

Component catalogue

Mounting systems and accessories for photovoltaic installations



06
2013

System componen

Renusol GmbH – an innovative company with a sunny outlook

Young, dynamic, innovative. We have specialised in sophisticated solutions for installing photovoltaic systems since 1997. We have extensive experience in developing, manufacturing and selling modular systems for the reliable installation of both ground-mounted solar systems and systems for all kinds of roofs. As a full subsidiary of CENTROSOLAR Group AG, we have perfectly complemented the overall portfolio of this one-stop supplier for photovoltaic systems since 2005, and our systems and additional services are represented in all key European and American markets.

Suitability of materials



Aluminium



Concrete



Steel



Wood



Trapezoidal sheet



Corrugated sheet



Standing seam



Sandwich

Your benefits



PV Configurator	4
Training and sessions	5
Quality and safety	6
Service and advice	7
Logistics and distribution	7

Index



Index	130
-------------	-----

Roof-mounted



MetaSole	8
Mounting rails	10
Module clamps	12
Spare components	13
VarioSole	16
Roof installations	18
Mounting rails	37
Module clamps	42
Accessories	44

Flat roof/roof-mounted



TriSole	50
Triangles	52
Roof installations	54
Mounting rails	61
Module clamps	65

Flat roof



ConSole	68
Assembly units	70
Accessories	72
Spare components	73

Roof-integrated



InterSole	76
Roof installations	78
Mounting rails	80
Cladding	82
Sealing strips	86
IntraSole CL	88
Mounting rails	90
Sealing strips	92
Punch-down blocks	93
Cladding	97
Accessories	103

Accessories



Clamps	110
Screws	117
Cable guide	124
Anti theft	125
Grounding	127

PV Configurator



Our professional planning tool: Clear, simple and available around the clock

The Project Configurator provides a quick and easy way to plan and design a mounting system suited to your photovoltaic installation – if required, including structural project analysis. Do you want to continue planning later? No problem: Save your entries in the Configurator. You have online access to your project data in any place, at any time.

Our Configurator is just one click away at:

www.pv-configurator.com



The PV Configurator at a glance:

- Available in nine languages
- Static design possible worldwide (according to Eurocode)
- Automatic determination of wind and snow load zones
- Individual building and roof parameters
- Graphic PV field planning
- Preparation of quotations for customers, including detailed parts lists
- Automatic creation of a project report
- Graphic project documentation
- Project overview including location data, roof parameters and module data
- Positioning of individual mounting components
- Preparation of a material list
- Graphic overview of the installation
- Creation of templates for verifiable structural analysis

PV design now available in PVscout



Training and sessions



Practical training by competent specialists

Come along to our professional training sessions to increase your knowledge, and bring your employees too! Our practical training sessions take place all over the world in the country's language or in English. Under the expert supervision of experienced application engineers, we provide training under real-life installation conditions. If required, our sessions can take place directly at your construction site. By arrangement, we are happy to provide training sessions on typical regional projects.

Is on-site training not an option at the moment? Come along to our training centre in Cologne.

In addition to sharing theoretical and practical knowledge, we also answer individual questions and practical problems and discuss solutions.

More than one thousand participants have already successfully completed our training. We look forward to seeing you.

Just get in touch!

Training and sessions at a glance:

- Certified and experienced trainers
- Highly practice-related training sessions with a hands-on approach
- Training sessions in the country's language or in English
- Carried out directly on site

Our trainings



PV mounting on the roof

Mounting systems: VarioSole, MetaSole, ConSole, TriSole
Total time: 8 hours per system
Number of participants: min. 5 / max. 15

PV mounting of integrated systems/BIPV

Mounting systems: InterSole SE, IntraSole CL
Total time: 8 hours per system
Number of participants: min. 5 / max. 15

Free-standing PV Mounting of free-standing PV systems

Mounting systems: TerraSole, ConSole
Total time: 4 hours
Number of participants: min. 5 / max. 15

Quality and safety



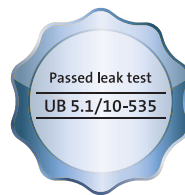
Our products meet the highest requirements

When developing our mounting systems, we apply the latest technical knowledge and use high-quality materials as well as extensive testing methods. Before market launch, every product undergoes these extensive testing methods. From wind tunnel tests providing exact analysis on watertightness under extreme conditions to testing structural analysis and analysing the system's load behaviour, our components are scrutinised from all angles. Certification is awarded by our qualified collaborative partners, such as the German Technical Inspection Association Rhineland (TÜV), the Landesgewerbeamt Bayern and the Leipzig Institute for Materials Research and Testing.

Our products have a 100% safety guarantee.

Quality and safety at a glance:

- Approved under building law in the relevant countries
- Close collaboration with country-specific decision makers for feed-in tariffs
- Tested, TÜV-certified quality
- DIN ISO 9001 certified
- 10-year product warranty
- Made in Germany



Service and advice

Benefit from our many years of practical experience

Whether you have technical questions or need help planning a project, we're here to help. Our competent service team of application engineers is happy to help at any time, provides quick assistance and helps you to find solutions for all situations.

Get in touch :

Tel.: +49 221 788707-29

E-mail: anwendungstechnik@renusol.com

Logistics and distribution

For getting PV projects off to a successful start

Our logistics are efficiently organised, guaranteeing the on-time delivery of our pre-assembled mounting systems all across Europe. Thanks to the flexibility of our production cycle, we can guarantee that all of our basic products will be available and delivered quickly, even at peak times.

With customised packaging, every order is sure to reach you where you want it and how you want it. You also benefit from affordable transport costs due to the optimisation of our packing units. We fit 80 ConSole on one pallet. This corresponds to a mounting capacity of approximately 20 kWp.

We avoid using unnecessary packaging material to protect the environment. This reduces the amount of material to be recycled and helps to protect the environment in the best way possible.



Service and advice at a glance:

- Competent customer service
- Advice for technical questions
- Project design and preparation of quotations
- Preparation of drawings
- Creation of templates for verifiable structural analysis
- Training and sessions
- Product sampling inspection and construction site checks

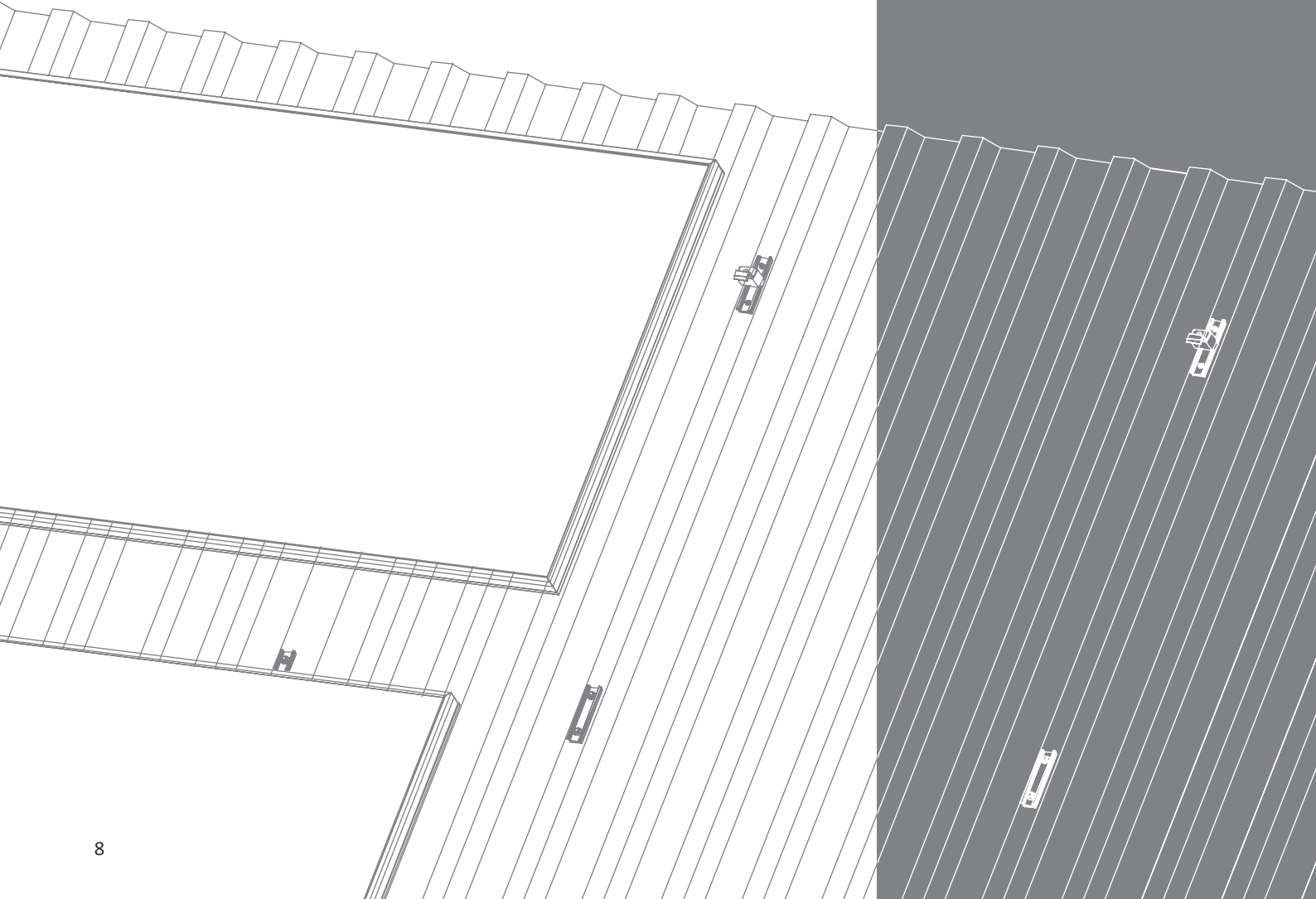


Logistics and distribution at a glance:

- Delivery of standard products within 48 hours
- Project-specific and individual packaging
- Optimized packaging units
- Time saving due to pre-mounted components
- Cost-efficient distribution planning
- Efficient product protection with smart packaging solutions and ecology-minded package design
- Continuous optimisation of our logistic processes

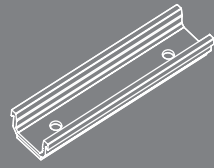
MetaSole

- For use on roofs with an inclination of 5°-70°
- Suitable for trapezoidal sheet metal roofs with a thickness from 0.4 - 1.5 mm
- Suitable for trapezoidal steel or aluminium sheet roofs and standing seam roofs made out of aluminium, copper, zinc or stainless steel
- Waterproof due to clamp bases with pre-mounted EPDM rubber
- Easily mounted without the need for pre-drilling or drilling templates
- Suitable for modules with a construction height of 30 - 50 mm
- Four mounting components without mounting rail
- Leak test according to UB 5.1/10-535 by MFPA
- Building authority approval DIBt Z-14.4-627, Z-14.1-4, Z-14.1-537

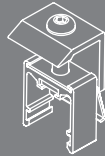




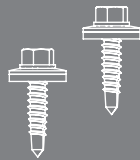
On-roof



Mounting rails10

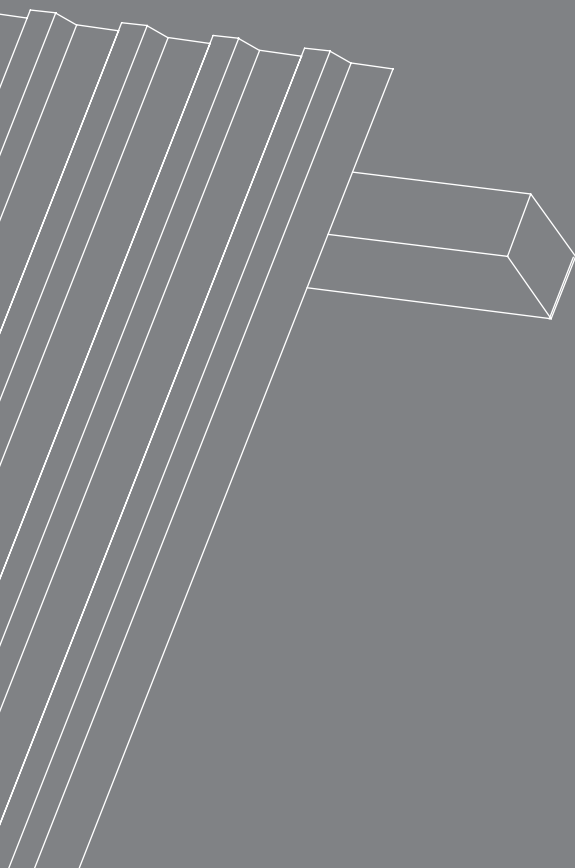


Module clamps12



Spare components13

Self drilling screws, attachment





MetaSole Sample



Article number 500066

Specifications

Weight: 1,653 kg

Colour: blank

Components

1 x MetaSole Sheet thickness 125 mm with EPDM

2 x Self-drilling screw Reisser RP-T2-LK 6x25E16

1 x End clamp 30 - 50 mm

1 x Middle clamp 31 - 51 mm

1 x Renusol yellow bag

MetaSole Sheet thickness from 0,40 - 1,00 mm



Article number 420076

Specifications

Material: Aluminium EN-AW-6063 T6, EPDM

Dimensions: 125 x 14 x 31 mm

Weight: 0,060 kg

Colour: blank

Aluminium quality Rm 165 N/mm² to 215 N/mm²

EPDM pre-assembled

BaZ Z-14.4-627 / 14.1-4 / 14.1-537, TÜV 33130, leak test MFPA 5.1/10-535

Application Features

Roof pitch 5 - 70°

Ribs width min. 20 mm

Mounting without pre-drilling

For trapezoidal sheet made of steel 0,40 - 1,00 mm

Components

1 x MetaSole Sheet thickness 125 mm with EPDM

2 x Self drilling screw for steel 0,40 - 1,00 mm

Compatibility

400019, 410000/2, 400049



MetaSole Sheet thickness from 0,50 - 1,50 mm



Article number 420132

Specifications

Material: Aluminium EN-AW-6063 T6, EPDM

Dimensions: 125 x 14 x 31 mm

Weight: 0,060 kg

Colour: blank

Aluminium quality Rm 165 N/mm² to 215 N/mm²

EPDM pre-assembled

BaZ Z-14.4-627 / 14.1-4 / 14.1-537, TÜV 33130, leak test MFPA 5.1/10-535

Application Features

Roof pitch 5 - 70°

Ribs width min. 20 mm

Mounting without pre-drilling

For trapezoidal metal sheet made of Aluminium 0,50 - 1,50 mm or steel 0,50 - 1,25 mm

Components

1 x MetaSole Sheet thickness 125 mm with EPDM

2 x Self drilling screw for aluminium 0,50 - 1,50 mm or steel 0,50 - 1,25 mm

Compatibility

400019, 410000/2, 400280

MetaSole Sheet thickness from 0,75 - 1,00 mm



Article number 420077

Specifications

Material: Aluminium EN-AW-6063 T6, EPDM

Dimensions: 125 x 18 x 31 mm

Weight: 0,060 kg

Colour: blank

Aluminium quality Rm 165 N/mm² to 215 N/mm²

EPDM pre-assembled

BaZ Z-14.4-627 / 14.1-4 / 14.1-537, TÜV 33130, leak test MFPA 5.1/10-535

Application Features

Roof pitch 5 - 70°

Ribs width min. 20 mm

Mounting without pre-drilling

For trapezoidal sheet made of steel 0,75 - 1,00 mm

Components

1 x MetaSole Sheet thickness 125 mm with EPDM

2 x Self drilling screw for steel 0,75 - 1,00 mm

Compatibility

400019, 410000/2, 400047



Middle clamp 31 - 50 mm



Article number 400019

Specifications

Material: Aluminium EN-AW-6063 T6

Dimensions: 40 x 41 mm

Weight: 0,046 kg

Colour: blank

Application Features

Mid clamp is pre-assembled

Clamping range: 31 - 50 mm

Compatibility

420076, 420132, 420077

End clamp 30 - 50 mm



Article number 410000/2

Specifications

Material: Aluminium EN-AW-6063 T6

Dimensions: 35 x 36 mm

Weight: 0,058 kg

Colour: blank

Application Features

End clamp is pre-assembled

Clamping range: 30 - 50 mm

Compatibility

420076, 420132, 420077

Self drilling screw for aluminium 0,50 - 1,50 mm or steel 0,50 - 1,25 mm



Article number	400280
Specifications	
Material:	stainless steel
Dimensions:	6 x 25 mm
Weight:	0,008 kg
Colour:	blank
with building approval	
Application Features	
Fastening without pre-drilling	
For trapezoidal metal sheet made of Aluminium 0,50 - 1,50 mm or steel 0,50 - 1,25 mm	
Mounting without pre-drilling	
Compatibility	
420132	

Self drilling screw for steel 0,40 - 1,00 mm



Article number	400049
Specifications	
Material:	stainless steel 1.4301
Dimensions:	6 x 30,3 mm
Weight:	0,006 kg
Colour:	blank
with building approval	
Application Features	
Fastening without pre-drilling	
For trapezoidal sheet made of steel 0,40 - 1,00 mm	
Mounting without pre-drilling	
Compatibility	
420076	



Self drilling screw for steel 0,75 - 1,00 mm



Article number	400047
Specifications	
Material: stainless steel 1.4301	
Dimensions: 6 x 35 mm	
Weight: 0,006 kg	
Colour: blank	
with building approval	
Application Features	
Fastening without pre-drilling	
For trapezoidal sheet made of steel 0,75 - 1,00 mm	
Mounting without pre-drilling	
Compatibility	
420077	

Attachment SFS DS-K 265 for cordless screwdriver

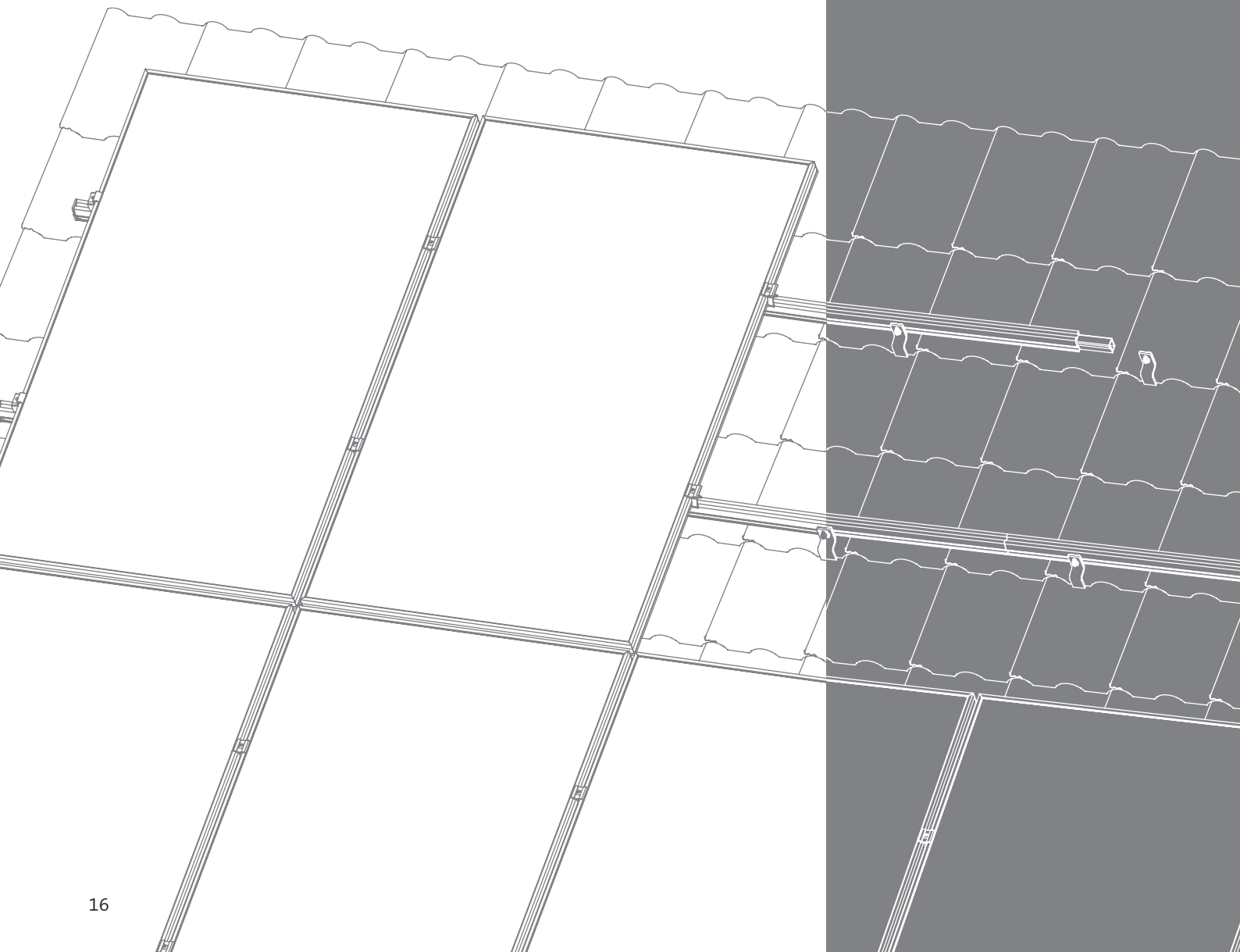


Article number	999900
Specifications	
Material: stainless steel	
Dimensions: 265 x 17 mm	
Weight: 0,198 kg	
Colour: blank	
Application Features	
Tool for Art. Nr. 420077, 930004	
Compatibility	
420077, 400047	



VarioSole

- Mounting components for roof types including plain tile and slate roofs, corrugated sheets and trapezoidal slabs and many other roofing types
- For use on roofs with an inclination of 10°-60°
- Suitable for framed PV modules
- Unevenness in the roof's surface is optimally balanced
- PV modules may be mounted vertically or horizontally
- Variable mounting system for module frame heights between 30 and 50 mm
- Comes in black or silver
- It is not necessary to completely remove the roof covering



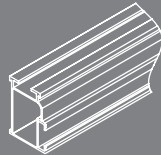


On-roof

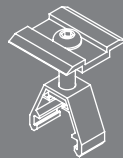


Fixing components18

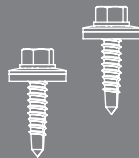
Roof hook, screws, hanger bolt,
solar fastener



Mounting rails37

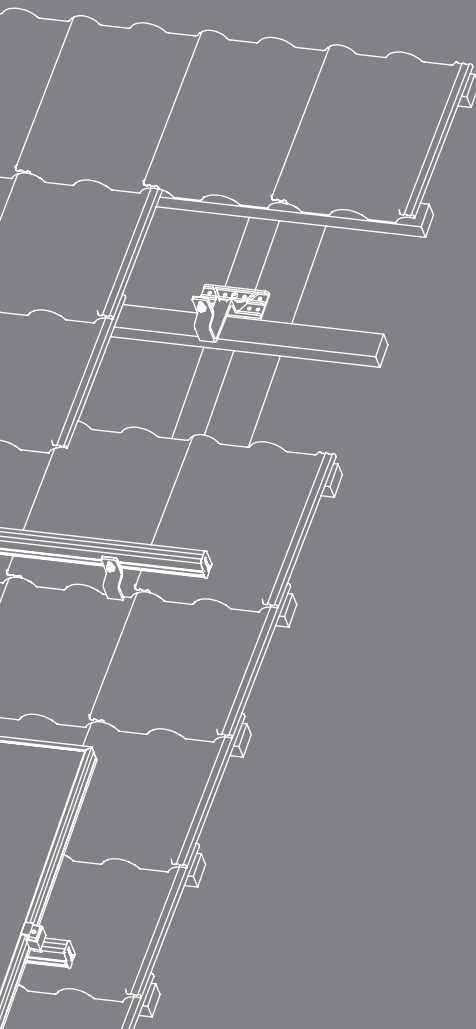


Module clamps42



Accessories44

Screws , bracket





VarioSole SE sample



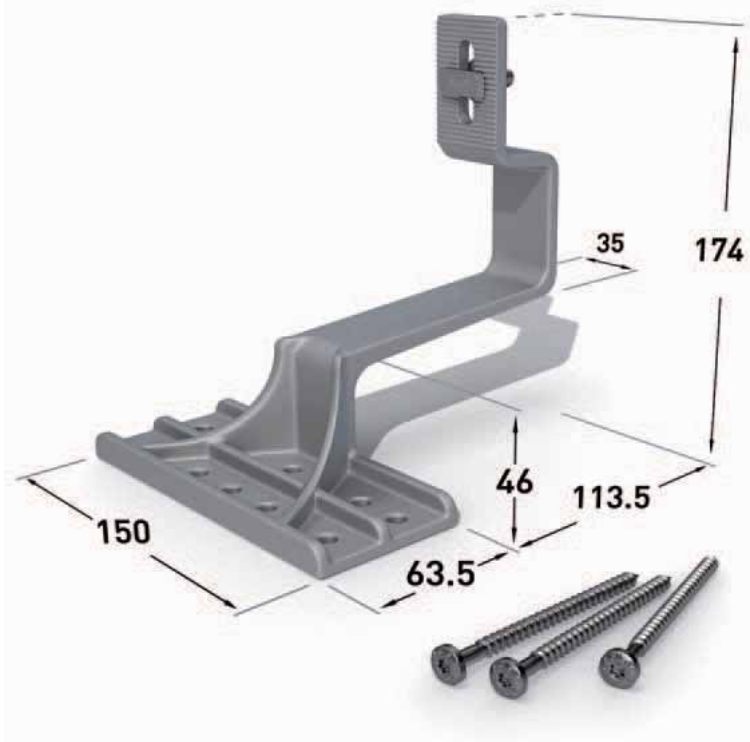
Article number	500065
Specifications	
Weight:	1,699 kg
Colour:	blank
Components	
1 x Hanger bolt M12x250 (Set)	
1 x Roof hook Aluminium (Set)	
1 x Middle clamp 31 - 51 mm	
1 x Rail connector	
2 x Mounting rail SE 300 mm	
1 x End clamp 30-50 mm	
2 x VarioSole cross rail connector	
1 x End cap left (grey)	
1 x Yellow Renusol bag	

VarioSole blackline sample



Article number	500058
Specifications	
Weight:	0,414 kg
Colour:	black
Components	
1 x Middle clamp 31 - 51mm (black)	
1 x Cross rail connector black	
1 x End cap left (black)	
1 x Mounting rail SE 350 mm (black)	
1 x End clamp 30-50 mm (black)	
1 x Yellow Renusol bag	

Roof hook aluminium



Article number 860005

Specifications

Material: Aluminium alloy

Dimensions: 177 x 150 x 174 mm

Weight: 0,393 kg

Colour: blank

Space for adjustment vertical: 25 mm

Max. load: pressure 2430 N, tension 2510 N, shear 2540 N

Application Features

Roof hook is pre-assembled

Frictional connection due to serration

Components

1 x Roof hook aluminium

1 x Hammerhead bolt M8 x 25

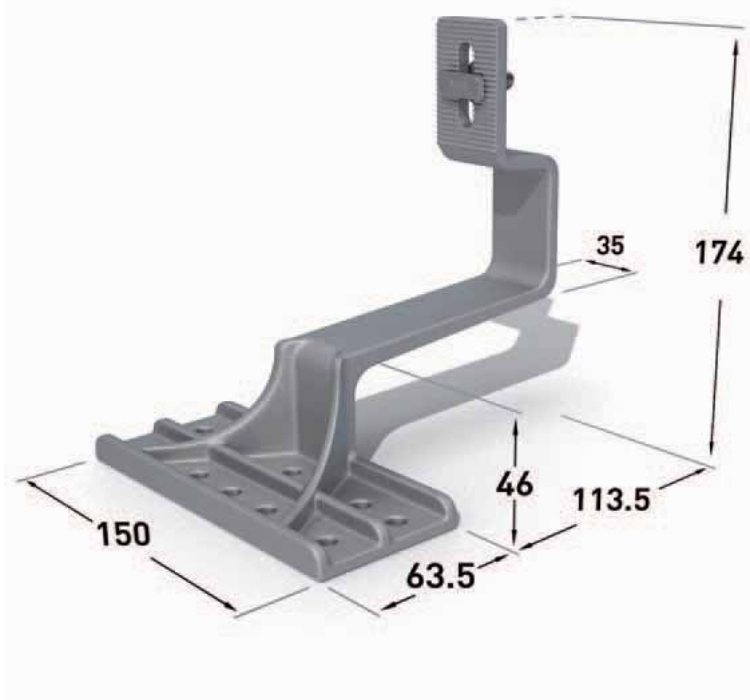
1 x Hexagon Nut w. serration DIN6923 - M8 A2-70

3 x Wood screw mushroom head 6 x 80

Compatibility

400081, 400011, 400094, 430009, 490018, 900138, 900163

Roof hook aluminium (without wood screw)



Article number 420151

Specifications

Material: Aluminium alloy

Dimensions: 177 x 150 x 174 mm

Weight: 0,393 kg

Colour: blank

Space for adjustment vertical: 25 mm

Max. load: pressure 2430 N, tension 2510 N, shear 2540 N

Application Features

Roof hook is pre-assembled

Frictional connection due to serration

Components

1 x Roof hook aluminium

1 x Hammerhead bolt M8 x 25

1 x Hexagon Nut w. serration DIN6923 - M8 A2-70

Compatibility

400081, 400011, 400094, 430009, 490018, 900012, 900138, 900145, 900163

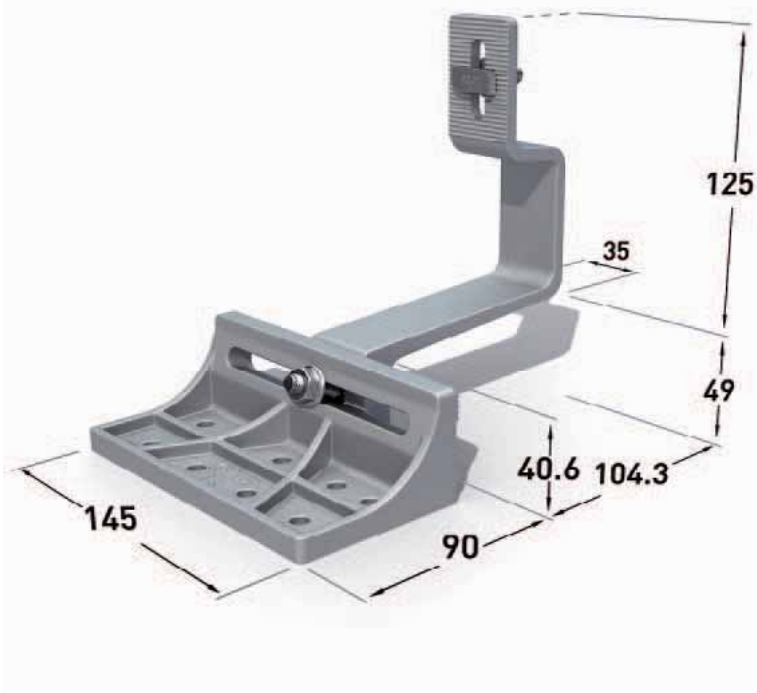


Roof hook aluminium adjustable



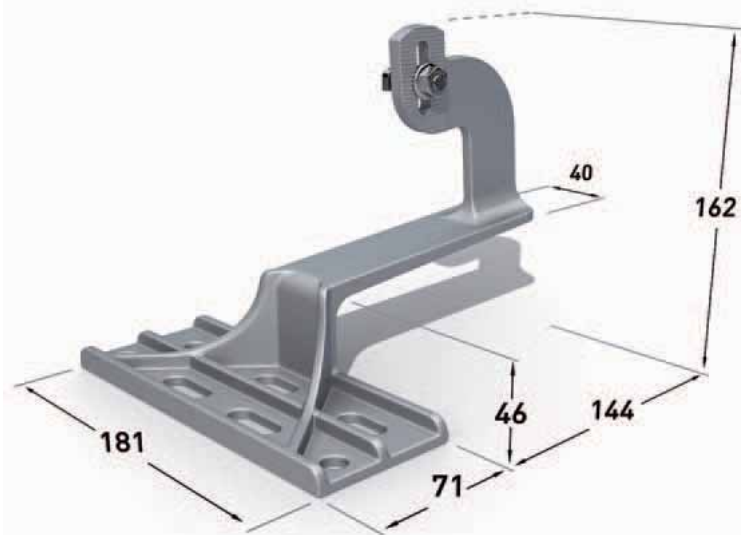
Article number	420102
Specifications	
Material: Aluminium alloy	
Dimensions: 194,3 x 145 x 174 mm	
Weight: 0,526 kg	
Colour: blank	
Space for adjustment vertical: 25 mm	
Space for adjustment- horizontal: 110 mm	
Max. load: pressure 1750 N, tension 1750 N, shear 1750 N	
Application Features	
Roof hook is pre-assembled	
Frictional connection due to serration	
Components	
1 x Roof hook aluminium adjustable	
1 x Hammerhead bolt M8 x 25	
1 x Hexagon Nut w. serration DIN6923 - M8 A2-70	
3 x Wood screw mushroom head 6 x 80	
Compatibility	
400081, 400011, 400094, 430009, 490018, 900138, 900163	

Roof hook aluminium adjustable (without wood screw)



Article number	420152
Specifications	
Material: Aluminium alloy	
Dimensions: 194,3 x 145 x 174 mm	
Weight: 0,526 kg	
Colour: blank	
Space for adjustment vertical: 25 mm	
Space for adjustment- horizontal: 110 mm	
Max. load: pressure 1750 N, tension 1750 N, shear 1750 N	
Application Features	
Roof hook is pre-assembled	
Frictional connection due to serration	
Components	
1 x Roof hook aluminium adjustable	
1 x Hammerhead bolt M8 x 25	
1 x Hexagon Nut w. serration DIN6923 - M8 A2-70	
Compatibility	
400081, 400011, 400094, 430009, 490018, 900012, 900138, 900145, 900163	

Roof hook Alu Concrete Basic 90°



Article number 920003

Specifications

Material: Aluminium alloy

Dimensions: 215 x 181 x 162 mm

Weight: 0,479 kg

Colour: blank

Space for adjustment vertical: 26,4 mm

Max. load: pressure 2300 N, tension 1500 N, shear 1750 N

Application Features

Roof hook is pre-assembled

Frictional connection due to serration

90° twist for vertical mouting

Components

1 x Roof hook Alu Concrete Basic 90°

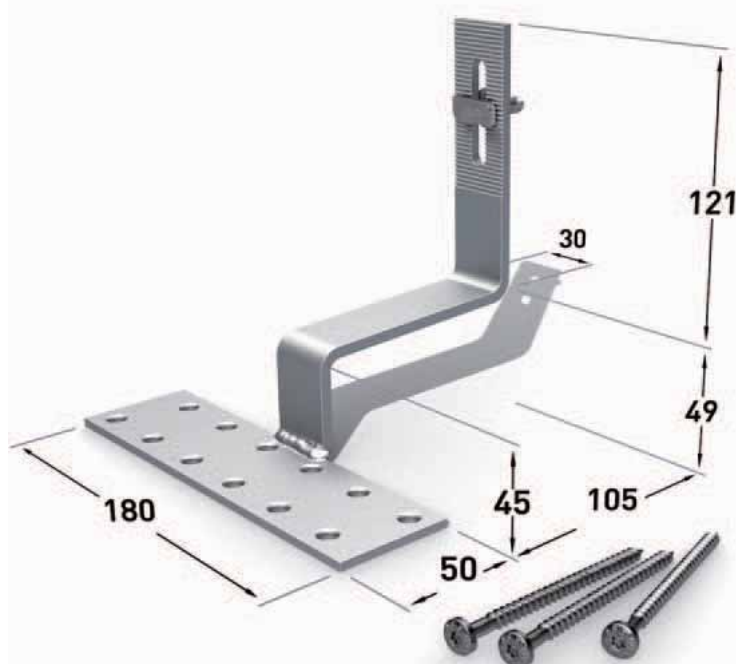
1 x Hammerhead bolt M8 x 25

1 x Hexagon Nut w. serration DIN6923 - M8 A2-70

Compatibility

400081, 400011, 400094, 430009, 490018, 900138, 900163

Roof hook stainless steel



Article number 460066

Specifications

Material: stainless steel 1.4301

Dimensions: 155 x 180 x 170 mm

Weight: 0,560 kg

Colour: blank

Space for adjustment vertical: 37,5 mm

Application Features

Roof hook is pre-assembled

Frictional connection due to serration

Components

1 x Roof hook stainless steel

1 x Hammerhead bolt M8 x 25

1 x Hexagon Nut w. serration DIN6923 - M8 A2-70

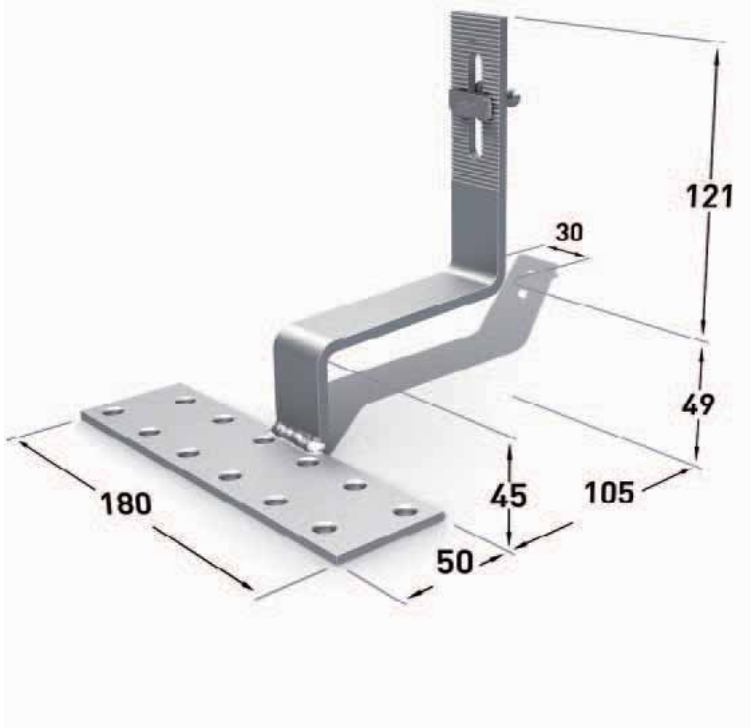
3 x Wood screw mushroom head 6 x 80

Compatibility

400081, 400011, 400094, 430009, 490018, 900138, 900163

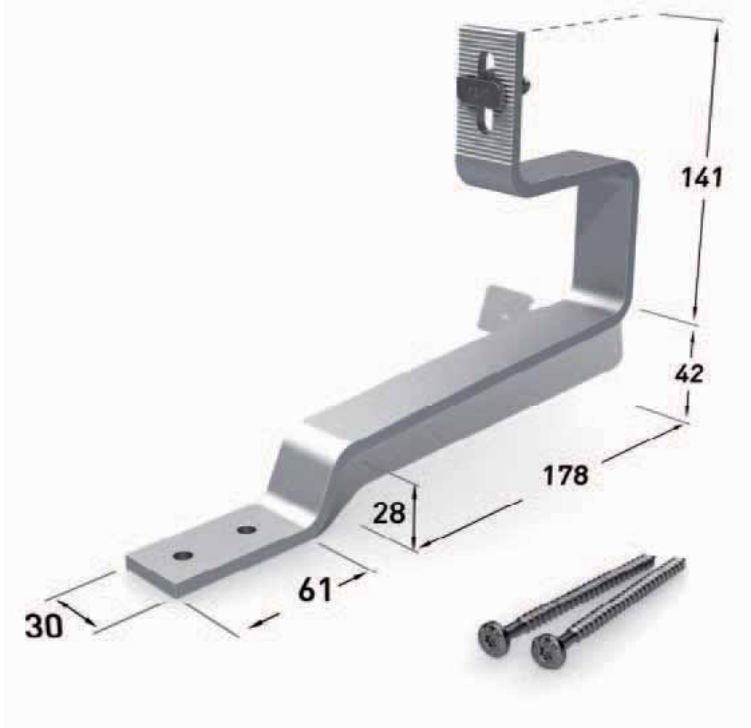


Roof hook stainless steel (without wood screw)



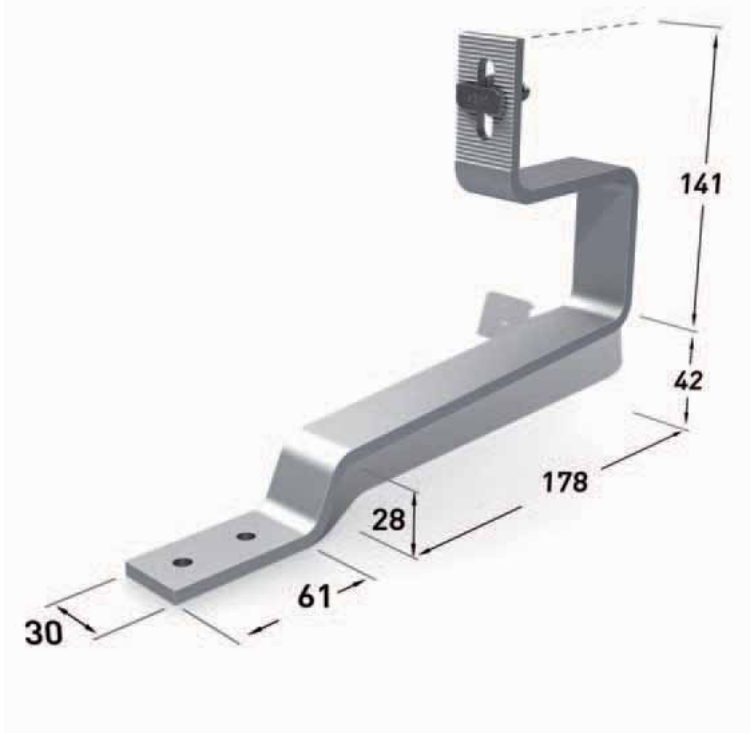
Article number	420150
Specifications	
Material:	stainless steel 1.4301
Dimensions:	155 x 180 x 170 mm
Weight:	0,560 kg
Colour:	blank
Space for adjustment vertical:	37,5 mm
Application Features	
Roof hook is pre-assembled	
Frictional connection due to serration	
Components	
1 x Roof hook stainless steel	
1 x Hammerhead bolt M8 x 25	
1 x Hexagon Nut w. serration DIN6923 - M8 A2-70	
Compatibility	
400081, 400011, 400094, 430009, 490018, 900012, 900138, 900145, 900163	

Roof hook for plain tiles Standard



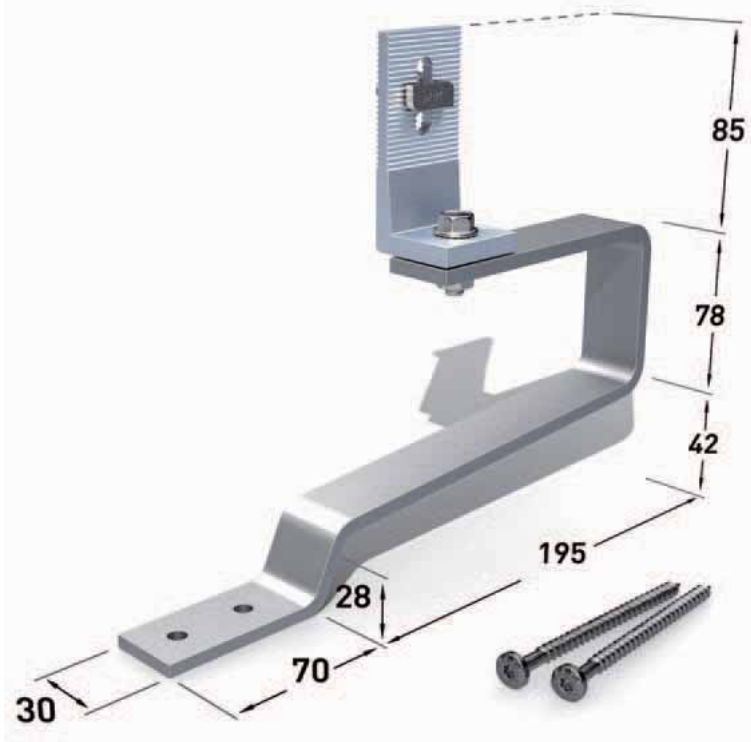
Article number	920062
Specifications	
Material:	stainless steel 1.4301
Dimensions:	265 x 30 x 183 mm
Weight:	0,763 kg
Colour:	blank
Space for adjustment vertical:	24,5 mm
Max. load: pressure 420 N, tension 270 N, shear 420 N	
Application Features	
Roof hook is pre-assembled	
Frictional connection due to serration	
Components	
1 x Roof hook for plain tiles Standard	
1 x Hammerhead bolt M8 x 25	
1 x Hexagon Nut w. serration DIN6923 - M8 A2-70	
2 x Wood screw mushroom head 6 x 80	
Compatibility	
400081, 400011, 400094, 430009, 490018, 900138, 900163	

Roof hook for plain tiles Standard (without wood screw)



Article number	420153
Specifications	
Material:	stainless steel 1.4301
Dimensions:	265 x 30 x 183 mm
Weight:	0,763 kg
Colour:	blank
Space for adjustment vertical:	24,5 mm
Max. load:	pressure 420 N, tension 270 N, shear 420 N
Application Features	
Roof hook is pre-assembled	
Frictional connection due to serration	
Components	
1 x Roof hook for plain tiles Standard	
1 x Hammerhead bolt M8 x 25	
1 x Hexagon Nut w. serration DIN6923 - M8 A2-70	
Compatibility	
400081, 400011, 400094, 430009, 490018, 900012, 900138, 900145, 900163	

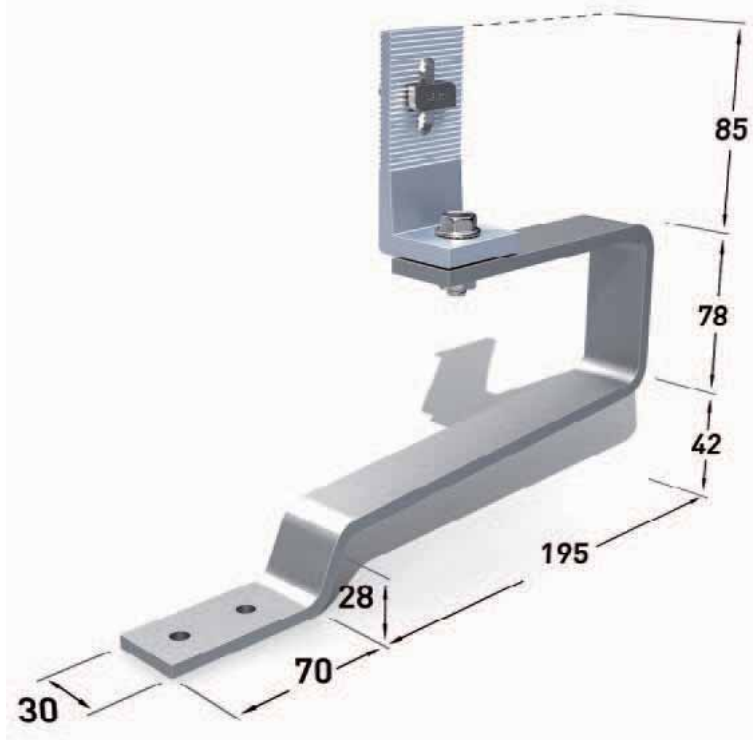
Roof hook for plain tiles 90°



Article number	920116
Specifications	
Material:	stainless steel 1.4301
Dimensions:	265 x 30 x 120 mm
Weight:	0,804 kg
Colour:	blank
Space for adjustment vertical:	21 mm
Application Features	
Roof hook is pre-assembled	
Frictional connection due to serration	
90° twist for vertical mouting	
Components	
1 x Roof hook for plain tiles 90°	
1 x Hammerhead bolt M8 x 25	
2 x Hexagon Nut w. serration DIN6923 - M8 A2-70	
2 x Wood screw mushroom head 6 x 80	
1 x Hexag. screw DIN6921 M8x25 with FL & SZ	
1 x Bracket M8	
Compatibility	
400081, 400011, 400094, 430009, 490018, 900138, 900163	

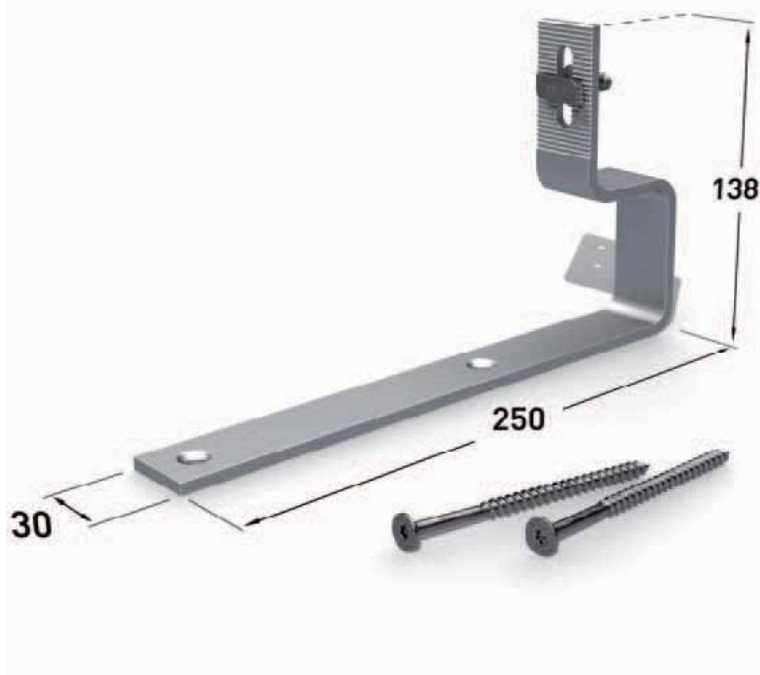


Roof hook for plain tiles 90° (without wood screw)



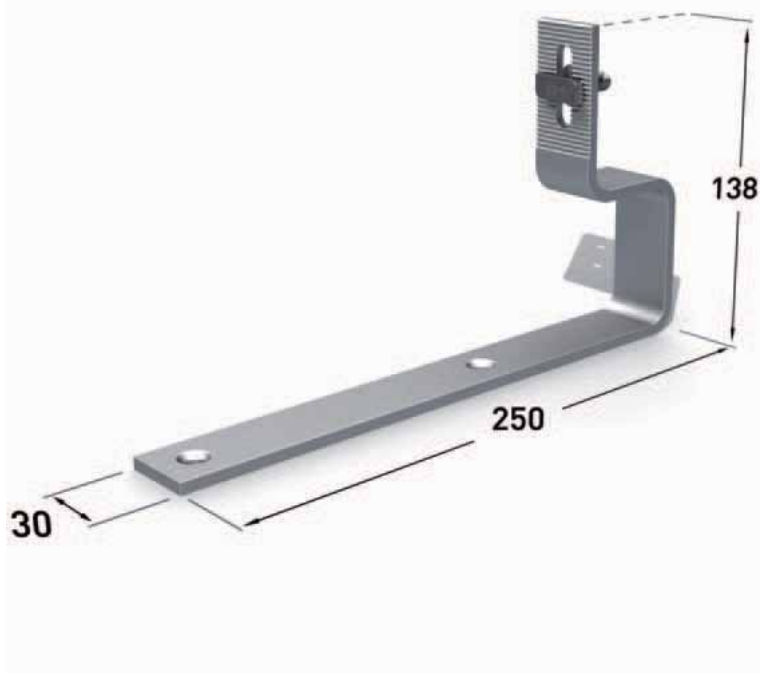
Article number	420154
Specifications	
Material: stainless steel 1.4301	
Dimensions: 265 x 30 x 120 mm	
Weight: 0,804 kg	
Colour: blank	
Space for adjustment vertical: 24,5 mm	
Application Features	
Roof hook is pre-assembled	
Frictional connection due to serration	
90° twist for vertical mouting	
Components	
1 x Roof hook for plain tiles 90°	
1 x Hammerhead bolt M8 x 25	
2 x Hexagon Nut w. serration DIN6923 - M8 A2-70	
1 x Hexag. screw DIN6921 M8x25 with FL & SZ	
1 x Bracket M8	
Compatibility	
400081, 400011, 400094, 430009, 490018, 900012, 900138, 900145, 900163	

Roof hook for slate tiles



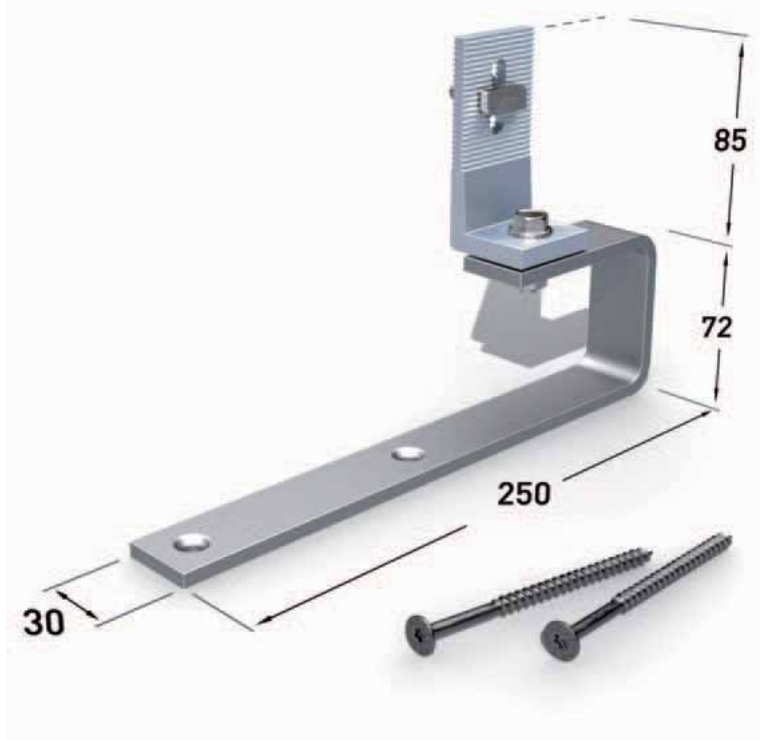
Article number	920005
Specifications	
Material: stainless steel 1.4301	
Dimensions: 250 x 30 x 138 mm	
Weight: 0,510 kg	
Colour: blank	
Space for adjustment vertical: 24,5 mm	
Max. load: pressure 490 N, tension 490 N, shear 280 N	
Application Features	
Roof hook is pre-assembled	
Frictional connection due to serration	
Components	
1 x Roof hook for slate tiles	
1 x Hammerhead bolt M8 x 25	
1 x Hexagon Nut w. serration DIN6923 - M8 A2-70	
2 x Wood screw slated tiles countersunk 6 x 80	
Compatibility	
400081, 400011, 400094, 430009, 490018, 900138, 900163	

Roof hook for slate tiles (without wood screw)



Article number	420155
Specifications	
Material: stainless steel 1.4301	
Dimensions: 250 x 30 x 138 mm	
Weight: 0,510 kg	
Colour: blank	
Space for adjustment vertical: 24,5 mm	
Max. load: pressure 490 N, tension 490 N, shear 280 N	
Application Features	
Roof hook is pre-assembled	
Frictional connection due to serration	
Components	
1 x Roof hook for slate tiles	
1 x Hammerhead bolt M8 x 25	
1 x Hexagon Nut w. serration DIN6923 - M8 A2-70	
Compatibility	
900013, 400081, 400011, 400094, 430009, 490018, 900138, 900163,	

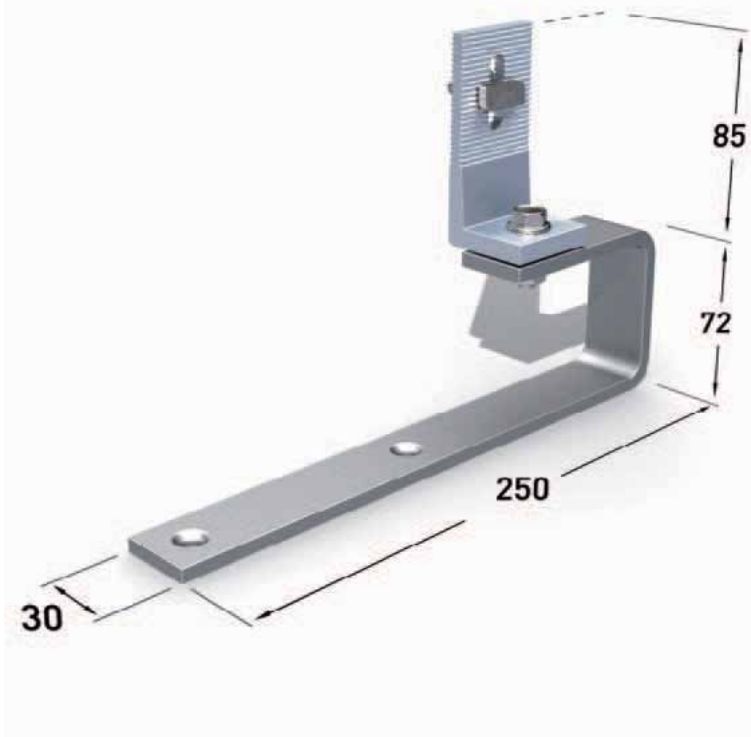
Roof hook for slate tiles 90°



Article number	920117
Specifications	
Material: stainless steel 1.4301	
Dimensions: 250 x 30 x 72 mm	
Weight: 0,686 kg	
Colour: blank	
Application Features	
Roof hook is pre-assembled	
90° twist for vertical mouting	
Components	
1 x Roof hook for slate tiles 90°	
1 x Hammerhead bolt M8 x 25	
2 x Hexagon Nut w. serration DIN6923 - M8 A2-70	
2 x Wood screw slated tiles countersunk 6 x 80	
1 x Hexag. screw DIN6921 M8x25 with FL & SZ	
1 x Bracket M8	
Compatibility	
400081, 400011, 400094, 430009, 490018, 900138, 900163	

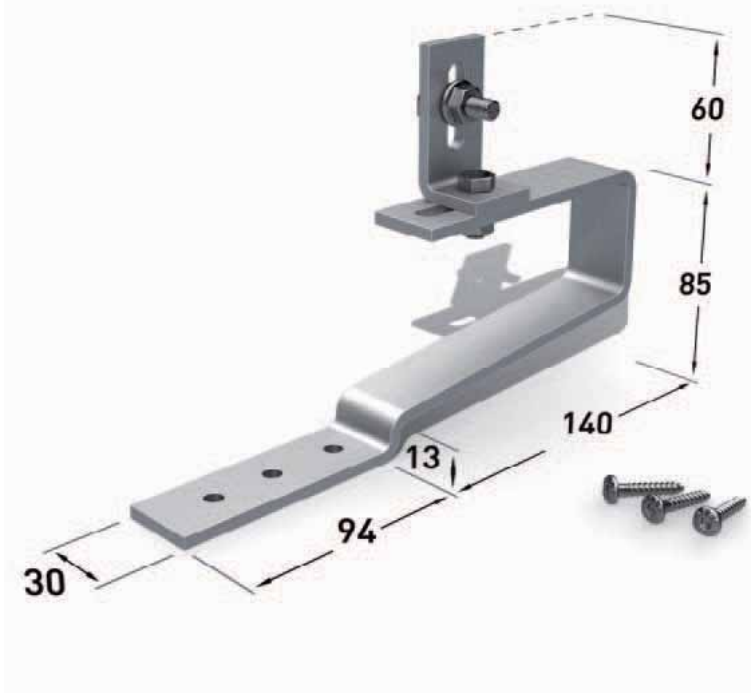


Roof hook for slate tiles 90° (without wood screw)



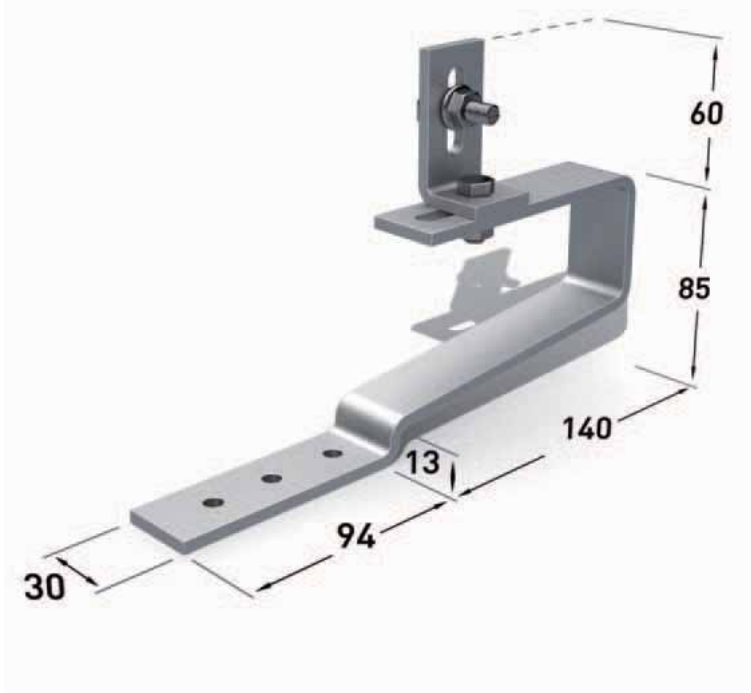
Article number	420156
Specifications	
Material:	stainless steel 1.4301
Dimensions:	250 x 30 x 72 mm
Weight:	0,686 kg
Colour:	blank
Application Features	
Roof hook is pre-assembled	
90° twist for vertical mouting	
Components	
1 x Roof hook for slate tiles 90°	
1 x Hammerhead bolt M8 x 25	
2 x Hexagon Nut w. serration DIN6923 - M8 A2-70	
1 x Hexag. screw DIN6921 M8x25 with FL & SZ	
1 x Bracket M8	
Compatibility	
900013, 400081, 400011, 400094, 430009, 490018, 900138, 900163,	

Roof hook stainless steel on-roof insulation



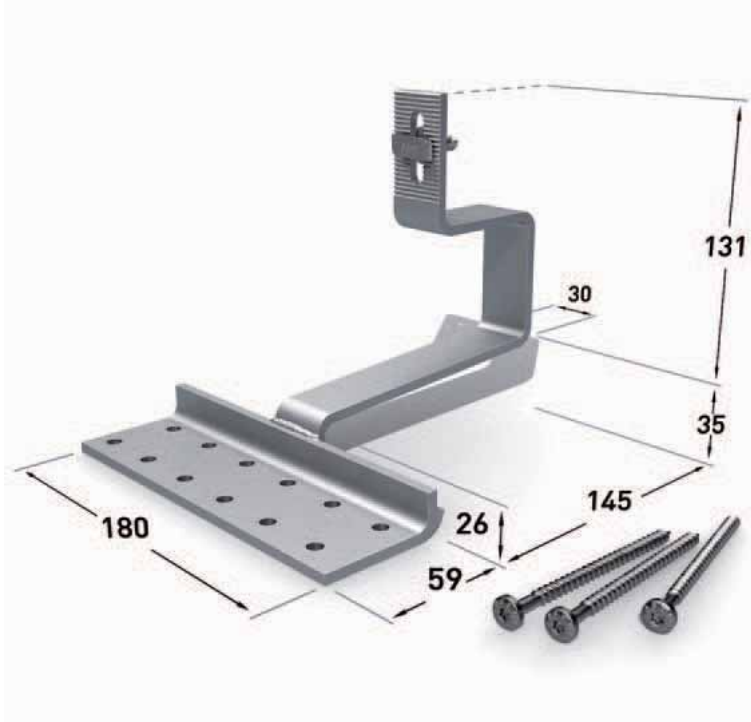
Article number	920063
Specifications	
Material:	stainless steel 1.4301
Dimensions:	234 x 30 x 145 mm
Weight:	0,590 kg
Colour:	blank
Space for adjustment vertical: 34 mm	
Application Features	
Roof hook is pre-assembled	
For roofs with on roof insulation	
Components	
1 x Roof hook stainless steel on-roof insulation	
1 x Hammerhead bolt M8 x 25	
1 x Hexagon Nut w. serration DIN6923 - M8 A2-70	
1 x Hexag. screw DIN603M8x20	
1 x Bracket M9	
3 x Wood screw mushroom head 5 x 30	
Compatibility	
400081, 400011, 400094, 430009, 490018, 900138, 900163	

Roof hook stainless steel on-roof insulation (without wood screw)



Article number	420160
Specifications	
Material:	stainless steel 1.4301
Dimensions:	234 x 30 x 145 mm
Weight:	0,585 kg
Colour:	blank
Space for adjustment vertical:	34 mm
Application Features	
Roof hook is pre-assembled	
For roofs with on roof insulation	
Components	
1 x Roof hook stainless steel on-roof insulation	
1 x Hammerhead bolt M8 x 25	
1 x Hexagon Nut w. serration DIN6923 - M8 A2-70	
1 x Hexag. screw DIN603M8x20	
1 x Bracket M9	
Compatibility	
900013, 400081, 400011, 400094, 430009, 490018, 900138, 900163,	

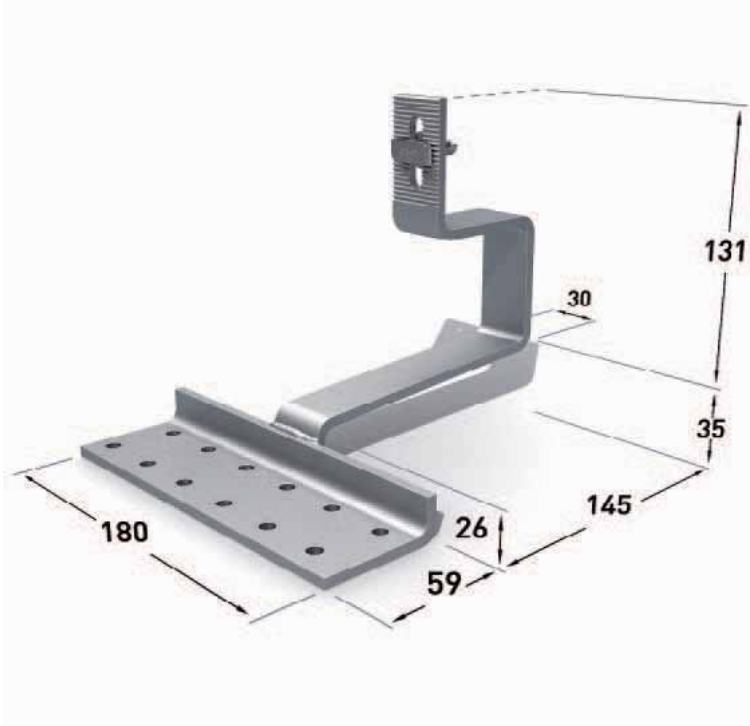
Roof hook stainless steel Tegola Marsigliese



Article number	420101
Specifications	
Material:	stainless steel 1.4301
Dimensions:	204 x 180 x 166 mm
Weight:	0,904 kg
Colour:	blank
Space for adjustment vertical:	24,5 mm
Max. load: pressure 350 N, tension 300 N, shear 190 N	
Application Features	
Roof hook is pre-assembled	
Frictional connection due to serration	
Components	
1 x Roof hook stainless steel Tegola Marsigliese	
1 x Hammerhead bolt M8 x 25	
1 x Hexagon Nut w. serration DIN6923 - M8 A2-70	
3 x Wood screw mushroom head 6 x 80	
Compatibility	
400081, 400011, 400094, 430009, 490018, 900138, 900163	

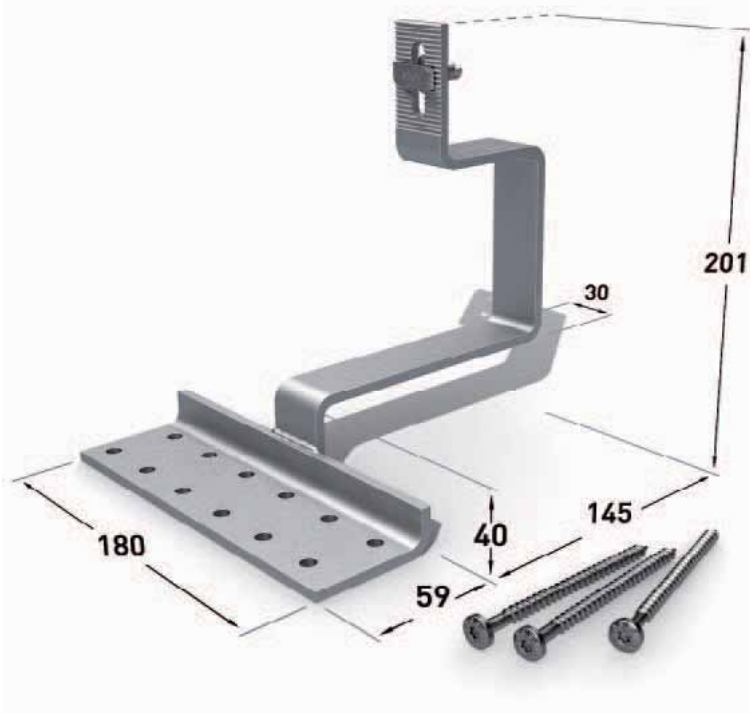


Roof hook stainless steel Tegola Marsigliese (without wood screw)



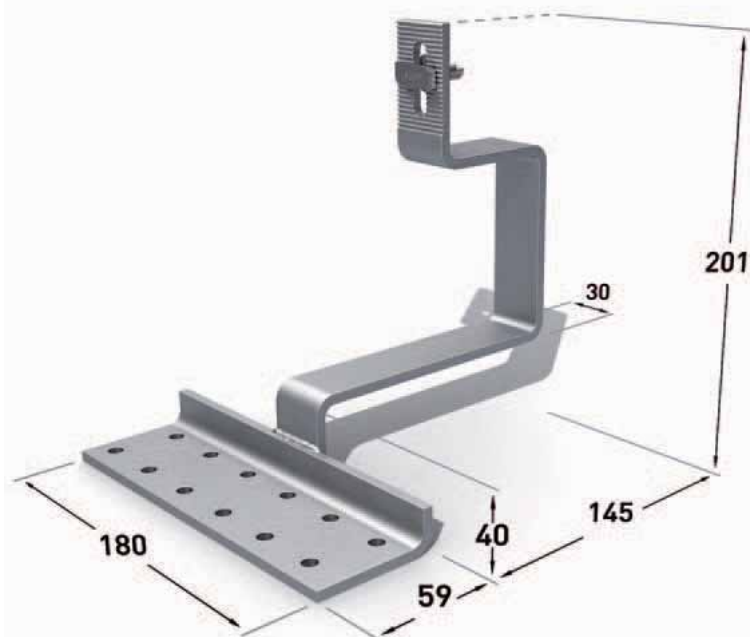
Article number	420157
Specifications	
Material:	stainless steel 1.4301
Dimensions:	204 x 180 x 166 mm
Weight:	0,904 kg
Colour:	blank
Space for adjustment vertical:	24,5 mm
Max. load: pressure	350 N, tension 300 N, shear 190 N
Application Features	
Roof hook is	pre-assembled
Frictional connection due to	serration
Components	
1 x Roof hook stainless steel	Tegola Marsigliese
1 x Hammerhead bolt	M8 x 25
1 x Hexagon Nut w. serration	DIN6923 - M8 A2-70
Compatibility	
400081, 400011, 400094, 430009, 490018, 900012, 900138, 900145, 900163	

Roof hook stainless steel Tegola Portoghese



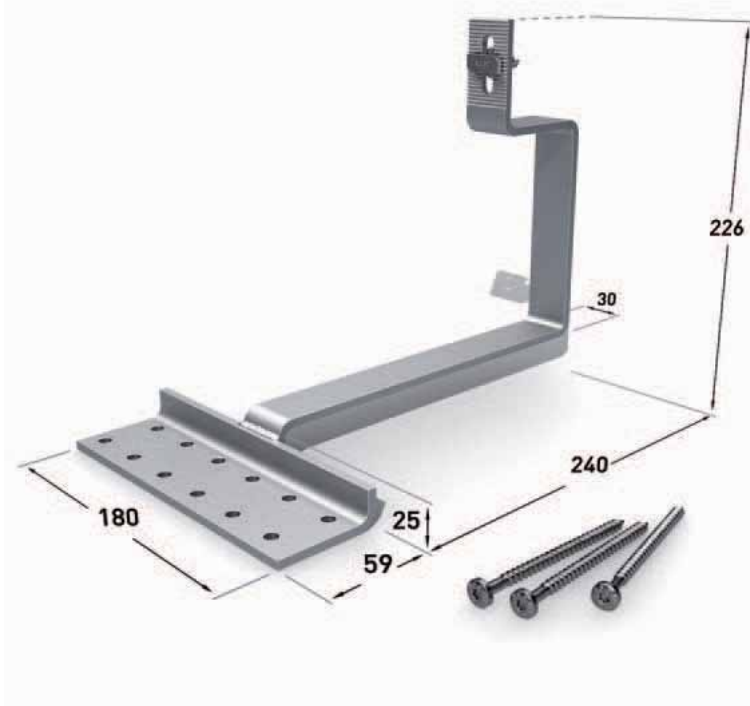
Article number	420100
Specifications	
Material:	stainless steel 1.4301
Dimensions:	204 x 180 x 201 mm
Weight:	0,951 kg
Colour:	blank
Space for adjustment vertical:	24,5 mm
Max. load: pressure	350 N, tension 300 N, shear 190 N
Application Features	
Roof hook is	pre-assembled
Frictional connection due to	serration
Components	
1 x Roof hook stainless steel	Tegola Portoghese
1 x Hammerhead bolt	M8 x 25
1 x Hexagon Nut w. serration	DIN6923 - M8 A2-70
3 x Wood screw mushroom head	6 x 80
Compatibility	
400081, 400011, 400094, 430009, 490018, 900138, 900163	

Roof hook stainless steel Tegola Portoghese (without wood screw)



Article number	420158
Specifications	
Material:	stainless steel 1.4301
Dimensions:	204 x 180 x 201 mm
Weight:	0,951 kg
Colour:	blank
Space for adjustment vertical:	24,5 mm
Max. load:	pressure 350 N, tension 300 N, shear 190 N
Application Features	
Roof hook is	pre-assembled
Frictional connection due to	serration
Components	
1 x	Roof hook stainless steel Tegola Portoghese
1 x	Hammerhead bolt M8 x 25
1 x	Hexagon Nut w. serration DIN6923 - M8 A2-70
Compatibility	
400081, 400011, 400094, 430009, 490018, 900012, 900138, 900145, 900163	

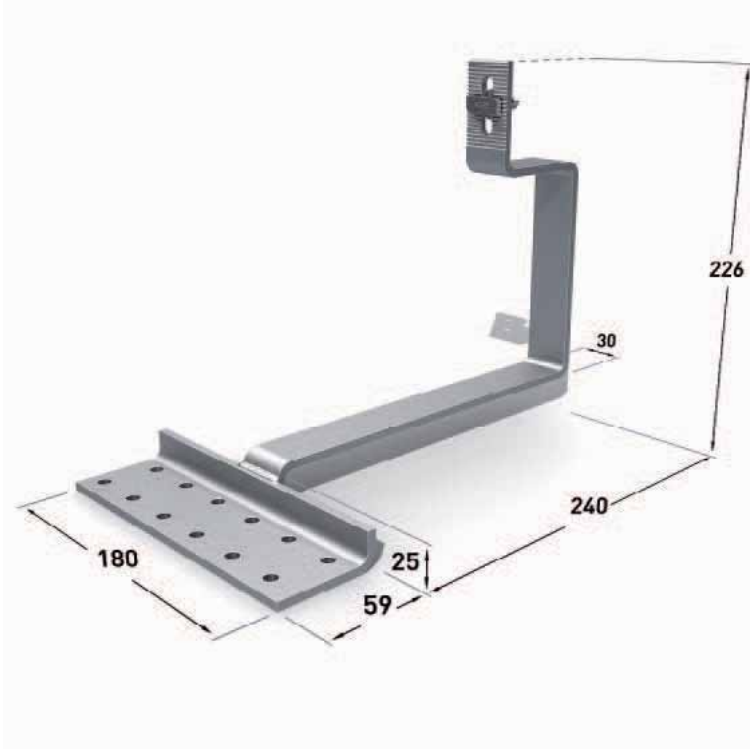
Roof hook stainless steel Tegola Romana



Article number	420099
Specifications	
Material:	stainless steel 1.4301
Dimensions:	299 x 180 x 226 mm
Weight:	1,099 kg
Colour:	blank
Space for adjustment vertical:	24,5 mm
Max. load:	pressure 230 N, tension 190 N, shear 150 N
Application Features	
Roof hook is	pre-assembled
Frictional connection due to	serration
Components	
1 x	Roof hook stainless steel Tegola Romana
1 x	Hammerhead bolt M8 x 25
1 x	Hexagon Nut w. serration DIN6923 - M8 A2-70
3 x	Wood screw mushroom head 6 x 80
Compatibility	
400081, 400011, 400094, 430009, 490018, 900138, 900163	

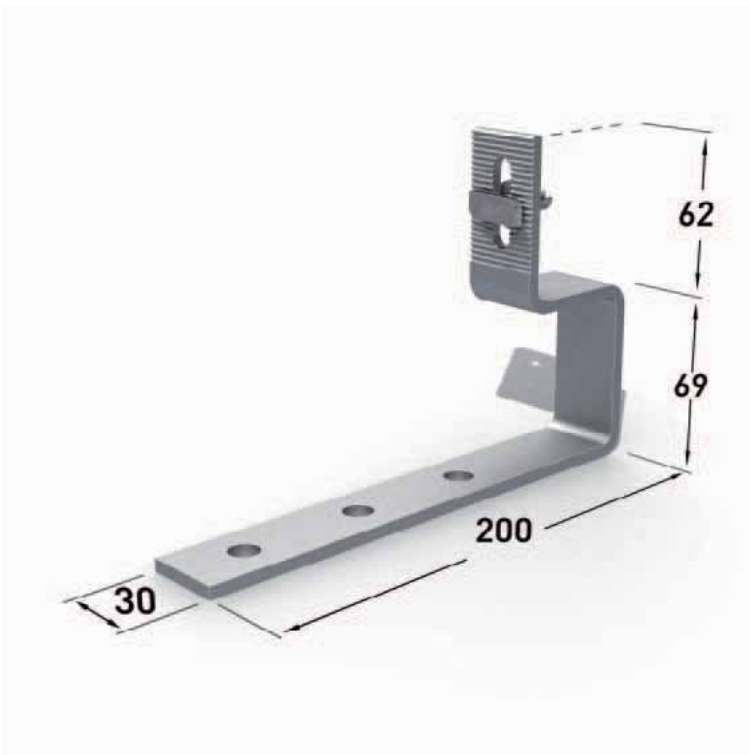


Roof hook stainless steel Tegola Romana (without wood screw)



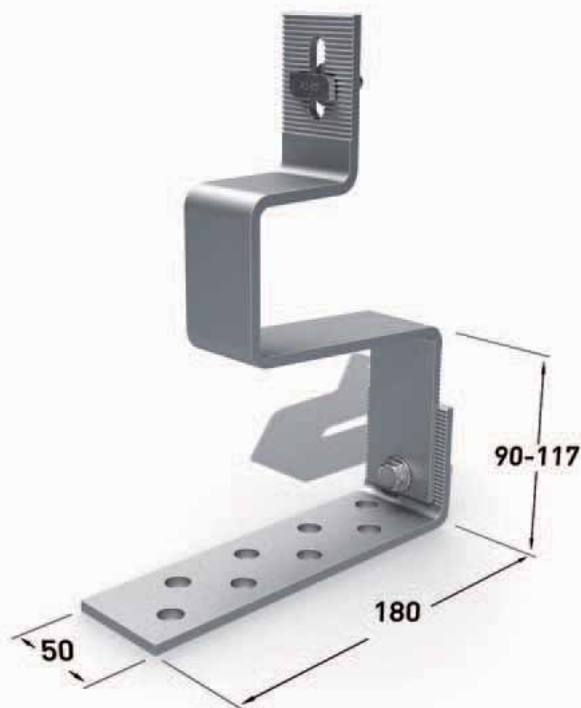
Article number	420159
Specifications	
Material:	stainless steel 1.4301
Dimensions:	299 x 180 x 226 mm
Weight:	1,099 kg
Colour:	blank
Space for adjustment vertical:	24,5 mm
Max. load:	pressure 230 N, tension 190 N, shear 150 N
Application Features	
Roof hook is	pre-assembled
Frictional connection due to	serration
Components	
1 x	Roof hook stainless steel Tegola Romana
1 x	Hammerhead bolt M8 x 25
1 x	Hexagon Nut w. serration DIN6923 - M8 A2-70
Compatibility	
400081, 400011, 400094, 430009, 490018, 900012, 900138, 900145, 900163	

Roof hook stainless steel Concrete Basic



Article number	420098
Specifications	
Material:	stainless steel 1.4301
Dimensions:	200 x 30 x 131 mm
Weight:	0,434 kg
Colour:	blank
Space for adjustment vertical:	18,5 mm
Max. load:	pressure 450 N, tension 420 N, shear 240 N
Application Features	
Roof hook is	pre-assembled
Frictional connection due to	serration
Components	
1 x	Roof hook stainless steel Concrete Basic
1 x	Hammerhead bolt M8 x 25
1 x	Hexagon Nut w. serration DIN6923 - M8 A2-70
Compatibility	
400081, 400011, 400094, 430009, 490018, 900138, 900163	

Roof hook stainless steel Concrete Doppio Coppo



Article number 420094

Specifications

Material: stainless steel 1.4301

Dimensions: 180 x 50 x 266 mm

Weight: 1,030 kg

Colour: blank

Space for adjustment vertical: 24,5 mm

Max. load: pressure 540 N, tension 540 N, shear 190 N

Application Features

Roof hook is pre-assembled

Frictional connection due to serration

Components

1 x Roof hook stainless steel Concrete Doppio Coppo

1 x Hammerhead bolt M8 x 25

2 x Hexagon Nut w. serration DIN6923 - M8 A2-70

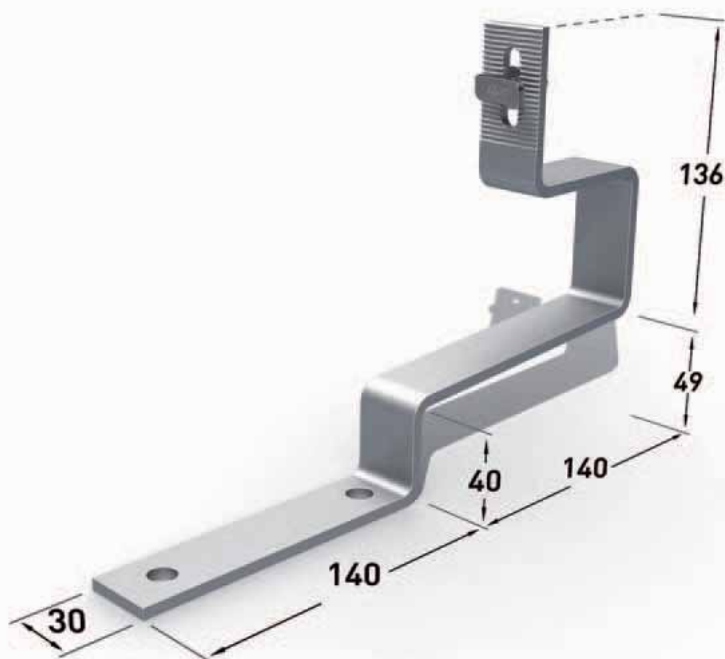
1 x Hexag. screw DIN6921 M8x25 with FL & SZ

1 x Roof hook concrete DC fixing bracket

Compatibility

400081, 400011, 400094, 430009, 490018, 900138, 900163

Roof hook stainless steel Concrete Tegola Marsigliese



Article number 420096

Specifications

Material: stainless steel 1.4301

Dimensions: 280 x 30 x 185 mm

Weight: 0,603 kg

Colour: blank

Space for adjustment vertical: 24,5 mm

Max. load: pressure 350 N, tension 300 N, shear 190 N

Application Features

Roof hook is pre-assembled

Frictional connection due to serration

Components

1 x Roof hook stainless steel Concrete Tegola Marsigliese

1 x Hammerhead bolt M8 x 25

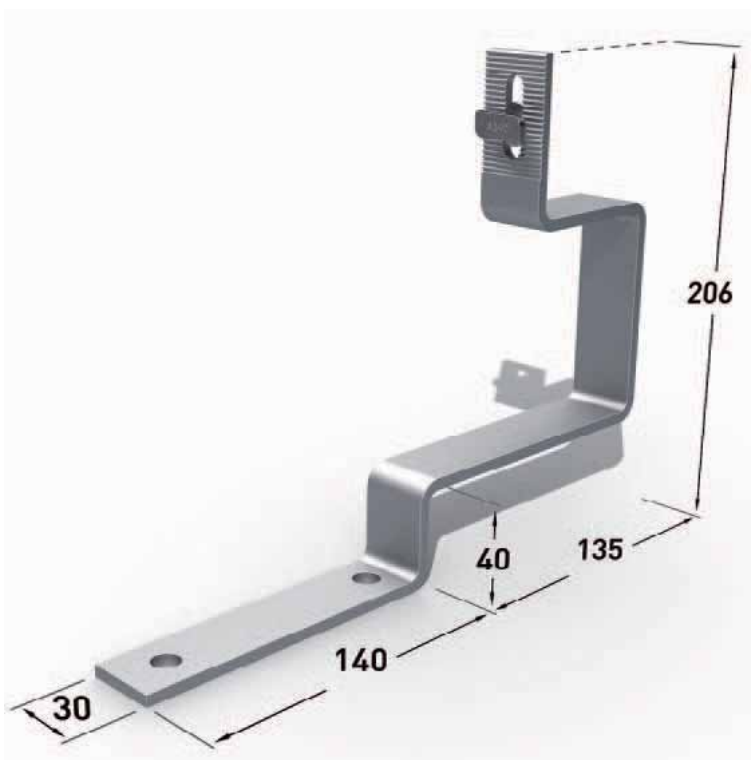
1 x Hexagon Nut w. serration DIN6923 - M8 A2-70

Compatibility

400081, 400011, 400094, 430009, 490018, 900138, 900163

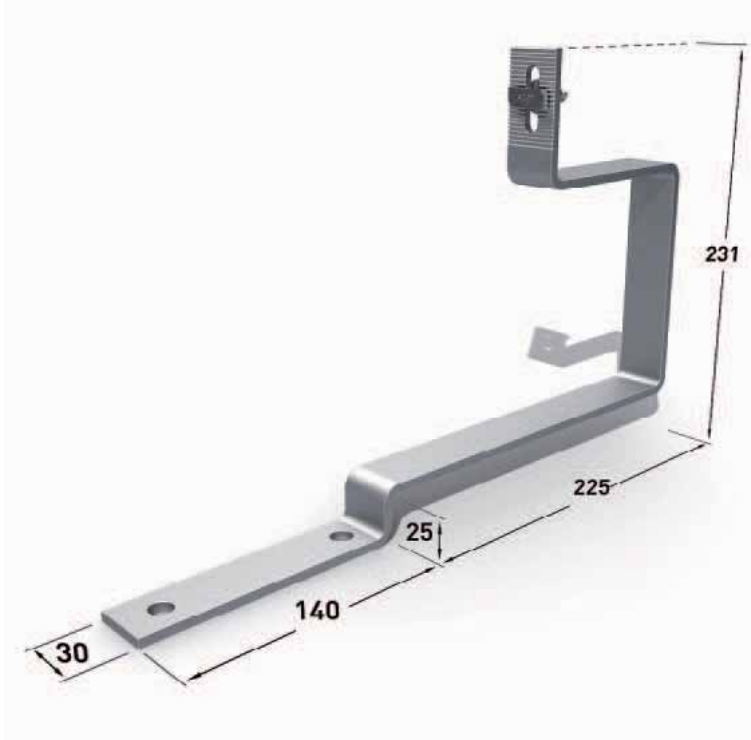


Roof hook stainless steel Concrete Tegola Portoghese



Article number	420097
Specifications	
Material: stainless steel 1.4301	
Dimensions: 275 x 30 x 206 mm	
Weight: 0,632 kg	
Colour: blank	
Space for adjustment vertical: 24,5 mm	
Max. load: pressure 350 N, tension 300 N, shear 190 N	
Application Features	
Roof hook is pre-assembled	
Frictional connection due to serration	
Components	
1 x Roof hook stainless steel Concrete Tegola Portoghese	
1 x Hammerhead bolt M8 x 25	
1 x Hexagon Nut w. serration DIN6923 - M8 A2-70	
Compatibility	
400081, 400011, 400094, 430009, 490018, 900138, 900163	

Roof hook stainless steel Concrete Tegola Romana



Article number	420095
Specifications	
Material: stainless steel 1.4301	
Dimensions: 365 x 30 x 231 mm	
Weight: 0,815 kg	
Colour: blank	
Space for adjustment vertical: 24,5 mm	
Max. load: pressure 230 N, tension 190 N, shear 150 N	
Application Features	
Roof hook is pre-assembled	
Frictional connection due to serration	
Components	
1 x Roof hook stainless steel Concrete Tegola Romana	
1 x Hammerhead bolt M8 x 25	
1 x Hexagon Nut w. serration DIN6923 - M8 A2-70	
Compatibility	
400081, 400011, 400094, 430009, 490018, 900138, 900163	

Hanger bolt



Specifications

Material: stainless steel A2

Colour: blank

Components

1 x Hanger bolt

1 x Hammerhead bolt M8 x 25

1 x Hexagon Nut w. serration DIN6923 - M8 A2-70

1 x Bracket M10

Compatibility

400011, 400081, 400094, 400230, 420015, 420019, 420020, 430009, 490018, 900138, 900163

Description	Dimensions	Setscrew	Max. clamping range	Application feature	Article number
Hanger bolt M10 x 200	200 x 10 mm	100 mm	90 mm	SW 6 drive	860006
Hanger bolt M12 x 250	250 x 12 mm	110 mm	100 mm	SW 8 drive	860007
Hanger bolt M12 x 300	300 x 12 mm	160 mm	150 mm	SW 8 drive	860017
Hanger bolt M12 x 350	350 x 12 mm	210 mm	200 mm	SW 8 drive	920136
Hanger bolt M12 x 400	400 x 12 mm	230 mm	220 mm	SW 8 drive	920137

Hanger bolt (offset connection)



Specifications

Material: stainless steel A2

Colour: blank

Components

1 x Hanger bolt

1 x Hammerhead bolt M8 x 25

1 x Hexagon Nut w. serration DIN6923 - M8 A2-70

1 x Bracket M10

Compatibility

400011, 400081, 400094, 400230, 420015, 420019, 420020, 430009, 490018, 900138, 900163

Description	Dimensions	Setscrew	Max. clamping range	Application feature	Article number
Hanger bolt M10 x 160 (offset connection)	160 x 10 mm	100 mm	80 mm	SW 6 drive	920159
Hanger bolt M10 x 200 (offset connection)	200 x 10 mm	100 mm	90 mm	SW 6 drive	920008
Hanger bolt M12 x 250 (offset connection)	250 x 12 mm	110 mm	100 mm	SW 8 drive	920002



Solar Fastener for steel substructure



Specifications
Material: stainless steel A2
Colour: blank
Hexagon socket 5 mm
With building approval
Waxed
Application Features
Pre-drilling necessary
Compatibility
420012, 420014, 420130, 420131, 900193, 900205 - 900222

Description	a	b	Thread length	Clamping range	Weight	Article number
Solar Fastener for steel substructure 80/50	80	136	80/50	15 - 60 mm	0,076 kg	900181
Solar Fastener for steel substructure 100/50	100	156	100/50	35 - 80 mm	0,088 kg	900182
Solar Fastener for steel substructure 125/50	125	181	125/50	60 - 105 mm	0,089 kg	900183
Solar Fastener for steel substructure 150/50	150	206	150/50	85 - 130 mm	0,093 kg	900184
Solar Fastener for steel substructure 160/50	160	216	160/50	95 - 140 mm	0,099 kg	900185
Solar Fastener for steel substructure 200/50	200	256	200/50	135 - 180 mm	0,110 kg	900186

Solar Fastener for wooden substructure



Specifications
Material: stainless steel A2
Colour: blank
Hexagon socket 5 mm
With building approval
Waxed
Application Features
Pre-drilling necessary
Compatibility
420012, 420014, 420130, 420131, 900193, 900205 - 900222

Description	a	b	Thread length	Clamping range	Weight	Article number
Solar fastener for wooden substructure 80/50	80	136	80/50	0 - 35 mm	0,076 kg	900187
Solar fastener for wooden substructure 100/50	100	156	100/50	20 - 55 mm	0,088 kg	900188
Solar fastener for wooden substructure 130/50	130	186	130/50	45 - 85 mm	0,089 kg	900189
Solar fastener for wooden substructure 150/50	150	206	150/50	70 - 105 mm	0,093 kg	900190
Solar fastener for wooden substructure 180/50	180	236	160/50	100 - 135 mm	0,099 kg	900191
Solar fastener for wooden substructure 200/50	200	256	200/50	120 - 155 mm	0,110 kg	900192

EPDM gasket



Article number 900193

Specifications

Material: EPDM-rubber

Dimensions: 24 x 12 mm

Colour: black

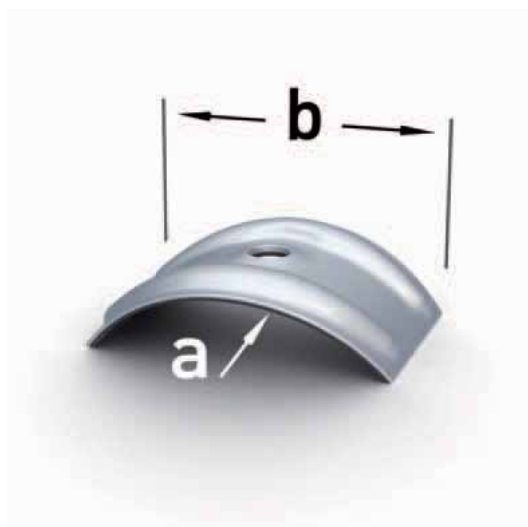
Width 24 mm

Opening diameter 8,4 mm

Compatibility

900181 - 900192

Storm washer for corrugated sheet



Specifications

Material: Aluminium

Colour: blank

EPDM pre-assembled

Opening diameter 7,3 mm

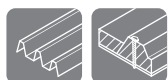
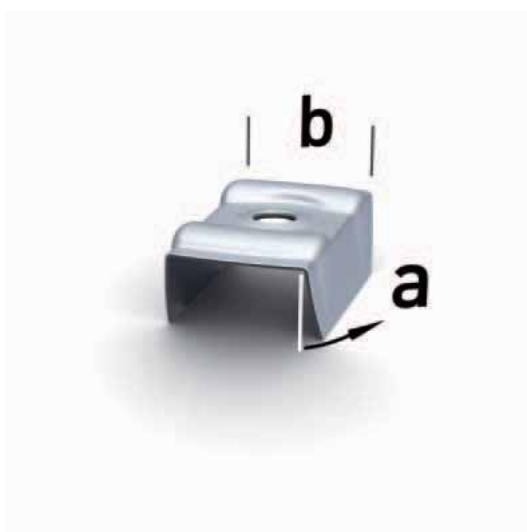
Compatibility

900181 - 900192

Description	a	b	Article number
Storm washer for corrugated sheet R24/37	24	37	900220
Storm washer for corrugated sheet R32/51	32	51	900221
Storm washer for corrugated sheet R48/62	48	62	900222



Storm washer for trapezoidal sheet



Specifications
Material: Aluminium
Colour: blank
EPDM pre-assembled
Opening diameter 7,3 mm
Compatibility
900181 - 900192

Description	a	b	Article number
Storm washer for trapezoidal sheet W15/20	15°	20	900205
Storm washer for trapezoidal sheet W15/25	15°	25	900206
Storm washer for trapezoidal sheet W17/40	17°	40	900207
Storm washer for trapezoidal sheet W22/57	22°	57	900208
Storm washer for trapezoidal sheet W24/30	24°	30	900209
Storm washer for trapezoidal sheet W27/25	27°	25	900210
Storm washer for trapezoidal sheet W30/23	30°	23	900211
Storm washer for trapezoidal sheet W32/54	32°	54	900212
Storm washer for trapezoidal sheet W33/37	33°	37	900213
Storm washer for trapezoidal sheet W35/20	35°	20	900214
Storm washer for trapezoidal sheet W35/28	35°	28	900215
Storm washer for trapezoidal sheet W36/40	36°	40	900216
Storm washer for trapezoidal sheet W38/30	38°	30	900217
Storm washer for trapezoidal sheet W40/26	40°	26	900218
Storm washer for trapezoidal sheet W23/34	23°	34	900219



VarioSole Mounting rail 50 x 37 x 3000 mm



Article number	400081
Specifications	
Material: Aluminium EN-AW-6063 T6	
Dimensions: 3000 x 50 x 37 mm	
Weight: 2,221 kg	
Colour: blank	
Compatibility	
400019, 400026, 400027, 400165, 410000/2, 410000/2-B, 430019, 430027, 920043, 920044	

VarioSole Mounting rail 50 x 37 x 3200 mm



Article number	400011
Specifications	
Material: Aluminium EN-AW-6063 T6	
Dimensions: 3200 x 50 x 37 mm	
Weight: 2,369 kg	
Colour: blank	
Compatibility	
400019, 400026, 400027, 400165, 410000/2, 410000/2-B, 430019, 430027, 920043, 920044	

VarioSole Mounting rail 50 x 37 x 6000 mm



Article number	900138
Specifications	
Material: Aluminium EN-AW-6063 T6	
Dimensions: 6000 x 50 x 37 mm	
Weight: 4,442 kg	
Colour: blank	
Compatibility	
400019, 400026, 400027, 400165, 410000/2, 410000/2-B, 430019, 430027, 920043, 920044	



VarioSole Mounting rail 50 x 37 custom cut /m



Article number	400094
Specifications	
Material: Aluminium EN-AW-6063 T6	
Dimensions: n x 37 x 50 mm	
Weight: 0,740 kg/m	
Colour: blank	
Compatibility	
400019, 400026, 400027, 400165, 410000/2, 410000/2-B, 430019, 430027, 920043, 920044	

VarioSole Mounting rail 60 x 37,4 x 3000 mm



Article number	400163
Specifications	
Material: Aluminium EN-AW-6063 T6	
Dimensions: 3000 x 60 x 37,4 mm	
Weight: 2,545 kg	
Colour: blank	
Compatibility	
400019, 400026, 400027, 400165, 410000/2, 410000/2-B, 430019, 430027, 920043, 920044	

VarioSole Mounting rail 50 x 37 x 3000 mm (black)



Article number	430009
Specifications	
Material: Aluminium EN-AW-6063 T6	
Dimensions: 3000 x 50 x 37 mm	
Weight: 2,221 kg	
Colour: black	
Compatibility	
400019, 400026, 400027, 400165, 410000/2, 410000/2-B, 430019, 430027, 920043, 920044	



VarioSole Mounting rail 50 x 37 custom cut /m (black)



Article number	490018
Specifications	
Material: Aluminium EN-AW-6063 T6	
Dimensions: n x 50 x 37 mm	
Weight: 0,848 kg/m	
Colour: black	
Compatibility	
400019, 400026, 400027, 400165, 410000/2, 410000/2-B, 430019, 430027, 920043, 920044	

Rail connector for rail 50 x 37 mm



Article number	400026
Specifications	
Material: Aluminium EN-AW-6063 T6	
Dimensions: 195 x 28,2 x 38,90 mm	
Weight: 0,257 kg	
Colour: blank	
Compatibility	
400019, 400026, 400027, 400165, 410000/2, 410000/2-B, 430019, 430027, 920043, 920044	

Rail connector for rail 60 x 37,4 mm



Article number	400165
Specifications	
Material: Aluminium EN-AW-6063 T6	
Dimensions: 195 x 23,8 x 48,5 mm	
Weight: 0,266 kg	
Colour: blank	
Compatibility	
400163	



Cross rail connector



Article number 400027

Specifications

Material: Aluminium EN-AW-6063 T6

Dimensions: 43 x 41 x 28 mm

Weight: 0,056 kg

Colour: blank

Compatibility

400011, 400081, 400094, 430009, 490018, 900138, 900163

Cross rail connector (black)



Article number 430027

Specifications

Material: Aluminium EN-AW-6063 T6

Dimensions: 43 x 41 x 28 mm

Weight: 0,056 kg

Colour: black

Compatibility

400011, 400081, 400094, 430009, 490018, 900138, 900163

Application Features

KTL Beschichtung

End Cap RIGHT/LEFT (grey)



Article number 920044

Specifications

Material: PPH 1102

Dimensions: 50 x 37 x 15 mm

Weight: 0,007 kg

Colour: silver

Average thicknesss 2,00 mm

Components

1 x End cap left (grey)

1 x End cap right (grey)

Compatibility

400011, 400081, 400094, 430009, 490018, 900138, 900163

End Cap RIGHT/LEFT (black)



Article number 920043

Specifications

Material: PPH 1102

Dimensions: 50 x 37 x 15 mm

Weight: 0,007 kg

Colour: black

Average thicknesss 2,00 mm

Components

1 x End cap left (black)

1 x VarioSole End cap right (black)

Compatibility

400011, 400081, 400094, 430009, 490018, 900138, 900163



Middle clamp 31 - 50 mm



Article number 400019

Specifications

Material: Aluminium EN-AW-6063 T6

Dimensions: 40 x 41 mm

Weight: 0,046 kg

Colour: blank

Application Features

Mid clamp is pre-assembled

Clamping range: 31 - 50 mm

Compatibility

400011, 400081, 400094, 430009, 490018, 900138, 900163

Middle clamp 31 - 50 mm (black)



Article number 430019

Specifications

Material: Aluminium EN-AW-6063 T6

Dimensions: 40 x 41 mm

Weight: 0,046 kg

Colour: black

KTL coating RAL 9005

Application Features

Mid clamp is pre-assembled

Clamping range: 31 - 50 mm

Compatibility

400011, 400081, 400094, 430009, 490018, 900138, 900163

End clamp 30 - 50 mm



Article number 410000/2

Specifications

Material: Aluminium EN-AW-6063 T6

Dimensions: 35 x 36 mm

Weight: 0,058 kg

Colour: blank

Application Features

End clamp is pre-assembled

Clamping range: 30 - 50 mm

Compatibility

400011, 400081, 400094, 430009, 490018, 900138, 900163

End clamp 30 - 50 mm (black)



Article number 410000/2-B

Specifications

Material: Aluminium EN-AW-6063 T6

Dimensions: 35 x 36 mm

Weight: 0,058 kg

Colour: black

KTL coating RAL 9005

Application Features

End clamp is pre-assembled

Clamping range: 30 - 50 mm

Compatibility

400011, 400081, 400094, 430009, 490018, 900138, 900163



Wood screw mushroom head 6 x 80



Article number 900012

Specifications

Material: stainless steel 1.4567

Dimensions: 6 x 80 mm

Weight: 0,011 kg

Colour: silver

Application Features

Assembly without pre-drilling

Compatibility

420094 - 420102, 420150-420159, 460066, 860005, 920003, 920062, 920116

Wood screw countersunk 6 x 80



Article number 900013

Specifications

Material: stainless steel 1.4567

Dimensions: 6 x 80 mm

Weight: 0,010 kg

Colour: silver

Application Features

Assembly without pre-drilling

Compatibility

420155, 420156



Dish-shaped wood screw A2 6,0 x 120 / TX 30



Article number	900127
Specifications	
Material: stainless steel 1.4567	
Dimensions: 6 x 120 mm	
Weight: 0,016 kg	
Colour: silver	
Torx 30	
Application Features	
Assembly without pre-drilling	
Compatibility	
420094 - 420102, 420150-420159, 460066, 860005, 920003, 920062, 920116	

Dish-shaped head wood screw with cutting edge 6 x 160



Article number	900145
Specifications	
Material: stainless steel 1.4301	
Dimensions: 6 x 160 mm	
Colour: silver	
Double head	
Setscrew: 70 mm	
Waxed	
Torx 25	
Application Features	
Assembly without pre-drilling	
Compatibility	
420094 - 420102, 420150-420159, 460066, 860005, 920003, 920062, 920116	



Wood screw mushroom head 5 x 30



Article number	900050
Specifications	
Material: stainless steel 1.4567	
Dimensions: 5 x 30 mm	
Weight: 0,003 kg	
Colour: silver	
Application Features	
Assembly without pre-drilling	
Compatibility	
420160, 920063	

Bracket M10



Article number	420014
Specifications	
Material: Aluminium EN-AW-6063 T6	
Dimensions: 40 x 38 x 85 mm	
Weight: 0,098 kg	
Colour: blank	
Components	
1 x Bracket M10	
1 x Hammerhead bolt M8 x 25	
1 x Hexagon Nut w. serration DIN6923 - M8 A2-70	
Compatibility	
900181 - 900192, 400011, 400081, 400094, 400230, 420015, 420019, 420020, 430009, 490018, 900138, 900163	

Bracket M12



Article number 420012

Specifications

Material: Aluminium EN-AW-6063 T6

Dimensions: 40 x 38 x 85 mm

Weight: 0,101 kg

Colour: blank

Components

1 x Bracket M12

1 x Hammerhead bolt M8 x 25

1 x Hexagon Nut w. serration DIN6923 - M8 A2-70

Compatibility

900181 - 900192, 400011, 400081, 400094, 400230, 420015, 420019, 420020, 430009, 490018, 900138, 900163

Bracket M10 offset connection



Article number 420131

Specifications

Material: Aluminium EN-AW-6063 T6

Dimensions: 50 x 38 x 85 mm

Weight: 0,120 kg

Colour: blank

Components

1 x Bracket M10 offset connection

1 x Hammerhead bolt M8 x 25

1 x Hexagon Nut w. serration DIN6923 - M8 A2-70

Compatibility

900181 - 900192, 400011, 400081, 400094, 400230, 420015, 420019, 420020, 430009, 490018, 900138, 900163



Bracket M12 offset connection



Article number 420130

Specifications

Material: Aluminium EN-AW-6063 T6

Dimensions: 50 x 38 x 85 mm

Weight: 0,114 kg

Colour: blank

Components

1 x Bracket M12 offset connection

1 x Hammerhead bolt M8 x 25

1 x Hexagon Nut w. serration DIN6923 - M8 A2-70

Compatibility

900181 - 900192, 400011, 400081, 400094, 400230, 420015, 420019, 420020, 430009, 490018, 900138, 900163

Microinverter mounting bracket, Set



Article number 400270

Specifications

Material: Aluminium EN-AW-6063 T6

Dimensions: 57 x 37,5 x 27 mm

Weight: 0,072 kg

Colour: blank

Components

2 x Bracket Standard

2 x Hexag. screw DIN 6921 - M8x14 - A2

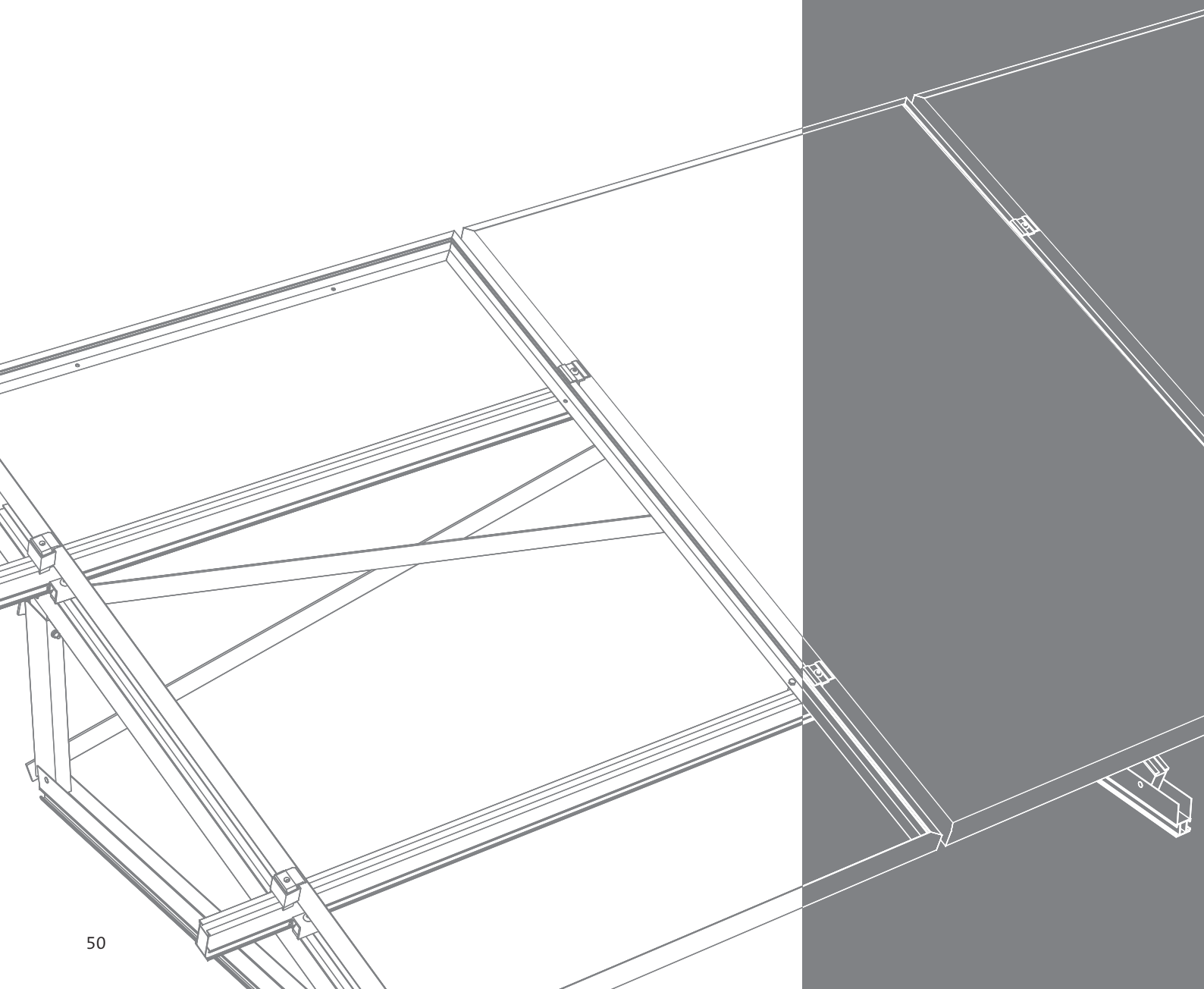
2 x Hammerhead bolt M8 x 20

2 x Hexagon Nut w. serration DIN6923 - M8 A2-70



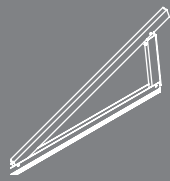
TriSole

- Suitable for almost all flat roof coverings, for example films, bitumen, trapezoidal sheet metal, corrugated sheet, fibre cement, standing seam, concrete and gravel
- For use on flat/pitched roofs up to a 20° inclination
- Suitable for roof substructure made from wood, steel or concrete
- Compatible with all PV modules on the market
- Particularly suitable for oversized PV modules
- Flexible roof installation using ballasts, hanger bolts or solar fasteners
- Available with inclinations of 8°, 10°-15°, 20°-30°, 35°-45°

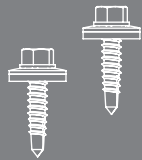




Flat-roof / On-roof

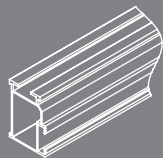


Triangles52

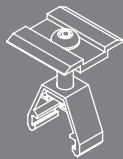


Fixing components54

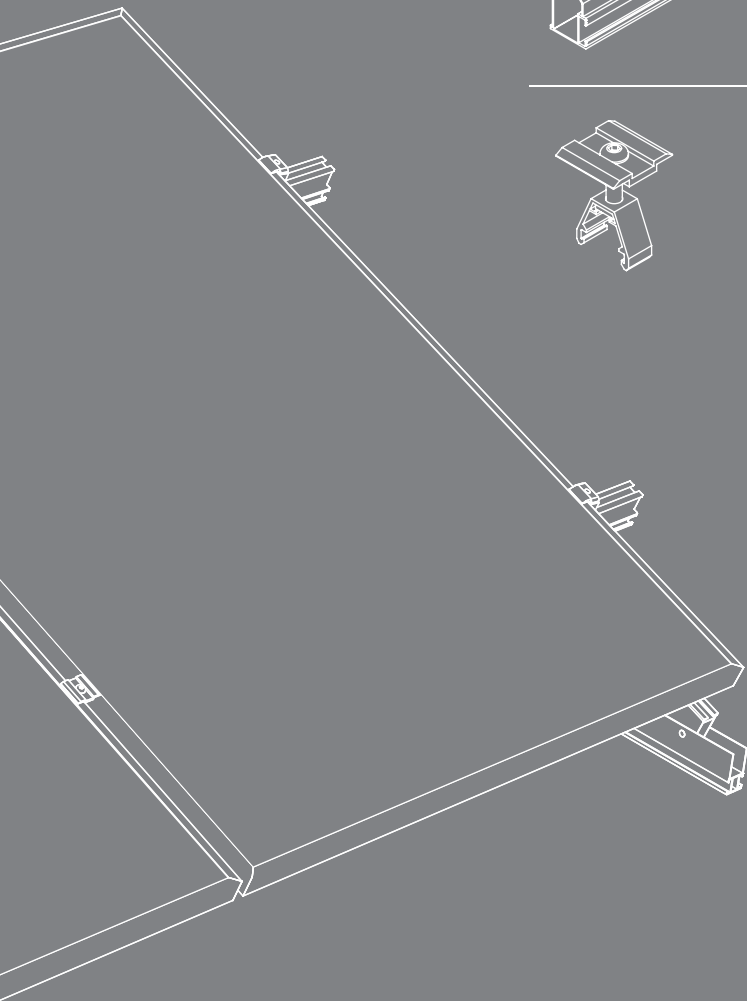
Screws, hanger bolt, solar fastener



Module clamps61



Mounting rails65





Fixed triangular mounting system 8°



Article number	400230
Specifications	
Material: Aluminium and stainless steel	
Dimensions: 1089 x 33 x 217 mm	
Weight: 1,873 kg / Stk.	
Colour: blank	
Angle of inclination 8° (fix)	
Application Features	
Flat-roof and pitched-roof up to 20°	
Landscape and portrait installation	
Suitable for roof cladding foil, bitumen, trapezoidal metal sheet, corrugated metal sheet, cement fibreboard, standing seam, concrete, gravel	
Compatibility	
400027, 420012, 420014, 420016(V2), 420130, 420131, 430027, 860006, 860007, 860017, 920002, 920008, 920136, 920137, 920159	

Adjustable triangular mounting system 10 - 15°



Article number	420019
Specifications	
Material: Aluminium and stainless steel	
Dimensions: 1340 - 1363 x 40 x 329 - 438 mm	
Weight: 2,750 kg / Stk.	
Colour: blank	
Angle of inclination 10 - 15°	
Application Features	
Flat-roof and pitched-roof up to 20°	
Landscape and portrait installation	
Suitable for roof cladding foil, bitumen, trapezoidal metal sheet, corrugated metal sheet, cement fibreboard, standing seam, concrete, gravel	
Components	
4 x Cross rail connector	
1 x Triangle adjustable 10 - 15°	
Compatibility	
400027, 420012, 420014, 420016(V2), 420130, 420131, 430027, 860006, 860007, 860017, 920002, 920008, 920136, 920137, 920159	



Adjustable triangular mounting system 20 - 30°



Article number 420015

Specifications

Material: Aluminium and stainless steel

Dimensions: 1230 - 1308 x 40 x 543 - 741 mm

Weight: 3,000 kg / Stk.

Colour: blank

Angle of inclination 20 - 30°

Application Features

Flat-roof and pitched-roof up to 20°

Landscape and portrait installation

Suitable for roof cladding foil, bitumen, trapezoidal metal sheet, corrugated metal sheet, cement fibreboard, standing seam, concrete, gravel

Components

4 x Cross rail connector

1 x Triangle adjustable 20 - 30°

Compatibility

400027, 420012, 420014, 420016(V2), 420130, 420131, 430027, 860006, 860007, 860017, 920002, 920008, 920136, 920137, 920159

Adjustable triangular mounting system 35 - 45°



Article number 420020

Specifications

Material: Aluminium and stainless steel

Dimensions: 1230 x 40 x 833 - 998 mm

Weight: 3,210 kg / Stk.

Colour: blank

Angle of inclination 35 - 45°

Application Features

Flat-roof and pitched-roof up to 20°

Landscape and portrait installation

Suitable for roof cladding foil, bitumen, trapezoidal metal sheet, corrugated metal sheet, cement fibreboard, standing seam, concrete, gravel

Components

4 x Cross rail connector

1 x Triangle adjustable 35 - 45°

Compatibility

400027, 420012, 420014, 420016(V2), 420130, 420131, 430027, 860006, 860007, 860017, 920002, 920008, 920136, 920137, 920159



TriSole Cross striving profile complet



Article number	420016(V2)
Specifications	
Material: Aluminium EN-AW-6063 T6	
Dimensions: 1900 x 40 x 4 mm	
Weight: 0,820 kg	
Colour: blank	
Components	
2 x TriSole Cross striving profile complet	
4 x Hammerhead bolt M8 x 25	
4 x Hexagon Nut w. serration DIN6923 - M8 A2-70	
Compatibility	
400230, 420015, 420019, 420020	

TriSole rail for ballasting 3000 mm



Article number	400233
Specifications	
Material: Aluminium EN-AW-6063 T6	
Dimensions: 3000 x 25 x 91 mm	
Weight: 3,840 kg	
Colour: blank	
Compatibility	
400230, 420015, 420019, 420020	



Hanger bolt



Specifications

Material: stainless steel A2

Colour: blank

Components

1 x Hanger bolt

1 x Hammerhead bolt M8 x 25

1 x Hexagon Nut w. serration DIN6923 - M8 A2-70

1 x Bracket M10

Compatibility

400011, 400081, 400094, 400230, 420015, 420019, 420020, 430009, 490018, 900138, 900163

Description	Dimensions	Setscrew	Max. clamping range	Application feature	Article number
Hanger bolt M10 x 200	200 x 10 mm	100 mm	90 mm	SW 6 drive	860006
Hanger bolt M12 x 250	250 x 12 mm	110 mm	100 mm	SW 8 drive	860007
Hanger bolt M12 x 300	300 x 12 mm	160 mm	150 mm	SW 8 drive	860017
Hanger bolt M12 x 350	350 x 12 mm	210 mm	200 mm	SW 8 drive	920136
Hanger bolt M12 x 400	400 x 12 mm	230 mm	220 mm	SW 8 drive	920137

Hanger bolt (offset connection)



Specifications

Material: stainless steel A2

Colour: blank

Components

1 x Hanger bolt

1 x Hammerhead bolt M8 x 25

1 x Hexagon Nut w. serration DIN6923 - M8 A2-70

1 x Bracket M10

Compatibility

400011, 400081, 400094, 400230, 420015, 420019, 420020, 430009, 490018, 900138, 900163

Description	Dimensions	Setscrew	Max. clamping range	Application feature	Article number
Hanger bolt M10 x 160 (offset connection)	160 x 10 mm	100 mm	80 mm	SW 6 drive	920159
Hanger bolt M10 x 200 (offset connection)	200 x 10 mm	100 mm	90 mm	SW 6 drive	920008
Hanger bolt M12 x 250 (offset connection)	250 x 12 mm	110 mm	100 mm	SW 8 drive	920002



Solar Fastener for steel substructure



Specifications
Material: stainless steel A2
Colour: blank
Hexagon socket 5 mm
With building approval
Waxed
Application Features
Pre-drilling necessary
Compatibility
420012, 420014, 420130, 420131, 900193, 900205 - 900222

Description	a	b	Thread length	Clamping range	Weight	Article number
Solar Fastener for steel substructure 80/50	80	136	80/50	15 - 60 mm	0,076 kg	900181
Solar Fastener for steel substructure 100/50	100	156	100/50	35 - 80 mm	0,088 kg	900182
Solar Fastener for steel substructure 125/50	125	181	125/50	60 - 105 mm	0,089 kg	900183
Solar Fastener for steel substructure 150/50	150	206	150/50	85 - 130 mm	0,093 kg	900184
Solar Fastener for steel substructure 160/50	160	216	160/50	95 - 140 mm	0,099 kg	900185
Solar Fastener for steel substructure 200/50	200	256	200/50	135 - 180 mm	0,110 kg	900186

Solar Fastener for wooden substructure



Specifications
Material: stainless steel A2
Colour: blank
Hexagon socket 5 mm
With building approval
Waxed
Application Features
Pre-drilling necessary
Compatibility
420012, 420014, 420130, 420131, 900193, 900205 - 900222

Description	a	b	Thread length	Clamping range	Weight	Article number
Solar fastener for wooden substructure 80/50	80	136	80/50	0 - 35 mm	0,076 kg	900187
Solar fastener for wooden substructure 100/50	100	156	100/50	20 - 55 mm	0,088 kg	900188
Solar fastener for wooden substructure 130/50	130	186	130/50	45 - 85 mm	0,089 kg	900189
Solar fastener for wooden substructure 150/50	150	206	150/50	70 - 105 mm	0,093 kg	900190
Solar fastener for wooden substructure 180/50	180	236	160/50	100 - 135 mm	0,099 kg	900191
Solar fastener for wooden substructure 200/50	200	256	200/50	120 - 155 mm	0,110 kg	900192



EPDM gasket



Article number **900193**

Specifications

Material: EPDM-rubber

Dimensions: 24 x 12 mm

Colour: black

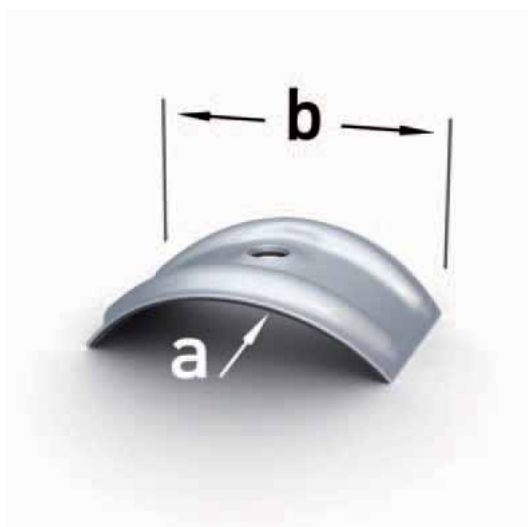
Width 24 mm

Opening diameter 8,4 mm

Compatibility

900181 - 900192

Storm washer for corrugated sheet



Specifications

Material: Aluminium

Colour: blank

EPDM pre-assembled

Opening diameter 7,3 mm

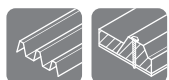
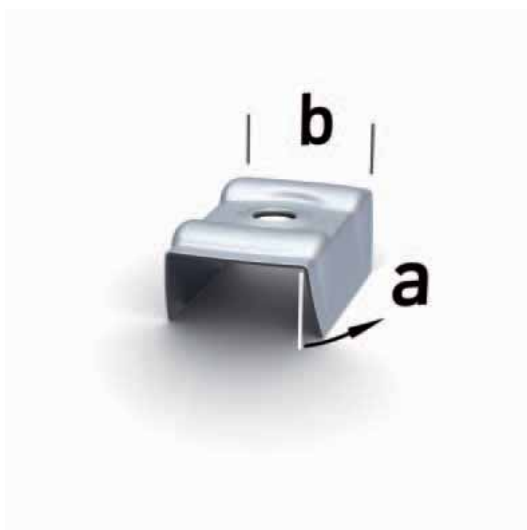
Compatibility

900181 - 900192

Description	a	b	Article number
Storm washer for corrugated sheet R24/37	24	37	900220
Storm washer for corrugated sheet R32/51	32	51	900221
Storm washer for corrugated sheet R48/62	48	62	900222



Storm washer for trapezoidal sheet



Specifications
Material: Aluminium
Colour: blank
EPDM pre-assembled
Opening diameter 7,3 mm
Compatibility
900181 - 900192

Description	a	b	Article number
Storm washer for trapezoidal sheet W15/20	15°	20	900205
Storm washer for trapezoidal sheet W15/25	15°	25	900206
Storm washer for trapezoidal sheet W17/40	17°	40	900207
Storm washer for trapezoidal sheet W22/57	22°	57	900208
Storm washer for trapezoidal sheet W24/30	24°	30	900209
Storm washer for trapezoidal sheet W27/25	27°	25	900210
Storm washer for trapezoidal sheet W30/23	30°	23	900211
Storm washer for trapezoidal sheet W32/54	32°	54	900212
Storm washer for trapezoidal sheet W33/37	33°	37	900213
Storm washer for trapezoidal sheet W35/20	35°	20	900214
Storm washer for trapezoidal sheet W35/28	35°	28	900215
Storm washer for trapezoidal sheet W36/40	36°	40	900216
Storm washer for trapezoidal sheet W38/30	38°	30	900217
Storm washer for trapezoidal sheet W40/26	40°	26	900218
Storm washer for trapezoidal sheet W23/34	23°	34	900219



Bracket M10



Article number	420014
-----------------------	---------------

Specifications

Material: Aluminium EN-AW-6063 T6

Dimensions: 40 x 38 x 85 mm

Weight: 0,098 kg

Colour: blank

Components

1 x Bracket M10

1 x Hammerhead bolt M8 x 25

1 x Hexagon Nut w. serration DIN6923 - M8 A2-70

Compatibility

900181 - 900192, 400011, 400081, 400094, 400230, 420015, 420019, 420020, 430009, 490018, 900138, 900163

Bracket M12



Article number	420012
-----------------------	---------------

Specifications

Material: Aluminium EN-AW-6063 T6

Dimensions: 40 x 38 x 85 mm

Weight: 0,101 kg

Colour: blank

Components

1 x Bracket M12

1 x Hammerhead bolt M8 x 25

1 x Hexagon Nut w. serration DIN6923 - M8 A2-70

Compatibility

900181 - 900192, 400011, 400081, 400094, 400230, 420015, 420019, 420020, 430009, 490018, 900138, 900163



Bracket M10 offset connection



Article number	420131
Specifications	
Material:	Aluminium EN-AW-6063 T6
Dimensions:	50 x 38 x 85 mm
Weight:	0,120 kg
Colour:	blank
Components	
1 x Bracket M10 offset connection	
1 x Hammerhead bolt M8 x 25	
1 x Hexagon Nut w. serration DIN6923 - M8 A2-70	
Compatibility	
900181 - 900192, 400011, 400081, 400094, 400230, 420015, 420019, 420020, 430009, 490018, 900138, 900163	

Bracket M12 offset connection



Article number	420130
Specifications	
Material:	Aluminium EN-AW-6063 T6
Dimensions:	50 x 38 x 85 mm
Weight:	0,114 kg
Colour:	blank
Components	
1 x Bracket M12 offset connection	
1 x Hammerhead bolt M8 x 25	
1 x Hexagon Nut w. serration DIN6923 - M8 A2-70	
Compatibility	
900181 - 900192, 400011, 400081, 400094, 400230, 420015, 420019, 420020, 430009, 490018, 900138, 900163	



VarioSole Mounting rail 50 x 37 x 3000 mm



Article number 400081

Specifications

Material: Aluminium EN-AW-6063 T6

Dimensions: 3000 x 50 x 37 mm

Weight: 2,221 kg

Colour: blank

Compatibility

400019, 400026, 400027, 400165, 400230, 410000/2, 420000/2-B, 420015, 420019, 420020, 430019, 430027, 920043, 920044

VarioSole Mounting rail 50 x 37 x 3200 mm



Article number 400011

Specifications

Material: Aluminium EN-AW-6063 T6

Dimensions: 3200 x 50 x 37 mm

Weight: 2,369 kg

Colour: blank

Compatibility

400019, 400026, 400027, 400165, 400230, 410000/2, 420000/2-B, 420015, 420019, 420020, 430019, 430027, 920043, 920044

VarioSole Mounting rail 50 x 37 x 6000 mm



Article number 900138

Specifications

Material: Aluminium EN-AW-6063 T6

Dimensions: 6000 x 50 x 37 mm

Weight: 4,442 kg

Colour: blank

Compatibility

400019, 400026, 400027, 400165, 400230, 410000/2, 420000/2-B, 420015, 420019, 420020, 430019, 430027, 920043, 920044



VarioSole Mounting rail 50 x 37 custom cut /m



Article number	400094
Specifications	
Material: Aluminium EN-AW-6063 T6	
Dimensions: n x 37 x 50 mm	
Weight: 0,740 kg/m	
Colour: blank	
Compatibility	
400019, 400026, 400027, 400165, 400230, 410000/2, 420000/2-B, 420015, 420019, 420020, 430019, 430027, 920043, 920044	

VarioSole Mounting rail 60 x 37,4 x 3000 mm



Article number	400163
Specifications	
Material: Aluminium EN-AW-6063 T6	
Dimensions: 3000 x 60 x 37,4 mm	
Weight: 2,545 kg	
Colour: blank	
Compatibility	
400019, 400026, 400027, 400165, 400230, 410000/2, 420000/2-B, 420015, 420019, 420020, 430019, 430027, 920043, 920044	

VarioSole Mounting rail 50 x 37 x 3000 mm (black)



Article number	430009
Specifications	
Material: Aluminium EN-AW-6063 T6	
Dimensions: 3000 x 50 x 37 mm	
Weight: 2,221 kg	
Colour: black	
Compatibility	
400019, 400026, 400027, 400165, 400230, 410000/2, 420000/2-B, 420015, 420019, 420020, 430019, 430027, 920043, 920044	



VarioSole Mounting rail 50 x 37 custom cut /m (black)



Article number 490018

Specifications

Material: Aluminium EN-AW-6063 T6

Dimensions: n x 50 x 37 mm

Weight: 0,848 kg/m

Colour: black

Compatibility

400019, 400026, 400027, 400165, 400230, 410000/2, 420000/2-B, 420015, 420019, 420020, 430019, 430027, 920043, 920044

Rail connector for rail 50 x 37 mm



Article number 400026

Specifications

Material: Aluminium EN-AW-6063 T6

Dimensions: 195 x 28,2 x 38,90 mm

Weight: 0,257 kg

Colour: blank

Compatibility

400019, 400026, 400027, 400165, 400230, 410000/2, 420000/2-B, 420015, 420019, 420020, 430019, 430027, 920043, 920044

Rail connector for rail 60 x 37,4 mm



Article number 400165

Specifications

Material: Aluminium EN-AW-6063 T6

Dimensions: 195 x 23,8 x 48,5 mm

Weight: 0,266 kg

Colour: blank

Compatibility

400163



Cross rail connector



Article number 400027

Specifications

Material: Aluminium EN-AW-6063 T6

Dimensions: 43 x 41 x 28 mm

Weight: 0,056 kg

Colour: blank

Compatibility

400011, 400081, 400094, 400230, 430009, 490018, 900138, 900163

Cross rail connector (black)



Article number 430027

Specifications

Material: Aluminium EN-AW-6063 T6

Dimensions: 43 x 41 x 28 mm

Weight: 0,056 kg

Colour: black

Compatibility

400011, 400081, 400094, 400230, 430009, 490018, 900138, 900163



Middle clamp 31 - 50 mm



Article number 400019

Specifications

Material: Aluminium EN-AW-6063 T6

Dimensions: 40 x 41 mm

Weight: 0,046 kg

Colour: blank

Application Features

Mid clamp is pre-assembled

Clamping range: 31 - 50 mm

Compatibility

400011, 400081, 400094, 430009, 490018, 900138, 900163

Middle clamp 31 - 50 mm (black)



Article number 430019

Specifications

Material: Aluminium EN-AW-6063 T6

Dimensions: 40 x 41 mm

Weight: 0,046 kg

Colour: black

KTL coating RAL 9005

Application Features

Mid clamp is pre-assembled

Clamping range: 31 - 50 mm

Compatibility

400011, 400081, 400094, 430009, 490018, 900138, 900163



End clamp 30 - 50 mm



Article number 410000/2

Specifications

Material: Aluminium EN-AW-6063 T6

Dimensions: 35 x 36 mm

Weight: 0,058 kg

Colour: blank

Application Features

End clamp is pre-assembled

Clamping range: 30 - 50 mm

Compatibility

400011, 400081, 400094, 430009, 490018, 900138, 900163

End clamp 30 - 50 mm (black)



Article number 410000/2-B

Specifications

Material: Aluminium EN-AW-6063 T6

Dimensions: 35 x 36 mm

Weight: 0,058 kg

Colour: black

KTL coating RAL 9005

Application Features

End clamp is pre-assembled

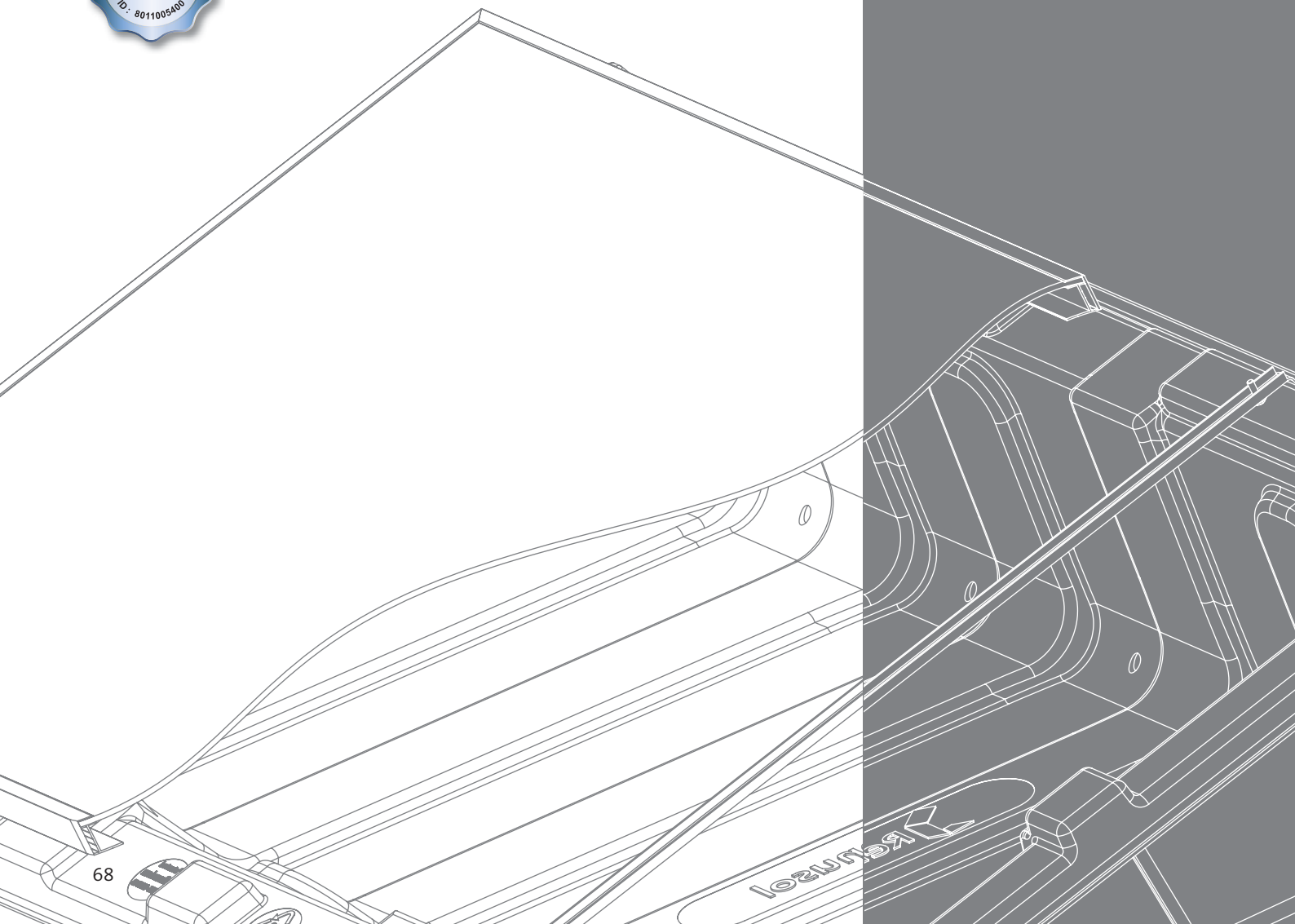
Clamping range: 30 - 50 mm

Compatibility

400011, 400081, 400094, 430009, 490018, 900138, 900163

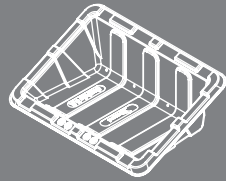
ConSole

- Flat-roof mounting without anchorage, causing no damage to the roof membrane
- Suitable for ground-mounted installations, such as waste disposal sites, rocky underground and redeveloped brownfield sites
- Available for many solar module sizes
- Support angles of 25° and 15°
- Aerodynamic version ConSole+ with a support angle of 15° including wind deflector
- Free module positioning
- Optimised load distribution without concentrated loads
- Corresponds to fire prevention measures according to DIN 4102 class B2
- Low product weight of 5.0 - 7.2 kg depending on the type
- Optimised packing units for traders and retailers (up to 80 pieces per pallet)
- Plant design in the PV Configurator





Flat roof

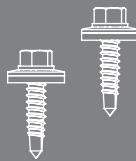


Assembly units70



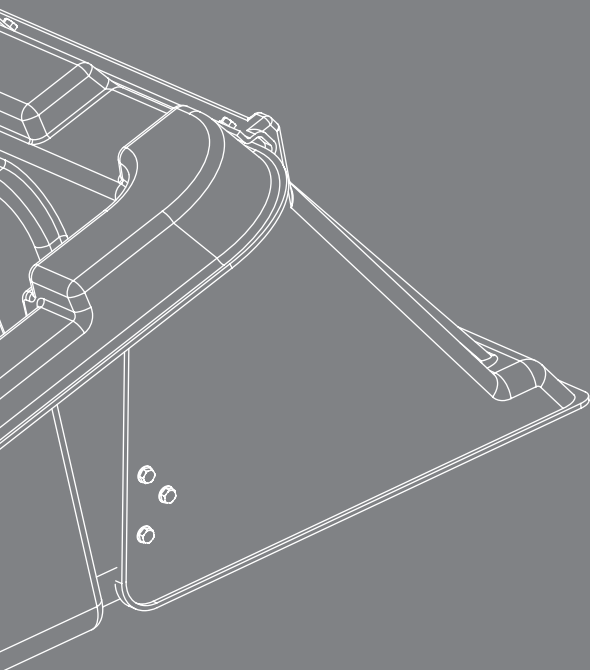
Accessories72

Streamliner+, elongation rails



Spare components73

ConSole Clip, mounting materials,
aluminium U-profiles



ConSole 4.1 (incl. Mounting material and U-Profile)



Article number	520041-K
Specifications	
Material: HDPE, Aluminium and stainless steel	
Dimensions: 1670 x 870 x 445 mm	
Weight: 5,700 kg	
Colour: black	
Application Features	
Suitable for flat-roof- and ground mounting installations	
For framed PV-modules	
Max. module length: 1485 - 1910 mm	
Holes gap - width*: 661 - 780 mm	
* with item No. 460001 optional: 781 - 850 mm	
Holes gap - length: 500 - 1080 mm	
Components	
1 x ConSole 4.1	
2 x Aluminium U-Profile 800 mm	
4 x Hexag. screw DIN933-M6x20 A2-70	
4 x Washer DIN9021-6,4-A2	
4 x Self-locking hexag. nut DIN985-M6-A2	
4 x ConSole Clip	
4 x Hexag. screw DIN7504-ST5,5x25-A2-SW8	
Compatibility	
400004, 420022, 460001, 920106	

ConSole 4.2 (incl. Mounting material and U-Profile)



Article number	520042-K
Specifications	
Material: HDPE, Aluminium and stainless steel	
Dimensions: 1250 x 1090 x 560 mm	
Weight: 5,400 kg	
Colour: black	
Application Features	
Suitable for flat-roof- and ground mounting installations	
For framed PV-modules	
Max. module length: 1140 - 1490 mm	
Holes gap - width*: 895 - 1014 mm	
* with Item No. 460001 optional: 1015 - 1085 mm	
Holes gap - length: 570 - 710 mm	
Components	
1 x ConSole 4.2	
2 x Aluminium U-Profile 1035 mm	
4 x Hexag. screw DIN933-M6x20 A2-70	
4 x Washer DIN9021-6,4-A2	
4 x Self-locking hexag. nut DIN985-M6-A2	
4 x ConSole Clip	
4 x Hexag. screw DIN7504-ST5,5x25-A2-SW8	
Compatibility	
400005, 420022, 460001, 920106	



ConSole 5.2 (incl. Mounting material and U-Profile)



Article number	520052-K
Specifications	
Material: HDPE, Aluminium and stainless steel	
Dimensions: 1510 x 1100 x 540 mm	
Weight: 5,686 kg	
Colour: black	
Application Features	
Suitable for flat-roof- and ground mounting installations	
For framed PV-modules	
Max. module length: 1340 - 1750 mm	
Holes gap - width*: 895 - 1014 mm	
* with Item No. 460001 optional: 1015 - 1085 mm	
Holes gap - length: 520 - 1190 mm	
Components	
1 x ConSole 5.2	
2 x Aluminium U-Profile 1035 mm	
4 x Hexag. screw DIN933-M6x20 A2-70	
4 x Washer DIN9021-6,4-A2	
4 x Self-locking hexag. nut DIN985-M6-A2	
4 x ConSole Clip	
4 x Hexag. screw DIN7504-ST5,5x25-A2-SW8	
Compatibility	
400005, 420022, 460001, 920106	

ConSole 6.2 (incl. Mounting material and U-Profile)



Article number	520062-K
Specifications	
Material: HDPE, Aluminium and stainless steel	
Dimensions: 1730 x 1080 x 540 mm	
Weight: 7,334 kg	
Colour: black	
Application Features	
Suitable for flat-roof- and ground mounting installations	
For framed PV-modules	
Max. module length: 1580 - 1970 mm	
Holes gap - width*: 895 - 1014 mm	
* with Item No. 460001 optional: 1015 - 1085 mm	
Holes gap - length: 690 - 1180 mm	
Components	
1 x ConSole 6.2	
2 x Aluminium U-Profile 1035 mm	
4 x Hexag. screw DIN933-M6x20 A2-70	
4 x Washer DIN9021-6,4-A2	
4 x Self-locking hexag. nut DIN985-M6-A2	
4 x ConSole Clip	
4 x Hexag. screw DIN7504-ST5,5x25-A2-SW8	
Compatibility	
400005, 420022, 460001, 920106	

ConSole+ (incl. Mounting material and U-Profile)



Article number 520075-K

Specifications

Material: HDPE, Aluminium and stainless steel

Dimensions: 1730 x 1100 x 390 mm

Weight: 7,900 kg

Colour: black

Application Features

Suitable for flat-roof- and ground mounting installations

For framed PV-modules

Max. module length: 1580 - 1730 mm

Holes gap - width: 895 - 1014 mm

Holes gap - length: 690 - 1180 mm

Components

1 x ConSole+

2 x ConSole U-Profile 1035 mm

4 x Hexag. screw DIN933-M6x20 A2-70

4 x Washer DIN9021-6,4-A2

4 x Self-locking hexag. nut DIN985-M6-A2

4 x ConSole Clip

4 x Hexag. screw DIN7504-ST5,5x25-A2-SW8

Compatibility

400005, 420022, 520076, 920106

Streamliner+



Article number 520076

Specifications

Material: HDPE

Dimensions: 1730 x 555 x 390 mm

Weight: 1,970 kg

Colour: black

Components

1 x Streamliner+

9 x Hexag. screw DIN7504-ST5,5x25-A2-SW8

Compatibility

520075-K



Elongation rails for ConSole 4.1, 4.2, 5.2, 6.2



Article number	460001
Specifications	
Material:	Aluminium EN-AW-6063 T6
Dimensions:	150 x 25 x 12 mm
Weight:	0,034 kg
Colour:	blank
Application Features	
ConSole 4.1, 4.2, 5.2 and 6.2	
Components	
2 x Elongation rail	
4 x Hexag. screw DIN933-M6x20 A2-70	
4 x Washer DIN9021-6,4-A2	
4 x Self-locking hexag. nut DIN985-M6-A2	
Compatibility	
400004, 400005, 520041-K, 520042-K, 520052-K, 520062-K	

ConSole Clip



Article number	920106
Specifications	
Material:	Aluminium and stainless steel
Dimensions:	65,8 x 18 x 17,8 mm
Weight:	0,001 kg
Colour:	blank
Application Features	
ConSole 4.1, 4.2, 5.2, 6.2 and CS+	
Components	
4 x ConSole Clip	
4 x Hexag. screw DIN7504-ST5,5x25-A2-SW8	
Compatibility	
400004, 400005, 520041-K, 520042-K, 520052-K, 520062-K, 520075-K	

Mounting material for Kioto modules



Article number 920051

Specifications

Material: stainless steel

Weight: 0,042 kg

Colour: blank

Components

4 x Hammerhead bolt Kioto module M6

4 x Fastening nut Kioto module M6

Mounting material for ConSole 4.1, 4.2, 5.2, 6.2, CS+



Article number 420022

Specifications

Material: stainless steel

Weight: 0,100 kg

Colour: blank

Application Features

ConSole 4.1, 4.2, 5.2, 6.2 and CS+

Components

1 x Hexag. screw DIN7504-ST5,5x25-A2-SW8

4 x Hexag. screw DIN933-M6x20 A2-70

4 x Washer DIN9021-6,4-A2

4 x Self-locking hexag. nut DIN985-M6-A2

4 x ConSole Clip

Compatibility

400004, 400005, 520041-K, 520042-K, 520052-K, 520062-K, 520075-K



Aluminium U-Profile 800 mm ConSole 4.1



Article number 400004

Specifications

Material: Aluminium EN-AW-6063 T6

Dimensions: 824 x 20 mm

Weight: 0,158 kg

Colour: silver / grey

Application Features

ConSole 4.1

Compatibility

420022, 520041-K

Aluminium U-Profile 1035 mm ConSole 4.2, 5.2,6.2, CS+



Article number 400005

Specifications

Material: Aluminium EN-AW-6063 T6

Dimensions: 1059 x 20 mm

Weight: 0,203 kg

Colour: silver / grey

Material thickness: 2 mm

Application Features

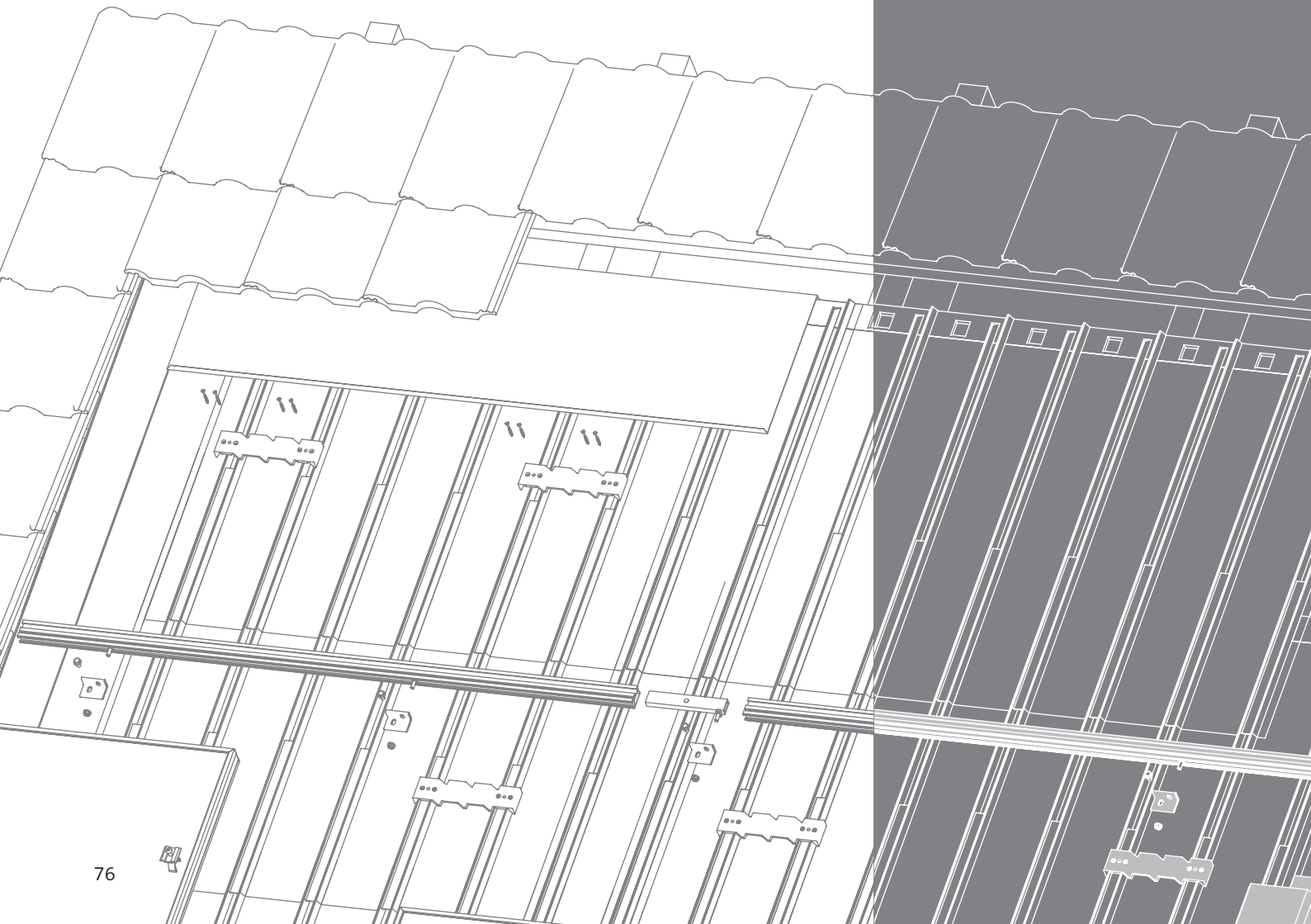
ConSole 4.2, 5.2, 6.2 and CS+

Compatibility

420022, 520042-K, 520052-K, 520062-K, 520075-K

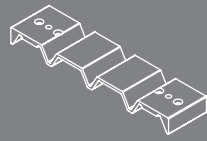
InterSole

- Quick and easy roof integration
- Reliably tested in the market for over ten years
- For use on pitched roofs with inclinations between 15° and 60°
- Low roof load and 100% watertight from rain using HDPE
- Water flow using weather resistant, durable HDPE plates
- Smooth integration by adjusting the height with mounting brackets
- Height adjustable module clamps guarantee compatibility with all current framed PV modules with frame thickness of 30 - 50 mm.

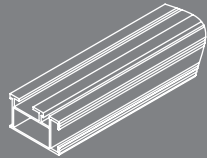




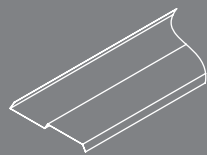
Roof-integrated



Fixing components78



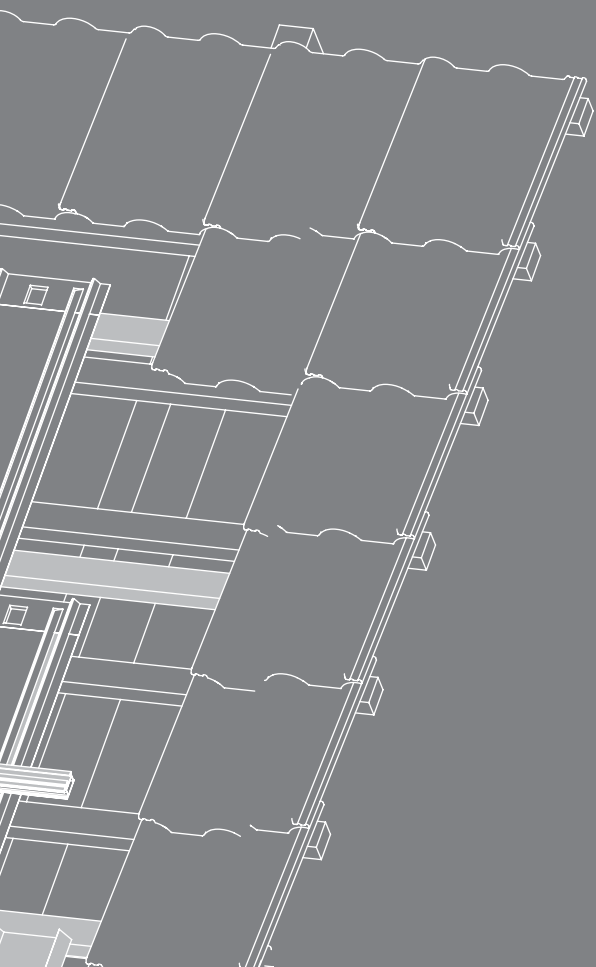
Mounting rails80



Flashings82



Sealing strips86





InterSole SE sample



Article number	500018
Specifications	
Colour: blank	
Components	
1 x InterSole plate 320 x 300 mm	
1 x InterSole Anchor	
1 x Bracket Standard	
1 x Mounting rail 300 mm	
1 x InterSole Rail connector	
1 x End clamp 30 - 50 mm	
1 x Middle clamp 31 - 51 mm	
1 x Yellow Renusol bag	

Plate 1100 x 1600 mm



Article number	500007
Specifications	
Material: HDPE	
Dimensions: 1600 x 1100 x 1,5 mm	
Weight: 2,800 kg	
Colour: black	
Fire resistance rating B2 DIN4102	
Components	
x InterSole plate 1100 x 1600 mm	
Compatibility	
860004	



InterSole Anchor



Article number 860004

Specifications

Material: Aluminium EN-AW-6063 T6

Dimensions: 250 x 60 x 22 mm

Weight: 0,271 kg

Colour: blank

Components

1 x InterSole anchor

4 x Wood screw countersunk TX 4,5x50 A2

Compatibility

500007, 860010, 860011

Bracket Standard



Article number 860010

Specifications

Material: Aluminium EN-AW-6063 T6

Dimensions: 57 x 37,5 x 27 mm

Weight: 0,036 kg

Colour: blank

Components

1 x Bracket Standard

1 x Hexag. screw DIN 6921 - M8x14 - A2

1 x Hammerhead bolt M8 x 20

1 x Hexagon Nut w. serration DIN6923 - M8 A2-70

Compatibility

400018, 400024, 460018, 860004



Bracket Low



Article number 860011

Specifications

Material: stainless steel 1.4301

Dimensions: 120 x 100 x 24 mm

Weight: 0,145 kg

Colour: blank

Components

1 x InterSole bracket low

1 x Hexag. screw DIN 6921 - M8x14 - A2

2 x Hammerhead bolt M8 x 20

2 x Hexagon Nut w. serration DIN6923 - M8 A2-70

Compatibility

400018, 400024, 460018, 860004

Mounting rail 1500 mm



Article number 400024

Specifications

Material: Aluminium EN-AW-6063 T6

Dimensions: 1500 x 46,3 x 27 mm

Weight: 1,060 kg

Colour: blank

Compatibility

400019, 400025, 410000/2, 410000/2-B, 430019, 860010, 860011



Mounting rail 3000 mm



Article number 400018

Specifications

Material: Aluminium EN-AW-6063 T6

Dimensions: 3000 x 46,3 x 27 mm

Weight: 2,120 kg

Colour: blank

Compatibility

400019, 400025, 410000/2, 410000/2-B, 430019, 860010, 860011

Mounting Rail custom cut /m



Article number 460018

Specifications

Material: Aluminium EN-AW-6063 T6

Dimensions: n x 46,3 x 27 mm

Weight: 0,705 kg/m

Colour: blank

Compatibility

400019, 400025, 410000/2, 410000/2-B, 430019, 860010, 860011



InterSole Rail connector



Article number 400025

Specifications

Material: Aluminium EN-AW-6063 T6

Dimensions: 196 x 33 x 15,5 mm

Weight: 0,150 kg

Colour: blank

Compatibility

400018, 400024, 460018

InterSole Gutter LOWER



Article number 700002

Specifications

Material: Aluminium EN-AW-5052 H14

Dimensions: 1500 x 200 x 70 mm

Weight: 0,668 kg

Colour: blank

Material thickness: 0,6 mm

Compatibility

300002, 300003, 300004, 300005, 300006, 300009, 700001, 700001-B



InterSole Gutter LOWER (black)



Article number 700002-B

Specifications

Material: Aluminium EN-AW-5052 H14

Dimensions: 1500 x 200 x 70 mm

Weight: 0,668 kg

Colour: black

Material thickness: 0,6 mm

Surface coating RAL9005 Q 161.P093 matt

Compatibility

300002, 300003, 300004, 300005, 300006, 300009, 700001, 700001-B

InterSole Gutter SIDE



Article number 700001

Specifications

Material: Aluminium EN-AW-5052 H14

Dimensions: 1100 x 305 mm

Weight: 0,644 kg

Colour: blank

Compatibility

300100, 500007, 700002, 700002-B, 700003, 700003-B, 720011,



InterSole Gutter SIDE (black)



Article number 700001-B

Specifications

Material: Aluminium EN-AW-5052 H14

Dimensions: 1100 x 305 mm

Weight: 0,644 kg

Colour: black

Compatibility

300100, 500007, 700002, 700002-B, 700003, 700003-B, 720011,

InterSole Gutter UPPER



Article number 700003

Specifications

Material: Aluminium EN-AW-5052 H14

Dimensions: 1500 x 400 x 23 mm

Weight: 1,046 kg

Colour: blank

Material thickness: 0,6 mm

Compatibility

500007, 700001, 70001-B



InterSole Gutter UPPER (black)



Article number 700003-B

Specifications

Material: Aluminium EN-AW-5052 H14

Dimensions: 1500 x 400 x 23 mm

Weight: 1,046 kg

Colour: black

Material thickness: 0,6 mm

Surface coating RAL9005 Q 161.P093 matt

Compatibility

500007, 700001, 70001-B

Mounting clip



Article number 720011

Specifications

Material: stainless steel 1.4301

Dimensions: 39,5 x 30 x 31 mm

Weight: 0,007 kg

Colour: blank

Material thickness: 0,4 mm

Components

1 x Mounting clip

1 x Wood screw countersunk 3,5x25 A2-70

Compatibility

700002, 700002-B, 700003, 700003-B



Sealing strip



Specifications

Material: Aluminium Bitumen connection

Compatibility

500007, 700002, 700002-B

Description	Dimensions	Width	Length	Weight	Colour	Article number
Sealing strip	6000 x 400 mm	400 mm	6000 mm	1,61 kg/m	black	300002
Sealing strip	6000 x 400 mm	400 mm	6000 mm	1,61 kg/m	red	300003
Sealing strip	12000 x 400 mm	400 mm	12000 mm	1,53 kg/m	black	300006
Sealing strip	12000 x 400 mm	400 mm	12000 mm	1,53 kg/m	red	300009
Sealing strip	6000 x 500 mm	500 mm	6000 mm	1,916 kg/m	black	300004
Sealing strip	6000 x 500 mm	500 mm	6000 mm	1,916 kg/m	red	300005

Sealing tape MPA 20 x 4000 mm



Article number 300100

Specifications

Material: Polyurethane foam with impregnator

Dimensions: 20 x 4000 mm

Weight: 0,260 kg

Colour: anthracite

Compatibility

700001, 700001-B



Sealing strip Glue 290 ml



Article number 300000

Specifications

Material: MS Polymer

Weight: 0,5 kg

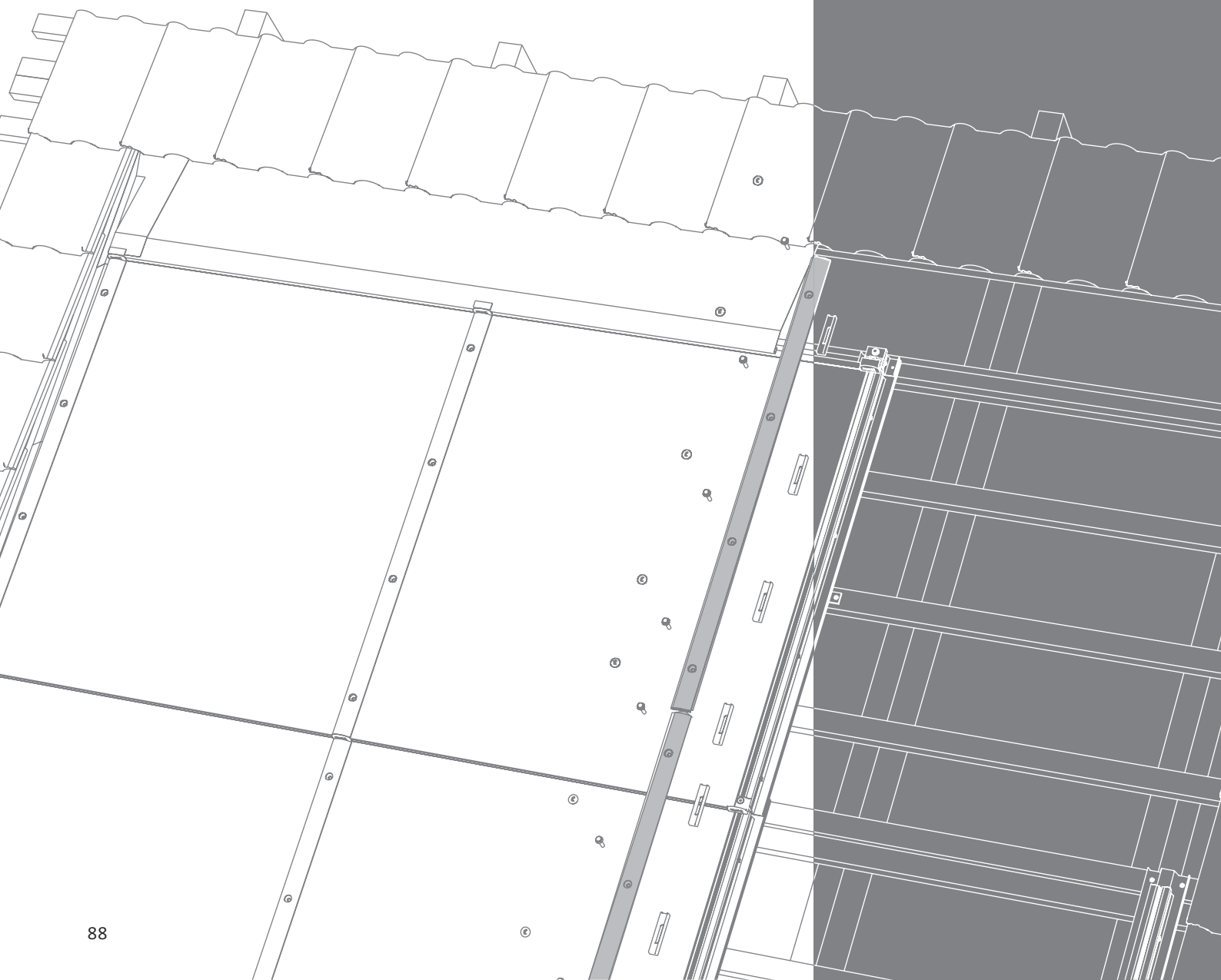
Colour: black

Compatibility

300002, 300003, 300004, 300005, 300006, 300009

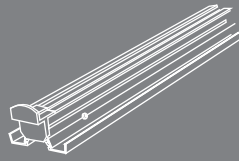
IntraSole CL

- For use on pitched roofs with inclinations of up to 60°
- Innovative BIPV system with water flow above the laminates
- Laminates can be integrated using individual height adjustments
- Height differences can easily be balanced out
- Available in black and silver so that it blends into your roof perfectly
- Approval of first level GSE Title III in Italy granted
- Inclinations between 14° and 23° require additional measures to become watertight from rain





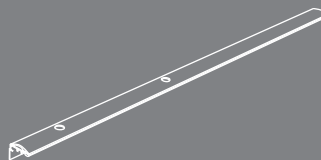
Roof-integrated



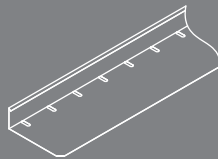
Mounting rails90



Sealing strips92

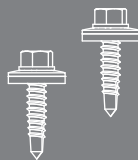


Clamp profiles.....93

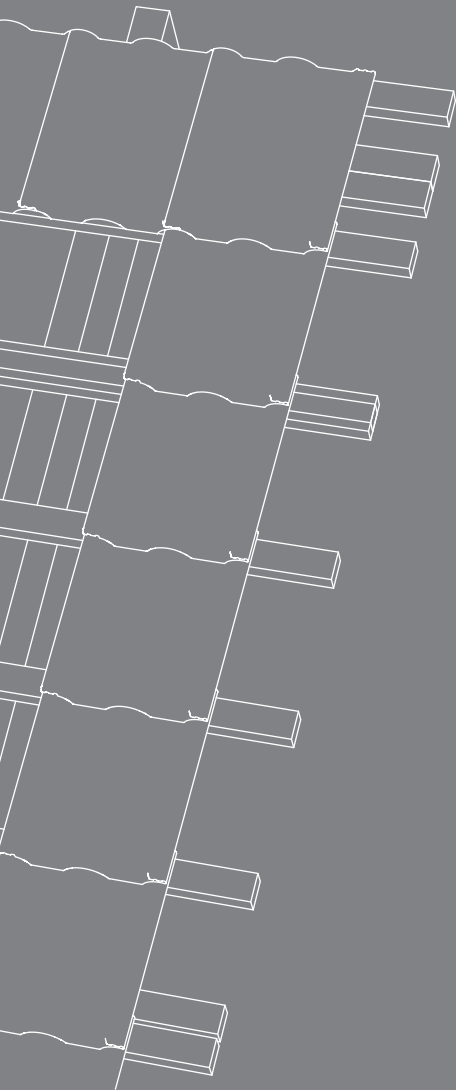


Flashings97

Junction seals, cross connectors,
cross profile, W-rail, rotation anchor



Accessories103





Mounting rail 1499 mm for laminate 5 mm



Article number	420040
Specifications	
Material: Aluminium EN-AW-6063 T6	
Dimensions: 1541 x 51 x 50,9 mm	
Weight: 1,594 kg	
Colour: blank	
Components	
1 x IntraSole W-rail 5850 mm	
1 x IntraSole Mounting rail 5850 mm	
1 x IntraSole Anti-slip	
2 x EPDM rubber I-rail 1K - roll	
1 x Countersunk screw DIN 7991-M8x25-A2-70	
8 x Wood screw mushroom head 4,8 x 16	

Mounting rail for laminate 5 mm custom cut /m



Article number	400203
Specifications	
Material: Aluminium EN-AW-6063 T6	
Dimensions: n x 51 x 50,9 mm	
Weight: 1,034 kg/m	
Colour: blank	
Components	
1 x IntraSole W-rail 1541 mm	
1 x IntraSole Mounting rail 1484 mm	
1 x IntraSole Anti-slip	
1 x Countersunk screw DIN 7991-M8x25-A2-70	
2 x EPDM rubber I-rail 1K	
8 x Wood screw mushroom head 4,8 x 16	



Mounting rail 1300 mm for laminate 7 mm



Article number 420041

Specifications

Material: Aluminium EN-AW-6063 T6

Dimensions: 1342 x 51 x 50,9 mm

Weight: 1,388 kg

Colour: blank

Components

1 x IntraSole W-rail 5850 mm

1 x IntraSole Mounting rail 5850 mm

1 x IntraSole Anti-slip

2 x EPDM rubber I-rail - roll

1 x Countersunk screw DIN 7991-M8x25-A2-70

8 x Wood screw mushroom head 4,8 x 16

Mounting rail for laminate 7 mm custom cut /m



Article number 400208

Specifications

Material: Aluminium EN-AW-6063 T6

Dimensions: n x 51 x 50,9 mm

Weight: 1,034 kg/m

Colour: blank

Components

1 x IntraSole W-rail 1342 mm

1 x IntraSole Mounting rail 1285 mm

1 x IntraSole Anti-slip

2 x EPDM rubber I-rail 1265 mm

1 x Countersunk screw DIN 7991-M8x25-A2-70

8 x Wood screw mushroom head 4,8 x 16



Sealing strip



Specifications

Material: Aluminium Bitumen connection

Compatibility

500007, 700002, 700002-B

Description	Dimensions	Width	Length	Weight	Colour	Article number
Sealing strip	6000 x 400 mm	400 mm	6000 mm	1,61 kg/m	black	300002
Sealing strip	6000 x 400 mm	400 mm	6000 mm	1,61 kg/m	red	300003
Sealing strip	12000 x 400 mm	400 mm	12000 mm	1,53 kg/m	black	300006
Sealing strip	12000 x 400 mm	400 mm	12000 mm	1,53 kg/m	red	300009
Sealing strip	6000 x 500 mm	500 mm	6000 mm	1,916 kg/m	black	300004
Sealing strip	6000 x 500 mm	500 mm	6000 mm	1,916 kg/m	red	300005

Sealing strip Glue 290 ml



Article number

300000

Specifications

Material: MS Polymer

Weight: 0,5 kg

Colour: black

Clamp profile END 1486 mm for laminate 5 mm (black)



Article number	420045
Specifications	
Material:	Aluminium EN-AW-6063 T6
Dimensions:	1486 x 53,7 x 42,7 mm
Weight:	1,001 kg
Colour:	black
	E6/C35 Coating matt
Application Features	
	End clamp is pre-assembled
Components	
	1 x IntraSole Clamp rail END 1486 mm
	1 x EPDM rubber I-rail 1K - 1486 mm
	4 x Hexagon screw M8 with flange and serration DIN 6921 - M8x35

Clamp profile END for laminate 5 mm / custom cut (black)



Article number	400207-B
Specifications	
Material:	Aluminium EN-AW-6063 T6
Dimensions:	n x 53,7 x 42,7 mm
Weight:	0,679 kg/m
Colour:	black
	E6/C35 Coating matt
Application Features	
	End clamp is pre-assembled
Components	
	1 x IntraSole Clamp rail END 5850 mm (black)
	1 x EPDM rubber I-rail 1K - roll
	4 x Hexagon screw M8 with flange and serration DIN 6921 - M8x35



Clamp profile END 1298 mm for laminate 7 mm (black)



Article number	420044
Specifications	
Material:	Aluminium EN-AW-6063 T6
Dimensions:	1287 x 53,7 x 42,7 mm
Weight:	0,865 kg
Colour:	black
E6/C35 Coating matt	
Application Features	
End clamp is pre-assembled	
Components	
1 x IntraSole Clamp rail END 1287 mm	
1 x EPDM rubber I-rail 1287 mm	
4 x Hexagon screw M8 with flange and serration DIN 6921 - M8x35	

Clamp profile END for laminate 7 mm / custom cut (black)



Article number	400206-B
Specifications	
Material:	Aluminium EN-AW-6063 T6
Dimensions:	n x 53,7 x 42,7 mm
Weight:	0,679 kg/m
Colour:	black
E6/C35 Coating matt	
Application Features	
End clamp is pre-assembled	
Components	
1 x IntraSole Clamp rail END 5850 mm (black)	
1 x EPDM rubber I-rail roll	
4 x Hexagon screw M8 with flange and serration DIN 6921 - M8x35	



Clamp profile MID 1486 mm for laminate 5 mm (black)



Article number	420043
Specifications	
Material: Aluminium EN-AW-6063 T6	
Dimensions: 1486 x 51 x 10 mm	
Weight: 0,834 kg	
Colour: black	
E6/C35 Coating matt	
Application Features	
Mid clamp is pre-assembled	
Components	
1 x IntraSole Clamp rail MID 1486 mm	
2 x EPDM rubber I-rail 1K 1486 mm	
4 x Hexagon screw M8 with flange and serration DIN 6921 - M8x35	

Clamp profile MID for laminate 5 mm / custom cut (black)



Article number	400205-B
Specifications	
Material: Aluminium EN-AW-6063 T6	
Dimensions: n x 51 x 10 mm	
Weight: 0,567 kg/m	
Colour: black	
E6/C35 Coating matt	
Application Features	
Mid clamp is pre-assembled	
Components	
1 x IntraSole Clamp rail MID 5850 mm (black)	
2 x EPDM rubber I-rail 1K roll	
4 x Hexagon screw M8 with flange and serration DIN 6921 - M8x35	



Clamp profile MID 1287 mm for laminate 7 mm (black)



Article number	420042
Specifications	
Material:	Aluminium EN-AW-6063 T6
Dimensions:	1287 x 51 x 10 mm
Weight:	0,721 kg
Colour:	black
E6/C35 Coating matt	
Application Features	
Mid clamp is pre-assembled	
Components	
1 x IntraSole Clamp rail MID 1287 mm	
2 x EPDM rubber I-rail 1287 mm	
4 x Hexagon screw M8 with flange and serration DIN 6921 - M8x35	

Clamp profile MID for laminate 7 mm / custom cut (black)



Article number	400204-B
Specifications	
Material:	Aluminium EN-AW-6063 T6
Dimensions:	n x 51 x 10 mm
Weight:	0,567 kg/m
Colour:	black
E6/C35 Coating matt	
Application Features	
Mid clamp is pre-assembled	
Components	
1 x IntraSole Clamp rail MID 5850 mm (black)	
2 x EPDM rubber I-rail roll	
4 x Hexagon screw M8 with flange and serration DIN 6921 - M8x35	



Adapter LEFT 15° (black)



Article number 700035-B

Specifications

Material: Aluminium EN-AW-5005 H14

Dimensions: 560 x 275 x 89,1 mm

Weight: 0,792 kg

Colour: black

Surface coating RAL 9005 Q 161P093 matt

Angle of inclination: 15°

Adapter LEFT 30° (black)



Article number 700044-B

Specifications

Material: Aluminium EN-AW-5005 H14

Dimensions: 373,5 x 275 x 89,1 mm

Weight: 0,544 kg

Colour: black

Surface coating RAL 9005 Q 161P093 matt

Angle of inclination: 30°



Adapter RIGHT 15° (black)



Article number 700036-B

Specifications

Material: Aluminium EN-AW-5005 H14

Dimensions: 560 x 275 x 89,1 mm

Weight: 0,792 kg

Colour: black

Surface coating RAL 9005 Q 161P093 matt

Angle of inclination: 15°

Adapter RIGHT 30° (black)



Article number 700045-B

Specifications

Material: Aluminium EN-AW-5005 H14

Dimensions: 373,5 x 275 x 89,1 mm

Weight: 0,544 kg

Colour: black

Surface coating RAL 9005 Q 161P093 matt

Angle of inclination: 30°



Connection plate UPPER 15° (black)



Article number 700048-B

Specifications

Material: Aluminium EN-AW-5005 H24

Dimensions: 100 x 560 x 87,1 mm

Weight: 0,099 kg

Colour: black

Surface coating RAL 9005 Q 161P093 matt

Angle of inclination: 15°

Connection plate UPPER 30° (black)



Article number 700049-B

Specifications

Material: Aluminium EN-AW-5005 H24

Dimensions: 100 x 373 x 87,1 mm

Weight: 0,071 kg

Colour: black

Surface coating RAL 9005 Q 161P093 matt

Angle of inclination: 30°



Adapter UPPER 15°; 2 m (black)



Article number 700046-B

Specifications

Material: Aluminium EN-AW-5005 H24

Dimensions: 2000 x 562 x 87,7 mm

Weight: 2,060 kg

Colour: black

Surface coating RAL 9005 Q 161P093 matt

Angle of inclination: 15°

Adapter UPPER 30°; 2 m (black)



Article number 700047-B

Specifications

Material: Aluminium EN-AW-5005 H24

Dimensions: 2000 x 375 x 87,7 mm

Weight: 1,494 kg

Colour: black

Surface coating RAL 9005 Q 161P093 matt

Angle of inclination: 30°



Gutter LOWER 2 m (black)



Article number 700007-B

Specifications

Material: Aluminium EN-AW-5052 H14

Dimensions: 2000 x 160 x 65 mm

Weight: 0,757 kg

Colour: black

Material thickness: 0,6 mm

Surface coating RAL9005 Q 161.P093 matt

Gutter SIDE 2 m (black)



Article number 700006-B

Specifications

Material: Aluminium EN-AW-5052 H14

Dimensions: 2000 x 209x 56,7 mm

Weight: 0,900 kg

Colour: black

Material thickness: 0,6 mm

Surface coating RAL9005 Q 161.P093 matt



Cleaner for adapter



Article number 999902

Specifications

Weight: 0,8 kg / l

Mounting clip



Article number 720011

Specifications

Material: stainless steel 1.4301

Dimensions: 39,5 x 30 x 31 mm

Weight: 0,007 kg

Colour: blank

Material thickness: 0,4 mm

Components

1 x Mounting clip

1 x Wood screw countersunk 3,5x25 A2-70



Junction seal laminate for 5 mm custom cut /m



Article number	665000
Specifications	
Material: EPDM-rubber with steel loop, EPDM sponge rubber	
Dimensions: n x 19,5 x 27,5 mm	
Weight: 0,182 kg/m	
Colour: black	

Junction seal laminate for 7 mm custom cut /m



Article number	667000
Specifications	
Material: EPDM-rubber with steel loop, EPDM sponge rubber	
Dimensions: n x 17,1 x 25,5 mm	
Weight: 0,200 kg/m	
Colour: black	

Protection seal cross profile custom cut /m



Article number	300282
Specifications	
Material: EPDM soft rubber wire carries; EPDM sponge rubber	
Dimensions: n x 14 x 32 mm	
Weight: 0,179 kg/m	
Colour: black	



Cross connector



Article number 420056

Specifications

Material: Polyamid PA6 A2030/319GF30/M

Dimensions: 46 x 20 x 28 mm

Weight: 0,027 kg

Colour: blank

Components

1 x IntraSole Cross connector

1 x Set screw DIN 914 M6x20 A2

Cross profile custom cut /m



Article number 670000

Specifications

Material: Aluminium EN-AW-6063 T6

Dimensions: n x 117 x 21,3 mm

Weight: 0,577 kg/m

Colour: blank

W-rail 50 mm (V2)



Article number 400221

Specifications

Material: Aluminium EN-AW-6063 T6

Dimensions: 50 x 109 x 31,5 mm

Weight: 0,053 kg

Colour: blank



Rotation anchor



Article number 420039

Specifications

Material: Stainless steel 1.4301

Dimensions: 153 x 30 x 32 mm

Weight: 0,216 kg

Colour: silver

Components

1 x IntraSole rotation anchor

1 x IntraSole Click

Spacer



Article number 900065

Specifications

Material: PBT Pocan B 3235

Dimensions: 100 x 22 x 28,5 mm

Weight: 0,031 kg

Colour: black

Wedge 35 mm



Article number 700019

Specifications

Material: Stainless steel 1.4301

Dimensions: 35 x 11 x 0,5 mm

Weight: 0,004 kg

Colour: blank



Positioning element UPPER



Article number	420046
Specifications	
Material:	Aluminium and Stainless steel
Dimensions:	50 x 109 x 70,9 mm
Weight:	0,184 kg
Colour:	blank / black
Components	
	1 x IntraSole W-rail 50 mm
	1 x IntraSole Mounting rail 50 mm
	1 x IntraSole Adapter
	1 x Hexag. screw DIN6921 - M8x14-A2
	2 x Wood screw mushroom head 4,8x16-A2-70

Sealing tape MPA 20 x 4000 mm



Article number	300100
Specifications	
Material:	Polyurethane foam with impregnator
Dimensions:	20 x 4000 mm
Weight:	0,260 kg
Colour:	anthracite

Cap



Article number	900042
Specifications	
Material:	PPH 11.012
Dimensions:	23 x 6,8 mm
Weight:	0,001 kg
Colour:	black
	With engraving



Wood screw mushroom head 5 x 30



Article number 900050

Specifications

Material: stainless steel A2-70

Dimensions: 5 x 30 mm

Weight: 0,003 kg

Colour: silver

Glue for adapter



Article number 999901

Specifications

Material: 1-K polyurethane

Weight: 0,54 kg

Beveling block



Article number 900068

Specifications

Material: Wood

Dimensions: 100 x 35 x 32 mm

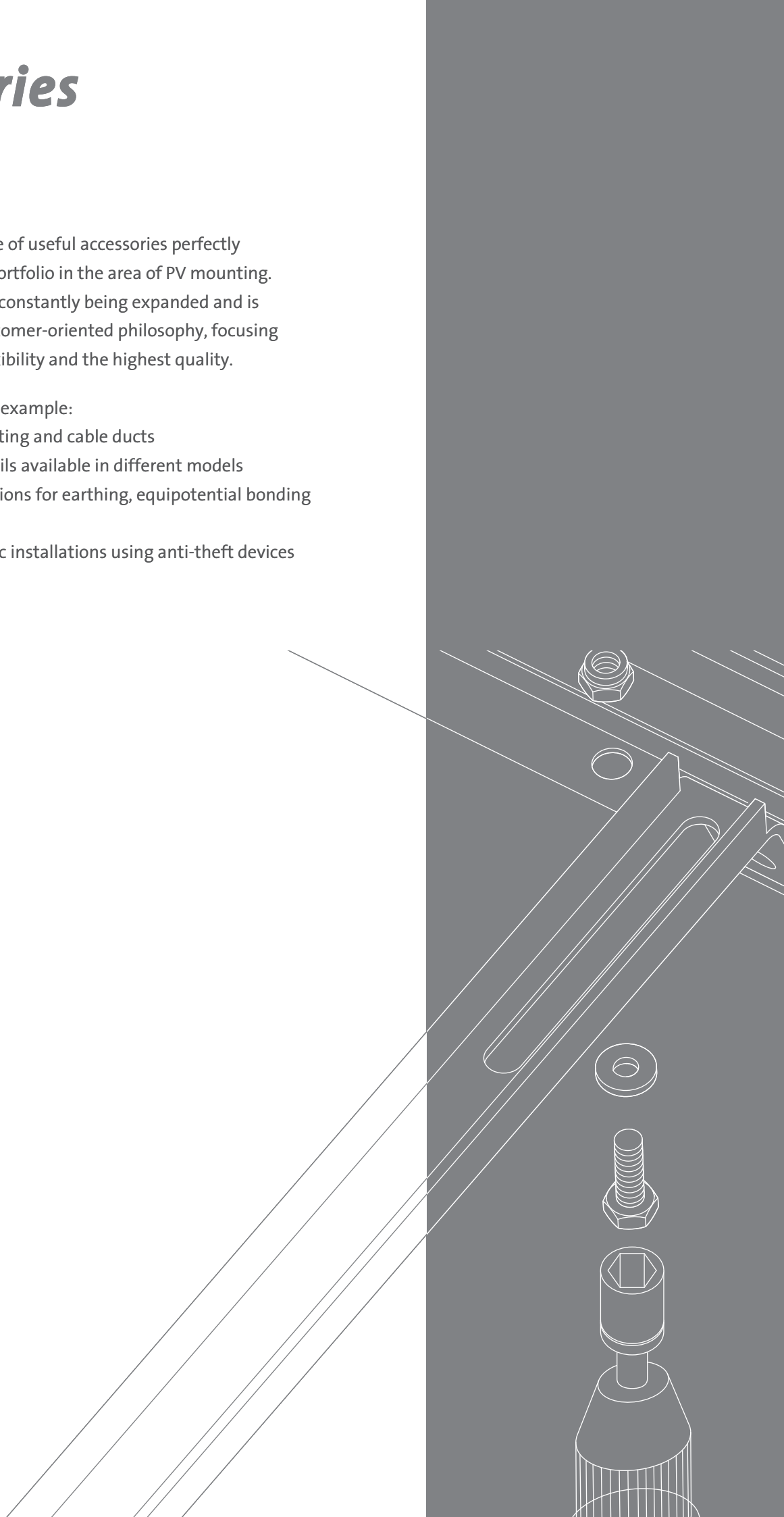
Weight: 0,109 kg

Accessories

Our well thought-out range of useful accessories perfectly complements our overall portfolio in the area of PV mounting. Our range of accessories is constantly being expanded and is always in line with our customer-oriented philosophy, focusing on convenience, speed, flexibility and the highest quality.

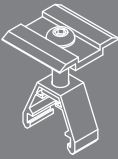
Our accessories include for example:

- Solutions for cable mounting and cable ducts
- End caps for mounting rails available in different models
- Modern connection solutions for earthing, equipotential bonding and lightning protection
- Protection of photovoltaic installations using anti-theft devices and precautions

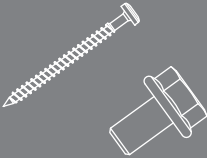




Accessories



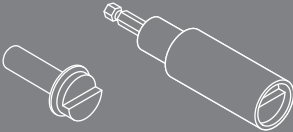
Clamps110



Screws117



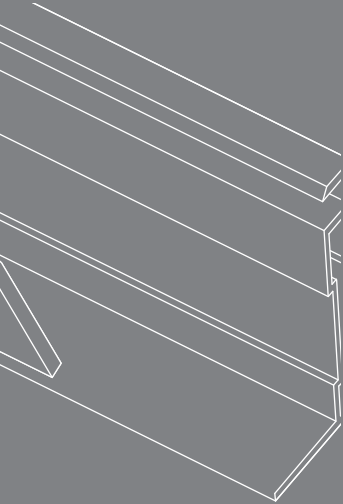
Cable guide124



Anti theft125



Grounding.....127





Accessories

Middle clamp 31 - 50 mm



Article number 400019

Specifications

Material: Aluminium EN-AW-6063 T6

Dimensions: 40 x 41 mm

Weight: 0,046 kg

Colour: blank

Application Features

Mid clamp is pre-assembled

Clamping range: 31 - 50 mm

Compatibility

400011, 400081, 400094, 430009, 490018, 900138, 900163

Middle clamp 31 - 50 mm (black)



Article number 430019

Specifications

Material: Aluminium EN-AW-6063 T6

Dimensions: 40 x 41 mm

Weight: 0,046 kg

Colour: black

KTL coating RAL 9005

Application Features

Mid clamp is pre-assembled

Clamping range: 31 - 50 mm

Compatibility

400011, 400081, 400094, 430009, 490018, 900138, 900163



Middle Clamp for laminates 7 mm



Article number	400054
Specifications	
Material: Aluminium	
Dimensions: 80 x 50,7 x 34,6 mm	
Weight: 0,090 kg	
Colour: blank	
Application Features	
Mid clamp is pre-assembled	
Clamping range: 7 mm	
Compatibility	
400011, 400081, 400094, 430009, 490018, 900138, 900163	

End Clamp for laminate 7 mm



Article number	400053
Specifications	
Material: Aluminium	
Dimensions: 80 x 36,9 x 34,6 mm	
Weight: 0,090 kg	
Colour: blank	
Application Features	
End clamp is pre-assembled	
Clamping range: 7 mm	
Compatibility	
400011, 400081, 400094, 430009, 490018, 900138, 900163	



Accessories

End clamp 30 - 50 mm



Article number 410000/2

Specifications

Material: Aluminium EN-AW-6063 T6

Dimensions: 35 x 36 mm

Weight: 0,058 kg

Colour: blank

Application Features

End clamp is pre-assembled

Clamping range: 30 - 50 mm

Compatibility

400011, 400081, 400094, 430009, 490018, 900138, 900163

End clamp 30 - 50 mm (black)



Article number 410000/2-B

Specifications

Material: Aluminium EN-AW-6063 T6

Dimensions: 35 x 36 mm

Weight: 0,058 kg

Colour: black

KTL coating RAL 9005

Application Features

End clamp is pre-assembled

Clamping range: 30 - 50 mm

Compatibility

400011, 400081, 400094, 430009, 490018, 900138, 900163



Cross rail connector



Article number 400027

Specifications

Material: Aluminium EN-AW-6063 T6

Dimensions: 40 x 28,7 x 36 mm

Weight: 0,056 kg

Colour: blank

Compatibility

400011, 400081, 400094, 430009, 490018, 900138, 900163

Cross rail connector (black)



Article number 430027

Specifications

Material: Aluminium EN-AW-6063 T6

Dimensions: 40 x 28,7 x 36 mm

Weight: 0,056 kg

Colour: black

Compatibility

430009, 490018



Accessories

Clamp for standing seam E-Mini



Article number 400254

Specifications

Material: Aluminium EN-AW-6061 T6

Dimensions: 30 x 25 x 30 mm

Weight: 0,073 kg

Colour: blank

Application Features

Suitable for double standing seam made from Aluminium, titanium alloy, stainless steel or coated steel

Compatibility

420012, 420014, 420130, 420131

Clamp for standing seam S-Mini



Article number 400259

Specifications

Material: Aluminium EN-AW-6061 T5

Dimensions: 38 x 30 x 38 mm

Weight: 0,910 kg

Colour: blank

Application Features

Applicable for pre-assembled industrial standing seam roofing

Compatibility

420012, 420014, 420130, 420131



Clamp for standing seam Z-Mini



Article number 400255

Specifications

Material: Aluminium EN-AW-6061 T6

Dimensions: 46 x 30 x 49 mm

Weight: 0,154 kg

Colour: blank

Application Features

Suitable for light industrial standing seam roofing like e.g. Kalzip, Bemo and Interfalz

Compatibility

420012, 420014, 420130, 420131

Clamp for standing seam R-465



Article number 400252

Specifications

Material: Aluminium EN-AW-6061 T6

Dimensions: 40 x 30 x 41 mm

Weight: 0,154 kg

Colour: blank

Application Features

Suitable for RIB-ROOF 465 and similar profiles

Compatibility

420012, 420014, 420130, 420131



Accessories

Clamp for standing seam R-500



Article number 400253

Specifications

Material: Aluminium EN-AW-6061 T5

Dimensions: 50 x 58 x 54 mm

Weight: 0,145 kg

Colour: blank

Application Features

Suitable for RIB-ROOF speed 500

Compatibility

420012, 420014, 420130, 420131

Mounting bit for standing seam



Article number 900250

Specifications

Colour: silver

Application Features

Suitable for standing seam clamps S5!

Compatibility

400252, 400253, 400254, 400255, 400259



Wood screw mushroom head 6 x 80



Article number	900012
Specifications	
Material: stainless steel 1.4567	
Dimensions: 6 x 80 mm	
Weight: 0,011 kg	
Colour: silver	
Application Features	
Assembly without pre-drilling	
Compatibility	
420094 - 420102, 420150-420159, 460066, 860005, 920003, 920062, 920116	

Wood screw with flat head 6 x 80



Article number	900013
Specifications	
Material: stainless steel 1.4567	
Dimensions: 6 x 80 mm	
Weight: 0,010 kg	
Colour: silver	
Application Features	
Assembly without pre-drilling	
For slated roofs only	
Compatibility	
920063, 920117	



Accessories

Dish-shaped wood screw A2 6,0 x 120 / TX 30



Article number 900127

Specifications

Material: stainless steel 1.4567

Dimensions: 6 x 120 mm

Weight: 0,016 kg

Colour: silver

Torx 30

Application Features

Assembly without pre-drilling

Compatibility

420094 - 420102, 420150-420159, 460066, 860005, 920003, 920062, 920116

Dish-shaped head wood screw with cutting edge 6 x 160



Article number 900145

Specifications

Material: stainless steel 1.4301

Dimensions: 6 x 160 mm

Colour: silver

Double head

Setscrew: 70 mm

Waxed

Torx 25

Application Features

Assembly without pre-drilling

Compatibility

420094 - 420102, 420150-420159, 460066, 860005, 920003, 920062, 920116



Wood screw mushroom head 5 x 30



Article number 900050

Specifications

Material: stainless steel 1.4567

Dimensions: 5 x 30 mm

Weight: 0,003 kg

Colour: silver

Application Features

Assembly without pre-drilling

Compatibility

420160, 920063

Wood screw countersunk 3,5 x 25



Article number 900061

Specifications

Material: stainless steel 1.4567

Dimensions: 3,5 x 25 mm

Weight: 0,004 kg

Colour: silver

Application Features

Assembly without pre-drilling

Compatibility

860010, 860011



Accessories

Screw neoprene washer 4,5 x 45



Article number 900011

Specifications

Material: stainless steel 1.4301

Dimensions: 4,5 x 45 mm

Weight: 0,001 kg

Colour: silver

EPDM-sealing integrated

Application Features

Assembly without pre-drilling

Compatibility

600402

Wood screw countersunk 4,5 x 50-A2-70



Article number 900021

Specifications

Material: stainless steel 1.4567

Dimensions: 4,5 x 50 mm

Weight: 0,002 kg

Colour: silver

Application Features

Assembly without pre-drilling

Compatibility

860004



Hexag. flange bolt with serration M8 x 14



Article number	900016
----------------	--------

Specifications

Material: stainless steel 1.4301

Dimensions: 8 x 14 mm

Weight: 0,011 kg

Colour: silver

Hexagon head

Flange head with serration

Hexag. bolt M8 x 35 with serration



Article number	900025
----------------	--------

Specifications

Material: stainless steel 1.4301

Dimensions: 8 x 35 mm

Weight: 0,027 kg

Colour: silver

Hexagon head

Flange head with serration



Accessories

Hammerhead bolt M8 x 20



Article number 900009

Specifications

Material: stainless steel 1.4301

Dimensions: 23 x 10 x 24 mm

Weight: 0,023 kg

Colour: silver

Hammerhead 23 mm

Hammerhead bolt M8 x 25



Article number 900007

Specifications

Material: stainless steel 1.4301

Dimensions: 23 x 10 x 29 mm

Weight: 0,027 kg

Colour: silver

Hammerhead 23 mm



Hexagon nut ISO 4032 - M8 A2-70



Article number	900036
Specifications	
Material:	stainless steel 1.4301
Dimensions:	12,8 x 6,6 mm
Weight:	0,005 kg
Colour:	silver
ISO 4032	
Hexagon nut	

Hexagon Bolt DIN931 and Hex . flange nut DIN934



Article number	900015
Specifications	
Material:	stainless steel 1.4301
Dimensions:	6 x 20 mm
Weight:	0,009 kg
Colour:	silver
Hexagon head	
Anti-slip protection	



Accessories

Hexagon Nut w. serration M8



Article number 900001

Specifications

Material: stainless steel 1.4301

Dimensions: 14 x 8 x 14 mm

Weight: 0,007 kg

Colour: silver

Hexagon head

Flange head with serration

Edge Clip 0,7 - 3 mm with cable strap



Article number 900035

Specifications

Material: Clip/Polyamid 6.6, Metal clamp/spring steel

Dimensions: 120 x 100 x 24

Weight: 0,005 kg

Colour: black

Tenacity min. 220N

Application Features

Edge clip is pre-assembled with cable strap

Suitable for PV-Module w. frame thickness of 0,7 - 3,0 mm



Microinverter mounting bracket, Set



Article number	400270
Specifications	
Material:	Aluminium EN-AW-6063 T6
Dimensions:	57 x 37,5 x 27 mm
Weight:	0,072 kg
Colour:	blank
Components	
	2 x Bracket Standard
	2 x Hexag. screw DIN 6921 - M8x14 - A2
	2 x Hammerhead bolt M8 x 20
	2 x Hexagon Nut w. serration DIN6923 - M8 A2-70

Anti theft screw



Article number	900231
Specifications	
Material:	stainless steel A2
Dimensions:	8 x 35 mm
Weight:	0,014 kg
Colour:	blank
Compatibility	
	400019, 410000/2, 410000/2-B, 430019



Accessories

Anti theft screw fastening tool



Article number 900232

Specifications

Material: stainless steel A2

Dimensions: 970 x 130 mm

Weight: 0,635 kg

Colour: blank

Anti theft screw - Kit



Article number 900233

Specifications

Material: stainless steel A2

Weight: 2,035 kg

Colour: blank

Components

1 x Anti theft screw fastening tool

100 x Anti theft screw



Anti theft liquid metal



Article number 900230

Specifications

Material: 2K-epoxy adhesive

Dimensions: 25 ml

Colour: grey

Content: 25 ml

Application Features

Timeframe of application 4 - 6 minutes

Handling strength: 15 minutes

Operational temperature rate: -55°C - +100°C

Compatibility

400019, 410000/2, 410000/2-B, 430019

UNI-Earthing clamp



Article number 900241

Specifications

Material: Stainless steel

Dimensions: 37 x 32 x 14 mm

Weight: 0,059 kg

Colour: blank

Standard according to DIN EN 50364-1

Application Features

Clamping range: 8 - 10 mm

Attachment wire: 4 - 50 mm

Attachment to rail due to hammerheadbolt



UNI-Saddle clamp



Article number	900240
----------------	--------

Specifications

Material: Aluminium and stainless steel

Dimensions: 37 x 39 x 36 mm

Weight: 0,080 kg

Colour: blank

Material thickness: 3 mm

Standard according to DIN EN 50364-1

Application Features

Clamping range: 8 - 10 mm

Attachment wire: 4 - 50 mm

Direction of attachment: horizontal and vertical

Attachment on modul frame

Clamping range on frame: 0,7 - 8 mm





Article number	Page	Article number	Page	Article number	Page	Article number	Page
30		41		420160	27	700045-B	98
300000	87, 92	410000/2	12, 43, 66, 112	43		700046-B	100
300002	86, 92	410000/2-B	43, 66, 112	430009	38, 62	700047-B	100
300003	86, 92	42		430019	42, 65, 110	700048-B	99
300004	86, 92	420012	47, 59	430027	40, 64, 113	700049-B	99
300005	86, 92	420014	46, 59	46		72	
300006	86, 92	420015	53	460001	73	720011	85, 102
300009	86, 92	420016(V2)	54	460018	81	86	
300100	86, 106	420019	52	460066	21	860004	79
300282	103	420020	53	49		860005	19
40		420022	74	490018	39, 63	860006	33, 55
400004	75	420039	105	50		860007	33, 55
400005	75	420040	90	500007	78	860010	79
400011	37, 61	420041	91	500018	78	860011	80
400018	81	420042	96	500058	18	860017	33, 55
400019	12, 42, 65, 110	420043	95	500065	18	90	
400024	80	420044	94	500066	10	900001	124
400025	82	420045	93	52		900007	122
400026	39, 63	420046	106	520041-K	70	900009	122
400027	40, 64, 113	420056	104	520042-K	70	900011	120
400047	14	420076	10	520052-K	71	900012	44, 117
400049	13	420077	11	520062-K	71	900013	44, 117
400053	111	420094	31	520075-K	72	900015	123
400054	111	420095	32	520076	72	900016	121
400081	37, 61	420096	31	66		900021	120
400094	38, 62	420097	32	665000	103	900025	121
400163	38, 62	420098	30	667000	103	900035	124
400165	39, 63	420099	29	67		900036	123
400203	90	420100	28	670000	104	900042	106
400204-B	96	420101	27	70		900050	46, 107, 119
400205-B	95	420102	20	700001	83	900061	119
400206-B	94	420130	48, 60	700001-B	84	900065	105
400207-B	93	420131	47, 60	700002	82	900068	107
400208	91	420132	11	700002-B	83	900127	45, 118
400221	104	420150	22	700003	84	900138	37, 61
400230	52	420151	19	700003-B	85	900145	45, 118
400233	54	420152	20	700006-B	101	900181	34, 56
400252	115	420153	23	700007-B	101	900182	34, 56
400253	116	420154	24	700019	105	900183	34, 56
400254	114	420155	25	700035-B	98	900184	34, 56
400255	115	420156	26	700036-B	97	900185	34, 56
400259	114	420157	28	700044-B	97	900186	34, 56
400270	48, 125	420158	29			900187	34, 56
400280	13	420159	30				



Article number	Page	Article number	Page
900188	34, 56	920136	33, 55
900189	34, 56	920137	33, 55
900190	34, 56	920159	33, 55
900191	34, 56		
900192	34, 56	99	
900193	35, 57	999900	14
900205	36, 58	999901	107
900206	36, 58	999902	102
900207	36, 58		
900208	36, 58		
900209	36, 58		
900210	36, 58		
900211	36, 58		
900212	36, 58		
900213	36, 58		
900214	36, 58		
900215	36, 58		
900216	36, 58		
900217	36, 58		
900218	36, 58		
900219	36, 58		
900220	35, 57		
900221	35, 57		
900222	35, 57		
900230	127		
900231	125		
900232	126		
900233	126		
900240	128		
900241	127		
900250	116		
92			
920002	33, 55		
920003	21		
920005	24		
920008	33, 55		
920043	41		
920044	41		
920051	74		
920062	22		
920063	26		
920106	73		
920116	23		
920117	25		

Renusol GmbH
Piccoloministr. 2
51063 Cologne
Germany
www.renusol.com

Phone: +49 221 788707-0
Fax: +49 221 788707-99
Email: info@renusol.com

