www.alfer.com



Hardware catalogue

combitech® system | Model construction





Explanations

Colour	guide materials		
AGK	Aluminium casting, tumbling polished	MES	Brass, solid or brass, shiny solid
AGP	Aluminium casting, powder-coated	CU	Copper, solid
ALC	alferceram*, ceramic powder-coated aluminium	ABS	Plastic, acrylonitrile butadiene styrene
ALCR	Aluminium chrome-plated	EPDM	Plastic, ethylene propylene diene rubber
ALG	Aluminium, vibratory finish	EVA	Plastic, ethylene vinyl acetate
ALK	Aluminium, tumble polished	GUM	Rubber
ALM	Brass-plated aluminium	PA	Plastic, polyamide
ALO	alferoxal', multicolour aluminium, anodized	PC	Plastic, polycarbonate
ALP	Powder-coated aluminium	PE	Plastic, polyethylene
ALU	Uncoated aluminium	PET	Plastic, polyethylene terephthalate
ALX	Anodized aluminium	POM	Plastic, polyoxymethylene
EDL	Stainless steel	PP	Plastic, polypropylene
FER	Hard ferrite	PS	Plastic, polystyrene
GUS	Cast iron	PU	Plastic, polyurethane
SGC	Injection moulded, chrome-plated	PVC	Plastic, polyvinylchloride
STA	Steel or steel, galvanized	TPE	Plastic, thermoplastic elastomers
		EHO	Real wood

Packaging

loose: The item is not packed.

shrink-wrapped: The loose item is shrink-wrapped in transparent PE foil. **shrink-wrapped SS:** The shrink-wrapped item comes with a SS Euro-perforation allowing it to be suspended.

SS bag: The item is packed in a transparent LDPE bag (Euro-perforation). **SS** polybag: The article comes in a PE tube.

 $\ensuremath{\mathbf{SS}}$ box: the item is packed in a transparent box with Euro-perforation.

 $\ensuremath{\mathbf{SS}}$ cardboard box: The item comes in a SS cardboard box.

on roll: The item comes on a roll and can be cut to measure.

sealed: The item is sealed with a transparent PE foil.

foil-wrapped, one-sided: The item is covered on one side with a protective foil.

rolled in a box: The item is packed rolled up in a box.

clap-pac: The item comes in impact-resistant, transparent, PVC snapshut packaging (multi-perforation) and can be re-closed.

Min. OU: The minimum order unit specifies both the minimum order quantity of an item and the order unit.

e. g.: Min. OU=5 pcs.: means that orders must either be for a minimum of 5 pieces of this item, or multiples thereof.

PU: Packaging unit.

Explanations Brand Names

Important Note!

The following trademarks (®, M. R.) are registered for the **affer** aluminium Gesellschaft mbH, D-79793 Wutoeschingen, (as of: 01.09.2013)

alfer* (EU) (CH)

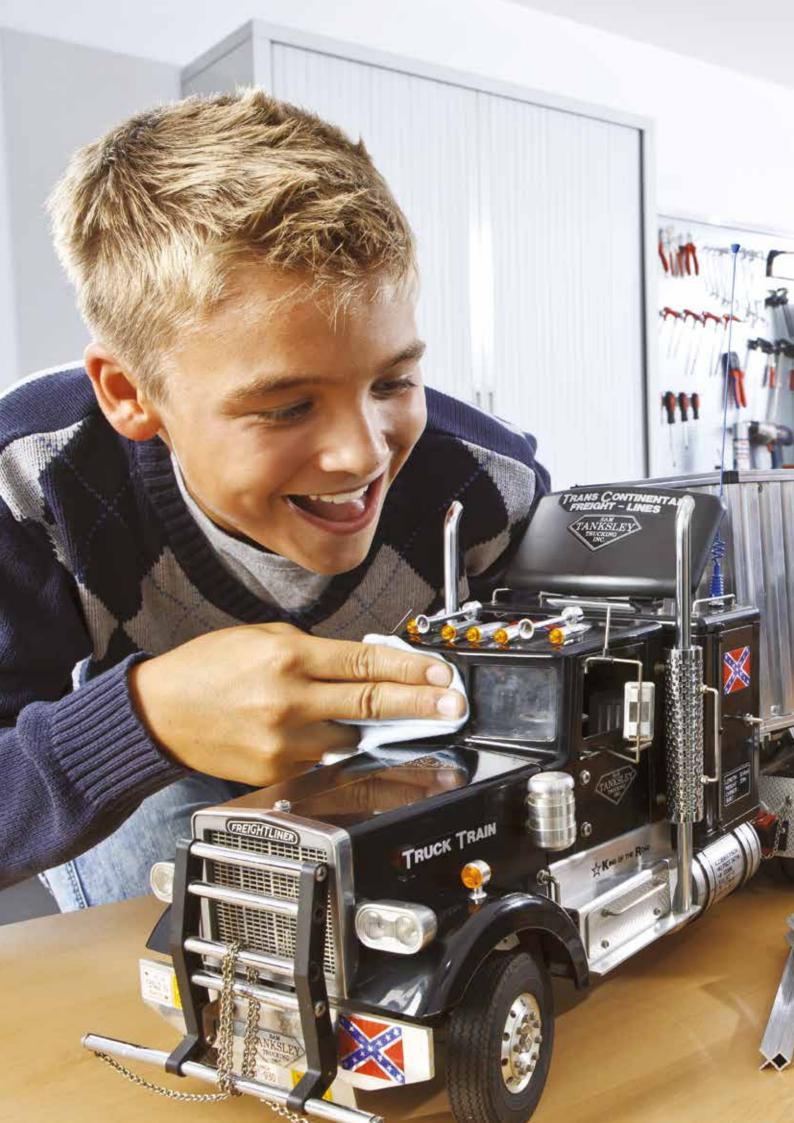
alferoxal BDFOLMAPH
alferceram BDFOLMAPH

clipstech ® ® combitech © ® ® cabelino ® ® ferroplatan coaxis ® ® ®

x-star* (EU) (ISA)
easyrack* (EU)

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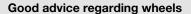
combitech° system | Model construction Range overview

Model building made easy

The combitech*-connect system (7.5 mm)

alfer° has a penchant for model building. This is demonstrated, for example, by the practical **combitech**°-connect connectors (7.5 mm). These are made from robust plastic (polyamide) and make both recreational and professional model building projects easy. Whether crane systems, car parks or railway bridges: even the most demanding of models can be created in the shortest of times thanks to **combitech**°-connect.

combitech°-connect connectors are available in black and white as 45°, 90° and 150° versions as well as in several different shapes. They can be combined with all square tubes and special profiles in the 7.5 mm series.



Want to build windmills, water wheels or Ferris wheels? By combining the 150° connect connectors with connect bearings, all kinds of wheel-based structures can be created. You can select the size of your wheel – simply based on the length of the profile.

Precision model building: combitech system profiles

Square tubes and special profiles in the 7.5 mm series have been specially designed for model building. Whether in the architecture industry, the urban development sector or the automotive sector: with the aid of the sophisticated **combitech** system, you can quickly and effectively create presentable 3D models of your ideas. Even delicate details such as stairs or fences can be easily created with the sturdy, lightweight and versatile **combitech** system profiles made from aluminium. In combination with the many different **alfer** sheet types, you can give your imagination free reign. Amaze your audience!

Authentic special profiles

Whether crash barrier, sheet piling or container wall profiles – an authentic look is a matter of course for **alfer**.













combitech° system | Model construction Range overview

Sophisticated through and through

Suitable system accessories

Useful accessory ideas make model building easier than ever. The universal deburrer deburrs edges to make work easier and reduce the risk of injury. Suitable screw sets plus blind and round-headed rivets and double-sided adhesive tape provide reliable stability.

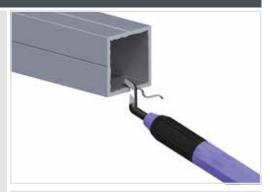
combitech* system logika*

The name says it all: the **logika*** range offers logically perforated profiles that prevent you from having to create your own holes. They also sensibly complement the **combitech*** system. With the **logika*** profiles you can build shelves, tables or steps in an instant. The **logika*** range is also the ideal solution for creating order in rooms, delivery vans and construction site vehicles. Furthermore, the **logika*** system profiles look great when used to construct designer furniture, for example in the form of sideboards, desks or shelving solutions for modern living environments.

Discover the **logika*** profile range and get to work right away. You will be amazed at the speed at which **logika*** profiles can create attractive and highly sturdy results.

Lightweight construction: Plastic system profiles

The ultra-light **alfer** system profiles made from plastic (hard PVC) are available with several cross-sections and ideal for the broadest range of model building activities. The 7.5 mm system profiles come with easy-to-use, patented drilling alignment groove – making them ideal for accurate drilling and precisely aligned drill holes. Tip: the profiles can be easily connected together with the aid of suitable plastic adhesive. Any areas of dirt can be effortlessly cleaned using a cloth and detergent or a special plastic cleaner.













Range overview

Available in five versions: Brass system profiles

Round tubes, round bars, brackets with equal members, flat bars and square bars – these are the system profiles available in brass.

Harder than hard: Steel system profiles

The **alfer** model building range also offers you steel system profiles. Three different cross-section designs are available: round tube, round bar and square bar

Completely solid: Metric threaded rods

Depending on requirements, **alfer*** metric threaded rods are available in stainless steel, brass and galvanised steel versions.

Various different finishes: Plain and embossed sheets, plastic sheets, perforated sheets and expanded metal

The finish makes the difference! **alfer** offers you the perfect finishes for your project – in various different materials and structures. Discover the astonishing diversity and give your model building projects the appearance you desire.











Range overview

connect connector 7.5 mm | Plastic (PA)

12-18

PA



- · 150° 3-D T-connector, 3 spigots
- \cdot 150° nodal connector, 4 spigots
- · 150° square connector, 2 spigots
- \cdot 150° T-connector, 3 spigots
- · 45° 3-D T-connector, left, 3 spigots
- \cdot 45° 3-D T-connector, right, 3 spigots
- · 45° nodal connector, 4 spigots
- · 90° edge connector, 3 spigots
- · 90° square connector, 2 spigots
- · 90° T-connector, 3 spigots

- · Articulated connector, 2 spigots
- · Articulated flange connector, 1 spigot
- · Bearing, 6 spigots
- · Cross connector, 4 spigots
- · End block
- · End cap
- · Flange connector, 1 spigot
- · Nodal connector, 4 spigots
- · Nodal connector, 5 spigots
- · Nodal connector, 6 spigots

System profiles | Aluminium





- · Angle, equal-sided
- · Angle, unequal-sided
- · Container wall profile
- · Covering profile, one-sided
- · Covering profile, two-sided
- · Flat bar
- · Guard rail profile
- · H section
- · Hinge profile
- · Hinge profile, short
- · Rectangular tube
- · Rectangular U
- · Round bar
- · Round tube
- · Sheet pile wall profile
- · Square edge profile
- · Square T
- · Square tube
- Square tube, 1 branch
- Square tube, 1 branch offset
- · Square tube, 2 branches 180°

- · Square tube, 2 branches inside
- \cdot Square tube, 2 branches offset
- · Square U
- · Square U, 2 branches 180°
- · Support profile, one-sided
- $\cdot \, \text{Support profile, two-sided} \,$
- · T-profile









- · Adhesive tape, double-sided
- · Blind rivet
- · Countersunk screw set
- · Round-headed rivet
- · Universal deburrer

ALU

System profiles | logika

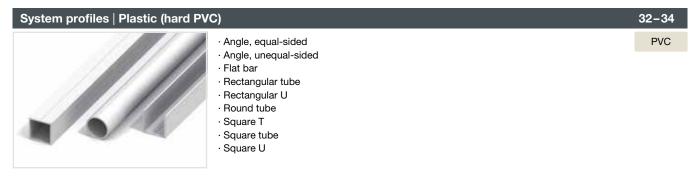
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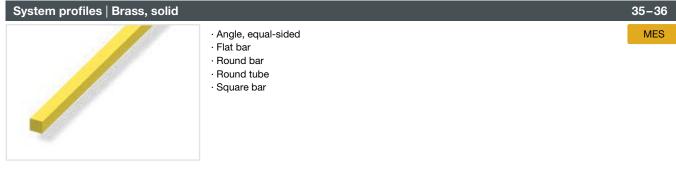


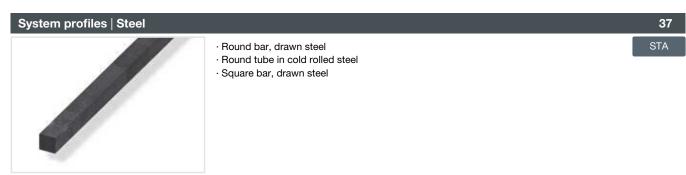
- · Angle, equal-sided, slotted
- · Cylinder head screw set

ALU ALX

Range overview





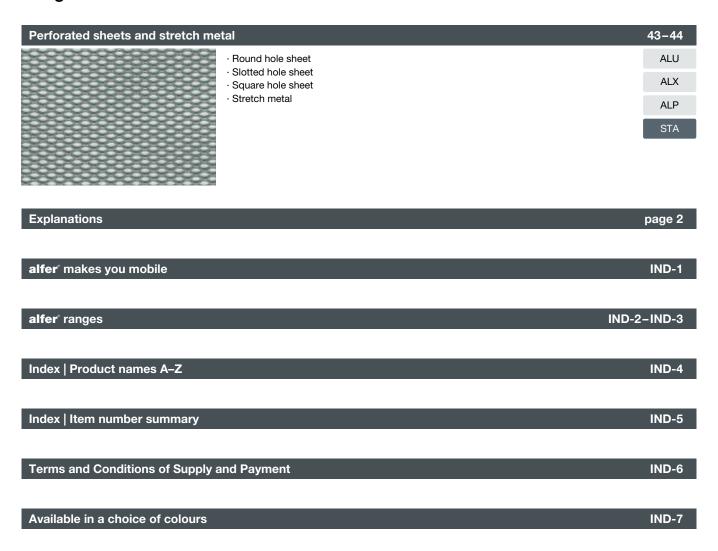




Smooth and embossed shee	Smooth and embossed sheets, plastic panels	
	Barleycorn Checker plate	PC ALU
200000	Corrugated sheet Plastic panel (PC, transparent) Sheet, aluminium, anodized	ALX
	Sheet, aluminium, coated Sheet, aluminium, uncoated	ALP
	· Sheet, raw steel · Sheet, solid copper	STA
6262626262626	· Sheet, stainless steel · Sheet, steel, galvanized	EDL



Range overview

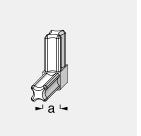




connect connector 7.5 mm | Plastic (PA)

90° square connector, 2 spigots





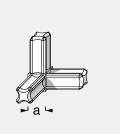




Plastic (PA)				
Colour	Dim. a	PU	Packaging	EAN/Itemno.
A white	7.5 mm	4 pieces	SS box	4001116 28520 2
B black	7.5 mm	4 pieces	SS box	4001116 28500 4

90° edge connector, 3 spigots





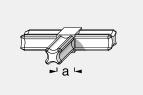




Plastic (PA)				
Colour	Dim. a	PU	Packaging	EAN/Item no.
A white	7.5 mm	4 pieces	SS box	4001116 28600 1
B black	7.5 mm	4 pieces	SS box	4001116 28580 6

90° T-connector, 3 spigots







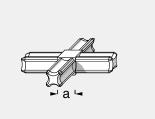


Plastic (PA)				
Colour	Dim. a	PU	Packaging	EAN/Item no.
A white	7.5 mm	4 pieces	SS box	4001116 28560 8
B black	7.5 mm	4 pieces	SS box	4001116 28540 0



connect connector 7.5 mm | Plastic (PA)

Cross connector, 4 spigots

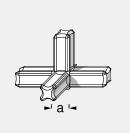






Plastic (PA)				
Colour	Dim. a	PU	Packaging	EAN/Itemno.
A white	7.5 mm	4 pieces	SS box	4001116 28602 5
B black	7.5 mm	4 pieces	SS box	4001116 28582 0

Nodal connector, 4 spigots



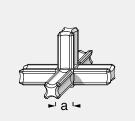




Plastic (PA)				
Colour	Dim. a	PU	Packaging	EAN/Item no.
A white	7.5 mm	4 pieces	SS box	4001116 28640 7
B black	7.5 mm	4 pieces	SS box	4001116 28620 9

Nodal connector, 5 spigots









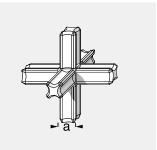
Plastic (PA)				
Colour	Dim. a	PU	Packaging	EAN/Item no.
A white	7.5 mm	4 pieces	SS box	4001116 28642 1
B black	7.5 mm	4 pieces	SS box	4001116 28622 3



connect connector 7.5 mm | Plastic (PA)

Nodal connector, 6 spigots





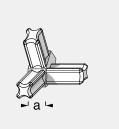




Plastic (PA)				
Colour	Dim. a	PU	Packaging	EAN/Item no.
A white	7.5 mm	4 pieces	SS box	4001116 28523 3
B black	7.5 mm	4 pieces	SS box	4001116 28503 5

45° 3-D T-connector, left, 3 spigots





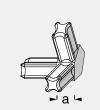




Plastic (PA)				
Colour	Dim. a	PU	Packaging	EAN/Item no.
A white	7.5 mm	4 pieces	SS box	4001116 28521 9
B black	7.5 mm	4 pieces	SS box	4001116 28501 1

45° 3-D T-connector, right, 3 spigots









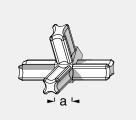
Plastic (PA)				
Colour	Dim. a	PU	Packaging	EAN/Itemno.
A white	7.5 mm	4 pieces	SS box	4001116 28561 5
B black	7.5 mm	4 pieces	SS box	4001116 28541 7



connect connector 7.5 mm | Plastic (PA)

45° nodal connector, 4 spigots









Plastic (PA)				
Colour	Dim. a	PU	Packaging	EAN/Itemno.
A white	7.5 mm	4 pieces	SS box	4001116 28601 8
B black	7.5 mm	4 pieces	SS box	4001116 28581 3

Flange connector, 1 spigot









Plastic (PA)				
Colour	Dim. a	PU	Packaging	EAN/Itemno.
A white	7.5 mm	4 pieces	SS box	4001116 28522 6
B black	7.5 mm	4 pieces	SS box	4001116 28502 8

Articulated flange connector, 1 spigot







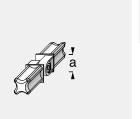


Plastic (PA)				
Colour	Dim. a	PU	Packaging	EAN/Item no.
A white	7.5 mm	1 piece	SS box	4001116 28562 2
B black	7.5mm	2 pieces	SS box	4001116 28542 4



connect connector 7.5 mm | Plastic (PA)



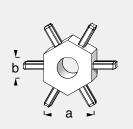






Plastic (PA)				
Colour	Dim. a	PU	Packaging	EAN/Item no.
A white	7.5 mm	2 pieces	SS box	4001116 28641 4
B black	7.5 mm	2 pieces	SS box	4001116 28621 6

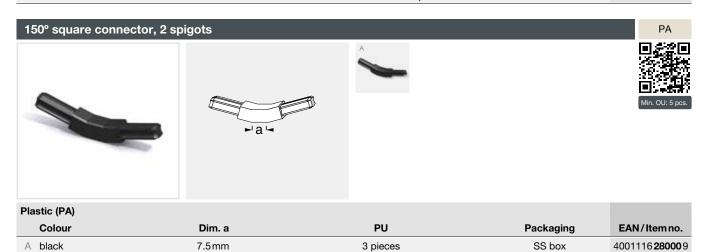






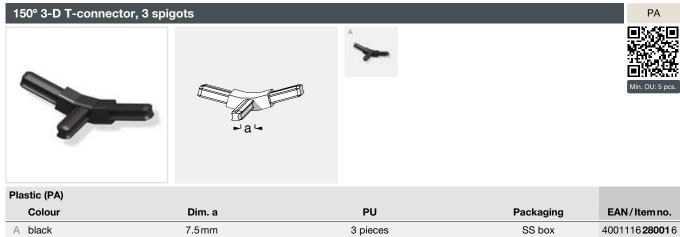


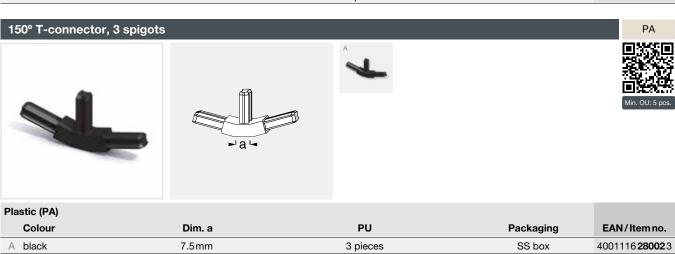
Plastic (PA)					
Colour	Dim. a	Dim. b	PU	Packaging	EAN/Itemno.
A black	36.2 mm	16.0 mm	1 piece	SS box	4001116 28004 7

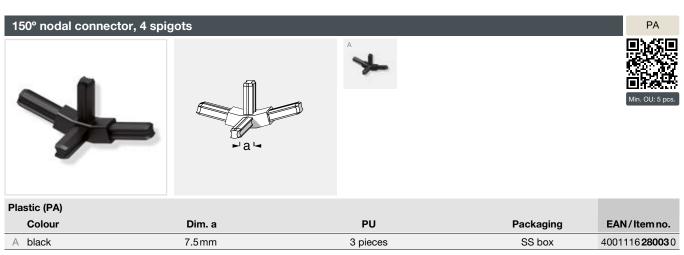




connect connector 7.5 mm | Plastic (PA)

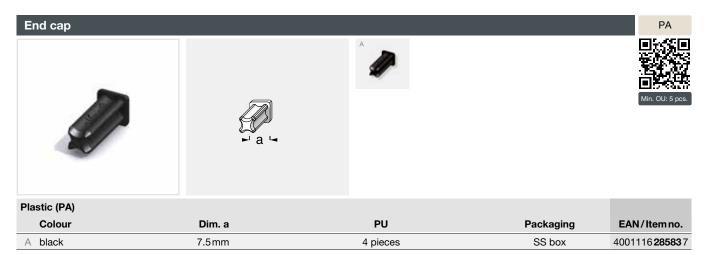








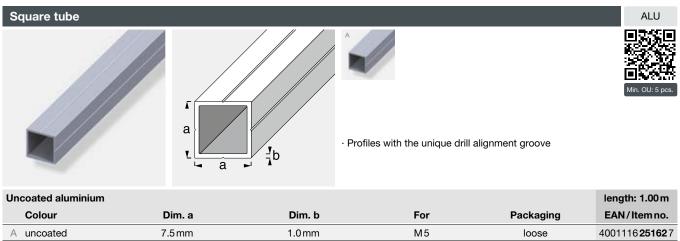
connect connector 7.5 mm | Plastic (PA)

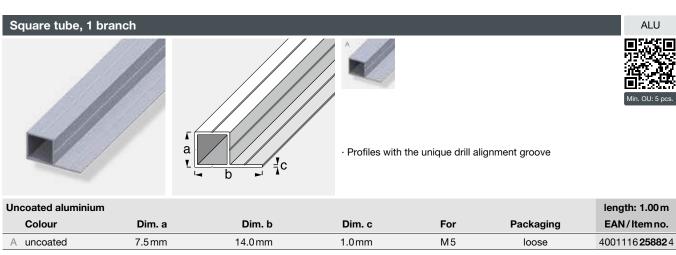


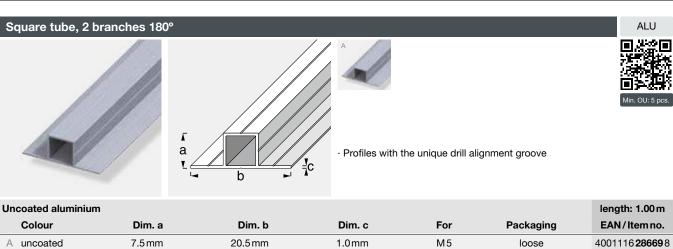


Plastic (PA)				
Colour	Dim. a	PU	Packaging	EAN/Item no.
A black	7.5mm	4 nieces	SS box	4001116 28543 1







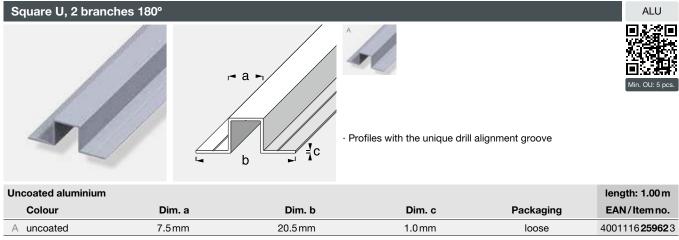


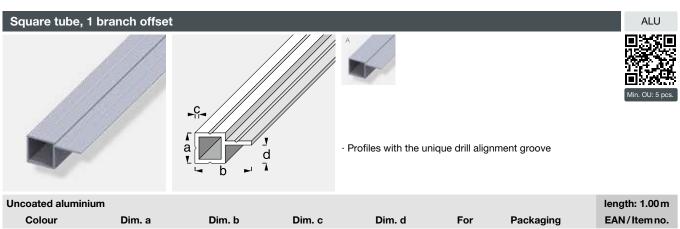
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combitech° system | Model construction

System profiles | Aluminium



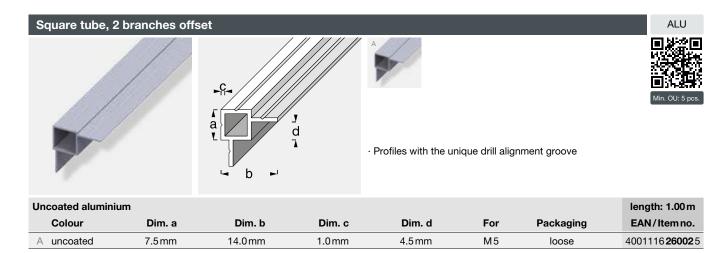


4.5 mm

М5

loose

1.0 mm

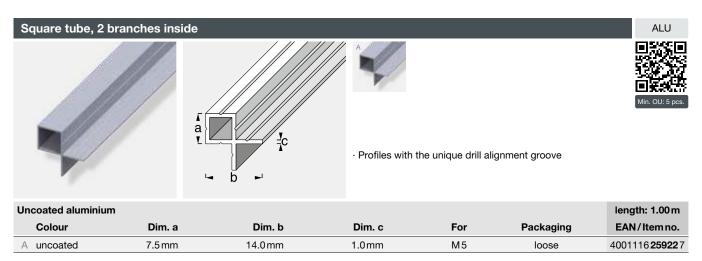


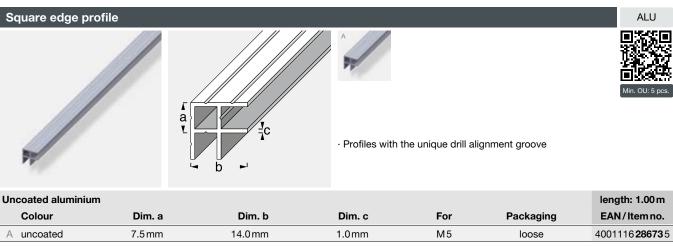
A uncoated

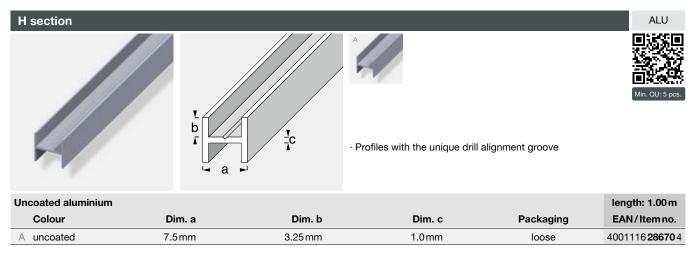
7.5 mm

14.0 mm

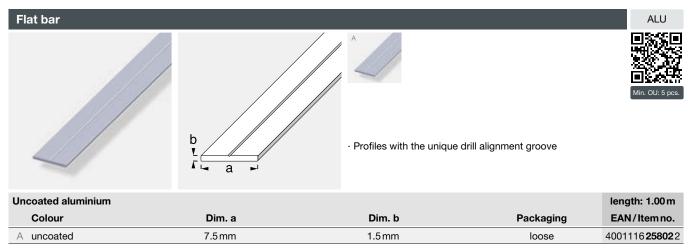


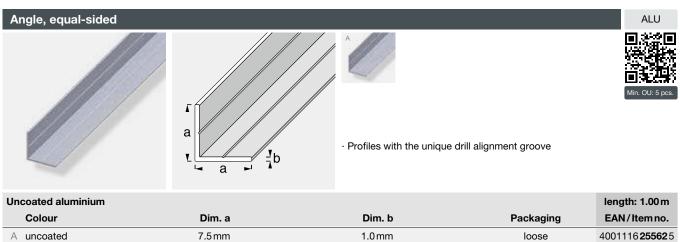


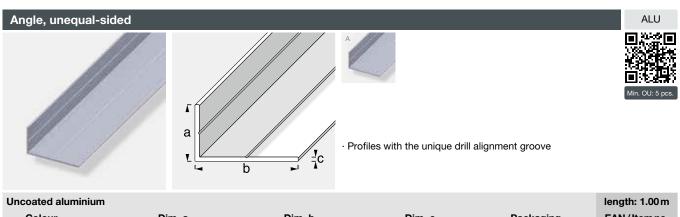




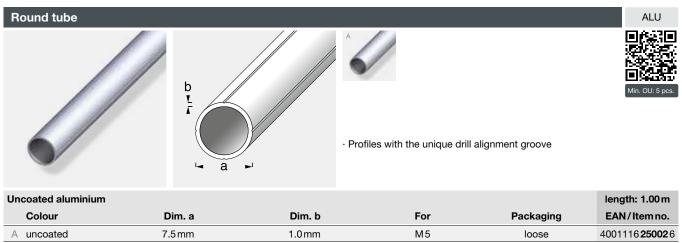


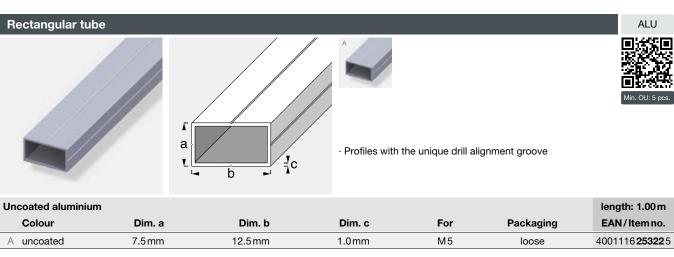


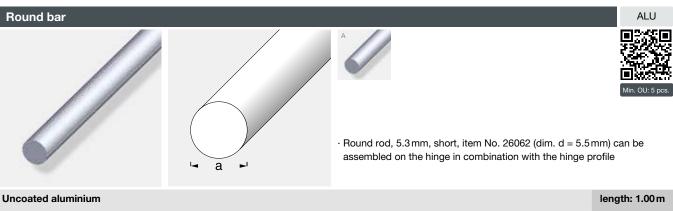






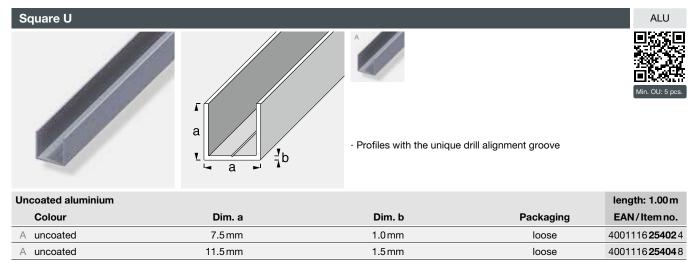


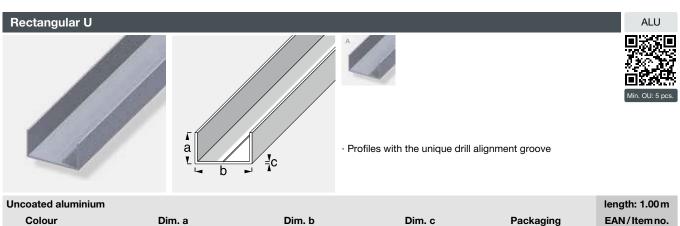


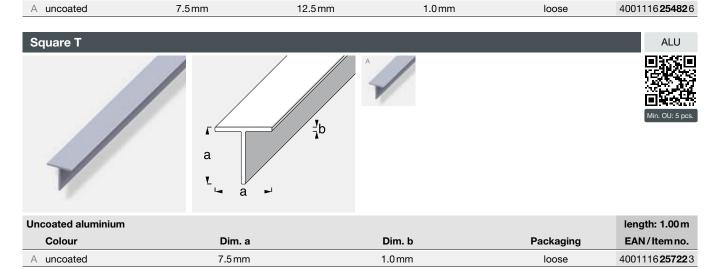


Uncoated aluminium			length: 1.00 m
Colour	Dim. a	Packaging	EAN/Item no.
A uncoated	5.3 mm	loose	4001116 28668 1
A uncoated	7.5 mm	loose	4001116 25082 8

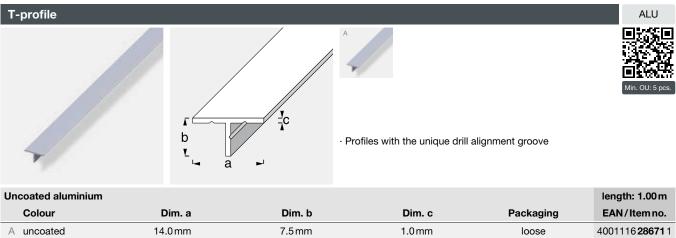


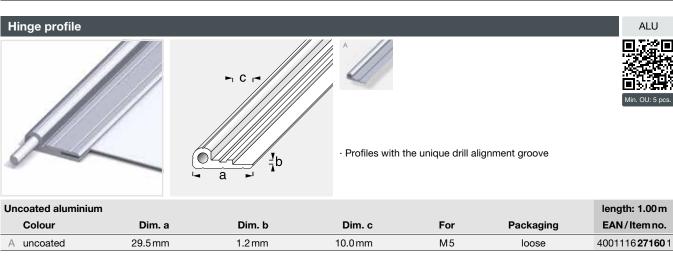


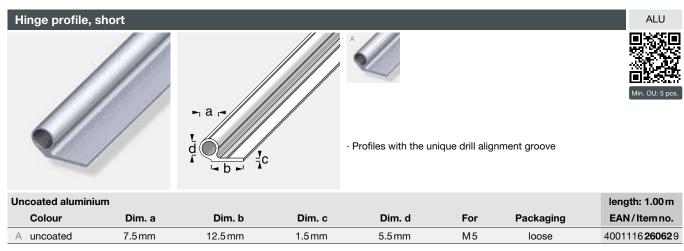




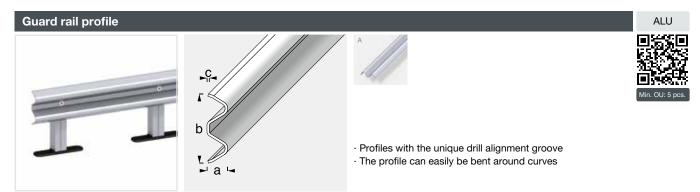




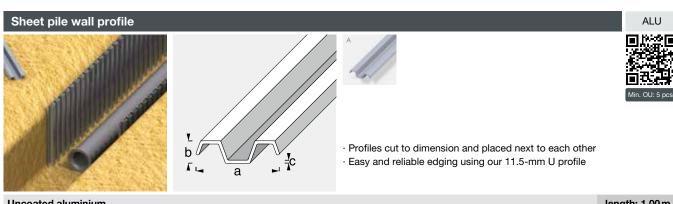




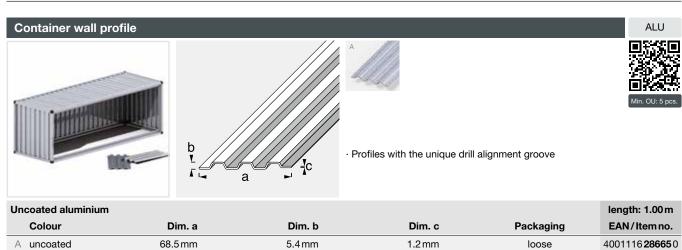




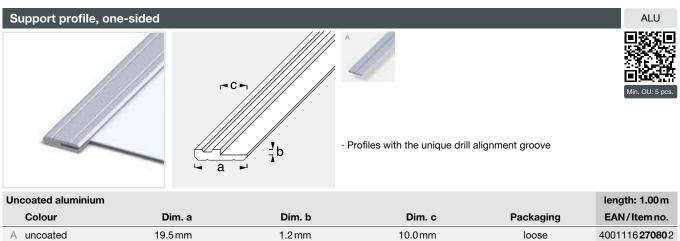
Uncoated aluminium					length: 1.00 m
Colour	Dim. a	Dim. b	Dim. c	Packaging	EAN/Item no.
A uncoated	6.2 mm	21.0 mm	0.75 mm	loose	4001116 28667 4

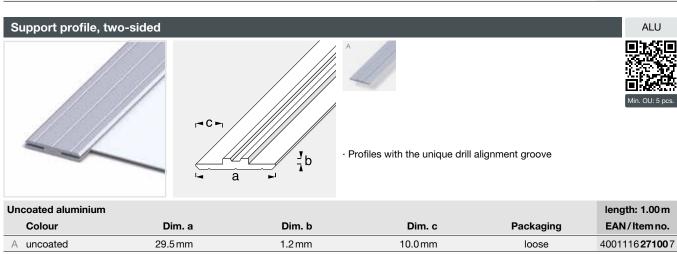


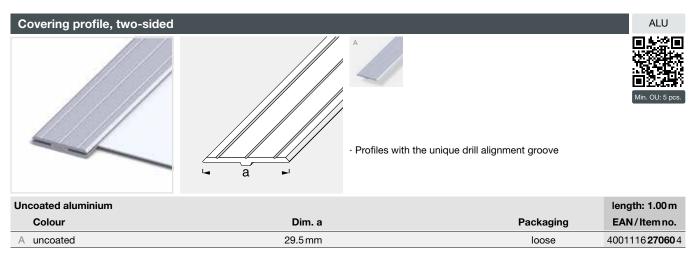
Uncoated aluminium					length: 1.00 m
Colour	Dim. a	Dim. b	Dim. c	Packaging	EAN/Itemno.
A uncoated	31.4 mm	8.4 mm	1.2 mm	loose	4001116 28666 7



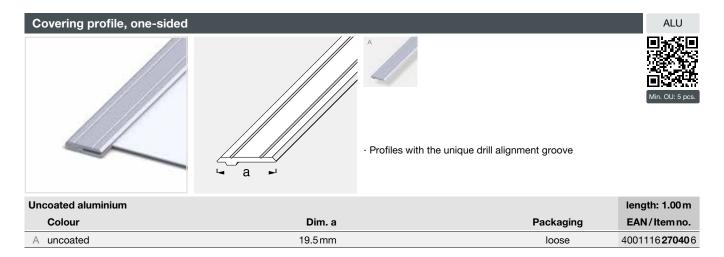












Colour

A uncoated

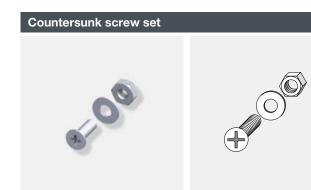
Dim.

1.5 mm



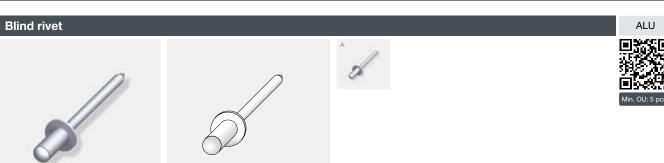
combitech° system | Model construction

System accessories

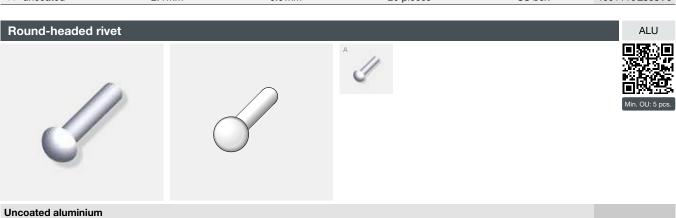




Galvanized steel							
	Screw size	Length	PU	Packaging	EAN/Item no.		
Α	M2	4.0 mm	20 pieces	each, SS box	4001116 28684 1		
Α	M2	6.0 mm	20 pieces	each, SS box	4001116 28683 4		
Α	M2	8.0 mm	20 pieces	each, SS box	4001116 28685 8		



Uncoated aluminium						
Colour	Dim.	Length	PU	Packaging	EAN/Item no.	
A uncoated	2.4 mm	4.0 mm	20 pieces	SS box	4001116 28680 3	
A uncoated	2.4 mm	6.0 mm	20 pieces	SS box	4001116 28681 0	



Length

8.0 mm

PU

20 pieces

EAN/Item no.

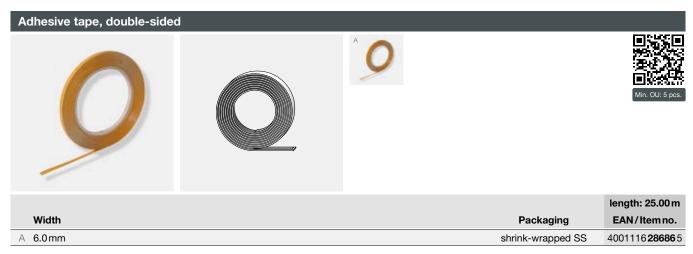
4001116**28682**7

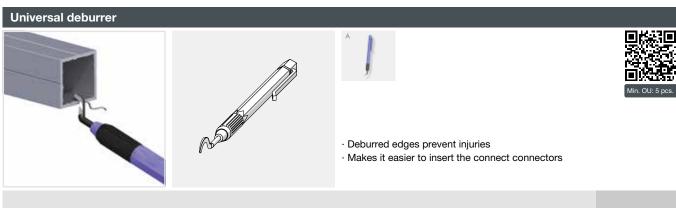
Packaging

SS box



System accessories

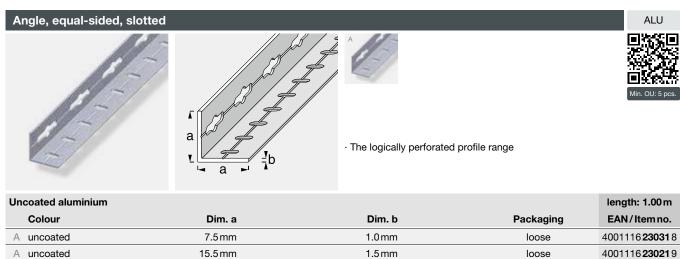


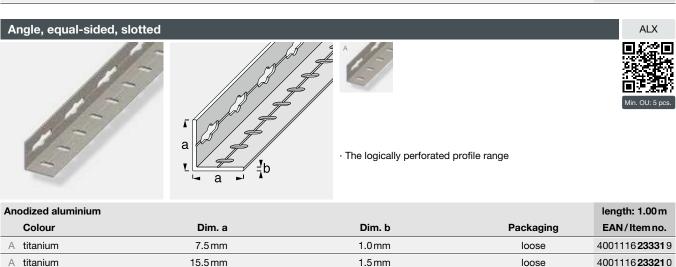


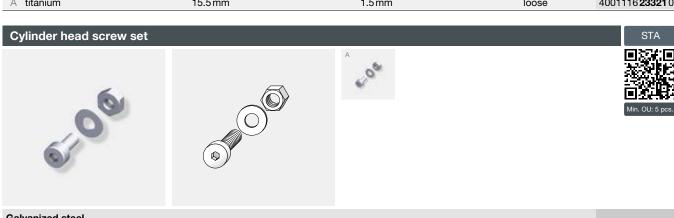
Colour	Packaging	EAN/Item no.
A blue	SS box	4001116 28661 2



combitech° system | Model construction System profiles | **logika**°



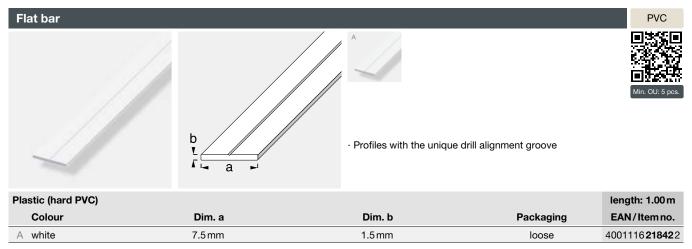


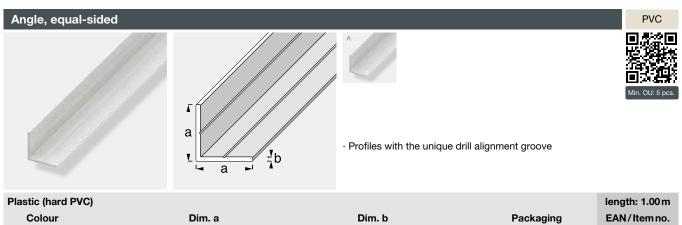


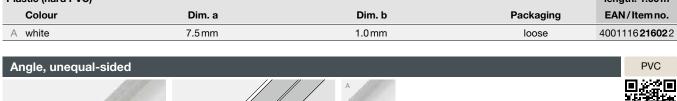
Galvanized steel					
Colour	Screw size	Length	PU	Packaging	EAN/Item no.
A galvanized	M2	5.0 mm	20 pieces	each, SS box	4001116 39480 5
A galvanized	М3	8.0 mm	20 pieces	each, SS box	4001116 39481 2

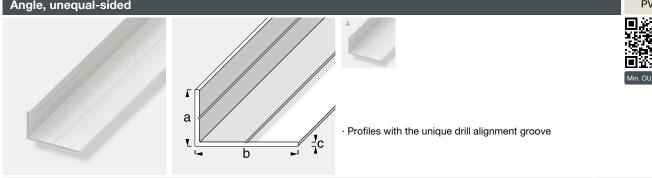


System profiles | Plastic (hard PVC)





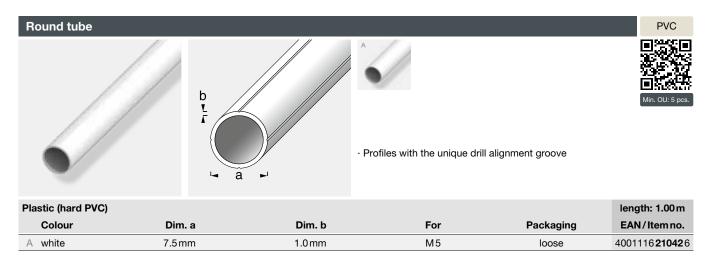


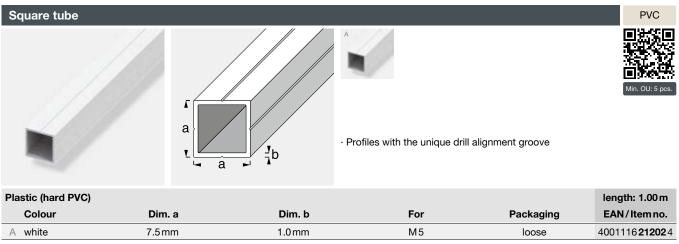


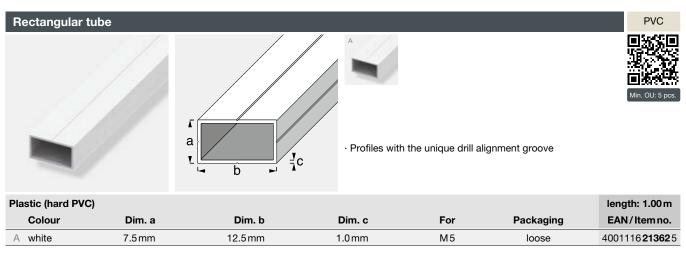
Plastic (hard PVC)					length: 1.00 m	
Colour	Dim. a	Dim. b	Dim. c	Packaging	EAN/Item no.	
A white	7.5 mm	12.5 mm	1.0 mm	loose	4001116 21682 4	



System profiles | Plastic (hard PVC)

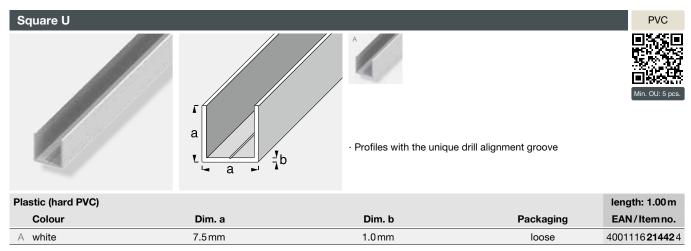


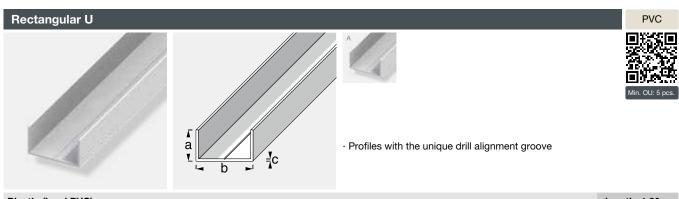




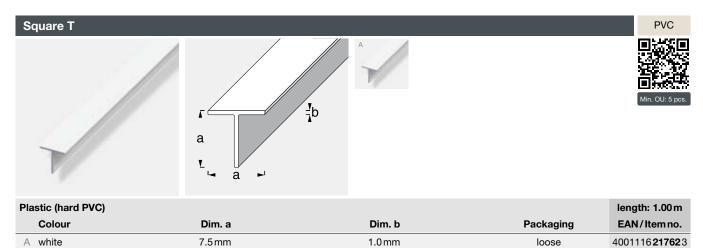


System profiles | Plastic (hard PVC)



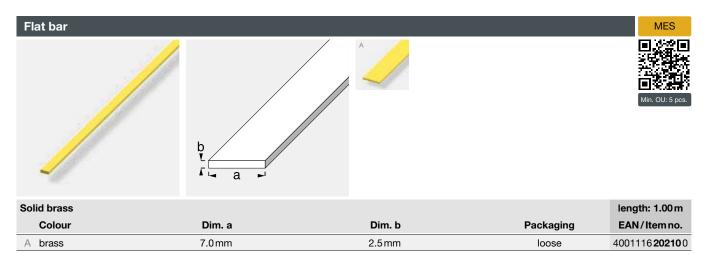


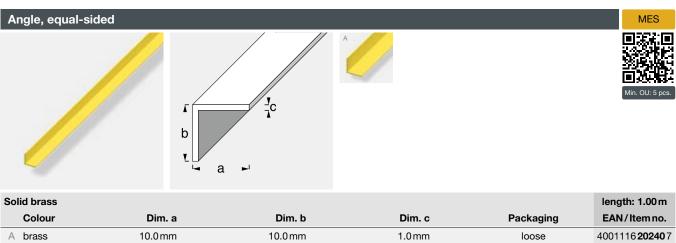
Plastic (hard PVC)					length: 1.00 m	
Colour	Dim. a	Dim. b	Dim. c	Packaging	EAN/Item no.	
A white	7.5 mm	12.5 mm	1.0mm	loose	4001116 21522 3	

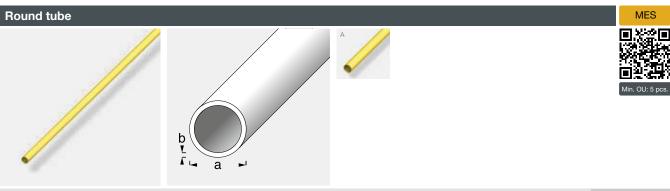




System profiles | Brass, solid



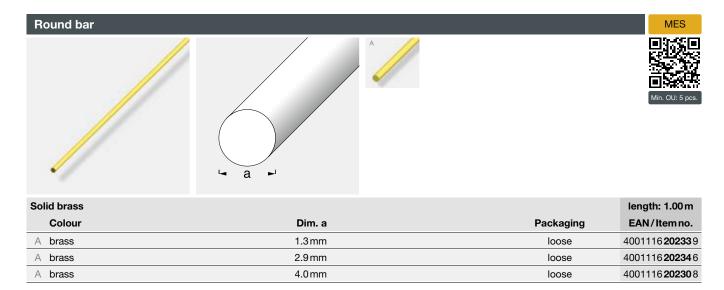


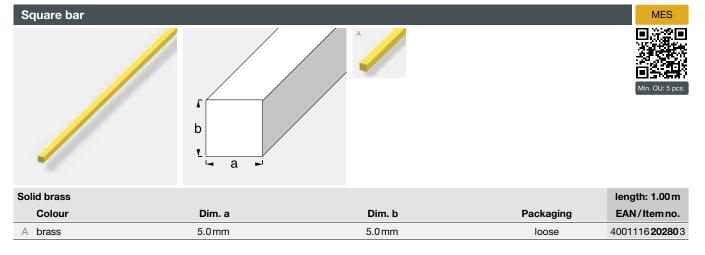


Solid brass					
Colour	Dim. a	Dim. b	Packaging	EAN/Item no.	
A brass	2.0 mm	0.3 mm	loose	4001116 20220 9	
A brass	4.0 mm	0.5 mm	loose	4001116 20221 6	
A brass	6.0 mm	0.5 mm	loose	4001116 20222 3	



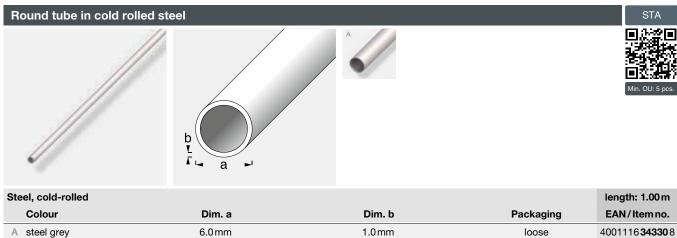
System profiles | Brass, solid

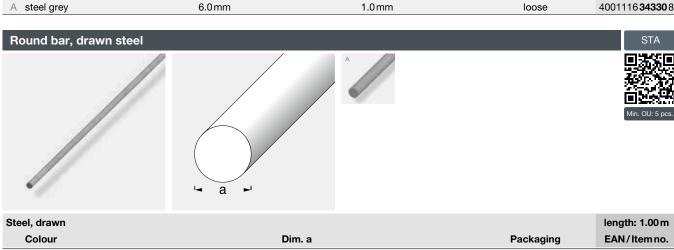


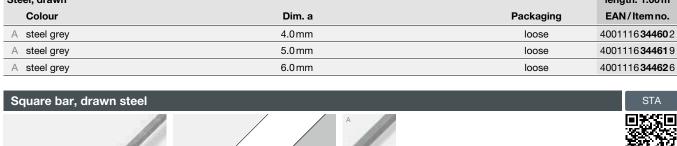


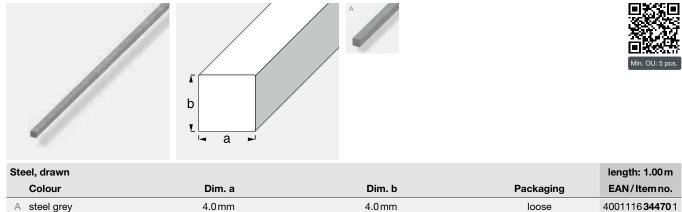


combitech° system | Model construction System profiles | Steel



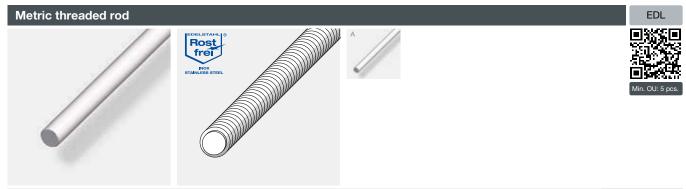




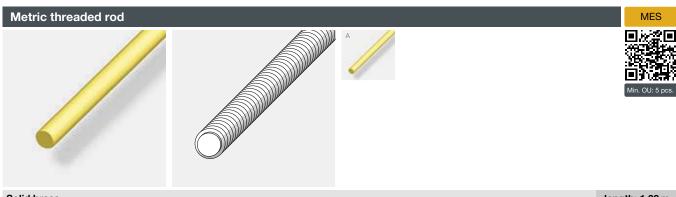




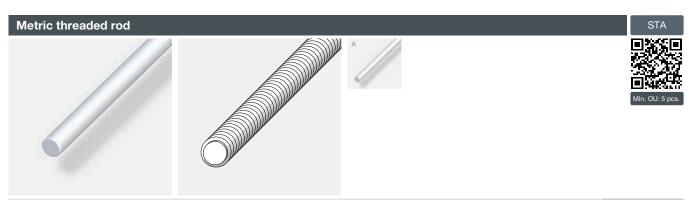
Metric threaded rods



Stainless steel V2A		length: 1.00 m
Colour	Dim.	Packaging EAN/Item no.
A stainless steel	М3	loose 4001116 30020 2
A stainless steel	M4	loose 4001116 30021 9
A stainless steel	M5	loose 4001116 30022 6



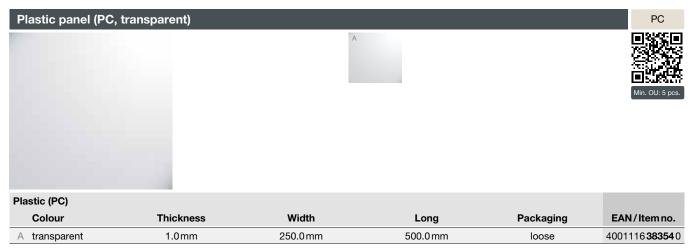
Solid brass			length: 1.00 m
Colour	Dim.	Packaging	EAN/Item no.
A brass	M3	loose	4001116 30030 1
A brass	M 4	loose	4001116 30031 8
A brass	M5	loose	4001116 30032 5



Galvanized steel		length: 1.00 m	n
Colour	Dim.	Packaging EAN/Item no	
A galvanized	M3	loose 4001116 30000	14
A galvanized	M 4	loose 4001116 30001	1
A galvanized	M5	loose 4001116 30002	8:

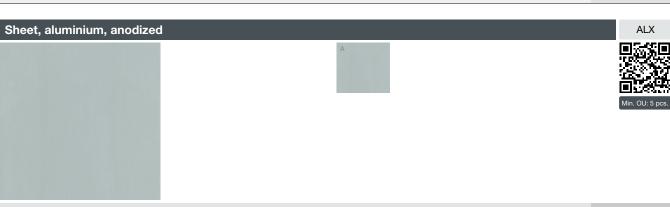


Smooth and embossed sheets, plastic panels





Uncoated aluminium									
Colour	Thickness	Width	Long	Packaging	EAN/Item no.				
A uncoated	0.3 mm	250.0 mm	500.0 mm	sealed	4001116 38264 2				
A uncoated	0.5 mm	250.0 mm	500.0 mm	sealed	4001116 38274 1				
A uncoated	0.8 mm	250.0 mm	500.0 mm	sealed	4001116 37004 5				
A uncoated	1.5 mm	250.0 mm	500.0 mm	sealed	4001116 37554 5				



Anodized aluminium					
Colour	Thickness	Width	Long	Packaging	EAN/Item no.
A stainless steel visual effect	0.5 mm	250.0 mm	500.0 mm	foil-wrapped, one-sided	4001116 38204 8

EAN/Item no.

Packaging

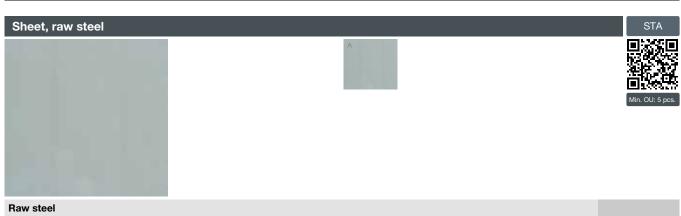


combitech° system | Model construction

Smooth and embossed sheets, plastic panels



Powder-coated aluminium								
Colour	Thickness	Width	Long	Packaging	EAN/Item no.			
A granite-red	0.8 mm	250.0 mm	500.0 mm	sealed	4001116 38524 7			
B granite-white	0.8 mm	250.0 mm	500.0 mm	sealed	4001116 38574 2			
C maple	0.8 mm	250.0 mm	500.0 mm	sealed	4001116 38534 6			
D beech	0.8 mm	250.0 mm	500.0 mm	sealed	4001116 38544 5			
E white	0.8 mm	250.0 mm	500.0 mm	sealed	4001116 38504 9			



A raw	0.75 mm	250.0 mm	500.0 mm	sealed	4001116 38104 1
Sheet, steel,	, galvanized				STA
			A		
					Min. OU: 5 pcs.

Long

Width

Galvanized steel	Galvanized steel							
Colour	Thickness	Width	Long	Packaging	EAN/Item no.			
A galvanized	0.5 mm	250.0 mm	500.0 mm	sealed	4001116 38054 9			

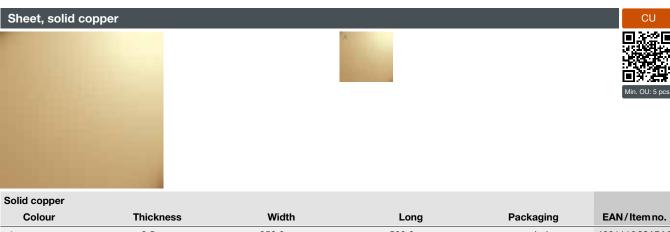
Colour

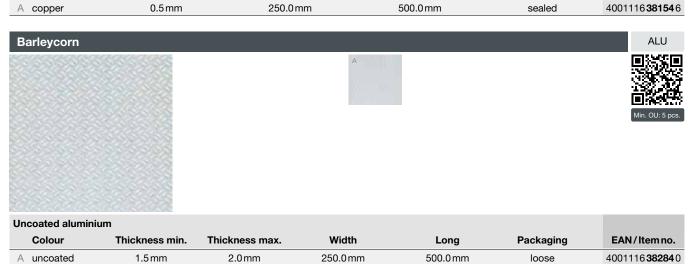
Thickness



Smooth and embossed sheets, plastic panels

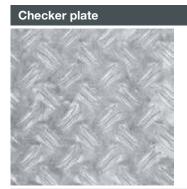








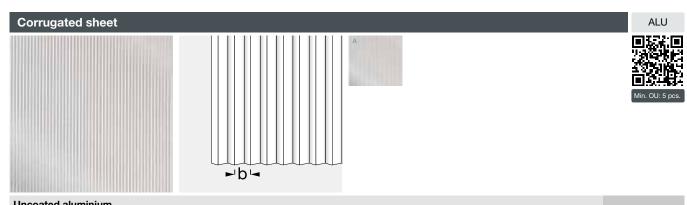
Smooth and embossed sheets, plastic panels







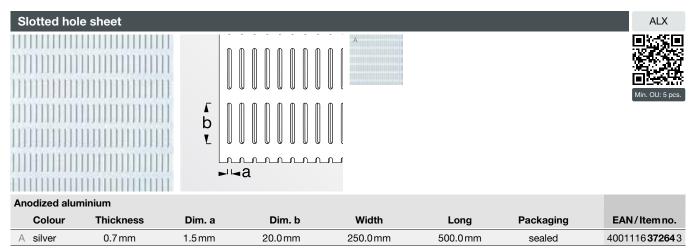
Uncoated aluminium									
Colour	Thickness min.	Thickness max.	Width	Long	Packaging	EAN/Item no.			
A uncoated	1.5 mm	2.0 mm	250.0 mm	500.0 mm	loose	4001116 37154 7			

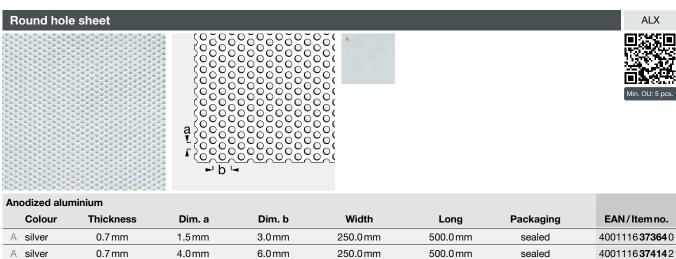


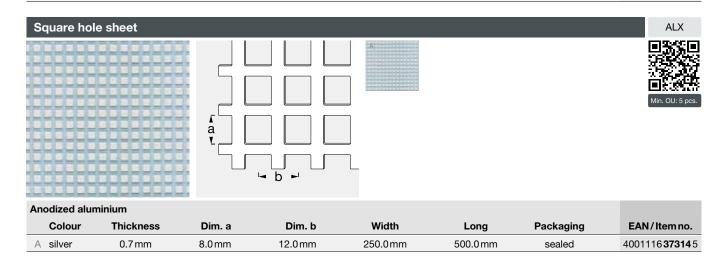
Oncoated alumi	oncoated aluminium						
Colour T	hickness min.	Thickness max.	Dim. b	Width	Long	Packaging	EAN/Item no.
A uncoated	1.0 mm	2.0 mm	9.5 mm	250.0 mm	500.0 mm	loose	4001116 38294 9



Perforated sheets and stretch metal

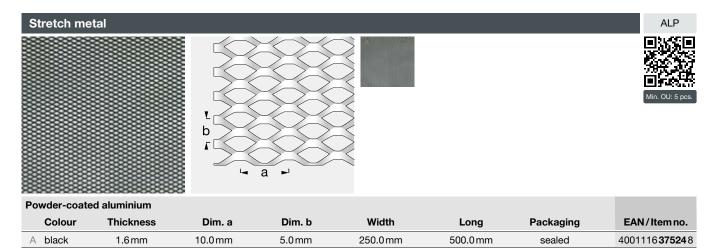


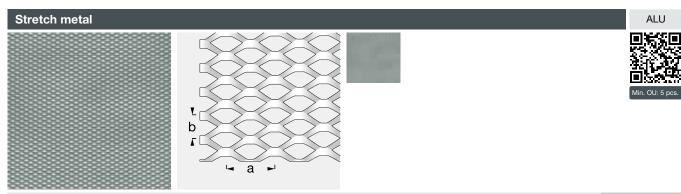




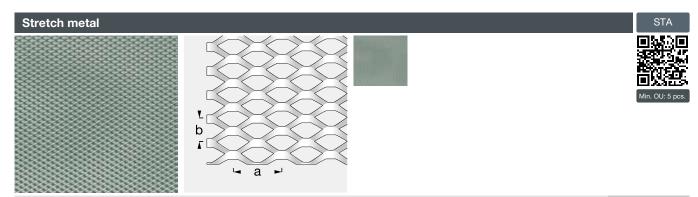


Perforated sheets and stretch metal





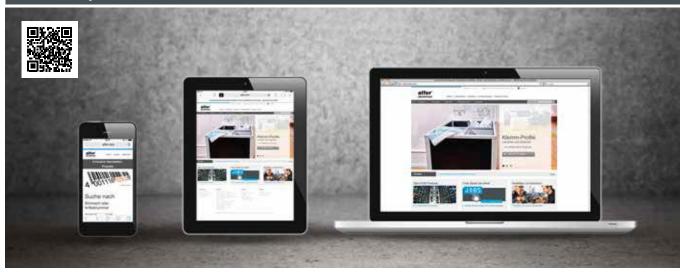
Uncoated aluminium								
Colour	Thickness	Dim. a	Dim. b	Width	Long	Packaging	EAN/Item no.	
A uncoated	1.6 mm	10.0 mm	5.0 mm	250.0 mm	500.0 mm	sealed	4001116 37464 7	



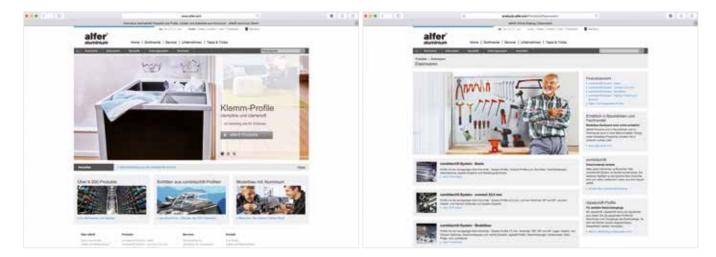
Raw steel							
Colour	Thickness	Dim. a	Dim. b	Width	Long	Packaging	EAN/Item no.
A raw	1.2 mm	6.0 mm	3.5 mm	250.0 mm	500.0 mm	sealed	4001116 37604 7
A raw	2.2 mm	10.0 mm	5.8 mm	250.0 mm	500.0 mm	sealed	4001116 37654 2
A raw	2.8 mm	16.0 mm	8.0 mm	250.0 mm	500.0 mm	sealed	4001116 37704 4



alfer° makes you mobile



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alfer ranges



combitech* system | Basis

Everything fits together:

The **combitech*** system: flexibly combinable. One product highlight is the typical drill alignment groove – just one of many practical ideas from **alfer***. For example, this marks the opposite sides of a rounded pipe making vertical drilling through the middle easy. The Basis range from **combitech*** comprises standard aluminium and plastic profiles such as pipes, brackets, square tubes and much, much more.



combitech* system | connect 23.5 mm

The **combitech*** connect connectors can be used to simply connect 23.5 mm square tubes. Whether frames, shelves or anything else you wish to build, the stable polyamide connectors hold everything together. The connectors are available in two colours: black and white.



combitech* system | Sheets, plates and accessories

A huge selection of sheets provides the right product for many applications. The **alfer** sheets come in many different thicknesses and materials. Multiple different finish options are also available from functional to decorative.

Prismatech and Multitube:

The profiles for framing and stabilising the sheets are particularly practical. **alfer** offers clever options to this end through Prismatech and Multitube.



combitech* system | logika*

logika* is a new addition to the combitech* systems in the form of a logically perforated profile. logika* profiles enable you to build shelves, tables, steps, and much more. This will enable you to create order in rooms or vehicles. The holes in the profiles are made in such a way that they are as small as possible but as big as necessary to ensure high stability and so that, for example, at least three brackets will fit on top of each other and a further bracket can be screwed in place vertically to the others. The profiles are particularly suited for use in cold-storage rooms, cellars and wet areas.



Profiles for DIY and professional purposes

Flat bars, brackets with even and uneven branches, U-profiles, round bars, rectangular tubes and a whole range of other profiles. These form the basis for you to turn your ideas into reality. The classic semi-finished products for DIY enthusiasts and professionals are made from aluminium with anodised or untreated finishes, as well as many other materials.



Steel profiles

Steel is the most commonly used metallic material and offers an array of impressive benefits: high tensile strength, good malleability and thermal conductivity. The noteworthy material strength and rigidity ensure optimum stability. Furthermore, steel is extremely easy to work and resource-conserving as it can be recycled without any loss of quality. **alfer** steel profiles are available as flat, angle, U, T, round and square profiles and tubes as well as in the form of sectional steel and wide-flanged beams.



combitech* system | Model construction

alfer has a special place in its heart for model builders. Model builders can therefore also acquire **combitech** connect connectors for 7.5 mm profiles. Numerous special shapes such as the 150° angle connector are also available. The popular benefits such as the drill alignment groove and the easy-to-combine dimensions also prove their worth in the model construction range.

Discover the full diversity of the model construction range in the online shop: www.alfer-shop.com



alfer° ranges



combitech system | coaxis

A further addition to the **combitech** system is the **coaxis** profile. This consists of four hollow chambers coaxially located around the core. The special design of the aluminium profiles ensure excellent longitudinal and lateral stability with the lowest weight. Equipped with drill alignment holes, the profiles are extremely simple to use and the angle bracket and hook can even be installed without drilling, using simply a square nut and screw. The profiles are ideal for use in damp areas and can even be used in the garden thanks to their weather-resistance.



Storage range

The broad version of the **coaxis*** profile can be horizontally, vertically and diagonally attached to walls and ceilings, allowing you to make optimal use of the available space. With the right hook, everything finds a place, whether indoors or out. Whether in the garden, the garage, the cellar or the attic: everything can be securely stored. The rubber caps on the hooks ensure that nothing gets scratched. The **coaxis*** hooks are available in aluminium or galvanised steel. The **alfer*** bicycle stand is made of lightweight, weather-resistant aluminium. It is suitable for all bikes, from racing bikes and city bikes to mountain bikes. It comes either as a rigid or an infinitely adjustable version, individually or as a three-piece set.



Tile edgings

Clean edges and finishes with aluminium profiles. Whether you lay your tiles yourself or have them laid by a specialist, there is one important 'side issue' that you should never forget. The **alfer**' profiles can be used on corners and edges, transitions between floor coverings and stairways. Clean edges and transitions not only look good but are also hygienic as they prevent any fraying or scuffing and improve water-resistance.



Floor and room profiles

Transitions between different floor coverings, a clean and protective edging or stair edges, all available in a whole range of colours, materials and décors. The stair profiles provide safety and particularly protect textile coverings against scuffing on the edges, ensuring they retain their visual appeal for many years. The profiles are extremely colour stable and completely crush-proof. For minor damage to aged stairs, **alfer*** offers stair repair brackets for simple restoration. **alfer*** door sealing brushes simply and effectively prevent drafts.



Profiles for parquet, laminate and designer floors

Perfectly laid parquet and laminate floorboards the easy wayThe ease of laying ready-to-install parquet, cork and laminate floorboards makes them extremely popular with DIY enthusiasts. And anyone who appreciates this feature will love the parquet and laminate profiles from **alfer**'. With **clipstech**', **clipstech**'-vario and **clipstech**'-plus, you have the perfect profiles for edges and transitions between floor coverings. The edges are therefore cleanly sealed and stumbling hazards are prevented. The **clipstech**' profiles are installed so that no screws are subsequently visible. The cover is simply clipped on.



cabelino* baseboards

Baseboards are ideal for concealing retrospectively laid cables and lines. The **cabelino** baseboards have been designed for precisely this purpose. The baseboards are TÜV-certified and comply with the latest safety regulations. The décors of the baseboards match those of the **clipstech** range. **cabelino** baseboards are also noteworthy from a technical perspective. Thanks to the lock or clamp gap, they can be infinitely adjusted by up to 10 mm so that the baseboard can simply be pressed down if the floor settles over the years.



Product	names	A–Z

150° 3-D T-connector, 3 spigots	17
150° nodal connector, 4 spigots	
150° square connector, 2 spigots	
150° T-connector, 3 spigots	
45° 3-D T-connector, left, 3 spigots	
45° 3-D T-connector, right, 3 spigots	
45° nodal connector, 4 spigots	
90° edge connector, 3 spigots	
90° square connector, 3 spigots	
90° T-connector, 3 spigots	
Adhesive tape, double-sided	
Angle, equal-sided	
Angle, equal-sided, slotted	
Angle, unequal-sided	
Articulated connector, 2 spigots	
Articulated flange connector, 1 spigot	
Barleycorn	
Bearing, 6 spigots	
Blind rivet	
Checker plate	
Container wall profile	26
Corrugated sheet	42
Countersunk screw set	29
Covering profile, one-sided	28
Covering profile, two-sided	27
Cross connector, 4 spigots	13
Cylinder head screw set	31
End block	18
End cap	18
Flange connector, 1 spigot	15
Flat bar	
Guard rail profile	26
H section	
Hinge profile	
Hinge profile, short	
Metric threaded rod	
Nodal connector, 4 spigots	
Nodal connector, 5 spigots	
	10

Nodal connector, 6 spigots	1/
Plastic panel (PC, transparent)	
Rectangular tube	
Rectangular U	
Round bar 23	
Round bar,	
Round hole sheet	
Round tube	
Round tube in cold rolled steel	
Round-headed rivet	
Sheet pile wall profile	
Sheet, aluminium, anodized	
Sheet, aluminium, coated	
Sheet, aluminium, uncoated	
Sheet, raw steel	
Sheet, solid copper	
Sheet, stainless steel	
Sheet, steel, galvanized	.40
Slotted hole sheet	.43
Square bar	.36
Square bar, drawn steel	.37
Square edge profile	.21
Square hole sheet	.43
Square T24	34
Square tube	33
Square tube, 1 branch	.19
Square tube, 1 branch offset	
Square tube, 2 branches 180°	
Square tube, 2 branches inside	
Square tube, 2 branches offset	
Square U	
Square U, 2 branches 180°	
Stretch metal.	
Support profile, one-sided	
Support profile, two-sided	
T-profile	
Universal deburrer	
Oniversal debuildi	.00





Item	number summary
20210	Flat bar
	Round tube
	Round tube
	Round tube
	Round bar36
	Round bar
	Angle, equal-sided
	Round tube
	Square tube
	Rectangular tube
	Rectangular U
	Angle, equal-sided
	Angle, unequal-sided 32 Square T 34
	Flat bar
	Angle, equal-sided, slotted
	Angle, equal-sided, slotted
	Angle, equal-sided, slotted31
	Round tube
	Round bar 23 Square tube 19
	Rectangular tube
	Square U
	Square U
	Angle, equal-sided
	Angle, unequal-sided
	Square T
	Square tube, 1 branch
	Square tube, 2 branches inside
	Square U, 2 branches 180°
	Hinge profile, short
	Covering profile, one-sided
	Covering profile, two-sided
	Support profile, two-sided
	Hinge profile
	150° square connector, 2 spigots
	150° T-connector, 3 spigots
	150° nodal connector, 4 spigots
	Bearing, 6 spigots
28501	45° 3-D T-connector, left, 3 spigots14
	Flange connector, 1 spigot
	90° square connector, 2 spigots
28521	45° 3-D T-connector, left, 3 spigots14
	Flange connector, 1 spigot
28540	90° T-connector, 3 spigots12
28541	45° 3-D T-connector, right, 3 spigots14
	Articulated flange connector, 1 spigot
	End block
28561	45° 3-D T-connector, right, 3 spigots14
	Articulated flange connector, 1 spigot
	45° nodal connector, 4 spigots
28582	Cross connector, 4 spigots
	End cap
	45° nodal connector, 4 spigots
28602	Cross connector, 4 spigots
	Nodal connector, 4 spigots
	Articulated connector, 2 spigots
28640	Nodal connector, 4 spigots13
	Articulated connector, 2 spigots
	Nodal connector, 5 spigots
28665	Container wall profile
	Sheet pile wall profile
	Guard rail profile
	Square tube, 2 branches 180°
	H section
	T-profile
28673	Square edge profile21
28680	Blind rivet

		Ξ
28682	Round-headed rivet	.2
28683	Countersunk screw set	.2
28684	Countersunk screw set	.2
28685	Countersunk screw set	.2
28686	Adhesive tape, double-sided	.3
	Metric threaded rod	
	Metric threaded rod	
30002	Metric threaded rod	.3
30020	Metric threaded rod	.3
30021	Metric threaded rod	.3
30022	Metric threaded rod	.3
30030	Metric threaded rod	.3
30031	Metric threaded rod	.3
30032	Metric threaded rod	.3
34330	Round tube in cold rolled steel	.3
34460	Round bar, drawn steel	.3
34461	Round bar, drawn steel	.3
34462	Round bar, drawn steel	.3
34470	Square bar, drawn steel	.3
37004	Sheet, aluminium, uncoated	.3
	Checker plate	
	Slotted hole sheet	
	Square hole sheet	
	Round hole sheet	
	Round hole sheet	
	Stretch metal	
	Stretch metal	
	Sheet, aluminium, uncoated	
	Stretch metal	
	Stretch metal	
	Stretch metal	
	Sheet, steel, galvanized	
	Sheet, raw steel	
	Sheet, solid copper	
	Sheet, aluminium, anodized	
	Sheet, stainless steel	
	Sheet, aluminium, uncoated	
	Sheet, aluminium, uncoated	
	Barleycorn	
	Corrugated sheet	
	Plastic panel (PC, transparent)	
	Sheet, aluminium, coated	
	Cylinder head screw set	
39481	Cylinder head screw set	.3



Terms and Conditions of Supply and Payment

1. Scope

- 1.1. These Terms and Conditions of Supply and Payment for Exports apply to all contractual agreements between ourselves and parties placing orders with us which have their registered offices or the branch involved with the contractual agreement outside the territory of the Federal Republic of Germany. That branch which concludes the contractual agreement in its own name shall respectively apply.
- 1.2. These Terms and Conditions of Supply and Payment for Exports shall not apply if the party placing the order acquires the goods for personal use or use in a family or household and we knew or should have known such upon the conclusion of the agreement.
- 1.3. If the party placing the order's terms and conditions of purchase differ from these Terms and Conditions of Supply and Payment for Exports, such terms and conditions of purchase shall only apply if such are expressly confirmed in writing by ourselves. Counter-confirmations by a party placing an order citing its own terms and conditions are herewith expressly contested and rejected.
- 1.4. Our Terms and Conditions of Supply and Payment shall also apply exclusively and without restriction even if we effect supply to the party placing the order without reservation in awareness of contrary or differing terms and conditions of the party placing the order.

2. Conclusion and subject of the agreement

- 2.1. Any and all of our offers are non-binding.
- 2.2. Models, illustrations, drawings, colour tones, etc., that are contained in catalogues, brochures and other printed matter may differ slightly from the features of the products to be supplied as a result of printing technology; such differences shall not be deemed to constitute defects.
- 2.3. Illustrations and drawings relating to our goods in brochures, written advertising material and on price lists as well as the data contained therein, e.g. on material, dimensions or shape, shall only become a legally binding part of the agreement if the agreement expressly makes reference to such. Information on product features shall not be deemed to constitute an assumption of guarantee.
- 2.4. The party placing an order shall notify us prior to the conclusion of the agreement if the goods to be supplied are supposed to be suited solely for regular use or are to be used under unusual or special conditions or if the goods are to be used in any conditions posing a health, safety or environmental risk or the goods will be subject to increased demands or if use of the goods could be associated with unusual possibilities for damage or unusual amounts of damage which the party placing the order is aware of or should be aware of.

3. Custom-made products

- 3.1. Custom-made products shall be deemed to designate all models that deviate from the models referenced in the respectively valid catalogue or brochure. This especially applies with regard to colours.
- 3.2. Orders for custom-made products without exception require written confirmation by both parties in the information on the design, dimensions, etc.
- 3.3. The party placing the order shall not acquire any rights to tools by virtue of paying remuneration for costs or shares of costs for the creation or acquisition of tools; we shall retain title to tools.
- $3.4. \ \ \text{Requested samples shall only be supplied subject to charge}.$
- 3.5. We shall not be liable for defects that emanate from documents submitted to us by the party placing the order with respect to custom-made products.
 3.6. If the custom-made product is manufactured based on drawings, models or other information provided by the party placing the order, we shall not be liable for the violation of third-party protective rights. The party placing the order herewith indemnifies us with respect to claims by third parties.

4. Minimum order value and prices

- 4.1. The minimum order value for initial orders is EUR 150.00 plus taxes and customs duties. The minimum order value for all subsequent orders is EUR 25.00 plus taxes and customs duties.
- 4.2. Prices do not include possible additional charges such as duties, taxes and other levies and, if nothing to the contrary results from the confirmation of contract and number 5.1 below, apply EXW (Incoterm 2010) from our plant in Wutöschingen not including freight and packaging costs.

5. Freight and packaging costs

- 5.1. By way of deviation from EXW (Incoterms 2010), consignments having an order value of at least EUR 250.00 not including taxes and customs duties shall be shipped free domicile in Germany and franco frontier to foreign countries.
- 5.2. The weights and piece numbers determined upon shipment shall apply in the calculation of freight costs.
- 5.3 Packaging costs shall be charged at the usual rates in this line of business.

6. Delivery and transfer of risk

- 6.1. EXW (Incoterms 2010) from our plant in Wutöschingen shall apply to delivery and transfer of risk even if we assume the freight costs unless a special delivery clause has been agreed upon.
- 6.2. If the goods are transported to the party placing the order, such shall be at the risk of the party placing the order. In this case risk shall be transferred to the party placing the order at that point in time at which the first carrier takes on the goods. If the goods are ready for shipment and shipment is delayed for reasons for which we are not responsible, risk shall be transferred to the party placing the order upon receipt of the notice of readiness for shipment.

7. Delivery periods, non-availability of performance and delay

- 7.1. The delivery periods stated are generally non-binding.
- 7.2. A bindingly committed delivery period shall commence upon the date on which our confirmation of order is sent, but at the earliest at the point in time at which all

documents and data to be provided by the party placing the order are received by us. 7.3. The delivery period shall be deemed to have been adhered to if the goods leave the plant before the delivery period expires or notification has been provided that the goods are ready for shipment.

- 7.4. If we are unable to meet binding delivery periods in whole or regarding part of the goods to be delivered, we shall notify the party placing the order without undue delay and at the same time notify the party placing the order about the probable new delivery period. If the good to be delivered is still not available before the expiry of the new delivery period for reasons for which we are not responsible, we shall be entitled to cancel the agreement in whole or in part; we shall repay any counter-performance already rendered by the party placing the order without undue delay.
- 7.5. In any case a claim to compensation for late delivery on the part of the party placing the order shall be subject to the requirement that the party placing the order has set us a reasonable grace period and we have not effected delivery within this period.
- 7.5. The legal rights of the party placing the order shall otherwise remain unaffected. We shall only bear liability, however, if we are responsible for the delay and only within the framework of no. 11 below. We shall in particular not be responsible for delivery not being effected to us in due time by our suppliers.

8. Terms and conditions of payment

- 8.1. The party placing the order shall review all invoices without undue delay after receiving such to make sure that they are correct and complete. Any objections to invoices shall be issued in writing within a period of one month after their receipt. Failure to state objections in due time shall be deemed to constitute approval of the invoice.
- 8.2. Our invoices shall be due for payment within 10 days with a 2% discount or within 30 days of the respective invoice date net. The date when payment is credited to the account stated
- for payment on the invoice shall apply in determining whether payment has been effected in due time by the party placing the order. The party placing the order shall bear all additional costs that arise in connection with the selection of the means of payment.
- 8.3. If the party placing the order fails to pay the purchase price in due time, we shall be entitled notwithstanding other legal recourse to charge interest on arrears in the amount of 9 percentage points above the respective base interest rate of the European Central Bank. We reserve the right to claim damage going above and beyond this.
- 8.4. We shall be entitled to transfer our claims emanating from the business relationship with the party placing the order for the purposes of factoring.
- 8.5. If payment is rendered with a bill of exchange, the party placing the order shall bear the costs of such, in particular discounting and collection charges. No discount shall be granted if payment is effected by bill of exchange.
- 8.6. Costs of a bill of exchange that has been invoiced shall be due for payment immediately without any deductions.
- 8.7. Bills of acceptance and bills of exchange shall only be deemed to constitute
- 8.8. Setting off or netting amounts shall only be possible in the case of counter-claims that are based on the same legal relationship, that have been effectively established by a court of law or government authority, or are uncontested or recognised. 8.9. The party placing the order shall only be entitled to exercise a right of retention if its counter-claim is based on the same legal relationship.
- 8.10. We shall be entitled to credit payments effected by the party placing the order to older debt of said party.

9. Examination and notification of non-conformity obligation

- 9.1. The party placing the order shall properly examine the goods or have the goods properly examined without undue dely.
- 9.2. Shipping papers may not be signed (including subject to reservation) before the number of boxes delivered has been compared with the information contained in the shipping papers. Boxes that are missing or damaged must be noted with precise information on such being provided on the shipping papers and be confirmed by the freight carrier driver by means of a clearly identifiable signature. 9.3. Our liability for the goods violating the agreement shall cease to apply without the party placing the order for this reason being able to exonerate itself if the party placing the order fails to notify us about such violation of the agreement in writing within a period of 7 working days (Saturdays shall not be deemed to constitute working days) after it determines such or should have determined such while precisely stating the type of violation of agreement. Written notification of lack of conformity by the party placing the order must have been sent by the party placing the order within the aforementioned period; above and beyond the notice of lack of conformity being sent in due time, such must also actually be received by us. 9.4. If after a notice of lack of conformity is issued by the party placing the order no violation of the agreement can be identified, the party placing the order shall reimburse us for the costs incurred in connection with the inspection of the goods. 9.5. The party placing the order shall at any rate lose the right to claim lack of conformity of the goods if it does not provide notice of such within a period of no more than 12 months after it has actually been handed over the goods unless we have granted a longer period of guarantee to the party placing the order.

10. Goods lacking conformity or exhibiting legal defects

10.1. Goods for which a complaint has been issued shall be properly stored and kept available

to us.

- 10.2. We shall be provided the opportunity to inspect the goods for which a complaint has been issued.
- 10.3. If it is demonstrated that the goods lack conformity, we shall be entitled ever

after the agreed-upon delivery period either to remedy the lack of conformity of the goods by repair or supply a substitute contemporaneously with return of the goods for which a complaint has been issued as we see fit. In the event of remedy by repair or supply of substitute goods, we shall be obligated to bear all of the expenses that are required for this purpose (including transport, road, labour and material costs) if such expenses do not increase because the goods have been sent to a place other than the place of fulfilment of the agreement.

10.4. If the party placing the order sets a reasonable grace period for remedy by repair or supply of substitute goods and repair or supply of substitute goods does not take place within this grace period or if such is refused by us, the party placing the order shall be entitled to reduce the purchase price or declare the agreement avoided in accordance with statutory arrangements. The reduction of the purchase price shall be limited to the damage incurred by the customer.

10.5. Supply of substitute goods or remedy by repair shall not cause the period laid down in no. 9.5 to recommence anew.

1. Liability

- 11.1. We shall bear unlimited liability for harm to life and limb or health impairment that is due to the wilful or negligent violation of an obligation by ourselves or that is due to a wilful or negligent violation of an obligation by our legal representative or parties we hire to carry out the agreement.
- 11.2. We shall bear liability based on the principles of German law governing product liability and on the assumption of a guarantee.
- 11.3. We shall moreover only bear liability in the case of wilful or negligent violation of an essential contractual obligation and only for direct damage that was fore-seeable and which typically occurs at the point in time when the agreement was concluded. An essential contractual obligation shall be deemed to be an obligation that makes the proper fulfilment of the agreement concluded with the party placing the order possible in the first place and which the party placing the order trusted in and was able to trust in and the culpable failure to fulfil such jeopardises achievement of the purpose of the agreement.
- 11.4. Our liability is excluded in all other cases, in particular for indirect damage and
- subsequent damage (including foregone profit, loss of goodwill, damage due to loss of production and comparable expenses) unless the party placing the order expressly drew our attention to such in accordance with no. 2.4. prior to the conclusion of the acreement.
- 11.5. If our liability is excluded or limited, this shall also apply to our employees, representatives and parties we hire to carry out the agreement.

12. Reservation of title

- 12.1. We reserve title to the goods supplied by us if our claim to the purchase price is not secured by some other means (e.g. a letter of credit) until payment of all current and future claims emanating from the purchase agreement and the ongoing business relationship (the claims to be secured) is effected.
- 12.2. We shall be obligated to release collateral that we are entitled to as we see fit to the extent that the realisable value of the collateral exceeds our claims to be secured by more than 10% if so requested by the party placing the order.
- 12.2. The party placing the order shall notify us without undue delay in the event of attachment, confiscation or similar and in the event of the goods supplied being damaged and/or lost; any violation of this obligation as well as any other conduct of the buyer in violation of the agreement, in particular failure to pay the purchase price due for payment, shall provide us the right to declare this agreement avoided. The party placing the order shall bear all the costs that have had to be incurred particularly within the framework of a third -party action successfully lifting an attachment and that may have had to be incurred to successfully reacquire the objects supplied if such cannot be collected from third parties.

12.3.

If we have effectively declared the agreement avoided, we shall be entitled to take back the goods subject to reservation of title if we have threatened to take the goods back a reasonable time in advance. The costs incurred as a result of excise of the right to take back the goods, in particular transport costs, shall be borne by the party placing the order. We shall be entitled to exploit the goods subject to reservation of title and satisfy our claims from the proceeds from such exploitation if we have threatened such exploitation a reasonable time in advance. If the proceeds exceed the unsatisfied claims emanating from the contractual relationship, this surplus amount shall be handed over to the party placing the order.

13. Place of fulfilment, applicable law and legal venue

- 13.1. The place of fulfilment for delivery and payment shall be our head office (Wutöschingen).
- 13.2. The Convention of the United Nations on the International Sale of Goods from 11 April 1980 (UN purchasing law/CISG) in the English-language version shall apply to the legal relationship with the party placing the order. Legal issues that are not set out in this Convention or which cannot be decided in accordance with its principles shall be subject to German law.
- 13.3. The sole legal venue for all disputes arising in connection with the agreement is the courts having jurisdiction over our head office of the company in Wutöschingen. We shall, however, also be entitled to assert claims with courts having jurisdiction over the party placing the order.

alfer aluminium Gesellschaft mbH

Commercial Register of Freiburg Local Court HRB 620 227 Status: 08/2014



Available in a choice of colours

Uncoated and anodized aluminium uncoated silver stainless steel visual titanium effect Powder-coated aluminium white granite-white granite-red maple beech black **Plastic** white black Steel, stainless steel, brass and copper galvanized steel grey stainless steel brass raw copper

The colours shown are for reference purposes only and may differ from the actual colours for display reasons.









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