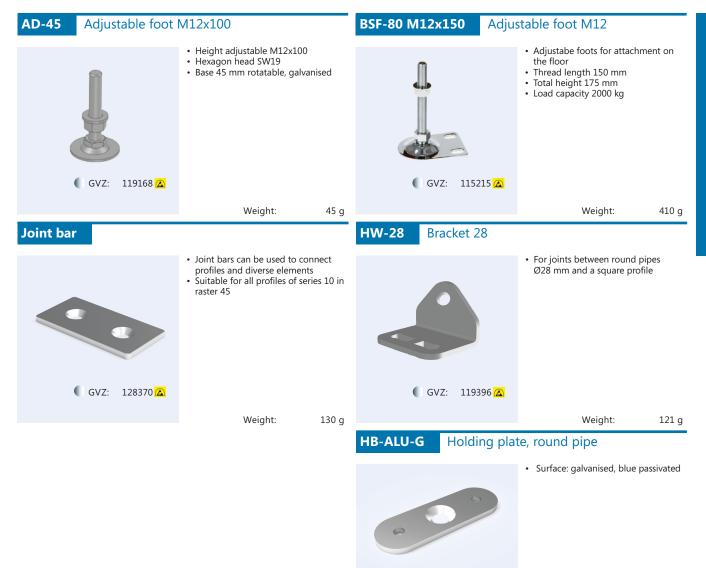


158 | SQUARE PROFILES (45 X 45 MM)

45 x 45 mm



45 x 45 mm



🔵 GVZ: 118327 🙆

Weight: 30 g

160 | SQUARE PROFILES (45 X 45 MM)

• 2 x G-16S

cation

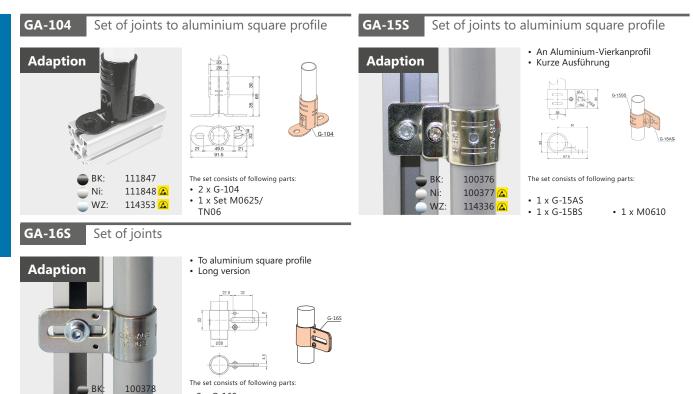
Mounting depending on the appli-

100379 🔼

114338 🛕

Ni:

WZ



STEEL 45 x 45 mm four smooth outer sides



JOINTS 45 x 45 mm

MC-joints	162	MC4-joints	165
Mounting materials (groove 10)	167	Drawbars and couplings	168



Square solution for heavy loads: Steel square profile (heavy load).

MC-B4545... Steel square profile 45x45 mm



ArtNo.	Material thickness	Length
118814 🔼		2000 mm
118815 🔼	3 mm	4000 mm
107545 🔼		6000 mm
603925 🔼		2000 mm
602140 🔼	2 mm	4000 mm
602139 🔼		6000 mm

• Material: Galvanic zinc-coated (steel)

• Different material thicknesses

• Different length



round pipe profile (MC-joint).

MC-B4545... Steel square profile 45 x 45 mm

- Material: Galvanic zinc-coated (steel)
- Different lengthDifferent material thicknesses



ArtNo.	Material thickness	Length	
118814 🔼		2000 mm	
118815 🔼	3 mm	4000 mm	
107545 🔼		6000 mm	
603925 🔼	2 mm	2000 mm	
602140 🔼		4000 mm	
602139 🙆		6000 mm	

MC-BP Corner joint with base plate



🔵 GVZ: 106491 🙆

٠	Mount with:
	BS-MC-BP
٠	Castor mount with:
	BSR-MC125 or BSR-MC160
٠	for castors with mounting plate
	100x85 mm and 140x110 mm



Weight:

1882 g

Steel square profile (heavy load)

- 45x45mm steel square profile made from galvanised steel
- The profile should be used for heavy loads. •
- Material: Steel

Cover plate 45x45



Cover plate for 45x45 steel square



profile

Joints for square and round pipe profile (MC)

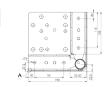
- These joints are only suitable for 45x45mm profiles
- All joints are made from galvanised steel
- The MC joints are suitable for transport trolleys and other constructions with wheels. When a strong base frame is required (e.g. for tugger train trailers and trailers that are also moved with forklifts)
- The aluminium as well as square steel profile can be inserted into the joints on a horizontal plane. On the vertical plane, the construction can be continued cost-effectively and easily with 28mm round pipes

P4545 Alur	Aluminium square profil 45x45 mm			
	• with a 10 mm groove			
	ArtNo. Name Length 401736 (2) P4545A-B 4000 mm 900313 (2) P4545C-B 4000 mm			

MC-BPH Corner joint with base plate

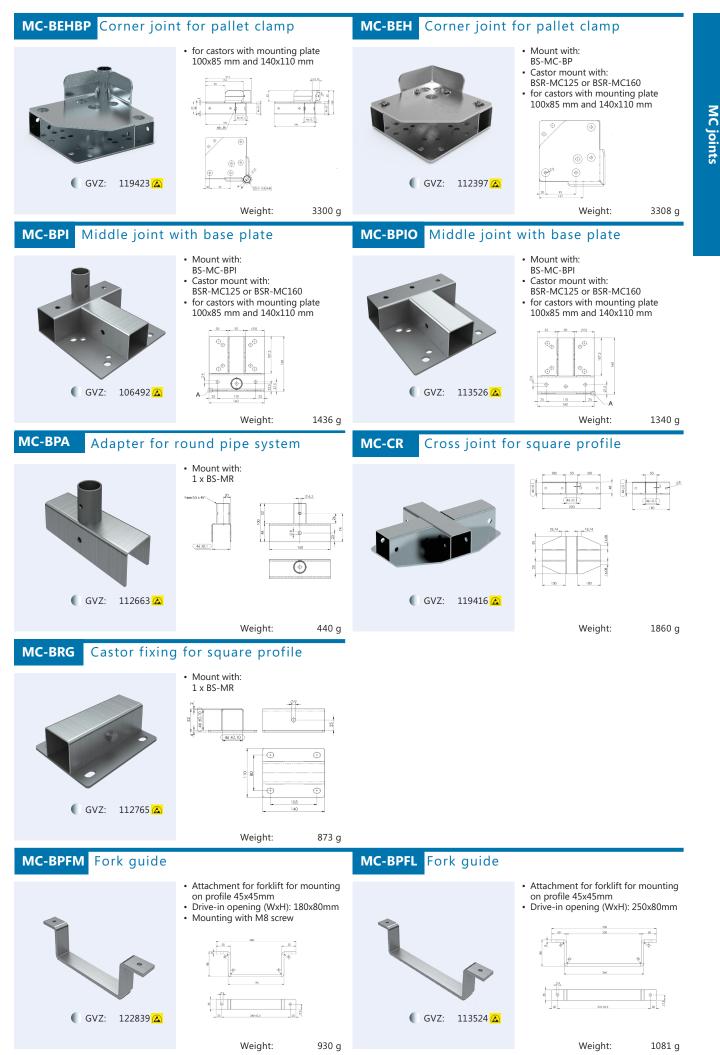
🔵 GVZ: 118594 🔼

- Mount with: BS-MC-BP
- Castor mount with:
- BSR-MC125 or BSR-MC160 for castors with mounting plate 100x85 mm and 140x110 mm



Weight:

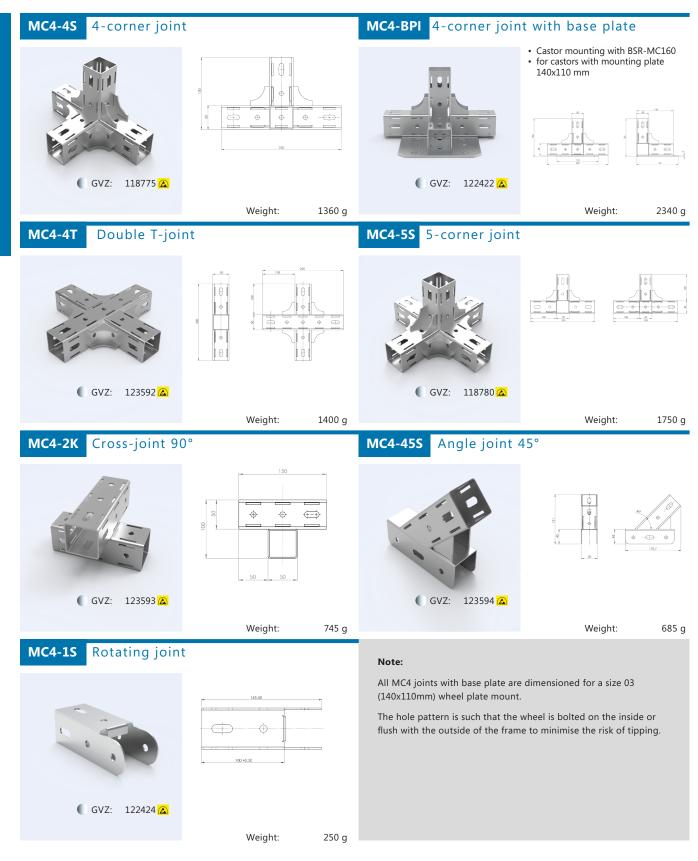
¹⁹⁵⁰ g



164 | SQUARE PROFILES (45 X 45 MM)







MC4 system

Mounting materials for MC4 joints

• The following fastening materials are specially designed for our aluminum square profile 45x45 groove 10 mm.

Everything at its place





6

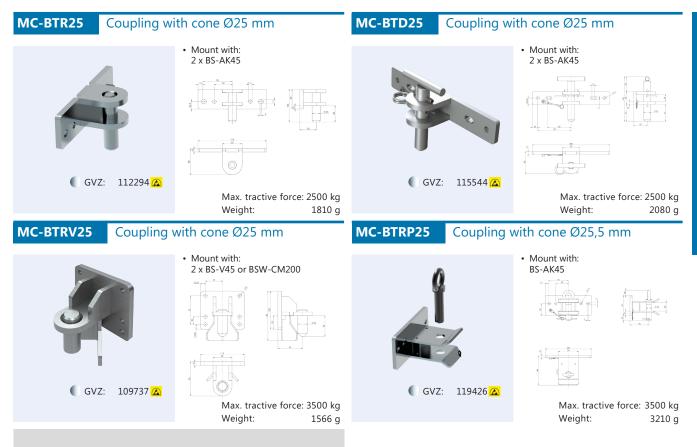
Max. tractive force: 3600 kg

Weight:

1000 g

🌔 GVZ: 🛛 208785 🔼

Drawbars and couplings



Note:

Swivelling drawbar: The swivelling drawbar is freely mounte d and should be swivelled upwards manually after uncoupling.

Spring drawbar: With the spring drawbar, the drawbar blade is permanently pressed upwards by a torsion spring. This function enables faster coupling and uncoupling.

Application examples





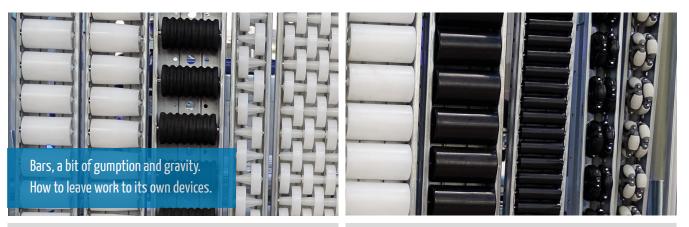




ROLLER TRACKS

<u>GP roller tracks</u>	
Series 35	174
Series 40	174
Series 60	175
Series 85	175
<u>GP-R roller tracks</u>	
Series 40	178
Series 70	178
Series 85	178
<u>UR all round castors</u>	
Series 40	180
Series 60	180
Accessories for roller tracks	
Accessories	184
Fastening elements for roller tracks	
Series 35	188
Series 40	190
Series 60	195
Series 70	197
Series 85	198
<u>Cover caps for roller tracks</u>	
<u>Cover caps</u>	200
Lateral guides	
Metal	204
Plastic	207
<u>Safety caps for lateral guides</u>	
Safety caps	210
Special concepts for roller conveyors Pipe roller conveyor	212
Ball roller conveyor	212
CR rollers	213
	<u> </u>

172 | ROLLER TRACKS



Roller tracks by G.S. ACE

The roller tracks by G.S ACE have excellent running characteristics, with quiet and steady mechanical operation even on gentle slopes, and high resistance to impacts. Their great stability guarantees long life. They are available in many versions for varying requirements.

New order numbers:

GP	-	R	70	50	BF
Туре		R	Series	Castor distance	Castor type

Type (track type)

CR	curve	castors

- **UR** universal castors
- **GP** roller tracks
- **R** rolls in the plastic body

Castor type

- A spherical roller
- B cylindrical roller
- **BF** cylindrical roller, flexible
- **C** cylindrical roller with flange
- D cylindrical roller, large
- HA cylindrical roller, tapered
- M cylindrical roller, small
- (with shortened shaft centre distance)
- S cylindrical roller, small (with small centre distance)
- SR cylindrical roller, steel coated

Plastic castors

- PA white (W)
- PA black (BK)
- Beige rubber (Type BF)
- Dark grey (VGD)
- ESD with black castors (ESD)

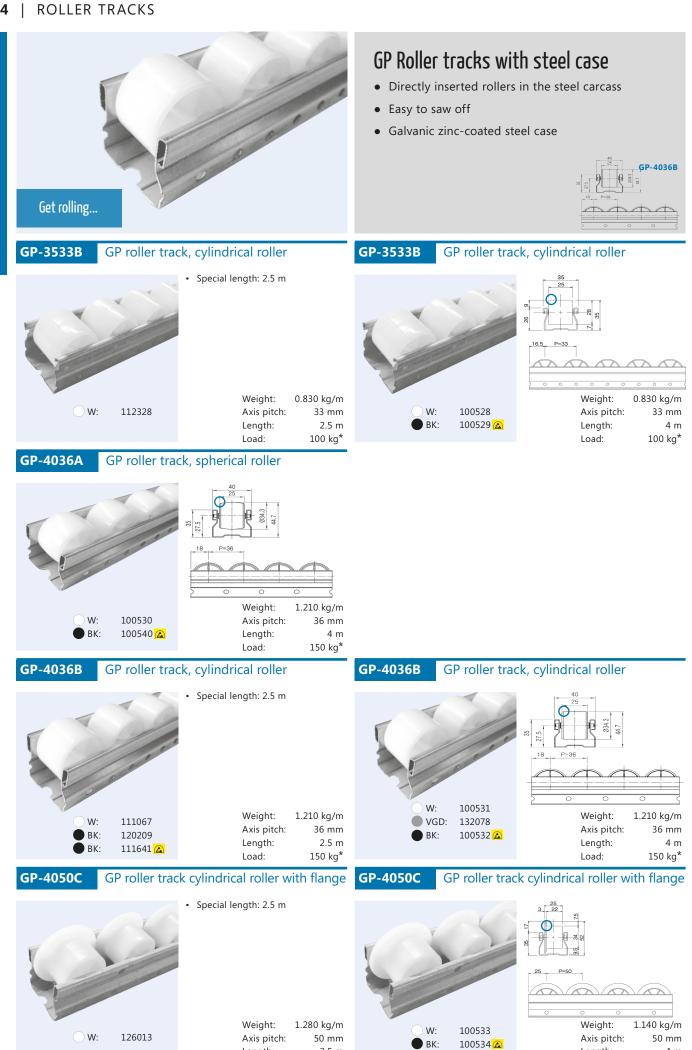
Ordering information

- Standard track length: 4 m
- Other dimensions on request

GP roller tracks

Series 35	174	Series 40	174
Series 60	175	Series 85	175

Roller tracks



* Load per 900 mm pair of roller tracks

Length:

Load:

2.5 m

150 kg*

Length:

Load:

4 m

150 kg*

ROLLER TRACKS | 175

Roller tracks

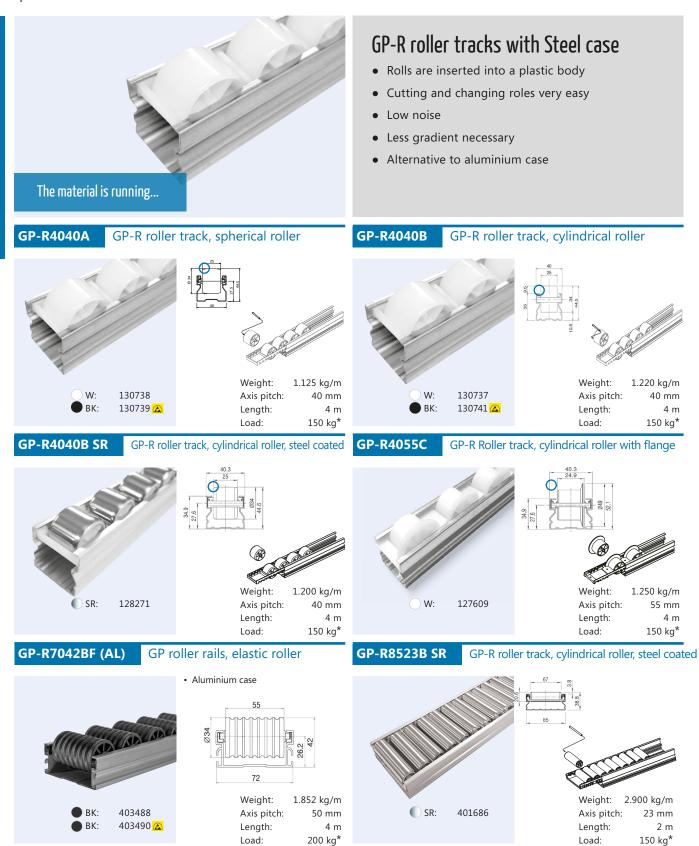


SPACE FOR NOTES				

GP-R roller tracks

Series 40	178	Series 70	178
Series 85	178		

GP-R roller tracks



UR all round castors

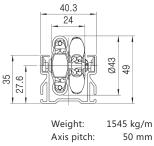
Series 40	CORRECT	Series 60	Contrains
	180		180



UR-4050 Univer

Universal castors with steel case





Axis pitch: 50 mm Length: 3000 mm Load: 100 kg*

UR-R6067 (AL)

Universal castors with large roller

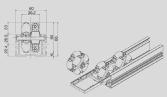


60 35.2	
	870 A.

Weight:	2550 g/m
Axis pitch:	67 mm
Length:	2000 mm
Load:	200 kg*

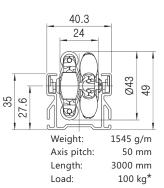
UR universal castors

• For movements in all directions, for changes of direction or for assembly islands to connect with each other









	Art. No.	Name	Ø Castor	Castor distance	Ø Axis	Load*	Material corpus	Length	Castor colour
Serie 35	100528	GP-3533B	20	33,3 mm	2	100 kg	Steel	4	White
Serie 35	100529 🔼	GP-3533B-E	28 mm	55,5 mm	3 mm	100 kg	Steel	4 m	Black
	100543	GP-4025M	34 mm	25 mm	3,3 mm	150 kg	Steel	4 m	White
	109741 🔼	GP-4025M-E	54 11111	25 11111	5,5 11111	150 KY	Sleer	4 111	Black
	100530	GP-4036A							White
	100540 🔼	GP-4036A-E	34 mm	36 mm	4 mm	150 kg	Steel	4 m	Black
	100531	GP-4036B							White
	120209	GP-4036B	34 mm	36 mm	4 mm	150 kg	Steel	2,5 m	Black
	132078	GP-4036B-VGD	34 mm	36 mm	4 mm	150 kg	Steel	4 m	Dark grey
	100532 🔼	GP-4036B-E	54 11111	50 11111	4 11111	150 Kg	Sleer	4 111	Black
	120209	GP-4036B	34 mm	36 mm	4 mm	150 kg	Steel	2,5 m	Black
	130738	GP-R4040A							White
Serie 40	130739 🔼	GP-R4040A-E (GI)				4 mm 150 kg	Steel	4 m	Black
Jerre 40	130737	GP-R-4040B (GI)	34 mm	40 mm	4 mm				White
	130741 🔼	GP-R4040B-E (GI)							Black
	128271	GP-R4040SR (GI)							Steel-coated
	100533	GP-4050C	49 mm	50 mm	4 mm	150 kg	Steel	4 m	White
	100534	GP-4050C-E	49 mm	50 11111	4 1000	130 Kg	51661	4 111	Black
	126013 🔼	GP-4050C	49 mm	50 mm	4 mm	150 kg	Steel	2,5 m	White
	100535	GP-4050D	43 mm	50 mm	4 mm	150 kg	Steel	4 m	White
	111934	GP-4050D-E	45 11111	50 11111	4 11111	150 Kg	Sleer	4 11	Black
	127609 🔼	GP-R4055C (GI)	49 mm	55 mm	4 mm	150 kg	Steel	4 m	White
	112708	UR-4050	43 mm	50 mm	4 mm	80 kg	Steel	2 m	White
	112707	UR-4050-E	45 11111	50 11111				3 m	Black
	100538 🔼	GP-6016S	15 mm	16,6 mm	4 mm	100 kg	Steel	4 m	White
	100539	GP-6016S-E	13 11111	10,0 11111	4 11111	100 Kg	JLEEI	4 111	Black
Serie 60	100537 🔼	GP-6033B							White
5010 00	100545	GP-6033B-E	30 mm	33,3 mm	4 mm	100 kg	Steel	4 m	Black
	100541 🔼	GP-6033HA							White
	113568	UR-6067 (AL)	60 mm	67 mm	5 mm	150 kg	Aluminium	2 m	White
Serie 70	100542	GP-7050BF (GI)	34 mm	50 mm	5 mm	200 kg	Steel	4 m	Beige
	401686	GPR8523SR-GI	20,6 mm	22,5 mm	3,5 mm	300 kg	Steel	2 m	Steel-coated
	111576 🔼	GP-8525M	34 mm	25 mm	3,3 mm	300 kg	Steel	4 m	White
Serie 85	100544	GP-8525M-E			5,5 mm	500 kg	5000		Black
Selle 92	115082 🔼	GP-8543-B	40 mm	43 mm	5 mm	300 kg	Steel	4 m	White
	116416	GP-8543-B-E		13 11111	5 1111	500 Kg	51001	T 111	Black
	117409 🙆	GP-8550SR	40 mm	42 mm	5 mm	300 kg	Steel	2 m	White

Ordering overview

* Load per 900 mm pair of roller tracks

SPACE FOR NOTES		

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Accessories for roller tracks



Accessories GP roller tracks



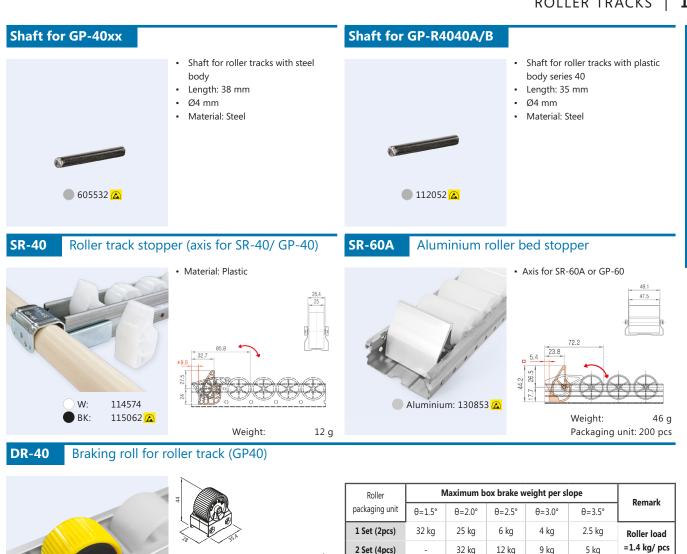
Packaging unit:

20 pcs

Diameter: Packaging unit:

60 mm 60 pcs

Accessories GP roller tracks





C S5A		
braking roll	1000	θ,

					-	Remark
packaging unit	θ=1.5°	θ=2.0°	θ=2.5°	θ=3.0°	θ=3.5°	Kelliark
1 Set (2pcs)	32 kg	25 kg	6 kg	4 kg	2.5 kg	Roller loa
2 Set (4pcs)	-	32 kg	12 kg	9 kg	5 kg	=1.4 kg/ p

Weight: 35 g Packaging unit: 120 pcs

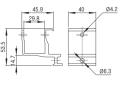
Clip Signalgast Signal-coloured clip



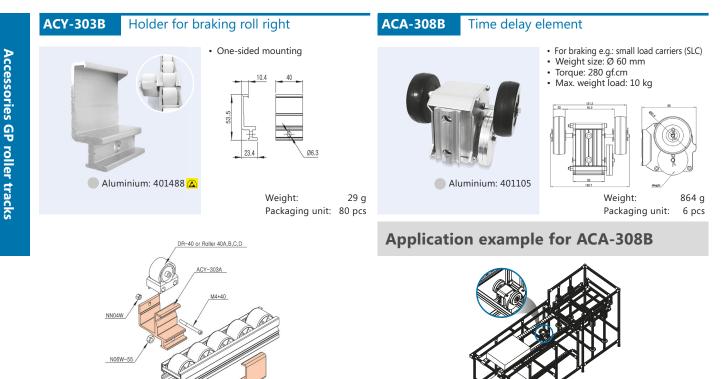
ACY-303A Holder for braking roll



Left, right or double-sided
mounting



Weight: 55 g Packaging unit: 80 pcs Roller Track 40Series



Fastening elements for roller tracks

Series 35	188	Series 40	190
Series 60	195	Series 70	197
Series 85	198		

83.5 50.5

50.5 26__20_



GP-B25

Mounting brackets for roller tracks

- Mounting of roller tracks with the width 35 mm (series 35) 40 mm (series 40) 60 mm (series 60) 70 mm (series 70) 85 mm (series 85)
- Standard measure 40 mm
- Zinc-coated

Example:

The **GP-A** connector is mounted directly onto the round pipe whereas the 33 variant of the GP-A, the **GP-A-33**, is mounted onto another joint.

Please note:

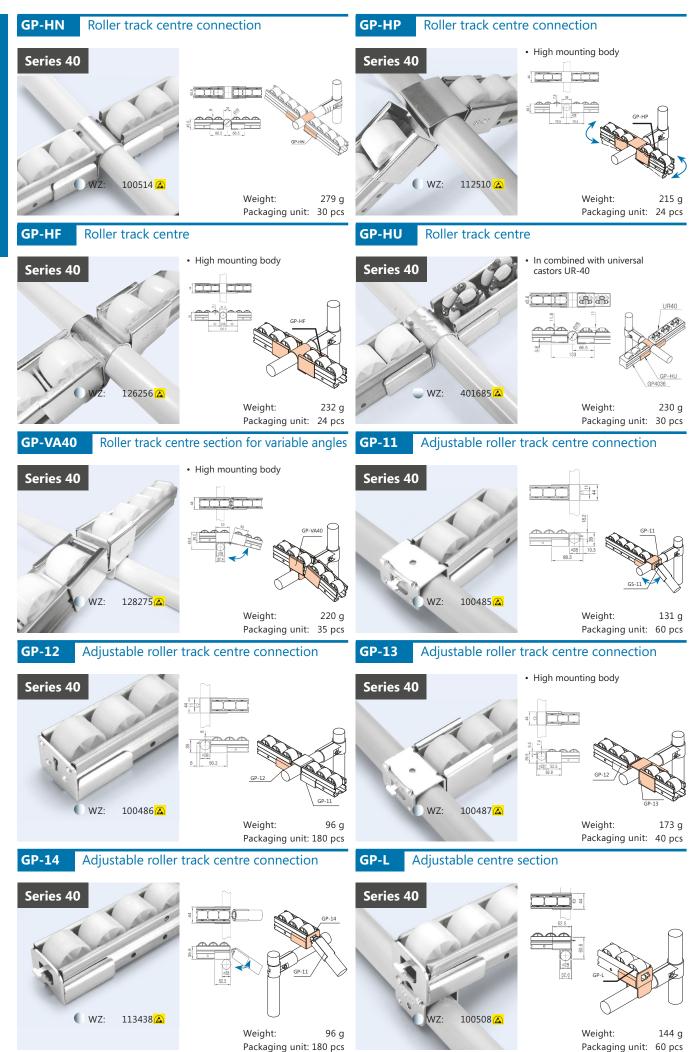
The 33 variant can only be mounted onto standard pipe joints.

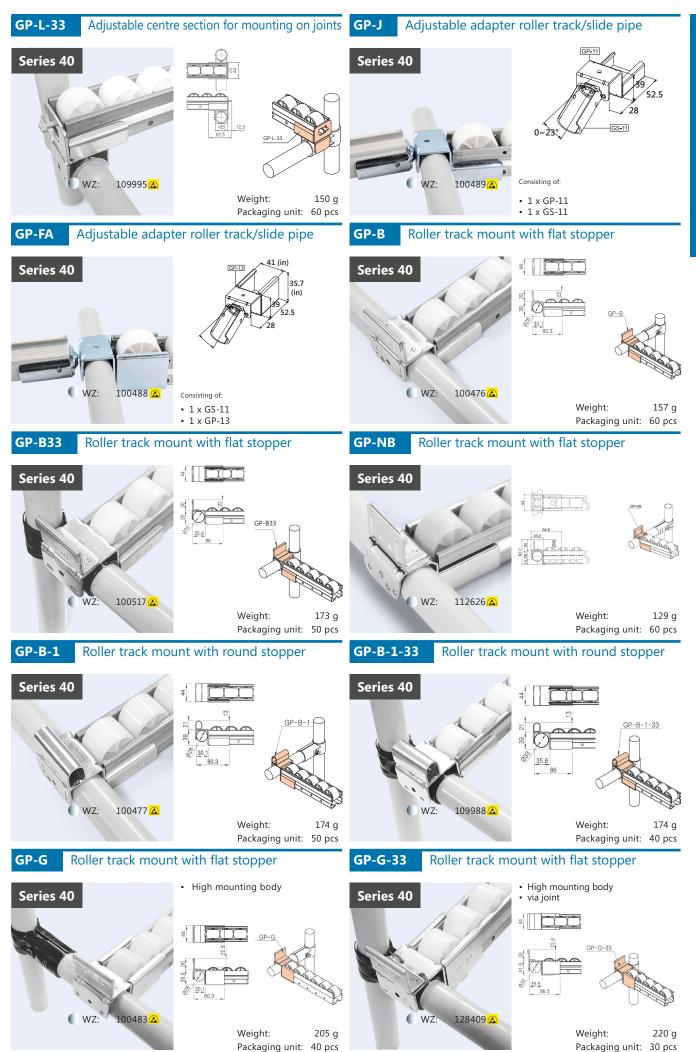


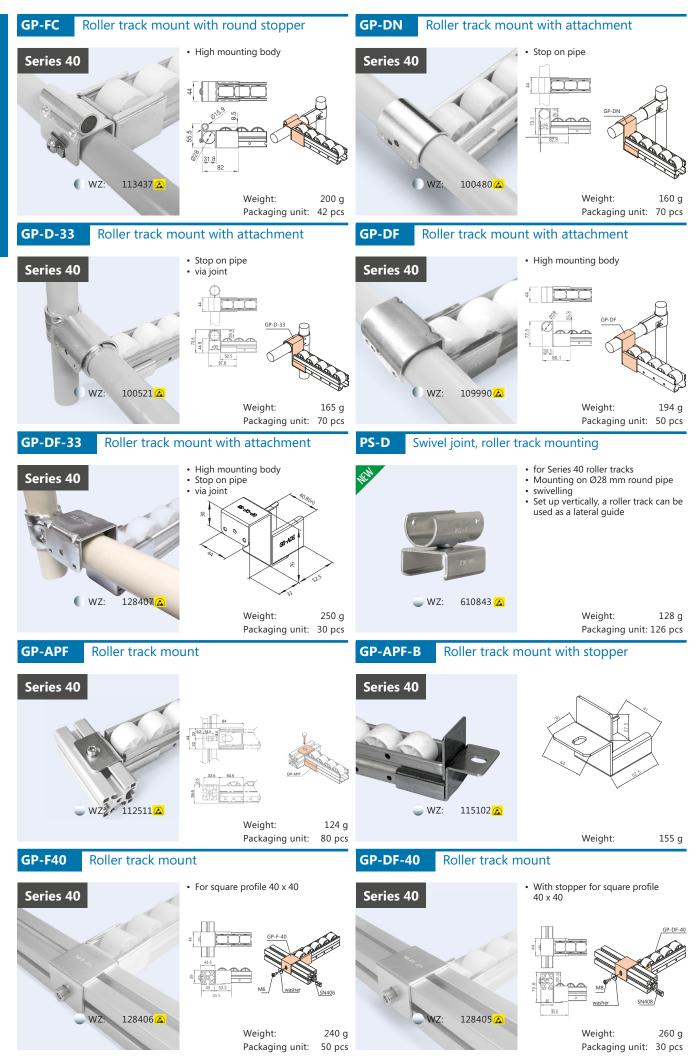


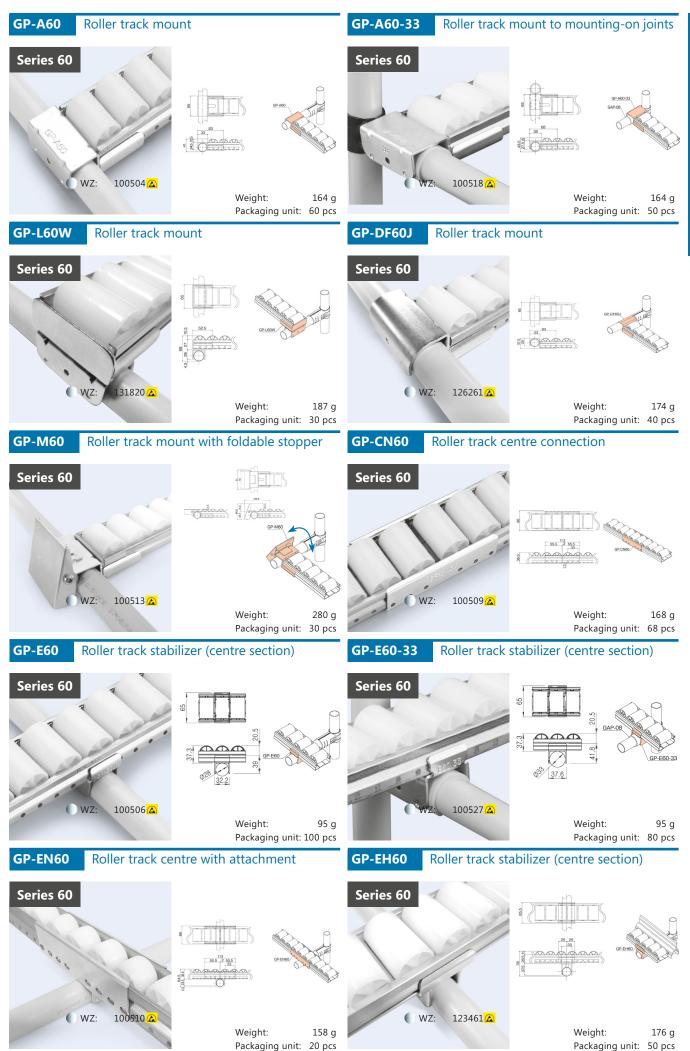


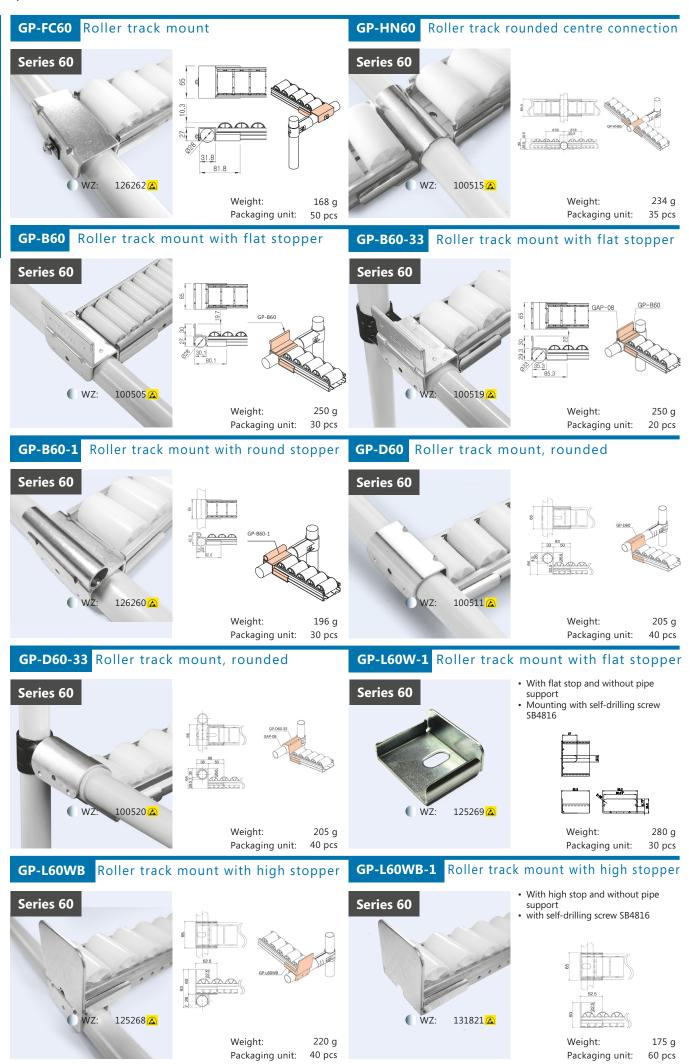


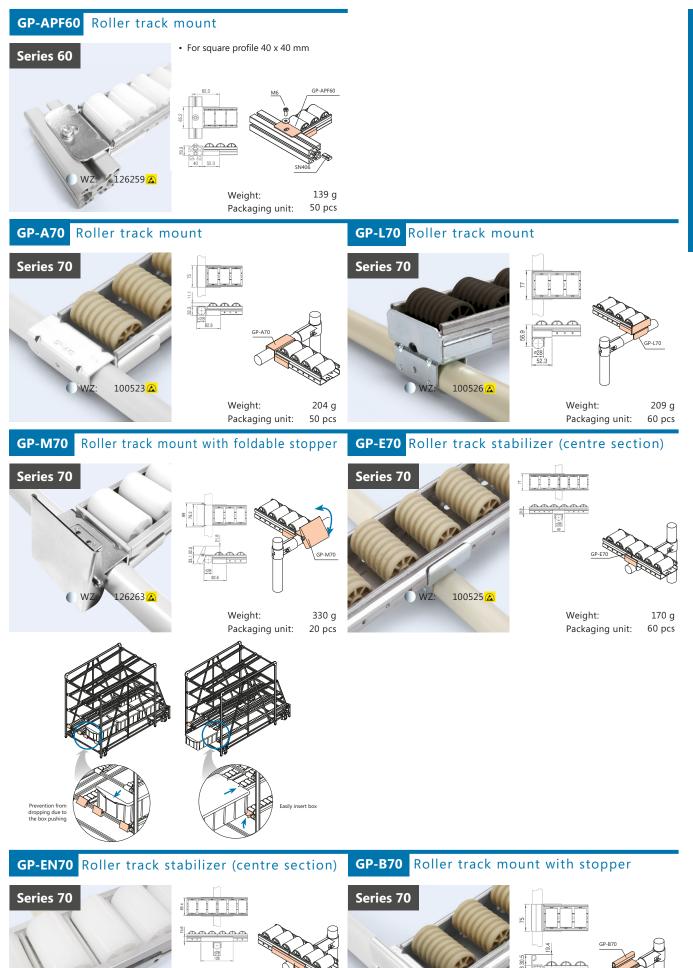




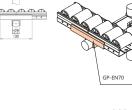






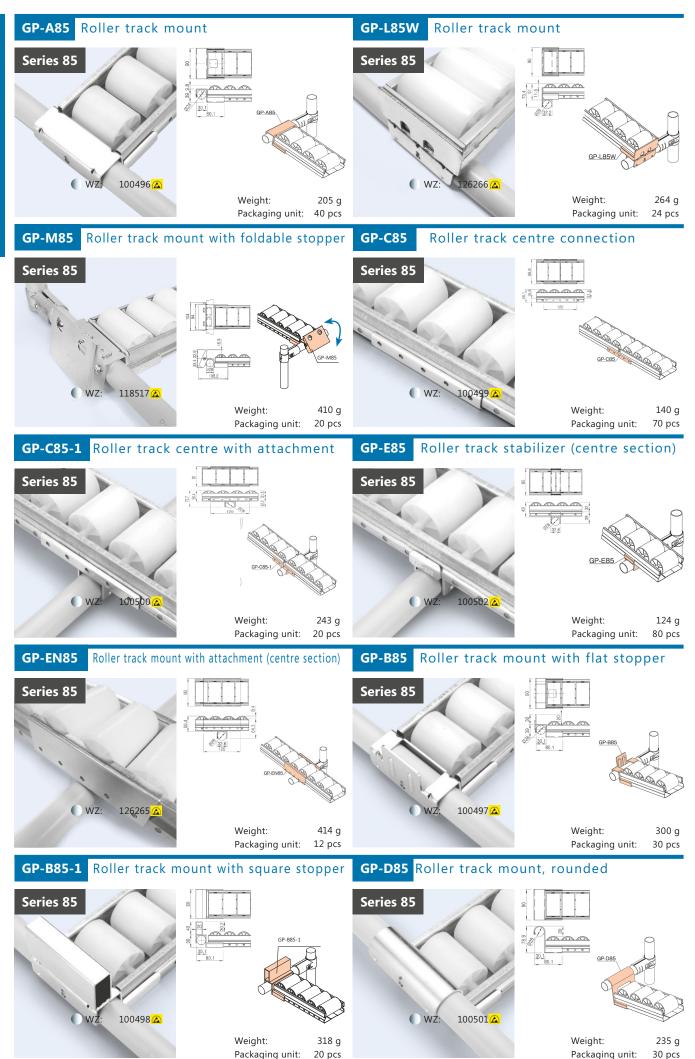






Weight:266 gPackaging unit:12 pcs





Cover caps for roller tracks

Cover caps



Grey: 115087

Height:

Weight:

Packaging unit: 400 pcs

34.5 mm

10 g

Cover caps



Accessories for roller tracks

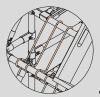




EWS Roller track stopper for plug-on

Accessories for roller track

- Metal stoppers for slowing down components and containers
- Prevents damage
- Steel bracket for easy manufacture of picking zone



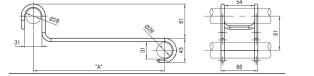
Standard types	Art. No.	Name	For roller tracks	Weight	Packaging unit
Y	100006 🖾	EWS-A	GP-4036A/B	56 g	240 pcs
	100007 🙆	EWS-B	GP-4050C	41 g	300 pcs
	100009 🖾	EWS-D	GP-4050D/UR4050	61 g	160 pcs
	100010 🖾	EWS-E	GP-3533B	36 g	360 pcs
	100076 🖾	EWS-F	GP-6033B/HA	85 g	170 pcs
	112632 🖾	EWS-J	GP-6016S	78 g	200 pcs
	120540 🖾	EWS-J2	GP-6016S (2 roller)	50 g	120 pcs
	120239 盆	EWS-K	GP-8543B/HA	140 g	90 pcs

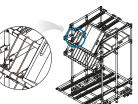
EWS Roller track stopper for plug-on

Special types	Art. No.	Name	For roller tracks	Weight	Packaging unit
	123465 🙆	EWS-AN	GP-4036A/B	41 g	250 pcs
	120237 🙆	EWS-GN	GP-4040A/B	56 g	250 pcs
	125265 盆	EWS-GN2	GP-4036A/B (2 roller)	19 g	200 pcs
	123717 🙆	EWS-MN	GP-8545B/HA	135 g	30 pcs
Special type for GP-R roller tracks	401224 🙆	EWSR4040	GP-R4040A/B	16 g	200 pcs
	401226 🙆	EWSR6016	GP-R6016S	18 g	200 pcs
	401225 🙆	EWSR6033	GP-R6033B/HA	21 g	200 pcs
	401227 🙆	EWSR8523	GP-R8523S	46 g	200 pcs
	401228 🙆	EWSR8545	GP-R8545B/HA	59 g	72 pcs

WR Steel bracket for pipe Ø28 mm







Art. No.	Name	"A" = Length	Weight	Packaging unit
100073 🙆	WR-200	235 mm	182 g	25 pcs
100074 🙆	WR-300	335 mm	230 g	80 pcs
100075 🙆	WR-400	435 mm	271 g	30 pcs

Lateral guides

Metal	204	Plastic	207
-------	-----	---------	-----



have everything under control.

LATERAL GUIDES

BeeWaTec offers you two types of lateral guides that can be selected depending on customer requirements.

Would you like to use **metal** die to increase loadbearing capacity or protect the part by using **plastic** lateral guides?

- Metal lateral guides
- Plastic lateral guides







Metal lateral guides

- Aluminium is electrically conductive 🛕
- Increase the load-bearing capacity of castor tracks by up to 100%
- Retain the load in the defined track
- Thus make it possible to clearly separate individual customer products

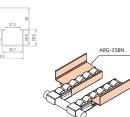
Lateral guide for series 35

• Directly on roller track or separately mountable

ARG-35BN Lateral guide for series 35



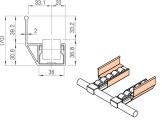
🥃 Aluminium: 125262 🙆



Material: Aluminium Length: 4 m Weight: 0.81 kg/m

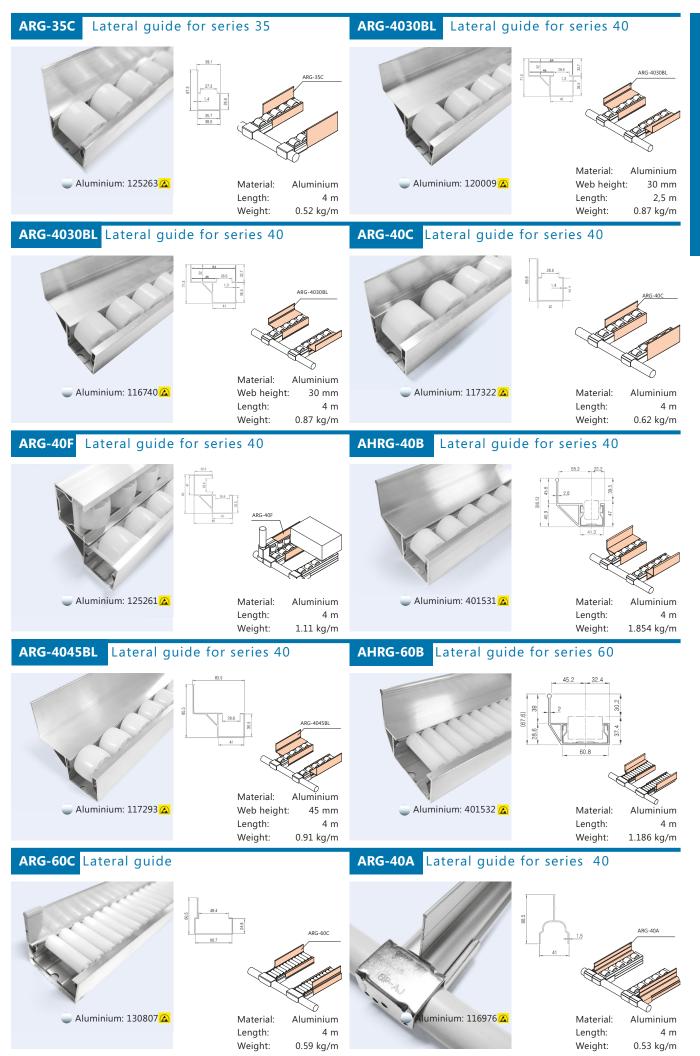


AHRG-35B

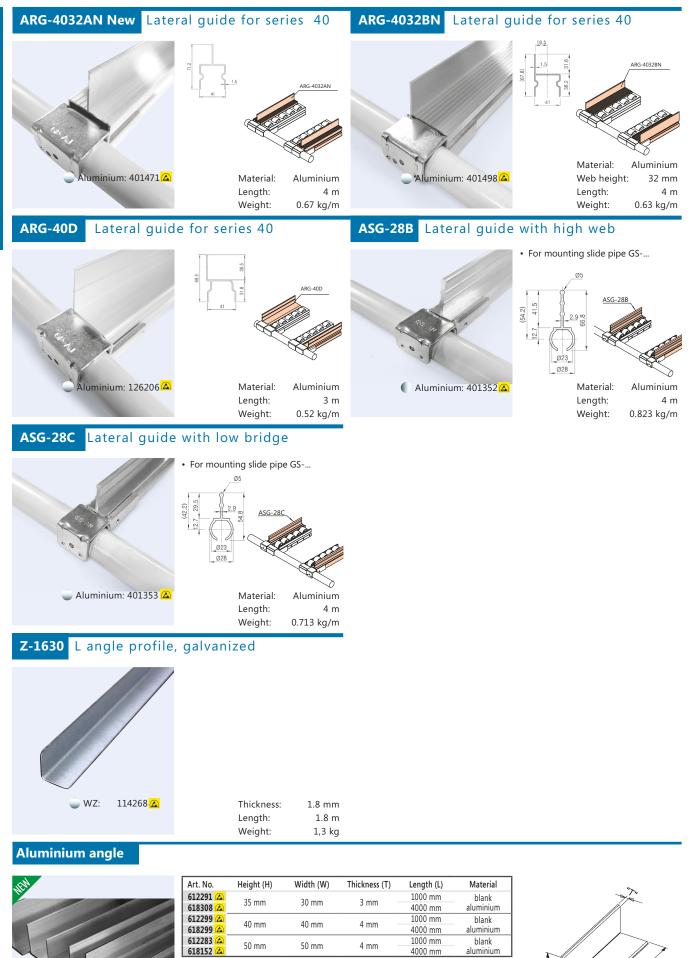


Material: Aluminium Length: 4 m Weight: 1,083 kg/m

Meta

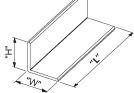


Meta



4000 mm

618152 🕰





Plastic lateral guides

- Protect the components
- Ensure that individual components are clearly separated
- Directly on roller track or separately mountable



208 | LATERAL GUIDES

		Тур	ALUMINIUM LATERAL GUIDE										PLASTIC LATERAL GUIDE		
		Name	ARG-35BN	ARG-35C	AHRG-35B	ARG-4030BL	ARG-4045BL	ARG-40C	ARG-40F	AHRG-40B	ARG-60C	AHRG-60B	RG-35B-G RB-35B-E	RG-40B-VGD RG-40B-E	RG-40B40-G RG-40B40-VG RG-40B40-E
		lmage	455	C.	Cores -	V	Care's	C	C.	P.			No contraction of the second s	VIII'	1555
		Material					Aluminiu	im						PVC plastic	
		Art. No.	125262	125263	401530	120009	117293	117322	125261	401531	130807	401532	112044 401688	132077 401318	128402 402110
		Lateral distance (measured from the centre of the roller track)	64 mm	18 mm	35 mm	60 mm	60 mm	20 mm	0 mm	65 mm	26 mm	48 mm	64 mm	60 mm	66 mm
		Suitable for corpus width	35 mm	35 mm	35 mm	40 mm	40 mm	40 mm	40 mm	40 mm	60 mm	60 mm	35 mm	40 mm	40 mm
		Name							·						
Roller tracks	axle	GP-3533	х	х	х								х		
	hed-in	GP-4036				х	х	х	x	х				x	х
	snd pi	GP-4050C	All 40 mm la	teral guides	can be used, s	ince this roller t	rack already has	an integrate	d edge guide	, there is norm	ally no need	for an additio	nal lateral guid	e.	
	Roller tracks with steel body and pushed-in axle	GP-4050D				х	х	х		х				x	Х
		GP-4025M				х	х	х	x	х				x	х
		UR-4050	All 40 mm la	teral guides	can be used, a	s this roller rail	is designed as a	n universal c	astor, you nor	mally do not r	need a latera	guide.			
		GP-6016									х	x			
		GP-6033									х	х			
	8	GP-7050BF													
		GP-8525M	There is no la	ateral quide t	for this roller t	track. An alterna	tive would be to	huild a late	ral quide out	of nines					
		GP-8543		ateral guide					iui guide out	or pipes.					
		GP-8550													
	Roller tracks with steel body and inserted axle	GP-R4040 (GI)				х	х	х	х	х				х	х
		GP-R4055C (GI)	All 40 mm lateral guides can be used, since this roller track already has an integrated edge guide, there is normally no need for an additional lateral guide.												
	Ro	GP-7050BF (GI)	There is no lateral guide for this roller track. An alternative would be to build a lateral guide out of pipes.												
	Roller tracks with aluminium body and inserted axle	UR-6067 (AL)	There is no lateral guide for this roller track. An alternative would be to build a lateral guide out of pipes.												

Overview - Which lateral guide fits which roller track?

200

| 209

Safety caps for lateral guides



210 | LATERAL GUIDES



Grey: 121117

Material:

Weight:

Packaging unit:

ABS

2 g

4000 pcs

Grey: 121116

Material: ABS Weight: 1 g Packaging unit: 4000 pcs

Packaging unit: 400

Compatibility safety caps with lateral guides

LATERAL GUIDES		ASC-V45	ASC-V30	ASC-H42R	ASC-H42L
ARG-40A			Х		
ARG-4032AN New			Х		
ARG-35BN	11111		Х	Х	Х
ARG-4030BL	Line		Х	Х	Х
ARG-4045BL	Card and a second secon	Х		Х	Х
ARG-35C			Х		
ARG-40C	CC		Х		
ARG-40D			Х		

Special concepts for roller conveyors

Pipe roller	212	Ball roller	(C)
conveyor		conveyor	213
CR rollers	214		



Holder for pipe roller track double

Cap for pipe roller track

Colour black

DP3210-Y Pipe for pipe roller track



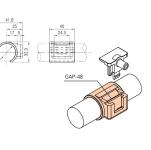
GAP-49

Pipe roller track

- Castor tracks when consistent castors are needed
- · Plastic components to realise just one track, if possible

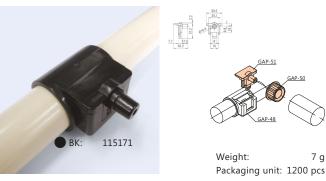
GAP-48 Holder for pipe roller track single





Weight: 13 g Packaging unit: 500 pcs

GAP-51 Support pipe roller track



RCP-32A Castor suitable for rope guide



BK:

GAP-50/52A

115174

Art.-No. Name Bearing 115175 GAP-50 without ball bearing 115172 GAP-52A with ball bearing

Weight:

Packaging unit: 400 pcs

0,810 kg/m

4 m

17 g

Weight:

Length:





Load-bearing castor

wing elements: • 1 x DP3210-Y • 2 x GAP-48 • 2 x GAP-50 or 2 x GAP-52A • 2 x GAP-51 • 2 x SB3916

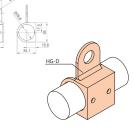
For a single load-bearing castor TR-32 you need the follo-In a double load-bearing arrangement you need the following elements:

17 g

•	1 x GAP-49
•	2 x GAP-50 or
	2 x GAP-52A
•	2 x GAP-51







Weight: 52 g Packaging unit: 100 pcs





10

80 g

4 m

8 g

10 pcs

black

plastic PA

214 | CR CASTORS



.

• Material: Plastic

Colour: white/black (ESD)

Weight:

CR castors

- for the realisation of any curve radius
- Space-optimised construction



• Material: Plastic • Colour: white/black (ESD)





51 g Packaging unit: 100 pcs Load per castor: 10 kg



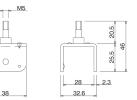
W: 113440

B: 113442 🛕





109787 🔼





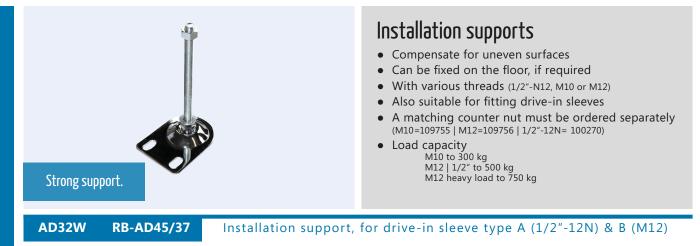
CASTORS & WHEELS

218
226
229
231
233
233
233

SPACE FOR NOTES		

Support feet

Support feet	218
--------------	-----



Ø Foot (D)

32 mm

RB-AD45
RB-AD37

	ubber attachment for AD32WA/AD32WB/AD32WC				-		
bber attachment for AD32WA/AD32WB/AD32WC		bber a					
	126389 😰 AD32WB-M 50 mm M12 150 pcs		attachment	for AD32W		VB/AD32	WC
00090 🙆 AD32WC 32 mm 100 mm 1/2*-12N 150 pcs							

Black

Length (L)

Thread

Rubber

Packaging unit

1500 pcs



AD50W AD50...-AC

		Art. No.	Name	Ø Foot (D)
	a	100091 🛕	AD50WA	50 mm
	7	100092 🛕	AD50WB	50 11111
		123277 🛕	AD50WA-AC	50 mm
		123278 🛕	AD50WB-AC	50 11111
0	and the second second	126392 🛕	AD50WB-M	50 mm
	0			

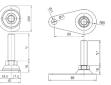
Art. No.

130851

Name

RB-AD37

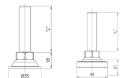
Art. No.	Name	Ø Foot (D)	Length (L)	Thread	Packaging unit
100091 🔼	AD50WA	50 mm	50 mm	1/2"-12N	100 pcs
100092 🔼	AD50WB	50 11111	100 mm	1/2 -1211	100 pcs
123277 🔼	AD50WA-AC	E0 mm	50 mm	1/2"-12N	60 pcc
123278 🔼	AD50WB-AC	50 mm	100 mm	1/2 -1211	60 pcs
126392 🔼	AD50WB-M	50 mm	100 mm	M12	70 pcs



AD35	AD40

Installation support, normale type

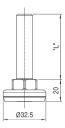
Art. No.	Name	Ø Foot (D)	Length (L)	Thread	Packaging unit	
126207 🔼	AD35SA	35 mm	25	50 mm	1/2"-12N	100 pcc
126208 🔼	AD35SB		100 mm	1/2 -12N	100 pcs	
126209	AD40SPA		50 mm	1/2"-12N	(0	
126210	AD40SPB	40 mm	100 mm	Rubber	60 pcs	



AD32R... Installation support, rubber type with foot Ø32 mm for drive-in sleeve type A & B

	HIH		
	MINU		
6		1	
16	-	1	/

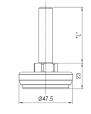
Art. No.	Name	Ø Foot (D)	Length (L)	Thread	Packaging unit	
100093	AD32RA		50 mm			
100094 🙆	AD32RA-E	32 mm 1/2"-12N	32 mm		1/2"-12N	150 pcs
100096	AD32RB		100 mm	(Type A) 100 mm	150 pcs	
100097 🙆	AD32RB-E					
126393	AD32RA-M	50	50 mm	50		
126394 🙆	AD32RA-EM	32 mm		10112	M12 (Type B)	150 pcs
126396	AD32RB-EM		100 mm	(.)po b)		



AD50 Installation support, rubber type with foot Ø50 mm



Art. No.	Name	Ø Foot (D)	Length (L)	Thread	Packaging unit	
100098	AD50RAN		F0 mm		00 maa	
100095 🙆	AD50RAN-E	50 mm	1/2"-12N	80 pcs		
100099	AD50RBN	50 mm	50 mm	100	(Type A)	(0 - - - -
100100 🔼	AD50RBN-E		100 mm		60 pcs	



AD30M... AD45M...

Installation support for drive-in sleeve M10 & M12



Art. No.	Name	Ø Foot (D)	Length	Thread	
107530 🔼	AD30M10-35	20	35 mm	M10	
107531 🛕	AD30M10-70	30 mm	70 mm	MITO	
118190	AD30M12-100	31 mm	100 mm	M12	
107528	AD45M10-35PA		35 mm	M10	Foot black painted
107529	AD45M10-70PA	45 mm	70 mm	IVILU	FOOL DIACK PAINTED
119168	AD45M12-100		100 mm	M12	

AD47M...

Installation support thread M10

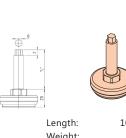
		A
		1
		1
	(- (-)	
0		

Art. No.	Name	Ø Foot (D)	Length	Thread	
107533 🔼	AD47M10-70	47 mm	70 mm	M10	
107532 🔼	AD60M10-70	60 mm	70 11111	IVITO	

AD50RAN-H Installation support 1/2"

AD60...



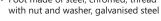


• Foot Ø50 mm with rubber insert

Length:100 mmWeight:120 gPackaging unit:60 pcs

BSF80 Adjustable foot M12 for ground mounting Foot made of steel, chromed, thread

115215 🔼

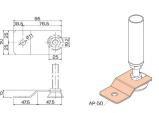




Thread length:150 mmWeight:35 gPackaging unit:150 pcs

AP-50 Ground mounting plate





Weight: 52 g Packaging unit: 220 pcs

220 | INSTALLATION SUPPORTS AND CASTORS

RF-01 Rubber for	oot			RF	- 02 Ru	ubber foot			
							35	Ø28 Ø27.4	
● ВК: 10	0082 0055 <mark>(</mark>		Weight: Packaging unit: 2	35 g 250 pcs		BK: 10008 BK: 40203		Weight: Packagi	i 11 g ng unit: 450 pcs
AD SM Floor m	ounting			AA	A-204	Foot eleme	nt made of	aluminium	n casting
 ₩Z: 10004 	41		Weight: Packaging unit:	180 g 20 pcs	Alu	uminium: 50101	• 2 x A		M6x15 parts: 2 x N06 1 x GS0810 R
Drive-in sleeves	Art. No.	Name	Ріре	Ø Pipe	inner Ø Pipe	Thread	Material	Ø Drive-in sleeve (A)	
	402672 402673 402745 609451 609452 609453 100101	BS20A A BS20B A BS20D A BC2809A A BC2809B A BC2809B A BC2809D A BC2809D A	D-coat pipe	28 x 0,7 mm 28 x 0,9 mm	24,0 mm 23,6 mm	1/2"-12N M12 x 1,75 M10 x 1,5 1/2"-12N M12 x 1,75 M12 x 1,75 M10 x 1,5 1/2"-12N	Steel	Ø24,1 mm Ø23,7 mm	
	100101 100102 100114 100107 100108	BC2810A* (A) BC2810D* (A) BC2820A (A) BC2820B (A)		28 x 1,0 mm 28 x 2,0 mm	23,4 mm 21,8 mm	M12 x 1,75 M10 x 1,5 1/2"-12N M12 x 1,75		Ø23,5 mm Ø21,9 mm	
	101664 100109 100110 109723 126382	BC2820D A BS07A A BS07B A BS07D A BS10A A	ECCO-Star pipe SUS pipe	28 x 0,7 mm	26,1 mm	M10 x 1,5 1/2"-12N M12 x 1,75 M10 x 1,5 1/2"-12N		Ø26,8 mm Ø26,3 mm	97 97 28
	402271 402744 100111 100112	BS10B (A) BS10D (A) BS12A (A) BS12B (A)	ECCO-Star pipe ECCO-Star pipe	28 x 0,9 mm 28 x 1,2 mm	25,7 mm 25,1 mm	M12 x 1,75 M10 x 1,5 1/2"-12N M12 x 1,75	Steel	Ø26,1 mm Ø25,5 mm	
	100112 100113 402672 402673 402745	BS12D (A) BS20A (A) BS20B (A) BS20D (A)	SUS pipe ECCO-Star pipe	28 x 2,0 mm	23,9 mm	M10 x 1,75 1/2"-12N M12 x 1,75 M10 x 1,5		Ø25,3 mm Ø24,1 mm	
	126211 126212 126213 126214	AS2807A AS2807A AS2807B AS2807B AC2809A AC2809A AC2809B AC2800B AC2809B AC2800B AC280B A	ECCO-Star pipe SUS pipe D-coat pipe	28 x 0,7 mm 28 x 0,9 mm	26,1 mm 23,4 mm	1/2"-12N M12 x 1,75 1/2"-12N M12 x 1,75	Aluminium	Ø26,5 mm Ø23,8 mm	927.6
•	117714 117715 402039 402040	BA2800A A BA2800B A BA280LA A BA280LB A	Aluminium profile	28 mm	20,3 mm	1/2"-12N M12 x 1,75 1/2"-12N M12 x 1,75	Aluminium Steel	20,4 mm 20,5 mm	
*Suitable also for aluminium pipe A	402041	BA280LD				M12 × 1,75			

For detailed information, please see the section " Drive-in sleeves" in the category " Joints made of steel or aluminium".

Castors & Wheels

Castors with mounting plate	VVVVVVVVVVVVV	Castors with threaded pin	229
Castors with back hole	231	Low-cost castors with mounting plate	233
Low-cost castors with threaded pin	233	Floor lock	233

SPACE FOR NOTES		



- Castors make units mobile, meaning that installation places can be flexibly changed and complete layouts modified
- Available for various load capacities and can be selected to suit application
- Available with plastic and aluminium wheel units with various covers



Movable, strong, height-adjustable ... The right castors for every task.

Castors variants and nomenclature

Α -	Р	-01	-75-	·L	- E	- TG -	R -	- 0
Manu- facturers	Assembly type	Panel size	Wheel Ø	Version of castor	Body	Coating	Bearing type	Standard/ special

Mount type:

- P Panel
- **R** Bolt hole
- **G** Threaded pin

Panel size bolt hole threade pin:

- **01** Panel size 1 (approx. 100x85mm) Hole pattern: 55/60 x 76/80 mm Ø 9 mm
- **03** Panel size 3 (approx. 140x110mm)
- Hole pattern: 75/80 x 105 mm Ø 11 mm
- **33** Panel size (140x110mm, 6 hole pattern)
- 40 Panel size (120 x40 mm) Hole spacing 80 mm
- 10 M10 thread
- 11 Bolt hole Ø11 mm
- 12 M12 thread
- 13 Bolt hole Ø13 mm

Castor version:

- LB Swivel castor with brake
- L Swivel castor without brake/lock
- **B** Fixed castor

Body:

- **E** Steel panel body (light version)
- M Steel panel body (medium version)
- **K** Steel panel body (heavy version)
- H Steel panel body (heavy duty version)
- **A** Apparatus body (bolt hole/panel)
- W Plastic body



Plain bearings (G)

Ball bearings(K)

A simple, reasonably priced, non/sensitive, and in normal situations maintenance-free bearing. Suitable for apparatus and transport equipment that is driven relatively infrequently and at low speeds.



Fulfil the highest requirements in terms of loading capacity, running characteristics (even at high speeds) and reliability. Are used principally in demanding transport equipment and heavy-duty castors.

Castor bearings (R)

Robust, hard-wearing bearing with very low rolling resistance; these have proved themselves principally in transport equipment. Greased with long-life grease when assembled, after which they are generally maintenancefree.

Coating: TG Thermo TAPU Thermo EVGP/EVGA Elastic s TOPU Thermo PA Polyami EXPU Polyuret HVG Solid ru

Thermoplastic rubber Thermoplastic PU Elastic solid rubber Thermoplastic PU Polyamide 6 Polyurethane yellow Solid rubber grey

Bearing type:

- R Castor bearing
- **G** Plain bearing
- K Ball bearing

Standard/special:

0 (standard)	Non conductive
E	Electrical conductive
SG	Traceless gray
SB	Blue without a trace
FS	Foot protection
ST	Stop-top
RI	Directional look
KOX	Spherical coating (convex)



Recommendation for castor selection

As help for selection of a suitable castor you will find several criteria and/or important cornerstones for orientation.

Application areas

Load/wheel	Castor	Mounting
< 60 kg	Bolt hole AR	Drive-in sleeve
> 60 kg	Threaded pin AG	Drive-in sleeve
< 150 kg	Panel AP	CM-200
< 250 kg	Panel AP	MCP-B
< 300 kg	Panel AP	MC-System

Choice of a suitable wheel coating

Comparison overview of individual coating types (see complete overview) and their properties:

Type of thread	Suitable for hard ground	Suitable for soft ground	Suitable for heavy load	Noise development	Rolling resistance
Solid rubber (HVG)	****	****	****	*****	*****
Thermoplastic rubber (TG)	****	****	****	****	****
Thermoplastic PU (TAPU)	****	****	****	****	****
Elastic solid rubber (EVGP/EVGA)	****	****	****	****	****
Thermoplastic PU (TOPU)	****	****	****	****	****
Polyamide (PA)	****	****	****	****	****
Polyurethane yellow (EXPU)	****	****	****	****	****

Legend

****	Excellent
****	Very good
****	Good
****	Satisfactory
****	Adequate
****	Inadequate

Wheel matrix

				Feature	2S						Exemp	lary case	of appl	ication			
Coating	Wheel diameter in mm	Bolt hole	Threaded pin	Fixing plate	Non-conductive	Conductive (ESD)	Light weight trolley	Picking rack	Heavy cart	Tugger train	Pallet platform	Light weight table / rack	Heavy table / rack	Installation into linear unit	Smooth floor	Uneven floor (tiles, threshold ect.)	Driving activity
	Ø75	х	х		х	х	x							х	х		>
TG	Ø100	х	х	х	х	х		х				х			х		>
	Ø125			х	х			х				х			х		>>
	Ø100	х	х	х	х	х		х				х			х		>
TAPU	Ø125			х	х	х		х				х			х		>>
	Ø160			х	х	х			х				х		х		>>
EVGP	Ø100			х	х			х				х				х	>>
EVGP	Ø125			х	х				х				х			х	>>>
EVGA	Ø160			х	х				х	х			х			х	>>>>
TODU	Ø125			х	х				х	х			х		х		>>>
TOPU	Ø200			х	х	х			х	х	х		х		х		>>>>
PA	Ø200			х	х				х		х		х		х		>>>>
EXPU	Ø160			х	х	х			х	х						х	>>>>

Overview of roles

Name		Image	Properties	Coating hardness:	Temperature resistance	Rolling resistance	Driving noise	Floor preserving
HVG	Wheels with high-quality solid rubber	0	 Made of high-quality solid rubber with plastic rim Pressed-on tyres High chemical resistance to many aggressive media, but not to oils Ambient temperatures above +30°C reduce the load capacity Colour: grey Non-marking, non-contact colouring 	80° Shore A	-20°C to +60°C	Good	Very good	Very good
TG	Wheels with thermoplas- tic rubber coating	0	 Made of highquality, thermoplastic rubber elastomer High driving comfort, low-noise operation Low castor und swivel Floor protecting, without trace, positive lock, non-detachable connection with the wheel body of polypropylene Silver grey colour (variant electrically conductive "E" black in colour) 	85° Shore A	−20° C to +60° C	Very good	Good	Good
TAPU	Wheels with thermoplas- tic PU tread	C	 Made of high-quality, thermoplastic polyurethane Low-noise operation, floor protecting Dark grey in colour Low rolling und swivel resistance Without trace, positive lock, non-detachable connection with the wheel body Wheel body Wheel body made of high-quality, tough polyamide 6, silver grey in colour 	94° Shore A	−25° C to +70° C briefly to +90° C	Very good	Good	Good
EGVP	Wheels with elastic solid rubber tyres	(0)	 Made of high/quality elastic solid rubber Low rolling resistance, smooth running quality Black in colour Vulcanised rubber tyres Wheel body made of high-quality, tough polyamide 	65° Shore A	-25° C to +80° C	Very good	Very good	Very good
EVGA	Wheels with elastic solid rubber tyres	1	 Made of high-quality elastic solid rubber Low rolling resistance, smooth running quality Black in colour Tyre cured on wheel body made of aluminium casting 		briefly to +100° C	, 500	, 500	, 9004
TOPU	Wheels with thermoplastic PU-tread	0	 Made of high-quality, thermoplastic polyurethane Traceless, free of contact discoloration Dark grey in colour Wheel body made of highquality, tough polyamide 6, natural white in colour 	94° Shore A	–25° C to +70° C briefly to +90° C	Very good	Good	Good
PA	Wheels with shockresis- tant Polyamide 6-tread	0	 Made of high-quality, break proof polyamide 6 Medium heavy version Very low rolling and swivel resistance Easy running on smooth floors Very abrasive resistant Natural white in colour 	70° Shore D	−25° C to +80° C	Excellent	Satisfactory	Satisfactory
EXPU	Wheels with polyurethane tread Besthane® Soft	For	 Made of high-quality, reaction cast polyurethane elastomer Blickle Besthane® Low-noise operation, very low rolling resistance Non damaging to floor, very resistant to abrasion Resistant to cutting and tearing Light brown in colour Without marks, without contact colouring Tyre cured on wheel body made of aluminium casting 	92° Shore A	−25° C to +70° C briefly to +90° C	Very good	Good	Good

Castors with fixing plate

Castors and wheels

TAPU 150 kg 375 kg 125 mm 150 mm 100x85 Ball bearing 100x97 AP-01-125-LE-TAPU-K-01 100596 AP-01-125-LE-TAPU-K-0 100533 AP-01-125-LE-TAPU-K-0 TAPU 300 kg 750 kg 160 mm 195 mm 140x110 Plain bearing 402528 AP-01-125-LE-TAPU-K-6-0 402529 AP-01-125-LE-TAPU-K-6-0 100631 AP-01-125-LE-TAPU-K-0 TAPU 300 kg 750 kg 160 mm 195 mm 140x110 Ball bearing 402528 AP-03-160-LE-TAPU-K-0 100631 AP-01-125-LE-TAPU-K-0 300 kg 750 kg 160 mm 195 mm 140x110 Ball bearing 116438 AP-03-160-LE-TAPU-K-0 116437 AP-03-160-LE-TAPU-K-0 10618 AP-03-160-LE-TAPU-K-0 300 kg 750 kg 160 mm 195 mm 140x110 Ball bearing 116356 AP-03-160-LE-TAPU-K-0 116437 AP-03-160-LE-TAPU-K-0 116437 AP-03-160-LE-TAPU-K-0 116437 AP-03-160-LE-TAPU-K-0 116437 AP-03-160-LE-TAPU-K-0 AP-03-160-LE-TAPU-K-0 IAD-37 AP-03-160-LE-TAPU-K-0 IAD-37 AP-03-160-LE-TAPU-K-0 IAD-37 AP-03-160-LE-TAPU-K-0 IAD-37 AP-03-160-LE-TAPU-K-0 IAD-37 AP-03-	 Wł Tre Lov Tra Co Typie Ha 	ure of the T neel centre m ad made of t v rolling and ckless lour of tread: cal applicat nd trolleys, sl ds that are m	ade of po hermopla swivellin grey/for ion: nelving a	olypropyl astic rubb g resistar ELF blacl nd structi	per nce k ures with	low							
Image: Second	Coating	Load capacity 4 km/h static	Wheel Ø			Bearing	ESD	S	wivel castor				Fixed castor
TG Tolg [17: kg Plain	TG	111 kg 275 kg	100 mm	125 mm	100v25			116560	AP-01-100-L-E-TG-G-0	116561	AP-01-100-LB-E-TG-G-0	116562	AP-01-100-B-E-TG-G-0
Control Lister Maintering Maintering <td>TG</td> <td>70 kg 175 kg</td> <td>100 11111</td> <td>123 11111</td> <td>100/03</td> <td></td> <td></td> <td>124092</td> <td>AP-01-100-L-E-TG-G-E</td> <td>117476</td> <td>AP-01-100-LB-E-TG-G-E</td> <td>131760</td> <td>AP-01-100-B-E-TG-G-E</td>	TG	70 kg 175 kg	100 11111	123 11111	100/03			124092	AP-01-100-L-E-TG-G-E	117476	AP-01-100-LB-E-TG-G-E	131760	AP-01-100-B-E-TG-G-E
Characteristic of the TAPU castor: • Wheel centre made of polyamide • Gene of thermoplastic polyurethane • Grade and Swivelling resistance • Golor of tradit dark grey/for ELF black Typical application: • World of Application: • World of Application: • Otor of tradit dark grey/for ELF black Typical application: • World of Application: • World of Application: • TapU 190 [375 lg 100 nm 125 nm 100x85 Plain bearing 10699 AP1104-ETAPU-60 10693 AP1104-ETAP	TG	125 kg 315 kg	125 mm	150 mm	100x85	bearing		116563	AP-01-125-L-E-TG-G-0	116564	AP-01-125-LB-E-TG-G-0	116565	AP-01-125-B-E-TG-G-0
• Wheel centre made of polyamide • Wheel centre made of thermoplastic polyurethane • Wheel centre made of polymanice • Wheel centre	TG	80 kg 200 kg		100	200/00			116863	AP-01-125-L-E-TG-G-E	116864	AP-01-125-LB-E-TG-G-E	116862	AP-01-125-B-E-TG-G-E
Costing Standy Function Write 10 height (mm) learning (SU) SUMVer Castor with brake/lock Fixed Castor TAPU 150 kg 375 kg 100 mm 125 mm 100x85 Plain bearing 100599 AP-01-100-LE-FAPU-6-0 100398 AP-01-100-LE-FAPU-6-0 100598 AP-01-100-LE-FAPU-6-0 100318 AP-01-100-LE-FAPU-6-0 100518 AP-01-125-LE-FAPU-6-0 1	 Ge Lov Co Typic Ha 	ntle on the fl w rolling and lour of tread: cal applicat nd trolleys, sl	oor swivellin dark gre ion: nelving a	g resistar y/for ELF nd structu	ice black ures with				<u>j</u>		C		Ċ
Image: constraint of the second sec	Coating	Load capacity 4 km/h static	Wheel Ø			Bearing	ESD	S	wivel castor				Fixed castor
TAPU 100 mm 125 mm 100 x85 Ball bearing I20 kg 325 kg 100 mm 125 mm 100 x85 Ball bearing I20 kg 375 kg 125 mm 150 mm 100 x85 Plain bearing 100 x85 Plain bearin	TAPU	150 kg 375 kg	100 mm	125 mm	100x85	Plain bearing		100599	AP-01-100-L-E-TAPU-G-0 ¹	100598	AP-01-100-LB-E-TAPU-G-O	100615	AP-01-100-B-E-TAPU-G-0
I 30 kg 325 kg I 00 I 00 I 00 kg 375 kg I 25 mm I 50 mm 100 kg 375 kg I 25 mm I 50 mm 100 kg 375 kg I 25 mm I 50 mm 100 kg 375 kg I 25 mm I 50 mm 100 kg 375 kg I 25 mm I 50 mm 100 kg 375 kg I 25 mm I 50 mm 100 kg 375 kg I 25 mm I 50 mm 100 kg 375 kg I 25 mm I 50 mm 100 kg 375 kg I 50 mm 140 k110 P interming 402528 AP -01 -125 - LE TAPU-K-0 100 kg 375 kg AP -01 -125 - LE TAPU-K-0 100 kg 375 kg AP -01 -125 - LE TAPU-K-0 100 kg 375 kg AP -01 -125 - LE TAPU-K-0 100 kg 375 kg AP -01 -125 - LE TAPU-K-0 100 kg 375 kg AP -01 -125 - LE TAPU-K-0 100 kg 375 kg AP -01 -125 - LE TAPU-K-0 106 kg 375 kg AP -01 -105 - LE TAPU-K-0 106 kg 375 kg AP -01 -105 - LE TAPU-K-0 106 kg 375 kg AP -01 -100 - LE TAPU-K-0 106 kg 375 kg 300 mm	ΤΑΡΙ	150 kg 375 kg	100 mm	125 mm	100x85	Ball bearing		116617	AP-01-100-L-E-TAPU-K-0 ¹	116618	AP-01-100-LB-E-TAPU-K-O	116619	AP-01-100-B-E-TAPU-K-O
TAPU 150 kg 375 kg 125 mm 150 mm 100x85 Ball bearing AP-01-125-LE-TAPU-K-0 100596 AP-01-125-LE-TAPU-K-E 100633 AP-01-125-LE-TAPU-K-E TAPU 300 kg 750 kg 160 mm 195 mm 140x110 Plain bearing 402528 AP-03-160-LE-TAPU-K-E 100621 AP-01-125-LE-TAPU-K-E 100634 AP-01-125-LE-TAPU-K-E 300 kg 750 kg 160 mm 195 mm 140x110 Plain bearing 100506 AP-03-160-LE-TAPU-K-0 402528 AP-03-160-LE-TAPU-K-0 100634 AP-03-160-LE-TAPU-K-0 300 kg 750 kg 160 mm 195 mm 140x110 Ball bearing 11633 AP-03-160-LE-TAPU-K-0 116437 AP-03-160-LE-TAPU-K-0 100537 AP-03-160-LE-TAPU-K-0 10634 AP-03-160-LE-TAPU-K-0 Veloel centre made of form vulcanised elastic solid rubber Interval AP-03-160-LE-TAPU-K-0 Interval AP-03-160-LE-TAPU-K-0 Interval AP-03-160-LE-TAPU-K-E Interval AP-03-160-LE-TAPU-K-E Interval AP-03-160-LE-TAPU-K-E Interval Interval AP-03-16		130 kg 325 kg	100	110		ban boannig		110249	AP-01-100-L-E-TAPU-K-E ¹	100619	AP-01-100-LB-E-TAPU-K-E	109986	АР-01-100-В-Е-ТАРИ-К-Е
TAPU 150 kg 375 kg 125 mm 100 x85 Ball bearing Z 100620 AP-01-125-LE-TAPU-KE ¹ 100621 AP-01-125-LE-TAPU-KE 100634 AP-01-125-BE-TAPU-KE TAPU 300 kg 750 kg 160 mm 195 mm 140x110 Plain bearing 402528 AP-03-160-LE-TAPU-Ke ¹ 100621 AP-01-125-LE-TAPU-Ke 100634 AP-01-125-BE-TAPU-Ke 300 kg 750 kg 160 mm 195 mm 140x110 Ball bearing 116438 AP-03-160-LE-TAPU-Ke ² 116355 AP-03-160-LB-ETAPU-Ke 116437 AP-03-160-LB-ETAPU-Ke 260 kg 550 kg 160 mm 195 mm 140x110 Ball bearing 116438 AP-03-160-LE-TAPU-Ke ² 116355 AP-03-160-LB-ETAPU-Ke 116437 AP-03-160-LB-ETAPU-Ke Volation reade from vulcanised elastic solid rubber 100818 AP-03-160-LE-TAPU-Ke ² 116355 AP-03-160-LB-ETAPU-Ke ² 116355 AP-03-160-LB-ETAPU-Ke ² 116357 AP-03-160-LB-ETAPU-Ke ² Volation reade from vulcanised elastic solid rubber 100818 Inform vulcanised elastic solid rubber	TAPU	150 kg 375 kg	125 mm	150 mm	100x85	Plain bearing		100609			AP-01-125-LB-E-TAPU-G-O		AP-01-125-B-E-TAPU-G-0
300 kg 750 kg 260 kg 650 kg 160 mm 195 mm 140x10 Ball bearing 260 kg 650 kg 116438 AP-03:160-LE-TAPU-K-0 ² 116439 AP-03:160-LB-ETAPU-K-0 116437 AP-03:160-B-E-TAPU-K-0 Characteristic of the EVGP castor: • Wheel centre made of polyamide • Tread made from vulcanised elastic solid rubber • Low rolling resistance • Smooth running quality • Quiet running • Tread colour: -SB = non-marking blue, -SG = non-marking struc- tures with medium loads that are moved frequently Swivel castor Image: Colour: -SB = non-marking blue, -SG = non-marking and struc- tures with medium loads that are moved frequently Swivel castor Swivel castor Image: Colour: -SB = non-marking blue, -SG = non-marking and struc- tures with medium loads that are moved frequently Image: Colour: -SB = non-marking blue, -SG = non-marking and struc- tures with medium loads that are moved frequently Image: Colour: -SB = non-marking blue, -SG = non-marking and struc- tures with medium loads that are moved frequently Image: Colour: -SB = non-marking blue, -SG = non-marking and struc- tures with medium loads that are moved frequently Image: Colour: -SB = non-marking blue, -SG = non-marking and struc- tures with medium loads that are moved frequently Image: Colour: -SB = non-marking and struc- tures with medium loads that are moved frequently Image: Colour: -SB = non-marking and struc- tures with medium loads that are moved frequently Image: Colour: -SE = non-marking and struc- tures with medium loads that are moved frequently Image: Colour: -SE = non-marking and struc- tures with medium loads that are moved frequently Image: Col	TAPU	150 kg 375 kg	125 mm	150 mm	100x85	Ball bearing							
TAPU 160 mm 195 mm 140x110 Ball bearing 116356 AP-03-160-LE-TAPU-K-E ² 116355 AP-03-160-LE-TAPU-K-E 116357 AP-03-160-B-E-TAPU-K-E Characteristic of the EVGP castor: • Wheel centre made of polyamide • Tread made from vulcanised elastic solid rubber • Low rolling resistance • Smooth running quality • Quiet running • Control of polyamide • Control of polyami	TAPU	300 kg 750 kg	160 mm	195 mm	140x110	Plain bearing		402528	AP-03-160-L-E-TAPU-G-0 ²	402529	AP-03-160-LB-E-TAPU-G-0	100618	AP-03-160-B-E-TAPU-G-0
260 kg 650 kg 260 kg 625 kg 250 kg 625 kg 150 mm 100 x85 200 kg 200 kg 200 kg 625 kg 125 mm 150 mm 100 x85 200 kg 200 kg 625 kg 125 mm 150 mm 100 x85 200 kg 640 kg 210 kg 640 kg 210 kg 625 kg 120 mm 150 mm 100 x85 200 kg 640 kg 4P-01-125-LM-EVGP-R-SB 1 120 kg 4P-01-125-LB-EVGP-R-SB 1 120 kg 4P-01-125-LB-EVGP-R-SB 1 120 kg 4P-01-125-LB-EVGP-R-SG 1 120 kg 4P-01-125-LB-EVGP-R-SG 1 120 kg 4P-01-125-LB-M-EVGP-R-SG 1 12	TADU	300 kg 750 kg	100	105	140.110	Dell hereiter		116438	AP-03-160-L-E-TAPU-K-0 ²	116439	AP-03-160-LB-E-TAPU-K-O	116437	AP-03-160-B-E-TAPU-K-0
 Wheel centre made of polyamide Tread made from vulcanised elastic solid rubber Low rolling resistance Smooth running quality Quiet running Tread colour: -SB = non-marking blue, -SG = non-marking grey, -O = black Typical application: Typical standard castor for hand trucks, shelving and structures with medium loads that are moved frequently Coating Load capacity Wheel Ø Design height [mm] Bearing EVGP 150 kg 375 kg 100 mm 125 mm 100 mm 125 mm 100 mm 100x85 EVGP 250 kg 625 kg 125 mm 150 mm 100x85 Ball bearing Ball bearing 114996 AP-01-125-LM-EVGP-R:S6 11497 AP-01-125-LB-M-EVGP-R:S6 114995 AP-01-125-LB-M-EVGP-R:S6 114995 AP-01-125-LM-EVGP-R:S6 114995 AP-01-125-LM-EVGP-R:S6 114995 AP-01-125-LB-M-EVGP-R:S6 114995	IAPU	260 kg 650 kg	160 mm	195 mm	140X110	ball bearing		116356	AP-03-160-L-E-TAPU-K-E ²	116355	AP-03-160-LB-E-TAPU-K-E	116357	AP-03-160-B-E-TAPU-K-E
Coating Coating Wheel Ø height [mm] Bearing Swivel castor with brake/lock Fixed castor EVGP 150 kg 375 kg 100 mm 125 mm 100x85 [Castor bearing] 120329 AP-01-100-LE-EVGP-R-SB 120330 AP-01-100-LB-E-EVGP-R-SB 120331 AP-01-100-B-E-EVGP-R-SB 120331 AP-01-120-B-B-EVGP-R-SB 120331 AP-01-120-B-B-EVGP-R-SB 120331 AP-01-120-B-B-EVGP-R-SB 120331 AP-01-120-B-B-EVGP-R-SB 120331 AP-01-120-B-B-EVGP-	 Wh Tre Lov Sm Qu Tre kin Typic Typic 	eel centre m ad made fror v rolling resis ooth running iet running ad colour: -S g grey, -O = cal applicat vical standard	ade of po m vulcani stance g quality B = non- black ion: castor for	olyamide ised elasti marking	ic solid ru blue, -SG cks, shelvi	6 = non-ma ing and stru							
EVGP 150 kg 375 kg 100 mm 125 mm 100 kg 100 kg 125 mm 100 kg 125855 AP-01-100-LE-EVGP-R-SG ¹ 125855 AP-01-100-LE-EVGP-R-SG ¹ 125855 AP-01-100-LE-EVGP-R-SG ¹ 125855 AP-01-100-LE-EVGP-R-SG ¹ 125855 AP-01-125-LB-EVGP-R-SG ¹ 125855 AP-01-125-LB-EVGP-R-SG ¹ 125855 AP-01-125-LB-EVGP-R-SG ¹ 120845 AP-01-125-LB-WEVGP-R-SG ¹ 120845 AP-01-125-LB-WEVGP-R-SG ¹ 114995 AP-01-125-LB-WEVGP-K-SG ¹ <td>Coating</td> <td>Load capacity 4 km/h static</td> <td>Wheel Ø</td> <td></td> <td></td> <td>Bearing</td> <td></td> <td>S</td> <td>wivel castor</td> <td></td> <td></td> <td></td> <td>Fixed castor</td>	Coating	Load capacity 4 km/h static	Wheel Ø			Bearing		S	wivel castor				Fixed castor
EVGP 250 kg 625 kg 125 mm 150 mm 100x85 Ball bearing Ball bearing Ba	EVGP	150 kg 375 kg	100 mm	125 mm	100x85	Castor bea	ring						AP-01-100-B-E-EVGP-R-SB AP-01-100-B-E-EVGP-R-SG
Ball bearing	EVGP	250 kg 625 kg	125 mm	150 mm	100x85								AP-01-125-B-M-EVGP-R-SB AP-01-125-B-M-EVGP-K-SG
	EVGA	400 kg 1000 kg	160 mm	195 mm	140x110	Ball beari	ng						AP-03-160-B-M-EVGP-K-0

Note on directional lock: With a directional lock to be fitted separately, most swivel castors with mounting plate (without brake) can also be used as fixed castors by actuating the directional lock. The fixing screw may need to be 5mm longer. ¹) Directional locking device RI-03.01 (114972) |²) Directional locking device RI-03.03 (114138) |³) Directional locking device RI-05.01 (115211) |⁴) Directional locking device RI-05.03 (113092)

Cast	tors with f	ixing p	olate								
 Wł Tre No Co Typi 	racteristic of neel centre m ad made of ti on-marking ar lour of tread: cal applicati r trolleys and	ade of po hermopla nd contac dark grey	olyamide astic poly t discolo y	urethane uration-f							
Coating	Load capacity 4 km/h static	Wheel Ø	Design height	Panel [mm]	Bearing	9	Swivel castor		Swivel castor ith brake/lock		Fixed castor
TOPU	350 kg 875 kg	125 mm			Plain bearing	100589	AP-01-125-L-K-TOPU-G-O ³	100592	AP-01-125-LB-K-TOPU-G-O	100595	AP-01-125-B-K-TOPU-G-0
 Wł de ver ver Co Typi For 	racteristic of neel centre an throughout ry low rolling ry abrasion re lour of tread: cal applicati r trolleys and in trolley and	and swive sistant natural v on: trolleys th lifted for	nade of u elling res vhite hat are p travellin	istance ushed int g							
Coating	Load capacity 4 km/h static	Wheel Ø	Design height	Panel [mm]	Bearing	S	Swivel castor		Swivel castor ith brake/lock	l	Fixed castor
PA	400 kg 1000 kg	200 mm	235 mm	140x110	Ball bearing	116660	AP-03-200-L-M-PA-K-0 ⁴	116661	AP-03-200-LB-M-PA-K-O	116662	AP-03-200-B-M-PA-K-O
 Wł Tre No Qu Lov Ge Vei Co Typi 	racteristic of meel centre ma ad made of h nn-marking ar niet running w rolling resis ntle on the flo ry abrasion-re lour of tread: cal applicati e for tugger t	ade of alu igh-quali ad contac tance cor esistant light bro	uminium ity polyu tt discolo wn	rethane e uration-f	ree				Standard (0)	9	
Coating	Load capacity 4 km/h static	Wheel Ø	Design height	Panel [mm]	Bearing		Swivel castor		Swivel castor /ith brake/lock		Fixed castor
EXPU	400 kg 1000 kg	160 mm	195 mm	140x110		100654	AP-03-160-L-M-EXPU-K-0	100655	AP-03-160-LB-M-EXPU-K-O	100656	AP-03-160-B-M-EXPU-K-0
EXPU	400 kg 1000 kg				Ball bearing			608256	AP-03-160-LB-M-EXPU-K-ST ⁴		
EXPU	750 kg 1875 kg	160 mm	202 mm	140x110		115473	AP-03-160-L-H-EXPU-K-O	115474	AP-03-160-LB-H-EXPU-K-O	115475	AP-03-160-B-H-EXPU-K-0

Application example directional locking device



-O (without special version)

Possible special versions:

-RI (Directional lock possible only for swivel castor without brake/lock), -FS (Foot protection available upon request), -E (electrically conductive version), -SG (grey without trace), -SB (blue without trace)

Note on directional lock: With a directional lock to be fitted separately, most swivel castors with mounting plate (without brake) can also be used as fixed castors by actuating the directional lock. The fixing

screw may need to be 5mm longer. ¹) Directional locking device RI-03.01 (114972) |²) Directional locking device RI-03.03 (114138) |³) Directional locking device RI-05.01 (115211) |⁴) Directional locking device RI-05.03 (113092)

Castors with mounting plate especially for mounting on aluminium square profiles

Characteristic of the TG castor:

- Wheel centre made of polyamide
- Tread made of thermoplastic rubber
 Low rolling and swivelling resistance
- Trackless
- · Colour of tread: grey / black with ELF

Typical application:

• Hand trolleys, shelving and structures with aluminium square profiles with 40x40mm and 45x45mm spacing for medium loads.





Coating	Load capacity 4 km/h static	Wheel Ø	Design height	Panel [mm]	Bearing	ESD	Swivel castor		Swivel castor ith brake/lock	F	Fixed castor
TG	100 kg 250 kg	80 mm	111 mm	120x40	Ball			604566	AP-40-80-LB-M-TG-K-0	604572	AP-40-80-B-K-TG-K-O
TG	65 kg 165 kg	80 mm	TTT WW	120X40	bearing			604569	AP-40-80-LB-M-TG-K-E	618092	AP-40-80-B-K-TG-K-E
TG	110 kg 275 kg	100 mm	136 mm	120x40	Ball			604567	AP-40-100-LB-M-TG-K-0	604574	AP-40-100-B-K-TG-K-0
TG	70 kg 175 kg	100 mm	120 1000	120X40	bearing			604570	AP-40-100-LB-M-TG-K-E	618093	AP-40-100-B-K-TG-K-E
TG	120 kg 300 kg	125 mm	101	120.40	Ball			604568	AP-40-125-LB-M-TG-K-0	604575	AP-40-125-B-K-TG-K-0
TG	80 kg 200 kg	172 WW	161 mm	120x40	bearing			604571	AP-40-125-LB-M-TG-K-E	618094	AP-40-125-B-K-TG-K-E

Cast	ors with (6-hole	mount	ing pla	te especially	y for t	he Y-system:				
 Scr Mo Mo mo Dif Typic Hat 	acteristics of ew-on plate of unting with of unting also p unting comp ferent types of cal application d trolleys, sh ds that are m	with 6 hc CM-100 d possible v ponents of tyre ion: nelving a	or CM-20 vith all ot	00 variant her whee ures with	.! [']					4	
Coating	Dating Load capacity Wheel Ø Design Panel [mm] Bearing Swivel cast								Swivel castor ith brake/lock	ĺ	Fixed castor
TAPU							AP-33-125-L-K-TAPU-K-O	604778	AP-33-125-LB-K-TAPU-K-O	604780	AP-33-125-B-K-TAPU-K-O
EVGP	250 kg 625 kg 125 mm 155 mm 140x110 Ball bearing 605472 AP-33-125-L-K-EVGP					AP-33-125-L-K-EVGP-K-O	605474	AP-33-125-LB-K-EVGP-K-O	605475	AP-33-125-B-K-EVGP-K-O	

Castors with thread pin

Characteristic of the TG castor:

- Wheel centre made of polypropylene
- Tread made of thermoplastic rubber
- Low rolling and swivelling resistance
- Trackless
- Colour of tread: grey/for ELF black

Typical application:

- Hand trolleys, shelving and structures with low loads that are moved occasionally
- Only suitable to a limited extent for "step and sleeper crossings"





Coating	Load capacity 4 km/h static	Wheel Ø	Design height	Threaded pin	Bearing	ESD		Swivel castor		Swivel castor ith brake/lock
TG	75 kg 190 kg	75 mm	98 mm	M10x30	Plain bearing		100637	AG-10-75-L-A-TG-G-0	100638	AG-10-75-LB-A-TG-G-0
10	50 kg 125 kg	/5 11111	90 11111	IVITOX20	Plain Dearing		100641	AG-10-75-L-A-TG-G-E	100642	AG-10-75-LB-A-TG-G-E
TG	75 kg 190 kg	75 mm	98 mm	M10x30	Ball bearing		110216	AG-10-75-L-A-TG-K-0	110218	AG-10-75-LB-A-TG-K-0
10	50 kg 125 kg	/5 11111	90 11111	IVITOX20	ball bearing		122783	AG-10-75-L-A-TG-K-E	122784	AG-10-75-LB-A-TG-K-E
TG	70 kg 175 kg	100 mm	121 mm	M10x30			109773	AG-10-100-L-A-TG-G-0	109774	AG-10-100-LB-A-TG-G-0
10	60 kg 150 kg	100 11111	121 11111	IVILUXSU	Plain bearing		124279	AG-10-100-L-A-TG-G-E	124270	AG-10-100-LB-A-TG-G-E
TG	110 kg 275 kg	100 mm	133 mm	M12x30			116511	AG-12-100-L-A-TG-G-0	116512	AG-12-100-LB-A-TG-G-0
TG	110 kg 275 kg	100 mm	133 mm	M12x30	Ball bearing		116513	AG-12-100-L-A-TG-K-0	116514	AG-12-100-LB-A-TG-K-O
10	70 kg 175 kg	100 11111	100 1000	IVIIZXOU	Dali Dearing		117029	AG-12-100-L-A-TG-K-E	117028	AG-12-100-LB-A-TG-K-E
TG	120 kg 300 kg	125 mm	158 mm	M12x30	Diain bearing		116515	AG-12-125-L-A-TG-G-0	116516	AG-12-125-LB-A-TG-G-0
10	80 kg 200 kg	123 11111	130 11111	IVIIZXOU	Plain bearing		117349	AG-12-125-L-A-TG-G-E	117348	AG-12-125-LB-A-TG-K-E
TG	120 kg 300 kg	125 mm	158 mm	M12x30	Pall boaring		118389	AG-12-125-L-A-TG-K-0	117733	AG-12-125-LB-A-TG-K-0
10	80 kg 200 kg	172 WW	T20 [[][]]	IVI12X30	Ball bearing		125075	AG-12-125-L-A-TG-K-E	120492	AG-12-125-LB-A-TG-K-E

Characteristic of the TAPU castor:

- Wheel centre made of polyamide
- Tread made of thermoplastic polyurethane
- · Gentle on the floor
- Low rolling and swivelling resistance
- Colour of tread: dark grey/for ELF black

Typical application:

- Hand trolleys, shelving and structures with medium loads that are moved occasionally
- Only suitable to a limited extent for "step and sleeper crossings

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Coating	Load capacity 4 km/h static	Wheel Ø	Design height	Threaded pin	Bearing	ESD		Swivel castor	v	Swivel castor vith brake/lock
TAPU	120 kg 300 kg	100 mm	133 mm	M12x30	Plain bearing		116521	AG-12-100-L-A-TAPU-G-O	116522	AG-12-100-LB-A-TAPU-G-O
IAPU	120 Kg 500 Kg	100 mm	122 11111	IVIIZXSU	Ball bearing		116519	AG-12-100-L-A-TAPU-K-O	116520	AG-12-100-LB-A-TAPU-K-O
TAPU	70 kg 175 kg	100 mm	133 mm	M12x30	Ball bearing		116955	AG-12-100-L-A-TAPU-K-E	116956	AG-12-100-LB-A-TAPU-K-E
IAPU	120 kg 300 kg	125 mm	158 mm	M12x30	Plain bearing		116525	AG-12-125-L-A-TAPU-G-0	116526	AG-12-125-LB-A-TAPU-G-0
TAPU	80 kg 200 kg	125 mm	158 mm	M12x30	Plain bearing		117349	AG-12-125-L-A-TAPU-G-E	117348	AG-12-125-LB-A-TAPU-G-E
TAPU	120 kg 300 kg	125 mm	158 mm	M12x30	Ball bearing		116523	AG-12-125-L-A-TAPU-K-0	116524	AG-12-125-LB-A-TAPU-K-0
TAPU	80 kg 200 kg	125 mm	158 mm	M12x30	Ball bearing		125075	AG-12-125-L-A-TAPU-K-E	120492	AG-12-125-LB-A-TAPU-K-E

-O (without special version)

Castors with threaded pin

Characteristic of the EVGP castor:

- · Wheel centre made of polyamide
- Tread made from vulcanised elastic solid rubber
- Low rolling resistance
- Smooth running quality
 Quiet running
 Tread colour: -SB = non-marking blue, -SG = non-marking grey, -O = black

Typical application:

• Typical standard castor for hand trucks, shelving and struc-tures with medium loads that are moved frequently.

Coating	Load capacity 3 km/h static	Wheel Ø	Design height	Threaded pin	Bearing		Swivel castor		Swivel castor vith brake/lock
EVGP	150 kg 375 kg	100 mm	125 mm	M12	Castor bearing	120572*	AG-12-100-L-E-EVGP-R-SB*	120573 ²	AG-12-100-LB-E-EVGP-R-SB*

* Pre-assembled screw in the back hole

-0 (without special version)

Possible special versions:

-RI (Directional lock possible only for swivel castor without brake/lock), -FS (Foot protection available upon request), -E (electrically conductive version), -SG (grey without trace), -SB (blue without trace)

Castor with bolt hole

Characteristic of the TG castor:

- Wheel centre made of polypropylene
- Tread made of thermoplastic rubber
- Low rolling and swivelling resistance
- Trackless
- Colour of tread: grey/for ELF black

Typical application:

- Hand trolleys, shelving and structures with low loads that are moved occasionally
- Only suitable to a limited extent for "step and sleeper crossings







Coating	Load capacity 3 km/h static	Wheel Ø	Design height	Bold hole [mm]	Bearing	ESD	S	wivel castor		Swivel castor rith brake/lock	F	Fixed castor
TG	75 kg 190 kg	75 mm	98 mm	11 mm	Diain boaring		100577	AR-11-75-L-A-TG-G-0 ¹	100582	AR-11-75-LB-A-TG-G-0 ¹	100640	AR-11-75-B-A-TG-G-0 ³
10	50 kg 125 kg	/5 11111	90 11111	TT (IIIII)	Plain bearing		100579	AR-11-75-L-A-TG-G-E ¹	100584	AR-11-75-LB-A-TG-G-E ¹	110245	AR-11-75-B-A-TG-G-E ³
TG	60 kg 150 kg	100 mm	121 mm	11 mm	Plain bearing		116529	AR-11-100-L-A-TG-G-0 ²	100585	AR-11-100-LB-E-TG-G-0 ¹		
10	110 kg 275 kg	TOO IIIIII	133 mm	TT [[][[]	Fiain Dearing		100581	AR-11-100-L-A-TG-G-E ¹	100586	AR-11-100-LB-A-TG-G-E ¹		

For fastening see footnote

Characteristic of the TG castor as a double castor:

- Wheel centre made of polyamide
- Tread made of thermoplastic rubber with low rolling resistance
- Very low swivelling resistance
 Tracklass
- Trackless
- Colour of tread: grey/dark grey with ELF

Typical application:

- Handcarts and structures with height adjustment, which can be swivelled easily and have a stable stand thanks to the double wheel.
- Only suitable to a limited extent for crossing steps and thresholds



Coating	Load capacity 3 km/h static	Wheel Ø	Design height	Bold hole [mm]	Bearing	ESD	Swivel castor		Swivel castor ith brake/lock	Fixed castor
TG	100 kg 250 kg	75 mm	98 mm	10,2 mm	Ball bearing			401643	AR-11-75-LB-W-TG-K-E-DR	
										For fastening see footnote

Characteristic of the TAPU castor:

- Wheel centre made of polyamide
- Tread made of thermoplastic polyurethane
- Gentle on the floor
- Low rolling and swivelling resistance
- Colour of tread: dark grey/for ELF black

Typical application:

- Hand trolleys, shelving and structures with medium loads that are moved occasionally
- Only suitable to a limited extent for "step and sleeper crossings"

Coating	Load capacity 3 km/h static	Wheel Ø	Design height	Bold hole [mm]	Bearing	ESD	Swivel castor			Swivel castor rith brake/lock	Fixed castor
TAPU	120 kg 200 kg	100 mm	122 mm		Plain bearing		100575	AR-13-100-L-A-TAPU-G-0 ²	100576	AR-13-100-LB-A-TAPU-G-0 ²	
TAPU	120 kg 300 kg	100 mm	T22 [[][[]	13 mm	Ball bearing		117842	AR-11-100-L-A-TAPU-K-E ²	117073	AR-11-100-LB-A-TAPU-K-E ²	

For fastening see footnote

-O (without special version)

Possible special versions:

-RI (Directional lock possible only for swivel castor without brake/lock), -FS (Foot protection available upon request), -E (electrically conductive version), -SG (grey without trace), -SB (blue without trace)

The bolt hole castors are fastened with different screws depending on the hole diameter.

The AR-11-... castor has a hole diameter of 11 mm and is screwed into the corresponding M10 impact bush with an M10 screw (ref.: SI1030, art. no.: 100248). The AR-13-... castor has a hole diameter of 13mm and is screwed into the corresponding M12 impact bush with an M12 screw (Ref.: SI1230, Art. No.:110171).



1) Aluminium expander possible, 20-25 mm, all DP pipes = E02 (115023), aluminium expander possible, 25-30 mm, all SUS/ECCO pipes = E03 (114916) |²) Aluminium expander possible, 20-25 mm, all DP pipes = E12 (114296), aluminium expander possible, 25-30 mm, all SUS/ECCO pipes = E13 (115024) |³) for use with MC-RJB (118494)

Castors with back hole

 Whe de th very very Colo Typica For t 	 Characteristic of the PA castor: Wheel centre and tread made of unbreakable polyamide throughout very low rolling and swivelling resistance very abrasion resistant Colour of tread: black Typical application: For trolleys, especially for the corner attachment 603976 ACEA-G28A" 								
Coating	Load capacity 3 km/h static	Wheel Ø	Design height	Bold hole [mm]	Bearing	5	Swivel castor		Swivel castor with brake/lock
PA	120 kg 300 kg	80 mm	108 mm	13 mm	Plain bearing	605056	AR-13-80-L-M-PAS-G-O		
 Whe Tread Low Smood Quie Tread king Typica Typica 	PA 120 kg 300 kg 80 mm 108 mm 13 mm Plain bearing 605056 AR-13-80-L-M-PAS-G-0 Characteristic of the EVGP castor: • Wheel centre made of polyamide • Tread made from vulcanised elastic solid rubber • Low rolling resistance • Smooth running quality • Quiet running • Tread colour: -SB = non-marking blue, -SG = non-marking grey, -O = black Typical application: • Typical standard castor for hand trucks, shelving and structures with medium loads that are moved frequently.								For fastening see footnote
Coating	Load capacity 3 km/h static	Wheel Ø	Design height	Bold hole [mm]	Bearing	S	Swivel castor		Swivel castor with brake/lock
EVGP	150 kg 375 kg	100 mm	AR-13-100-L-K-EVGP-R-SB	614254	AR-13-100-LB-K-E-EVGP-R-SB				

For fastening see footnote

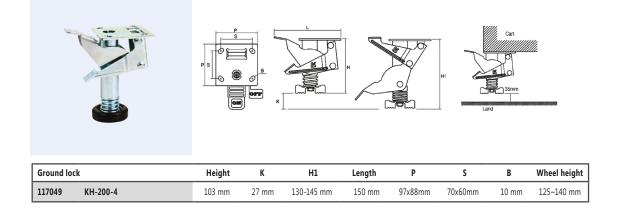
For	Y-applicat	tion								
 Wh Treat Trade Quite Cole Typic For 	ure of the H eel centre ma ad made of so ckless et running our of tread: cal applicati buildings with priority	ade of un olid rubb grey on:	breakabl er ads, wher	e running) comfort is					
Coating	Load capacity 3 km/h static	Wheel Ø	Design height	Bold hole [mm]	Bearing	S	wivel castor		Swivel castor with brake/lock	
HVG	60 kg 150 kg	75 mm	98 mm	11 mm	Plain bearing	604766	AR-11-75-L-E-HVG-G-O	604767	AR-11-75-LB-E-HVG-G-O	
									For fastening see footnote	

The bolt hole castors are fastened with different screws depending on the hole diameter. The AR-11-... castor has a hole diameter of 11 mm and is screwed into the corresponding M10 impact bush with an M10 screw (ref.: SI1030, art. no.: 100248). The AR-13-... castor has a hole diameter of 13mm and is screwed into the corresponding M12 impact bush with an M12 screw (Ref.: SI1230, Art. No.:110171).

Castors and wheels

	st castors											
Castor	s with mo	ounting p	anel									
Loading capacity	Wheel Ø	Design height	Tread	Panel [mm]	Bearing		Swive	castor		l castor ake/lock	Fixed	castor
100 kg	76 mm	104 mm	PU	95x64	Pall bearing		100138	P503S-2	100139	P503S-2B	100140	P503R-
105 kg	100 mm	129 mm	PU	95x64	Ball bearing		100141	P504S-2	100142	P504S-2B	100143	P504R-
220 kg	100 mm	136 mm	PU	114x102			100144	P624S-2	100145	P624S-2B	100146	P624R-
250 kg	125 mm	161 mm	PU	114x102	Castor bearing		100147	P625S-2	100148	P625S-2B	100149	P625R-
250 kg	150 mm	191 mm	PU	114x102			100150	P626S-2	100151	P626S-2B	100152	P626R-
Castor	s with thr	eaded er	nd									
	s with thr								Swive	l castor		
Loading		eaded er Design height	nd Tread	Thread	Bearing	ESD	Swive	Castor		el castor rake/lock	Mountin	ng type
Loading	s with thr	Design		Thread 1/2"x12N	Bearing	ESD	Swive 100134	castor T3225-1			Mountii	ng type
Loading capacity 40 kg	s with thr Wheel Ø 50 mm	Design height 68 mm	Tread VG	1/2"x12N	Bearing Plain bearing	ESD			with b	rake/lock	Mountin Threaded a	
Loading capacity	s with thr Wheel Ø	Design height	Tread			ESD	100134	T322S-1	with b 100135	rake/lock T322S-1B		
Loading capacity 40 kg 45 kg	s with thr Wheel Ø 50 mm	Design height 68 mm 95 mm	Tread VG	1/2"x12N			100134 100136	T322S-1 T363S-1	with b 100135 100137	rake/lock T322S-1B T363S-1B		
Loading capacity 40 kg 45 kg	s with thr Wheel Ø 50 mm 75 mm	Design height 68 mm 95 mm	Tread VG	1/2"x12N			100134 100136 100156	T322S-1 T363S-1	with bi 100135 100137 100155	rake/lock T322S-1B T363S-1B		end

Lock for securing a trolley



234 | INSTALLATION SUPPORTS AND CASTORS



Mounting set for Ø28 mm



- can be used as an ELF discharge ٠ chain if wheels without ELF are under construction
- At least 3 chain links must be in contact with the ground.

Set ArtNo.	Chain length
618082 🔼	250 mm
618083 🔼	350 mm

The set consists of following parts:

- 1 x Knotted chain 1 x MS06 1 x GA-15S WZ 2 x Contact disc
- 1 x M0615 WZ M6

1 piece Suitable for M6 screw thread interlocked • Ø inside: 6.1 mm • Ø outside: 12 mm Thickness: 1.2 mmMaterial: galvanised steel

ive-in sleeves	Art. No.	Name	Pipe	Ø Pipe	inner Ø Pipe	Thread	Material	Ø drive-in sleeve (A)	
	402672	BS20A 🙆				1/2"-12N			
	402673	BS20B 🙆		28 x 0,7 mm	24,0 mm	M12 x 1,75		Ø24,1 mm	
	402745	BS20D 🙆				M10 x 1,5			
	609451	BC2809A 🙆				1/2"-12N			
	609452	BC2809B 🔼		28 x 0,9 mm	23,6 mm	M12 x 1,75		Ø23,7 mm	
	609453	BC2809D 🙆	D. seat size			M10 x 1,5	Ctool		
	100101	BC2810A* 🔼	D-coat pipe	28 x 1,0 mm	23,4 mm	1/2"-12N	Steel		
	100102	BC2810B* 🔼				M12 x 1,75		Ø23,5 mm	
	100114	BC2810D* 🔼				M10 x 1,5			
	100107	BC2820A 🙆			1/2"-12N			Α.	
	100108	BC2820B 🙆		28 x 2,0 mm	21,8 mm	M12 x 1,75		Ø21,9 mm	
	101664	BC2820D 🙆				M10 x 1,5			The second second
	100109	BS07A 🔼	ECCO-Star pipe SUS pipe			1/2"-12N		Ø26.0	
	100110	BS07B 🔼		28 x 0,7 mm	26,1 mm M12	M12 x 1,75		Ø26,8 mm	
	109723	BS07D 🙆				M10 x 1,5		Ø26,3 mm	- 28
	126382	BS10A 🔼	ECCO-Star pipe			1/2"-12N			
	402271	BS10B 🔼		28 x 0,9 mm	n 25,7 mm	M12 x 1,75		Ø26,1 mm	
	402744	BS10D 🔼				M10 x 1,5	Charl		
	100111	BS12A 🔼		28 x 1,2 mm 25,1 mm	1/2"-12N	Steel	Ø25,5 mm		
	100112	BS12B 🔼	ECCO-Star pipe SUS pipe		25,1 mm	M12 x 1,75		Ø25,5 mm	
	100113	BS12D 🔼	1 sus hibe			M10 x 1,5		Ø25,3 mm	
	402672	BS20A 🙆				1/2"-12N		Ø24,1 mm	
	402673	BS20B 🔼	ECCO-Star pipe	28 x 2,0 mm	23,9 mm	M12 x 1,75			
	402745	BS20D 🔼				M10 x 1,5			
	126211	AS2807A 🙆	ECCO-Star pipe	20 0 7	26.1	1/2"-12N		026 F	A
\bigcirc	126212	AS2807B 🔼	SUS pipe	28 x 0,7 mm	26,1 mm	M12 x 1,75	Aluminium	Ø26,5 mm	
IT FIL	126213	AC2809A 🙆	D cost size	28 × 0.0 mm	22.4	1/2"-12N	Aluminium	Ø23,8 mm	÷
	126214	AC2809B 🔼	D-coat pipe	28 x 0,9 mm	23,4 mm	M12 x 1,75		025,8 1111	Ø27.6
	117714	BA2800A 🙆				1/2"-12N	Aluminium	20.4 mm	5
T	117715	BA2800B 🔼	- Aluminium profile			M12 x 1,75	Aluminium	20,4 mm	
	402039	BA280LA 🔼		28 mm	20,3 mm	1/2"-12N			50
Cardon Contraction	402040	BA280LB 🔼	pipe			M12 x 1,75	Steel	20,5 mm	
	402041	BA280LD 🔼				M10		.,.	t t t

SPACE FOR NOTES	

SPACE FOR NOTES		

SPACE FOR NOTES	



Panels

Own furniture production with state-of-the-art machine park

At its headquarters in Pfullingen, large rooms with state-of-the-art machinery provide the setting for developing and producing the furniture and assembly systems.

We offer you a large variety of panel types with different panel strengths for various applications.

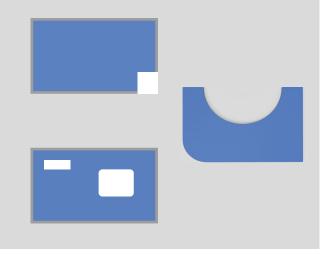
Wood panels

Plastic panels

Metal alternatives

Meticulous craftsmanship, premium materials and intelligent detailed solutions guarantee quality down to the last detail. We supply **panels cut** to your **requirements** (please state measurements in 10mm increments) and **cut** and **processed panels**. We offer four types of cut panels with different processing levels:

- Raw material only
- Cut panels without edges
- Cut panels with edges
- Additional processing, e.g. with cut-out in the corner, free shapes or pockets







PANELS

<u>Panels</u>

241
241
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240 | PANELS

Particularities of BeeWaTec

- No series production thus flexible
- Possibility to order lower quantities
- Very great diversity of electrically conductive materials (ESD versions)
- No minimum purchase quantity
- Different panel tickness and sizes

Portfolio of panels

-	Very low	Х	Yes
+	Low		No
++	Average good	€	Very cheap
+++	High	€€	Cheap
++++	Particularly high	€€€	Medium-price
+++++	Above average	€€€€	High-price

		Surface property		property								
Material	Panel	Name	Available thcikness	Colour	Weight load/ carrying capa- cits*	Mechanical strength	Slippage	Wood-free	Moisture resistance	Electrical conductivity	Typical purpose	Price
	ME-Panel	Chipboard with melamineresin direct coating	8 mm 13 mm 19 mm 25 mm	Light grey	++	+	++				Shelf Working surface Body construction	€
	ME-Panel ESD	Chipboard with melamineresin direct coating, electrically conductive	19 mm	Light grey	++	+	++			х	Shelf Working surface Body construction	€€
	RS-Panel	Chipboard with HPL laminate	26,6 mm	Light grey	++	++	++				Working surface	€€
	SC-Panel	Chipboard with HPL laminate, electrically conductive	26,6 mm	Light grey	++	++	++			Х	Working surface	€€€
Mood	MP-Panel	Beech multiplex panel	25 mm 40 mm	Raw oiled	+++	+++	+				Working surface Workpiece carrier	€/€€
	MP-Panel	Birch multiplex panel with Egger laminate	18,2 mm	White silk matt	+++	++	++				Working surface Workpiece carrier	€€
	SD-Panel	Screen printing plate	12 mm 18 mm	Dark brown	++++	++++	++/+ on the side		х		Working surface Shelf	€∕€€
	MDF-Panel	Medium density fibreboard	10 mm 16 mm	Brown/raw black	++	++	+				Body construction Shelf Cladding	€
	ME with NB	Chipboard with pimpled rubber	23 mm 29 mm	Grey	++	++++	-				Working surface Shelf	€€€
	ME with ES	Chipboard with stainless steel shell PE500	28 mm	Stainless steel	++++	+++++	+++		Х		Working surface	€€€€
	SKP-Panel	Structured-core panels	5,6 mm 9,6 mm 10,6 mm	Grey Black	+	+	+++	Х	Х	Х	Cladding Shelf	€
	PE 500	Reclaimed rubber panel	10 mm 20 mm	Black Confetti	+	++++	+++	Х	Х	-	Shelf Transport protection	€€
Plastic	HPL-Panel	Duropal compact panel	8 mm 13 mm	Light Grey	+++++	+++	++	Х	Х	Х	Working surface Cladding Shelf	€€€
	BEESave	BEESave	3 mm 5 mm 7 mm 10 mm 15 mm 20 mm	Yellow	+	++++	+++++	х	х		Transport protection Workpiece carrier	€€
Metal		Spot weld grids			+++	+++++	-	х	х	х	Shelf Cladding	€€

Twin-wall panels

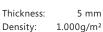
- Very low own weight Insulating

- •

For cladding and partition walls use the twin-wall panel



Dimensions (LxW): 2000 x 1250 mm





- Smooth surface
- Rot-proof and moisture-resistant
- Easy to process and recyclable
- Made of robust and impact-resistant polyproylene
- Inexpensive solutions for simple partiions and claddings

Structure-core panel

- Very low dead weight
- Available in various thicknesses and grammages
- Pressure and impact-resistant, insulating
- Smooth and even surface
- Rot-resistant and moisture-resistant
- Easy processing, can be recycled
- Made from robust and impact-restistant polypropylene
- Available in grey and black with electric conductance
- The electrically conductive version does not have any minimum purchasing requirements

SKP 5.4 mm



Dimensions (LxW): 2500x2100mm
Overview of the surface loading at
5.4 mm thickness:

Loads on a surface	Point load	Uniformly distributed load
500x500mm	Max. 1.30 kg	Max. 3.90 kg
750x750mm	Max. 0.88 kg	Max. 2.61 kg
1000x1000mm	Max. 0.60 kg	Max. 1.96 kg
	Thickness: Density:	5.4 mm 1.500g/m²

Please specify desired length

SKP 10.6 / 10.8 mm

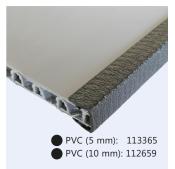
- Dimensions (LxW):: 2500x2100mm
- Overview of the surface loading at 10.8 mm thickness:

Loads on a surface	Point load	Uniformly distributed load
500x500mm	Max. 11.00 kg	Max. 32.94 kg
750x750mm	Max. 7.38 kg	Max. 21.96 kg
1000x1000mm	Max. 5.53 kg	Max. 16.57 kg

ArtNo.	Version	Thickness	Density
402895	Grey	10,8 mm	3.000g/m ²
402893* 🙆	ESD	10,6 mm	2.500g/m ²

KS0912 Edge protection for structure-core panels 5 mm/ 10 mm Black elastic PVC

(max. 100 m)



Clamping range (5 mm: 4-6 mm Clamping range (10 mm): 9-12 mm * Note: the panels labelled with the ESD symbol are not conductive.



Grey: 402895

402893* 🛕

BK:

Construction with structure-core panels in grey



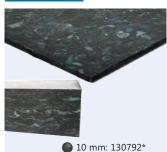
HPL... Panel



Plastic panels

- Made from recyclable plastic
- Wood-free alternative
- Partially as an electrically conductive version .
- Select between basic or special measurements •
- Customer-specific panel cuts (please state measurements . in 10mm increments) and cut panels with processing
- Can be ordered as raw material, panel cut only or further • processing

Panel PE 500 reclaimed rubber panel confetti **PE500RG...**



20 mm: 130793*

- Substrate: Polyethylene (Plastic)
- Surface covering: Raw
- Covering: Raw
- Dimension (LxW): 2050x1050mm Available thicknesses: 10 mm, 20
- mm Colour: Confetti (may vary, no right
- to a specific colour)

HPI Panel

Substrate: Duropal compact panel

Dimension (LxW): 2800 x 2070 mm

Surface covering: HPL laminate

Covering: Fine stone

Colour: Light grey

(Plastic)

0.8 mm



- Substrate: Duropal compact panel (Plastic)
- Surface covering: HPL laminate 0.8 mm, Electrostatic conductive (Leakage resistance DIN EN 61340-4-1 Ω 1x10⁵ \leq RA \leq 1x10⁹)
- Covering: Fine stone
- Colour: Light grey
- Dimension (LxW): 2520 x 1280 mm Available thicknesses: 8 mm

BEESave

Thickness in mm

3 mm

5 mm

10 mm

15 mm

20 mm



Name BEESave (YELLOW)

BEESave HW 2100x1000x3mm YE

BEESave HW 2100x1000x5mm YE

BEESave HW 2100x1000x10mm YE

BEESave HW 2100x1000x15mm YE

BEESave HW 2100x800x20mm YE

- Can be supplied in various strengths (3 mm to 30 mm)
- Can be ordered as raw material or cut panel • (please state 10mm increments)
- Can be combined with the modular system •
- Available in yellow •
- Can also be used as construction material •

Art.-No.

401595

401596

401598

401599

401600

Whether construction material, predective material, storage or load securing. On the safe side with BEESave to go!

Reasons for the protective material BEESave?

- BEESave has been used as a protective material for objects for more than 30 years to transport damage-free
- BEESave does not splinter and is very light
- Hard surface, easiliy machinable (such as sawing, punching, drill, mill, screw, glue ...)
- Smooth surface and foamed inside
- Waterproof and oil resistant
- Excellent shock and wear resistance, corrosion resistance, washability (reduced maintenance costs)
- 100 % recyclable

Identification key and data sheet

Example:	BEESave	HW	2100	1000	3	YE
	Name	Degree of processing	Length	Width	Thickness (in mm)	Colour

Technical values and further information upon request.

You would like a solution that is individually tailored to you? We will be pleased to submit you an individual offer.

Data sheet BEESave (YELLOW)

Thickness	ess Dimension [LxW] Resistance		Flexural Stre	ength [N/mm²]	Flexural Modulus [N/mm ²]	
Thickness			Machine direction	Transverse direction	Machine direction	Transverse direction
3 mm			13,1 N/mm²	12,1 N/mm²	820 N/mm ²	780 N/mm ²
5 mm	2100x1000mm		15,1 N/mm²	15,0 N/mm ²	740 N/mm²	740 N/mm ²
10 mm		Water & Oil	16,6 N/mm²	19,0 N/mm²	620 N/mm ²	650 N/mm ²
15 mm			13,0 N/mm²	15,8 N/mm ²	600 N/mm ²	650 N/mm ²
20 mm	2100x800mm		11,4 N/mm²	17,3 N/mm²	570 N/mm²	630 N/mm ²

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244 | PANELS

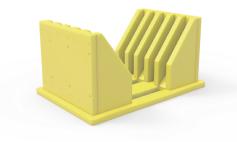
Application examples of BEESave





Safe transport of the following examples...

...brake discs,





Storage containers adapted to individual requirements for parts of any kind.



...brake shoes.



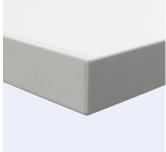


Wood panels

- Panels made from various types of wood Partially as an electrically conductive version; these are volume conductive
- Select between basic or special measurements
- Customer-specific panel cuts (please state measurements in 10mm • increments) and cut panels with processing With suitably finished edges.
- Can be ordered as raw material, panel cut only, with or without . edges, or further processing



Edgebands Edgeband



ME.... Chipboard



13 mm: 19 mm:

25 mm:

19 mm:

HA201095*

HA201092*

HA201093*

HA201096* 🔼

•	Limitedly scratch- and shockproof
•	Stain-resistant to acetone, alcohol,
	benzine, nail polish remover,
	organic solvents

• ESD version is volume conductive

Upper and lower side same pattern

Normal abrasion resistance

The standardised edge protection

Substrate	Chipboard
Surface covering	Melamineresin direct coating
Covering	Melamineresin direct coating
Edges	1 mm ABS edge, at 25 mm thickness with 2 mm ABS edge
Dimension (LxW)	2800x2070 (13 mm) / 2800x2100mm
Available thicknesses	13 mm, 19 mm, 25 m, ESD 19 mm
Colour	Light grey, similar to RAL 7035 other colours on request



Chipboard

- High abrasion resistance
- Highly scratch- and shock proof Resistant to standard household chemicals, solvents, weak acids and lyes

Substrate	Chipboard (volume-conductive)
Surface covering	HPL laminate 0.8 mm (conductive)
Covering	HPL laminate
Edges	Edges 2 mm ABS edge, rounded radius R2
Dimension (LxW)	2750 x 2050 mm (HA203495) 2800 x 2070 mm (605618) 5600 x 2070 mm (HA201097)
Available thicknesses	19.6 mm, 26.6 mm; other thicknesses on request
Colour	Light grey, similar to RAL 7035 other colours on request

Beech mulitplex panel MPBU...

High load capacity Surface sensitive, but perfect for workbenches

Substrate	Beech multiplex panel
Surface covering	Raw
Covering	Raw
Dimension (LxW)	2500 x 1500 mm
Available thicknesses	25 mm, 40 mm
Colour	Natural beech

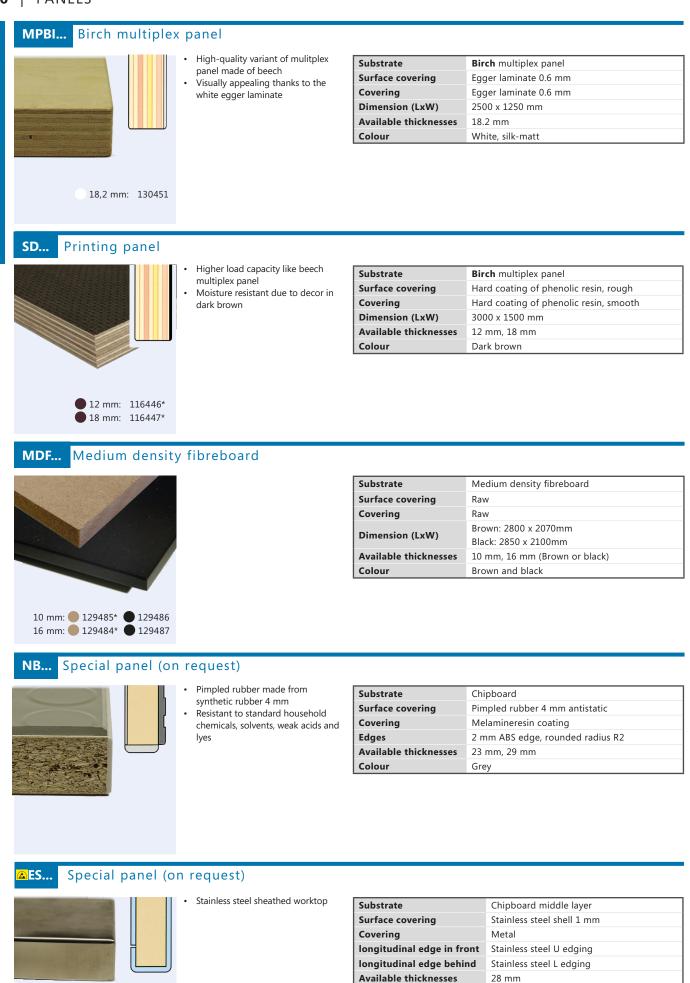


Wood panels



•

Wood panels



Colour

Stainless steel

Application examples of different panel material

Construction with wood panels

205621





205469





SPACE FOR NOTES		

LIFTING TECHNOLOGY

Lifting technology

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Overview of the HE and HL hydraulic and electric lifting sets

Art. No	Name	Image	Application	Technical Details	max. load capacity	Lifting height	Version
608751	HubSet 31.0			2 Lifting pillars, 2-parts Speed: 38 mm/s Overall height: 445 mm Duty cycle: 10% incl. mounting material		300 mm	HL
608753	HubSet 33.0			2 Lifting pillars, 2-parts max. speed: 38 mm/s Overall height: 645 mm Duty cycle: 10% incl. mounting material		500 mm	HL
607482	HubSet 11.0			4 Lifting elements (SLA3) electric drive + battery Speed: 9 mm/s Overall height: 600 mm Duty cycle: 5%	300 kg	300 mm	HE
607483	HubSet 12.0			4 Lifting elements (SLA3) electric drive + battery Speed: 9 mm/s Overall height: 700 mm Duty cycle: 5%	300 kg	400 mm	HE
608749	HubSet 30.0			4 Lifting pillars, 2-parts Speed: 38 mm/s Overall height: 445 mm Duty cycle: 10% incl. mounting material	9 320 kg	300 mm	HL
608752	HubSet 32.0			4 Lifting pillars, 2-parts max. speed: 38 mm/s Overall height: 645 mm Duty cycle: 10% incl. mounting material	9320 kg	500 mm	HL
608754	HubSet 34.0			4 Lifting pillars, 3-parts max. speed: 38 mm/s Overall height: 560 mm Duty cycle: 10% incl. mounting material	9 320 kg	650 mm	HL
608756	HubSet 36.0			4 Lifting pillars, 3-parts max. speed: 38 mm/s Overall height: 560 mm Battery pack Duty cycle: 10%	9 320 kg	650 mm	HL
614817	HubSet 3.3 🔼	2 ** aa aa		4 Lifting elements (LA) hydraulic drive Speed: 5 mm/rev. Overall height: 542 mm Duty cycle: 10%		300 mm	HE
614977	HubSet 4.3 🔼	ii aaaa		4 Lifting elements (LA) hydraulic drive Speed: 15 mm/s Overall height: 542 mm Duty cycle: 10%	350 kg	290 mm	HE
614985	HubSet 5.3 🔼			6 Lifting elements (LA) hydraulic drive Speed: 15 mm/s Overall height: 542 mm Duty cycle: 10%		290 mm	HE
614989	HubSet 6.3 🔼	2. 		6 Lifting elements (LA) hydraulic drive Speed: 5 mm/rev. Overall height: 542 mm Duty cycle: 10%	350 kg	300 mm	HE

Art. No	Name	Image	Application	Technical Details	max. load capacity	Lifting height	Version
614992	HubSet 7.3 🕰			4 Lifting elements (LH) electric drive Speed: 9 mm/s Overall height: 600 mm Duty cycle: 10%	350 kg	390 mm	HE
614997	HubSet 13.3 🛆			4 Lifting pillars (TA) hydraulic drive max. speed: 15 mm/s Overall height: 514 mm Duty cycle: 10%	350 kg	400 mm	HE
612009	HubSet 37.0 Mono			1 Lifting pillar max. speed: 18 mm/s Overall height: 584 mm Duty cycle: 10% incl. mounting material	400 kg	650 mm	HL
608755	HubSet 35.0			4 Lifting pillars, 3-parts max. speed: 23 mm/s Overall height: 560 mm Duty cycle: 10% incl. mounting material	480 kg	650 mm	HL
501051	HubSet 9.3			4 Lifting elements (SLA) electric drive Speed: 9 mm/s Overall height: 600 mm Duty cycle: 10%	500 kg	300 mm	HE
501052	HubSet 10.3			4 Lifting elements (SLA) electric drive Speed: 9 mm/s Overall height: 700 mm Duty cycle: 10%	500 kg	400 mm	HE
609645	HubSet 20 SK-ESD		H	2 Lifting pillars (SK) electric drive max. speed: 8 mm/s Overall height: 630 mm Duty cycle: 10%	600 kg	400 mm	HE



Introduction lifting technology

For 2025, we have expanded the lifting portfolio with additional components and it was adapted technically. We have added a complete new lifting series (from lifting set 30).

In order to have an exact designation, the existing lifting sets (1-20) are called **lifting technology HE** and the new lifting series (from lifting set 30) is called **lifting technology HL.**

Lifting technology HE		Lifting technology HL	
Lifting set 3.3, 4.3, 5.3, 6.3, 7.3	► LA/LH Linear unit with hydraulic drive	Lifting set 30.0, 31.0, 32.0, 33.0, 34.0, 35.0, 36.0	 DL5/DL6 Lifting pillar with electric drive
Lifting set 9.3, 10,3, 11.0, 12.0	SLA Linear unit with electric drive	Lifting set 37.0 Mono	Mono lifting pillar with elec- tric drive
Lifting set 13.3	TA Linear unit with hydraulic drive		
Lifting set 20 -	SK Linear unit with electric drive		
that are bolted to a frame (r also be used as a retrofit sol electrically conductive (ELF). Lifting sets 11/12 are batter linear units (lifting sets 9.3/1	y-operated solutions for the SLA	are bolted to a frame (roun pillar only lifts the table top nary. Due to the stability of ture with 2 lifting pillars car capacity, which is cost-effec The mono lifting pillar (liftin single lifting element, is cor The items from the HL liftin	ng set 37), which can be used as a

Technical changes in 2025

The following changes will apply from 2025: The existing lifting sets (lifting sets 3,4,5,6,7,13), which are driven by a hydraulic pump, have now been changed to a new pump with a modified adaptation for technical reasons and as specified by the manufacturer.

For this reason, the lifting sets have been given a new designation and new article no.

Previous article no.	Previous designation	New article no.	New designation
126902	Hubset 3	 614817	Hubset 3.3
126903	Hubset 4	 614977	Hubset 4.3
126904	Hubset 5	 614985	Hubset 5.3
126905	Hubset 6	 614989	Hubset 6.3
126907	Hubset 7	 614992	Hubset 7.3
606177	Hubset 13	 614997	Hubset 13.3





The pumps and attachments such as the hand crank and motor will be installed with a different adaptation in future. The function and dimensions of the components remain identical.

The hydraulic drives purchased until the end of 2024 have a cylindrical spindle shaft on the pump and a Woodruff key as an anti-rotation device. The hand crank had to be additionally secured with a grub screw or drill pin.

From 2025, the hydraulic drives are equipped with a hexagonal spindle shaft as standard and the crank handle has a quick-release coupling (see pictures). This allows individual components to be connected and replaced very quickly.

The change means that an old pump cannot be operated directly with a new motor or crank handle, but requires an adapter.

SPACE FOR NOTES		

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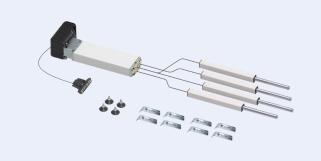


Always up with hydraulic technology

Our proven set combinations

We recommend clarifying the following criteria for selection:

- What lifting height and total load capacity
- Hydraulic or electric lifting set?
- With 4 or 6 linear units?
- Operation with hand crank or electric drive?



Hubset 3.3*

Hydraulic lifting set

4 Lifting elements (LA) 300 mm lifting height Hand crank

350 kg max. total capacity load



Consisting of:

- 4 x Linear devices LA 1440 preassembled with 3000 mm hose (542 mm Installation height)
- 1x Hydraulic pump PB 4830 H with hand crank
- 4 x BSHub-GA-15G WZ (Mounting kit for adaptation to our 28 mm round pipe)
- 4 x Adjustable steel foot M10x25 with rubber
- Lifting speed: 5 mm/crank rotation

Hydraulic lifting set** Hubset 5.3*

350 kg max. total capacity load

614985 🙆

6 Lifting elements (LA)

290 mm lifting height

6000

Motor drive

Consisting of:

- 6 x Linear devices LA 1440 pre-a ssembled with 3000 mm hose (542 mm Installation height)
- 1 x PB 6830 H hydraulic pump with electric drive (EU plug), control unit and hand control unit
- 6 x BSHub-GA-15G WZ (Mounting kit for adaptation to our 28 mm round pipe)
- 6 x Adjustable steel foot M10x25 with rubber
- Lifting speed: 15 mm/s

Hydraulic technology HE

Flexible working height? With this simple but high-quality hydraulic lifting system you can easily install continuous height adjustment exactly for the load and lift required.

The system is mounted on flexible connecting leads, works independently of load and completely synchronously, even where the load is unevenly distributed. Due to its small dimensions, high loading capacity and quiet drive the system has decisive advantages vis-à-vis conventional lifting systems.

Hydraulic lifting sets HE

- Complete solution with all parts required for the lifting system
- Incl. adaptation to our 28 mm round pipe plug-in • system and levelling foot
- (Lifting set 13 requires a special solution for adaptation, see accessories)
- Lifting set 3 7 and 13 get an update in the motor.
- From December 2024, the pump will have a quick-• release coupling as standard. This allows the motor or hand crank to be replaced without much effort.

Hubset 4.3* Hydraulic lifting set**



- Consisting of:
- 4 x Linear devices LA 1440 preassembled with 3000 mm hose (542 mm Installation height)
- 1 x PB 6830 H hydraulic pump with electric drive (EU plug), control unit and hand control unit
- 4 x BSHub-GA-15G WZ (Mounting kit for adaptation to our 28 mm round pipe)
- 4 x Adjustable steel foot M10x25 with rubber
- Lifting speed: 15 mm/s

Hydraulic lifting set Hubset 6.3*

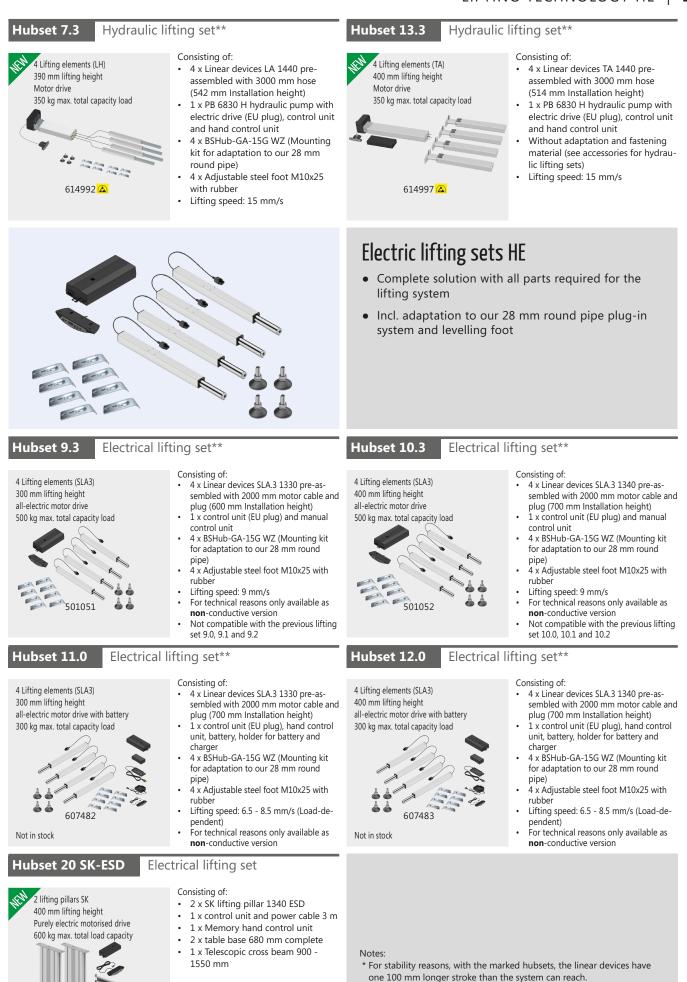


614989 🙆

- Consisting of: • 6 x Linear devices LA 1440 preassembled with 3000 mm hose (542 mm Installation height)
- 1 x Hydraulic pump PB 6830 H with hand crank
- 6 x BSHub-GA-15G WZ (Mounting kit for adaptation to our 28 mm (eqiq bnuor
- 6 x Adjustable steel foot M10x25 with rubber
- Lifting speed: 5 mm/crank rotation

LIFTING TECHNOLOGY HE | 255

Lifting set HE



** The electro-hydraulic and the purely electric lifting systems have a duty cycle (ED) of approx. 10%, 2/18 (ON/OFF). This means that the lifting system can be operated continuously for max. 2 min. After that, a pause of at least 18 min. must be observed before the lifting system can be moved again. The manually operated systems can be operated as often as required

609465 🔼

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Our tried-and-tested individual components

The combination of individual components allows you to configure a lifting system according to your individual requirements. The lifting height, the maximum total load capacity, the number of lifting elements, the type of operation, whether hydraulic or electric, can all be customised.

Hydraulic lifting systems

Key facts:

- The pump with hand crank/motor and the linear units with 3000 mm hose are pre-assembled on all hydraulic systems.
- The pump with motor is supplied including control unit and manual control unit.
- The hydraulic lifting systems with motor have a duty cycle (ED) of approx. 10 per cent, 2/18 (ON/OFF). For this reason, the lifting system can be operated continuously for a maximum of 2 minutes. After this, a break of at least 18 minutes must be observed before the lifting system can be moved again. The manually operated systems can be operated as often as required.
- The load refers to the maximum permissible total load of the complete system.
- All hydraulic components are electrically conductive.
- To increase stability in hydraulic systems, it may make sense to select linear units with a stroke that is approx. 100 mm longer than the pump can reach.
- Lifting speed for 350kg systems:
 5 mm stroke per crank revolution
 15 mm stroke per second with motor
- Lifting speed for 600kg systems:
 3 mm stroke per crank revolution
 9 mm stroke per second with motor

The following components are required for a complete hydraulic lifting system:

- 1. Linear units (depending on total load, lifting height and number, see system selection table)
- Pump (supplied incl. motor+control or hand crank), depending on total load, lifting height and number of linear units, see system selection table)
- 3. Adjustable feet (depending on type and number of linear units, see accessories)
- 4. Mounting set on the round pipe system (depending on the type and number of linear units, see accessories)

Individual lifting technology components HE

- Information on hydraulic and electrical systems
- Individual components such as
 - Linear units
 - accessories
 - etc.

Hydraulic system selection table:

Total load max. 350 kg

Hub	Linea L	r unit A	Linea Li		Linea T.		Pu	mp H		tor H ntrol unit	Hand crank
for 4 linear ur											
300 mm	118850	LA 1430					613420	PB 4830 H	613425 ¹	PBD 230	613424
400 mm	№118851	LA 1440	130479 ຝ	LH 1440	101558 🛕	TA 1440	613422	PB 4840 H	613425 ¹	PBD 230	613424
500 mm					101543 🛕	TA 1450	613423	PB 4850 H	613425 ¹	PBD 230	613424
for 6 linear ur											
300 mm	118850 🔼	LA 1430					613421	PB 6830 H	613425 ¹	PBD 230	613424
400 mm	№118851	LA 1440	130479 ຝ	LH 1440	101558 🕰	TA 1440	615242	PB 6840 H	613425 ¹	PBD 230	613424
500 mm					101543 🛕	TA 1450	615244	PB 6850 H	613425 ¹	PBD 230	613424

Total load max. 600 kg

Hub	Linea Li		Linea Li		Linea T,		Pun	ıр H		or H htrol unit	Hand	crank
for 4 linear uni	ts											
300 mm	402276 🔼	LA 1830			101559 🔼	TA 1830	613423	PB 4850 H	613425 ¹	PBD 230	613424	
400 mm			403515 🔼	LH 1840			615238	PB 4866 H	613425 ¹	PBD 230	613424	
for 6 linear uni	ts											
300 mm	402276 🛕	LA 1830			101559 🔼	TA 1830	615244	PB 6850 H			613424	
400 mm			403515 🔼	LH 1840			615245	PB 6866 H	613425 ¹	PBD 230	613424	

Preferred goods

Preferred goods = in stock ¹The article set 613425 (drive unit set PBD 230 Compact EU) contains the motor, the control unit, the manual control unit and the cables.

Linear units for hydraulic systems

The linear units consist of a linear guide with an integrated lifting cylinder and are available in three versions.



file nousing of the linear unit consists of colourless anodised aluminium profile (35×35 mm). The tube (\emptyset 25 mm) made of stainless steel stainless steel is mounted in a plastic mounted in a plastic bush. The housing of the linear unit consists of colourless anodised aluminium profile (35×35 mm). The standpipe ($\emptyset 25$ mm) made of stainless steel is equipped with a equipped with a steel ball guide. The LH linear unit offers high stability and smooth running. It is used mainly used for long stroke lengths instead of the linear unit LA. The linear unit consists of two steel tubes. The oval, galvanised guide tube is mounted on balls. The lifting movement is performed by a built-in hydraulic cylinder. The TA linear unit is ideal for assembly workstations, workbenches and office desks or in combination with aluminium profile systems for high load-bearing capacity and stability requirements.

Pumps for the hydraulic system

The pump forms the centrepiece of a hydraulic lifting system and, depending on the type, lifts 4, 6 or 8 linear units continuously and synchronously. The pump is driven by an electric drive or a hand crank (must be taken into account when ordering).

A restoring force of at least 10 kg per cylinder should be ensured in order to press the hydraulic oil back into the pump when retracting (single-acting hydraulics). The pumps and cylinders are connected with a hydraulic hose (Ø 4 mm). The maximum hose length is 8 m, the minimum permissible bending radius is 25 mm.

The pump housing consists of an extruded profile made of colourless anodised aluminium.



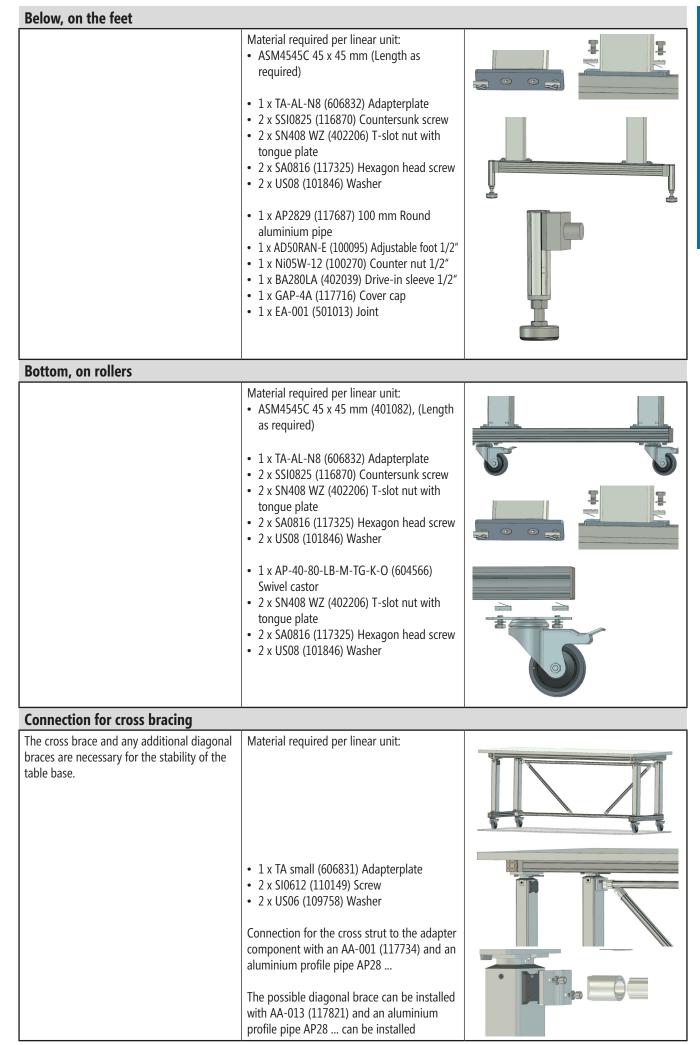
Accessories for hydraulic systems

Art. No.	Name	Description		Image
403228 🔼	Hinged adjustable foot D40 M10x25, electrically conductive	Consisting of: 1 x plastic hinged foot, electrically conductive, D39,2 mm 1 x anti-slip plate, electrically conductive	1 x galvanised steel threaded rod M10x25 mm 1 x hexagon nut M10 total load capacity 300 kg/foot	i
501001 🕰	BSHub-GA-15G WZ	Consisting of: 2 x G-15G WZ 2 x G-15BS WZ 2 x M0610 WZ	4 x SI0508 8.8 4 x US05 Suitable for linear unit LA, LH 1 x BSHub per linear unit is required	
101530 🔼	Mounting plate A	Consisting of: 1 x mounting plate A, (30x70 mm, countersunk hole Ø5.8 mm	2 x SSI0512 Suitable for linear unit LA, LH Requires 2x mounting plate per linear unit	
101532 🜊	Mounting plate C	Consisting of: 1 x 90° angle, 50x50x32 mm, countersunk hole Ø5.8 mm	2 x SSI0512 Suitable for linear unit LA, LH Requires 2x mounting plate per linear unit	A S
115524	SYNC-2 Compact cable		rol units together. This allows 2 hydraulic lifting sys- le length 550 mm, application: systems with Compact	
115525	SYNC-4 Compact cable	draulic lifting systems can be opera	ct control units together. This means that 2, 3 or 4 hy- ted in parallel. Cable length 1.8 m, 1 cable per control oplication: Systems with Compact controls.	
116869	SCT/Compact motor extension cable	systems. Cable length 1.2 m. 2 cable	e motor cable of the PXD drives or the spindle lifting es are required to extend the PXD motor cable. Max. tion: Hydraulic systems with electric drive, spindle CT controls.	
112878	Extension cable hand switch Compact	The hand switch can be extended w cables in series. Application: Manua	ith this cable. Cable length 1 m. Max. 3 extension I switch for Compact control units.	
402612	Power cable for Switzerland		ower plug, voltage 230V, plug type SEV 1011, cable ms with compact or SCT control units	
401368	EU power cable	Two-pole power cable with Europea length: 3000 mm, application: syste	n power plug, voltage 230 V, plug type CEE 7/7, cable ms with compac- control units	
19600687	Cable remote control/ memory	Cable remote control HSU/Memory, indication on display, cable length: pulled forwards by sliding mounting	up and down, save and move to 4 positions, height 1.7 m, incl. fixing screws. Cable remote control can be g plate	No. 25 CON
613425	PBD 230 Compact EU drive set	Drive set consists of motor PXD.2 w unit PXD Compact with software ver		
101638	Servicekit	 Set includes: Disposable syringe 20ml incl. cal Oil 250ml Double-end box wrench 10/11 Hose cutter Connection screws and clamping Magnet 4 pieces Assembly instructions 		

Mounting options Lifting set 13 (TA linear units)

At the top, directly on the tabletop		
The table height when lowered (26 mm table top thickness) is 735 mm	 Material required per linear unit 4 x SSPP5030 (113869) Clamping plate screw 4 x USG05 (109788) Washer) 	
At the top, with the help of a square	frame, underneath the table top	
The table height when lowered (26 mm table top thickness) is 780 mm	 Material required per linear unit: ASM4545C (401082), Length as required, approx. 200 mm shorter than the table top in depth 2 x SN408 (402206) WZ T-slot nut 2 x US08 (101846) Washer 2 x SA0820 (112375) Hexagon head screw 	
Table frame substructure (suggestion	ı)	
For a table depth > 600 mm, 4 lifting columns are recommended. We recommend a substructure with a tabletop support made of aluminium profile. For a table width > 1400 mm (depending on the table top), a frame substructure made of aluminium profile should be installed all around. The pump can also be attached with the appropriate cross profiles.	 Material required per table: 2 x Cross profile, ASM4545C 45 x 45 mm (401082), Length as required, approx. 200 mm shorter than the table top in depth 2 x Longitudinal profile AST4545D 45 x 45 mm (401078), Length as required, approx. 200 mm shorter than the table top in depth 4 x EA-001 (501013) Joint 6 x IW-90-45 (117974) Angle 6 x SN408 (402206) T-slot nut WZ 6 x SI0816 (111553) Cylinder head screw 6 x US08 (101846) Washer Hose holder: 12 x SIN0405 (402204) T-slot nut 12 x SIN0510 (112089) Cylinder head screw Hose clamp holder: 10 x ACY-N301 GR (130541) 	
	Crossbars, pump: • 4 x SA033A (402009) Groove adapter • 4 x Sl0612 (110149) Screw • 4 x SN406 (402205) T-slot nut • 4 x AA-001 (117734) Joint • 2 x Aluminium profile AP28 (Length = cross profile ASM4545C-143 mm) • 3 x GA-15S (114336) Clamp • 1 x SSI0690 (114275) Countersunk screw • 2 x Sl0616 (110257) Screw • 2 x MS06 (100244) Screw nut	

ndividual lifitng components HE



Electric lifting systems:

Key facts:

- For all electrical systems, the linear units are supplied with a 2000 mm motor cable and plug.
- The control unit is preconfigured for the corresponding linear units and is supplied with a manual control unit with memory function.
- The electric lifting systems have a duty cycle (ED) of approx. 10 per cent, 2/18 (ON/OFF). For this reason, the lifting system can be operated continuously for a maximum of 2 minutes. After this, a break of at least 18 minutes must be observed before the lifting system can be moved again.
- The load refers to the maximum permissible total load of the complete system.
- For technical reasons, the electric lifting systems are not electrically conductive.
- Lifting speed of electrical systems: 9 mm lift per second
- Lifting speed of electric battery systems: max. 8.5 mm lift per second

The following components are required for a complete electric lifting system

- 1. Linear units (depending on total load, lifting height and number, see system selection table)
- 2. Control system (depending on lifting height and number of linear units, see system selection table)
- 3. Adjustable feet (depending on type and number of linear units, see accessories)
- 4. Mounting set on the round pipe system (depending on the type and number of linear units, see accessories)

Hub Linear unit		Control system		max. system load	Lifting speed mm/s	Duty cycle on/off	
for 2 linear ur	for 2 linear units SK						
400 mm	609463	SK 1340	609464	Control system SCT2 iSMPS 230V V1400	600 kg	6-8,5	2/40 min
for 3 linear ur	nits SK						
400 mm	609463	SK 1340	609521	Control system SCT4 iSMPS 230V V1400	750 kg	6-8,5	2/40 min
for 4 linear ur	nits SK						
400 mm	609463	SK 1340	609521	Control system SCT4 iSMPS 230V V1400	1000 kg	6-8,5	2/40 min
for 4 linear ur							
300 mm	403421	SLA 1330	602072	Control set SCT4 230V V1801	500 kg	9	2/18 min
400 mm	403422	SLA 1340	604339	Control set SCT4 230V V1800	500 kg		
300 mm	403421	SLA 1330 + Battery	615767	Control set SCT4 iMPS 24V V1891	200 ს		
400 mm	403422	SLA 1340 + Battery	615772	Control set SCT4 iMPS 24V V1890	300 kg		
for 6 linear ur							
300 mm	403421	SLA 1330	2 x 602072	Control set SCT4 230V V1801	700 kg		
400 mm	403422	SLA 1340	2 x 604339	Control set SCT4 230V V1800	700 kg	9	2/10
300 mm	403421	SLA 1330 + Battery	2 x 615767	Control set SCT4 iMPS 24V V1891	400 lun	9	2/18 min
400 mm	403422	SLA 1340 + Battery	2 x 615772	Control set SCT4 iMPS 24V V1890	400 kg		
for 8 linear ur							
300 mm	403421	SLA 1330	2 x 602072	Control set SCT4 230V V1801	000 km	0	2/10 min
400 mm	403422	SLA 1340	2 x 604339	Control set SCT4 230V V1800	800 kg	9	2/18 min

System selection table electrical system

Components for electrical lifting systems

- Linear unit SLA 1330 (installation height: 600 mm) or SLA 1340 (installation height: 700 mm)
- 2. Control unit type SCT iSMPS V1801 or V1800
- 3. Hand control unit with memory function

Accessories for electrical systems

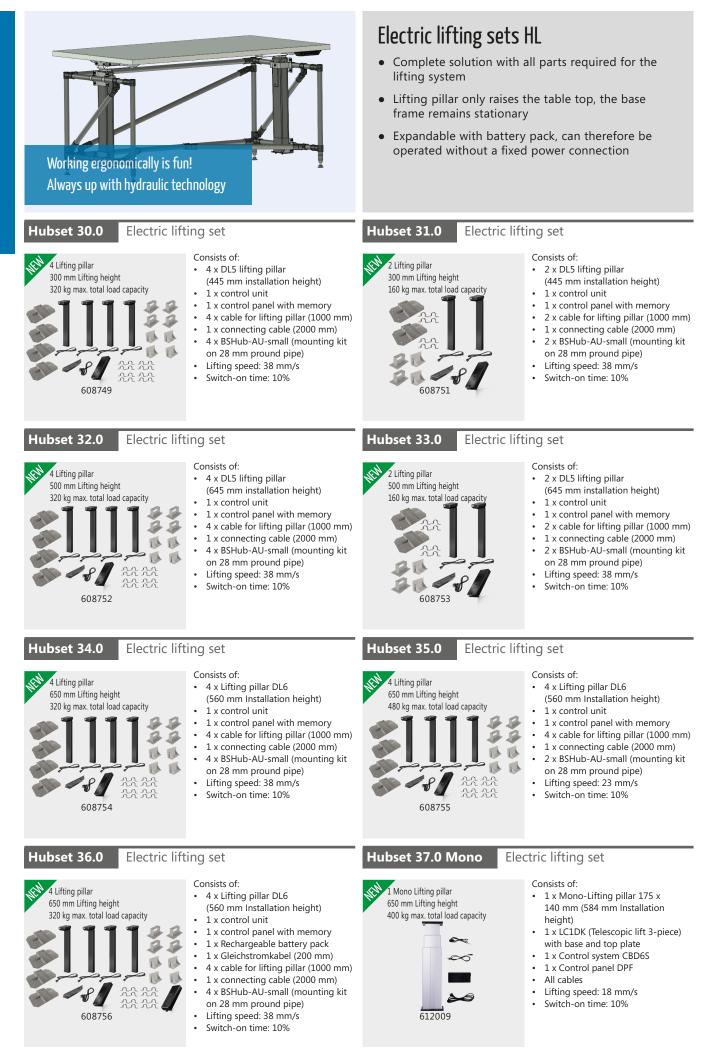
Art. No.	Name	Description		Image
403228 🜊	Hinged adjustable foot D40 M10x25, electrically conductive	Consisting of: 1 x plastic hinged foot, electrically conductive, D39,2 mm 1 x anti-slip plate, electrically conductive	1 x galvanised steel threaded rod M10x25 mm 1 x hexagon nut M10 total load capacity 300 kg/foot	
501001 🛕	BSHub-GA-15G WZ	Consisting of: 2 x G-15G WZ 2 x G-15BS WZ 2 x M0610 WZ	4 x SI0508 8.8 4 x US05 Suitable for linear unit LA, LH 1 x BSHub per linear unit is required	
101530 🔼	Mounting plate A	Consisting of: 1 x mounting plate A, (30x70 mm, countersunk hole Ø5.8 mm	2 x SSI0512 Suitable for linear unit LA, LH Requires 2x mounting plate per linear unit	
101532 🔼	Mounting plate C	Consisting of: 1 x 90° angle, 50x50x32 mm, countersunk hole Ø5.8 mm	2 x SSI0512 Suitable for linear unit LA, LH Requires 2x mounting plate per linear unit	
401672	SYNC-2 cable SCT	The cable connects 2 SCT control ur systems to be operated in parallel.	nits (spindle drive) with each other. This allows 2 lifting Cable length 4 m	, Ala
116869	SCT/Compact motor extension cable	systems. Cable length 1.2 m. 2 cable	e motor cable of the PXD drives or the spindle lifting es are required to extend the PXD motor cable. Max. 5 on: Hydraulic systems with electric drive, spindle lifting trols	
402477	Hand switch SCT Me- mory T6		ction, up to 3 different memory positions can be saved ory T6 manual switch. Cable length: 2000 mm, Applica-	
601091	Extension cable hand switch SCT	Extension cable for SCT iSMPS hand cable. Cable length 1 m. Max. 3 exter Application: Screw jack systems with		A.
402612	Power cable for Switzerland	Two-pole power cable with Swiss po length: 3000 mm, application: syste		
600119	Spare battery 10A, 24V	Exchangeable battery 10A/24V, com		
606208	Charger for battery 10A, 24V	The charger can be used to charge 11.0 and 12.0	the 10A rechargeable battery. Compatible with Hubset	

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Art. No.	Name	Description	Image
MEM 615761	Holder for 10A recharge- able battery	The mounting bracket is required for fixing to the construction. The exchangeable battery can be snapped into the holder and is connected to the control unit via a cable.	
401368	EU power cable	Two-pole power cable with European power plug, voltage 230 V, plug type CEE 7/7, cable length: 3000 mm, application: systems with compac- control units	
602072	SCT4 iSMPS 230V V1801 control unit	Control unit for spindle lifting system SLA 1330, supply voltage 230 V, standby power < 0.5 W, connection for cable remote control, 4 motor connections, parallel operation possible via SYNC cable, software version V1801 \rightarrow for lifting set 9.3	
604339	SCT4 iSMPS 230V V1800 control unit	Control unit for spindle lifting system SLA 1340, supply voltage 230 V, standby power < 0.5 W, connection for cable remote control, 1 - 4 motor connections, parallel operation possible via SYNC cable, software version V1800 \rightarrow for lifting set 10.3	
NEM 615767	SCT4 iMPS 24V V1891 control unit	Control unit for spindle lifting system SLA/SLG 1330, supply voltage 230 V, standby power < 0.5 W, connection for cable remote control, 1 - 4 motor connections, software version V1891 \rightarrow for lifting set 11	
NEM 615772	SCT4 iMPS 24V V1890 control unit	Control unit for spindle lifting system SLA /SLG 1340, supply voltage 230 V, standby power < 0.5 W, connection for cable remote control, 1 - 4 motor connections, software version V1890 \rightarrow for lifting set 12	
NEW 613434	Control set SCT4 BATTERY V1891	Control set consisting of control unit SCT4 iMPS 24V with software version V1891, power cable 3 m, cable remote control SCT Memory T6, holder for exchangeable battery, exchangeable battery 24V A10, charging station for exchangeable battery	
1111 613435	Control set SCT4 BATTERY V1890	Control set consisting of control unit SCT4 iMPS 24V with software version V1890, power cable 3 m, cable remote control SCT Memory T6, holder for exchangeable battery, exchangeable battery 24V A10, charging station for exchangeable battery	

Accessories for SK electrical systems (lifting set 20)

Art. No.	Name	Description	Image
4609464	SCT2 iSMPS 230V V1400 control unit	Control unit for spindle lifting system SL/SK 1340, supply voltage 230 V, connection for cable remote control, 2 motor connections, parallel operation possible via SYNC cable, software version V1400> for lifting set 20	
1111 609521	SCT4 iSMPS 230V V1400 control unit	Control unit for spindle lifting system SL/SK 1340, supply voltage 230 V, connection for cable remote control, 4 motor connections, parallel operation possible via SYNC cable, software version V1400> for up to max. 4 x SK lifting pillars	5 C C C C C C C C C C C C C C C C C C C
401368	EU power cable	Two-pole power cable with European power plug, voltage 230 V, plug type CEE 7/7, cable length: 3000 mm, application: systems with compac- control units	
402612	Power cable for Switzerland	Two-pole power cable with Swiss power plug, voltage 230V, plug type SEV 1011, cable length: 3000 mm, application: systems with compact or SCT control units	
401672	SYNC-2 cable SCT	The cable connects 2 SCT control units (spindle drive) with each other. This allows 2 lifting systems to be operated in parallel. Cable length 4 m	, So
116869	SCT/Compact motor extension cable	This cable can be used to extend the motor cable of the PXD drives or the spindle lifting systems. Cable length 1.2 m. 2 cables are required to extend the PXD motor cable. Max. 5 extension cables in series. Application: Hydraulic systems with electric drive, spindle lifting systems with Compact and SCT controls	
402477	Hand switch SCT Me- mory T6	In addition to the up and down function, up to 3 different memory positions can be saved and approached with the SCT Memory T6 manual switch. Cable length: 2000 mm, Application: Systems with SCT control units	
601091	Extension cable hand switch SCT	Extension cable for SCT iSMPS hand switch. Manual switches can be extended with this cable. Cable length 1 m. Max. 3 extension cables per hand switch. Application: Screw jack systems with SCT iSMPS controls	A.
1111 609466	Table base SL/SK/TL/TT 680 complete	Length: 680mm, width: 80mm consisting of: 1x table base SL/SK/TL/TT 68, 2x adjusting feet M10x25	a de la dela dela dela dela dela dela de
NEM 609519	Telescopic traverse T8 900-1550 - 90°	The crossbar is for the SL/SK lifting pillars and can be extended from a length of 900 - 1550 mm.	



Accessories	s for e	lectric	lift sets

Art. No.	Name	Description	Image
608278	Control DP1CS	Control panel with memory function. 3 memory positions, display with white LEDs. Colour black (RAL9005). Cable length 1700 mm.	@ 6 (200 US
بوم 608279	Control DPF1C	Control panel. Up and down movement, display with white LEDs, colour black (RAL9005), cable length 1700 mm	C 10000 23
الم ^{عل} 608720	Mounting bracket for DPF1C	Mounting bracket for DPF1C, 90°, no distance to the table top. Control panel is snapped onto the fitting.	I)
608284	CBD6S-200W	Control unit for 1 or 2 pillars, incl. switching power supply. Power supply: 230V AC, 50Hz or 120V AC, 60Hz. Dimensions: 210 x 96 x 38 mm (LxWxH), weight: approx. 400g, colour black, without cable	A ST A
608285	CBD6S-300W	Control unit for 2, 3 or 4 pillars, power supply: 100-240V AC, 50-60Hz (universal), dimensi- ons: 265 x 96 x 38 mm (LxWxH), weight: approx. 500g, colour: black	An- 18-
1 ¹²¹¹ 608286	Cable lifting pillar	Connecting cable from lifting pillar to control unit, cable length: 500 mm, colour: black (RAL9005), required per system: 2 or 4 (1 per lifting pillar)	
608287	Cable lifting pillar	Connecting cable from lifting pillar to control unit, cable length: 1000 mm, colour: black (RAL9005), required per system: 2 or 4 (1 per lifting pillar)	
461 608288	Cable lifting pillar	Connecting cable from lifting pillar to control unit, cable length: 2000 mm, colour: black (RAL9005), required per system: 2 or 4 (1 per lifting pillar)	
401 608289	Connecting cable	Cable length: 2000 mm, colour: black (RAL9005), 1 x required per system	
108891	IEC connecting cable Swiss standard type 13	IEC connecting cable NKSK CH 500, type: appliance cable, version: with earthing contact plug, CH, colour: black, cable length: 5000mm, load limit: 6A, cable cross-section: 3x 0.75mm ² , connection: IEC-60320 C13	
1979 608290	BA001	Rechargeable battery box, colour: black, battery capacity: 2.15 Ah/52 Wh, rated voltage: 24 V DC; discharge current: 9 A (max.); maximum charging voltage: 40 V DC; charging current: 0.5 A; weight: 600 g; incl. mounting bracket for easy mounting/dismounting when charging is required. The rechargeable battery is also charged via the control unit when it is supplied with 230 V	
608291	DC cable	DC cable for connecting a CBD6S control unit to the BA001 rechargeable battery pack, 2-pin with straight minifit connector at both ends, length: 200 mm	
608292	SMPS006	External switched-mode power supply unit for charging the rechargeable battery box BA001, EU connection cable and DC cable (608291) must be ordered separately if required.	
608723	Power cable for SMPS006	Straight power cable with EU plug, length: 3000 mm	
611589	Serial cable for multi- parallel operation	Serial cable for parallel operation of two CBD6S control units, length: 2000 mm	P
611593	Programming cable	Programming cable for CBD6S control unit with serial and USB plug, length: approx. 2000 mm. The Desk Control Basic software is also required	
1159 611609	Desk Sensor 1	The Desk Sensor 1 (DS1) is an anti-collision solution that can prevent serious damage to desks and objects caused by collisions during desk movement. It detects a tilt of the table top as well as hard and soft obstacles. It is a small, compact plug-in device that can be easily plugged into the table systems on either the CBD6S controller or the DL lifting pillars.	

IL |

	Lifting	g pillars H
ndivi	Art. No.	Name
ndividual lifitng components HI	608280	DL5-300 mm -
id combo	608281	DL5-500 mm -
nents HL	608282	DL6-650 mm -
	WEW	

Art. No.	Name	Description	Image
1698280	DL5-300 mm - 800N	Two-part lifting pillar, max. Speed (unloaded): 38mm/s, Max. Load (per column): 800N, Pillar dimensions: 50 x 80 mm, Spindle type: 20 mm pitch, Mounting bracket: 120 x 40 x 8mm with 2 x M8, Colour: White aluminium (RAL 9006), Stroke length: 300 mm, Installation dimension: 450 mm, Weight: 6.5 kg	Ĩ
40 608281	DL5-500 mm - 800N	Two-part lifting pillar, max. Speed (unloaded): 38mm/s, Max. Load (per column): 800N, Pillar dimensions: 50 x 80 mm, Spindle type: 20 mm pitch, Mounting bracket: 120 x 40 x 8mm with 2 x M8, Colour: White aluminium (RAL 9006), Stroke length: 500 mm, Installation dimension: 645 mm, Weight: 6.5 kg	
408282	DL6-650 mm - 800N	Three-part lifting pillar, max. Speed (unloaded): 38mm/s, Max. Load (per column): 800N, Pillar dimensions: 50 x 80 mm, Spindle type: 20 mm pitch, Mounting bracket: 120 x 40 x 8mm with 2 x M8, Colour: White aluminium (RAL 9006), Stroke length: 650 mm, Installation dimension: 560 mm, Weight: 7.5 kg	Ĩ
608283	DL6-650 mm - 1200N	Three-part lifting pillar, max. Speed (unloaded): 23mm/s, Max. Load (per column): 1200N, Pillar dimensions: 50 x 80 mm, Spindle type: 12 mm pitch, Mounting bracket: 120 x 40 x 8mm with 2 x M8, Colour: White aluminium (RAL 9006), Stroke length: 650 mm, Installation dimension: 560 mm, Weight: 7.5 kg	



Mounting material HL

Art. No.	Name	Description	Image
भूतमे 608293	AU-TPS	For DL5/6 series, mounting table top top small, sheet steel, thickness: 2 mm, colour: light grey (RAL7035)	
स् ¹¹ 608294	AU-TPB	For DL5/6 series, large table top mount, sheet steel, thickness: 2 mm, colour: light grey (RAL7035)	
^{सूरो} 608295	AU-HS-top	For DL5/6 series, top mounting of lifting pillar, sheet steel, thickness: 2 mm, colour: light grey (RAL7035), mounting round tube with PC-CN (100004) and BS HKP 5 mm (BC000175)	\$
^{भूटमे} 608296	AU-HS-bottom	For DL5/6 series, bottom mounting of lifting pillar, sheet steel, thickness: 2 mm, colour: light grey (RAL7035), mounting round pipe with PC-CN (100004) and BS HKP 5 mm (BC000175)	
608745	BSHub-AU-small	Small mounting kit for adapting the DL5/6 series to our 28 mm round pipe, consisting of: 1x AU-TPS (608293) incl. 6x SI0612 (110149), 4x SSPP4016 (124403) 1x AU-HS top (608295) incl. 2x PC-CN (100004), 4x SLI0512 (111196), 4x M05 (110141), 4x US05 (101847), 1x SLI0812 10.9 (118592) 1x AU-HS-bottom (608296) incl. 2x PC-CN (100004), 4x SLI0512 (111196), 4x M05 (110141), 4x US05 (101847), 2x SI0612 (110149)	
¥ ¹ 608746	BSHub-AU-large	Large mounting kit for adapting the DL5/6 series to our 28 mm round pipe, consisting of: 1x AU-TPB (608294) incl. 6x SI0612 (110149), 8x SSPP4016 (124403) 1x AU-HS top (608295) incl. 2x PC-CN (100004), 4x SL10512 (111196), 4x M05 (110141), 4x US05 (101847), 1x SL10812 10.9 (118592) 1x AU-HS-bottom (608296) incl. 2x PC-CN (100004), 4x SL10512 (111196), 4x M05 (110141), 4x US05 (101847), 2x SI0612 (110149)	22



7 reasons for a height-adjustable desk

- 1. The cardiovascular system is sufficiently trained.
- 2. Stimulates the metabolism and increases concentration and performance.
- 3. Avoiding muscle loss and bone loss.
- 4. Less headaches and muscle tension in the back and neck due to adequate blood flow.
- 5. The standing-seat-variety increases your motivation.
- 6. Prevention of chronic diseases (e. g. diabetes), obesity and depression.
- 7. Improving the quality of life in the office and increased life expectancy.

Depth	800 mm
Table width	Art. No.
1400 mm	
1600 mm	For further details please see the catalogue "Office. Laboratory. Education 3.2".
1800 mm	"onice. Laboratory. Education 3.2 .

ERGOLevel

- Desk with adjustable height
- In three different widths
- Frame colour in graphite black
- Max. load 80 kg
- Special construction on request

SPACE FOR NOTES		



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272 | LIGHTING OF INDUSTRIAL WORKPLACES





Important parameters / units

Illuminance

• Illuminance, measured in LUX (lx) is the luminous flux from a light source falling on a surface of one square metre.

Emax@1m = 100 lx is where an area of one square metre is uniformly illuminated by 100 lumen of luminous flux.

Lighting of industrial workplaces

The lighting of industrial workplaces must satisfy many requirements and must consider the safety and health of workers. Providing the right light will increase the concentration and the wok quality.

Proved in numerous studies, a good lighting of industrial workplaces ensure better motivation and high commitment. The employees stay mentally fit and feel less tired.

The increased concentration capability leads to a better work quality, errors are reduced and the risk of industrial accidents is reduced.

Colour temperature

- Indicates in degrees Kelvin, if the light source emits warm white light or cold white light.
- Warm white light: less than 3300 K (e. g. 60 Watt light bulb: 2700 K), cold white light: more than 5000 K (e. g. sunlight).
- Between 3300 K and 5000 K light is called neutral white.

Colour rendering index (Ra)

- Shows how the light reproduces the colours (perfect colour reproduction: Ra=100).
- Light bulbs reach about 100, energy-saving lamps 50-90 and LEDs up to 97.
- The colour rendering index in the EU shall be at least 80 within the EU.

UGR (Unified glare rating)

- The unified glare rating method evaluates the glare produced by the entire lighting system and is uniformly defined worldwide.
- For different applications maximum values apply, for office workspaces the UGR may not be more than 19.

Luminance (L)

- Luminance is the brightness of an illuminated or luminous surface as perceived by the human eye and is measured in candelas per unit area /cd/m2).
- This has an effect on visual performance and visual comfort.
- An increase in the luminance improves the visual acuity, contrast sensitivity and and improves the eye function.

Uniformity of illuminance (Uo)

• The uniformity of illuminance within a defined area is calculated by dividing Emin/Em of the minimum and average illuminance.

The BEEWATEC LED supports the visual performance at industrial workplaces

DIN EN 12464-1 makes a distinction between the area in which the visual task is carried out at a workplace and the area immediately surrounding it. What kind of lighting system is installed primarily depends on the room height and the visual task performed by the workplace.

Concentrating lighting on the area where work is performed can reduce investment and energy costs, but it carries the risk of inferior lighting quality. This may be the case, for example, if the area where work is performed and less brightly illuminted surrounding areas lie so close together that the luminance distribution in the visual field is not well-balanced. The visual task area must be determined carefully.

If additional lighting is needed at individual workplaces, workplace lamps can be used. Higher levels of illuminance when working with small components or during check-operations are rarely illuminated spatially, but almost always with additional workplace lamps, this light is related to the visual task area.

Recommended DIN EN 12464-1 brightness levels for industrial workspaces

Area of activity	Em (lx):	UGR:	Uo:	Ra:
Assembly work	300	25	0,60	>80
Assembly work with average details	500	22	0,60	>80
Assembly work with fine details	750	19	0,60	>80
Assembly work with very fine details	1000	16	0,70	>80
Electronics workshop, testing, adjustment	1500	16	0,70	>80

Energy-efficient light

Additionally to the quality of a lighting system you have to take into account its economic efficiency. Lamps with high illuminance, electronic control gear, integrating available daylight and light management ensure energyefficient light production and reduce CO_2 emission.

Saving costs by using LED technology

Replacing old plants by modern, state-of-the-art lighting technology will save money after a short amortization period: the older the system to be replaced is, the higher the energy saving and the cost saving will be.

Improve work quality

When surfaces are checked for defects and irregularities, the human eye has an unmatched ability despite of intelligent machines, but optimum environmental conditions are required.

The right light in the right amount at the right place and time is essential.

Light control with the turn function

The pivotable BeeLED workplace lamps are specifically tailored to the demanding visual tasks in a laboratory, at assembly workstations and at workplaces in the electronics production. With a turn function (180°) the light can be pointed to a specific area of activity of the workplace.

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BEEWATEC LED

- High durability; homogeneous and ergonomic light
- Energy saving
- Robust aluminium housing



- Rotatable light the lighting demand can be oriented to the work requirements
- With different connecting and mounting options

Connecting options

230 volt direct connection via shockproof plug



Versions:

- BEEWATEC LED SE fixed
- BEEWATEC LED
- BEEWATEC LED Multi S

Mounting options





Versions:

•

BEEWATEC LED SE lateral



Protection against electrostatic discharge

Versions:

•

- BEEWATEC LED SE fixed / lateral
- BEEWATEC LED SE rotatable



Integrated fixed mounting brackets for easy attachment

Variations:

.

BEEWATEC SlimLED

BEEWATEC LED SE rotatable

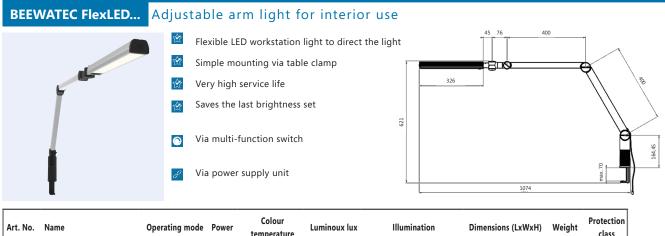


- Rotatable light
- External control unit with on/off switch
- Saves the last brightness set

External dimmbale via Dimmbox

Connecting cable 3 m to dim unit and 1,5 m connection cable to shockproof plug

Art. No.	Name	Operating mode	Power	Current	Colour temperature	Luminoux lux	Illumination	Dimensions (LxWxH)	Weight	Protection class		
131717	BEEWATEC LED SE rotatable 1140	-	12 \	.3 W 0,08 A	-	1331 lm	557 Lux from distance 1 m	535x51x51mm	0,95 kg			
402210 🙆	BEEWATEC LED SE rotatable 1140 ESD		13 W			954 lm	531 Lux from distance 1 m	222X2TX2TIIIII				
131718	BEEWATEC LED SE rotatable 3140					21 W	0,1 A		2158 lm	903 Lux from distance 1 m	661x51x51mm	115
402211 🛕	BEEWATEC LED SE rotatable 3140 ESD	230 V~	ZI W	0,1 A	4000 K	1547 lm	861 Lux from distance 1 m	001X21X2111111	1,15 kg	I/IP30		
131719	BEEWATEC LED SE rotatable 4140	250 V~	32 W	W 0,15 A		3368 lm	1409 Lux from distance 1 m	976x51x51mm	1,54 kg	1/1850		
402212 🙆	BEEWATEC LED SE rotatable 4140 ESD		52 VV			2415 lm	1345 Lux from distance 1 m $$	9/023123111111		-		
130124	BEEWATEC LED SE rotatable 5140		40.111 0	0.2 A		4400 lm	1841 Lux from distance 1 m	1171x51x51mm	2 kg			
402213 🙆	BEEWATEC LED SE rotatable 5140 ESD		40 W	N 0,2 A		3156 lm	1856 Lux from distance 1 m					



4	Art. No.	Name	Operating mode	Power	Colour temperature	Luminoux lux	Illumination	Dimensions (LxWxH) W		Protection class
	402160	BEEWATEC FlexLED 1740	220240 V (AC)	17 W -	4000 K		2480 Lux from distance 0.5 m	1070x52x550mm	1,66 kg	I/IP30
	402223	02223 BEEWATEC FlexLED 1757	220240 V (AC)	1/ 1/	5700 K	1210 111	2460 Lux Ironi distance 0,5 m	10/0352355011111	1,66 kg	1/1250

BEEWATEC WorkLED SE Duo... Daylight lamp 🔅



LED workplace lights

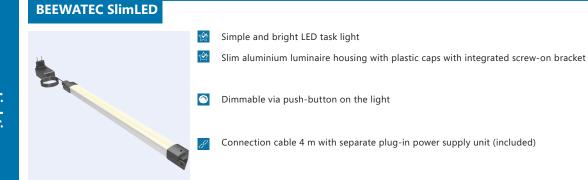
- Integrated control gear
- Very high service life (about 50.000 hours)
- Saves the last brightness set

Via multifunction push-button

Art. no	Name	Operating mode	Power	Colour temper- ature	Luminoux lux	Illumination	Dimensions (LxWxH)	Weight	Protection class
402026	BEEWATEC WorkLED SE Duo 3040	230 V~	42 W	2700 6500 K	4518 lm	1847 Lux from distance 1 m	614x121x42,5mm	1,37 kg	1/1020
402027	BEEWATEC WorkLED SE Duo 4040	230 V~	63 W	2700 0500 K	6968 lm	2848 Lux from distance 1 m	900x121x42,5mm	1,88 kg	I/IP30

🖄 Features

276 | LIGHTING OF INDUSTRIAL WORKPLACES



Art. No.	Name	Operating mode	Power	Current	Colour temperature	Luminoux lux	Illumination	Dimensions (LxWxH)	Weight	Protection class
403605	BEEWATEC LED SlimLED 0840	230V~/24V	23 W	0,15 A	4100 K	2273 lm	923 Lux from distance 1 m	889 x 32 x 26 mm	0,344 kg	111/10:20
403606	BEEWATEC LED SlimLED 1040	DC	29 W	0,15 A		2845 lm	1139 Lux from distance 1 m	1089 x 32 x 26 mm	0,420 kg	III/IP20

BEEWATEC LED SE rotable



Rotatable light and long service life (about 50.000 hours)

岔 Integrated operating unit

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- 岔 Saves the last brightness set
 - Via multifunction push-button
 - Connection cable 4 m with shockproof plug

Art. No.	Name	Operating mode	Power	Current	Colour temperature	Luminoux lux	Illumination	Dimensions (LxWxH)	Weight	Protection class
130065	BEEWATEC LED SE rotatable 1040		13 W	0.08 A		1331 lm	557 Lux from distance 1 m	535x51x51mm	0,83 kg	
130067 🙆	BEEWATEC LED SE rotatable 1040 ESD		13 VV 0,08 A		0,00 A	954 lm	531 Lux from distance 1 m		0,65 KY	
130069	BEEWATEC LED SE rotatable 3040		21 W	014		2158 lm	903 Lux from distance 1 m	661x51x51mm	0.05 kg	
130070 🙆	BEEWATEC LED SE rotatable 3040 ESD	230 V~	21 W 0,1 A		0,1 A 4000 K	1547 lm	861 Lux from distance 1 m		0,95 kg	I/IP30
130071	BEEWATEC LED SE rotatable 4040		32 W	0.15 A	4000 K	3368 lm	1409 Lux from distance 1 \ensuremath{m}	976x51x51mm	1,24 kg	
130072 🙆	BEEWATEC LED SE rotatable 4040 ESD		32 VV	0,15 A		2415 lm	1345 Lux from distance 1 \ensuremath{m}	970X31X3111111	1,24 ку	
130073	BEEWATEC LED SE rotatable 5040		40 W	0.2 4		4400 lm	1841 Lux from distance 1 m	1171x51x51mm	1.42 kg	
130074 🙆	BEEWATEC LED SE rotatable 5040 ESD		40 W	0,2 A		3156 lm	1756 Lux from distance 1 m	11/1221221000	1,42 kg	

BEEWATEC LED SE fixed



- Integrated operating unit
- Saves the last brightness set 岔
- \odot Via multifunction push-button
 - Connection cable 4 m with shockproof plug

ArtN	lo. Name	ESD	Operating mode	Power	Current	Colour temperature	Luminoux lu	Illumination	Dimensions (LxWxH)	Weight	Protection class
1300	91 BEEWATEC LED SE fixed 3040		230 V~	21 W	0,08 A	4000 K	2158 lm	903 Lux im Abstand 1 m	627x51x38mm	0,54 kg	I/IP30

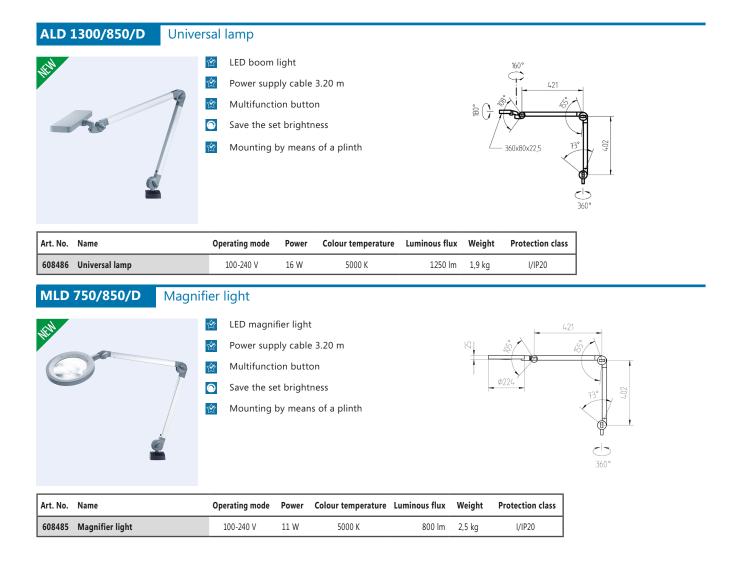
BEEWATEC LED SE lateral



Rotatable light and long service life (about 50.000 hours)

- Integrated operating unit
- Saves the last brightness set
- Via multifunction push-button
- Connection cable 4 m with shockproof plug

Art. No.	Name	Operating mode	Power	Current	Colour temperature	Luminoux lux	Illumination	Dimensions (LxWxH)	Weight	Protection class
130083	BEEWATEC LED SE lateral 1040	220.1/	12.14	0.00 4	4000 K	1331 lm	557 Lux from distance 1 m	465.51.65	0.64 hz	1/1020
130085 🜊	BEEWATEC LED SE lateral 1040 ESD	230 V~	13 W	0,08 A	4000 K	954 lm	531 Lux from distance 1 m	465x51x65mm	0,64 kg	I/IP30



Lighting

SPACE FOR NOTES	

ADDITIONAL ACCESSORIES

Additional accessories

Fastening materials	280
General accessories	282



Mounting materials

- Bolts of all kinds for all concerns
- Nuts (hexagonal nut, nuts for T-slots, hammer-head nut, collar nut)
- Washers / cover plate
- Slot adapter
- T-slot nuts

Mountin	g materials	Art. No.	Name	Description	Thread type	Length Height Ø	Material
		109749 🔼	SA0645	Hexagon head bolt for pipe on MC	M6	Length: 45 mm	_
		124083 🙆	GM815	Hexagon head bolt		Length: 15 mm	
		101854 🔼	SA0825	Hexagon head bolt for castors on MC		Length: 25 mm	_
	_	109797 🔼	SA0830	Hexagon head bolt for castor mount		Length: 30 mm	
		100250 🔼	SA0835	Hexagon head bolt for fastening metal	M8	Length: 35 mm	Galvanised
		100267 🔼	SA0840	Hexagon head bolt for wheel kit		Length: 40 mm	Gaivariiseu
		100251 🔼	SA0850	Hexagon head bolt		Length: 50 mm	
		101658 🔼	SA0865	Hexagon head bolt for corner piece for square pipe		Length: 65 mm	
		109750 🔼	SA1025	Hexagon head bolt for castors on MC	M10	Length: 25 mm	
		100249 🔼	SA1225	Hexagon head bolt	M12	Length: 25 mm	
		100253 🛆	SA1-232	Hexagon head bolt	1/2"x32		Galvanised
		100246	M0610			Length: 10 mm	
		100255	M0625			Length: 25 mm	BK
		100266	M0630				DIC
	I man anterererererererer					Length: 30 mm	
		114337 🛕	M0610	Socket head cap bolt for steel joints	M6	Length: 10 mm	-
		117731 🙆	M0620			Length: 20 mm	14/7
		114319 🙆	M0625			Length: 25 mm	WZ
		116362	M0630			Length: 30 mm	-
		110149	SI0612	Socket head cap bolt (DIN 912) for mounting part	M6	Length: 12 mm	
		100248	SI1030	socker nead cap boil (birr 512) for mounting part	M10	Length: 30 mm	Galvanised
	(anname)	110171	SI1230	Socket head cap bolt (DIN 912) for castors on BS	M12	Length: 30 mm	Guivaniscu
*		110171	SI0820		IVIIZ	Length: 20 mm	
SEAL OF		112733	SI0820	Hexagon socket head cap screw (DIN 912), steel 8.8	M8	Length: 30 mm	Galvanised
		112028	SI0830	The ray of socket field cap sciew (Divid 512), steel 6.6	IVIO	Length: 40 mm	Gaivaniseu
		112028	SSI0515	Countersunk screw with hex socket			
	A	101849	SSI0515		M5	Length: 15 mm	Galvanised
	·	1101049	SSI0510	Countersunk bolt DIN 7991 for 5 mm structure-core panel Countersunk bolt DIN 7991 for 10 mm structure-core panel	CIVI	Length: 16 mm	
			3310320	Countersuite boit DIN 7991 for 10 min structure-core parier		Length: 20 mm	
		109752 🛕	SSP4020	Countersunk bolt 800 for GAP-23	M4	Length: 20 mm	Galvanised
		112697 🛕	SSPP4520	Self-tapping drill bolt type 801 for panels 19 mm	Nominal-Ø	Length: 20 mm	
	1	112486 🛕	SSPP4525	Self-tapping drill bolt type 801 for panels 26 mm	4.5 mm	Length: 25 mm	Columbus
	Andread and a second se	110127 🛕	SSPP5020	Self-tapping drill bolt type 801 for panels 19 mm	Nominal-Ø 5.0 mm	Length: 20 mm	Galvanised
		109762 🚵	SB3916 SB4816	Self-tapping drill bolt type "N" for mounting to the pipe	Nominal-Ø 3.9 mm Nominal-Ø 4,8 mm	– Length: 16 mm	Galvanised
		109751 🝙	SGF0412	Thread rolling bolt type DIN 7500 C with taptite 2000, thread, flat head and hexalobular	M4 Head-Ø 8.0 mm	Length: 12 mm	Galvanised
	Ð	111311 🛕	SLK0320	Filister head bolt DIN 7985 for GAP-23	M3	Length: 20 mm	Galvanised
		126420 🛕		Hammer-head screw M8x25		Length: 25 mm	
		126419 🔼		Hammer-head screw M8x20	M8	Length: 20 mm	Galvanised
		126418 🔼		Hammer-head screw M8x16		Length: 16 mm	
		401005 🚵	HM0615	Bolt with star knob	M6	Length: 15 mm	Galvanised
	V	100548 🕰	HM0620		-	Length: 20 mm	
WEW	<u>C</u>	615349 🛕		Hook screw with metric thread M8	M8	Length: 80 mm	Stainless steel
		109753 🝙	M06		M6	Height: 5,0 mm	
	(B)	109754	M08		M8	Height: 6,5 mm	-
				Lavagened aut DIN EN 24022		•	Columnia
		109755 🛕	M10	Hexagonal nut DIN EN 24032	M10	Height: 8,0 mm	Galvanised
		109756 <u>(</u>) 100270 (<u>(</u>)	M12 M1-2		M12 1/2"-12N	Height: 10,0 mm	
		200210 (22)					
	選		N06-55	Hexagonal nut ISO 4032 for aluminium joints	M6	Height: 5,2 mm	Galvanised

MOUNTING MATERIALS | 281

Mounting materials	Art. No. Name	Description	Thread type	Length Height Ø	Material
e	101855 🙆 MS05 100244 🚵 MS06 100242 🙆 MS08 100243 🚵 MS10	Hexagonal safety lock bolt DIN 982	M5 M6 M8 M10	Length: 5 mm - Length: 6 mm Length: 10 mm	Galvanised
**	100256 TN06 W 100257 TN06 BK	Nut for T-slots and steel joints		201901 20 1011	WZ BK
•	110140 🙆 M03	Nut DIN 934 für GAP-23	M6	Height: 2.4 mm	Galvanised
	126585 🙆 126423 🙆	Hammer-head nut 10 for tener slot	M6 M8	Web: 3 mm	Galvanised
	126425 🛕	Collar nut M8	M8		Galvanised
Ø	100239 <u>(</u> FR10	Spring washers with rectangular cross section form B, DIN 127	M10	In Ø: 8.1 mm Out Ø: 14.8 mm Height: 4 mm Thickness: 2 mm	Galvanised
	101847 <u>(</u> US05	Flat washer DIN 125 (Hardness 140HV)	M5	In Ø: 8.3 mm Out Ø: 10 mm Thickness: 1 mm	Galvanised
	109758 <u>(</u> US06		M6	In Ø: 6.4 mm Out Ø: 12 mm Thickness: 1.6 mm	
\bigcirc	101846 <u>(</u> US08		M8	In Ø: 8.4 mm Out Ø: 16 mm Thickness: 1.6 mm	
\bigcirc	100240 🛕 US10		M10	In Ø: 10,5 mm Out Ø: 20 mm Thickness: 2 mm	
	109757 <u>(</u> US12		M12	In Ø: 13 mm Out Ø: 24 mm Thickness: 2,5 mm	
	109788 <u>(</u> USG05	Cover plate DIN 9021	M5	In Ø: 5.3 mm Out Ø: 15 mm Thickness: 1.2 mm	Galvanised
	109760 <u>(</u> USG08		M8	In Ø: 8.4 mm Out Ø: 24 mm Thickness: 2 mm	
	101851 <u>ര</u> USG10		M10	In Ø: 10.5 mm Out Ø: 30 mm Thickness: 2.5 mm	
	130797 <u>(</u> SA622A	T-slot nut made of aluminium	M6		A.L
	127413 🛕 SA822A		M8		Aluminium
(S)	126897 🛕 NST-10-M6	Swivelling T-slot nut with spring steel for tener groove	M6	-	Galvanised
	126427 <u> </u> NST-10-M8		M8		
Contraction of the second seco	401292 🙆 NST-10-M4	Swivelling T-slot nut with spring ball and centering ring	M4	-	Steel
	401293 🙆 NST-10-M5	for tener groove F	M5		
6	120262	Distance bush PA with radius D 24 mm		Inside drilling: 8.4 mm Radius: 12 mm Thickness: 24 mm	PA black
CT. N	126424 🛕	Thread form joint set 10, Profile type heavy			Galvanised

Set of mounting

Art. No.	Name	Joint	Bolts, nuts, washers
109768	BS 9595	1 x Adjusting collar SF 9591	2 x Bolt M0610
116306 🙆	BS 9596-WZ	1 x Connection profile GA-15S-WZ	1 x Bolt M0610 1 x M06
112743	BS 9596-BK	1 x Connection profile GA-15S-BK	1 x Bolt M0610-BK 1 x M06
109770 🛕	BS 9597	1 x Clamp PC-C	2 x Bolt SLI0412 2 x M04 2 x US04
109771 盆	BS 9598-Ni	2 x Connection profile GA-15S-Ni	2 x Countersunk bolt SSI0610 2 x M06
109772 🔼	BS 9599	1 x Adjusting collar SF 9591	2 x Countersunk bolt SSI0610 2 x M06
132924	BS-MFK-Alu	AT2829P as double pipe	2 x USG06 2 x MS0625 WZ
111727	BS 9527 BK	2 x GA-155 BK	2 x M0610 2 x Countersunk bolt SSI0510 2 x Countersunk bolt SSI0512 2 x USG05 2 x MS05

General accessories



0401550

401551

ADDITIONAL ACCESSORIES FOR MODULAR SYSTEMS | 283



605337

605336

General accessories

284 | ADDITIONAL ACCESSORIES FOR MODULAR SYSTEMS





- Max. dimensions (WxDxH):
- 335 x 205 x 635 mm

Maximum load: 20 kg

ADDITIONAL ACCESSORIES FOR MODULAR SYSTEMS | 285

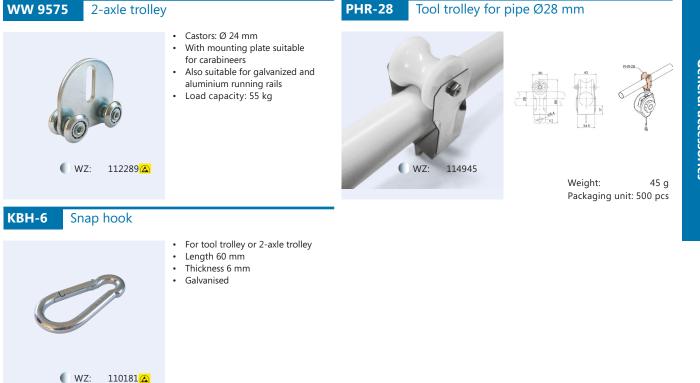


286 | ADDITIONAL ACCESSORIES FOR MODULAR SYSTEMS

General accessories



ADDITIONAL ACCESSORIES FOR MODULAR SYSTEMS | 287



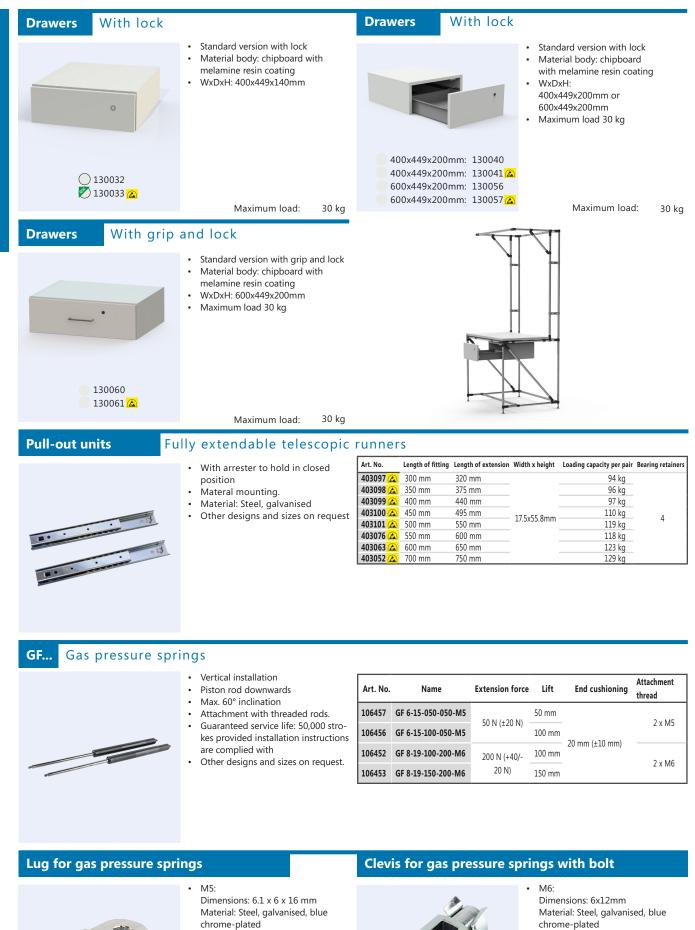
Application examples WW9575 and KBH-6



Single/double pipe running rail The WW 9575 tool trolley can also run in a double pipe of the BeeWaTec pipe racking system by G.S ACE, which is integrated in the optional extension of the QUATTRO system. Alternatively it is possible to connect two pipes in the required length with GA-9S double joints. PHR-28 may be used in a single pipe.

288 | ADDITIONAL ACCESSORIES FOR MODULAR SYSTEMS

General accessories



chrome-plated M6: Dimensions: 6.1 x 3 x 23 mm

Material: Steel, galvanised

🕕 GVZ (M5): 106458 🙆

🌔 GVZ (M6): 604249 🔼

🕕 GVZ (M6): 106455 🙆

<u>Workshop equipment</u>	
BeeWaTec perforated panels	291
Tool holders and accessories for perforated plates	292
Magnets	297
Workplace mats	301
Labelling and magnetic systems	305
Kanban and planning systems	309
Information and presentation systems	310
Plastic bins	312
Floor marking systems (BEEStripe)	315
Tools	317
FIFO station	321



Organisation might not be half the battle. But it saves half the work.

Workshop equipment

Work surfaces. Tools, machines and work material within reach. Storage space for finished parts and much more. While taking into consideration flexible workflows, personal preferences, safety standards ...

On the following pages, you will find versatile and flexible systems that allow you to design your work environment and work processes according to your ideas. We have a lot more to offer - too much to put it all in this catalogue. Please contact our sales staff for further information and individual consultation.



Workplace organisation

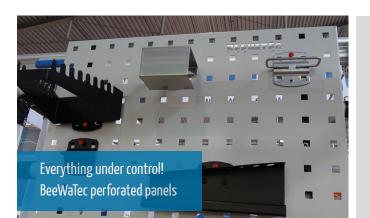
No need to search for various parts, work material and tools are within reach, order and cleanliness, eliminate legwork – in a word: waste-free working processes; the basic idea of lean management.

The basis for every quality product and high-quality service is a clean and neat working environment.

Our products help to make this basic state possible and to meet the customers' basic need regarding quality and fast delivery.

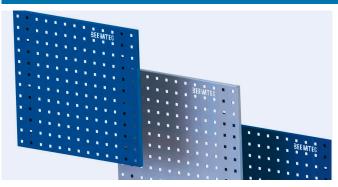
Our products:

- **BeeWaTec Perforated panels:** The perforated panel system systematically keeps everything in the right place and offers different application possibilities: as panel element for the tube plug-in system by G.S ACE, as wall-mount solution, as detached partition wall and as workshop and trolley cabinets.
- Appropriate tool holder and accessories for the perforated panels



BeeWaTec perforated panels

156





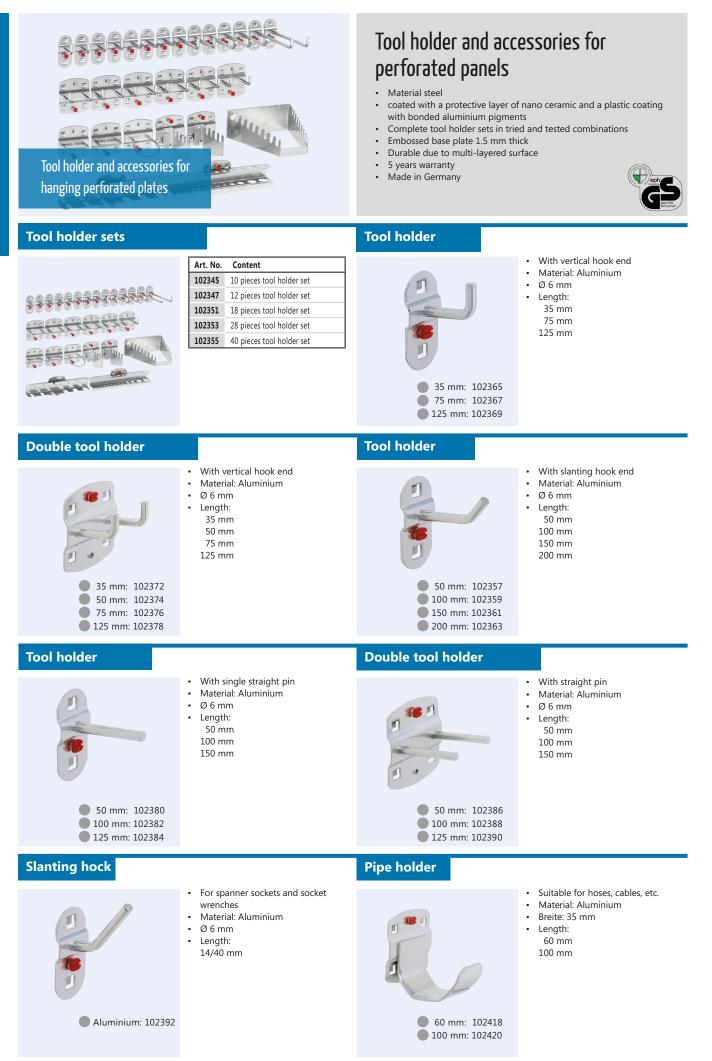
- Material: Sheet steel 1.25 mm with powder coat Hidden mounting holes •
- •
- Appropriate tool holder systems on request Hole matrix: 28x28 mm
- Hole size: 10x10 mm •
- Mounting possibilities: horizontal/vertical with M6 bolt •
- Hooks can be mounted spanning over two panels
- Sheet steel 1.25 mm with powder coating ٠
- Hole matrix: 28x28 mm
- . Hole size: 10x10 mm
- Hidden mounting holes •
- Matching tool holder systems on request
- Mounting possibilities: horizontal/vertical with M6 bolt •
- Hooks can be mounted spanning over two panels
- . Other sizes and colours on request
- . Due to the stability and mounting possibilities, the perforated panels have the following amount of back beams

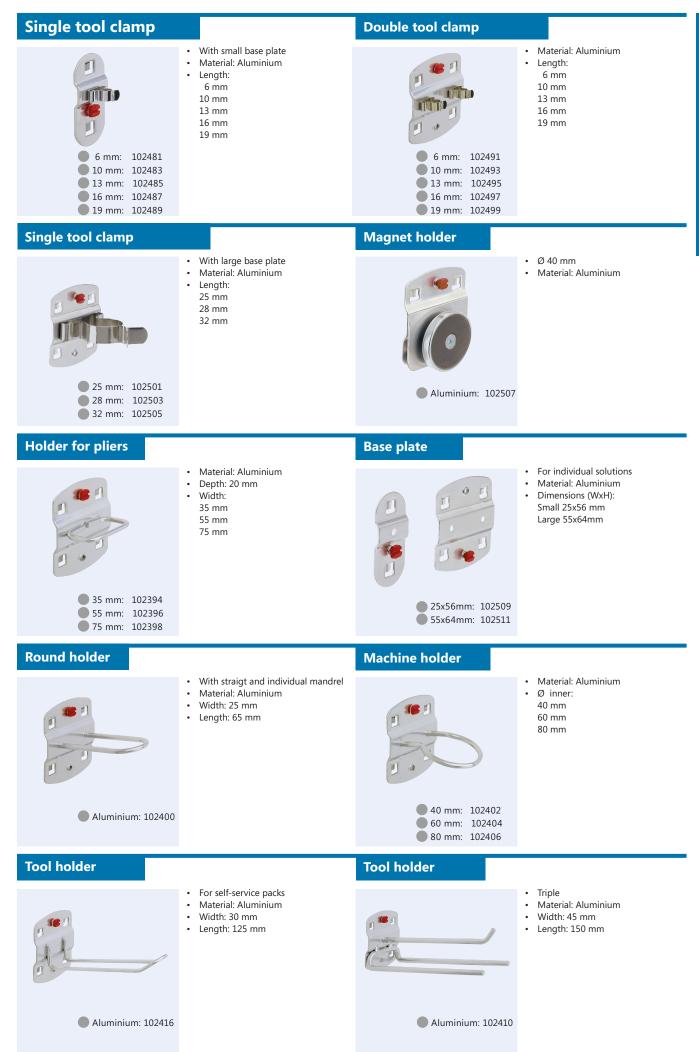
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Panel dimensions	494x456mm	988x456mm	1482x456mm	1976x456mm
Sky blue (RAL 5015)	123943	123511	123946	123949
Light grey (RAL 7035)	123944	123512	123947	123950
Gentian blue (RAL 5010)	123942	123510	123945	123948
galvanized	207513 🙆	-	616713 🙆	616714 🙆
Back beams	2	3	4	5



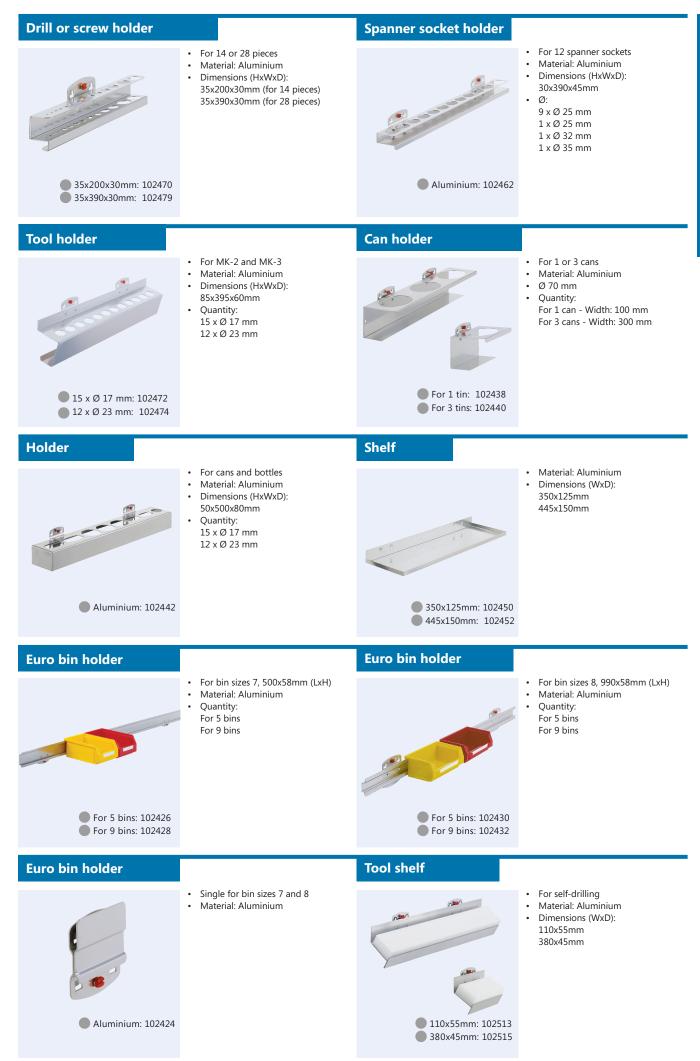
Tool holder and accessories







Tool holder and accessories



Tool holder and accessories



Light grey: 123938



Round GraviFlex® Magnets with external thread

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Black rubber casing ٠

- Magnet core NdFeB •
- Operation temperature max. 60°C
- Suitable for the screw connection with boards, machines etc.



ArtNo.	Ø	Thickness	Height	Thread	Weight	Adhesion force
113356	22 mm	6.0 mm	12.5 mm	M4 x 6.5	11 g	58 N
111005	43 mm	0.0 11111	21.0 mm	M6 x 16.3	31 g	115 N
111006	66 mm	0 E mm	22 E mm	M9 v 1E 0	105 g	250 N
111007	88 mm	8.5 mm	23.5 mm	M8 x 15.0	190 g	550 N

GraviFlex[®] magnets

good grip also on vertical surfaces

blue "shadows" in the picture above

High friction forces sideways that prevent slipping and guarantee a

Can also be used on metal sheets with sensitive surfaces (lacquer,

Three coupling possibilities with external thread, internal thread and

Magnetic foil with a thickness of 0.9 mm was used for the red and

Extra secure and strong hold
High friction for

Rubber-like surface

chrome etc.)

threaded bush

Round GraviFlex® Magnets with threaded bush

- Black rubber casing •
- Magnet core NdFeB
- Operation temperature max. 60°C Can be attached to e.g. screw, hooks



ArtNo.	Ø	Thickness	Height	Thread	Weight	Adhesion force
111000	12 mm	7.0 mm	14.8 mm		6 g	13 N
113892	22 mm		11 5	-	13 g	58 N
111001	31 mm	6.0 mm	11.5 mm	M4	22 g	89 N
111002	43 mm		10.5 mm		30 g	100 N
111003	66 mm	0. F. man	15.0 mm	M5	105 g	250 N
111004	88 mm	8.5 mm	17.0 mm	M8	192 g	550 N

Round GraviFlex[®] Magnets with internal thread

•

- Black rubber casing
- ٠ Magnet core NdFeB
- Operation temperature max. 60°C Ideal for the combination with other magnets for a double-sided adhesive effect
- 0

ArtNo.	Ø	Thickness	Thread	Weight	Adhesion force
113021	22 mm		M4	9 g	38 N
111008	31 mm	6.0 mm	M5	21 g	89 N
111009	43 mm		M4	29 g	100 N
111010	66 mm	0 F mm	M6	100 g	250 N
111011	88 mm	8.5 mm	M8	186 g	550 N

Rectangular GraviFlex® Magnets

with internal thread

- Black rubber casing
- Magnet core NdFeB ٠
- Operation temperature max. 60°C •
- Mounting solution with one or two internal threads



ArtNo.	Dimensions (WxHxD)	Thread	Weight	Adhesion force
113816	43x31x6.9mm	M4	27 g	105 N
113817	45X51X0.911111	2 x M4	28 g	146 N



Magnets



110984

110986

110988

110990

20 mm

30 mm

40 mm

60 mm

1.0 mm

1.5 mm

Art. No.	Dimensions (LxW)	Material	
110996	300x30mm	Plastic housing	
110997	500x60mm	Wood housing	

Metal disc

With drill hole and 90° counterbore



ArtNo.	Ø	Height	Inner Ø	Material
110992 🔼	23.7 mm	1.5 mm	5.0 mm	Sheet steel nickel-plated
113989 盆	27.0 mm			
110994 盆	45.0 mm	3.0 mm	5.5 mm	Sheet steel galvanised
110995 <u> </u>	64.0 mm			



Art. No. Name

BIO1200

107555

An average assembly worker spends 35-40 hours a week in the same place. Over the year, this comes to about 1820 hours of standing. This illustrates the importance that should be attached to the way in which people stand. Workplace mats make an enormously important contribution to this. With us, you can choose the workplace mats that meet your requirements and the floor conditions. On the following pages you will find more detailed information about the products in terms of area of application, effect, soil condition and material.



Weight

Dimensions (LxW) Height

Workplace mats

For every concern the matching workplace mats

Standing mat with round nobs **BEEMotion**



- Highest standing comfort: Joint-friendly, stimulating the blood flow and cold-insulating
- Further properties: slip-resistant, shock-absorbing
- For dry and wet standing and walking worktstations
- Very elastic polyurethane in black Surface with round nobs
 - Bottom side slip-resistant due to
 - waved groove profile Hardness: approx. 23 - 24 Shore A

BEETwist Standing mat with flat nobs



- Highest standing comfort: joint-friendly, stimulating the blood flow and cold-insulating
- Further properties: slip-resistant, shock-absorbing, trafficable
- For dry and wet standing, rotational and walking workstations
- Very elastic polyurethane in black Surface with flat nobs Bottom side slip-resistant due to
- raised square profile
- Hardness: approx. 25 Shore A

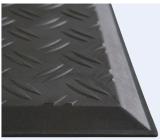
			Ammuney 00.00		
107558	BIO1000	BEEMotion Antistatic	Approx. 90x60cm plus entering edge	15 mm	ca. 2.6 kg
107561	BI01100	BEEMotion Antistatic and fire-resistant	of 2cm each		

Description

BEEMotion Standard

Art. No. Description Dimensions (LxW) Height Weight Name 107554 BIO3200 **BEETwist Standard** Approx. 90x60cm 107557 BIO3000 **BEETwist Antistatic** plus entering edge 12.5 mm ca. 2.5 kg **BEETwist Antistatic** of 2.5 cm each BIO3100 107560 and fire-resistant

BEERelax Standing mat with groove structure



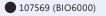
- For a high standing comfort: Joint-friendly, stimulating the blood flow and cold-insulating
- Further properties: Slip-resistant, shock-absorbing, trafficable
- For dry and wet standing, rotational and walking workstations Very elastic polyurethane
- Surface groove structure
 - Bottom side slip-resistant due to waved groove profile
 - Hardness: approx. 23 Shore A

- **BEEWet** Perforated mat
- - From black natural rubber Open surface
 - Bottom side good drainage
 - Hardness: approx. 48 Shore A ±3
 - Temperature resistant 0 90 °C, more for a short time
 - Dimension (LxW): 151.5x91cm incl. starting chamfer
 - Height: 14 mm
 - Weight: Approx. 10.3 kg

ArtNr.	Name	Description	Dimensions (LxW)	Height	Weight
107556	BIO2200	BEERelax Standard			
107559	BIO2000	BEERelax Antistatic	Approx. 90x60cm plus entering edge	12.5 mm	approx.
107562	BIO2100	BEERelax Antistatic and fire- resistant	of 2 cm each		2.6 kg

Perforated workplace mat Area of use General use and in wet areas with water and little oil in place For standing, rotational and walking workstations

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Standing mats for tougher demands **BEEVario Single**



Workplace mats

Area of use: assembly areas, welding installations, turning centres and milling machines etc., where oil and grease can be found

- Properties: Slip-proof, slip-resistant, sound-absorbing; good to clean, also suitable for high pressure cleaners and industrial vacuum cleaners; robust and wear-resistant; resistant to mineral oils, grease and vegetable oils
- Made of **black** NBR
 - Surface with elastic nob structure
 - Bottom side hollow nobs
 - Hardness: ca. 45 Shore A ±3
 - Temperature resistant 0 90 °C, more for a short time
 - Electrical resistance: insulating < 1012 Ω
 - Dimensions (LxW): Approx. 91x60.5cm incl. starting chamfer Height: 14 mm •
- 107566 (BIO5000)
- Weight: Approx. 5.6 kg

BEEnomic Infinity Bubble

Black: 116049

Silver: 116051

Red: 116052

Yellow: 116053 Blue: 116054

- Properties:
- Slip-resistant, elastic and UV-light resistant Available in 5 different colours
- For dry standing workstationss
- Made of foamed polyurethane
- Surface with **nubs**
- Bottom slip-resistant due to raised square profile
- •
- Dimensions (LxW): Approx. 91x60.5cm incl. starting chamfer . Height: 14 mm
- Weight: Approx. 5.6 kg .

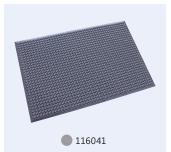


BEEnomic Infinity Smooth



- Properties:
 - Slip-resistant, elastic and UV-light resistant, easy to drive on and clean
- Available in 6 different colours
- For dry standing and walking workstationss
- . Made of foamed polyurethane
- Surface with flat nobs •
- Bottom slip-resistant due to raised square profile
- Dimensions (LxB): Approx. 90x60cm
- Height: 14.5 mm
- Weight: 2.6 kg

BEEnomic AFB Complete Bubble



Properties:

.

- Slip-resistant, resistant to many chemicals and oils, anstistatic, fire-resistant, highly elastic For dry standing workstations
- Made of dark grey polyurethan
- Surface with **nubs**
- Bottom slip-resistant
- Bleeder resistance: $5 \times 10^9 \Omega 5 \times 10^9 \Omega$
- Dimensions (LxW): 60x90cm
- Height: 15 mm
- Weight: 2.6 kg

AFS Complete Smooth BEEnomic



- Properties:
- Dry standing and walking workplaces, easy to drive on and clean, elastic, UV-light resistant For dry standing and walking workstations
- Made of dark grey polyurethan .
- Surface with nubs
- Bottom slip-resistant
- Bleeder resistance: $5 \times 10^9 \Omega 5 \times 10^9 \Omega$
- Dimensions (LxW): 60x90cm
- Height: 11 mm
- Weight: 2.2 kg

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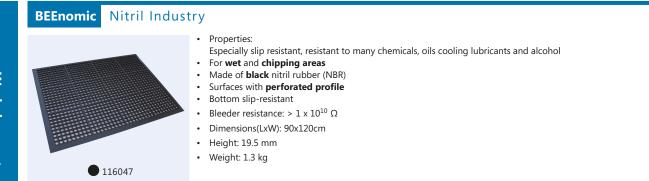
Workplace mats

		WORKSHOP EQUIPMENT 3
BEEnomic AB Classic	 Properties: Antistatic, highly elastic, resistant to many chemicals For dry standing workstations Made of dark grey polyurethan Surface with nubs Bottom slip-resistant Clean room class: ISO 5 Bleeder resistance: 1 x 10⁸ Ω - 5 x 10⁹ Ω Dimensions(LxW): 60x90cm Height: 15 mm Weight: 2.5 kg 	
BEEnomic EFB Bubble	 Properties: Resistant to many chemicals and oils, fireresistant, highly elastic For dry standing workstations and ESD areas Made of light grey polyurethan Surface with nubs Bottom slip-resistant Bleeder resistance: 1 x 10⁹ Ω - 6 x 10⁹ Ω Dimensions (LxW): 60x90cm Height: 15 mm Weight: 2.6 kg 	
BEEnomic EFS Smooth	 Properties: Easy to drive on and clean, fireresistant, highly elastic For dry standing and walking workstations and ESD areas Made of light grey polyurethan Surface with flat nubs Bottom slip-resistant Bleeder resistance: 1 x 10⁹ Ω – 6 x 10⁹ Ω Dimensions (LxW): 60x90cm Height: 11 mm Weight: 2.2 kg 	
BEEnomic Nitril black	 Properties: Temperature-resistant up to 600°C, resistant to many chemicals and φ For dry or wet areas Made of black nitril rubber (NBR) Surfaces with flattened cone Bottom slip-resistant Bleeder resistance ESD: > 1 x 10¹⁰ Ω Dimensions (LxW): 60x90cm Height: 11 mm Weight: 3.4 kg 	oils
BEEnomic Nitril ESD	 Properties: Temperature-resistant up to 600 °C, resistant to many chemicals, oils For ESD areas Made of black nitril rubber (NBR) 	and cooling lubricants

- Made of **black** nitril rubber (NBR)
 Surfaces with **flattened cones**
- •
- Bottom slip-resistant
- Bleeder resistance ESD: 5 x 10^4 $\Omega-1$ x 10^7 Ω
- Bleeder resistance CON: 5 x $10^2 \Omega 1 x 10^5 \Omega$ •
- Dimensions (LxW): 60x90cm
- Height: 11 mm

🔵 116046 🔼

• Weight: 3.2 kg





There are many ways to communicate. Some are small, colourful and strong. Magnetic elements

Labelling and magnetic element

Magnetic labelling of products in the storage area means considerable rationalisation: when goods are changed or rearranged, the labelling moves with them and is simply attached to the shelf at the new storage location. This saves re-labelling and the tedious removal of stuck-on labels.



- Packaging unit: 3 sheets/package Stripes per sheet:
- 22 pcs (15x210mm), 16 pcs (20x210mm), 12 pcs (25x210mm), 10 pcs (30x210mm), 7 pcs (40x210mm), 6 pcs (50x210mm), 5 pcs (60x210mm), 4 pcs (70x210mm)

20x210mm: 113975

25x210mm: 113976

30x210mm: 113977

40x210mm: 113321

50x210mm: 113323

60x210mm: 113978

70x210mm: 113165

20x210mm: 122552 25x210mm: 122551 30x210mm: 122550 40x210mm: 122549 50x210mm: 122548 60x210mm: 122547 70x210mm: 113166

VisuFlex® magnetic pouches With loops



- The transparent loops with magnetic lock are suitable for all pipe connecting systems with a diameter up to 40 mm
- The magnetic pouches are made of weather-resistant, tearresistant and wipeable PVC film

Art. No.	External dimension (WxH)	Internal dimension (WxH)	Version
122542	237x358mm	232x308mm	Upright format DIN A4, narrow side open
122543	237x208mm	232x158mm	DIN A5 landscape, long side open
122529	237x157mm	232x107mm	1/3 of DIN A4, long side open

Magnetic pouches In white



- Adhesive on the entire surface, from flexible white-coated magnetic foil
 Welded pouch is made of stable,
- transparent foil Back side that is completely magne-
- tic guarantees an ideal clinging to all ferrous level or bulged surfaces.
- Further sizes upon request

Art. No.	For format	Internal dimension (WxH)	Open side
110569	DIN A3 portrait	305x425mm	Narrow side
110571	DIN A4 landscape	310x215mm	Long side
110570	DIN A4 portrait	215x315mm	Narrow side
110577		200x87mm	Long side
110573	DIN A5 landscape	220x150mm	Long side
110572	DIN A5 portrait	155x215mm	Narrow side
110575	DIN A6 landscape	155x110mm	Long side
110574	DIN A6 portrait	113x158mm	Narrow side

VisuFlex® magnetic pouch

Extra strong self-adhesive



- A space-saving and reusable solution for the flexible attaching of accompanying documents, Kanban cards, data sheets and so on on all ferreous surfaces
- Robust and extra strong adhesive magentic pouches are the perfect tool for industry, trade and commerce
 Durative and a function of the strength of t
- Pouches are made of weather-resistant, tear-resistant and wipeable PVC film in which 2 resp. 4 high energy magnets are welded

ArtNr.	Außenmaß (BxH)	Innenmaß (BxH)	Format
122534	237x373mm	232x308mm	DIN A4 hoch, Schmalseite offen
122537	225x187mm	218x147mm	DIN A5 quer, Längsseite offen
122539	160x144mm	154x104mm	DIN A6 quer, Längsseite offen

Printable magnetic paper



- Perfectly suited for producing business cards, magnetic symbols,
- information signs etc.Only for inkjet printers
- Thin magnetic paper (thickness 0.2 mm) with white coating on the nonmagnetic side
- Not suitable for laser printersOnce the paper has been printed, it
- can be cut using scissors, and will then cling to all ferrous surfacesDimensions (WxH): DIN A4
- (210x297mm)
- Packaging unit: 10 sheets/package

MagnetWrite M



- Writeable whiteboard foil, magnetic0.9 mm magnetic foil, which has a
- special magnetic foil on the nonmagnetic side that can be written on using dry-erase markers
- The foil clings to ferrous surfaces such as e.g. steel doors, switchboards or metal walls
- Surface white, blank or with a printed grid pattern with a grid spacing of 50 x 50 mm
- Format: 600x1000mm

MagnetWrite K Writeable whiteboard foil, self-adhesive - removable



- MagnetWrite K has been developed for the use on plastic, wooden or glass surfaces in order to be
- able to use them as magnetically adhering and writing foil
- 0.7 mm ferrous plastic foil with a removable self-adhesive foil on the backside
- A special foil has been adhered to the front side, which can be written on using dry-erase markers
- Due to the content of iron in the foil, magnetic symbols, strips and organiser magnets cling to it
- Format: 600x1000mm (Further sizes upon request. width approx. 600 mm)

Magnet foil MF 165



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Z	2	

Semi-anisotropic magnetic foil can be cut with a knife or scissors . It is suited for displaying the tools on shadow boards

- Use them directly, imprint them with screen prints or mount motives .
- that have been produced with digital printing The colours are roughly the same as the mentioned RAL colours (colour
- variations possible in print) The magnetic foil is also available on rolls of up to 10 m

Thickness	Adhesive force	Dimensions (WxH)	(RAL 5017)	red (RAL 3020)	orange (RAL 2008)	yellow (RAL 1021)	green (RAL 6029)	(RAL 9003)	black (RAL 9005)
0,9 mm 45 g/cm ²	4F ~ (ama ²	DIN A4 (210x297mm)	110839	110837	110841	110836	110838	110835	110840
	45 g/cm²	DIN A3 (297x420mm)	110846	110844	110848	110843	110845	110842	110847

Coloured magnetic strips

- From magnetic foil 165, multi-polar magnetised on one side ٠ •
 - Non-magnetic side alternatively available untreated (material strength: 0.8 mm), colour-coated (thickness: 0.9 mm) or self-adhesive
- The magnetic strips are also available as anisotropic version (strong adhesive force).



Thickness	Non-magnetic side	Width (length: 1 m)	blue (RAL 5017)	(RAL 3020)	orange (RAL 2008)	yellow (RAL 1021)	green (RAL 6029)	white (RAL 9003)	black (RAL 9005)	Self-adhesive
0,8 mm	raw	10 mm	110888	110874	110902	110867	110881	110860	110895	110909
0,9 mm colour coated	15 mm	110889	110875	110903	110868	110882	110861	110896	110910	
		20 mm	110890	110876	110904	110869	110883	110862	110897	110911
		25 mm	110891	110877	110905	110870	110884	110863	110898	110912
	30 mm	110892	110878	110906	110871	110885	110864	110899	110913	
		40 mm	110893	110879	110907	110872	110886	110865	110900	110914
		50 mm	110894	110880	110908	110873	110887	110866	110901	110915

Magnetic dots and squares

from magnetic foil MF 165

Self-adhesive magnetic foils to affix, e.g. information signs, laminated foils, etc. (with magnetic dots), e.g. tools, wooden to ferrous area.



- Simply cut out, remove predective foil and adhere to the backside of the object
- Stays on e.g. metal doors, white boards, electrical cabinets
- Can be easily removed
- Thickness 0.9 mm •
- Packaging unit: 100pcs/package

Art. No.	Format	Dimensions
110956		20x20mm
110957	cauaro	25x25mm
110958	square	30x30mm
110959		40x40mm
110960		Ø 20 mm
110961	round	Ø 30 mm
110962	round	Ø 40 mm
110963		Ø 50 mm

With regular adhesive force From magnetic foil MF 165 **Magnet tape**



DIN A4 (210x297mm: 110977 DIN A3 (297x420mm): 110978 620x1000mm: 110979 1000x1000mm: 110980

Magnetic tape 160

Magnetic boards

with strong adhesive force

- - 12.7 mm: 122544 19,0 mm: 110972

- non-magnetic side coated with self-adhesive
- Adhere textures, posters, pictures and other large areas without having to drill or screw
- Thickness: 1.5 mm
- Adhesive strength: 60g/cm²
- Length: 30 m



Magnet tape 170

12,5 mm: 110974 19,0 mm: 110975 25,0 mm: 110976

10 mm: 110964 15 mm: 110965 20 mm: 110966

25 mm: 110967

30 mm: 110968

40 mm: 110969

50 mm: 110970

Adhesive strength: 45g/cm² Length: 10 m

Thickness: 0.9 mm

foil MF 165

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Self-adhesive tape from magnetic

For the magnetic clinging to objects

- For the affixing of heavy objects, e.g. tools, folding displays or fair
- stand decorations

self-adhesive

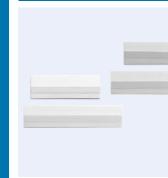
- Thickness: 1.5 mm
 - Adhesive strength: 80g/cm²

with very strong adhesive force

non-magnetic side coated with

Length: 30.5 m

VisuFlex[®] clamping rail



- Optimal for quickly changeable labellings and markings
 Rear magnetic tape adheres to all ferreous surfaces, and the transparent clamping rail made of flexible plastic material picks up blanks and info documents
 - In standing or suspended position
 - If there is no ferreous surface available, the clamping rail is combined with magnetic adhesive surfaces such as magnet-adhering bars, magnetic tapes, FerroPad or magnetic strips
 - Packaging unit: 5 pcs

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Art. No.	Dimensions (WxH)
131139	74x35mm
131140	85x35mm
131141	105x35mm
131142	148x35mm
131143	210x35mm
131144	297x35mm
131145	420x35mm
131146	510x35mm
131147	625x35mm

KVP stripes

for clamping rails

- Dimensions (WxH): 508x55mm •
- Packaging unit: 20 Pcs.



in traffic light colours

Length: 90 mm



Receipt pouch



Powder blue: 104309

Display pouches

- With tear-proof metal loop centered at the top for the reliable fixing of kanban maps to products or containers
- The transparent pouch is welded to the hard foil back side and is thus often reusable
- Other formats and self-adhesive or magnetically adhesive version upon request
- For DIN A5 landscape format
- Volume capacity approx. 10 mm



Kanban and planning systems

less capital and flexibility.

The primary goal of Kanban is to reduce costs. The smaller stocks because of the higher deployment efficiency and speed lead to

packaging unit: 10 pcs

Grey-transparent plastic display pouches that have been antistatically treated in a special procedure

Check boxes

- Sloped on 3 sides to the back and one narrow side open
- · With handle press-cut for the easy removal of documents



Self-adhesive	Magnetically	Format (WxHxD)
106256	106257	DIN A3 (303x425x3mm)
106254	106255	DIN A4 (218x303x3mm)
106258	106259	DIN A5 (155x217x3mm)

Column text bar

- Made of grey-transparent
 Aptistatically treated plastic
 - Antistatically treated plastic
 In C form sloped to the back
 - In C form sloped to the backMagnetically adhesive
 - WxH: 700x100mm



106264

Receipt dispenser



•	Grey-transparent plastic display
	pockets (antistatically treated)

- On 3 sides to the back
- With handle press-cut for the easy removal of documents

Magnetically	Format (WxHxD)
106265	DIN A4 (218x303x16mm)
106266	DIN A5 (155x217x16mm)
106267	DIN A6 (112x153x16mm)

Motivation durch Organisation

^{Auftragsübersicht Wareneingang} Lieferungen unter Kontrolle

Team information, planning targets, sales documents: Important information has to be at hand.

Magnetic frame



- Magnetically adhesive with three magnetic strips
- One narrow side openUsable for portrait and landscape formats

Dimensions	Blue 🔵	Red 🔴	Yellow 😑	Green 🔵	Silver
DIN A4 (240x326mm)	119020	119018	119021	119019	119022
DIN A3 (326x450mm)	106418	106416	106417	106419	106421

"Griffsicht" system base unit

- Stable, modular presentation system for brochures, catalogues, magazines and other documents
- Desired number of the individual, stable powder-coated steel sheet containers
 - Simply nested and form a clearly arranged scales that can also be extended subsequently
 - · Basic unit is screwed into the wall, high and heavily used scales can be additionally secured with intermediate mounts
 - Basit unit consists of:
 - 2 x wall mounts
 - 2 x containers with a volume capacity of approx. 15 mm
 - 1 x end plate

Format	Blue 🔵	Yellow 😑	Aluminium grey 🌑	grey-white
DIN A4 portrait	104384		104380	
DIN A4 landscape		104374		104375
DIN A5 portrait	104370			

Supplelemental element to mount into the basic unit

Volume capacity approx. 15 mm



Format (WxH)	Page frame	Blue 🔵	Yellow 😑	Aluminium grey 🜑	Grey-white
210x102mm (218x90mm)	25 mm				104347
DIN A4 portrait (235x290mm)	68 mm	104342		104338	
DIN A4 landscape (307x200mm)	45 mm		104332		104333
DIN A5 portrait (160x200mm)	45 mm	104328			

Yellow

104417

Aluminium grey 🔵

104423

Grey white

104432

104418

End plate

· Is hinged into the last container

Blue

104427

104413

	Dimension (WxH)
	210x102mm (215x65mm)
	DIN A4 portrait (232x222mm)
	DIN A4 landscape (304x155mm)
	DIN A5 portrait (157x155mm)

Information and presentation systems

Our information boards, document and receipt holders make sure that your documents are visually present and immediately at hand when needed. Thus, they are an important element for the success of your planning, production and sales strategies.

WORKSHOP EQUIPMENT | 311



- Predective foil for metal display pouch
- . Surface matt or clear



Transparent: 105619

Grey aluminium: 105979

Incl. magnet mounting with two adhesive magnets

Metal display pouches

Umber grey: 106411

Transparent tabs



- Total dimensions: 360x295x80mm (WxHxD)
- 2 transparent plastic cases for receipts or other documents in DIN A4 landscape format
- Cushioned plastic base plate, umber grey, with 4 holes for wall mounting
- Page frame: 60 mm Display boxes can be arranged step-like due to the form of the
- cases that are wider towards the top

Display box DIN A5



- Total dimensions:255x350x50mm (WxHxD)
- 4 cases in DIN A5 landscape format
- Page frame: 60 mm

Self-adhesive tabs for system "Griffsicht" and display box Dimensions (WxH): 50x36mm

> Packaging unit: 25 pcs

FerroPad®-Smileys



White (foam adhesive): 119455

- Detachable or with foam adhesive With two Ferro Smileys and two
- magnets, you can hang things on glass surfaces, cabinets and doors
- The Ferro Smiley has a diameter of 66 mm
- A white magnetic surface printed with a smiling face

Packaging unit: : 25 pcs

FerroPad® Holding surface for magnets, also with whiteboard surface

- FerroPad® for you and deliver it in almost any shape or size
- Special foil on the surface creates an individual whiteboard
- . Can be written on using drywipe or wet-wipe markers and can be combined with magnets from the value-stream symbols range



Art. No.	Design	WxH
119446	Rear side, blank, with 4 eyelets for mounting	
119447	Rear side with foam adhesive for rough surfaces	570x570mm
119448	Rear with magnetic foil	
119449	Rear with foam adhesive for rough surfaces	570x190mm
119450	Rear with magnetic foil	2/08130000

- Usable as portrait or landscape format With 4 drilling holes for wall mounting Special dimensions upon request

Simple steel sheet document holder

For DIN A4 documents (WxH:

Sloped on three sides Narrow side open

220x304mm)



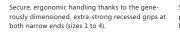


Storage, packing, assembly, logistics... Indispensable in every situation: Plastic bins

Plastic bins

5 years guarantee





Special hanging strip on the rear which makes it possible to keep even a full bin absolutely horizontal when attaching to, and removing from, a perforated panel (sizes 5 to 8).



RasterPlan plastic bins

Operating temperature: -40 to 80 °C Resistant to acids, oils and leaches

Easy to clean due to smooth internal walls

Label holder with special restraints to prevent the

much more

labels slipping out

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Robust plastic polyethylene boxes, unbreakable and undeformable due to their material and construction, measure up to even the most demanding requirements. Their special construction permits various

applications: for storage and stacking (surrounding stacking rim), for use on runners, for hanging on hanging rails and perforated panels, and

Designed for use on conveyors and runners.

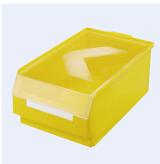


ESD versions are available; these are ideal for storing electronic components. On request.

LxWxH (mm)	Size 1	Size 2	Size 3	Size 4	Size 5	Size 6	Size 7	Size 8
	500x300x250mm	500x300x200mm	350x200x200mm	350x200x150mm	290x140x130mm	230x140x130mm	160x105x75mm	85x105x45mm
Blue	102884	102889	102895	102900	102906	102911	102917	102923
Red	102885	102890	102896	102901	102907	102912	102918	102924
Yellow	102886	102891	102897	102902	102908	102913	102919	102925
Green	102887	102892	102898	102903	102909	102914	102920	102926
Grey	102888	102893	102899	102904	102910	102915	102921	102927
ESD black 🕜		On Request						

for plastic pins Accessories









White (paper) and transparent (plastic) labels

Transparent lid made of 2 mm polystyrene

Grip

Longitudinal divider made of galvanized sheet steel

LxWxH (mm) Size 1 500x30	Size 1	Size 2	Size 3	Size 4	Size 5	Size 6	Size 7	Size 8
	500x300x250mm	500x300x200mm	350x200x200mm	350x200x150mm	290x140x130mm	230x140x130mm	160x105x75mm	85x105x45mm
Labels white	102940	102940	102942	102942	102944	102944	102946	102948
Labels transparent	102941	102941	102943	102943	102945	102945	102947	102949
Lid	102929	102929	102930	102930	102931	102932	102933	
Grip	102938	102938	102939	102939				
Divider	102934	102935	102936	102937				

Load stacked plastic bins

Size	Content	Stacking quantity	Load
1	40 kg	5 Boxes	200 kg
2	38 kg	5 Boxes	190 kg
3	25 kg	5 Boxes	125 kg
4	20 kg	5 Boxes	100 kg

Storage rack box



- Boxes made of shock-resistant polypropylene for any kind of small parts.
 - Size adjusted to the established shelving dimensions.

120x65mm

103004

240x65mm

103005

103006

- Working temperature: -40 to 70°C
- Resistant to common acids and alkaline solutions
- Integrated label case
- Partitions sit precisely and stably thanks to lateral guide and additional fixing on the base

Width x Height Depth	120x65mm 300 mm	400 mm	500 mm	240x65mm 300 mm	400 mm	500 mm
Blue 🔵	102979	102983	102990	102981	102985	102992
Red 🔴	102980	102984	102991	102982	102986	102993

Division plate for plastic pins Accessories

Width x Height

Division plate rot

Division plate blue 103003



Volume storage rack box

Volume storage rack boxes made of shock-resistant, highly resilient polypropylene. Thanks to the many sizes adapted to the established shelving dimensions - and the stacking rim around the edge, there are many possibilities for building small part storage facilities.



- Working temperature: -40 to 70°C
- Resistant to common acids and alkaline solutions
- Integrated label case
- Slot guide ensures a precise seat for the cross and longitudinal partitions

Colour	Width x Height	Depth 400 mm	500 mm	600 mm
Pigeon blue	113x85mm	102987	102994	102997
	153x105mm	102988	102995	102998
	235x145mm	102989	102996	102999

Longitudinal partitons for volume storage rack box **Cross paritions** for volume storage rack box



Length	Height	Art. No.
400	105 mm	103011
400 mm	145 mm	103012
500 mm	105 mm	103013
500 11111	145 mm	103014
600 mm	105 mm	103015
	145 mm	103016



For storage (WxH)



	-	
500 mm	105 mm	103013
500 mm	145 mm	103014
600	105 mm	103015
600 mm	145 mm	103016

For storage (WxH)

153x105mm: 103001 235x145mm: 103002

for volume storage rack box Labels



White (113x85mm): 103007 White (153x105mm): 103008 White (235x145mm): 103009

Euro transport containers



Robust polypropylene transport containers; dimensions adjusted exactly to standard Euro pallet. Thanks to the uniform grid dimension, the various sizes can be combined and stocked however you want. Extremely high load capacity (high compression resistance) thanks to strong reinforcing ribs and a stacking rim around the edge. •

- High shock and break resistance
- Working temperature: -40 to 70°C Resistant to common acids and alkaline solutions Low-noise operation on conveyor lines and flow racks
- . Further sizes on request with handle opening
- Cover on request •

• • •

Length x Widt	th 400x300mm			600x400mm				
Height	120 mm	180 mm	220 mm	120 mm	180 mm	220 mm	320 mm	420 mm
Blue	102955	102958	102961	102964	102967	102970	102973	102976
Red	102956	102959	102962	102965	102968	102971	102974	102977
Grey	102957	102960	102963	102966	102969	102972	102975	102978
ESD black 🚺		On Request.						





Summary table for the appropriate use of BEEStripe

Adhesion	MeanLean	Supreme V	X-Treme
New floors	9	10	10
Sealed/epoxied	9	10	9
Unsealed floor	6	9	5
Chipped/gouged	-	6	-
Uneven	5	7	-
Oily	6	8	5
Wet	5	6	5
Non-skid/textured	Test	Test	Test
Heavy fork traffic	8	7	10
Skidding/pivoting	8	5	10
Dragged/pushed pallets	7	6	8
(10 = superior)			

Floor marking systems BEEStripe

With the help of floor marking systems, travel times and transportation costs can be achieved by optimizing the necessary arrangements for the value-adding activities things are kept to a minimum.

BEEStripe MeanLean



- Thinner and more economical marking material (marking the "central aisle") ٠
- . Wear-resistant and easy to clean
- Thickness: 0.56 mm
- Roll length: 30 m

Width	White	Yellow 🔴	Orange 🔴	Red 🔴	Green 🔵	Blue 🔵	Black 🔴
5 cm	119772	119757	119766	119760	119775	119763	119769
7.5 cm	119773	119758	119767	119761	119776	119764	119770
10 cm	119774	119759	119768	119762	119777	119765	119771

BEEStripe Supreme V

- For non-ideal floor conditions
- Sloped edges also reduce the risk of stumbling and crashing •
- Thickness: 0.86 mm •
 - Roll length: 30 m

Width	White 🔵	Yellow 😑	Orange 🔴	Red 🔴	Green	Blue	Black 🌑
5 cm	116088	116082	116097	116085	116094	116091	116100
7.5 cm	116089	116083	116098	116086	116095	116092	116101
10 cm	116090	116084	116099	116087	116096	116093	116102

BEEStripe Hazard Surpreme



Long and permanent floor marking In almost every environment Thickness: 0.86 mm •

- Roll length: 30 m

Width	Black/yellow 🌓	Red/white 🌓
5 cm	116115	116112
7.5 cm	116116	116113
10 cm	116117	116114

BEEStripe X-Treme



- High performance floor marking system
- Used in critical environments and areas with heavy forklift traffic
- Special covered surface that is easy to clean Sloped edges so that it cannot be so easily damaged when they are crossed by fork lifts
- Thickness: 0.76 mm
- Roll length: 30 m

Width	White 🔵	Yellow 🔴	Orange 🔴	Red 🔴	Green 🔵	Purple 🔵	Light blue 🔵	Blue 🔵	Brown 🔴	Grey 🔵	Black 🔵
5 cm	116157	116145	116151	116139	116154	119778	119781	116142	119784	119787	116148
7.5 cm	116158	116146	116152	116140	116155	119779	119782	116143	119785	119788	116149
10 cm	116159	116147	116153	116141	116156	119780	119783	116144	119786	119789	116150



Tools

Tools



- Engine power: 0,95 kW/1,2 kW/1,5 kW / 230V
- Belt speed: 30-80 m/min-continuous
- Saw band dimensions (LxWxH): 1335x13x0.65mm/ 1440x13x0.65mm/ 2035x20x0.9mm

PBS 130 ECS

- Footprint (LxW): 310x650mm/ 350x650mm/ 430x960mm
- For cutting steel/stainless steel/alumiunium and plastic profiles •
- Easy mitre adjustment
- PBS 171 ECS with

PBS 90 ECS

- Precise saw bench, safe operation with jig and saw

108906

- Break-proof, ergonomic handle
- Break-proof motor case



	Ŝ	0			к ₩ 230 V	ţ.	(† (Kg		(m/1')
ф	90°	110	110	130x110	1,05	H 13	19	B 350	30-80
Д	45° Li.	95	95	85x85		s 0,65			
	60° Li.	60	60	60x70		L 1,440		L690	

108907





5		0			KW 230 V		Ç Kg∖		(m/1 ¹)
ф	90°	172	170	170x170	1,5	H 20	38	B 430	30-80
\Box	45° Li.	130	130	130x130		s 0,9		L 960	
D	60° Li.	85	80	80x90		L 2,035		L 960	

Compact 250 Metal circular saw

- Engine power: 1 kW/400V
- Belt speed (D/d): Ø250/32mm
- Dimension (LxWxH): 800x300x750mm
- Automatic cooling directly on the saw blade
- Double bearing saw head
- For cutting steel/stainless steel/alumiunium and plastic profiles
- Safety switch 24 V integrated into handle with restart lock
- Length stop, assembly tools
- Base frame (optionally)

Compact 275 Metal circular saw

- Engine power: 1,1 kW/400V
- Belt speed (D/d): Ø275/32mm
- Dimension (LxWxH): 850x500x950mm
- Automatic cooling directly on the saw blade
- Double bearing saw head
- For cutting steel/stainless steel/alumiunium and plastic profiles
- Safety switch 24 V integrated into handle with restart lock
- Length stop, assembly tools
- Base frame (optionally)
- Cone safety clutch made of hardened steel to protect the saw blades

G

D 275

d 32

112 B 500 L 850 H 950

400 V

1,1/1,3

RPM

33+66

- 2 speeds: 33+66 min-1
- Massive cast-iron superstructures
- Mitre setting on the operator's side

Compact 250 108910

Compact 275 108911



GBS 185 ECO Autocut Horizontal mitre-cutting saw

- Engine power: 2,5 kW / 230V
- Belt speed: 30-80 m/min-continuous
- Saw band dimensions: 2085x20x0,9mm
- Footprint: 870x1550x1740mm
- · For cutting steel, stainless steel and aluminum profiles
- Quick action vice with quick clamp device
- Saw band lateral guidance quadruple castors
- Saw band back guidance twin castors
- Electrical automatic cooling
- Engine base (enclosed disassembled)



90

70

80

70

100 x 70

80 x 60

Tools

Tools

GBS 185 ECO Autocut	.08909	
	P 970	riante toCut
Rechargeable bandsaw M	12 BS-402C	
118186	 Battery voltage: 12V/5.0Ah Belt speed: 0-85m/min Saw blade length: 687.57mm Inclusive: 2x12V/4.0Ah Red Li-Ion Akku Charger 1x Sawblade Carrying case 	Not suitable for continuous operation
•		Weight: 6.3 kg
T7046 Pipe deburring m	 Pipe deburring machine 230 V / 50Hz, 250 W, continuous adjustable speed from approx 33 - 350 1/min For steel and stainless steel Dimensions: 430 x 280 x 365 mm Without countersinking tools - please order as needed Outer contersinks for T7046 (Art. No. 115593) Inner contersinks for T7046 (Art. No. 115592) 	Suitable for continuous operation
SRM 200 ESD measuring	a device	Weight: 26 kg
	 Device including conductive carry case, earth cable, USB Cable and read-out software Measurement range: 10^3–10^12 ohms Measurement voltage: 100 V no-load voltage Operating mode: battery operation and display: LCD display Electrodes: bar electrodes with conductive rubber Includes data storage and USB interface to PC connection of 2 external electrodes possible 	
117483		Weight: 380 g

FIFO station

- Optimise your material flow, for reliable material provision Material provision
- Flexibly customisable in width and length thanks to our • modular system
- Can be extended as required, lanes can be selected as • required
- One guide rail is sufficient per track •
- Can be linked to the floor •

AGR-005 Connection rail



Aluminium: 603283

3.6 20

Weight:

12 g

First In First Out

Guide rail

AGR-001

AGR-002

AGR-003

AGR-004

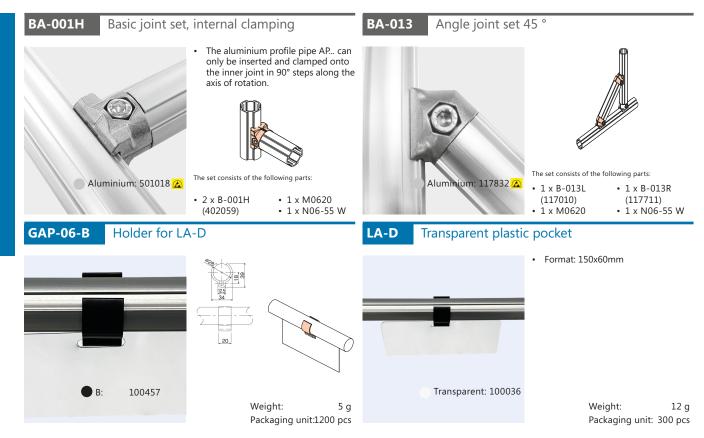
Grey: 117716

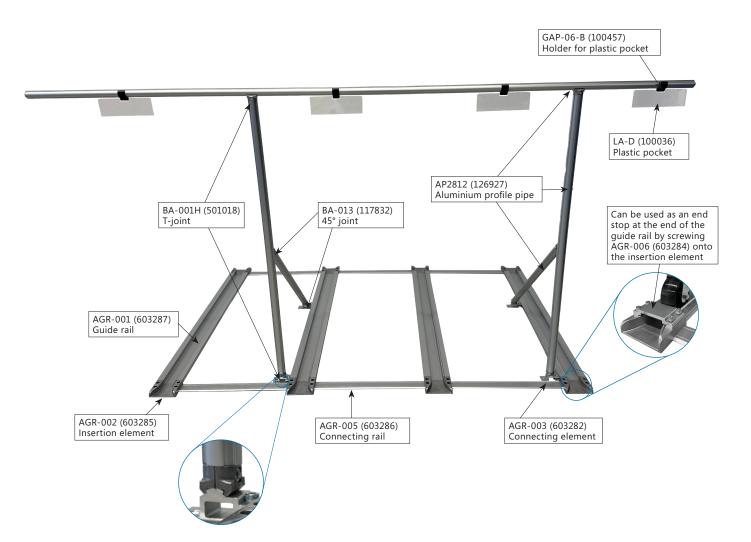
0,453 kg/m 4 m

71 g



Weight: 3 g Packaging unit:1500 pcs





FIFO station



FIFO station

605056

400 g

The set consists of the following parts: • 1 x ACB-G28A • 1 x N06-55 W

• 1 x M0625 WZ • 1 x MS12

• 1 x AR-13-80-L-M-POA-G-O

• 1 x SI1235 8.8

• 1 x A-090



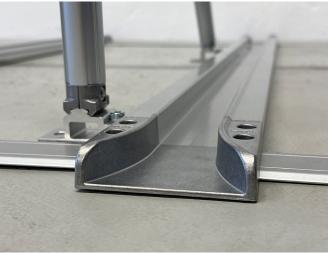




WORKSHOP EQUIPMENT | 325

Mounting material	Art. No.	Name	Description	Thread type	Length Height Ø	Material
	605161 <u> (</u>	M0612	Hexagon socket head cap screw with low head	M6	Length: 12 mm	galvanised
	402845 🛕	M0615	Cap screw for connecting element	M6	Length: 15 mm	WZ
	116362 <u>(</u>	M0630	Cap screw for joint	M6	Length: 30 mm	WZ
·	119380 <u>(</u>	N06-55	Hexagon nut for aluminium joints	M5	Height 5,2 mm	galvanised
	301657 <u>ス</u>	SI1235	Hexagon socket head cap screw	M12	Length: 35 mm	galvanised
BUT I	109756 <u>(</u>	M12	Hexagon nut	M12	Height: 10,0 mm	galvanised
	109763 🛕	SB4816	Self-tapping drilling screw "N" with pan head and cross recess, for fastening to the pipe		Nominal Ø 4,8 mm Length: 16 mm	galvanised







SPACE FOR NOTES		

ASSEMBLY WORKPLACES

Assembly workplaces

BeeWaTec Standard workplace	328
BASIS system table	330
BASIS alaboratory tabel LT range	330
BASIS system tables AT	331



Tables made out of the BeeWaTec pipe racking system by G.S. ACE are always a versatile solution; regardless of whether you just need a finished table or whether you want to flexibly rebuild or add to an existing table, change the panel size or combine the table with other pipe construction modules – thanks to our pipe construction system, the only limit to your structures is your own imagination.

The coated steel pipe with \emptyset 28 mm is lightweight yet sturdy, available in various colours and offers an enormous range of joints and accessories.

The standard construction shown with a table height of 900 mm can take a load of up to 200 kg (under an evenly distributed load). It is available with different tabletops, in various pipe colours and in an ESD design.

The pipe construction technology features bolt-on, reusable metal joints, is lightweight yet sturdy, and provides just the flexibility that you are looking for. Diagonal braces and heightadjustable feet ensure a secure stand.



BeeWaTec standard workplace with tabletop

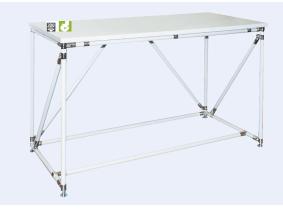
Basic element, individually adaptable for any application with diverse attachments.

Art. No.	Name	Dimension (LxWxH)
126826	BeeWaTec standard workplace	800x1074x2200mm
130259	Tabletop	

Completely flexible and freely configurable with many different accessories. The BeeWaTec standard workplace always adjusts to your needs!

BeeWaTec standard workplace





Options

- Movable design with castors
- Height-adjustable feet
- Hydraulic height adjustment
- ESD designIndividual tabletops
- Wide range of pipe colours (on
- request)



BeeWaTec standard workplace with tabletop and full equipment (also in ESD version)

Basic element with all available components such as:

- Peforated platePivoted slotted
 - Pivoted slotted plate
- Drawer
 Lifting system
- Lifting system
- Storage levelFoil pocket
- Articulated boom
- Pivoting arm system
- The workplace is also available in electrically conductive version
- Guide rail Light (BeeWaTec LED) Mounting rail
- Drink holder

•

•

- Six-fold power socket
- Tool holder



Application example assembly line



BeeWaTec standard workplace | I-Line design

Arrangement of several standard workplaces a row, in order to get an assembly line.



BeeWaTec standard workplace | L-line design

Arrangement of several standard workplaces plus corner module in order to get a L-shaped mounting corner.



BeeWaTec standard workplace | U-line design

Arrangement of several standard workplaces plus two corner moduls in order to get a U-shaped assembly island.



The standardised assembly workplace

BASIS system table

BASIS is a diverse and functional equipment system for laboratories and technical workplaces. The solid table frame made of powdercoated steel tube is available in different widths and depths, making any individual combination possible. The construction is very rigid so that it can also bear heavy superstructures and make unsupported corner solutions with leg room possible. The BASIS system with its extensive range of base units, rolling filing cabinets, table superstructures and cabinets provides the right equipment for every workplace.

Key facts

- Powder-coated steel tube frame
- Table height 780 mm
- · Option of setting back when assembled in a row
- ESD version available
- Customer-specific frame colour possible
- Coloured tabletop possible
- Mobile version available
- Corner combination with leg room
- High load-bearing capacity with maximum stability guaranteed
- Option of delivery unassembled for LT/AT





BASIS Laboratory tables, LT range

The BASIS range includes solid laboratory tables for your workplace set-up. Laboratory tables from BeeWaTec always have a modular structure. A few basic components can be combined to create laboratory tables with virtually any conceivable dimensions.

With the standard modular set, there are 3 possible depths and 13 widths. Special dimensions are available. This table series features an impressively high load-bearing capacity with maximum stability guaranteed.

All of the tables are also available in ESD versions. The frames are all powder-coated, whilst the table legs are fitted with levelling screws.

	Depth	800 mm	900 mm	1000 mm
Table width		Art. No.		
800 mm - 2000 mm		For further deta	ils please see the c	atalogue
(in 100 mm intervalls)		"Office. Labora	atory. Education 3	.1".



Details on the BASIS worktable AT



With their clean optical design, solid structure and excellent craftsmanship, the side part, crossbars and tabletop combine to create a harmonious overall impression in all tables.



The construction principle: crossbars of the requested width are fastened to the securely welded side parts – using a stable M12 bolt connection.



We also deliver every AT table in the movable design.

Four generously dimensioned, stable fixed castors (100 mm diameter) – two of which have total locking devices – ensure mobility. Unless otherwise requested by the customer, we mount shortened side parts. This means that moveable tables are the same height – 780 mm – as all

fixed tables.



AT BASIS work table

One structure height is not always sufficient for every table.

The height adjusters are a simply way of adjusting the height. These adjusters mean that the height of every table is continuously adjustable in a range from 780 mm to 920 mm.

Depth	800 mm	900 mm	1000 mm
Table width		Art. No.	
800 mm	AT 1100	AT 1130	AT 1160
1000 mm	AT 1101	AT 1131	AT 1161
1200 mm	AT 1102	AT 1132	AT 1162
1600 mm	AT 1103	AT 1133	AT 1163
1800 mm	AT 1104	AT 1134	AT 1164
2000 mm	AT 1105	AT 1135	AT 1165

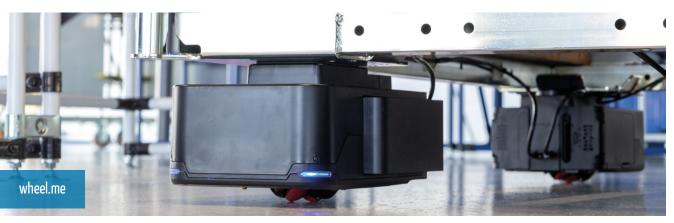
AT BASIS work table

The Basis furniture system (you will find more information in the product category Laboratory & Office) combines solid frames made of powder-coated steel pipes and various worktops perfectly crafted by hand to produce a harmonious and timeless overall impression.

Functionality is always at the forefront. What is more, the Basis system offers unlimited options when it comes to customised workplace solutions, including a wide range of standard components, creative freedom and an experienced team ready to turn all your ideas into reality.

332 | AUTONOMOUS MOBILE ROBOTS





GENIUS 2

Automation of transportation tasks, with **unbeatable ROI**.



The Genius 2 module from Wheel_me transforms racks, trolleys, pallets and more into **fully-fledged autonomous mobile robots (AMR).**

250 kg load capacity with 4 wheels

100%

flexibility in terms of basic dimensions, superstructures and intended use

Premium-Features ADVANTAGES AT A GLANCE

Freely scalable dimensions of the robot platform



In-process-charging for seamless material flow

Simple implementation of use cases



Reliable connectivity through WiFi & 5G

Low downtimes thanks to plug-and-play



AUTONOMOUS MOBILE ROBOTS | 333

	4 Wheels (Genius 2)	Other AMR	Manual transport
IN COMPA- RISON		•	
Prices			
One-time coasts	€€	€€€€€	€
Running coast (per year)	€	depending on provider	€€€€€
Premium service (per year)	€	—	_
Features			
Simple implementation	~	×	~
Easy maintenance	~	×	~
Flexibility	very high	medium	low
Load capacity	250 kg depending on provider		up to > 1.500 kg
Dynamic obstacle detection	~	~	×



Lane-free, autono-





×



~



~

Prices and technical data can be found on our homepage



334 | LEAN PRODUCTION MODULAR SYSTEMS



Standard racking, fixed or with mounted rollers possible to optimize material flow and minimize waiting times.



601616





ASSEMBLY WORK STATIONS | WORK TABLES

These projects have already been realised



Can be combined with Kanban, flow or material supply racks.

Your assembly workstation: flexible, ergonomic, efficient and (optionally) height-adjustable. Can be completed with any accessories from the BeeWaTec modular system, such as lamps, perforated plates, sockets or drinks bottle holders and much more.



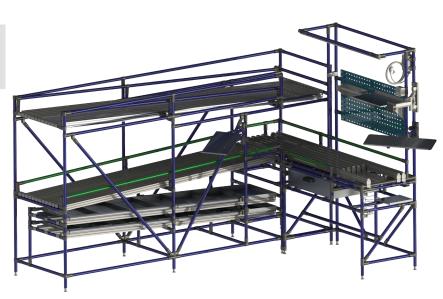


Healthy working position for increased productivity and efficiency through optimized workflows.

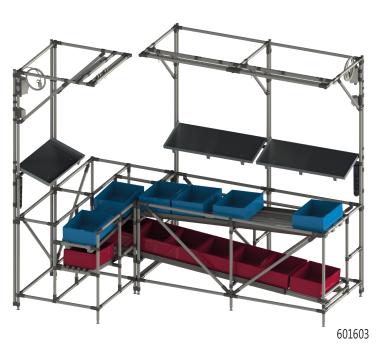
ASSEMBLY LINES | PRODUCTION PLATFORMS

These projects have already been realised

Assembly platforms increase effectiveness and productivity through flow production (one-piece flow).



601617



Ergonomic superstructures -Fast reaction times with high flexibility.





PL004866

Depending on your load requirements, base frames made of square profile system can also be used. These withstand even greater loads and can be combined with steel or aluminium pipe plug-in system superstructures.





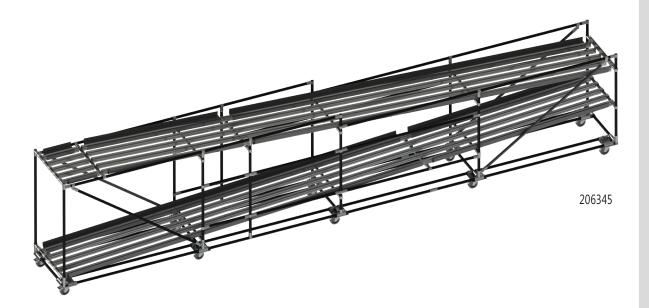
Reduction of transfer and automation of material flows possible.



340 | LEAN PRODUCTION MODULAR SYSTEMS







ation examples

CONSTRUCTIONS WITH TEXTILE AND FOIL MESHES

These projects have already been realised





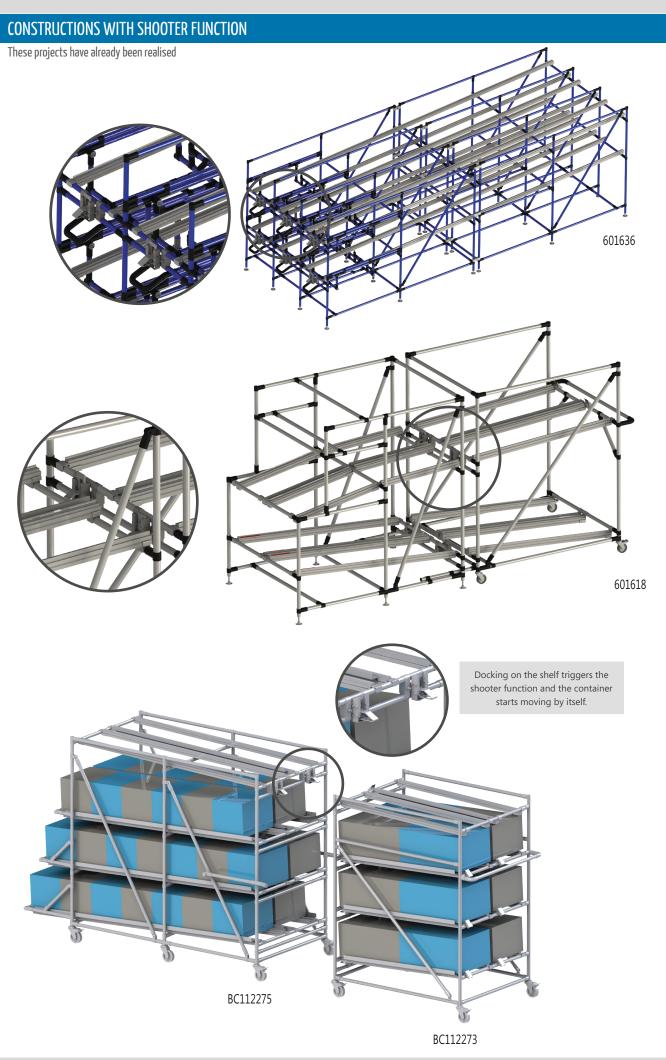
RACKS FOR HANGING DELIVERY

These projects have already been realised









ADDITIONAL CONSTRUCTIONS

These projects have already been realised



BC110854

Individual add-on structures - depending on requirements. Can be combined and extended as required.





The attached wheels minimize unnecessary walking distances.

SQUARE SYSTEM MC-STRONG - FOR APPLICATION WITH HEAVY LOADS

These projects have already been realised





122639





Integrated forklift guides allow additional movement by a forklift truck.





a

AU100560

The MC connectors make it easy to build up/continue with the round pipe and still guarantee a stable square base frame.

VM 1601

CANTILEVERED TROLLEY

These projects have already been realised





601630



SIGHT PROTECTION | BOUNDARIES

These projects have already been realised





KANBAN AND WHITEBOARD RACKS

These projects have already been realised

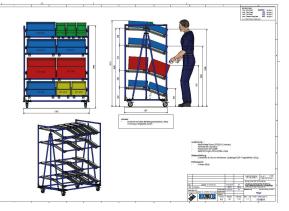


601622



SPACE FOR NOTES	
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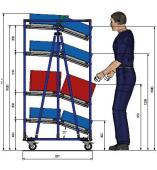
350 | PLANNING AND CONSTRUCTION SOFTWARE



Planning and contruction software

BeeWaTec offers two software tools for designing, planning and implentation of constructions made of the Lean production pipe racking system by G.S ACE: the **3D planning and presentation program BEEVisio**, as well as the **cut optimization program BEELopt** for the optium use of the pipe materials (pipes, roller tracks, lateral guides and other profiles).







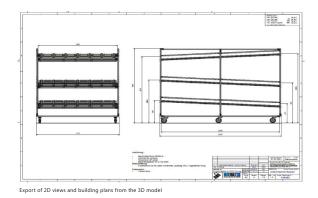
The **planning software BEEVisio** is an easy-to-use program for the construction, presentation and production planning of pipe structures using the BeeWaTec pipe racking system by G.S ACE on the basis of 3D models.

101319 BEEVisio design program for lean production solutions made from pipe racking system including accessories

Why the innovative BEEVisio planning software makes your daily project work easier...

Easy planning, 3D design and visualisation of your lean production solutions - including parts list

- Quick and easy drag & drop access to 3D part geometries, making available to you the BeeWaTec intelligent kit system for all standard components
- Quick placing of components with magnetsPiece lists for sourcing and calculation can be generated at the touch of a
- Piece lists for sourcing and calculation can be generated at the touch of a button





Example of a 3D drawing with the individual elements in the structure tree (left) and standard elements in the catalogue (below).

Fast and impressive rendered 3D presentation

- Impressive and realistically rendered 3D representations offering improved discussion and information processes by means of meaningful, visual models
- Optical basis for team discussions; the construction can be adapted to requirements and wishes at any time during the discussion
- Transfer to the hall plan possible (option)

Easy 2D export and import from cut optimisation program BEELopt

• Export of 2D views and building plans from the 3D model

Do you need your planning software for temporary use only or should several colleagues work on a project at short notice, or are you looking for software for permanent use?

Choose your matching licence model and adapt it as flexible as needed.

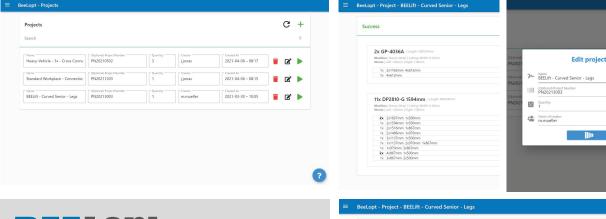
Our customer-oriented licensing models

- BEEVisio-4D licence 1 month
- BEEVisio-4D licence 3 months
- BEEVisio-4D licence 6 months
- BEEVisio-4D licence 1 year
- BEEVisio-4D licence 2 years
- Follow-up leasing



Request DEMO version

PLANNING AND CONSTRUCTION SOFTWARE | 351





The **cutting length optimization software BEELopt** is a program for creating cutting lists for raw material (pipes, roller tracks, lateral guides and other profiles). Based on a parts list, the optimum cutting quantity can be calculated. This enables an efficient use of materials, saving time and money.

The worker receives a visually simple and practical cutting list of the raw material, which has been optimized to produce as little waste as possible.

BEELopt

Why the innovative cut length optimization BEELopt saves material and time...

Attractive and practical software for calculating the optimum utilisation of pipe material (pipes, roller tracks, lateral guides and other profiles).

- Attractive and modern programme layout
- Simple and appealing operation
- Modern material design
- Dynamic single-page application
- · Based on the Google Web Design Guidelines
- · Fast data entry
- Quick calculation of length optimisation
- Clear printout
- Consideration of the cutting width
- Extensive search function
- No installation necessary

Easy import and compatibility with BeeWaTec planning software BeeVisio.

 Compatibility with the BeeWaTec planning software BEEVisio: Simple import of the parts lists from the cutting length optimisation tool BEELopt, with which the optimum length of the raw material has already been calculated, into the advanced design program BEEVisio.

=	BeeLopt - Machines								
	Machines						C	+	
	Charte	Cuttingwidth		ſ Weste left		⊂ Weste right		r	
	Metal	0.10	mm	1.00	mm	1.00	mm 👕	ľ	
	Wood	2.00	mm	S.00	mm	Westerright 5.00	mm 🍵	ľ	
			Beelopt	- Projects					
			Proje	:ts				c	+ 7
			Heavy	-Webichie - Jas - Cross Conne	12329	Edit project	read # \$21-04-06 - 00:17		۱.
			(Same -	nd Workpiece - Connection	Photo: 1000		527-64-66 × 68-15	. 3	
			BELF	Curved Senior - Legs P	1000 E 1 Americana		621-03-50 - 10.05	. 3	•
						₽			
									Ŕ

Quick export of data and calculations to Excel, which simplifies further import into ERP systems

· Quick and easy

Success

2x GP-4036A

4776.50mm /

612.00mm

612.00m

500.00m

11x DP2810-G 1594mm

Rollschiene

D-Coat-Pipe

D-Coat-Pipe

• Export of information as Excel file - enables import into ERP systems

System requirements

- The web application should run on any modern web browser.
- Optimized for Microsoft Edge and Google Chrome.
- · Adapted and optimised for the desktop environment.

Interested in access to our cutting length optimization software BEELopt?

Please send us an e-mail to: info@beewatec.de



BEELopt

11 **8**

352 | NEW PRODUCTS

nage	Art. No.	Name	Category	Application Features	Technical data Drawing
uge				age 14, the matching drive-in bushes, see page 46	
	610843	PS-D 🔊	Joints, Steel Ø28 mm	Swivel joint, roller track mounting (Series 40), Set up verti- cally, a roller track can be used as a lateral guide	Weight: 128 g, Packaging unit: 126 pcs
٢	611553	BRA-32	Add-on parts, Steel	Cord roller made of plastic, with ball bearing, Diameter 32 mm, Thickness 11 mm	Weight: 12 g, Packaging unit: 1000 pcs
	403409	Holder M12		Holder for all attachments with M12 thread, e.g. castors and adjustable feet. Fastening to Ø28 mm pipe with one M6 through bolt or two M8 clamping screws	Weight: 240 g
409 -	403410	Holder M10		Holder for all attachments with M10 thread, e.g. castors and adjustable feet. Fastening to Ø28 mm pipe with one M6 through bolt or two M8 clamping screws	Weight: 230 g
Q	607426	GAP-4AF	Cover caps, Aluminium Ø28 mm	Internal plastic cover cap, for ATF2812, ALF2812 or ACF2812	Weight: 3 g Packaging unit: 1500 pcs
	610618	AA-201 🞑		Hybrid joint set, Adaption to G.S. ACE AP28xx to 30 mm pipe and aluminium round profile pipe (I system)	The set consists of following parts: 2 x A201, 1 x M0625 WZ, 1 x N06-55W
	610619	ACY-318B-Set	Joints, Aluminium	Hybrid joint set, For adapting various aluminium profiles round and square 28 mm with the corresponding joints (I-system)	The set consists of following parts: 1 x ACY-318B, 1 x M0620 WZ, 1 x N06-55W
· · · ·	607962	ACM-400 🛕	Ø28 mm	Corner joint for roller mounting, for aluminium profile pipe, or roller mounting suitable rollers: AG, AR and certain AP rollers	Weight: 142 g Packaging unit: 40 pcs
	607964	ACMA-400 🞑		Corner joint set for roller mounting, for aluminium profile pipe, or roller mounting suitable rollers: AG, AR and certain AP rollers	The set consists of following parts: 2 x ACM-400, 2 x SI0820 8.8, 1 x M08
	605131	MCY-304C 🞑		for labelling plate NP-F	Weight: 22 g Packaging unit: 250 pcs
2	615750	FG-436		Pipe protection cover made of EPDM, Density: 0,5 mm, Øinside: ca. 31 mm, Wall thickness: ca. 6 mm, Colour: black, talcum-coated	Weight: 350 g/m Material: closed-pore EPDM Length: 1000 mm
5	615779	FG-3735 🔼		Pipe protection cover made of EPDM, antistatic <10 ⁸ Ohm, Tolerance: DIN ISO 3302-1 E2, Ø inside ca. 30 mm, Ø outer ca. 37 mm	Wall thickness: ca. 3,5 mm Length: 1000 mn
	615766	FG-3535	Accessories, round pipe Ø28 mm	PVC-hose without liner for unpressurised use, Dimensions: (LxD): 35 x 3,5 mm, Colour: transparent	Length: 1000 mm
	615739	FG-384		PVC-hose without liner for unpressurised use, Dimensions: (LxD): 35 x 4 mm, Colour: transparent	Length: 1000 mm
	607390	Cup dispenser		Cup dispenser for placing bottles, glasses and cups with a maximum diameter of 95 mm, Can be clamped onto a pipe diameter of 11 to 30 mm using a metal clamp	Weight: 133 g
	615699	C-045 🛕	Joints,	Corner joint 90°, quick joint /snap joint, for stabilising 28 mm AST2020D and 40 mm AST4040A/D	Weight: 37 g Packaging unit: 120 pcs
•	615702	CA-045 🙆	Aluminium square 28 x 28 mm	Corner joint set 90°, quick joint /snap joint, for stabilising 28 mm AST2020D and 40 mm AST4040A/D	The set consists of following parts: 2 x C-045, 1 x M0615 WZ, 1 x N06-55W
	605005	Q-445 🔼		Angle joint 45°, quick joint /snap joint, for stabilising square-edged aluminium profiles 40 mm groove 8 mm and 45 mm groove 10 mm	Weight: 75 g Packaging unit: 80 pcs
8	605006	QA-445 🔼		Angle joint set 45°, quick joint /snap joint, for stabilising square-edged aluminium profiles 40 mm groove 8 mm and 45 mm groove 10 mm	The set consists of following parts: 2 x Q-445, 1 x SI0825 8.8, 1 x M08
101	605037	Q-513L 🔼	Joints, Aluminium square	Angle joint 45° left, quick joint /snap joint, for stabilising square- edged aluminium profiles 40 mm groove 8 mm and 45 mm groove 10 mm, at the front, the joint only fits in P4545A-B and P4545C-B, Profiles with groove 8 and groove 10 can be clamped on the long side	Weight: 76 g Packaging unit: 80 pcs
4010	605038	Q-513R 🔼	45 x 45 mm	Angle joint 45° right, quick joint /snap joint, ffor stabilising square- edged aluminium profiles 40 mm groove 8 mm and 45 mm groove 10 mm, At the front, the joint only fits in P4545A-B and P4545C-B, Profiles with groove 8 and groove 10 can be clamped on the long side	Weight: 76 g Packaging unit: 80 pcs
	605036	QA-513 🔼		Angle joint set 45°, quick joint /snap joint, for stabilising square-edged aluminium profiles 40 mm groove 8 mm and 45 mm groove 10 mm, At the front, the joint only fits in P4545A-B and P4545C-B, Profiles with groove 8 and groove 10 can be clamped on the long side	The set consists of following parts: 1 x Q-513L, 1 x Q-513R, 1 x S10825 8.8, 1 x N

nage	Art. No.	Name	Category	Application Features	Technical data Drawing
	605436	MC-SF 🔊		Forklift shoe, with two fixing holes in the square pipe, for square pipe 45 x 45 mm	Material: Galvanised steel Weight: 1790 g
	605440	MC-SFO 🝙	45 x 45 mm	Forklift shoe, with two fixing holes in the U-profile, square pipe 45 x 45 mm	Material: Galvanised steel Weight: 1500 g
	PL009655		_ 43 X 43 IIIII	Mounting plate for CB-MCP 1-2 corner protection on MC-BP corner	Required for mounting: 2 x M6x30
	112051	GP-R4040B Roller		cylindrical roller, for GP-R4040B, required: 25 pieces per metre or 5 pieces per guide (1 guide = approx. 20 cm)	Diameter: 34,3 mm Material: PE Packaging un 25 pcs
	115552	GP-4050C Roller	Accessories for GP roller tracks	cylindrical roller, for GP-4050C	Diameter: 34 mm, 49 mm Packaging unit: 25 p
R	114098	UR-60 Roller		UR all-round castor for UR-6067	Diameter: 60 mm Packaging unit: 60 pcs
	612291			Aluminium angle 35 x 30 x 3 mm	Length: 1000 mm Material: blank aluminium
	618308			Aluminium angle 35 x 30 x 3 mm	Length: 4000 mm Material: blank aluminium
11	612299			Aluminium angle 40 x 40 x 4 mm	Length: 1000 mm Material: blank aluminium
alle	618299		lateral guides metal	Aluminium angle 40 x 40 x 4 mm	Length: 4000 mm Material: blank aluminium
	612283			Aluminium angle 50 x 50 x 4 mm	Length: 1000 mm Material: blank aluminium
	618152			Aluminium angle 50 x 50 x 4 mm	Length: 4000 mm Material: blank aluminium
Ĩ	608256	AP-03-160-LB-M- EXPU-K-ST	Castors with fixing plate Coating: EXPU	Swivel castor with brake, Stop-Top, Ball bearing, Load capa- city 400 kg (4 km/h) 1000 kg (statically), Wheel Ø160 mm, Construction height: 195 mm, Panel: 140 x 110 mm	Weight: 3,3 kg
T	618092	AP-40-80-B-K- TG-K-E 🙆	Castors with fixing plate	Fixed castor, Ball bearing, Load capacity 65 kg (4 km/h) 165 kg (statical- ly), Wheel Ø80 mm, Construction height: 111 mm, Panel: 120 x 40 mm	Weight: 500 g
U	618093	AP-40-100-B-K- TG-K-E 🙆	especially for mounting on aluminium square	Fixed castor, Ball bearing, Load capacity 70 kg (4 km/h) 175 kg (statical- ly), Wheel Ø100 mm, Construction height: 136 mm, Panel: 120 x 40 mm	Weight: 600 g
U	618094	AP-40-125-B-K- TG-K-E 🜊	profiles Coating: TG	Fixed castor, Ball bearing, Load capacity 80 kg (4 km/h) 200 kg (statically), Wheel Ø125 mm, Construction height: 161 mm, Panel: 120 x 40 mm	Weight: 700 g
Ĩ	403524	AP-13-100-L-K- EVGP-R-SB	Castor with bolt	Swivel castor, Roller bearing, Load capacity 150 kg (4 km/h) 375 kg (sta- tically), Wheel Ø100 mm, Construction height: 125 mm, Hole: 13 mm	Weight: 614 g
T	614254	AP-13-100-LB-K- EVGP-R-SB	hole Coating: EVGP	Swivel castor with brake, Roller bearing, Load capacity 150 kg (4 km/h) 375 kg (statically), Wheel Ø100 mm, Construction height: 125 mm, Hole: 13 mm	Weight: 700 g
	618080			Thickness: 2,5 mm, Material: Galvanised steel, can be used	Length: 250 mm
	618081	Knotted chain		as an ELF discharge chain if wheels without ELF are under	Length: 350 mm
	127898			construction, At least 3 chain links must be in contact with the ground.	Length: 30000 mm
00	HA200262	Contact disc	Accessories	1 piece, suitable for M6 screw thread, interlocked, Ø inside: 6,1 mm, Ø outer 12 mm, Thickness: 1,2 mm	Material: Galvanised steel
	618082	Mounting set	castors & wheels	Chain length: 250 mm, can be used as an ELF discharge chain if wheels without ELF are under construction, At least 3 chain links must be in contact with the ground.	The set consists of following parts:
	618083	for Ø28 mm 🔊		Chain length: 350 mm, can be used as an ELF discharge chain if wheels without ELF are under construction, At least 3 chain links must be in contact with the ground.	1 x Knotenkette, 1 x GA-15S WZ, 1 x M0615 W 1 x MS06, 2 x Contact disc M6
	617869	Polystone [®] MR AST 🔼		Material: Polystone® MR AST with regenerated material, planed, antistatic (volume resistivity DIN EN 62631-3-1 Ω * cm <10 ⁹)	Panel dimensions(LxB): 3000 x 1250 mm Thickr 8 mm, Colour: black, similar to RAL9004
	617873	Polystone [®] MR AST 🔼	Plastic panels	Material: Polystone® MR AST with regenerated material, planed, antistatic (volume resistivity DIN EN 62631-3-1 Ω * cm <10 ⁹)	Panel dimensions(LxB): 3000 x 1250 mm Thickn 10 mm, Colour: black, similar to RAL9004
	HA203495	RS ROH		Material: Chipboard with multilayer melamine Krono coa- ting, Dimensions: 2750 x 2050 x 19,6 mm	Colour: light grey
22	605618	RS ROH	Wooden panels	Material: Chipboard with multilayer melamine Krono coa- ting, Dimensions: 2800 x 2070 x 26,6 mm	Colour: light grey

nage	Art. No.	Name	Category	Application Features	Technical data Drawing
ii an an	614817	Hubset 3.3 🕰		4 Lifting elements (LA), 300 mm lifting height, Hand crank, 300 kg max. total capacity load	
	614977	Hubset 4.3 🛕		4 Lifting elements (LA), 290 mm lifting height, Motor drive, 350 kg max. total capacity load	
	614985	Hubset 5.3 🕰	.ifting 6	6 Lifting elements (LA), 290 mm lifting height, Motor drive, 350 kg max. total capacity load	
***	614989	Hubset 6.3 🕰	Hydraulic lifting sets	6 Lifting elements (LA), 300 mm lifting height, Hand crank, 350 kg max. total capacity load	
ii aa aa	614992	Hubset 7.3 🕰		4 Lifting elements (LH), 390 mm lifting height, Motor drive, 350 kg max. total capacity load	
	614997	Hubset 13.3 🞑		4 Lifting elements (TA), 400 mm lifting height, Motor drive, 350 kg max. total capacity load, ohne Adaption und Befestigungsmaterial	
	609465	Hubset 20 SK-ESD	Lifting technology HE Electric lifting sets	2 lifting pillars SK, 400 mm lifting height, purely electric motorised drive, 600 kg max. total capacity load	
	System se	election table for h	nydraulic systems, see	page 257	
-	401368	EU power cable	Lifting	Two-pole power cable with European power plug, voltage 230 V, plug type CEE 7/7, application: systems with compac- control units	Cable length: 3000 mm
	600687	Cable remote control/memory	Lifting technology HE Accessories for electric lifting sets HE	Cable remote control HSU/Memory, up and down, save and move to 4 positions, height indication on display, incl. fixing screws. Cable remote control can be pulled forwards by sliding mounting plate	Cable length: 1700 mm
\$ C	613425	PBD 230 Compact EU drive set		Drive set	The set consists of following parts: 1 x Motor PXD.2, 1 x motor cable, 1 x control unit PXD Compact, 1 x power cable, 1 x memory handset
	System se	election table for e	electrical systems, see	page 262	
	615761	Holder for 10A rechargeable battery		The mounting bracket is required for fixing to the construction. The exchan- geable battery can be snapped into the holder and is connected to the control unit via a cable.	
	615767	SCT4 iMPS 24V V1891 control unit	Lifting techno- logy HE Accessories for	Control unit for spindle lifting system SLA/SLG 1330, supply voltage 230 V, standby power < 0.5 W, connection for cable remote control, 1 - 4 motor connections, software version V1891 \rightarrow for lifting set 11	
	615772	SCT4 iMPS 24V V1890 control unit	electrical Systems	Control unit for spindle lifting system SLA /SLG 1340, supply voltage 230 V, standby power < 0.5 W, connection for cable remote control, 1 - 4 motor connections, software version V1890 \rightarrow for lifting set 12	
	609464	SCT2 iSMPS 230V V1400 control unit		Control unit for spindle lifting system SL/SK 1340, supply voltage 230 V, connection for cable remote control, 2 motor connections, parallel operation possible via SYNC cable, software version V1400> for lifting set 20	
	609521	SCT4 iSMPS 230V V1400 control unit	Lifting techno- logy HE Accessories for SK	Control unit for spindle lifting system SL/SK 1340, supply voltage 230 V, connection for cable remote control, 4 motor connections, parallel operation possible via SYNC cable, software version V1400> for up to max. 4 x SK lifting pillars	
n n	609466	Table base SL/SK/ TL/TT 680 complete	electrical systems (lifting set 20)	Length: 680mm, width: 80mm consisting of: 1x table base SL/SK/TL/TT 68, 2x adjusting feet M10x25	
	609519	Telescopic traverse T8 900-1550 - 90°		The crossbar is for the SL/SK lifting pillars and can be extended from a length of 900 - 1550 mm.	
	608749	Hubset 30.0		4 Lifting pillar, 300 mm lifting height, 320 kg max. total capacity load	
	608751	Hubset 31.0	1:64:00 4	2 Lifting pillar, 300 mm lifting height, 160 kg max. total capacity load	
	608752	Hubset 32.0	Lifting techno- logy HL Electric lifting cote	4 Lifting pillar, 500 mm lifting height, 320 kg max. total capacity load	
\$]] \$\$.7.7	608753	Hubset 33.0	Electric lifting sets	2 Lifting pillar, 500 mm lifting height, 160 kg max. total capacity load	
	608754	Hubset 34.0		4 Lifting pillar, 650 mm lifting height, 320 kg max. total capacity load	

WEN OVER	VIEW:	NEW PRO	DUCTS		
Image	Art. No.	Name	Category	Application Features	Technical data Drawing
	608755	Hubset 35.0	Lifting techno- logy HL Electric lifting sets	4 Lifting pillar, 650 mm lifting height, 480 kg max. total capacity load	
	608756	Hubset 36.0		4 Lifting pillar, 650 mm lifting height, 320 kg max. total capacity load	
8 8	612009	Hubset 37.0 Mono		1 Mono lifting pillar, 650 mm lifting height, 400 kg max. total capacity load	
C Line Cos	608278	Control DP1CS		Control panel with memory function. 3 memory positions, display with white LEDs. Colour black (RAL9005).	Cable length: 1700 mm
CT.ST.C	608279	Control DPF1C		Control panel. Up and down movement, display with white LEDs, colour black (RAL9005)	Cable length: 1700 mm
Ì	608720	Mounting bracket for DPF1C		Mounting bracket for DPF1C, 90°, no distance to the table top. Control panel is snapped onto the fitting.	
A Sec. A	608284	CBD6S-200W		Control unit for 1 or 2 pillars, incl. switching power supply. Power supply: 230V AC, 50Hz or 120V AC, 60Hz. Dimensions: 210 x 96 x 38 mm (LxWxH), without cable	Weight: approx 400g Colour: black
the second	608285	CBD6S-300W		Control unit for 2, 3 or 4 pillars, power supply: 100-240V AC, 50-60Hz (universal), dimensions: 265 x 96 x 38 mm (LxWxH),	Weight: approx. 500g, Colour: black
7	608286	Cable lifting pillar		Connecting cable from lifting pillar to control unit, required per system: 2 or 4 (1 per lifting pillar)	Cable length: 500 mm Colour: black (RAL9005)
	608287	Cable lifting pillar		Connecting cable from lifting pillar to control unit, required per system: 2 or 4 (1 per lifting pillar)	Cable length: 1000 mm Colour: black (RAL9005)
	608288	Cable lifting pillar		Connecting cable from lifting pillar to control unit, required per system: 2 or 4 (1 per lifting pillar)	Cable length: 2000 mm, Colour: black (RAL9005)
\gg	608289	Connecting cable	Lifting toolog	1 x required per system	Cable length: 2000 mm, Colour: black (RAL9005)
	108891	IEC connecting cable Swiss standard type 13	Lifting techno- logy HL Accessories for	IEC connecting cable NKSK CH 500, type: appliance cable, version: with earthing contact plug, CH, load limit: 6A, cable cross-section: 3x 0.75mm2, connection: IEC-60320 C13	Cable length: 5000mm Colour: black
	608290	BA001	electric lift sets	Rechargeable battery box, battery capacity: 2.15 Ah/52 Wh, rated voltage: 24 V DC; discharge current: 9 A (max.); maximum charging voltage: 40 V DC; charging current: 0.5 A; weight: 600 g; incl. mounting bracket for easy mounting/dismounting when charging is required. The rechargeable battery is also charged via the control unit when it is supplied with 230 V	Colour: black
\bigcirc	608291	DC cable		DC cable for connecting a CBD6S control unit to the BA001 rechargeable battery pack, 2-pin with straight minifit connector at both ends	Length: 200 mm
	608292	SMPS006		External switched-mode power supply unit for charging the rechargeable battery box BA001, EU connection cable and DC cable (608291) must be ordered separately if required.	
	608723	Power cable for SMPS006		Straight power cable with EU plug	Length: 3000 mm
ø	611589	Serial cable for multi- parallel operation		Serial cable for parallel operation of two CBD6S control units	Length: 2000 mm
\sim	611593	Programming cable		Programming cable for CBD6S control unit with serial and USB plug. The Desk Control Basic software is also required	Length: approx. 2000 mm
	611609	Desk Sensor 1		The Desk Sensor 1 (DS1) is an anti-collision solution that can prevent serious damage to desks and objects caused by collisions during desk movement. It detects a tilt of the table top as well as hard and soft obstac- les. It is a small, compact plug-in device that can be easily plugged into the table systems on either the CBD6S controller or the DL lifting pillars.	
1	608280	DL5-300 mm - 800 N	Lifting techno- logy HL Lifting pillar HL	Two-part lifting pillar, max. Speed (unloaded): 38mm/s, Max. Load (per column): 800N, Pillar dimensions: 50 x 80 mm, Spindle type: 20 mm pitch, Mounting bracket: 120 x 40 x 8mm with 2 x M8	Colour: white aluminium (RAL 9006) Stroke length: 300 mm Installation dimension: 445 mm Weight: 6,5 kg
1	608281	DL5-500 mm - 800 N		Two-part lifting pillar, max. Speed (unloaded): 38mm/s, Max. Load (per column): 800N, Pillar dimensions: 50 x 80 mm, Spindle type: 20 mm pitch, Mounting bracket: 120 x 40 x 8mm with 2 x M8	Colour: white aluminium (RAL 9006) Stroke length: 500 mm Installation dimension: 645mm Weight: 6,5 kg
1	608282	DL6-650 mm - 800 N		Three-part lifting pillar, max. Speed (unloaded): 38mm/s, Max. Load (per column): 800N, Pillar dimensions: 50 x 80 mm, Spindle type: 20 mm pitch, Mounting bracket: 120 x 40 x 8mm with 2 x M8	Colour: white aluminium (RAL 9006) Stroke length: 650 mm Installation dimension: 560mm Weight: 7,5 kg

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WEN OVER	VIEW:	NEW PRO	DUCTS		
Image	Art. No.	Name	Category	Application Features	Technical data Drawing
1	608283	DL6-650 mm - 1200 N	Lifting techno- logy HL Lifting pillar HL	Three-part lifting pillar, max. Speed (unloaded): 23mm/s, Max. Load (per column): 1200N, Pillar dimensions: 50 x 80 mm, Spindle type: 12 mm pitch, Mounting bracket: 120 x 40 x 8mm with 2 x M8	Colour: white aluminium (RAL 9006) Stroke length: 650 mm Installation dimension: 560mm Weight: 7,5 kg
	608293	AU-TPS		For DL5/6 series, mounting table top small, sheet steel	Thickness: 2 mm Colour: light grey (RAL7035)
15	608294	AU-TPB	n	For DL5/6 series, large table top mount, sheet steel	Thickness: 2 mm Colour: light grey (RAL7035)
\$	608295	AU-HS-top		For DL5/6 series, top mounting of lifting pillar, sheet steel, mounting round tube with PC-CN (100004) and BS HKP 5 mm (BC000175)	Thickness: 2 mm Colour: light grey (RAL7035)
L	608296	AU-HS-bottom	Lifting techno- logy HL	For DL5/6 series, bottom mounting of lifting pillar, sheet steel, mounting round pipe with PC-CN (100004) and BS HKP 5 mm (BC000175)	Thickness: 2 mm Colour: light grey (RAL7035)
Contra Contra	608745	BSHub-AU- small	Mounting material	Small mounting kit for adapting the DL5/6 series to our 28 mm round pipe	The set consists of following parts: 1x AU-TPS (608293) incl. 6x Sl0612 (110149), 4x SSPP4016 (124403), 1x AU-HS-top (608295) incl. 2x PC-CN (100004), 4x SL0512 (111196), 4x M05 (110141), 4x USO5 (101847), 1x SL0812 10.9 (118592), 1x AU-HS-bottom (608296) incl. 2x PC-CN (100004), 4x SL10512 (111196), 4x M05 (110141), 4x USO5 (101847), 2x Sl0612 (110149)
22	608746	BSHub-AU- large		Large mounting kit for adapting the DL5/6 series to our 28 mm round pipe	The set consists of following parts: 1x AU-TPB (608294) incl. 6x Sl0612 (110149), 8x SSPP4016 (124403), 1x AU-HS-top (608295) incl. 2x PC-CN (100004), 4x SL0512 (111196), 4x M05 (110141), 4x US05 (101847), 1x SL0812 10.9 (118592), 1x AU-HS-bottom (608296) incl. 2x PC-CN (100004), 4x SL10512 (111196), 4x M05 (110141), 4x US05 (101847), 2x Sl0612 (110149)
As 1	608486	ALD 1300/850/D	Linkting	Universal lamp, LED boom light, Multifunction button, save the set brightness, mounting by means of a plinth	Power supply cable: 3,20 m
	608485	MLD 750/850/D	Lighting	LED magnifier light, Multifunction button, save the set brightness, mounting by means of a plinth	Power supply cable: 3,20 m
	110159	SI0820 🖾		Hexagon socket head cap screw (DIN 912), steel 8.8	Length: 20 mm
	112733	SI0830 🛕		Hexagon socket head cap screw (DIN 912), steel 8.8	Length: 30 mm
	112028	SI0840 🛕	Mounting	Hexagon socket head cap screw (DIN 912), steel 8.8	Length: 40 mm
() man	130864	SSI0515 🛕	materials	Countersunk screw with hex socket, Steel 8.8, M5	Length: 15 mm
C	615349			Hook screw with metric thread	Length: 80 mm
	612910	Clipboard		Clamp short side, DIN A4, Extra strong cardboard core, Nickel-plated clamp mechanism, incl. extendable hook eye	Colour: black
	615723	PA 9100-3 🖾	Additional acces- sories for modular systems	Profile hanging rail, to take grab trays	Length: 1000 mm
•	130033			Drawers with lock, Material body: chipboard with melami- ne resin coating, WxDxH: 400x449x140mm	max. load: 30 kg
	607419		Workshop Equipment	Screwdriver with T-handle, with asymmetric 2K handle for a better grip and perfect power transmission, Through-hole for storage on the wall hook, Matt chrome-plated blade for increased corrosion resistance	Spanner width: 5 mm Blade length: 115 mm Length of side drive : 17 mm Weight: 83 g
	617880	GS-2070C 0,9	Drive-in sleeve	Drive-in sleeve without thread with stop and hole Ø3.4 mm, A=23.7 mm, galvanised steel for use with DP/EP 2809 pipes.	
	617569	Mounting end piece 🝙	add-on parts Steel	Suitable for: drive-in sleeve M10, Alternative to: GS-2070C, Required for mounting: suitable screw and threadlocker	Material: anodised aluminium Dimensions: 55.6 x 27.6 x 4 mm
at a second	619176	MJC-G6S		Joint protection, Half-shell, suitable for: GA-6S	Weight: 10g, Packaging unit: 150 pcs, Material: PP
and and	619177	MJC-G7A	Accessories Ø28 mm round pipe	Joint protection, Half-shell, Suitable for: the joint half-shell G-7AS from the GA-7S set	Weight: 8g, Packaging unit: 300 pcs, Material: PP
It's mus	619178	MJC-G7B		Joint protection Half-shell, Suitable for: the joint half-shell G-7BS from the GA-7S set	Weight: 8g, Packaging unit: 300 pcs, Material: PP
	619395	SA640AH 🝙	Joints, Aluminium square profile 40 x 40 mm	for all 40 x 40 mm profile pipes with 6.5 mm slot, flush finish. Required for mounting: 1 x SN306, 1 x M0610	Weight: 25 g, Packaging unit: 160 pcs

New

NEW OVER	OVERVIEW: NEW PRODUCTS				
Image	Art. No.	Name	Category	Application Features	Technical data Drawing
	603925	MC-B4545 🛕	Steel-square profile 45 x 45 mm	Steel square profile 45 x 45 mm	Weight: 2,65 kg/m Lenght: 2 m material thick- ness: 2 mm
	611554	MC-BTFS30	Drawbars and couplings	with damping of the drawbar plate via friction dampers, downward with adjustable stop, distance from mounting plate to drawbar eye = 625 mm	Max. tractive force: 3500 kg Weight: ca. 6 kg Colour: RAL 1003
	613434	Control set SCT4 BATTERY V1891	Lifting techno- logy HE	Control set consisting of control unit SCT4 iMPS 24V with software version V1891, cable remote control SCT Memory T6, holder for exchangeable battery, exchangeable battery 24V A10, charging station for exchangeable battery	power cable: 3000 mm
	613435	Control set SCT4 BATTERY V1890	Individual lifting components	Control set consisting of control unit SCT4 iMPS 24V with software version V1890, cable remote control SCT Memory T6, holder for exchangeable battery, exchangeable battery 24V A10, charging station for exchangeable battery	power cable: 3000 mm



Expected to be available from June/July 2025

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STEEL Ø 28 mm

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Please refer to the BeeWaTec user manual for the information relevant to the holding and tightening forces.



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