



Yokohama Solar Solutions



TERRAGRID

PRODUCT SHEET

THE GROUND MOUNT SYSTEM FOR LOW-LEVEL FOUNDATIONS

- Low anchoring depth due to screw (two-disc) foundations
- Maximum structural safety and durability
- Especially for applications on landfill sites
- Simple disassembly

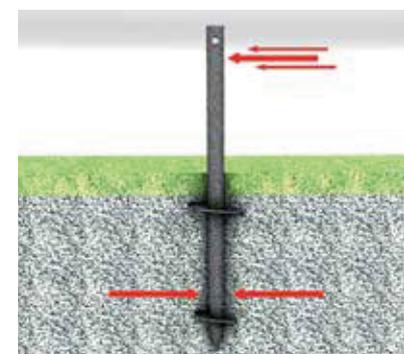
The TerraGrid system is part of the Yokohama Solar Solutions product series for ground mount systems and allows the mounting of solar plants on steep sites and on heterogeneous subsoils. TerraGrid is mainly used for solar plants on landfill sites, as due to the wide cross-sections of the screw (two-disc) foundations, only very low anchoring depths are required to transfer of the loads from the construction into the subsoil.

Product information

The TerraGrid system excels with its flexible application options for complex soil compositions. As the solar plant is mounted on adjustable screw foundations, which are drilled into the soil using special drilling units, soil unevenness can be levelled out. There is no need to seal the soil by concrete foundations. The TerraGrid system is fastened close to the ground and only requires low anchoring depth. We recommend dimensioning the module racks in small segments of up to 12 meters. Thus, the solar plant can be best adapted to the terrain shape. All kinds of modules can be used.

Special characteristics

The TerraGrid system does not only have advantages in ecological respect, as no concrete foundation is required; it also guarantees optimum structural safety even with difficult subsoils.



Mounting

As a basis for the calculation of the ground mount system, geological surveys are made in advance. For this purpose, samples are taken by specialists and a detailed soil profile is created.

On the basis of the structural analysis, the screw foundations are drilled into the soil using special drilling units, i.e. ground screw drivers. After that, the rack is put on the foundations and fastened by bolted connections.

Module mounting is carried out quickly and cost effectively from the ground, or, depending on the module arrangement, using appropriate auxiliary devices. Framed modules are usually mounted vertically (in portrait) above each other, unframed thin-film modules horizontally (in landscape) above each other, in order to thus best utilise the structural characteristics of the respective module types.

Accessories

To facilitate the mounting, the following accessories are available:

- Cable duct
- Cable clip for purlin
- Cable clip for girder
- Pipe clamp (conduit strap) for the foundation posts

On request, the complete plant can be equipped with exterior lightning protection by means of only a few additional components.



Technical data

Yokohama Solar Solutions ground mount systems have been designed to provide an economic and practical mounting solution for large-scale ground mount plants and are suitable for almost all kinds of landscape conditions.

Our team will be happy to assist you with any specific enquiries!

| | |
|-----------------------|--|
| Material | Fastening elements, screws/bolts: high-grade (stainless) steel 1.4301 Profiles / rails: aluminium MgSi05 /EN AW 6063, EN AW 6005 Screw foundations: steel, hot-dip galvanized |
| Logistical details | - Quick and easy mounting - Maximum level of pre-fabrication - Optimized delivery to the construction site |
| Construction | - Adjustment options to compensate for uneven ground - For framed and unframed modules |
| Soil analyses | Ground survey on site and chemical analysis in the laboratory to create a soil profile |
| Structural analysis | - Structural analysis of the respective terrain based upon a geological survey / soil expertise - Individual systems structural analysis based on regional load values - Load assumptions according to DIN EN 1990 (Eurocode 0), DIN EN 1991 (Eurocode 1), DIN EN 1993 (Eurocode 3), DIN EN 1999 (Eurocode 9) and further resp. corresponding national standards - Optimised material dimensioning based on the latest research results on wind dynamics - Structural verification of all construction components based on FEM-calculation |
| Delivery and services | - Structural analysis of the individual rack based on regional data - Pile driving of the foundation posts and delivery of the complete mounting material - Optionally: Assembling of mounting structure - Optionally: Complete module assembly |

Using our TerraGrid system saves both time and labour costs

- The screw foundations can be inserted simply and quickly and safeguard optimum structural safety. Only low anchoring depth is required - even on difficult subsoils!
- The TerraGrid system also provides the opportunity to use areas for solar power generation that would have been unusable for solar installations in the past, as for example landfill sites.
- Both from an ecological and economic point of view, this kind of mounting has the advantage that there is absolutely no soil sealing with concrete - this saves money and protects the environment.

For more information, see www.ysolar.co.jp.



Yokohama Solar Solutions



**201 3-8-8 SHINYOKOHAMA,
KOUHOKU-KU, YOKOHAMA,
222-0033**

INFO@YSOLAR.CO.JP