

Lightweight mounting system for flat roofs

3 times faster than other systems





## FlatFix Fusion For flat roofs

FlatFix Fusion is a revolutionary lightweight flat roof mounting system for solar panels that can be built in different ways in order to get an optimal solution for any flat roof. The system is designed for quick and easy mounting of solar panels using only a small number of components. The main components are clicked together to create a solid grid. You only need one tool to install the solar panels. This drastically reduces the time required for installation of the PV system without compromising on quality.

#### Setup

The FlatFix Fusion system can be used for almost all flat roofs. The aerodynamic design allows quick and easy placement of both large and small systems with a minimum of ballast. The unique system can be used to build up a classic South setup as well as an East-West or North-South setup using the same parts. With the setup angle of 13 degrees, the PV system will produce a good yield for just about every orientation.

#### Aerodynamic and closed system

The aerodynamic design protects the PV system from the influences of the weather and the wind. Both the sides and the back of the PV system are shielded by wind deflectors. Shielding the modules will lead to less forces on the PV system and the solar panels which improves the life span of the solar panels.

#### Cooling

The wind deflectors emit heat and passively allow the solar panels to cool down. This keeps the solar panels cooler than the other systems by up to 5 degrees. This improves the yield of the PV system and the lifespan of the solar panels.



#### **Ballast**

FlatFix Fusion is a lightweight system. Due to the coupled and shielded structure, the system only needs to be ballasted on a number of strategic points. This will result in a very low additional roof load. In the universal ballast holder, various types of ballast can be used, such as gravel, concrete pavers and retaining straps.

#### **Roof load**

The self-aligning roof supports ensure optimum pressure distribution on the roof. Due to the low weight of the system, the average point load on the roof membrane is lower than 10kPa. The roof supports can be used directly on any type of roof membrane without protective rubbers, mats or foils. The roof supports ensure that the system 'floats' above the roof, so precipitation such as rain and melt water can drain away easily.

#### **Cable management**

The design includes an integrated cable management system. To reduce the risk electrical failure the cables and connectors of the solar panels can simply be clicked onto the mounting system so the cabling does not rest on the roof.

#### **Thermal effect**

The thermal expansion and shrinkage of both the roof as the solar modules is compensated in the mounting system itself. The thermal forces of are not passed on to the solar modules or the roof which will extend the life time of both the roof as the solar panels.

#### **Transport and Handling**

The main components are linked to each other by means of smart click-joints. The base profiles are pre-cut to size, so measuring and cutting on the roof is not needed. As the base profiles are already at the right size, the solar panels are always optimally aligned in relation to each other, reducing measurement errors.

The small number of components and the materials used ensure a low weight and volume. This makes the system easy to store, transport and handle.

#### Calculation

The calculation tool makes it easy to calculate each individual project. Both the required materials as well as the ballast locations can be determined by using the calculation tool. It is also possible to create construction drawings.

#### **Material**

The basic components of the FlatFix Fusion system are manufactured from high-quality aluminium, coated steel and high-tech plastic.

All applied materials are rigorously tested for quality, durability and weather influences such as UV, frost and water and humidity.

#### Warranty

The FlatFix Fusion system has been tested in the wind tunnel and is protected by multiple patents. FlatFix Fusion is a 100% Dutch product with a unique guarantee of 20 years.

# **FlatFix Fusion**



Predefined sizes



### **Forces on the roof**

- Light weight, little ballast
- Self-leveling roof supports
- Thermally decoupled
- · Low point load
- For every roof membrane
- Different types of ballast possible





# Aerodynamically shielded system

- Storm proof
- · Less forces on the solar module extending its lifetime
- Passively cooled optimizing yield
- Esthetical





#### **Calculation**

- Calculation tool available for:
- Ballast calculation
- Wind loading
- Drawings
- Part list



- Use of high grade components
- Wind tunnel tested
- · Calculation according to euro code
- 20 year warranty











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