



The Zambelli HSF Ballast Tank

The Innovative Approach to PV Mounting & Ballasting on Flat Roofs

The Zambelli HSF Ballast Tank is a substructure designed for the proper and secure installation of photovoltaic systems on flat roofs. Made from UV-resistant high-performance plastic (HDPE), this mounting system combines east-west elevation and ballasting in one. The pressure-free, open tank system is suitable for year-round use – even in icy conditions during winter! Ballasting is achieved by filling the tank with water. This allows the mounting system to function without penetrating the roof membrane or requiring additional weighting with ballast stones. An automatic precipitation return system ensures that evaporated ballast water is redirected into the ballast tank via the funnel cap during rain, keeping the water level constant.

PRODUCT DETAILS

Orientation	East/West
Nominal Width PV Module	1129 mm - 1136 mm*
Frame Height PV Module	29 mm – 31 mm
Nominal Length	Customizable
Material	Plastic (HDPE)
Tank Deadweight	approx. 5 kg
Total Substructure Deadweight	approx. 7 kg
Max. Fill	approx. 40 l
Max. Total Weight	approx. 47 kg
Filling	Water
Module Tilt	15°
Temperature Resistance	-30 °C to +80 °C

* Special sizes available upon request



APPLICATION AREA

Flat roof, balcony power plant, ground-mounted systems

PERMISSIBLE SURFACE

Bitumen, plastic sheeting, vegetation, gravel fill

The Zambelli HSF Ballast Tank is a flexible solution for standard applications (standard case) and individual projects.

FEATURES

- ▶ 2-in-1 substructure
- ▶ Suitable for various PV modules
- ▶ Low deadweight
- ▶ Smart cable management
- ▶ Interlocking modular design
- ▶ Flexible ballasting possible based on individual planning
- ▶ Optimized module tilt
- ▶ No building protection mat needed
- ▶ Large support area for minimal point load
- ▶ Fire protection class B2

PRACTICAL BENEFITS

- ▶ Easy and flexible handling
- ▶ Fast and uncomplicated installation
- ▶ No roof membrane penetration
- ▶ No adhesive fastening
- ▶ No additional weighting required
- ▶ UV, frost, and weather-resistant
- ▶ Low costs
- ▶ Low maintenance
- ▶ 100 % recyclable

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HOW TO INSTALL THE HSF BALLAST TANK



1 Connect the tank module with adapters (left/right).



2 Attach direct connectors for additional module rows (tight spacer or spacer for maintenance aisle).



3 Drill the overflow hole (according to ballasting specifications*).

* Please refer to the technical data sheet
► HSF system requirements for standard case



4 Measure the length of the PV module with the installation bar and position the tank accordingly.



5 Fill the tank until the water level reaches the overflow hole (water will flow out of the hole).



6 Insert the funnel cap.



7 Place the PV module into the adapter grid and tilt it into position.



8 Route the PV module's cable through the cable management and snap it into place.



9 Secure the PV modules at the top with the clamp. Tighten with a torque of 12 Nm.



Further information and the detailed installation manual available at:

www.zambelli.com/hsf-ballast-tank

Zambelli Fertigungs GmbH & Co. KG
Tel. +49 8555 409-0
Mail fertigung@zambelli.com
Web www.zambelli.com

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In cooperation with

HUBER
Solarfix GmbH