



Kling Systems

Snow retention systems since 1962

Price list for retailers

valid from June 2019

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General Informations

This is what you can expect from us

- Distribution about wholesale and specialized trade for metal roofer accessories and house technology
- Fast and reliable delivery by freight carrier or parcel service
- All articles are available from stock or within short time
- Price: Net plus the valid legal rate of VAT
- Your satisfaction is our concern

Conditions

- The basis of our business are the GTC
- In the case of unforeseeable price developments, we reserve the right to adjust the prices
- Appointments and express shipments will be charged separately
- Dispatch of clips occurs exclusively in whole packaging units
- At a net goods value of less than € 100,- we will charge a small order surcharge of € 5,75
- Advents of packaging units are calculated with a lump-sum operating cost of € 6,50 per PU
- Discounts are deducted from the unit prices; it is calculated with whole cents

Parcel Service

Deliveries ex works, plus freight (EXW)

Germany

Infeed up to max. 15 kg to € 9,85
Infeed up to max. 32 kg to € 13,85

Austria

Infeed up to max. 32 kg to € 18,95

Other countries

Infeed up to max. 32 kg,
on request or agreement

Returns

Returns always have to be approved by us, the Kling Spenglerei GmbH. The reimbursement occurs less a processing fee up to 30% of the value of goods. Returns are possible up to 3 months.

Old price-lists loose its validity. Price changes, misprints and mistakes are reserved.

Freight carrier

Deliveries ex works, plus freight (EXW)

Germany, Austria, Czech Republic

Freight-free delivery on order
from € 750,- net goods value

Other neighbouring countries

Belgium, Denmark, France, Luxembourg,
Netherlands, Poland, Switzerland
Freight-free delivery on order
from € 1250,- net goods value

Other countries, air- and sea freight

on request or agreement

Long goods

For shipments longer than 2m, long goods surcharges apply

Bjarnes Systems

Freight costs will be added



Traditional metal roofs

Roofs & systems strong as a lion since 1949

We stand by you as a reliable partner. Our team looking forward to realizing your wishes quickly and competently from the idea to the implementation. On your behalf and to your advantage - we will be pleased to advise you!

Our contact persons



Andreas Kling
Company management

Plumber master and contact person for product enquiries, system- and detail solutions for ongoing projects and for questions of building physics.



Clemens Kling
Company management

Metall roofing master and project manager for biddings and the planning of business processes. Consulting of architects and commercial customers.



Simone Engst
Case processing

Contact person for sales, customer support, accountancy and administrative tasks.



Eva Kling
Case processing | finance



Martina Kling
Case processing | marketing | employees

Office hours

Mon–Thu 07:30 – 12:00
13:00 – 17:30
Friday 07:30 – 12:30

Saturday and Sunday closed

How to reach us

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What works here in the Alps works everywhere

When Meinhard Kling invented the snow retention clamp back in 1962 he could not imagine how great the impact of this invention for the future of building roofs would become. The clamp system pretty soon became the standard for metal seam roofs.

Today Kling Roof produces various roof systems which are being shipped worldwide. In our own production site specialised and skilled employees not only manufacture but also conduct

a continuing quality control to guarantee top-of range products for our clients.

The benchmark for the selection of materials and their features is being set by the requirements our roofs have to meet in the alpine region. Stiffness, flexibility and tightness have to be on a much higher level here than in moderate regions. What works here works everywhere – and that's why our roof systems are popular all around the world.





Kling Systems

Snow retention systems since 1962



Snow retention systems

Utility model registration: 1962 by
Meinhard Kling

Snow retention clamps are based on the principle of the original avalanche protection barriers. A clamp is screwed onto each longitudinal fold without damaging the metal. Due to their concave curvature, the clamps enter into a force-locking connection with the roof skin. A 1" steel, copper, aluminium or stainless steel tube is inserted into the clamping bracket. The first row of snow catchers is attached to the eaves. The remaining rows are spread over the entire roof surface. This ensures an even weight distribution of the snow load, so that no excessive thrust forces are produced in the direction of the eaves.

Snow loading zones are regulated according to DIN 1055-5 effects on bearing elements, part 5, snow and ice loads.

We recommend inserting ice holder in the middle of the sheets. These are fixed between the snow retention tubes and the surface of the metal.

Advantages

- The system prevents snow slabs and roof avalanches
- Compliance with relevant standards
- The system ensures the harmless stretching movement of the sheets
- Penetrating freedom of the roof skin

- Quick and easy assembly
- The entire roof can be walked on
- Stabilisation of the roof skin

Assembly

- For the snow retention clamps fastening torque of 55 Nm can be assumed (depending on the used material)
- A deduction value of 1200 N (120 kg) can be assumed (per clamp)
- Clamps should be mounted on every seam / but the max. distance between is 800 mm
- Because of the leverage effect double-tube snow retention clamps should be only used in connection with the overlying snow retention range

Snow loads & dimensioning

All products and systems are manufactured according to the regulations of the German plumbing trade of the ZVSHK. The dimensioning and calculation of snow retentions must be performed according to DIN 1055-5 and EN1991-1-3. The expected overcharge of the fixed clips is too account. Depending on the roof pitch and snow load you have to calculate a distance from 1,50 m to 4,00 m between the snow retention ranks.

Factors for the snow load calculation are:

- Snow load zones
- Ground level above NN
- Terrain category
- Roof pitch
- Roof type
- Floor plan of the building
- Rafter length
- Eaves length
- Used materials
- Seam distance respectively panel width
- Luv-Lee orientation of the object

Given these factors we will be glad to provide you a assembly proposal.

Enquiry formular

kling-dach.de/contact

Data sheets







[kling-dach.de/
download-technology](http://kling-dach.de/download-technology)

Standing seam roofs aluminium

Illustration	Item No.	Description	PU	EUR/pc	Note
	P A10010	Snow retention clamp aluminium with V2A screw suitable for tubes with Ø 32 mm (pallet size > 1.000 pcs)	10 3,49 kg		
	P A20010	Double-tube snow retention clamp aluminium manufactured in one piece with V2A screw suitable for tubes with Ø 32 mm	10 4,0 kg		
	P A35010	Double tube add-on element* triangular form aluminium suitable for tubes with Ø 32 mm	50 3,70 kg		
	P A50010	Ice holder aluminium for standing seam roofs with V2A screws for mounting under the snow retention tube	50 3,70 kg		
	P A55510	Ice holder EasyClip aluminium Clip on tubes with Ø 32 mm for 25 mm seam depth, fast toolless assembly without screws	20 1,34 kg		
	P A60010	Snow retention clamp aluminium for covings or riges max. 40° inclination with V2A screw suitable for tubes with Ø 32 mm	10 3,12 kg		





*Snow retention clamp not included in the scope of delivery

Standing seam roofs copper




Illustration	Item No.	Description	PU	EUR/pc					
				MK 400- 499	MK 500- 599	MK 600- 699	MK 700- 799	MK 800- 899	MK 900- 999
	P C10010	Snow retention clamp copper with V2A screw suitable for tubes with Ø 32 mm (pallet size > 500 pcs)	10 7,65 kg						
	P C20010	Double-tube snow retention clamp copper manufactured in one piece with V2A screw suitable for tubes with Ø 32 mm	10 8,70 kg						
	P C35010	Double tube add-on element* triangular form copper suitable for tubes with Ø 32 mm	50 11,25 kg						
	P C50010	Ice holder copper for standing seam roofs with V2A screw for mounting under the snow retention tube	50 10,40 kg						
	P C55510	Ice holder EasyClip copper Clip on tubes with Ø 32 mm for 25mm seam depth, fast toolless assembly without screws	20 4,44 kg						
	P C60010	Snow retention clamp copper for covings or riges max. 30° inclination with V2A screw suitable for tubes with Ø 32 mm	10 7,65 kg						

* Snow retention clamp not included in the scope of delivery

Standing seam roofs stainless steel 1.4301



Illustration	Item No.	Description	PU	EUR/pc	Note
	P E10010	Snow retention clamp stainless steel 1.4301 with V2A screw suitable for tubes with Ø 32 mm (pallet size > 500 pcs)	10 5,50 kg		
	P E20010	Double-tube snow retention clamp stainless steel 1.4301 manufactured in one piece suitable for tubes with Ø 32 mm	10 7,30 kg		
	P E35010	Double tube add-on element* triangular form stainless steel 1.4301 suitable for tubes with Ø 32 mm	50 7,80 kg		
	P E50010	Ice holder stainless steel 1.4301 for standing seam roofs with V2A-screw for mounting under the snow retention tube	50 6,50 kg		
	P E55510	Ice holder EasyClip stainless steel 1.4301 Clip on tubes with Ø 32 mm for 25mm seam depth, fast toolless assembly without screws	20 2,64 kg		

Standing seam roofs powder-coated aluminium^{**}




Illustration	Item No.	Description	PU	EUR/pc	Note
	P FarbA10010	Snow retention clamp aluminium powder-coated with V2A screw suitable for tubes with Ø 32 mm (pallet size > 500 pcs)	10 3,49 kg		
	P FarbA35010	Double tube add-on element aluminium powder-coated*, triangular form suitable for tubes with Ø 32 mm	50 3,70 kg		
	P FarbA50010	Ice holder aluminium powder-coated for standing seam roofs with V2A screw for mounting under the snow retention tube	50 3,70 kg		

* Snow retention clamp not included in the scope of delivery, ** RAL standard colours


Trapezoidal sheet and roll cap roofs

Illustration	Item No.	Description	PU	EUR/pc	Note
	P T10010	Snow retention clamp aluminium*** suitable for trapezoidal sheet and roll cap roofs for tubes with Ø 32 mm Including 2 self-tapping stainless-steel screws 5.5 x 25 mm	50 4,70 kg		
	P T50010	Ice holder aluminium*** suitable for metall roofs up to 85 mm seam depth for tubes with Ø 32 mm Including one self-tapping stainless-steel screw 5.5 x 25 mm	50 2,80 kg		

Profile roofs

Illustration	Item No.	Description	PU	EUR/pc	Note
	P R10010	Snow retention clamp aluminium*** for round head profiles such as Kalzip and Bemo for tubes with Ø 32 mm incl. V2A screw (pallet size > 1000 pcs)	10 2,07 kg		
	P R35010	Double-Tube add-on element aluminium*** triangular form, small suitable for 2 tubes with Ø 32 mm (Assembly with: Clamp P R10010)	30 1,28 kg		
	P T50010	Ice holder aluminium*** suitable for profile roofs up to 85 mm seam depth for tubes with Ø 32 mm Including one self-tapping stainless-steel screw 5.5 x 25 mm	50 2,80 kg		

Bitum roofs and PVC plastic sheets

Illustration	Item No.	Description	PU	EUR/pc	Note
	P Z60010	Snow retention hook galvanized for bituminous roofs or welding track roofs 2 x 12 mm holes for fixing, on request also available in stainless steel	loose 1,25 kg		

*** On request also available powder-coated in RAL standard colors

Accessories

Illustration	Item No.	Description	PU	EUR/pc	Note
	P Z10022 P Z10025 P Z10027	Internal tube jointer anthracite Ø outside 22,4 mm black Ø outside 25 mm grey Ø outside 27 mm; suitable for tubes 32/2mm	20 0,50 kg		
	P Z20020	End caps for snow retention tubes Ø outside 28mm; suitable for tubes 32/2mm	10 0,10 kg		
	P Z30020	Snow retention tubes aluminium Dimension 32/1,5 mm available with 3,00 m + 6,00 m tube length	0,51 kg		
	P Z40020	Snow retention tubes copper Dimension 32/2 mm available with 2,5 m + 5,0 m tube length	1,74 kg		
	P Z50020	Snow retention tubes stainless steel Dimension 32/2mm available with 2,5 m + 5,0 m tube length	1,60 kg		
	P ZZ70020	Screws with nuts for snow retention clamps M12 x 30mm with nuts in VA2 (need per clamp: 2 pieces)	20 1,00 kg		
	P ZZ70010	Screws with nuts for curved iceholder 6 mm x 50 mm in V2A (need per ice holder: 1 piece)	50 0,70 kg		
	Pe H Ejot-Super-Saphir	Self-tapping screws Ejot-Super-Saphir JT3-2H-Plus 5,5 x 25 E16/2,0	50 0,33 kg		



Clip range

Metal roofs and facades are exposed to environmental influences such as wind, snow, hail and temperature-related longitudinal expansions. To avoid any damage, it is essential to correctly arrange the fixed and sliding clips. The laying arrangement of the sliding clips depends on the inclination of the roof and information about this can be found in the specialist rules of the plumbing trade.

A professional as well as permanent securing is offered by our complete clip programme according to plumbing regulations.

Advantages

- Protection against wind loads
- Compliance with relevant standards
- The clip fixation enables a damage free expansion of the panels
- Quick and easy assembly
- The regulation of the clip height with the clipbase leads to a higher stability
- All clips are made out of stainless Steel 1.4301 (chrome-nickel-steel, unmagnetic)
- All clips are supplied with an extended foot part and three-hole fastening

Assembly

A careful and accurate assembly of the individual clips is indispensable. Nails and screws etc. that are sticking out of the surface have to be worked over in order to avoid damages to the roof skin.

In the case additional snow retention clamps are installed, the fixed clips have to be able to hold the expected snow loads. In the case you screw the clips together or you use structured subterranean tracks, it is recommended to use the sliding clips PLUS or the fixed clips Plus.

According to the panel length you have to check whether long sliding clips are to be used. Maximum length of the panels when using sliding clips with a sliding range of 55mm:

Copper.....	until 10 m
Stainless steel	until 14 m
Aluminium	until 10 m
Titanium zinc	until 10 m
Galvanized steel sheet	until 14 m

Are longer panel lengths provided, a long sliding clip must be used.

Installation & Dimensioning

The fixing by means of clips is considered as a mechanical, penetration-free fastening of the roof skin. The calculation principle is based on the plumbing rules, which are based on the DIN 1055-4 "Loadings for buildings; traffic loads, wind loads for structures that are not susceptible to vibration". In addition, recently the EN 1991-1-3 is used as a calculation basis. In the case of the European Standard, in particular the terrain category plays a decisive role.



According to the building shape (length, width and height), the type of terrain, the inclination of the roof and the wind zone, the area to be covered is roughly divided into four parts: Corner area, edge area, surface area and fixed area. The fixed area should not exceed 3m. However, constructional as well as regional characteristics are to be considered. Details must be designed in such a way that thermally induced changes in length are not hindered.

Approved fasteners according to DIN 18339: 2010-04 Nails 2,8 mm x 25 mm and countersunk screws 4 mm x 25 mm.





Data sheets

klings-dach.de/
download-technology





Strong fix clips (Masc licensed product)

Illustration	Item No.	Description	PU	EUR/ 100 pc	Note
		Strong Fix Clips 30 mm wide (Masc licensed product) stainless steel 1.4301, prevents slipping of sheet metal during and after assembly	100		
	P HE15525FIX	Height 25 mm	0,68 kg		
	P HE15528FIX	Height 28 mm	0,68 kg		
	P HE15530FIX	Height 30 mm	0,70 kg		
	P HE15532FIX	Height 32 mm	0,72 kg		
	P HE15538FIX	Height 38 mm	0,78 kg		
	P HE15550FIX	Height 50 mm	0,89 kg		


Fixed clips 30 mm wide

Illustration	Item No.	Description	PU	EUR/ 100 pc	Note
		Fixed clips 30 mm wide stainless steel 1.4301 with a longer clip foot, splays at the foot, rounded corners and three hole fixing (pallet size > 50.000 pcs)	500		
	P HE15525	Height 25 mm	3,30 kg		
	P HE15526	Height 26 mm	3,30 kg		
	P HE15528	Height 28 mm	3,40 kg		
	P HE15530	Height 30 mm	3,50 kg		
	P HE15532	Height 32 mm	3,60 kg		
	P HE15538	Height 38 mm	3,75 kg		
	P HE15550	Height 50 mm	400 3,56 kg		
		Fixed clips PLUS 30 mm wide with a special stamping for countersunk screws out of stainless steel 1.4301 with a longer clip foot, splays at the foot, rounded corners and three hole fixing	500		
	P HE15525PL	Height 25 mm	3,30 kg		
	P HE15528PL	Height 28 mm	3,40 kg		
	P HE15530PL	Height 30 mm	3,50 kg		
	P HE15532PL	Height 32 mm	3,60 kg		



Fixed clips 40 mm wide

Illustration	Item No.	Description	PU	EUR/ 100 pc	Note
		Fixed clips 40 mm wide stainless steel 1.4301 with a longer clip foot, splays at the foot, rounded corners and three hole fixing (pallet size > 25.000 pcs)	500		
	P HE15025	Height 25 mm	4,55 kg		
	P HE15028	Height 28 mm	4,60 kg		
	P HE15030	Height 30 mm	4,75 kg		
	P HE15032	Height 32 mm	4,90 kg		
	P HE15038	Height 38 mm	5,20 kg		
	P HE15050	Height 50 mm	400 4,76 kg		
		Fixed clips PLUS 40 mm wide with a special stamping for countersunk screws out of stainless steel 1.4301 with a longer clip foot, splays at the foot, rounded corners and three hole fixing	500		
	P HE15025PL	Height 25 mm	4,55 kg		
	P HE15028PL	Height 28 mm	4,60 kg		
	P HE15030PL	Height 30 mm	4,75 kg		
	P HE15032PL	Height 32 mm	4,90 kg		
	P HE15038PL	Height 38 mm	5,20 kg		
	P HE15050PL	Height 50 mm	400 4,76 kg		

Clip bar

Illustration	Item No.	Description	PU	EUR/ pc	Note
	P HE15025 Leiste	Clip bar 600 mm long out of stainless steel 1.4301, 0,5 mm for standing and angle seam, Height 25 mm	1 0,13 kg		

Forked clip and forked sliding clips

Illustration	Item No.	Description	PU	EUR/ 100 pc	Note
		Forked clips for standing seam roofs 75 mm high Forked clips for standing seam and metal sheet roofs out of stainless steel 1.4301	500		
	P HE13025	40 mm wide	5,55 kg		
	P HE13525	30 mm wide	4,00 kg		
		Forked sliding clips for standing seam roofs 78 mm high Forked sliding clips out of stainless steel 1.4301 for metal sheet and metal seam roofs	250		
	P HE11025	Forked sliding clip	4,45 kg		









Sliding clips and long sliding clips

Illustration	Item No.	Description	PU	EUR/ 100 pc	Note
		Sliding clips with sliding range of 55 mm out of stainless steel 1.4301 with stabil clip foot, stamping, rounded corners and three hole fixing (pallet size > 25.000 pcs)	500		
	P HE16025	Height 25 mm	7,00 kg		
	P HE16028	Height 28 mm	7,40 kg		
	P HE16030	Height 30 mm	7,90 kg		
	P HE16032	Height 32 mm	8,25 kg		
	P HE16038	Height 38 mm	9,10 kg		
	P HE16050	Height 50 mm	400 8,80 kg		
		Sliding clips PLUS with sliding range of 55 mm and special stamping for countersunk screws out of stainless steel 1.4301 with stabil clip foot, stamping, rounded corners and three hole fixing	500		
	P HE16025PL	Height 25 mm	7,00 kg		
	P HE16028PL	Height 28 mm	7,40 kg		
	P HE16030PL	Height 30 mm	7,90 kg		
	P HE16032PL	Height 32 mm	8,25 kg		
	P HE16038PL	Height 38 mm	9,10 kg		
	P HE16050PL	Height 50 mm	400 8,80 kg		
		Long sliding clips with sliding range of 75 mm out of stainless steel 1.4301 with stabil clip foot, stamping, rounded corners and three hole fixing	400		
	P HE17025	Height 25 mm	8,92 kg		
	P HE17028	Height 28 mm	9,12 kg		
	P HE17030	Height 30 mm	9,32 kg		
	P HE17032	Height 32 mm	9,92 kg		
	P HE17038	Height 38 mm	10,60 kg		
	P HE17050	Height 50 mm	300 9,78 kg		

Shingle clips

Illustration	Item No.	Description	PU	EUR/ 100 pc	Note
		Shingle clips 30 mm wide out of stainless steel 1.4301 4,5 mm sink	200		
	P HE142045	envelope with 20 mm	1,30 kg		
	P HE142545	envelope with 25 mm	1,32 kg		
	P HE143045	envelope with 30 mm	1,42 kg		
		Shingle clips PLUS 30 mm wide out of stainless steel 1.4301 with a special stamping for countersunk screws 4,5 mm sink	200		
	P HE142045PL	envelope with 20 mm	1,30 kg		
	P HE142545PL	envelope with 25 mm	1,32 kg		
	P HE143045PL	envelope with 30 mm	1,42 kg		
		Shingle clips 30 mm wide out of stainless steel 1.4301 9,5 mm sink	200		
	P HE142095	envelope with 20 mm	1,32 kg		
	P HE142595	envelope with 25 mm	1,40 kg		
	P HE143095	envelope with 30 mm	1,52 kg		
		Shingle clips PLUS 30 mm wide out of stainless steel 1.4301 with a special stamping for countersunk screws 9,5 mm sink	200		
	P HE142095PL	envelope with 20 mm	1,32 kg		
	P HE142595PL	envelope with 25 mm	1,40 kg		
	P HE143095PL	envelope with 30 mm	1,52 kg		
		Shingle clips 30 mm wide out of stainless steel 1.4301 without sink	200		
	P HE140050		1,42 kg		

Accessories

Illustration	Item No.	Description	PU	EUR/pc	Note
	P ZZ80000	CN50G coilnailer Air pressure nailer for 15° flat plastic-bound nails	1		
	P ZZ80025	Clip nails on the belt (3.600 pcs) Stainless steel clip nails 2,5 x 25 mm (1.4301)	1 4,5 kg		
	P ZZ88825	Clip nails on the belt (ca. 660 pcs) Stainless steel clip nails 2,5 x 25 mm (1.4301)	1 1 kg		
	P ZZ90000	Clip magazine screwdriver 3363 (KMR) with special foot for clips Plus, handy and powerful, cordless work by rechargeable battery, quick release allows the used as a normal metabo battery drill	1		
	P ZZ90025	Clip screws magazined (2.500 pcs) Stainless steel „Clip screws“ 4,0 x 25 mm	1		
	P ZZ90030	Clip screws magazined (2.500 pcs) Stainless steel „Clip screws“ 4,0 x 30 mm	1		
	P ZZ99925	Clip screws stainless steel (1000 pcs) „Clip screws“ with boosted head and full thread 4,0 x 25 mm TX20	1		
	P ZZ99930	Clip screws stainless steel (1000 pcs) „Clip screws“ with boosted head and full thread 4,0 x 30 mm TX20	1		

Kling Systems

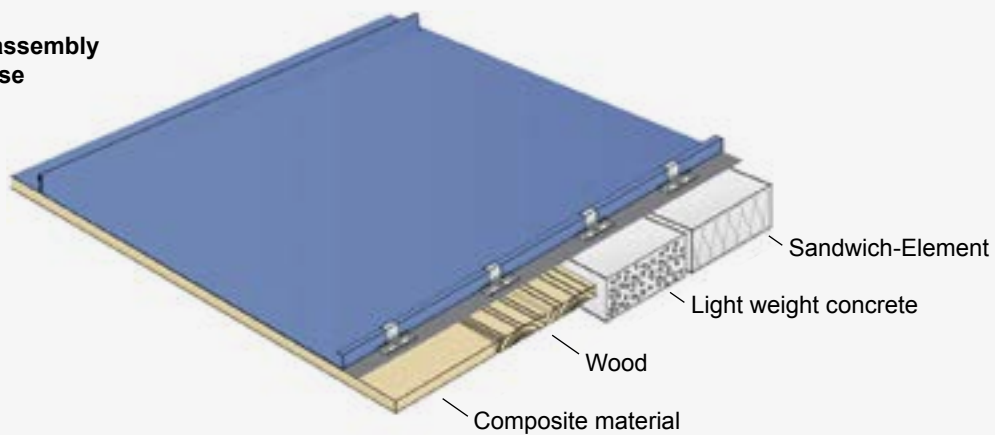
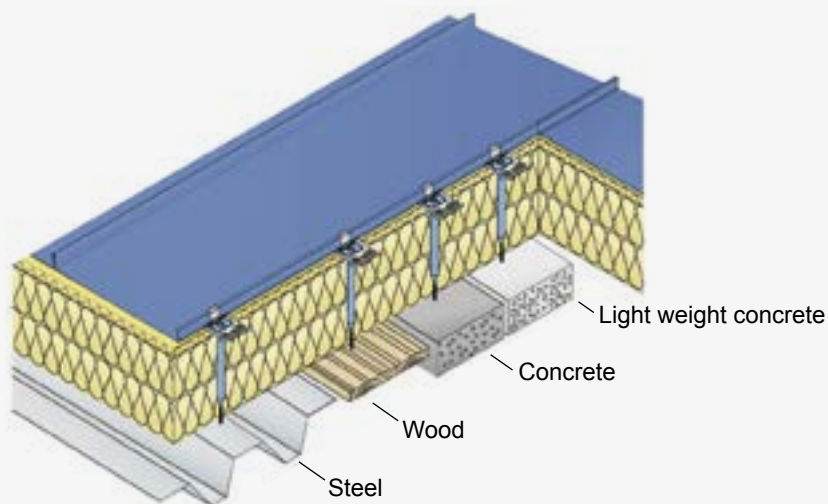
Clips for extreme loads

Nebelhorn 2.224m

Free view from the Nebelhorn: The new restaurant creates a great ambience and you can enjoy a free view of the summit cross. The Nordwandsteig (North wall climb) – a 100 m long new path – also offers spectacular views along the north face of the Nebelhorn.

To cope with the extreme loads the clips Plus with the magazine screwdriver P ZZ90000 has been developed and used.



**Direct assembly
with base****Assembly
with isolation**

Bjarnes System, Clipdriver and Krabban

The CLIPDRIVER and the Krabban® clips can be purchased from the existing sales channel. Together with Kling Systems it is the best and widest product range for metal roof fixings in Europe.

Connect the Bjarnes system and Kling Dach. Krabban® clips in combination with the Telescope system are used for fixing standing seam roofing systems in steel, aluminium, copper, zinc and



stainless steel. The roofing can be executed as double fold, angled fold or rolled seam welded fold.



More products

More products you can find on our homepage.



Clips with pre-installed screws

Illustration	Item No.	Description	PU	EUR/pc	Note
		Stainless steel Fixed Clips Seam with two screws KLRT			
	P HB F022S	Seam 25 mm	500 5,80 kg		
	P HB F02230S	Seam 25 mm + 7 mm structural mat	400 5,80 kg		
		Stainless steel Sliding Clips with two screws KLRT	400		
	P HB G02S	Seam 25 mm	5,0 kg		
	P HB G0230S	Seam 25 mm + 7 mm structural mat	5,0 kg		



Clipdriver with magazinised clips

Illustration	Item No.	Description	PU	EUR/pc	Note
  	P HB CDDF	Clipdriver DF for standing seam roofs (fits to Fein and Festool)	1		
	P HB G01C	Magazinised galvanized Sliding Clips with one screw KLRP25	1.050		
	P HB G021C	Magazinised stainless steel Sliding Clips with one screw KLRP25	1.050		


Krabban® stainless steel clips

Illustration	Item No.	Description	PU	EUR/pc	Note
	P HB KRF	Krabban® Stainless steel Fixed Clips for 25 mm seam, on insulation board	250		
	P HB KR	Krabban® stainless steel Sliding Clips for 25 mm seam, on insulation board	500		

Krabban® galvanized clips

Illustration	Item No.	Description	PU	EUR/pc	Note
	P HB KGF	Krabban® galvanized Fixed Clips for 25 mm seam, on insulation board	250		
	P HB KG	Krabban® galvanized Sliding Clips for 25 mm seam, on insulation board	500		

Sleeves for Krabban®

Illustration	Item No.	Description	PU	EUR/pc	Note
	P HB H30 bis P HB H565	Sleeve out of polypropylene available from 30 mm to 565 mm	on request		



Solar Clamps

Basically, a distinction is made between the mounting and planning on existing or new metal roofs. In the case of a new planning, the substructure can be aligned with the expected load. Fixations and clamps are to be planned accordingly.

When mounting on existing roofs, the sufficient holding force of the metal cover on the substructure is a compulsory prerequisite. The proof must be provided by the customer. Corresponding standards such as DIN 1055 for wind loads and DIN 1055 for snow loads must be observed. Edge and corner areas should be avoided due to accessibility and increased load.

Advantages

- Compliance with relevant standards
- The system ensures the harmless stretching movement of the sheets
- Penetrating freedom of the roof skin
- Quick and easy assembly



Assembly

- With regard to the maximum snow load, the systems own weight must also be included.
- The supporting structure must be able to hold occurring wind and snow loads.
- Increasing load of the snow guards must be taken into account.
- Tightening torques are to be limited in such a way that a thermal expansion is not hindered and that there is no deformation of the profiles.
- Snow guards on the roof must not be disabled.
- For roofs made of materials which tend to crack, attachment to the folds is not recommended.


Snow loads, wind loads & dimensioning

- The supporting structure must be able to hold occurring wind and snow loads.
- With regard to the maximum snow load, the systems own weight must also be included.
- Snow guards on the roof must not be disabled. A higher load of existing snow guard rows are to be considered.
- Local circumstances must be observed and, if necessary, a structural engineer must be consulted.



Standing seam roofs

Illustration	Item No.	Description	PU	EUR/pc	Note
	P SA10010	Solar clamp aluminium for clamping with VA coach bolts M8 x 35 mm + flare nuts long holes with 8 x 25 mm and 11x 25 mm, 110 mm long, delivery is assembled	40 10,16 kg		
	P SE10010	Solar clamp stainless steel for clamping with VA coach bolts M8 x 35 mm + flare nuts long holes with 8 x 25 mm and 11x 25 mm, 110 mm long, delivery is assembled	40 16,70 kg		


Round head profiles

Illustration	Item No.	Description	PU	EUR/pc	Note
	P SR10010	Solar clamp aluminium solar clamp aluminium for round head profiles like KalZip and Bemo roofs, for clamping with long hole 11 x 30 mm, delivery is assembled	40 13,75 kg		


Zambelli RibRoof® and similar

Illustration	Item No.	Description	PU	EUR/pc	Note
	P SA2003000	RibRoof Profil 465 Solar clamp aluminium for Zambelli RibRoof profile 465 and similar for clamping with long hole 11 x 30 mm, delivery is assembled	50 18,0 kg		
	P SA2004000	RibRoof Profil 500 Solar clamp aluminium for Zambelli RibRoof profile 500 and similar for clamping with long hole 11 x 30 mm, delivery is assembled	100 19,0 kg		


Fischer KlipTec

Illustration	Item No.	Description	PU	EUR/pc	Note
	P SA2006000	Profil 52-400 Solar clamp aluminium for Fischer KlipTec 52-400 for clamping with long hole 11 x 30 mm, delivery is assembled	50 18,0 kg		

Stair bolt PlanFix

Illustration	Item No.	Description	PU	EUR/pc	Note
	P SE301001	Trapezoidal roofs Solar clamp out of stainless steel for trapezoidal roofs for clamping with long hole 11 x 30 mm, delivery is assembled	10 4,50 kg		

Solar clamp bitum roof

Illustration	Item No.	Description	PU	EUR/pc	Note
	P SE109001000	Solar clamp stainless steel for bitum roofs with long hole	10 1,02 kg		



Walking systems

In the case of roofs that are difficult to walk on, a safe path for maintenance and repair work is essential and a roof walking system is recommended.

These systems can be mounted on the proven snow retention system without damaging the roof skin.

Advantages

- Safe ongoing for inspection and maintenance purposes
- No damages on the roof skin
- Variable from 5 – 55°
- With cross connectors is a continuous walking system realizable

Assembly




- The pre-assembled treat plate clamp must be pressed over the seam until the thigh rests on the roof skin
- Lock washers must be mounted after the interlocking joint (left or right)
- Bridge to roof pitch (5° – 55°) align and screw
- Tighten firmly the M8 x 30 mm screws on the lock washer (torque approx. 30 Nm)
- Maximum support space 900mm
- It is important to note that the inclination of the tread differs not more than 3° inclination from the horizontal

Dimensioning



On roof pitches up to 20° it is allowed to use the walk-in roof areas as traffic routes and footprints.

Regardless of the roof pitch, on non walkable elements there must be load-distributing coverings or catwalks according to DIN EN 516.



Tread plate clamps for standing seam after DIN EN 518

Illustration	Item No.	Description	PU	EUR/pc	Note
	P LS90010	Galvanized steel Tread plate clamp for standing seam and angle seam roofs, galvanized steel (Variable: 5° - 55°)	1 1,35 kg		
	P LS90020	Laminated Tread plate clamp for standing seam and angle seam roofs, laminated (Variable: 5° - 55°)	1 1,50 kg		
	P LS90030	Copper Tread plate clamp for standing seam and angle seam roofs, copper (Variable: 5° - 55°)	1 1,60 kg		



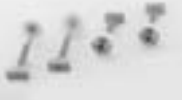
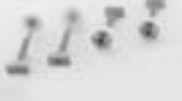
Tread plates

Illustration	Item No.	Description	PU	EUR/pc	Note
		Tread plates laminated 250 mm wide BG type tested and certified, tread plates supports max. 900 mm, excess length: max. 100 mm	1		
	P LB9040	Length 400 mm	1,72 kg		
	P LB9060	Length 420 mm	2,51 kg		
	P LB9080	Length 800 mm	3,24 kg		
	P LB9088	Length 880 mm	3,65 kg		
	P LB9100	Length 1000 mm	4,12 kg		
	P LB9120	Length 1200 mm	5,60 kg		
	P LB9150	Length 1500 mm	6,15 kg		
	P LB9200	Length 2000 mm	8,25 kg		
	P LB9250	Length 2500 mm	10,65 kg		
	P LB9300	Length 3000 mm	13,50 kg		
		Tread plates galvanized 250 mm wide BG type tested and certified, tread plates supports max. 900 mm, excess length: max. 100 mm	1		
	P LV9040	Length 400 mm	1,72 kg		
	P LV9060	Length 420 mm	2,51 kg		
	P LV9080	Length 800 mm	3,24 kg		
	P LV9088	Length 880 mm	3,65 kg		
	P LV9100	Length 1000 mm	4,12 kg		
	P LV9120	Length 1200 mm	5,60 kg		
	P LV9150	Length 1500 mm	6,15 kg		
	P LV9200	Length 2000 mm	8,25 kg		
	P LV9250	Length 2500 mm	10,65 kg		
	P LV9300	Length 3000 mm	13,50 kg		

Tread plates

Illustration	Item No.	Item No.	PU	EUR/pc		
				MK 651-700	MK 651-700	MK 651-700
		Tread plates copper 250 mm wide BG type tested and certified, tread plates supports max. 900 mm, excess length: max. 100 mm	1			
	P LC9040	Length 400 mm	2,20 kg			
	P LC9060	Length 420 mm	3,20 kg			
	P LC9080	Length 800 mm	4,10 kg			
	P LC9088	Length 880 mm	4,60 kg			
	P LC9100	Length 1000 mm	5,20 kg			
	P LC9120	Length 1200 mm	6,27 kg			
	P LC9150	Length 1500 mm	6,90 kg			
	P LC9200	Length 2000 mm	9,57 kg			
	P LC9250	Length 2500 mm	11,92 kg			
	P LC9300	Length 3000 mm	15,12 kg			

Accessories

Illustration	Item No.	Description	PU	EUR/pc	Note
	P LZ9000	Connection laminated Connection for tread plates, laminated	1 0,50 kg		
	P LZ9001	Connection galvanized Connection for tread plates, galvanized	1 0,50 kg		
	P LZ901	Fastening VA-fastening material for fixing the tread plates on the tread plate clamps	1		
	P LZ902	Fastening copper-coated VA-fastening material with coppered special nuts for fixing the tread plates on the tread plate clamps	1		



Gutter connector

Gutter seams are permanently sealed with the Kling roof gutter connector and simultaneously serve as an expansion seam. Use of the device for all gutter sizes and all gutter materials.

Connect roof gutters quickly and professionally.



Unclean seams, leaking and corroding gutter connections, caused by flux and overheated materials, can be successfully prevented with the gutter connector. The device has been successfully used for over 35 years.

Based on the principle of a roll ring in wastewater technology, a bead is turned into the gutter with the roof gutter connector. This provides sufficient space for an adhesive compound (e.g., adhesive glue) to professionally seal the seam in the long term.

Advantages

- Quick & clean
- Professional & easy
- Sealed & tested

The plumbing rules stipulate that there must be sufficient space for adhesives when bonding sheets, since otherwise the seam can be sheared off.

Illustration	Item No.	Description	PU	EUR/pc	Note
	P D10010	Gutter connector for gutters and all materials To reach the plumbing rules required adhesive thickness	1		
	H Kleber Adhesivkleber	Adheseal glue from Innotec ideal connection with the gutter connector	1		

Terms and conditions

General

1. All orders placed with us are executed exclusively under these conditions.
2. Conflicting purchasing conditions of the buyer, which we do not explicitly acknowledge in writing, are not binding for us, even if we do not expressly contradict them.
3. Unless otherwise stipulated here under, statutory regulations shall apply.

Offers and order confirmations

4. Our offers are non-binding.
5. We reserve the right to charge the prices valid on the day of delivery.

Terms of delivery

6. The delivery period begins with the date of our order confirmation, however not before clarification of all commercial and technical details.

Our delivery times are at our best discretion, however only approximate and non-binding. Deliveries before expiry of the delivery period and partial deliveries are admissible.
7. The delivery period shall be deemed to have been met if the goods have left our factory before the end of the agreed delivery time or the goods have been declared ready for dispatch.
8. If we are in default of delivery, the buyer must grant us a 2-week period of grace. If the goods are not delivered within this additional period, the buyer has the right to withdraw from the contract. Compensation claims are excluded.

Deliveries and Prices

9. Deliveries ex works, incl. packaging plus freight. The prices are net prices, plus the applicable value added tax.

10. If, as a result of the purchaser's fault, acceptance of delivery is not made in time, we are entitled at our discretion to either issue an arrears invoice or to withdraw from the contract or to demand compensation if a reasonable period of grace has been granted.

Retention of Title

11. The goods remain our property until the complete payment of the purchase price as well as fulfilment of all other payment obligations against us from the business connection have been performed. All rights from prior resale, in particular the purchase price from resale, shall be deemed assigned to us.

Force Majeure

12. In the case of force majeure or any other unforeseeable events, we shall be entitled to postpone the delivery period for the duration of the hindrance or to withdraw from the contract in whole or in part with the exclusion of compensation claims by the purchaser.

Complaints

13. Complaints must be made immediately and are only taken into consideration if they are sent to us in writing at least 10 days after receipt of the goods.
14. After the processing or use of the delivered goods, complaints are excluded.
15. In the case of justified complaints, we have the right to remedy the deficiencies or when the goods are returned to make a replacement delivery or to issue a credit note.
16. In the case of hidden defects, the written complaint must be made immediately after discovery, or within 3 months at the latest.

17. An extensive liability on our part for whatsoever legal cause, in particular for consequential damages, is excluded.

Terms of Payment

18. Unless otherwise agreed in writing, the following terms of payment shall apply: 10 days after date of invoice – 3% discount; 30 days after date of invoice – net cash.

The invoice is issued on the day of delivery or on the date on which the goods are placed at the disposal of the customer.

19. If the payment date is exceeded, default interest of at least 2% above the discount rate of the Deutsche Bundesbank will be charged. We will charge each reminder with a cost compensation of € 5. Subsequent payment shall be demanded of any discounts deducted without entitlement.
20. Prior to full payment of the invoice amounts due, including default interest, we are not obliged to make any further deliveries from any ongoing contract.
21. Cheques and bills of exchange will only be accepted for payment and will only be considered as payment when they have been honoured. Payments by bills of exchange are only admissible after prior agreement.

Place of Performance and Jurisdiction

22. The place of performance for deliveries and payments is the registered office of our factory. Jurisdiction is, at our discretion, our general court of jurisdiction. This also applies to court actions regarding bills of exchange or cheque processes.



Traditional metal roofs

Roofs & systems strong as a lion since 1949

- Snow retention systems
- Clip range
- Bjarnes systems
- Solar clamps
- Walking systems
- Gutter connector

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