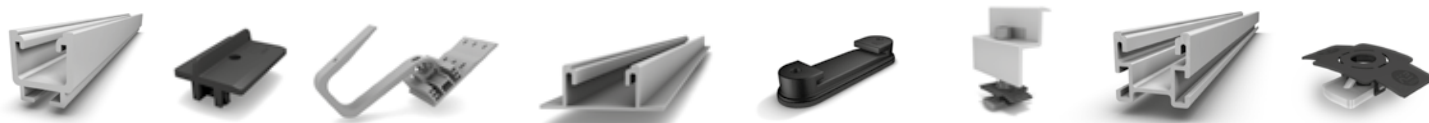


Mounting systems for solar technology



K2 SYSTEMS
PRODUCTS

GB



Mutual trust is the basis of success.

As with mountain climbing, we take mutual trust very seriously. This trust holds true when dealing with our customers, as well as K2 employees. After all, only a trustful partnership leads to success.

Partner with system

As a manufacturer of mounting systems for solar technology, K2 Systems develops innovative system solutions for the international photovoltaic industry. Many years, longstanding expertise and commitment to service make K2 Systems the ideal partner. International customers appreciate the quality of our reliable framing systems for use on sloped roofs, flat roofs, as well as ground mounted and special projects.

K2 Systems, a medium-sized company with 100 employees, is one of the leading innovators in the photovoltaic industry.

Mounting systems for solar technology have been designed in K2's Product Development department since 2004 and are improved and updated. Motivation and team spirit shape our international workforce which provides excellence in our European subsidiaries and in the USA on a daily basis.

K2 SYSTEMS
THE COMPANY

Please find our Quality and Product certifications at:
<http://www.k2-systems.uk.com/downloads/certificates.html>



ISO 9001 Certificate

K2 Systems has been certified by TÜV Rheinland AG with the testing standard ISO 9001:2008 in the sector of development, manufacture and distribution of solar mounting systems. Our quality management system (QM system) was thus validated by an independent body. Our endeavour to continuously improve in all our internal and external activities is now subject to ongoing external monitoring by the TÜV testing laboratory.



VDE Certificate

The VDE Prüf-und Zertifizierungsinstitut GmbH is a national and international testing and accreditation institute for the testing and certification of electronic equipment, components and systems. The safety, electromagnetic compatibility and further features of these products are tested.

K2 Systems has several quality certifications

K2 Systems stands for secure connections, high quality and precisely manufactured and exact fit components. Our customers and business partners have known that for a long time. Independent authorities have tested, confirmed and certified our competencies and components.

However, we do not solely rely on external authorities. Our internal quality assurance standards ensure that all components manufactured all our components undergo an extensive testing process. This leads to

the high quality standards of K2 Systems, which we achieve, in part, by almost completely implementing only „Made in Germany“ or „Made in Europe“. Our customers can rely on our high quality, and they appreciate that we offer a 12 year manufacturer's warranty on all our components.



K2 SYSTEMS
THE QUALITY



Huchenfeld, Germany
Mounting system: K2 D-Dome System

K2 SYSTEMS PRODUCTS

Range of products

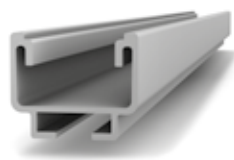
K2 SYSTEMS

MOUNTING RAILS

K2 SYSTEMS

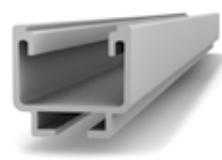
MOUNTING RAILS

K2 SolidRail Ultra-Light 32



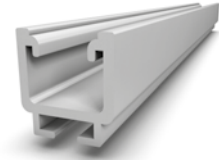
Span width:* 139 cm
Height: 32 mm
Weight: 0.7 kg/m
Material: Aluminium (EN AW-6063 T66)

K2 SolidRail Light 37



Span width:* 157 cm
Height: 37 mm
Weight: 0.85 kg/m
Material: Aluminium (EN AW-6063 T66)

K2 SolidRail Medium 42



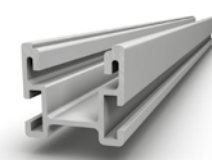
Span width:* 187 cm
Height: 42 mm
Weight: 1.3 kg/m
Material: Aluminium (EN AW-6063 T66)

K2 SolidRail Alpin 60



Span width:* 230 cm
Height: 60 mm
Weight: 1.7 kg/m
Material: Aluminium (EN AW-6063 T66)

K2 CrossRail 36



Span width:* 161 cm
Height: 36 mm
Weight: 0.96 kg/m
Material: Aluminium (EN AW-6063 T66)

K2 CrossRail 48



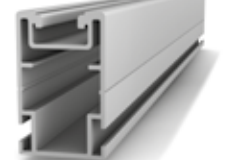
Span width:* 184 cm
Height: 48 mm
Weight: 1.24 kg/m
Material: Aluminium (EN AW-6063 T66)

K2 CrossRail 62



Span width:* 290 cm
Height: 62 mm
Weight: 2.03 kg/m
Material: Aluminium (EN AW-6063 T66)

K2 CrossRail 90



Span width:* 450 cm
Height: 90 mm
Weight: 3.07 kg/m
Material: Aluminium (EN AW-6063 T66)

K2 SolidRail LS 85



Span width:* 445 cm
Height: 85 mm
Weight: 2.95 kg/m
Material: Aluminium (EN AW-6063 T66)

K2 SolidRail L 85



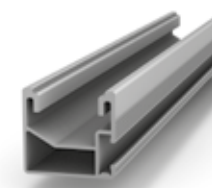
Span width:* 450 cm
Height: 85 mm
Weight: 3.368 kg/m
Material: Aluminium (EN AW-6063 T66)

K2 SolidRail XL 140



Span width:* 690 cm
Height: 140 mm
Weight: 4.96 kg/m
Material: Aluminium (EN AW-6063 T66)

K2 SingleRail 36



Span width:* 135 cm
Height: 36 mm
Weight: 0.76 kg/m
Material: Aluminium (EN AW-6063 T66)

The K2 SolidRail range of rails is fixed to the relevant substructure with a T-Bolt/serrated collar nut to the underside of the rail.

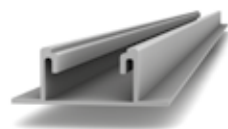
The K2 CrossRail range of rails can be fixed or installed only from above with the K2 Climber (L-bracket) and an Allen bolt. Rail connector sets are available for all K2 rails.

Definition of axes: I = geometrical moment of inertia; W = axial section modulus | *Span width: The rail span follows from an 100 percent utilisation in the elastic-plastic calculation to K2 standard conditions. The K2 standard conditions for span calculations consist of: Height above sea level: 400 m | Roof pitch: 30 ° | max. Snow load 0.650 kN/m² (equiv. UK Snow Load Zone IV) | max. Wind Load 1.05 kN/m² (equiv. Wind Speed 22.7 m/s) | Distance to Shoreline: >10000 m | Terrain Category: Rural Area | Building height: max. 10 m | Rail as continuous beam (3 fields) | Central Roof Area | Weight of Solar Module: 20 kg | Solar module: 1650 x 810 mm. Regardless of the specified standard conditions, all K2 rails can generally be used in all snow and wind load zones. All aluminum profiles are made of AL EN AW 6063 T66.

K2 SYSTEMS

MOUNTING RAILS

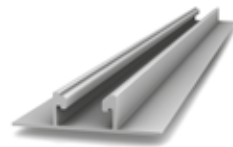
K2 SpeedRail 22



Span width:* 105 cm
 Height: 22.5 mm
 Weight: 0.64 kg/m
 Material: Aluminium
 (EN AW-6063 T66)



K2 FlatRail 22



Span width:* 110 cm
 Height: 22.5 mm
 Weight: 1.0 kg/m
 Material: Aluminium
 (EN AW-6063 T66)

K2 MiniRail



Height: 20 mm
 Weight: 0.675 kg/Stück
 Material: Aluminium
 (EN AW-6063 T66)

K2 MultiRail

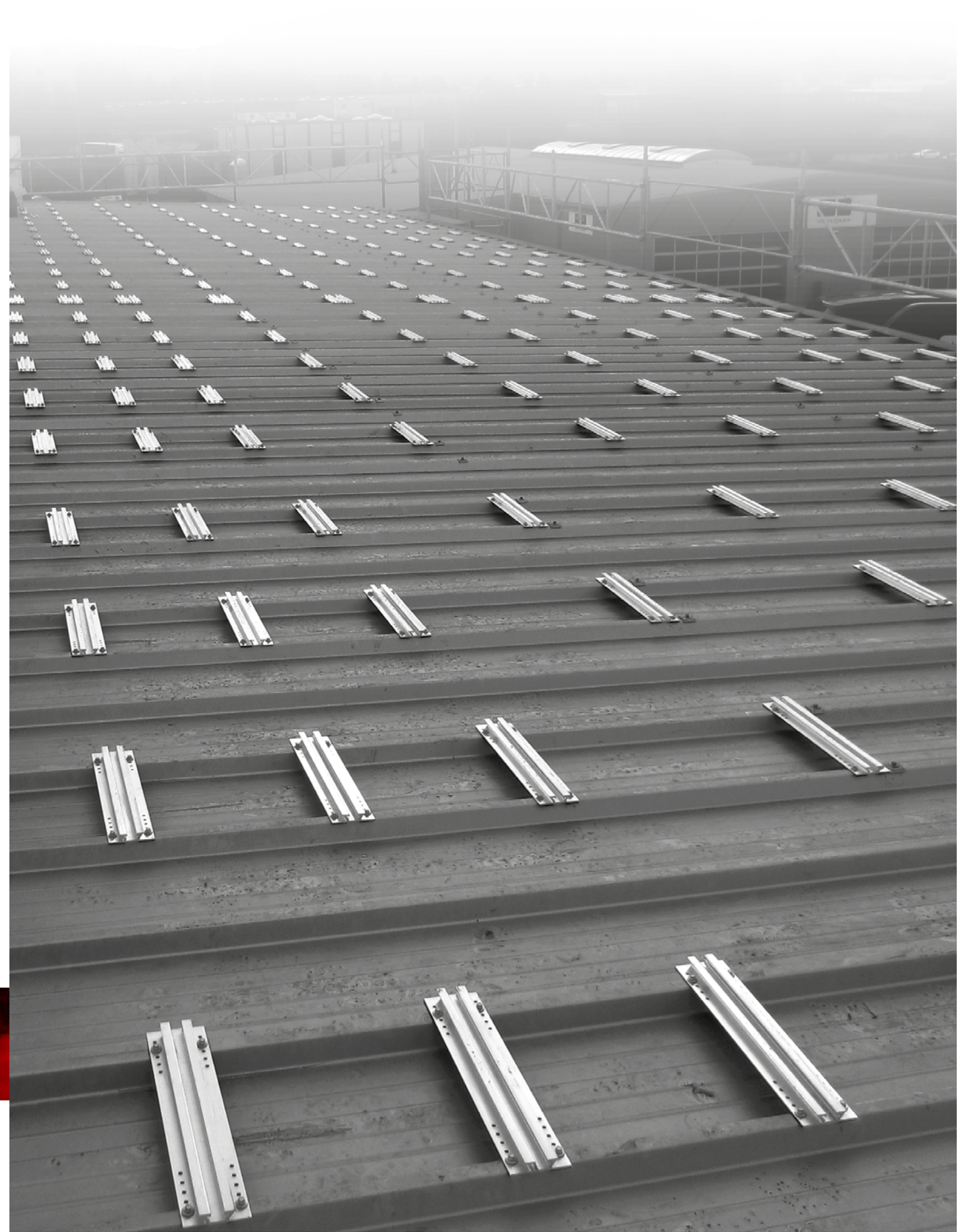


Height: 32 mm
 Weight: 0.58 kg/m
 Material: Aluminium
 (EN AW-6063 T66)



The K2 SpeedRail family is mounted quickly only from above with K2 SpeedClip and K2 SpeedLock due to easy accessibility.

The K2 MiniRail system is the latest design for trapezoidal sheet metal roofs. The universal clamp is suitable for most module frame heights.



K2 SYSTEMS

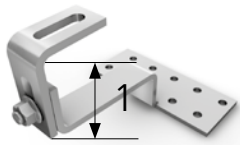
ROOF ATTACHMENTS

Roof Fastener for Pan Tile



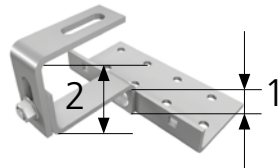
Base plate	Bracket	Height under bracket	Roof lath height*	Overall height approx
150 x 60 x 5 mm	30 x 6 mm	47 mm	30 mm	133 mm
180 x 80 x 4 mm	35 x 6 mm	38 mm	24 mm	124 mm
180 x 80 x 4 mm	30 x 6 mm	47 mm	30 mm	133 mm
180 x 80 x 4 mm	35 x 6 mm	47 mm	30 mm	150 mm
180 x 80 x 4 mm	30 x 6 mm	57 mm	40 mm	144 mm
180 x 80 x 5 mm	40 x 8 mm	47 mm	30 mm	121 mm

Vario 1



1. Bracket:	min. 55 max. 90 mm
Base plate:	150 x 60 x 5 mm
Bracket:	30 x 6 mm
Height under bracket:	43 mm
Overall height:	ca. 112-145 mm
Material:	Stainless Steel (1.4016)

Vario 2



1. Bracket:	min. 47 max. 59 mm
2. Bracket:	min. 57 max. 97 mm
Base plate:	140 x 55 x 5 mm
Bracket:	30 x 6 mm
Height under bracket:	47-59 mm
Overall height:	ca. 105-155 mm
Material:	Stainless Steel (1.4016)

The rails are fixed to the roof fasteners with a T-Bolt/serrated collar nut to the underside of the rail.

*provided that the tile thickness is between 12 and 15mm;
Material: Stainless Steel (1.4016), welded double-sided

K2 SYSTEMS

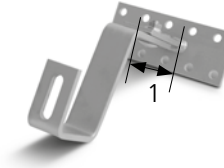
ROOF ATTACHMENTS

Portoghese



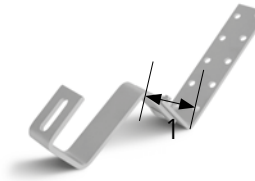
Base plate:	150 x 60 x 5 mm
Bracket:	30 x 5 mm
Height under bracket:	30 mm
Overall height:	ca. 135 mm
Material:	Stainless Steel (1.4016)

Spanish tile roof, rafters or concrete



Base plate:	150 x 60 x 5 mm
Bracket:	35 x 6 mm
Height under bracket:	108-137 mm
Overall height:	ca. 190-220 mm
Material:	Stainless Steel (1.4016)

Spanish tile roof, purlins



Base plate:	201 x 50 x 5 mm
Bracket:	35 x 6 mm
Height under bracket:	100-129 mm
Overall height:	ca. 180-210 mm
Material:	Stainless Steel (1.4016)

Roof Fastener for Flat Tile



Bracket:	40 x 6 mm
Height under bracket:	33 mm
Overall height:	ca. 122 mm
Material:	Stainless Steel (1.4301)

Roof Fastener for Flat Tile (double roofing)



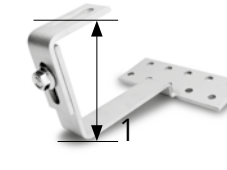
or 30 mm timber batten (only usable for flat tile)	
Width:	150 mm
Height under bracket:	33 mm
Overall height:	ca. 103 mm
Material thickness:	2 mm
Material:	Stainless Steel (1.4301)

Roof Fastener Slate



Bracket:	40 x 250 x 6 mm
Overall height:	70 mm
Material:	Stainless Steel (1.4301)

Coppo



1. Bracket:	min 106 max 136 mm
Base plate:	150 x 60 x 5 mm
Bracket:	30 x 5 mm
Height under bracket:	18 mm
Overall height:	ca. 137-167 mm
Material:	Stainless Steel (1.4016)

CrossHook 2 (flat concrete interlocking tiles)



Base plate:	150 x 128 x 2 mm slotted bore hole
Contact area:	150 x 116 mm
Height under bracket:	44 mm
Overall height:	ca. 100 mm
Material:	Stainless Steel (1.4301)

K2 SYSTEMS

ROOF ATTACHMENTS

K2 CrossHook 3S



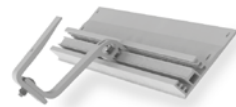
Base plate: 124 x 100
 Bracket: 35 x 9 mm
 Height under bracket: 40/47/54 mm
 Overall height: ca. 123/130/137 mm
 Weight: 530 g
 Material: Aluminium (EN AW-6063 T 66)

K2 CrossHook 4S



Base plate: 124 x 100 mm
 Bracket: 35 x 9 mm
 Height under bracket: 40/47/54 mm
 Overall height: ca. 120.5 - 165 mm
 Weight: 553 g
 Material: Aluminium (EN AW-6063 T 66)

K2 CrossBoard + CrossFinger



Base plate K2 CrossBoard and CrossFinger 3S / 4S for use on insulated roofs.
 Material: Aluminium (EN AW-6063 T 66)

K2 CrossHook 2G



Base plate: 124 x 100
 Bracket: 35 x 5 mm
 Height under bracket: 44/51/58 mm
 Overall height: 81.3 - 115 mm
 Weight: 520 g
 Material: Aluminium (EN AW-6063 T 66)

K2 Rafter Screw (pre-assembled)



For fastening of K2 System parts on trapezoidal and wave shape roofs.

M10 x 180, Hexagonal SW 7 mm
 M10 x 200, Hexagonal SW 7 mm
 M10 x 250, Hexagonal SW 7 mm
 M12 x 200, Hexagonal SW 9 mm

K2 Rafter Screw CR (pre-assembled)



For fastening K2 CrossRail family on trapezoidal and wave shape roofs.

M12 x 250, Hexagonal SW 9 mm
 M12 x 300, Hexagonal SW 9 mm
 M12 x 350, Hexagonal SW 9 mm
 M12 x 400, Hexagonal SW 9 mm

M10 x 180, Hexagonal SW 7 mm
 M10 x 200, Hexagonal SW 7 mm
 M10 x 250, Hexagonal SW 7 mm
 M12 x 200, Hexagonal SW 9 mm

M12 x 250, Hexagonal SW 9 mm
 M12 x 300, Hexagonal SW 9 mm
 M12 x 350, Hexagonal SW 9 mm
 M12 x 400, Hexagonal SW 9 mm

K2 SingleHook 1.1



Base plate: 124 x 100
 Bracket: 35 x 7-10.5 mm
 Height under bracket: 47.1 mm
 Overall height: ca. 162.9 mm
 Weight: 460 g
 Material: Aluminium (EN AW-6063 T 66)

K2 SingleHook 1.4



Base plate: 106.5 x 100
 Bracket: 35 x 5 mm
 Height under bracket: 34.9 mm
 Overall height: 205.8 mm
 Weight: 679 g
 Material: Aluminium (EN AW-6063 T 66)
 Stainless Steel (1.4301)

K2 SingleHook 2.2



Base plate: 71 x 100
 Bracket: 35 x 5 mm
 Height under bracket: 38.4 mm
 Overall height: 165.4 mm
 Weight: 616 g
 Material: Aluminium (EN AW-6063 T 66)
 Stainless Steel (1.4301)

K2 SingleHook 2.3



Base plate: 71 x 100
 Bracket: 35 x 5 mm
 Height under bracket: 38.4 mm
 Overall height: 165.4 mm
 Weight: 783 g
 Material: Aluminium (EN AW-6063 T 66)
 Stainless Steel (1.4301)

K2 Solar fastener for steel



Solar fastener (stainless steel) for mounting K2 system components on roofs with sheet metal, trapezoidal or wave shaped roofs (for steel substructure). Building authority certified.

K2 Solar fastener for timber



Solar fastener (stainless steel) for mounting K2 system components on roofs with sheet metal, trapezoidal or wave shaped roofs (for timber substructure). Building authority certified.

K2 Solar fastener for concrete slabs



Solar fastener (stainless steel) for mounting K2 system components on roofs with sheet metal, trapezoidal or wave shaped roofs (for concrete substructure). Building authority certified.

K2 Standing Seem Claw



For fastening of K2 System parts on rounded standing seam metal roofs.

The K2 CrossRail range of rails can be fixed to the roof fasteners only from above with the K2 Climber (L-bracket) and an Allen bolt.

K2 SYSTEMS

MOUNTING MODULE

K2 Module Middle Clamp Standard Set



For mounting of modules with module frame depths of 35 - 50 mm. The set is preassembled and can be easily mounted with every K2 rail.

Material: Aluminium, Stainless Steel, PA

K2 Module Middle Clamp XS Set



For mounting of modules with module frame depths of 35 - 50 mm. The set is preassembled and can be easily mounted with every K2 rail.

Material: Aluminium, Stainless Steel, PA

K2 Module End Clamp Standard Set



For mounting of modules with module frame depths of 35 - 50 mm. The set is preassembled and can be easily mounted with every K2 rail.

Material: Aluminium, Stainless Steel, PA

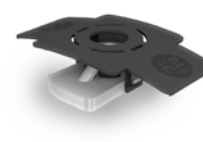
K2 Slideguard



Slide guard for additional use in vertical assembly of laminated modules with glass thickness of 6 - 9 mm.

Material: Stainless Steel 1.4016, EPDM

M K2 slot nut with clip



The Fast-installation M K2 slot nut can be inserted on any point on the K2 rail. The slot nut will adjust itself in the rail and can be readjusted to any part of the rail.

Material: Stainless Steel 1.4301, Aluminium, PA

Self-drilling wood screw



Self-drilling wood screw, Heco. Building authority certified.

Material: Stainless Steel A2

K2 Allen bolt, DIN EN ISO 4762



The cylinder head stud with hexagon socket is available in different sizes in coordination with all K2 system connections.

Material: Stainless Steel A2

K2 Self-tapping screw with mounted EPDM supported washer



Hexagon screws for the connection of mounting rails and rail connectors, as well as for the SpeedClip assembly.

Material: Stainless Steel A2, EPDM

K2 Multi Monti fastener



'Multi Monti' - fastener (Heco) to fasten in concrete. Drilling depth: 55mm, Drive: T30, head size: 17 mm, Drilling measurement: 6mm; Steel surface: galvanised and blue passivated

K2 safety screw Deter Bolt Free



Screw to prevent the theft of modules. The patented head can only be removed with the respective Deter Bolt Wrench.

Bolts with serrated under head



The combination of bolt head and serration prevents the bolt becoming loose!

Material: Stainless Steel A2

K2 Mid and End Clamps are available as pre-assembled sets for various module frame heights. This is only an excerpt from the variety of standard and laminate clamps available. All K2 standard clamps are also available anodized in black.

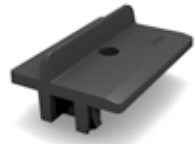
K2 SYSTEMS

SCREWS & NUTS

K2 SYSTEMS

ACCESSORIES

K2 AddOn



The K2 AddOn mounting adapter enables grid mounting or insertion mounting without any additional rails or clamps. Fits with all K2 Systems mounting systems.

Material: glass fibre reinforced, PA

K2 Pad Spacer PA



PA spacer shim to compensate height differences on mounting K2 threaded roof hooks and K2 rails (except Solid). Any number of spacer shims can be placed on top of each other for individual height compensation.

Material: glass fibre reinforced, PA

K2 Lightning protection clamp multi, half part



Lightning protection clamp for clamping Ø 8 mm lightning protection cables. For universal use as a T, cross, parallel and impact clamp.

Material: Aluminium

WEEB Clip



WEEB Clip – equipotential bonding between panel and rail, suitable for K2 SolidRail Ultralight, Light, SpeedRail 22 & 36, CrossRail 36 & 48 and FlatRails.

Material: Stainless Steel

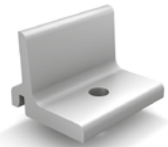
Omega Kabel-Clip



External cable clip of solar cables for cable runs outside of K2 rails. Fixation in the C-chamber of the profile.

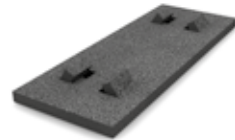
Material: Polypropylen with UV stabiliser, black

K2 Climber



K2 Climber 36/48 and 62/90, aluminium brackets for fastening of the K2 CrossRails 36, 48, 62 and 90; or for direct mounting with K2 CrossHooks and Vario 25.

K2 Solar building protection mat Dome Alu



The K2 building protection mat protects the roof sealing from damage by mounting system platforms.

K2 SpeedLock Set



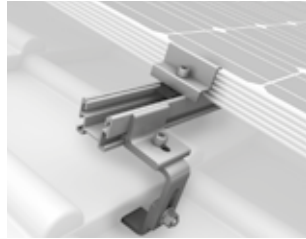
“SpeedLock” for securing the K2 SpeedRail in case of thermal expansion.



K2 SYSTEMS

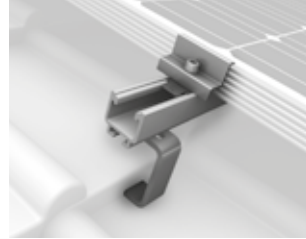
SYSTEM OVERVIEW

Pitched Roof Systems



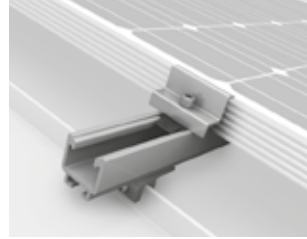
K2 CrossRail System

Sloped roof system for roofs with tile roofing. Quick assembly with CrossRail and Climber.



K2 SolidRail System

Sloped roof system for roofs with tile roofing. Assembly with SolidRail.



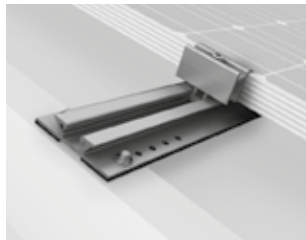
K2 Seam Metal System

Mounting system for tin joint roofs. Clamping beneath the fold.



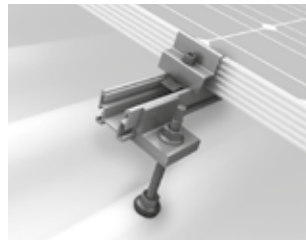
K2 SingleRail System

Sloped roof system for roofs with tile roofing. Quick assembly from the front with SingleRail



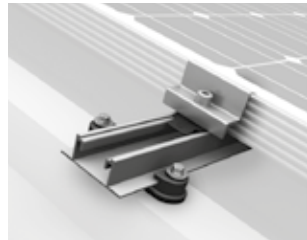
K2 MiniRail System

Sloped roof system for quick and easy mounting on trapezoidal sheet metal.



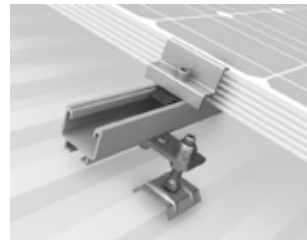
K2 Hanger bolt CR System

For roofs with corrugated fibre cement roofing, easy connection by K2 Climber and K2 CrossRail family.



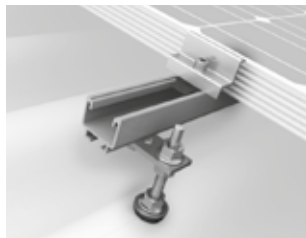
K2 SpeedRail System

Sloped roof system for quick and easy mounting on trapezoidal sheet metal. CSTB and CIEAB certified.



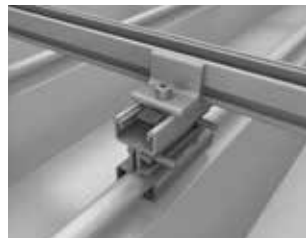
K2 Solar fastener

For roofs with steel or aluminium profile or fibre cement roofing, even for large span widths with K2 Bridge.



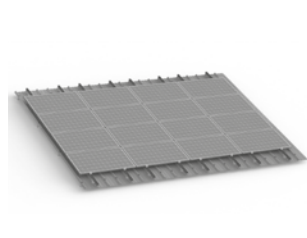
K2 Rafter Screw System

Sloped roof system for corrugated fibre cement roofing, also for large span widths with K2 Bridge.



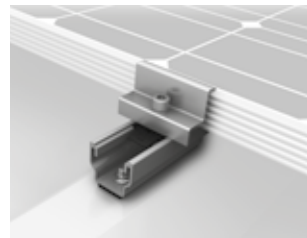
K2 ClampRail System

For roofs with different Standing seam roofing. Mounting by clamping below the fold, no roof penetration.



K2 KoverRail System

Semi-integrated assembly system with CSTB certification for France (ATEC). Even distribution of loads across the substructure, and standardised components for simple planning and assembly.



K2 MultiRail System

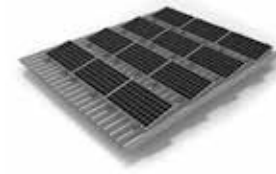
The short K2 MultiRail aluminium mounting rail for direct installation on roof boarding, trapezoidal sheet metal or tin roofs independently from crest spacings. Minimized transport and storage costs.



K2 SYSTEMS

SYSTEM OVERVIEW

Flat roof Systems



K2 S-Dome small System

For Trapezoidal sheet with low roof pitch (<5°). Basis is the K2 MultiRail. Available with 10 ° elevation angle.



K2 S-Dome System

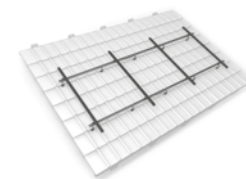
10 ° single elevation angle, complete installation from above, without module carrier rail. Tested in wind tunnel.



K2 D-Dome System

Double-sided module layout 10 °, complete installation from above, without module support rail. Tested in wind tunnel.

Supplementary Systems



Cross Bracing with CrossRail

CrossRail mounting system - Climber is ideal for assembly in cross bracing. Quick and easy assembly of horizontal modules.



K2 AddOn System

Mounting adapter AddOn for grid assembly or insert assembly. Ideal for Landscape mounting.



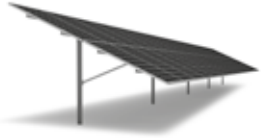
K2 Triangle System

Custom made sloped and flat roof system for lying and standing module assembly. Ballast option.

K2 SYSTEMS

SYSTEM OVERVIEW

Ground Mounted Systems



K2 T-Rack System 3.0

Ground-mounted system with pile-driven foundation. Wind tunnel tested.



DarsunSolar
www.darsunsolar.pl
tel. +48 697 161 842
e-mail: info@darsunsolar.pl

