

Fixed Photovoltaic Panels Mounting Structures GAIAFIX



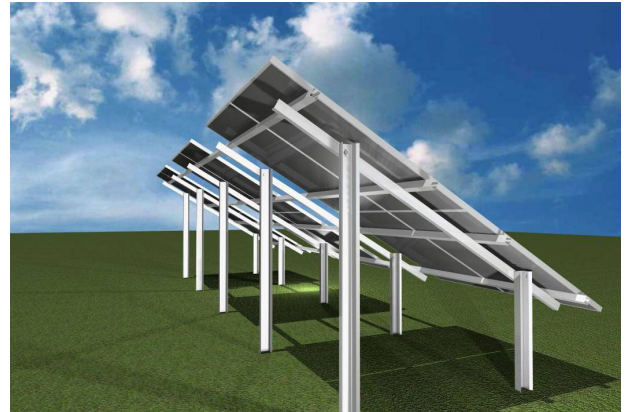
GAIAFIX P/V panels support structures have been specially designed to:

- **Minimize installation time – minimize assembly difficulty** with the use of common tools
- Easily adapt to P/V panels of different dimensions. Typically they are manufactured for tilt angles of 20, 25 or 30 degrees, but they can be manufactured for any tilt angle, upon request
- They are capable of **adapting to any ground inclination**



I. Photovoltaic panels support structures with double pile foundation

Its design allows the mounting of P/V panels in **two, three or four rows** in portrait orientation, creating long, integrated structures when required

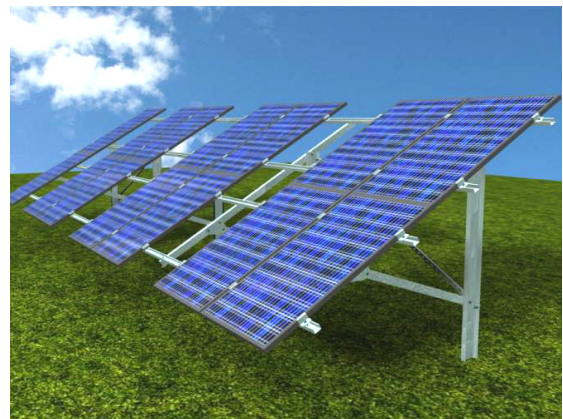


The double pile frame consists of the inclined beam (which supports the purlins) and two vertical members (mono-piles with a “U”-shaped cross-section), all of which are **hot dip galvanized** after being processed, according to **EN ISO 1461**.



II. Photovoltaic panels support structures with single pile foundation

Its design allows the mounting of P/V panels in **two, or three** in portrait orientation, creating long, integrated structures when required.



The single pile frame consists of the inclined beam (which supports the purlins) and a vertical member (mono-pile with a “_II_”-shaped cross-section). All parts of the single pile frame are **hot dip galvanized** after being processed, according to EN ISO 1461.



Technical Characteristics

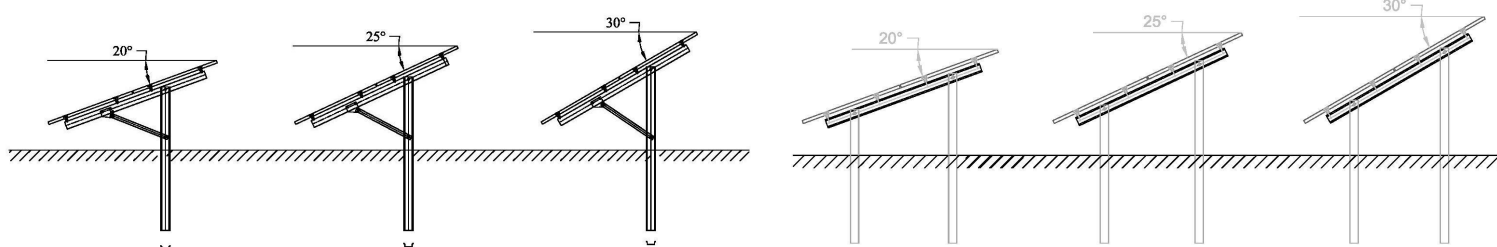
- All members of GAIAFIX mounting structures are made of steel, **hot dip galvanized after it has been processed**, according to **EN ISO 1461**, with an average Zinc coating of 70 to 80 μm on the pile surface, which guarantees maximum life span.
- All of the ancillary linking parts are made of **INOX A2-70**, category 8.8. They have great strength, high corrosion resistance and are fully recyclable.
- All materials meet the standard ISDN 123 – with resistance against oxidation of up to 25 years (according to **Eurocode 3**) and have full strength according to the specifications of Greek Anti-seismic Regulation and the following loads (according to **Eurocode 1**): 75kg/m² snow load and 33m/s wind load for areas closer than 10 km from the coast and 27 m/s wind load for the rest



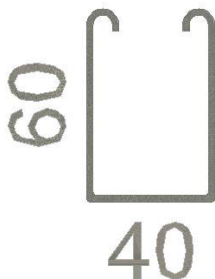
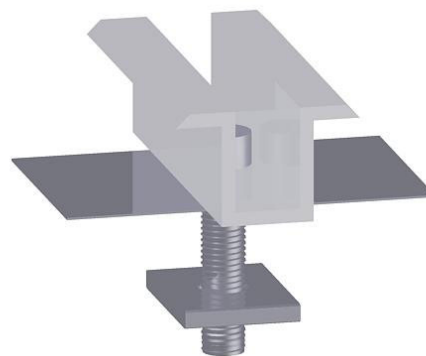
Piles have oval holes at their connection points, so that inaccuracies of 2-4 cm can be easily corrected. Inclined beams and struts have oval holes for the same reason.



Foundation is achieved by **pile-driving**. The depth at which the piles are driven is determined after pull-out test takes place at the specific site of a project, according to values specified by the structural study. Alternatively foundation can be achieved by drilling a hole in the ground, placing the pile inside it and filling it by casting cement (**pile-drilling**). Each row of P/V panels can be designed with an infinite number of frames, interconnected with purlins.



The P/V panel – purlins connecting kits comprise of an aluminum clamp, which has an “Ω”-shaped cross-section, measuring 80x25x20 mm, 3 mm thick, a bolt of type ALLEN DIN 912 M8x50 and a rectangular nut. The nut is placed by sliding it within the purlin (without a spring). Between the steel purlin and the aluminum frame of the P/V panel mediates a stainless steel gasket to prevent galvanic corrosion.



The Purlins System consists of the steel parts and their ancillary linking parts for mounting the P/V panels on the frame. Purlins are made of steel with a “C”-shaped cross-section that is hot-dip galvanized after it has been processed, measuring 60x40x60 mm, 2 mm thick and are connected with the frames with INOX bolts, nuts and washers.

Photovoltaic panels mounting structures GAIAFIX have been certified by TÜV HELLAS (Certificate No TUV-H 12/8181) and their manufacturing process has been integrated in the Quality Management System of METALLODOMI S.A.

We undertake special designs according to the specifications and requirements of each project or individual study.



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