

**||| *europa*SUNMOUNT**  
**MOUNTING SYSTEMS FOR  
PV POWER PLANTS**





## About Us

**For a sustainable future, we offer the most efficient and reliable solutions for renewable energy systems, tailored and optimized for your green energy needs to achieve maximum performance in a cost-effective and timely manner.**

Europower Energie B.V. and its sister company Europower Electric B.V. are Girisim Elektrik Group companies located in the Netherlands which are focused on European markets for power generation with renewable energy systems, energy storage and distribution.

Europower Solar is a division of Europower Energie, that offers products, solutions and turn-key services for PV power plants and a wide range of PV systems.

We are one of the leading engineering, EPC contracting, sales and marketing groups in Eastern European & Mediterranean, actively and successfully operating in all EMEA region. We offer a very wide range of products and services to a large number of key customers in many different industries, and have been working successfully for over 20 years in thousands of projects, offering our services and products with high customer satisfaction to over 60 countries around the world. With our qualified and customer-focused team consisting of 1600+ people and 160+ engineers in total as a group, we offer a global and dynamic presence for our customers' needs about all kinds of LV, MV, HV electrical and electromechanical products, services and systems.

We have a high level of industrial and commercial know-how combined with decades of international engineering, contracting, sales and marketing experience. Successfully being in partnerships and collaborations with many international key companies which are all major players in their industries, such as; Schneider Electric, ABB, Siemens, Eaton (and Cooper Power Systems), Alstom, Nordex, Andritz Hydro, Cargill, TBEA, Sediver and many more for a long time, we have been working as their solution partners, or offering a wide variety of their products and services. For solar PV, we also have been successfully working as a partner, subcontractor and/or a solution provider in their projects for some major global players such as Juwi, ET Solar, Hanwha Q Cells, ABB, TBEA and many more...

For PV power plants, we offer the finest solutions to investors and contractors for;

- Turn-key contracting and subcontracting for PV power plants; land-based utility/commercial scale power plants, commercial/industrial roofs, residential roofs, floating systems and carports,
- Project development; site evaluation, business case study, permit management, financial consulting, project and system

design, technical planning and analysis,

- Selection, evaluation, approval, supply and installation of all components in the PV power plant,
- Supply, installation and commissioning of substations and distribution centers,
- Cabling and earthing of the power plant and all components,
- Supply and installation of the transmission line to grid,
- Field tests, supervision and commissioning services,
- Performance monitoring and analysis,
- Operations and maintenance services,
- Primary and secondary trainings,
- Cleaning products and services,

For solar PV and wind projects, we are an EPC and O&M solutions partner of Allianz Climate Solutions and their partners Fraunhofer ISE and VDE. With the comprehensive risk assessment, quality assurance, certification and insurance services they provide, we offer high efficiency and cost optimization with the best possible third-party inspections and global bankability, leading to being able to offer the performance insurance by Allianz Climate Solutions for certified projects.

Europower Energie also offers a wide range of engineering services such as; project design, project management, automation & SCADA, commissioning, supervision, field tests and training services. Our qualified engineering team offers outstanding expertise with years of experience acquired from many successfully completed projects all around the world.

In addition to PV power plants, Europower Energie and our group companies are also specialized on EPC contracting for electrical and electromechanical projects like; AIS and GIS substations, wind power plants, hydroelectrical power plants, biomass power plants, thermal power plants, electrification of infrastructure, railway systems, industrial facilities, hospitals, residential and commercial building complexes, and more...

We consistently deliver high quality turn-key projects for high-profile customers in a wide variety of industries in EMEA region.

In addition to these, equipped with the state of the art test equipment, Europower Enerji A.S. testing department offers calibrating, laboratory and field testing services for even the most complex electrical HV-MV-LV transmission, distribution and generation systems all around the world. Also, routine tests and type-tests for equipment up to nominal voltage of 245kV (up to 1200kV BIL and 500kV at power frequency) are carried out in the internationally accredited high voltage testing laboratory of Europower Enerji, which is certified with the TS EN ISO/IEC – 17025:2012 quality assurance certificate by TÜRKAK – member of ILAC (Accreditation No: AB-0517-T).

# +600MW INSTALLED

CONFIGURATION 1.



CONFIGURATION 2.



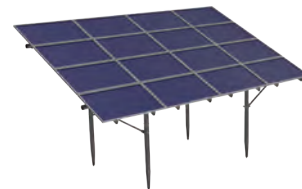
CONFIGURATION 4.



CONFIGURATION 5.



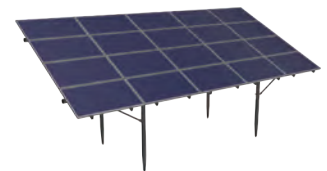
CONFIGURATION 6.



CONFIGURATION 3.



CONFIGURATION 7.



## High Quality and Reliable Ground Mount Systems for PV Power Plants

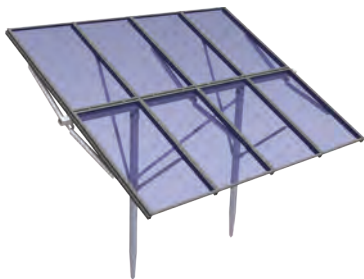
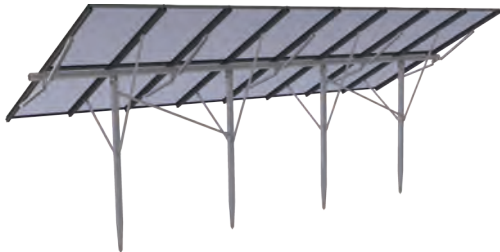
- Reliable and efficient systems for all types of soil and ground conditions,
- Modular and cost optimized structure, suitable for a wide range of configurations,
- Exceptional soil holding properties, high supporting capacity,
- Fast and efficient installation with smartly designed parts,
- Perfect synchronization between system components,
- Exceptional stability and toughness with one-of-a-kind Spear System<sup>®</sup>,
- Does not require a concrete foundation in any solid ground condition,
- Site-specific evaluation and structural calculations for fail-safe installations,
- Technical experience from many projects globally.

Tested by  
**Fraunhofer**  
ISE

# CONFIGURATION

2x4 Portrait Configuration  
Single Post System

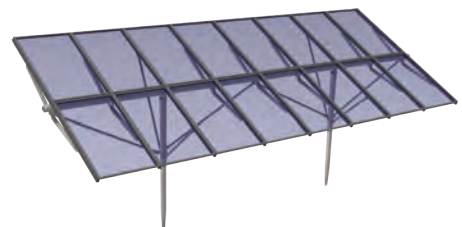
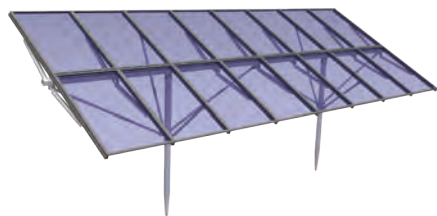
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# CONFIGURATION 2

2x8 Portrait Configuration  
Single Post System

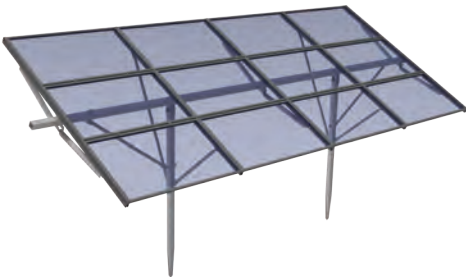
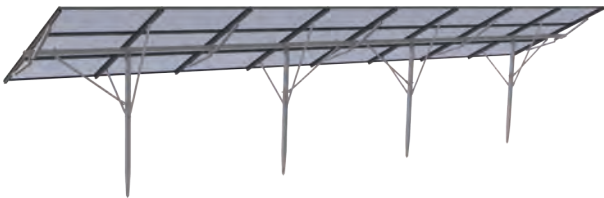


CONFIGURATION

3

3x4 Landscape Configuration  
Single Post System

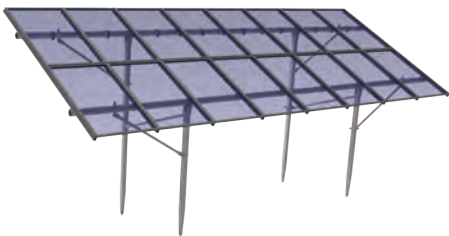
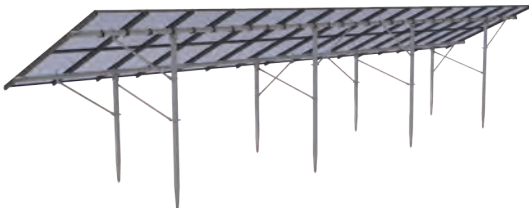
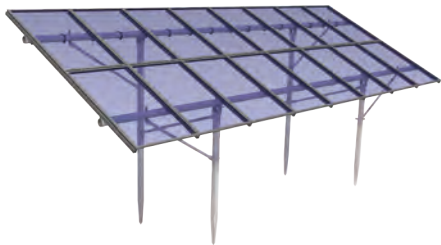
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# CONFIGURATION

2x8 Portrait Configuration  
Double Post System

# 4

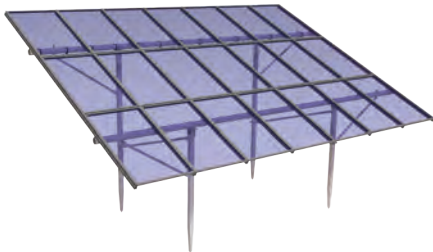
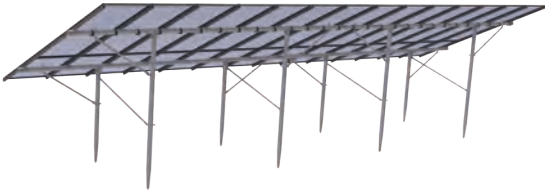
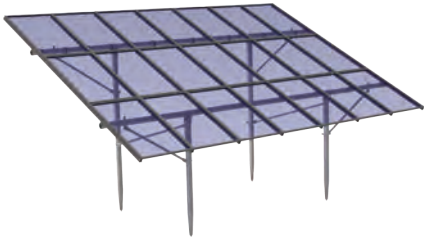


CONFIGURATION

5

3x7 Portrait Configuration  
Double Post System

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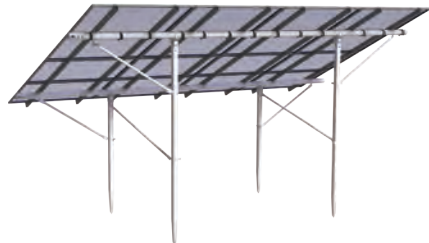
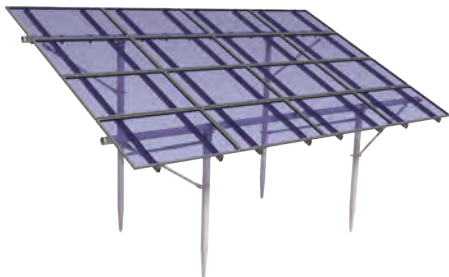
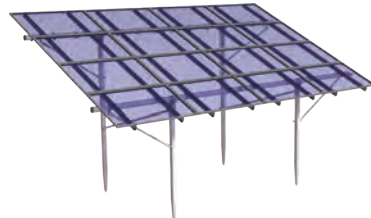
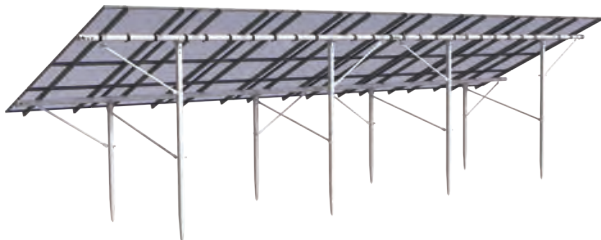




# CONFIGURATION

4x4 Landscape Configuration  
Double Post System

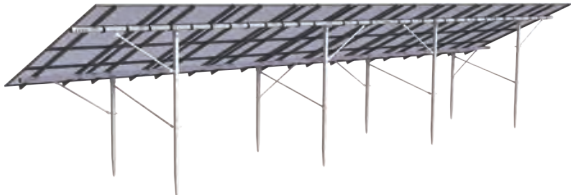
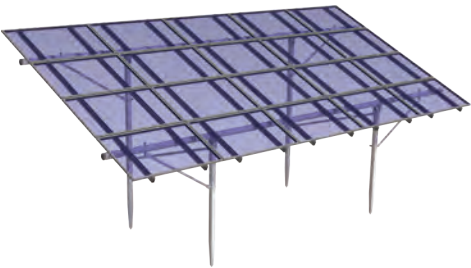
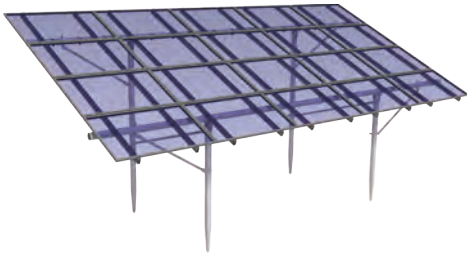
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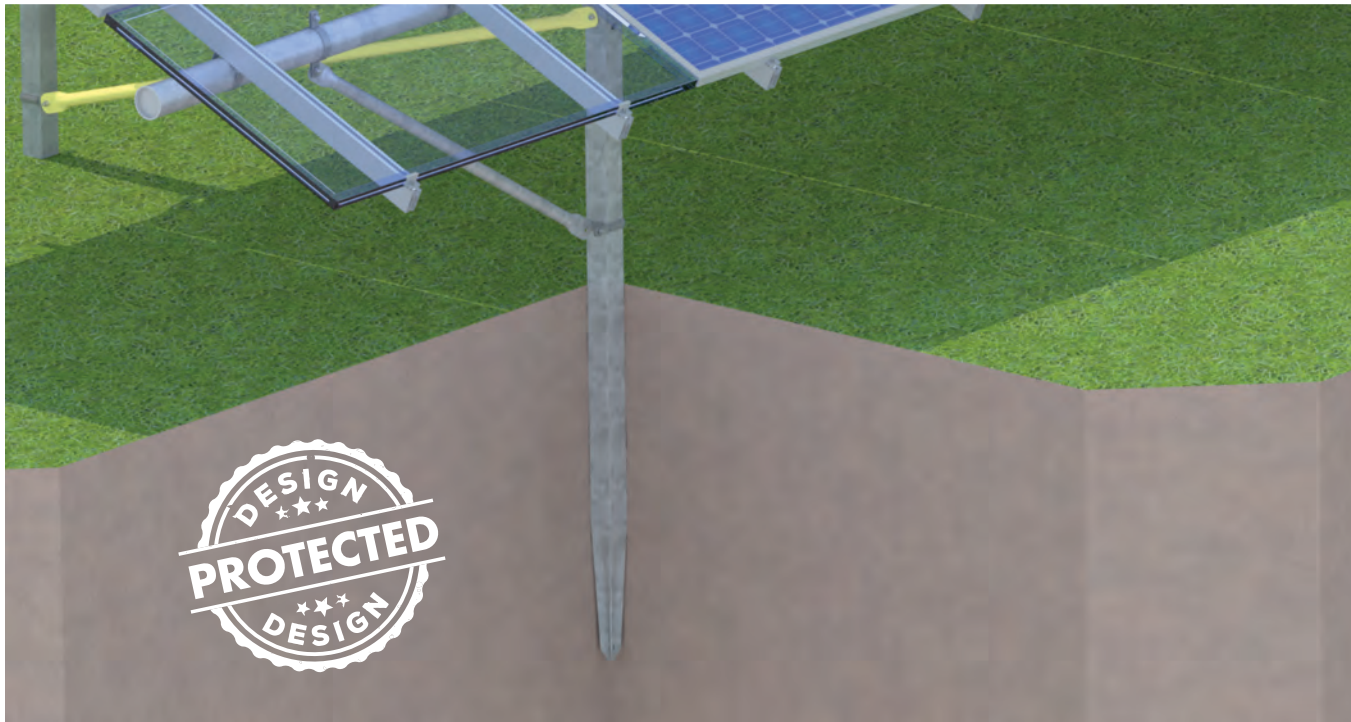
# CONFIGURATION

4x5 Landscape Configuration  
Double Post System

7



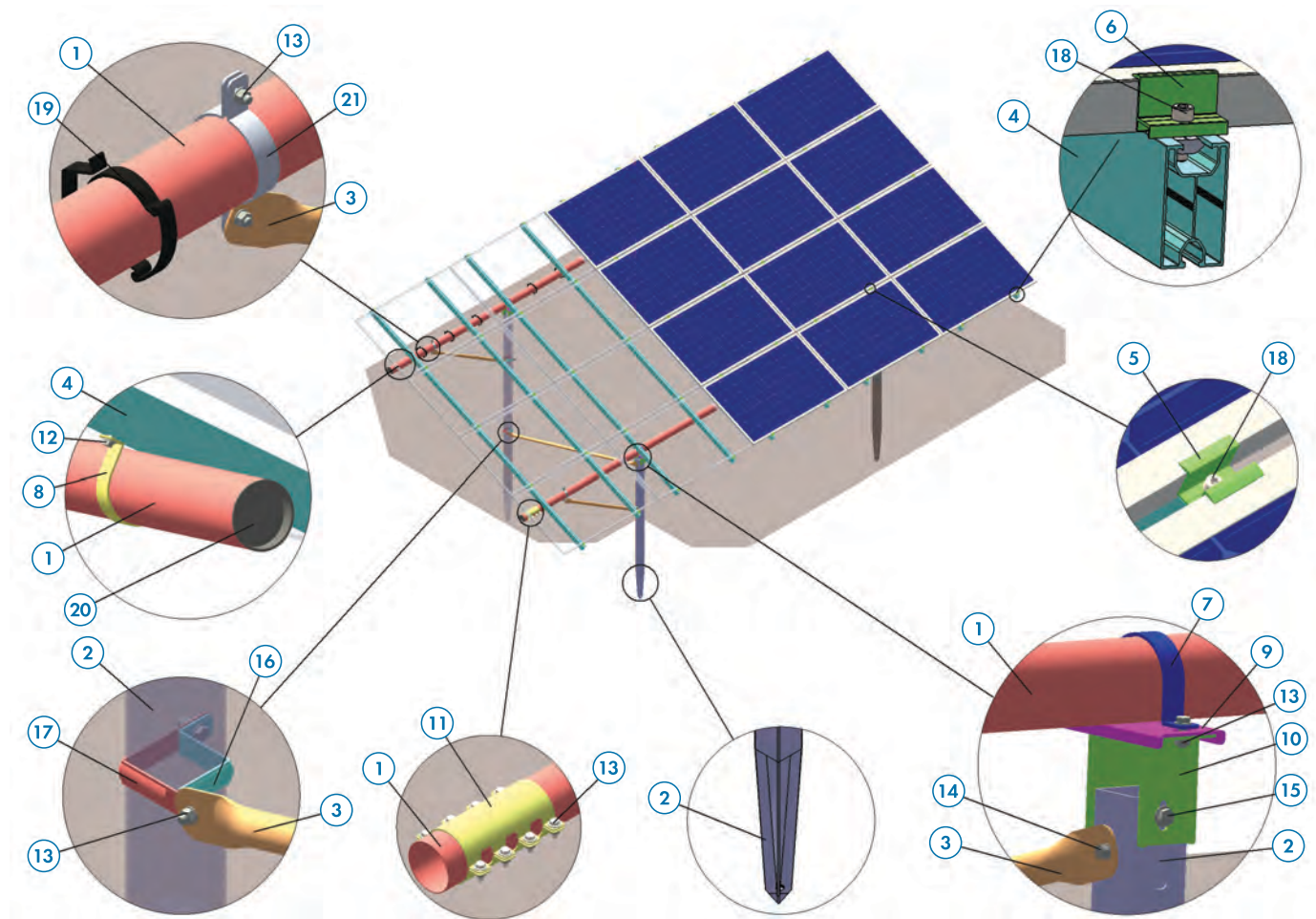
# SPEAR SYSTEM®



One-of-a-kind Spear System® post design leads to exceptionally robust installations and compatibility with even the most challenging ground conditions, without any concrete foundation application requirement.

	No	Part Description
BEAM	1	Beam
	1	Beam
	1	Beam
SPEAR	2	Spear
	2	Spear
DIAGONAL BRACE	3	Diagonal Brace
	3	Diagonal Brace
	3	Diagonal Brace
	3	Diagonal Brace
ALUMINUM	4	Horizontal Beam
	5	Middle Clamp
	6	End Clamp
	18	Clamp Screw
CONNECTION PARTS	16	M Type Spear Clamp
	17	L Type Spear Clamp
	7	U Type Beam Belt
	8	U Type Horizontal Beam Belt
	9	Spear Top Flange Plate
	10	Spear Top Flange Body
	21	Diagonal Beam Clamp
	11	Beam Connector Clamp
BOLT, NUT, WASHER	12	M8*25 Bolt (Screw)
	12	M8 Nut
	12	M8 Washer
	13	M10*35 Bolt (Screw)
	14	M10*100 Bolt (Screw)
	14,13	M10 Nut
	14,13	M10 Washer
	15	M12*25 Bolt (Screw)
	15	M12 Nut
	15	M12 Washer
	18	M8*28 Clamp Screw
PLASTIC	19	Cable Clip
	20	Beam Side Cover







# CARPORT SYSTEMS

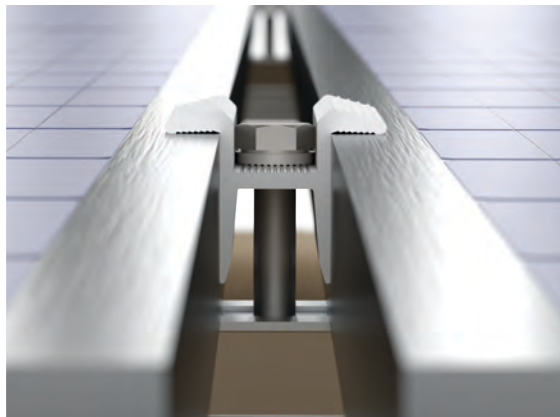
Smartly designed solar carport systems that can be customized to your needs and preferences with different roof angles, colors, surface finishes, module and inverter types, EV chargers, various parking configurations, advertising surfaces and more.



# ROOF SYSTEMS

## Sandwich Panel and Trapezoidal Roofs

- It can be used in horizontal and vertical PV Module layouts.
- The construction system is light, easy to install and fast
- It is very resistant to wind load as it is connected with screws from the side face of the Groove of the Trapezoidal
- Special EPDM gasket is used at the connection points and it has an advantage of water tightness.



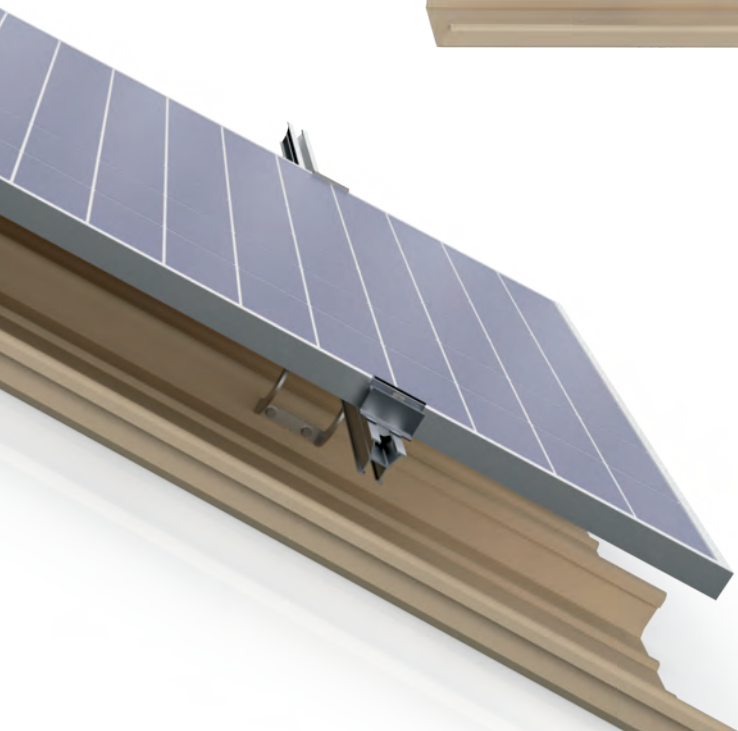


# ROOF SYSTEMS

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## Snap-in Roofing

- It can be used in horizontal and vertical PV Module layouts.
- The construction system is light, easy to install and fast.
- It is very resistant to wind load as it is connected with bolts to ridgs.
- Special EPDM gasket is used at the connection points and it has an advantage of water tightness.

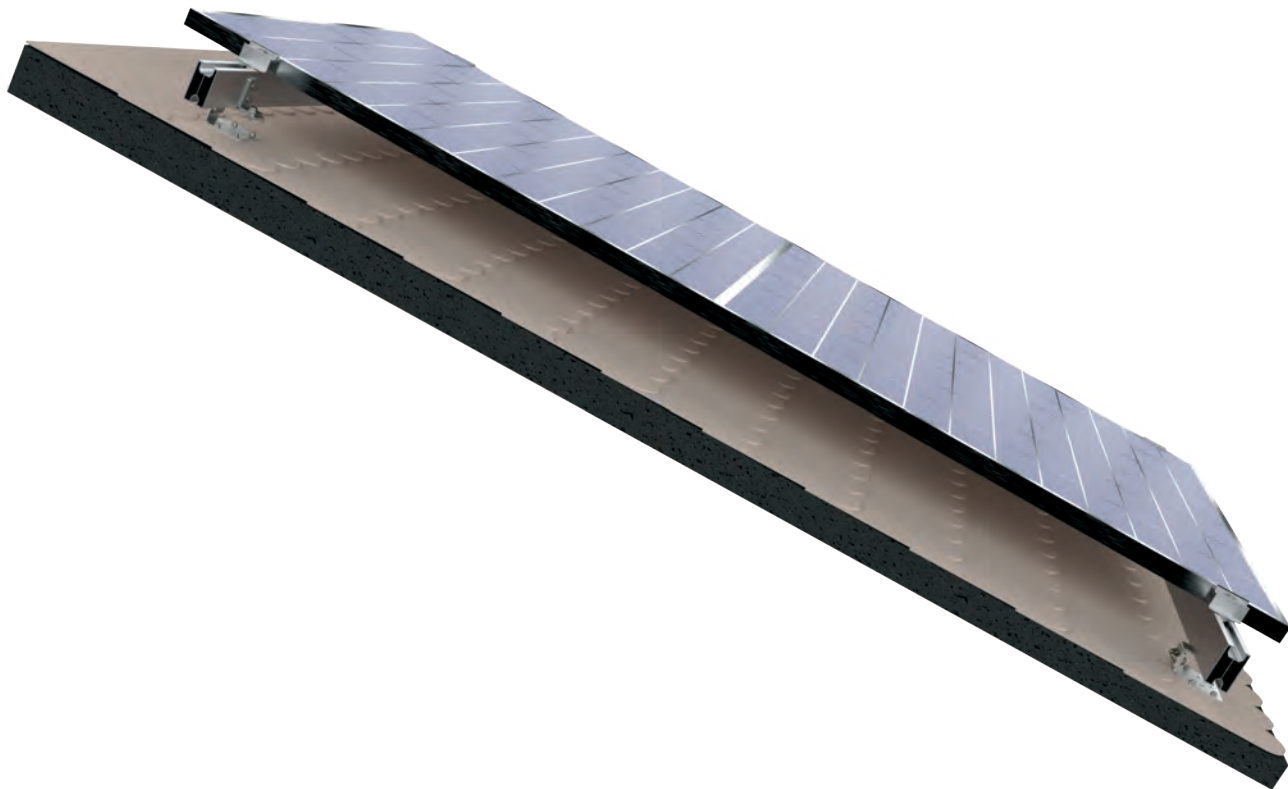




# ROOF SYSTEMS

## Shingle Roof

- It can be used in horizontal and vertical PV Module layouts.
- The construction system is light, easy to install and fast.
- The PV Module carrier system is screwed to the wooden lats of the roof.
- Fixing parts are placed directly on the shingle roof and screwed. Thus, the roof is not damaged.
- Special insulation material is applied under the fixing parts and waterproofing is provided.



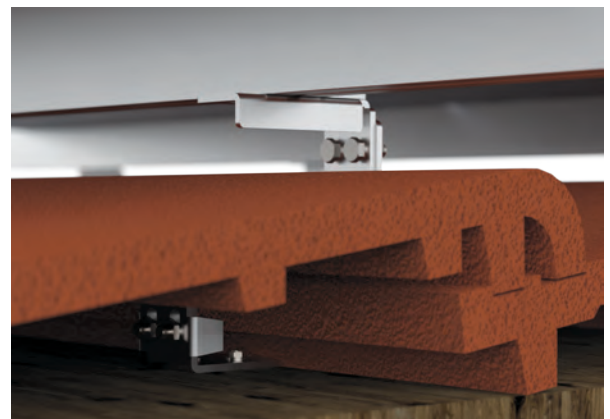
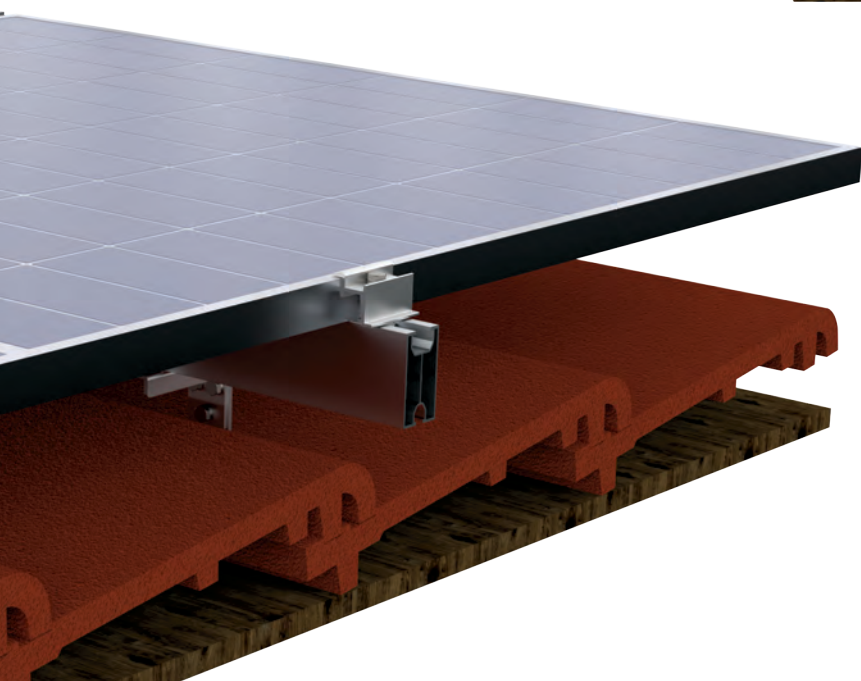
# ROOF SYSTEMS

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## Tile Roof

- It can be used in horizontal and vertical PV Module layouts.

The PV module carrier system is screwed to the laths under the tile with special fixing parts. These special fixings adapt to the slope of the roof and the tile type. So the insulation material of the roof is not damaged.



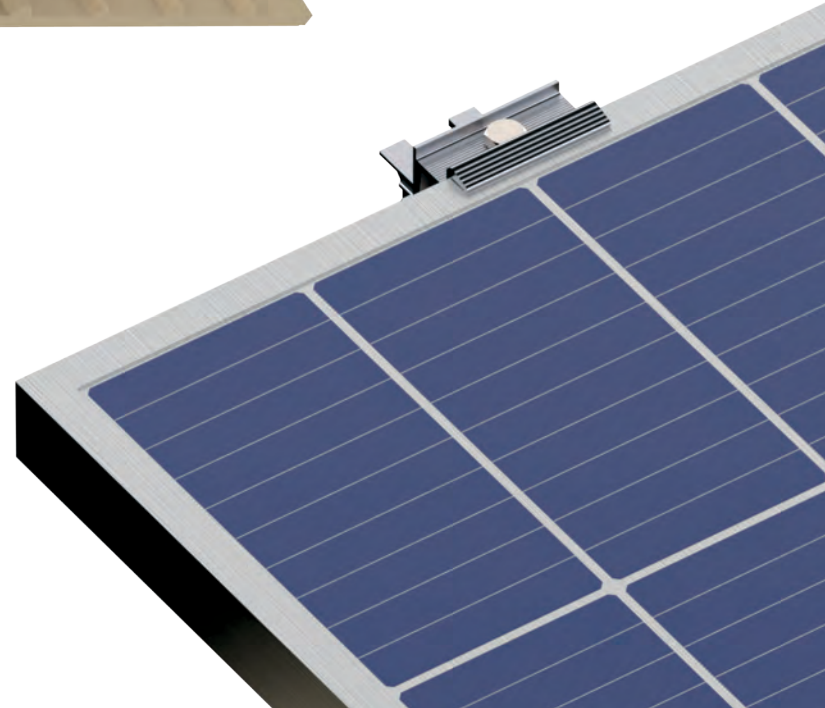
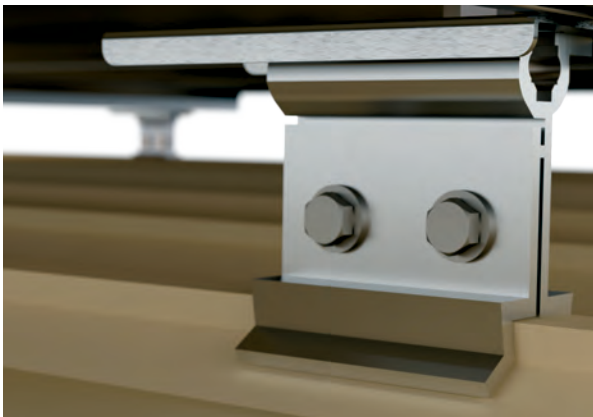
# ROOF SYSTEMS

## DAVUTPANEL Roof

- It can be used in horizontal and vertical PV Module layouts.

With the fasteners of Davut Panel design, labor cost and assembly time are reduced to a minimum by disassembling and disassembling them very easily.

To connect the solar panel to the PUR/PIR filled sandwich roof panel; it is not necessary to drill the ribs, so the life of the sheet is long.





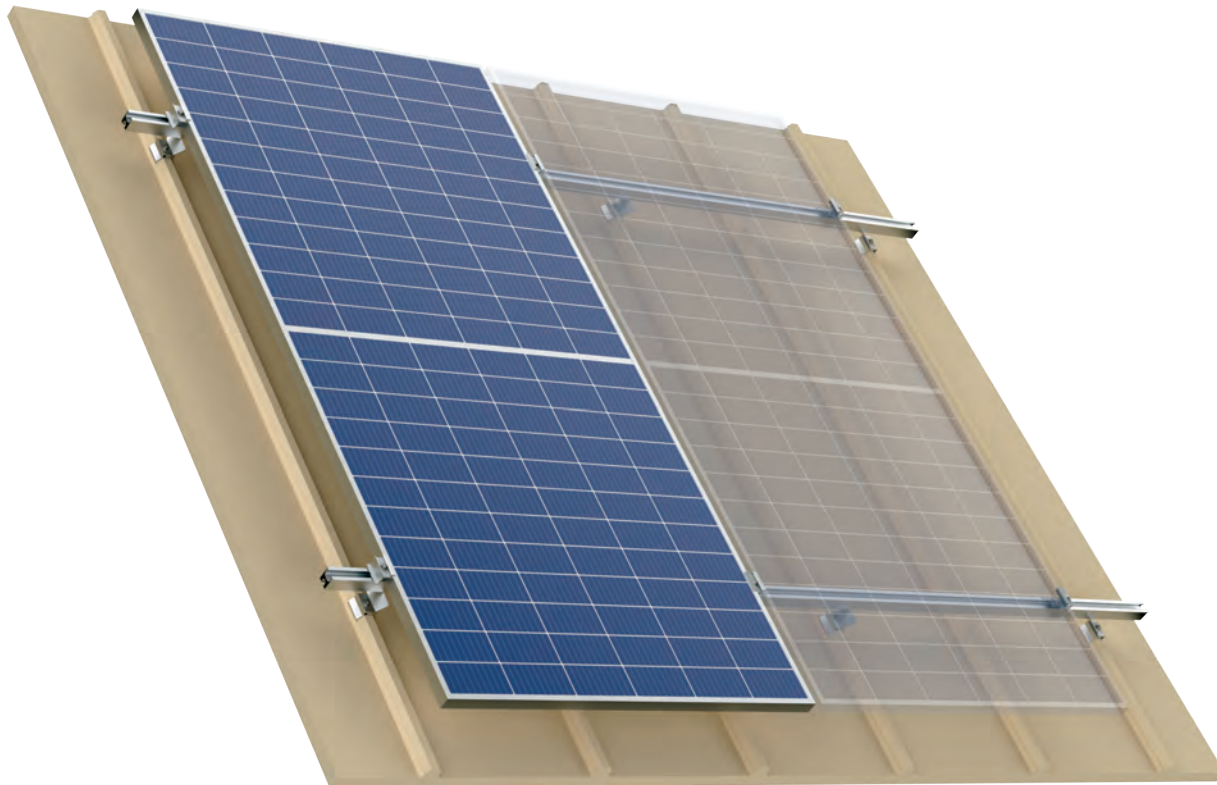
# ROOF SYSTEMS

## PANELSAN Roof

- It can be used in horizontal and vertical PV Module layouts.

With the fasteners of Panelsan design, labor cost and assembly time are reduced to a minimum by disassembling and disassembling them very easily.

To connect the solar panel to the PUR/PIR filled sandwich roof panel; it is not necessary to drill the ribs, so the life of the sheet is long.



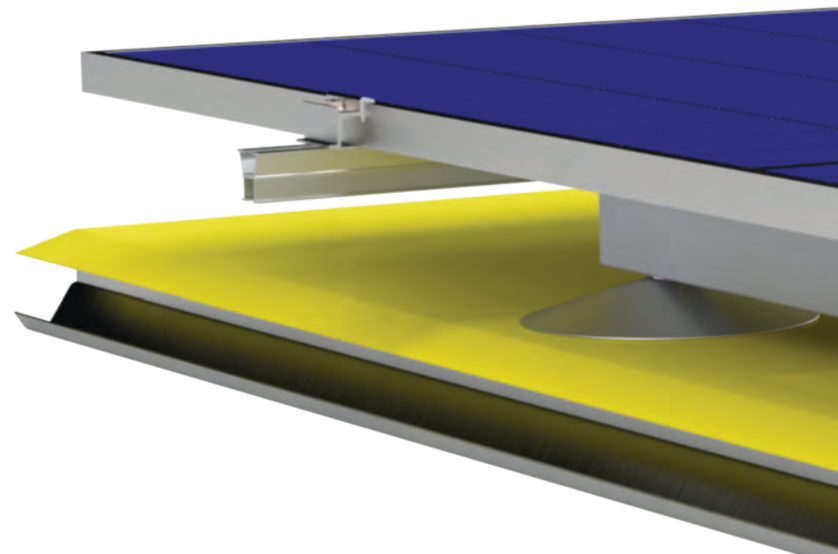
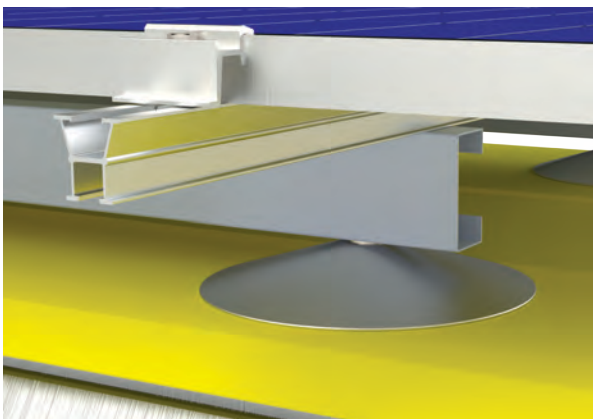
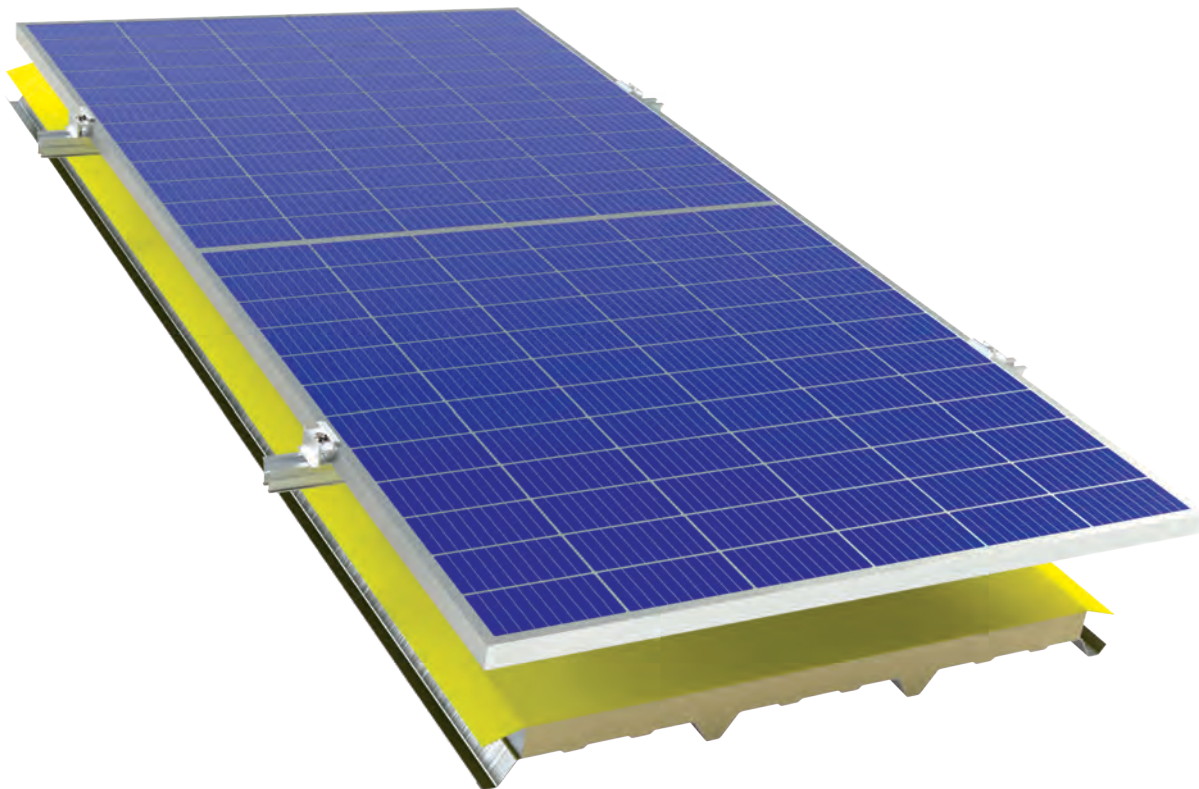


# ROOF SYSTEMS

## Membrane Roof

- It can be used in horizontal and vertical PV Module layouts.

The fixing disc is fixed to the trapezoidal sheet with 6 Ø4.8 screws. Ø400mm PVC membranes are adhered to the roof membrane over the discs by heating method. Concealed screwing system and PVC membrane are attached to provide waterproofing.

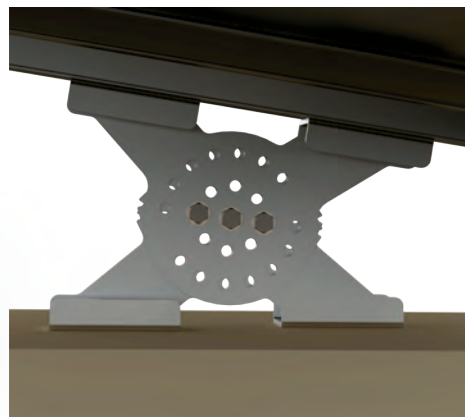
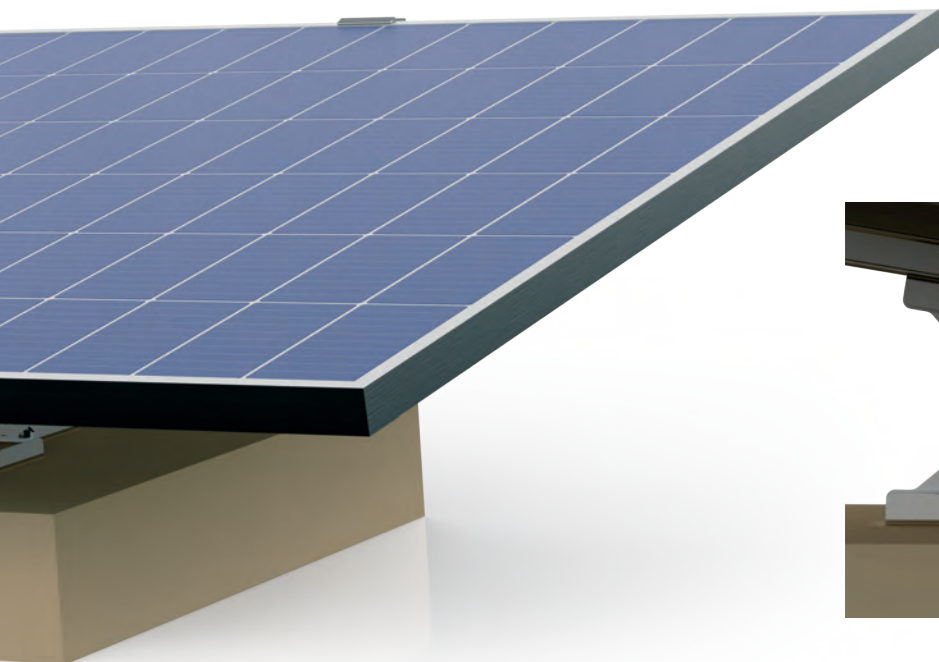
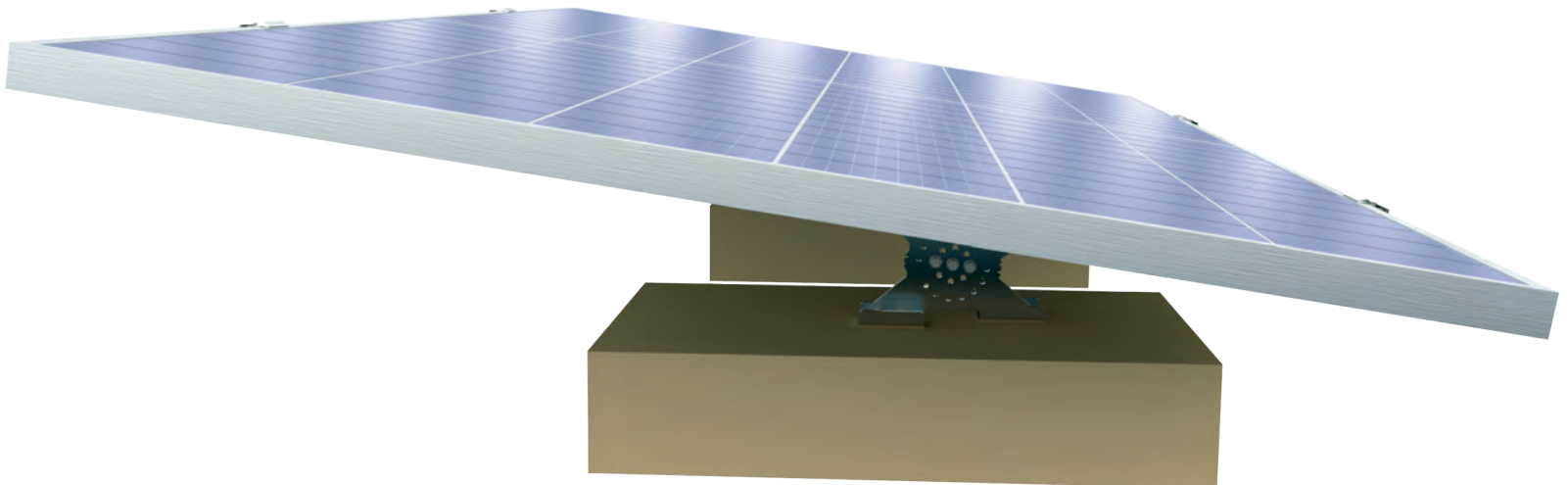


# ROOF SYSTEMS

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## Flat Roof

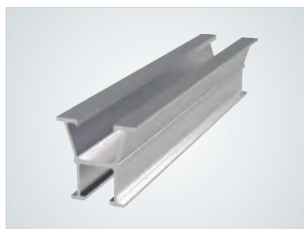
- It can be used in horizontal and vertical PV Module layouts.
- It is used on flat and non-sloping roofs where drilling is not possible.
- It can be applied on roofs where the roof carrier system is reinforced concrete slab.
- The pv module carrier system is connected to the ballast paving stones.
- Precast stones are placed directly on the roof surface and do not damage the roof.
- PV modules can be adjusted to the desired angle with special adjustable connection apparatus.



# ALUMINUM PURLINS



**Model** : euroAS-R40x40  
**Brand** : euroSUNMOUNT  
**Field Used** : Rooftop SPP Project  
**Material** : AL 6063-T6  
**Unit Weight** : 0.963 kg/m



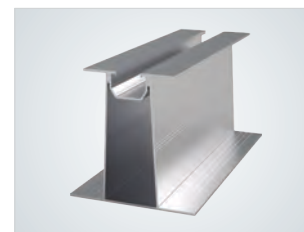
**Model** : euroAS-H40x40  
**Brand** : euroSUNMOUNT  
**Field Used** : Rooftop SPP Project  
**Material** : AL 6063-T6  
**Unit Weight** : 0.650 kg/m



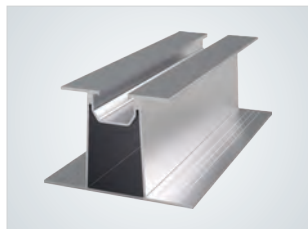
**Model** : euroAS-R40x70  
**Brand** : euroSUNMOUNT  
**Field Used** : Rooftop SPP Project  
**Material** : AL 6063-T6  
**Unit Weight** : 1.14 kg/m



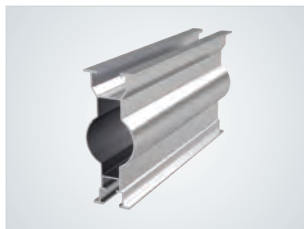
**Model** : euroAS-R40x75  
**Brand** : euroSUNMOUNT  
**Field Used** : Ground-Rooftop SPP Project  
**Material** : AL 6063-T6  
**Unit Weight** : 1.41 kg/m



**Model** : euroAS-S70x100  
**Brand** : euroSUNMOUNT  
**Field Used** : Rooftop SPP Project  
**Material** : AL 6063-T6  
**Unit Weight** : 1.92 kg/m



**Model** : euroAS-S70x65  
**Brand** : euroSUNMOUNT  
**Field Used** : Ground-Rooftop SPP Project  
**Material** : AL 6063-T6  
**Unit Weight** : 1.64 kg/m



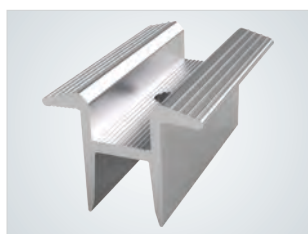
**Model** : euroAS-P40x100  
**Brand** : euroSUNMOUNT  
**Field Used** : Ground SPP Project  
**Material** : AL 6063-T6  
**Unit Weight** : 1.178 kg/m



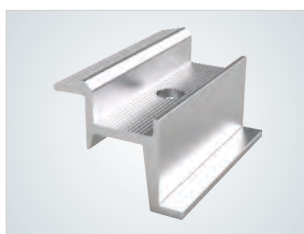
**Model** : euroAS-C40x60  
**Brand** : euroSUNMOUNT  
**Field Used** : Carport SPP  
**Material** : AL 6063-T6  
**Unit Weight** : 3.46 kg/m



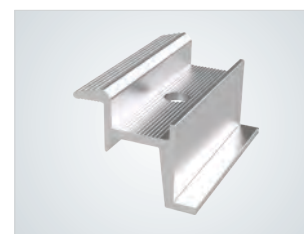
# ALUMINUM CLAMPS



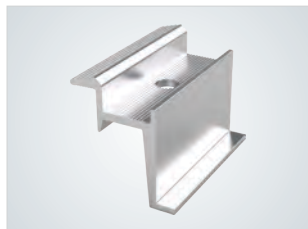
**Model** : euroCL-Mid60  
**Brand** : euroSUNMOUNT  
**Field Used** : All PV Modules  
**Material** : AL 6063-T6  
**Unit Weight** : 0.041 kg/pc.



**Model** : euroCL-End30x60  
**Brand** : euroSUNMOUNT  
**Field Used** : All PV Modules  
**Material** : AL 6063-T6  
**Unit Weight** : 0.038 kg/pc.



**Model** : euroCL-End35x60  
**Brand** : euroSUNMOUNT  
**Field Used** : 35mm PV Modules  
**Material** : AL 6063-T6  
**Unit Weight** : 0.041 kg/pc.



**Model** : euroCL-End40x60  
**Brand** : euroSUNMOUNT  
**Field Used** : 40mm PV Modules  
**Material** : AL 6063-T6  
**Unit Weight** : 0.044 kg/pc.



**Model** : euroCL-End42x60  
**Brand** : euroSUNMOUNT  
**Field Used** : 45mm PV Modules  
**Material** : AL 6063-T6  
**Unit Weight** : 0.045 kg/pc.



**Model** : euroCL-C50  
**Brand** : euroSUNMOUNT  
**Field Used** : Carport SPP - All PV Modules  
**Material** : AL 6063-T6  
**Unit Weight** : 2.17 kg/pc.



# SOLAR PANEL EQUIPMENTS



## Purlin Fixing Part

**Model** : euroFix-KGS-04  
**Brand** : euroSUNMOUNT  
**Field Used** : Rooftop SPP  
 (Snap-in Roofing)  
**Material** : Stainsteel-S304  
**Unit Weight** : 0.325 kg/pc.



## Waterproofing of Purlin Fixing Point

**Model** : euroEPDM-T10  
**Brand** : euroSUNMOUNT  
**Field Used** : Rooftop SPP  
**Material** : EPDM-UV Resistant,  
 Fireproof



## Purlin Fixing Part

**Model** : euroFix-KU88X40X4  
**Brand** : euroSUNMOUNT  
**Field Used** : Rooftop SPP  
 (Snap-in Roofing)  
**Material** : Stainsteel-S304  
**Unit Weight** : 0.232 kg/pc.



## Purlin Joining Part (euroAS-H40X40)

**Model** : euroJP-H40  
**Brand** : euroSUNMOUNT  
**Field Used** : Rooftop SPP  
**Material** : AL 6063-T6  
**Unit Weight** : 0.565 kg/pc.



## Purlin Fixing Part Fixed Lift Part

**Model** : euroFix-KH108X27X3  
**Brand** : euroSUNMOUNT  
**Field Used** : Rooftop SPP  
 (Sandwich Panel)  
**Material** : Stainsteel-S304  
**Unit Weight** : 0.217 kg/pc.



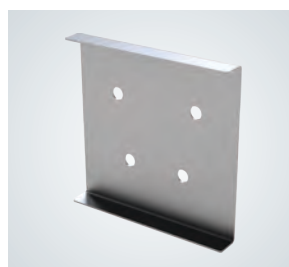
## Purlin Joining Part (euroAS-R40X40)

**Model** : euroJP-R40X1.5  
**Brand** : euroSUNMOUNT  
**Field Used** : Rooftop SPP  
**Material** : AL 6063-T6  
**Unit Weight** : 0.031 kg/pc.



## Purlin Fixing Part Adjustable Lift Part

**Model** : euroFix-KU116X60X40x3  
**Brand** : euroSUNMOUNT  
**Field Used** : Rooftop SPP  
 (Sandwich Panel)  
**Material** : Stainsteel-S304  
**Unit Weight** : 0.242 kg/pc.



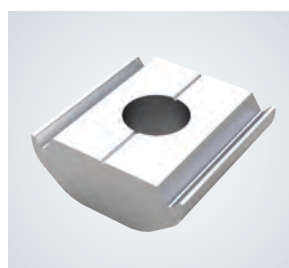
## Purlin Joining Part (euroAS-R40X75)

**Model** : euroJP-R75X1.0  
**Brand** : euroSUNMOUNT  
**Field Used** : Rooftop SPP  
**Material** : AL 6063-T6  
**Unit Weight** : 0.060 kg/pc.



## Under The Clamp

**Model** : euroCL-STU40X2  
**Brand** : euroSUNMOUNT  
**Field Used** : All SPP projects  
 (Horizontal Layout projects)  
**Material** : Stainsteel-S304  
**Unit Weight** : 0.122 kg/pc.



## Clamp Connecting Nut

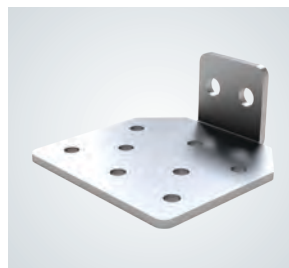
**Model** : euroNUT-XAL  
**Brand** : euroSUNMOUNT  
**Field Used** : Rooftop SPP  
**Material** : AL 6063-T6

# SOLAR PANEL EQUIPMENTS



## Purlin Fixing Part

**Model** : euroRM-ST10x2  
**Brand** : euroSUNMOUNT  
**Field Used** : Rooftop SPP  
(Sandwich Panel)  
**Material** : Stainsteel-S304  
**Unit Weight** : 0.122 kg/pc.



## Purlin Fixing Part (Lower Part Type-3)

**Model** : euroRM-SL-24  
**Brand** : euroSUNMOUNT  
**Field Used** : Rooftop SPP  
(Tile and Shingle Roof)  
**Material** : S235- hot-dip galvanized



## Purlin Fixing Part (Middle part)

**Model** : euroRM-SM-04  
**Brand** : euroSUNMOUNT  
**Field Used** : Rooftop SPP (Tile Roof)  
**Material** : S235 - hot-dip galvanized



## Purlin Joining Part (Top L-Type Part)

**Model** : euroRM-STL-04  
**Brand** : euroSUNMOUNT  
**Field Used** : Rooftop SPP (Tile Roof)  
**Material** : S235- hot-dip galvanized



## Purlin Fixing Part (Top Part)

**Model** : euroRM-STO-04  
**Brand** : euroSUNMOUNT  
**Field Used** : Rooftop SPP (Tile Roof)  
**Material** : S235- hot-dip galvanized



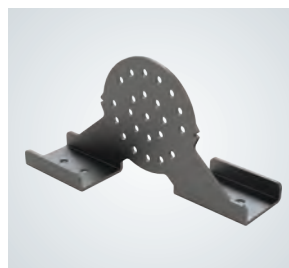
## Purlin Fixing Disk

**Model** : euroMB-DISK200  
**Brand** : euroSUNMOUNT  
**Field Used** : Rooftop SPP  
(Mambrane roofs)  
**Material** : AL 6063-T6 or PVC



## Purlin Fixing Part (Lower Part Type-1)

**Model** : euroRM-SL-04  
**Brand** : euroSUNMOUNT  
**Field Used** : Rooftop SPP (Tile Roof)  
**Material** : S235- hot-dip galvanized



## Angle Adjustable - Fixed Part

**Model** : euroANG-FD13  
**Brand** : euroSUNMOUNT  
**Field Used** : Rooftop SPP  
(Flat and Mambrane roofs)  
**Material** : S235 - hot-dip galvanized  
**Unit Weight** : 0.442 kg/pc.



## Purlin Fixing Part (Lower Part Type-2)

**Model** : euroRM-SL-14  
**Brand** : euroSUNMOUNT  
**Field Used** : Rooftop SPP (Tile Roof)  
**Material** : S235 - hot-dip galvanized

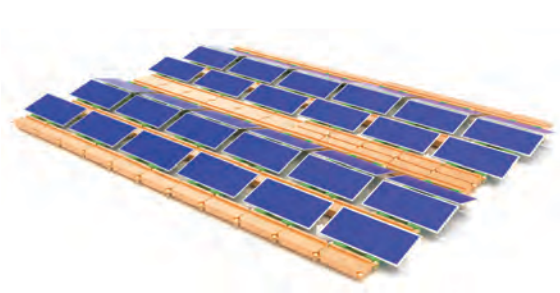
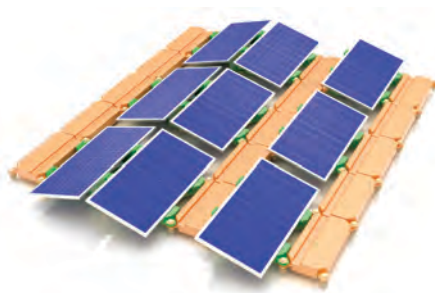
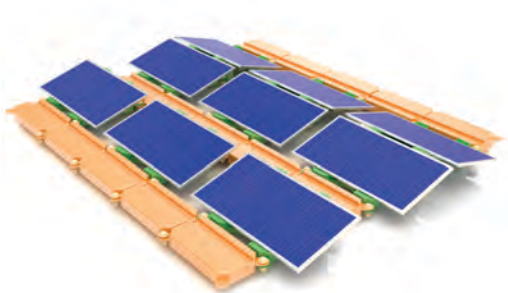
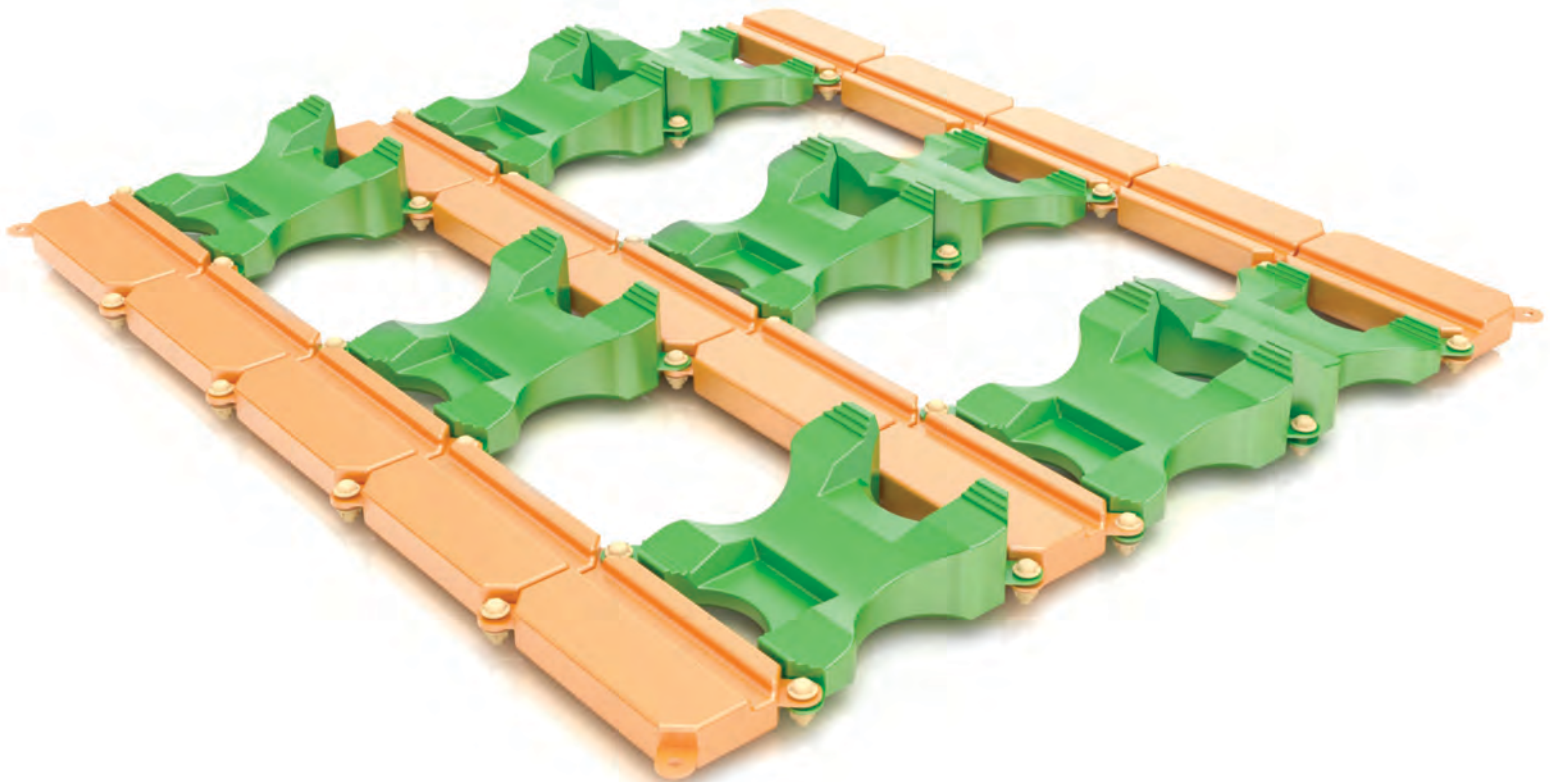


## Angle Adjustable - Moving Part

**Model** : euroANG-MD13  
**Brand** : euroSUNMOUNT  
**Field Used** : Rooftop SPP  
(Flat and Mambrane roofs)  
**Material** : S235- hot-dip galvanized  
**Unit Weight** : 0.442 kg/pc.

# FLOATING SYSTEMS

State of the art floating PV mounting systems that ensure reliable investments and high quality installations for most conditions, designed in cooperation with some of the top polymer marine structure manufacturers in the world with global experience and expertise on all types of applications from military to infrastructural uses.





# SERVICES & SOLUTIONS

## FOR PV POWER PLANTS BY EUROPOWER SOLAR

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### Project Development & Engineering

- Feasibility Evaluation
- Business Case Study
- Permit Management
- Financial Consultancy
- System Design
- Project Management
- Technical Planning and Analysis
- Extensive Engineering Services

### EPC / Turn-key Contracting & Subcontracting

- Turn-key Power Plant Construction – EPC Contracting
- AC and/or DC Subcontracting
- Material Selection, Supply and Installation for All Components in the PV System
- Substation, Inverter Station, Distribution Center and Kiosk Supply and Installation
- All Cabling and Earthing of the Power Plant
- Automation & SCADA Systems and Software Design, Supply and Installation
- Transmission Line Supply and Installation
- Supervision, Field Tests and Commissioning

### Operation, Maintenance & Insurance Services

- Extensive O&M Services for Power Plants
- Performance Guarantee Insurance with Allianz Climate Solutions
- Performance Tracking and Analysis
- Cleaning Products, Services and Machinery
- Primary and Secondary Trainings



# PRODUCTS & SYSTEMS

## FOR PV POWER PLANTS BY EUROPOWER SOLAR



### Europower Enerji A.S.

- Type-tested concrete and metallic type central inverter stations,
- Compact or mobile type substations and kiosks,
- Medium voltage metal enclosed modular, metal clad and SF6 gas insulated switchgear,
- DC combiner boxes, array boxes and panels,
- AC distribution and measurement panels,
- Control, protection and relay panels,
- Automation & SCADA systems and panels,
- Ground mounting systems, single and double-axis sun tracking systems.

### International Solution Partners

- Solar panels,
- Inverters,
- Transformers,
- Energy storage systems, batteries, charge controllers,
- Cables and connectors,
- Ground, roof and side mounts, racking systems and frames,
- Tracking systems,
- Performance monitoring systems,
- Cleaning equipment and systems.

# SAMPLE PHOTOS FROM THE GROUND APPLICATION

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Timely and reliable installation with qualified and experienced work force, well planning and a wide range of state of the art piling equipment available.









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