

PEG® PV Substructure

A unique simplified high-density ground mount solution



- worldwide installed in **45+** countries
- 600+ MW** installed
- 200+** plants installed worldwide
- 185+** mph

The PEG®'s **simple, high-density, and lightweight design**, streamlines the whole project's installation process leading to drastically reduced construction effort, materials, logistics, and labor sourcing.

The racking is low to the ground, about waist height, providing an aerodynamic design **suited for extreme wind hurricanes**.

Our PEG® racking **decreases material and installation costs as well as the consumption of CO²** while providing a **robust ground-mount solar solution** that brings **energy resiliency and scalability to GW+**.



Learn more about, why PEG is the best ground mount solution:
<https://www.jurchen-technology.com/products/solar-mounting/peg/peg-design/>

- 78% less steel**
- 430* working hours** per MWp (2.25 kWp* per working hour)
- Low visual impact** average: only 1 m (3.3 ft) height
- 2,1 MWp*** per hectare (852 kWp per acre)

Key data

Design

- Extremely light substructure, 78% less steel vs. a conventional system
- Maximum DC area density
- Patented, innovative, minimalist, simple design
- Robust & certified for tropical weather, high winds (298+ kmh)
- Low visual impact, typically up to 1 m high

Procurement

- Significant CAPEX reduction of both supply and delivery
- ca. 2,8 MW of substructure per container (12,2 m /40 ft)

Installation

- Fast & safe installation, working height 1 m
- No heavy machines, rods install with e.g. hammer drill
- No DC cable trenching
- No concrete foundations
- Safer work and simpler H&S procedures

- Cost saving realizable by low-skilled worker
- 430 working hours* per MWp with 580 watt modules - applies to PEG EW standard

Operation

- Optimized energy generation, higher during the morning and afternoon
- Low ecological footprint – Carbon footprint is 72 % (61 tons CO₂/MWp) less versus a conventional fixed-tilt system.
- Proven design with over 500+ MWp in operation in all continents
- 2,1 MWp* DC per hectare (with 700 watt modules)
- Produces ~225% more yield per Hectare (or acre) versus trackers and fixed tilt systems
- Hot-dip galvanised steel offers high resistance to demanding corrosion classes (e.g. also near the sea)
- Option of water harvesting through additional installation of rain gutters to the valleys to collect more than 90 % of the rain in basins (for agriculture or similar)

Technical data	
Orientation PV array	Patented 8° East-West, fixed-tilt, aerodynamic
BOM (Bill of material)	~1.1 rods and ~2.2 clips per module
Large volume scalability	From 1 MWp to GW+ scale
Durability	Hot dip galvanized steel rods and plates
Wind loads	Designed for 298+ kmh (185+ mph) per ASCE Structural Code; compliance by local engineering. Values may vary depending on the structural code
Seismic loads	Flexible design allows high tolerances for seismic activity
Certifications	<ul style="list-style-type: none"> - PEG specific clamping approval from module manufacturers - Wind load certificate by German IFI Institute with local wind codes (ASCE) - The PEG® substructure is UL 2703 certified - PE Stamped Drawings - Design loads according to local building codes: ASCE 7, NBC, Eurocode, AS1170, IS875, and SANS10160, etc - Values may vary depending on the structural code.

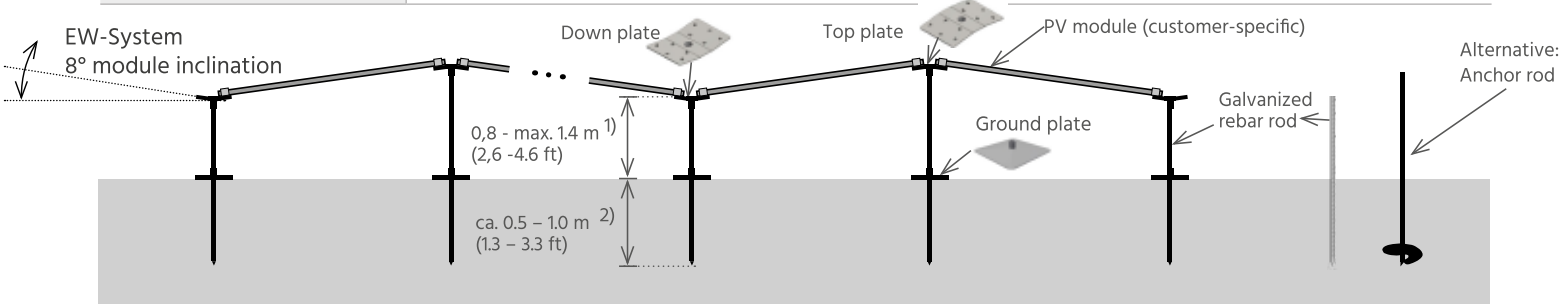


PEG° EW PV system in Dareton, Australia



Installation of a PEG° EW PV system in Dareton, Australia

Requirements	
Land soil condition	Cohesive (e.g. sandy-clay, clayey silt) and non-cohesive soil (e.g. sand or sand-gravel) Rock (e.g. lime stone, basalt)
Upper soil layer	Standard rammed depth approx. 0.8m (or deeper if needed). Pre drilling only needed if hard bedrock. For soft soil or sand use PEG anchor rod solution. If ground penetration is not allowed (e.g. archaeological sites, munitions in the ground or landfills), use the ballasted PEG system!
Site slopes	Up to 20° (~36%) subject to site conditions and PEG system design.
Agri-PV suitability	Thanks to the gaps between the modules, sufficient light still reaches under the system, which is an advantage for PV-friendly vegetation. Each module has its own drip edge, which ensures good moisture distribution under the modules. For this reason, PEG EW fulfils the requirements of DIN SPEC 91492 Agri-PV with animal husbandry. As it is a low agri-PV, livestock farming is possible with selected breeds of sheep, pigs and chickens.



2) Depends on the POT-values. For exceptional permafrost conditions, the ramming depth could be up to 2m, done by the use of two rods crimped together onsite through a sleeve, subject to project-specific approval. 1) subject to the site conditions and system design

*** Explanation of key figures on page 1:**

MWp/ha: Referring to the complete DC area, including the gaps between the DC blocks/tables

kWp/working hour: Time for complete DC installations including inverter stations

MWp/container: Only the substructure

Machine costs: All machines required for the DC installation

Labor costs: Labor for complete DC installations including inverter stations

Logistic costs: Including machinery and labor, to the site and onsite

All figures assume suitable ground conditions, a min. 5MWp PEG° system with 580W modules and may differ regionally.



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