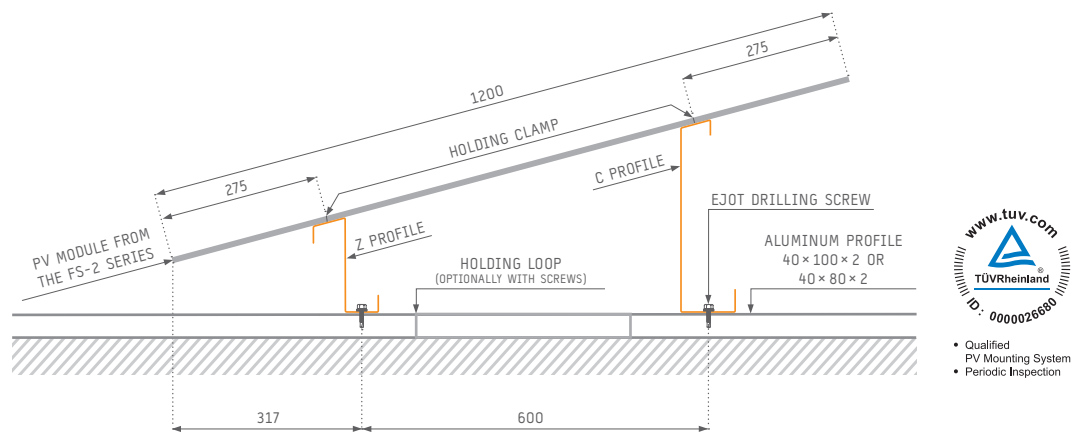


SUBSTRUCTURE
COLEXON SYSTEM C+Z



TECHNICAL DETAILS

SUPPORT BRACKET | ALUMINIUM RECTANGULAR PROFILES 40x80x2mm OR 40x100x2mm

| | |
|-------------------------|------------------------------|
| Material specification: | Aluminium EN AW – Al Mg3 H14 |
| Length: | 750 mm |

SUPPORTING STRUCTURE | Z- AND C-PROFILE

| | |
|-------------------------|--|
| Material specification: | Aluminium EN AW – Al Mg3 H14; Steel S 235 JR (RSt 37-2), statics dependent |
| Thickness: | 1,0 – 2,5 mm, statics dependent |
| Weight: | About 2,00 – 5,00 kg/m, statics dependent |
| Lengths of cut: | Up to 6,5 m |

LOOPS AND SEALING

| | |
|-----------|--|
| Material: | Roof cladding dependent, for example PVC |
| | The loops and the sealing are in accordance with the requirements of DIN 18531 and DIN 18195 |

SCREWS

| | |
|-----------|--|
| Material: | Stainless steel 1.4301 |
| Type: | Roof cladding dependent, all screws are approved for roof construction |

APPLICATION RANGE AND BASIC FEATURES

The TUV certified COLEXON SYSTEM C+Z was developed especially for the use in photovoltaic solar power plants on factory buildings and hall roofs in light construction. It is an universal mounting system for inclined PV plants on flat roofs. The inclination angle can be chosen prior to construction, in a range of 0° – 30° . The COLEXON SYSTEM C+Z is easy to assemble and disassemble. No special tools are required. This ensures that the system can be easily adapted, i. e. if roof works are needed. The COLEXON SYSTEM C+Z is designed for First Solar Modules. The open construction ensures that no heat is built up underneath the modules. The original water drain design of the roof is not altered by the mounting system.

SYSTEM DESCRIPTION

Aluminium rectangular profiles of 750 mm length on a special protection quilt serve as support bracket (dimensions $40 \times 80 \times 2$ mm). A “Z profile” and a “C profile” of galvanized steel or aluminium will be screwed on each support using two stainless steel screws. The C-profile will also be used as cable trench. The thickness as well as the material of the profiles will be calculated and defined according to the location and its statics. The modules will be fixed on the strapping with the help of module clamps approved by First Solar.

The wind pressure anchorage of the support bracket is done with two loops of a fibre-reinforced foil, which will be welded homogeneously with the existing foil. The loops must be conforming to the existing foil. According to condition and material of the existing foil as well as the location and its statics, the loops will additionally be fixed and sealed. Thereby, the COLEXON SYSTEM C+Z will be integrated into the roof cladding. The vertical extra loads of the PV plant will be distributed as constant load across the whole roof construction.

The wind lifting loads will be led to the structure of the building as single loads. Due to the connection of roof cladding and mounting system, the net weight of the PV plant and the net weight of the roof construction are together counteracting on the wind lifting loads.