



# EQUUS SOPRASOLAR FIX EVO TILT (Bitumen/TPO)

FEBRUARY 2025





A unique system for mounting solar energy solutions on bituminous and TPO waterproofing... and more!

SOPRASOLAR FIX EVO TILT system is a solar waterproofing solution for flat roofs as a support for photovoltaic panels. It allows connection between the panel and cap sheet membrane without drilling into it and compromising the waterproofing properties of the roof.

Advice must be sought from Equus for each project in order to ensure that the solution is suited to the needs of the building. Waterproofing will have to be applied in accordance with the recommendations in technical approvals and installation requirements for waterproofing complexes from SOPREMA.



## EQUUS SOPRASOLAR FIX EVO TILT (Bitumen/TPO)



### SOPRASOLAR FIX EVO TILT PEDESTAL

Adjustable glass fibre reinforced polyamide pedestal with bitumen base panel.



### SOPRASOLAR FIX EVO TILT TPO PEDESTAL

Adjustable glass fibre reinforced polyamide pedestal with Flagon TPO base panel.



### LOW AND HIGH RAISERS

For connecting SOPRASOLAR FIX EVO TILT pedestals to photovoltaic modules while creating a 10° tilt angle. They must be used in combination with booster locking frames.



### BLOCKER

Used for locking the raiser on the top of the pedestal.



### UNIVERSAL CLAMP

Set of parts including a captive nut, intermediate support clamp, M8 hex socket screws, head notched on the underside.

#### Technical Features:

- The solution has been tested to be applied on SOPREMA APP and SBS roofing materials with > 180g/m<sup>2</sup> for the cap sheet in case of a 2-layer system > 4mm membrane in case of a single layer system
- The solution is ideal up to a 10% slope (angle of the roof)
- The density of fastenings has to be calculated according to the wind zone of the project.
- The system has been tested in a variety of conditions including wind uplift tests up to 200km/h, which determined that at 2.5 kPa the fasteners in the base sheet ruptured but SOPRASOLAR connection was still intact.

#### Key Benefits:

- No piercing of the roof waterproofing
- Waterproofing detail review
- No drilling of the waterproofing at the level of the studs
- Easy maintenance
- Easy to install and maintain
- Height adjustable studs
- Numerous tests carried out by external laboratories
- 20-year system warranty (if complete package according to SOPREMA recommendations and compliance with maintenance)

#### EQUUS SOPREMA Technical Support:

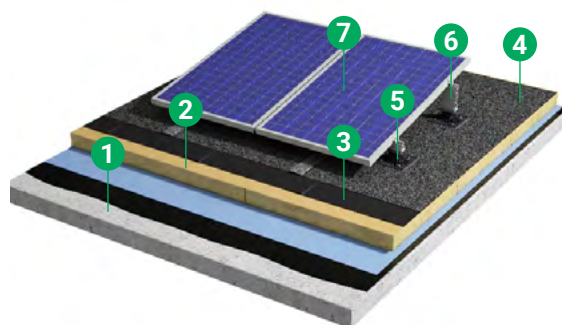
- Project specific specifications and details
- Condensation risk analysis for warm roof systems
- Wind uplift study for warm roof systems
- On-site quality assurance
- Nationwide network of Certified Applicators
- Warranties available

## ROOF SYSTEM OPTIONS

SOPRASOLAR FIX EVO TILT systems allow connection between the panel and cap sheet membrane without drilling into it and compromising the waterproofing properties of the roof. Compatible with cold roof and warm roof systems.

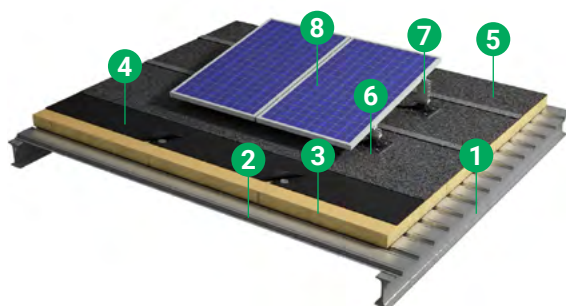
### CONCRETE ROOF

- 1 Concrete substrate
- 2 Insulation (warm roof only)
- 3 Cap Sheet
- 4 Base Sheet
- 5 SOPRASOLAR FIX EVO TILT pedestals
- 6 SOPRASOLAR FIX EVO TILT raisers and blocker
- 7 Photovoltaic module



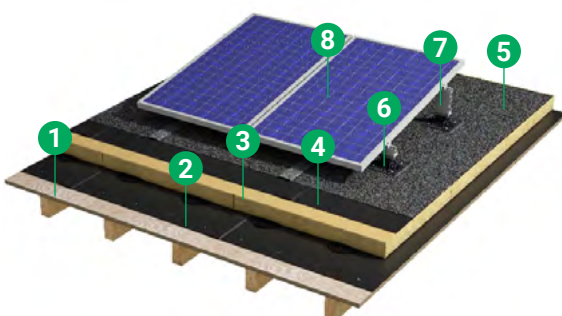
### METAL ROOF

- 1 Metal substrate
- 2 Vapour barrier
- 3 Insulation
- 4 Cap Sheet
- 5 Base Sheet
- 6 SOPRASOLAR FIX EVO TILT pedestals
- 7 SOPRASOLAR FIX EVO TILT raisers and blocker
- 8 Photovoltaic module



### PLYWOOD ROOF

- 1 Plywood substrate
- 2 Vapour barrier
- 3 Insulation (warm roof only)
- 4 Cap Sheet
- 5 Base Sheet
- 6 SOPRASOLAR FIX EVO TILT pedestals
- 7 SOPRASOLAR FIX EVO TILT raisers and blocker
- 8 Photovoltaic module





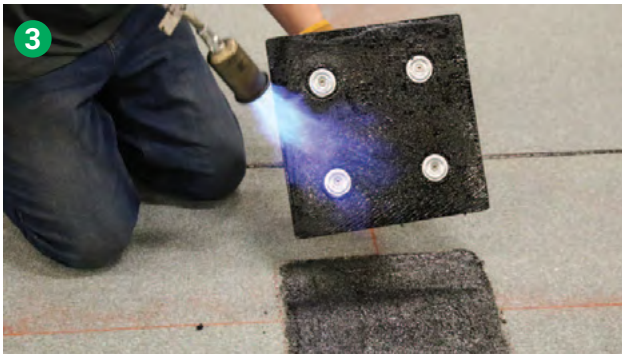
## INSTALLING THE PEDESTALS (Bitumen)



Once the installation of the cap sheet membrane on the roof is completed, mark the location of the SOPRASOLAR FIX EVO TILT pedestal on the cap sheet membrane according to the diagram provided by the contractor responsible for the photovoltaic panels.



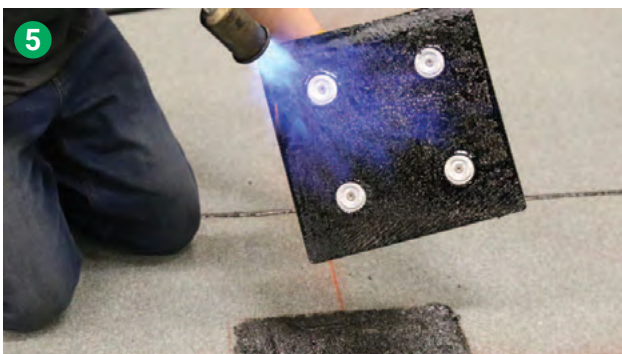
Impregnate the granules of the area where the pedestal will be installed.



Heat the film wrap on the underside of the pedestal using a propane torch.



Heat the area where the pedestal will be installed using a propane torch.



Heat the underside of the pedestal again.



Immediately install the pedestal onto the area.



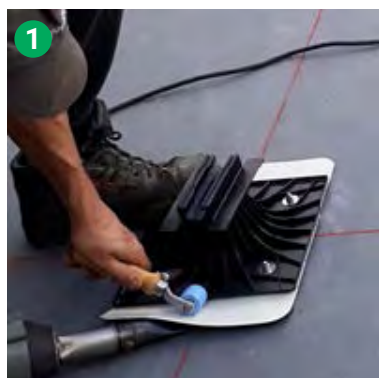
Seal the perimeter of the membrane to obtain proper adhesion.



Insert the raisers and raiser blocker on the pedestal.



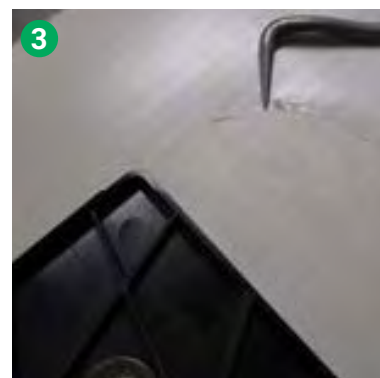
## INSTALLING THE PEDESTALS (TPO)



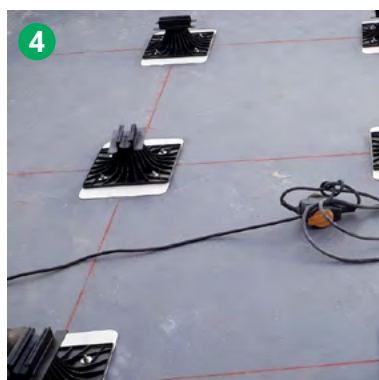
Weld one side of the base panel over a minimum width of 3 cm.



Weld the other side of the base panel over a minimum width of 3 cm.



Verify the quality of the welds using the tester after cooling.

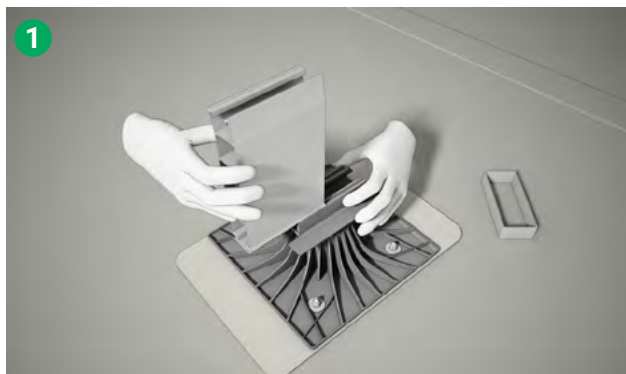


Overview of the roof once the studs have been installed.





## INSTALLING THE LOW AND HIGH RAISERS, THE BLOCKER AND THE PEDESTAL COVER



Installing the raisers according to the layout.



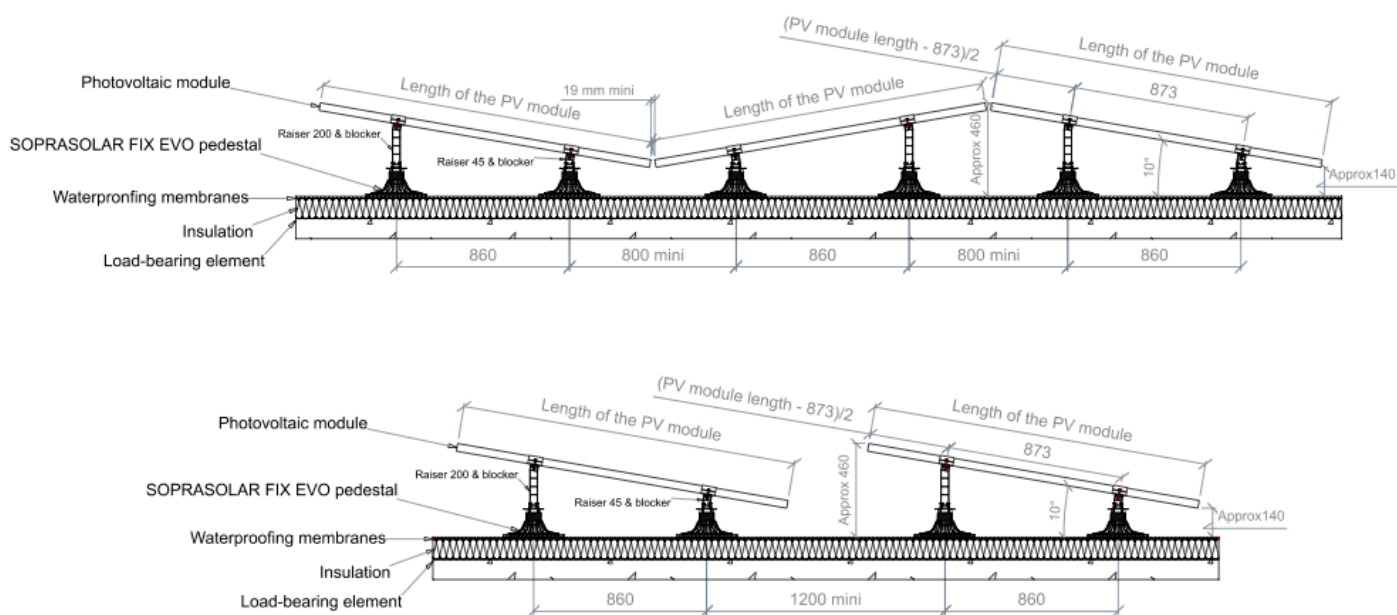
Putting in place the blocker to keep the raisers from being dislodged from the top of the pedestal.



Insert the cage nut of the support clamp kit in the raiser through the opening provided.



## CROSS SECTION OF SOPRASOLAR FIX EVO TILT



# WHO ARE WE?

Equus Industries provides technical waterproofing solutions for Architects, Engineers, Property Managers, and Contractors in the building industry. One system does not fit all.

Equus can provide complete solutions, systems, specifications, technical support and warranties.

Equus is the Authorised Distributor for SOPREMA in New Zealand. SOPREMA was founded in 1908 in France and has over 100 factories worldwide producing waterproofing materials and thermal insulation.



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