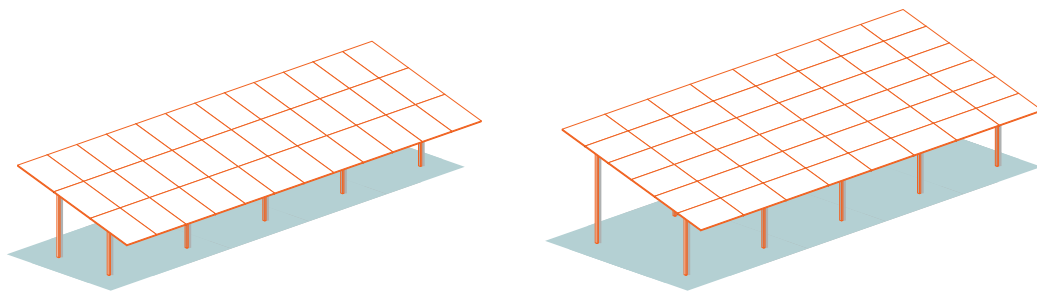
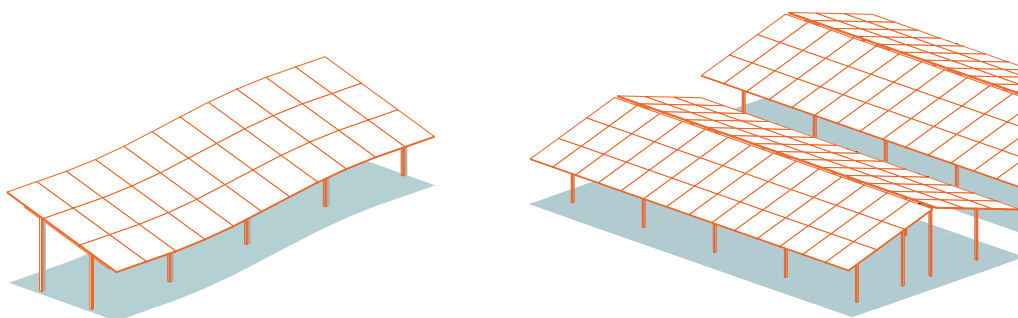


APPLICATIONS



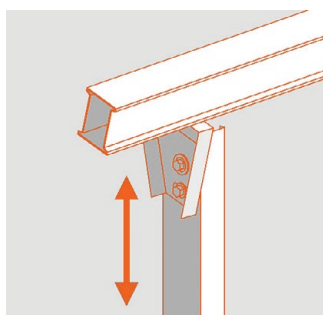
South-oriented systems with 2 rows of posts, 2-4 vertical or 4-6 horizontal rows of modules



Adaptation to the ground profile

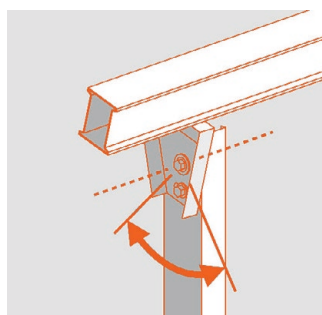
East-west systems vertical / horizontal

1



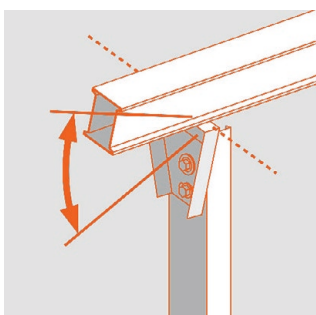
Height adjustment

2



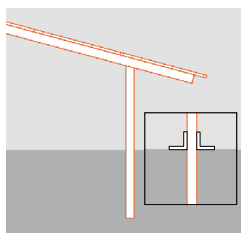
Optimum tilt angle

3

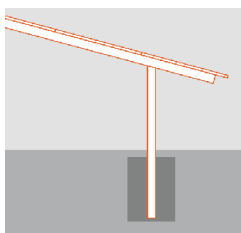


East-west rocker

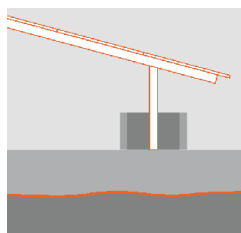
1



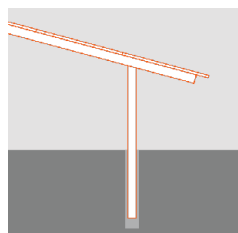
2



3



4



Suitable for every ground type thanks to various foundation options:

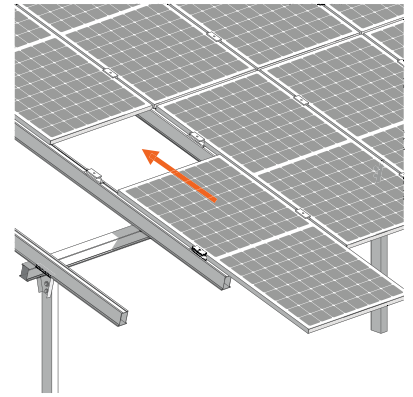
1. Rammed post foundation (also with load distribution plates)
2. Concrete incast foundation
3. Ballast foundation (e.g. for limited anchoring depth)
4. Drill-holes (in rocky ground)

MAIN VERSIONS

VERTICAL VERSIONS

The module carriers run along the frame of the solar module. They are fitted to the long side of the module using clamps. This configuration is ideal for bifacial solar modules.

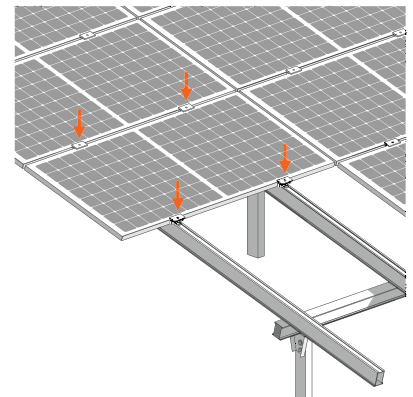
- Main version: 3 vertical modules (max. 4 vertical modules)
- Variable carrier dimensions, adapted for all common solar modules
- Tilt angle 5 to 25°
- ASSEMBLY 2.0 possible



HORIZONTAL VERSIONS

The module carriers run below the modules. The solar modules are fitted to the long side of the module using clamps.

- Main version: 6 horizontal modules
- Variable carrier dimensions, adapted for all common solar modules
- Tilt angle 5 to 25°
- ASSEMBLY 2.0 possible



MODULE CLAMPS

The module clamps which were specially developed for the GMS® SCALE system are not only used to fix the solar modules in place: they combine a wide range of functions and can be used in a variety of ways.

1. Quick, safe mounting

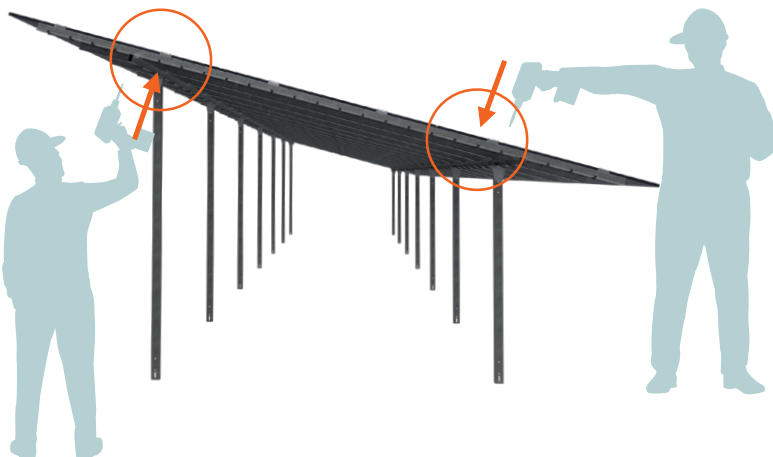
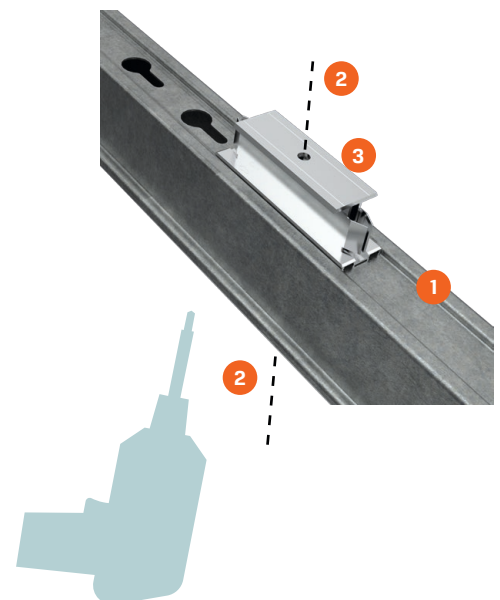
The clamp locks securely into prefabricated profile holes.

2. Screw fastening

Fastening from above and below makes the mounting process easier.

3. Theft protection

Special bit for secure fixing of the module clamps and protection against theft.



MAIN COMPONENTS

1 POSTS

Corrosion-resistant C-profiles offer maximum flexibility for the most diverse ground conditions.



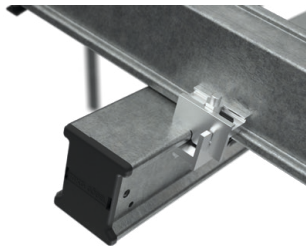
2 HEADS

The special head provides variable and secure height adjustment of up to approx. 50 mm.



3 LONG BEAMS

Closed, torsionally rigid long beams provide maximum stability.



4 MODULE CARRIERS

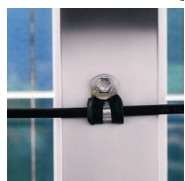
Closed, torsionally rigid module carriers made from steel with zinc-magnesium coating.



ACCESSORIES



Cable tray made from UV-stabilised polymer for cable routing along the long beam



Cable clamps to secure the module cables to the module carrier



Bridging strap for potential equalisation within the table rows.



Optional earthing pins for grounding of the modules from below



Connector holder for MC4 connectors



Bracket for string inverters and string combiner boxes (SCB); bite-protection cage made from double bar mesh



End caps for long beam



Mowing protection

TECHNICAL DATA

FOUNDATIONS

- Rammed posts
- Concrete incast foundation
- Ballast foundation
- Load distribution plates
- Drill-holes (in rocky ground)

DESIGN

Modular system with only 4 main components

MATERIALS

- Posts: Hot-dip galvanised steel (batch galvanised – EN ISO 1461, alternatively zinc-magnesium ZM620)
- Head, long beam, module carriers: Steel S420/S550; surface ZM430
- Small parts: Steel S355/S420; surface ZM430 or aluminium EN AW 6063 T66
- Fasteners: Stainless steel 1.4301

STRUCTURAL ANALYSIS

Project-specific in accordance with Eurocode DIN EN 1991, DIN EN 1993, DIN EN 1999, wind tunnel test, CC2, load return period 50 years

MODULE INSTALLATION

Vertically 2–4 modules, horizontally 3–6 modules on top of each other

MODULE TILT ANGLE

Flexible tilt angle, standard: 5° to 25° (other angles upon request)

ADAPTATION TO TERRAIN

North/south slope: up to $\pm 35^\circ$ (other angles upon request);
east/west slope: up to $\pm 8^\circ$ (using balancing rocker)

ACCESSORIES

- Cable tray
- Cable clips
- Bridging straps
- Optional earthing pins
- Brackets for string inverters or string combiner boxes (SCB)
- Bite-protection cage
- End caps for long beam

MKG GÖBEL

MKG Göbel Solutions GmbH

**Pfaffenmühlweg 86
74613 Öhringen, Germany**

Phone: +49 (0) 79 41-6 49 20-0

Fax: +49 (0) 79 41-6 49 20-20

E-mail: info@mkg-goebel.de

www.mkg-goebel.de

**Certified in accordance with
DIN EN ISO 9001:2015**

**Workplace-protection-certified
ISO 45001:2018 and SCC**

