



# Sonnenenergie

## mit PROFIL

# PROFINAL

MONTAGESYSTEME FÜR SOLARTECHNIK

# Product range

as at: 04/2020

## Product range

## Who we are

### Expert for solar mounting systems

With our aluminium and steel profile systems, we focus our activities on the renewable energy market. We develop and distribute modern mounting solutions for photovoltaic systems worldwide.

### Your reliable partner

We supply you reliably with high-quality products at constantly favourable conditions. Our highest goal is the satisfaction of our customers.

### Networker

We support you holistically in cooperation with our partners from the field of technical planning offices, installation companies and experts, both in the planning and implementation of your project in the field of photovoltaics.



# Product range

## Terms of delivery

### Small parts and pallet goods

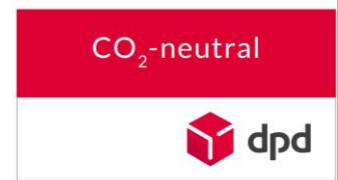
We deliver small parts and pallet goods already from 500 EUR value of goods within Germany without shipping costs free of charge (island surcharges reserved)

### Long goods

For deliveries of long goods, freight charges are incurred depending on weight, loading volume and distance from our warehouse and logistics partner in Wuppertal. Please note that you as a customer are responsible for unloading long goods from the truck. Please prepare your warehouse or construction site accordingly. Should a delivery of long goods not be possible due to the absence of the recipient, we reserve the right to charge for a further delivery. Especially for deliveries to construction sites, we ask you to provide a telephone number of a contact person on site for notification of the shipment.

### Climate neutral shipping

We work as far as possible with freight forwarders and parcel logistics companies that make a contribution to climate protection and try to compensate for the greenhouse gas emissions generated throughout the entire transport chain.



# Product range

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### Mounting systems for flat roofs

aerodynamic flat roof systems simplex and duplex

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### Mounting systems for groundmounted PV

Systems with driven posts and for concrete foundations

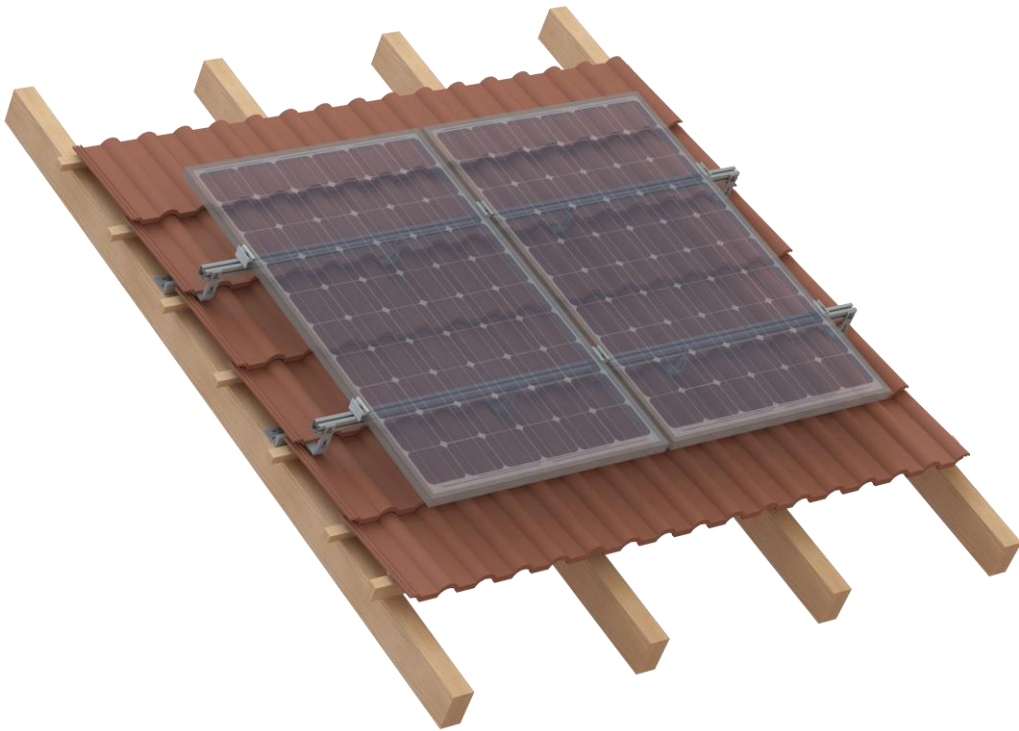
duplex field

### Fasteners & accessories

screws, nuts, washers in stainless steel

## Product range

### Fastenings for tiled roofs



# Product range

## Fastenings for tiled roofs



### Roof hook Standard item number: 201.9521-2-.....

For pan tiled roofs

#### Dimensions

##### Version A „simple loads“:

plate 150x60x4, hook 30x5, height 130mm

##### Version B „middle loads“:

plate 180x80x4, hook 35x6, height 139mm

##### Version C „heavy loads“:

plate 180x80x5, hook 35x8mm, height 137mm

#### Notes

Available in stainless steel 1.4301, 1.4016 and mixed plate 1.4016, hook 1.4301

The roof hooks are screwed to the roof beam with 2 or 3 8 mm pan head screws or 8 mm wood screws and the mounting rails are connected with an M10 hex-head screw or M10 hammer head screw and an M10 flange nut with serration.



### Roof hook adjustable item number : 201.9525-2-140x56K

For pan tiled roofs

#### Dimensions

plate 144x56x5mm, hook 30x5 und 30x6mm

#### Notes

Available in stainless steel 1.4301, 1.4016 and mixed plate 1.4016, hook 1.4301

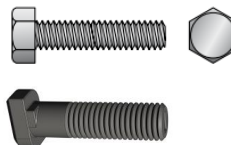
The roof hooks are screwed to the roof beam with 2 or 3 8 mm pan head screws or 8 mm wood screws and the mounting rails are connected with an M10 hex-head screw or M10 hammer head screw and an M10 flange nut with serration.



Pan-head screw or wood screw



Hex-head or hammer-head screw



Hex nut with flange

# Product range

## Fastenings for tiled roofs



### Roof hook beaver tail item number: 201.9521-Biber30x5A2

**Dimensions** hook 30 x 5 mm  
total length 265 mm, height 120 mm

**Notes** Stainless steel

The roof hooks are screwed to the roof beam with 2 8 mm pan head screws or 8 mm wood screws and the mounting rails are connected with an M10 hex-head screw or M10 hammer head screw and an M10 flange nut with serration.



### Roof hook slate item number: 301.9521-Sch30x5A2

**Dimensions** hook 30 x 5 mm  
total length 250 mm, height 70 mm

**Notes** Stainless steel  
Countersunk holes for 6mm countersunk wood screws

The roof hooks are screwed to the roof beam with 3x 6 mm countersunk screws.

The mounting rails are connected with an M10 hex-head screw or M10 hammer head screw and an M10 flange nut with serration.



countersunk wood screw



### Roof hook shingle item number: 301.9521-Schindel30x5A2

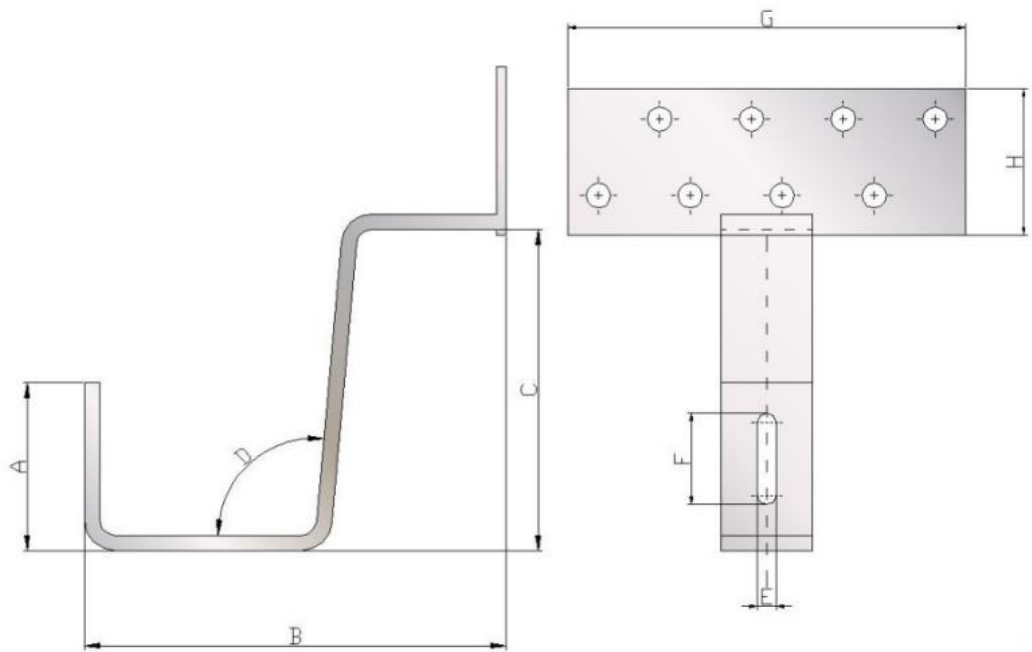
**Dimensions** hook 30 x 5 mm  
total length 135mm, height 70mm

**Notes** Stainless steel

The roof hooks are screwed to the roof beam with 2 8 mm pan head screws or 8 mm wood screws and the mounting rails are connected with an M10 hex-head screw or M10 hammer head screw and an M10 flange nut with serration.

Product range

Dimensions sheet for pan tiled hooks



lease let us know your required special dimensions:

A	B	C	D	E	F	G	H

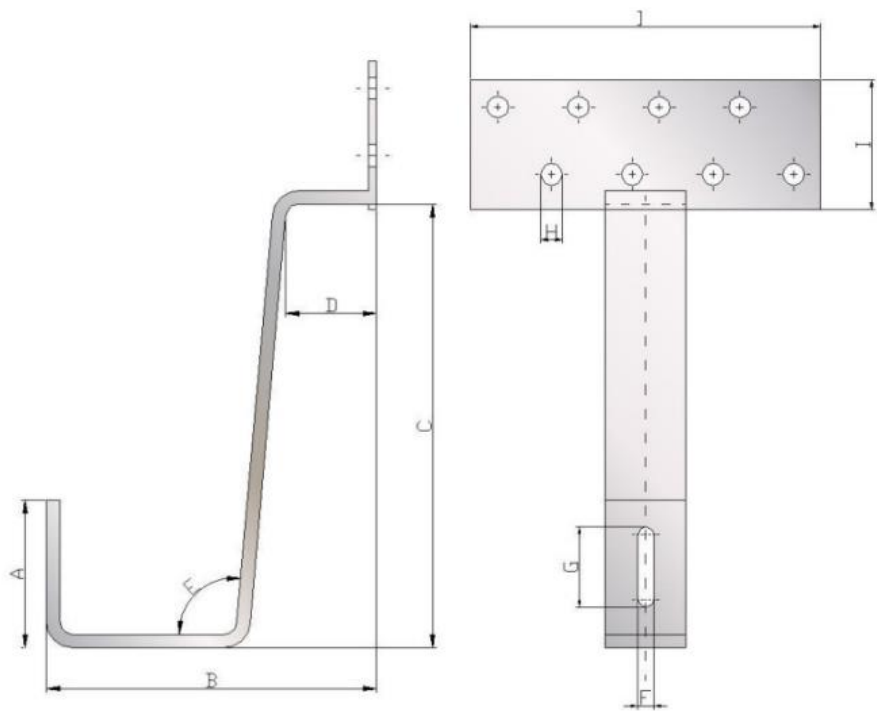
Required quantity:

Shipping address:

For the production we use stainless steel 1.4301, 5 mm thickness, unless otherwise requested

Product range

Dimensions sheet for beaver tail hooks



lease let us know your required special dimensions:

A	B	C	D	E	F	G	H	I	J

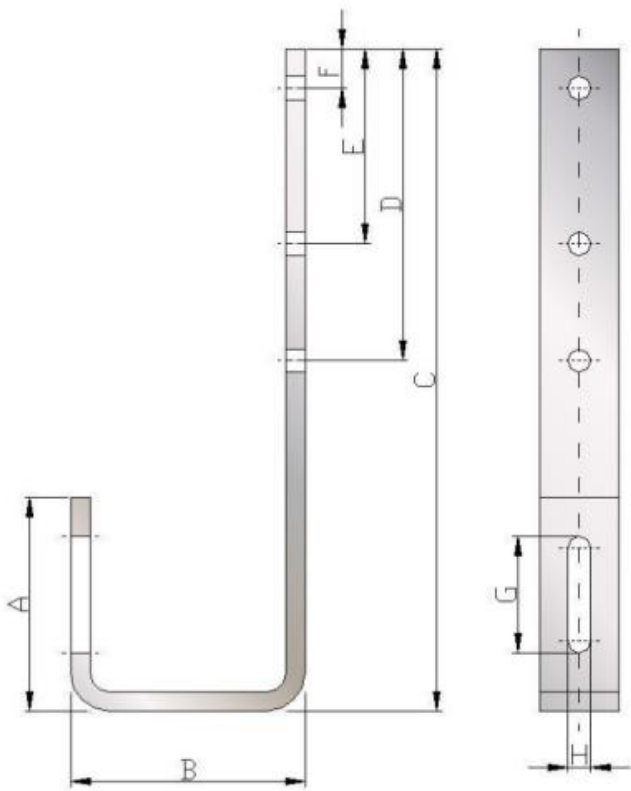
Required quantity:

Shipping adress:

For the production we use stainless steel 1.4301, 5 mm thickness, unless otherwise requested

# Product range

## Dimensions sheet for slate hooks



lease let us know your required special dimensions:

A	B	C	D	E	F	G	H

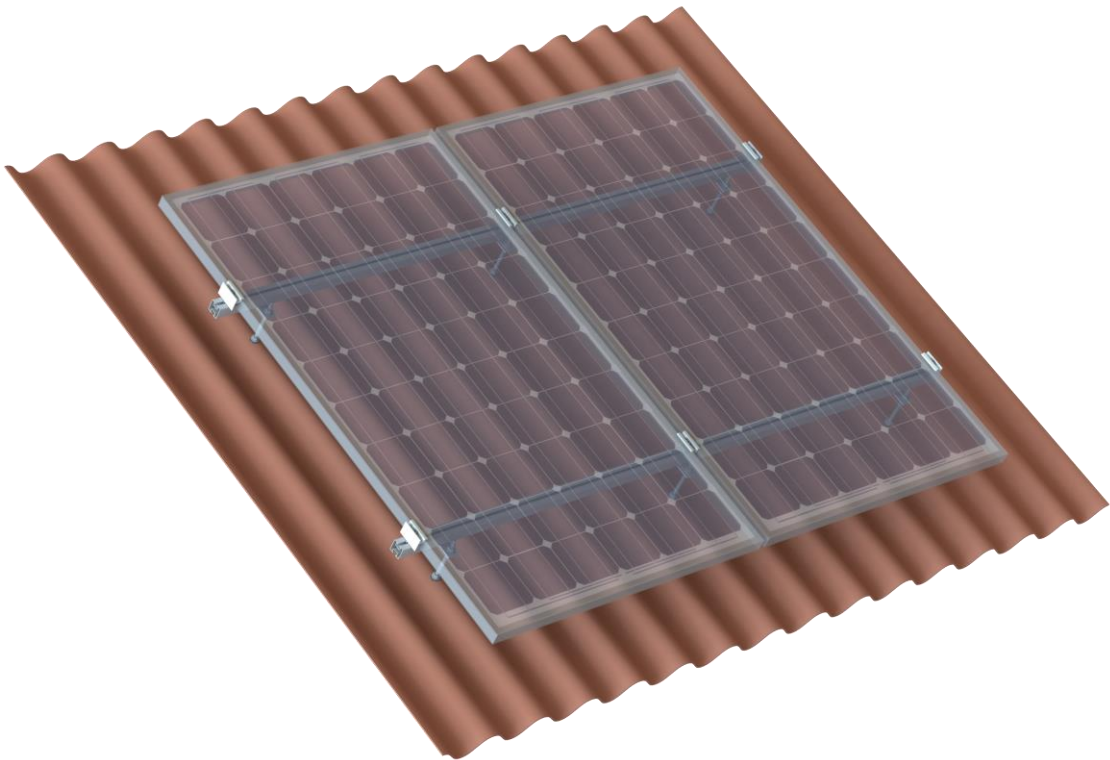
Required quantity:

Shipping adress:

For the production we use stainless steel 1.4301, 5 mm thickness, unless otherwise requested

## Product range

Fastenings for sheet metal and eternit roofs



## Product range

### Fastenings for sheet metal and eternit roofs

#### Trapezoidal rail flat item number: 201.031.400-BK



##### **Dimensions**

height: 1,3 cm, length: 400 mm

##### **Notes**

Continuously covered on the back with EPDM tape, for direct screw connection to the trapezoidal sheet metal

For mounting modules with alignment = upright

With horizontal module position, the modules must be clamped at the short sides.

#### Trapezoidal rail high item number: 201.131.400-BK



##### **Dimensions**

height: 6 cm, length: 400 mm

##### **Notes**

Continuously covered on the back with EPDM tape, for direct screw connection to the trapezoidal sheet metal

For mounting modules with alignment = upright

With horizontal module position, the modules must be clamped at the short sides.



## Product range

### Fastenings for sheet metal and eternit roofs



#### Trapezoidal rail horizontal item number: 201.231.120-BK

**Dimensions** height: 1,3 cm, length: 120 mm

**Notes** Continuously covered on the back with EPDM tape, for direct screw connection to the trapezoidal sheet metal

For mounting modules with alignment = horizontal



#### Kurzschiene Standard Artikelnummer: 201.731.150-B

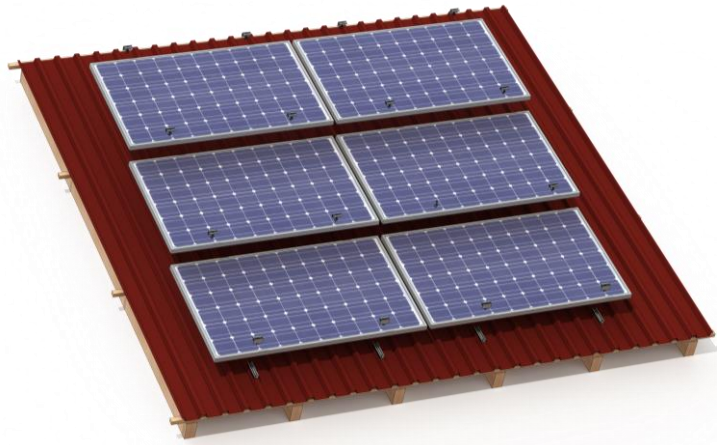
**Dimensions** length: 150 mm

**Notes** Backed with EPDM tape  
2-bores for direct screw connection to the trapezoidal sheet metal

For mounting modules with alignment = horizontal



They are fastened to the trapezoidal sheets by means of construction-approved facade construction screws with drill point or thin sheet screws. See also page 43



## Product range

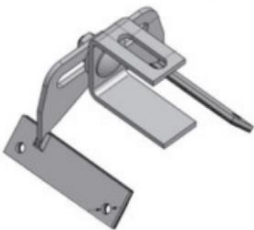
### Fastenings for sheet metal and eternit roofs



#### Roof seam clamp item number: 201.9583-Falzklemme

**Dimensions** Up to max. 3.5 mm fold width

**Notes** Stainless steel roof fold clamp with hole for rail connection M10, assembled with screw, nut, washer



#### Trapezoidal sheeting panel block item number: 201.9581-.....

**Dimensions** Individually adjustable for most trapezoidal sheet metal shapes

**Notes** 4 bores for direct screw connection to the trapezoidal sheet metal

With EPDM pads glued inside

## Product range

### Fastenings for sheet metal and eternit roofs



#### **Hanger bolt for timber item number: 301.9216-.....**

**Dimensions** Available from 10x180 to 12x400

**Notes** Pre-assembled with 3 x M10 flange nut and 1 x EPDM seal

Also available with building authority approval



#### **Adaptor plate item number: 201.302.82.40.6-B**

**Dimensions** 82x40x6 mm, Aluminium

**Notes** Available for hanger bolts M10 and M12

## Product range

### Fastenings for sheet metal and eternit roofs



#### Solar fastener for timber item number: 301.9221-2-.....

**Dimensions** Various dimensions

**Notes** Hanger bolt for timber, with special coating, assembled with nuts, washers and mushroom gasket, technical approval



#### Solar fastener for timber item number : 301.9221-2-.....

**Dimensions** Various dimensions

**Notes** Hanger bolt for timber, with special coating, assembled with nuts, washers and calotte, technical approval



#### Solarbefestiger für Stahl-UK Artikelnummer: 301.9222-2-.....

**Dimensions** Various dimensions

**Notes** Hanger bolt for steel, with special coating, assembled with nuts, washers and mushroom gasket, technical approval



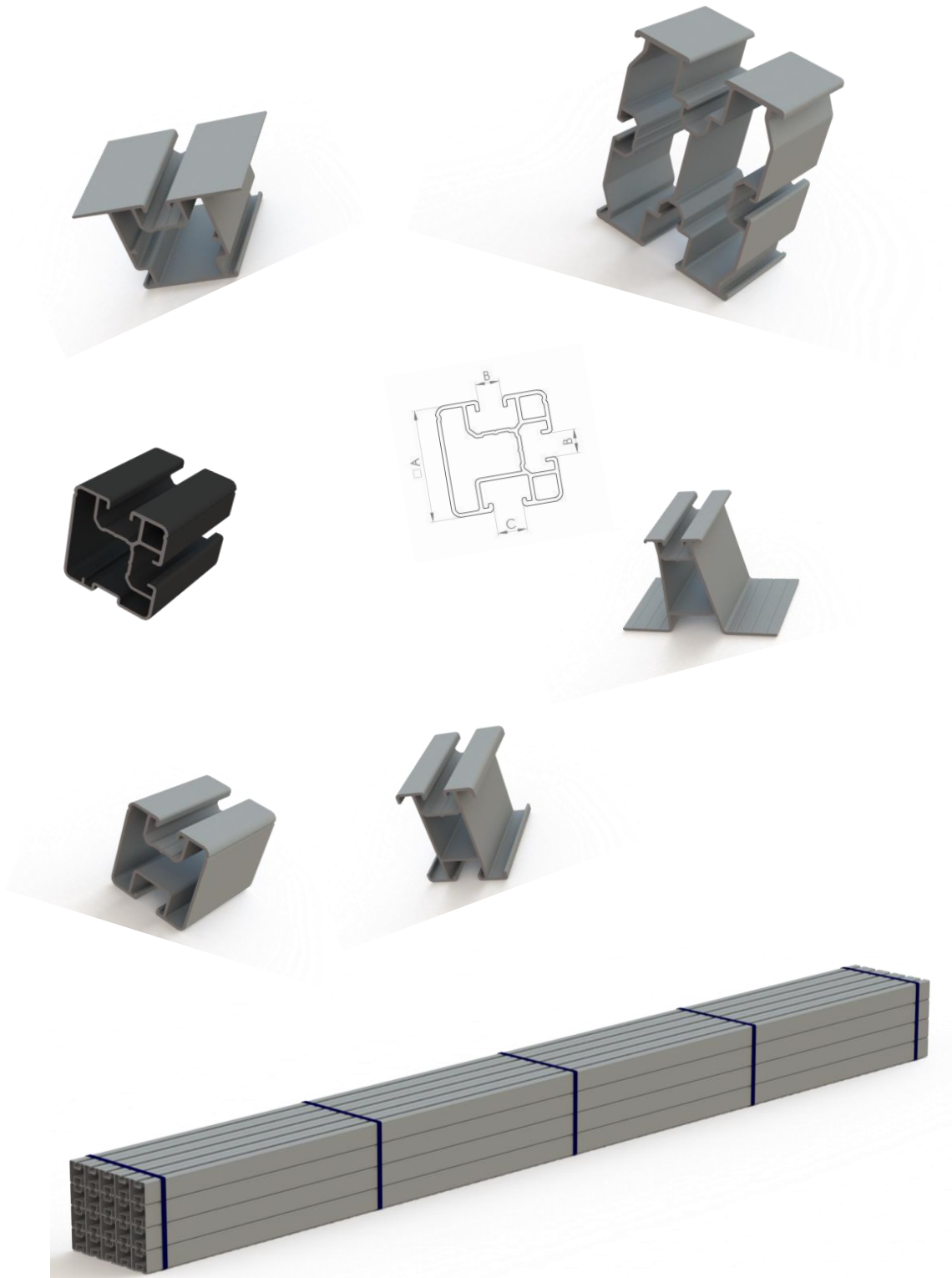
#### Solarbefestiger für Stahl-UK Artikelnummer: 301.9221-2-.....

**Dimensions** Various dimensions

**Notes** Hanger bolt for steel, with special coating, assembled with nuts, washers and calotte, technical approval

# Product range

## Profile system



# Product range

## Profile system



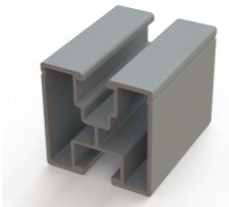
### Mounting rail PR1 item number: 101.001.6200-B

<b>Dimensions</b>	40 x 40 mm span: up to 2,65 m*
<b>Notes</b>	Connection top: slot nut M8 or KlickFix Connection below: DIN 933 M10 or Profinal hammer head screw



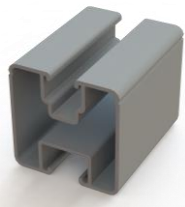
### Mounting rail PR1UL item number: 101.201.6200-B

<b>Dimensions</b>	40 x 40 mm span: bis zu 2,45 m*
<b>Notes</b>	Connection top: slot nut M8 or KlickFix Connection below: DIN 933 M10 or Profinal hammer head screw



### Mounting rail PR3 item number: 101.003.6200-B

<b>Dimensions</b>	40 x 40 mm span: up to 2,65 m*
<b>Notes</b>	Connection top: square nut M8 or KlickFix Connection below: DIN 933 M10 or Profinal hammer head screw



### Mounting rail PR3UL item number: 101.203.6200-B

<b>Dimensions</b>	40 x 40 mm span: up to 2,45 m*
<b>Notes</b>	Connection top: square nut M8 or KlickFix Connection below: DIN 933 M10 or Profinal hammer head screw

\* Load assumptions: Snow load zone 1, terrain height up to 285 m, module load: 0.22 kN/m<sup>2</sup>; wind load zone 1, terrain category 4 - level terrain, roof pitch 45°.

# Product range

## Profile system



### Mounting rail PR15 item number: 101.015.6200-B

<b>Dimensions</b>	40 x 40 mm span: up to 2,60 m*
<b>Notes</b>	Connection top/lateral: slot nut M8 or KlickFix



### Mounting rail PR15UL item number: 101.215.6200-B

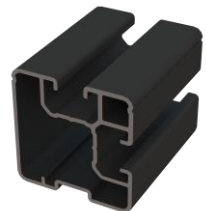
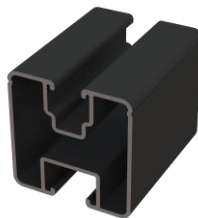
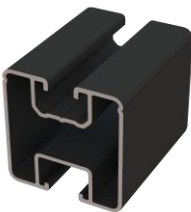
<b>Dimensions</b>	40 x 40 mm span: up to 2,40 m*
<b>Notes</b>	Connection top/lateral: slot nut M8 or KlickFix



### Mounting rail PR15M10 item number: 101.415.6200-B

<b>Dimensions</b>	40 x 40 mm span: up to 2,40 m*
<b>Notes</b>	Connection top/lateral: slot nut M8 or KlickFix Connection below: DIN 933 M10 or Profinal hammer head screw

*Load assumptions: Snow load zone 1, terrain height up to 285 m, module load: 0.22 kN/m<sup>2</sup>; wind load zone 1, terrain category 4 - level terrain, roof pitch 45°.*



All our mounting rails are also available in anodised E6/EV1 or black anodised and are individually available in different lengths for orders > 1 ton.

# Product range

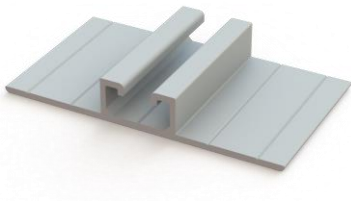
## Profile system



### Mounting rail PR HB item number: 101.301.6200-B

**Dimensions** 20 x 40 mm

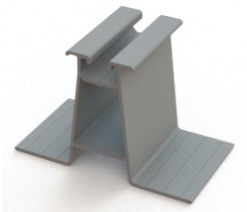
**Notes** Connection top: slot nut M8 or KlickFix  
Connection below: DIN 933 M10 or Profinal hammer head screw



### Mounting rail trapezoidal flat item number: 101.031.6200-B

**Dimensions** 90 x 20 mm

**Notes** Connection top: slot nut M8 or KlickFix  
For direct screw connection to trapezoidal sheet metal



### Mounting rail trapezoidal high item number: 101.131.6200-B

**Dimensions** 90 x 60 mm

**Notes** Connection top: slot nut M8 or KlickFix  
For direct screw connection to trapezoidal sheet metal

# Product range

## Profile system



### Mounting rails PR5 item number: 101.005.6200-B

<b>Dimensions</b>	50 x 40 mm Span: up to 3,15 m*
<b>Notes</b>	Connection top: slot nut M8 or KlickFix Connection below: DIN 933 M10 or Profinal hammer head screw



### Mounting rail Light1 item number: 101.101.6200-B

<b>Dimensions</b>	50 x 39 mm Span: up to 2,40 m*
<b>Notes</b>	Connection top: slot nut M8 or KlickFix Connection below: DIN 933 M10 or Profinal hammer head screw



### Mounting rail Light3 item number: 101.103.6200-B

<b>Dimensions</b>	50 x 39 mm Span: up to 2,40 m*
<b>Notes</b>	Connection top: square nut M8 or KlickFix Connection below: DIN 933 M10 or Profinal hammer head screw



### Mounting rail PR2 item number: 101.002.6200-B

<b>Dimensions</b>	80 x 40 mm span: up to 3,765 m*
<b>Notes</b>	Connection top: slot nut M8 or KlickFix Connection below: DIN 933 M10 or Profinal hammer head screw



### Mounting rail PR16 item number 101.016.6200-B

<b>Dimensions</b>	80 x 40 mm Span: up to 3,75 m*
<b>Notes</b>	Connection top/lateral: slot nut M8 or KlickFix

*Load assumptions: Snow load zone 1, terrain height up to 285 m, module load: 0.22 kN/m<sup>2</sup>; wind load zone 1, terrain category 4 - level terrain, roof pitch 45°.*

# Product range

## Profile system



### Mounting rail border item number: 101.242.6200-B

**Dimensions** 80 x 40 mm

**Notes** Connection top: slot nut M8 or KlickFix  
Connection below: DIN 933 M10 or Profinal hammer head screw



### Mounting rail middle item number: 101.243.6200-B

**Dimensions** 80 x 40 mm

**Notes** Connection top: slot nut M8 or KlickFix  
Connection below: DIN 933 M10 or Profinal hammer head screw



### Mounting rail PR17 item number: 101.017.6200-B

**Dimensions** 80 x 40 mm

**Notes** Connection top: slot nut M8 or KlickFix  
Connection below: DIN 933 M10 or Profinal hammer head screw



### Mounting rail PRX80 item number: 101.040.6200-B

**Dimensions** 80 x 40 mm

**Notes** Connection top: slot nut M8 or KlickFix  
Connection below: DIN 933 M10 or Profinal hammer head screw

Load assumptions: Snow load zone 1, terrain height up to 285 m, module load: 0.22 kN/m<sup>2</sup>; wind load zone 1, terrain category 4 - level terrain, roof pitch 45°.

# Product range

## Profile system



### Mounting rail PR85/50 item number: 101.255.6200-B

**Dimensions** 85 x 50 mm

**Notes** Connection top: slot nut M8 or KlickFix  
Connection below: DIN 933 M10 or Profinal hammer head screw



### Mounting rail PR200 item number: 101.050.6200-B

**Dimensions** 108 x 80 mm

**Notes** Connection top/below: M20 or mounting plates  
Connection lateral: slot nut M8 or KlickFix

# Product range

## Profile system



### Angle profile 40x40x3 item number: 100.001.40x40x3-B

**Dimensions** 40 x 40 x 3

**Notes** Measurement example

We supply your angle profiles in individual dimensions and lengths, e.g. for waste optimisation



### Z-Profile 40x40x40x3 item number: 100.006.40x40x40x3-B

**Dimensions** 40 x 40 x 40 x 3

**Notes** Measurement example

We supply your Z-profiles in individual dimensions and lengths, e.g. for waste optimisation

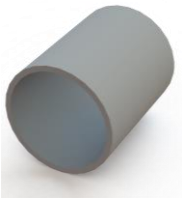


### Square tube profile 40x40x3 item number: 100.002.40x40x3-B

**Dimensions** 40 x 40 x 3

**Notes** Measurement example

We supply your square tube profiles in individual dimensions and lengths, e.g. for waste optimisation



### Tube 40x2 item number: 100.003.40x2-B

**Dimensions** 40 x 2

**Notes** Measurement example

We supply your tube profiles in individual dimensions and lengths, e.g. for waste optimisation

# Product range

## Profile system



### U-connector item number: 201.012.200-B

**Dimensions** length: 200 mm

**Notes** For mounting rails 40/40  
for external mounting 4 drilling screws required for mounting



### Insert-Connector item number: 201.218.200-B

**Dimensions** length: 200 mm

**Notes** For mounting rails 40/40 for internal mounting  
2 connectors per connection point needed



### Insert-connector item number: 201.118.200-B

**Dimensions** length: 200 mm

**Notes** For mounting rails 50/40 for internal mounting  
2 connectors per connection point needed



### Insert-connector item number: 201.318.150-B

**Dimensions** length: 150 mm

**Notes** For mounting rails 20/40 for internal mounting  
1 connector per connection point needed

# Product range

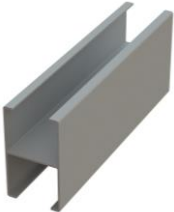
## Profile system



### Insert-connector item number: 201.418.200-B

**Dimensions** length: 200 mm

**Notes** For mounting rails 80/40  
for internal mounting 4 drilling screws required for mounting



### Insert-connector item-number: 201.618.200-B

**Dimensions** length: 200 mm

**Notes** For mounting rails 85/50  
for internal mounting 4 drilling screws required for mounting



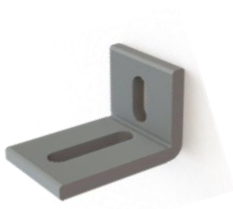
### Insert-connector item-number: 201.019.400-B

**Dimensions** length: 400 mm

**Notes** For mounting rail PR200  
for internal mounting, 2 connectors per connecting point needed

# Product range

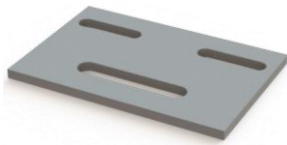
## Profile system



### Cross connection angle item number: 201.014.40-B

**Dimensions** 58 x 38mm, width: 40 mm

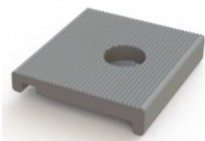
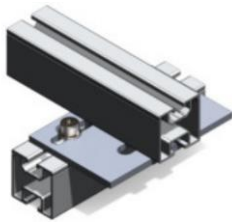
**Notes** For the construction of a rail cross bracing  
3 x M8x16 screw and 3 x slot nut are required



### Cross connection plate item number: 201.023.120-B

**Dimensions** length: 120 mm

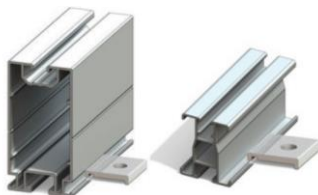
**Notes** For the construction of a rail cross bracing  
The same rail with M10 bottom connection can be used for both profile layers.



### Mounting plate item number: 201.026....-B

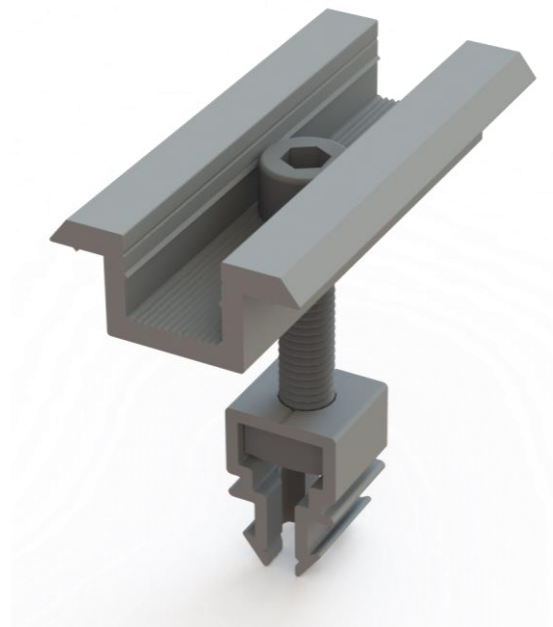
**Dimensions** length: 40 mm

**Notes** For the construction of a rail cross bracing  
Available with hole for M8 and hole for M10



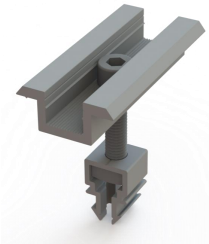
# Product range

## Module installation



# Product range

## Module installation



### **Middle clamp KlickFix item number: 201.9745-Mxx**

#### **Dimensions**

clamp: 70 mm length, 36 mm width  
Space between modules: 20 mm

#### **Notes**

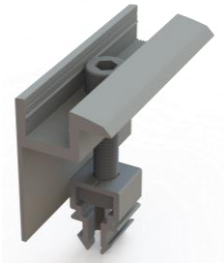
Pre-assembled module clamp for simple and practical "click" installation

Please note the module frame height:

Version M1: Frame height 28 - 35 mm

Version M2: Frame height 36 - 44 mm

Version M3: Frame height 45 - 50 mm



### **Endklemme KlickFix Artikelnummer: 201.9742-E..**

#### **Dimensions**

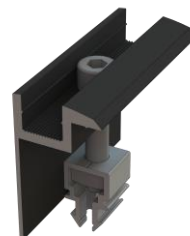
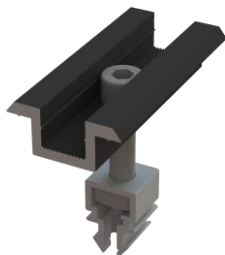
clamp: 70 mm length, 36 mm width  
Space between modules: 20 mm

#### **Notes**

Pre-assembled module clamp for simple and practical "click" installation

Please note the module frame height. There is an individual end clamp for each frame height.

Each also available with black anodized module clamp:



# Product range

## Module installation

### Middle clamp TurnFix item number: 201.813-xx-B



#### Dimensions

clamp: 70 mm length, 36 mm width  
Space between modules: 20 mm

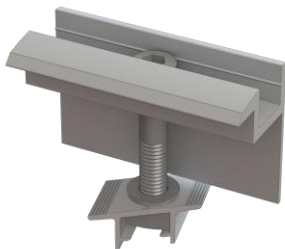
#### Notes

Pre-assembled module clamp for simple and practical "turn-in" installation

Please not the module frame height. There is an individual clamp for each frame height.



For use with the "short rails standard" on trapezoidal sheet metal roofs



### End clamp TurnFix item number: 201.804-xx-B

#### Dimensions

Klemme: 70 mm Länge, 36 mm Breite  
Modulabstand: 20 mm

#### Notes

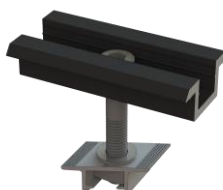
Pre-assembled module clamp for simple and practical "turn-in" installation

Please not the module frame height. There is an individual clamp for each frame height.



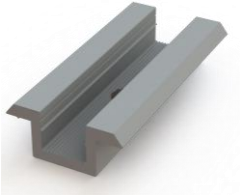
For use with the "short rails standard" on trapezoidal sheet metal roofs

Each also available with black anodized module clamp:



# Product range

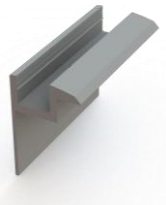
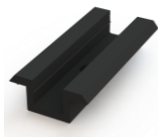
## Module installation



### Middle clamp item number: 201.013.70-B

**Dimensions** clamp: 70 mm length, 36 mm width  
Space between modules: 20 mm

**Notes** Available in "mill finish" and "black anodized"

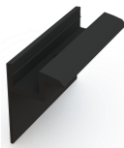


### End clamp item number: 201.004.70x...-B

**Dimensions** clamp: 70 mm length, 36 mm width  
Space between modules: 20 mm

**Notes** Available in "mill finish" and "black anodized"

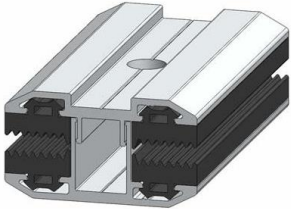
Please specify module frame height.



Module frame height	Screw length for slot nuts	Use of washer
32 mm	M8 x 35 mm	
34 mm	M8 x 35 mm	
35 mm	M8 x 40 mm	X
36 mm	M8 x 40 mm	X
38 mm	M8 x 40 mm	
40 mm	M8 x 45 mm	X
42 mm	M8 x 45 mm	
45 mm	M8 x 50 mm	X
46 mm	M8 x 50 mm	X
50 mm	M8 x 55 mm	X

# Product range

## Module installation

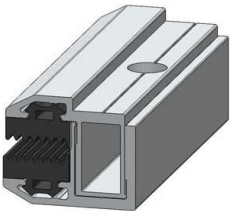


### Middle clamp for glasmodules item number: 201.9745-LAMINAT

**Dimensions** clamp: 80 mm length

**Notes** Two-piece, Inclusive EPDM  
With approval for different module manufacturers, incl.  
First Solar

An additional screw M8x35 + lock washer is required



### End clamp for glas modules item number: 201.9742-LAMINAT

**Dimensions** clamp: 80 mm length

**Notes** Two-piece, Inclusive EPDM  
With approval for different module manufacturers, incl.  
First Solar

An additional screw M8x35 + lock washer is required

## Product range

### Mounting systems for flat roofs



# Product range

## Mounting systems for flat roofs



### simplex roof

**Dimensions** Individual project designs

**Notes** Virtually ballast-free mounting system for flat roofs, module orientation to the south in the wind tunnel developed and aerodynamically optimized, suitable for roofs with low surface load reserve



### simplex roof base

**Dimensions** Individual project designs

**Notes** Virtually ballast-free mounting system for flat roofs, module orientation to the south in the wind tunnel developed and aerodynamically optimized, suitable for roofs with low surface load reserve



### duplex roof

**Dimensions** Individual project designs

**Notes** Virtually ballast-free mounting system for flat roofs, module orientation to east/west in the wind tunnel developed and aerodynamically optimized, suitable for roofs with low surface load reserve



### duplex roof base

**Dimensions** Individual project designs

**Notes** Virtually ballast-free mounting system for flat roofs, module orientation to east/west in the wind tunnel developed and aerodynamically optimized, suitable for roofs with low surface load reserve

Further information on the flat roof systems can be found in the respective data sheets.  
Please send us your project enquiries for individual designs and offers

# Product range

## Mounting systems for flat roofs



### Flat roof elevation item number 201.099.xxxxx

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**Dimensions** Individual dimensions

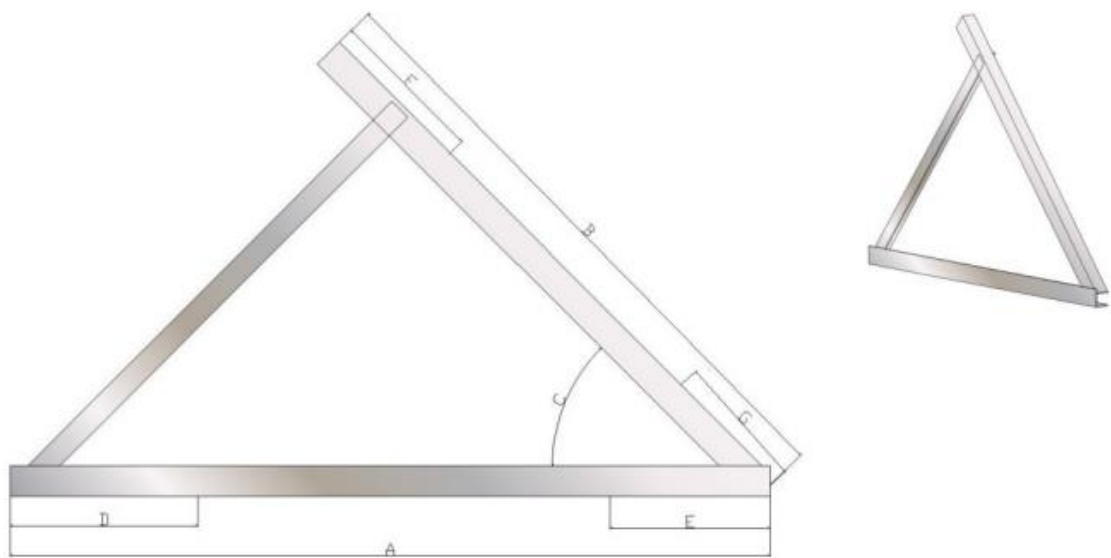
**Notes** Elevation triangle made of aluminium angle profiles, e.g. 40x40x3 or 40x40x5, inclination angle selectable  
Side lengths also individual

Please also note our corresponding inquiry sheet on the following page



# Product range

## Mounting systems for flat roofs



Please let us know your required special dimensions:

A	B	C	D	E	F	G

Required material (e.g. Alu angle 40x40x3):

Required quantity:

Shipping adress

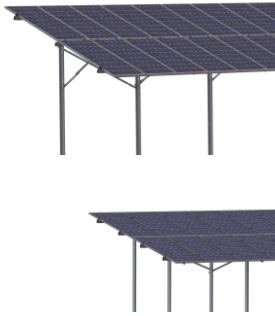
## Product range

### Mounting system for groundmounted PV



## Product range

### Mounting system for groundmounted PV



#### PROFI2 for 2 modules, orientation portrait

**Dimensions** Individual project designs

**Notes** Steel construction made of hot-dip galvanised steel with module support rails made of aluminium

Module tables are statically optimised and produced for individual projects

Available as single-leg and two-leg versions



#### PROFI3H for 3 modules, orientation portrait

**Dimensions** Individual project designs

**Notes** Steel construction made of hot-dip galvanised steel with module support rails made of aluminium

Module tables are statically optimised and produced for individual projects



#### PROFI3W for 3 modules, orientation landscape waagerecht

**Dimensions** Individual project designs

**Notes** Steel construction made of hot-dip galvanised steel with module support rails made of aluminium

Module tables are statically optimised and produced for individual projects

For further information on the groundmounted systems, please refer to the respective data sheets and send us your project enquiries for individual designs and offers.

# Product range

## Mounting system for groundmounted PV



### PROFI4W for 4 modules, orientation landscape

**Dimensions** Individual project designs

**Notes** Steel construction made of hot-dip galvanised steel with module support rails made of aluminium

Module tables are statically optimised and produced for individual projects



### PROFI6W for 6 modules, orientation landscape

**Dimensions** Individual project designs

**Notes** Steel construction made of hot-dip galvanised steel with module support rails made of aluminium

Module tables are statically optimised and produced for individual projects



### duplex field

**Dimensions** Individual project designs

**Notes** Steel construction

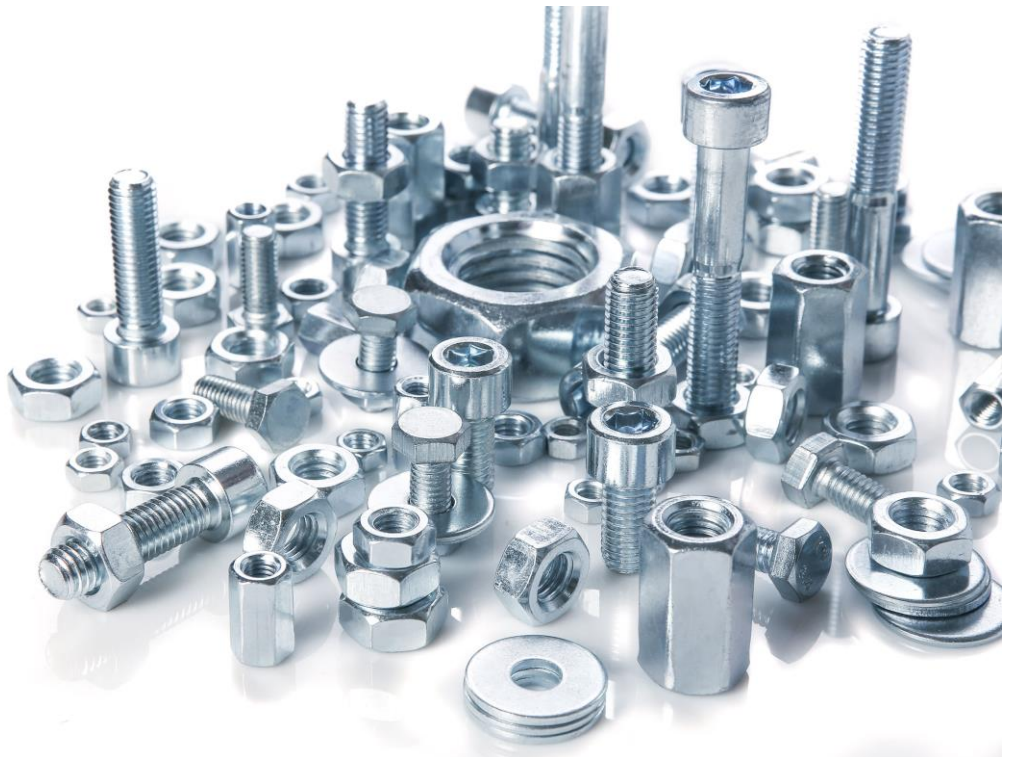
Special solution for terrain that does not allow pile driving - e.g. landfills, parking lots, sealed conversion areas or stone deserts.

Up to 150% more modules on the same area, as no shading distance is required

For further information on the groundmounted systems, please refer to the respective data sheets and send us your project enquiries for individual designs and offers.

# Product range

## Fasteners & accessories



# Product range

## Fasteners & accessories

In principle, we supply all stainless steel fasteners in the strength classes A1 to A5. In the following, we show only a selection of the articles that are used for our solar mounting systems. Please feel free to send us your requirements for articles not included in this catalogue.



### Washer head screw item number: 301.9810.xxx

**Dimensions** e.g. 6x80, 6x100  
8x80, 8x100, 8x120

**Notes** TX-drive, stainless steel hardened, approved by the construction supervision authority for fastening, e.g. For installation of roof-hooks



### Hex-head wood screws item number: 301.571.xxx

**Dimensions** e.g. 8x80, 8x100, 8x120, 8x140, 8x160, ...  
10x80, 10x100, 10x120, 10x140, 10x160, ...

**Notes** Stainless steel, according to DIN 571  
e.g. For installation of roof-hooks



### Wood screw item number: 301.9135.xxx

**Dimensions** e.g. 6x50, 6x100, ...

**Notes** Stainless steel, according to DIN 9135  
TX-drive, countersunk head, part thread with ETA-approval



### Allen screw item number: 301.912.xxx

**Dimensions** e.g. 8x16, 8x20, 8x25, 8x30, 8x35, ...

**Notes** Hexagon socket head cap screw, stainless steel A2, according to DIN 912  
e.g. for mounting the module clamps in the slot nut



### Hex-head screw item number: 301.933.xxx

**Dimensions** e.g. 10x25, 10x30, 10x40, ...

**Notes** Hex-head screw with thread up to head, stainless steel A2, according to DIN 933  
e.g. for fastening the mounting rails to the roof hooks

# Product range

## Fasteners & accessories



**Hammerhead screw item number: 301.9664-2-10x30-3**

**Dimensions** 10 x 30

**Notes** Stainless steel A2  
e.g. for a more comfortable fastening of the mounting rails on the roof hooks



**Hammerhead screw Type 28/15 item number: 301.9415.xxx**

**Dimensions** e.g. 8x20, 8x25, 8x30, 8x35, ...  
10x20, 10x25, 10x30, 10x40

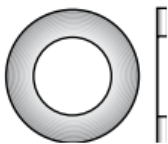
**Notes** Stainless steel A2  
For mounting rails Type 28/15



**washer item number: 301.9021.xxx**

**Dimensions** e.g. for M8, for M10, for M12, ...

**Notes** With large external diameter, according to DIN 9021  
stainless steel A2



**Washer item number: 301.125.xxx**

**Dimensions** e.g. for M8, for M10, for M12, ...

**Notes** Stainless steel A2, according to DIN 125



**Locking washer item number: 301.9250.xxx**

**Dimensions** e.g. for M8, for M10, for M12, ...

**Notes** Stainless steel A2, according to DIN 125  
e.g. use with module clamps

# Product range

## Fasteners & accessories



### Hex-head self-drilling screw item number: 301.7504-2-5,5x25K

**Dimensions** 5,5 x 25mm

**Notes** Stainless steel A2, according to DIN 7504 hex-head  
  
e.g. for securing profile connectors in the mounting rails



### Facade screw item number: 301.9191-2-6,3x25

**Dimensions** 6,3 x 25mm

**Notes** Bimetal (A2 / hardened steel)  
Specially coated, with captive sealing washer, reduced drill tip, key-wide 8 with construction approval  
  
e.g. for fastening aluminium profiles to trapezoidal sheet metal



### Thin metal screw item number: 301.9191-2-...

**Dimensions** e.g. 4,5x25, 6,0x25, ...

**Notes** Bimetal (A2 / Nickel Strike, zinc plated, blue passivated)  
Specially coated, with captive sealing washer, slide coated, key-wide 8 with construction approval  
  
e.g. for fastening aluminium profiles to trapezoidal sheet metal

# Product range

## Fasteners & accessories



### Mushroomhead screw item-number: 301.603.xxx

**Dimensions** e.g. 10x20, 10x25, 10x30, usw

**Notes** Stainless steel A2, according to DIN 603



### Square nut item number: 301.557.xxx

**Dimensions** e.g. for M8, for M10, for M12

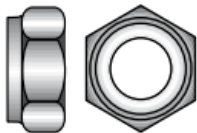
**Notes** Stainless steel A2, according to DIN 557



### Hex-head nut item number: 301.934.xxx

**Dimensions** e.g. for M8, for M10, for M12

**Notes** Stainless steel A2, according to DIN 934



### Stop nut item number: 301.985.xxx

**Dimensions** e.g. for M8, for M10, for M12

**Notes** Stainless steel A2, according to DIN 985



### Hex-head nut with flange item number: 301.9345.xxx

**Dimensions** e.g. for M8, for M10, for M12

**Notes** Hex-head nut similar to DIN 6923 with flange and serration  
Stainless steel A2

# Product range

## Fasteners & accessories



### Slot nut item number: 301.001.1-E

**Dimensions** for M8

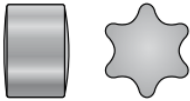
**Notes** Aluminium, with ball and spring in stainless steel  
Swivels into the upper M8 tracks of the mounting rails



### VA compound anchor item number: 301.9360.xxx

**Dimensions** Various

**Notes** VA compound anchor mortar  
cartridge VA-P  
e.g. for fastening dowel screws  
in concrete



### Star inserts for TX-drive item number: 301.9495.xxx

**Dimensions** For TX-sizes 10 – 40

**Notes** Zinc diecast



### Ball for driving in item number: 301.9490-2-6,25

**Dimensions** for M8, key-wide 6

**Notes** For Securing allen screws  
Balls Niro 304 6,25 mm Grade 40

## Many thanks for your interest!

Please do not hesitate to contact us if you have any suggestions, questions or ideas for improvement. You can find all contact details under:

<http://www.profinal-aluminium.de>

