

## ETEM. Think Adaptive



## VIOHALCO





































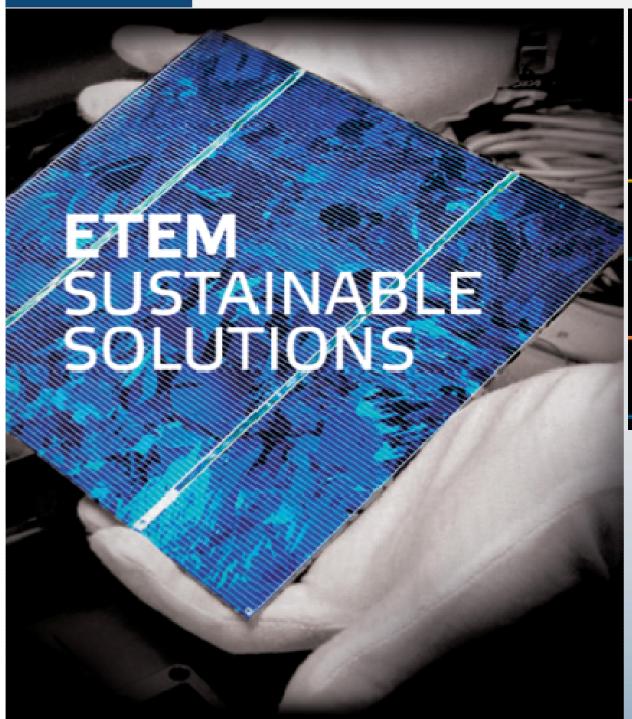












BUSINESS SOLUTIONS INTEGRATED INTO THE ROOF



LAND-BASED ENERGY MANAGEMENT



INTEGRATED ARCHITECTURAL SOLUTIONS



VENTILATED FAÇADE SYSTEM RESPECT



CUSTOMER DESIGNED PRODUCTION







#### ALUMINUM MOUNTING STRUCTURE FOR FREE-FIELDS



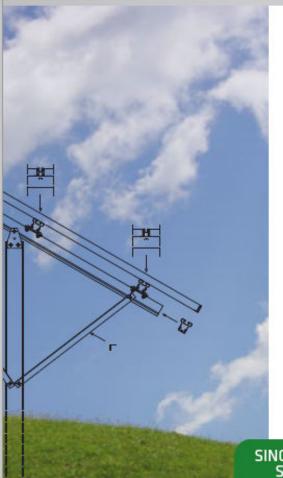
- Front free-height 0.40 m (adjustable) for protection of PV modules from dirt, shadow and snow.
- Aluminium profiles according to AW6063T6.
- Compatible with all types of grounding (ground screws, piling, concrete).
- A2 stainless steel screws.
- Orientation: 2 PV modules portrait or 3 PV landscape.
- FBN steel anchors for concrete (hot dip galvanized or stainless steel).





For Land Based Applications, ETEM has developed and promotes integrated solutions for mounting PV modules. Solutions include single pile or double pile elements made from galvanized steel for mounting into the ground. Concrete based solution is also available when mounting into the ground is not attainable or feasible. Horizontal purlins are made exclusively from aluminum profiles.

#### LAND-BASED SOLUTIONS





- The double pile support system for free-fields is made from galvanized steel.
- The quality of the steel finish has a minimum coating of hot dip galvanization 45 microns.
- · Purlins are made from aluminium.
- Easy to Install.
- Excellent value for money.
- · Competitive cost of installation.
- Orientation: 2 PV modules portrait or 3 landscape.



SINGLE - DOUBLE POLE MOUNTING STRUCTURES FOR FREE-FIELDS









- Easy to install special / difficult constructions.
- Ability to elevate construction.
- Any dimension, direction and inclination angle.
- · Hot dip galvanized steel parts.
- Static calculated.
- Expandable with the possibility of amendments.

#### Solar-flat aluminium profile with wide base for better seating.

- Ability to construct a grid by using additional aluminium profiles
- Preassembled middle and end clamps for all PV modules thicknesses.
- Quick and economical installation using special rivets with gasket.
- A2 stainless steel hanger bolts or special accessories.
- Availability of bituminous waterproof silicone for outdoor applications.



At ETEM Systems our aim is to provide the very best technical and economic wise solutions concerning the mounting of PV modules. A greatvariety of solutions is available for roof and for park applications. Roof solutions are made exclusively by aluminum profiles while park solutions include single or double pile products with steel and / or aluminum.



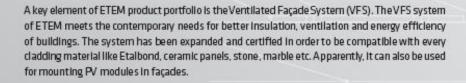
- Strong, light and economic aluminium profil
- Preassembled support triangles made by aluminium for fast adjustment and installation.
- Easy adjustment of Inclination angle between 25°, 30° & 35°.
- Compatibility with chemical fixings and counterweight beams.
- Preassembled middle and end clamps for all PV modules thicknesses.
- Availability of chemical fixings with water permeability certification, suitable for flat-roofs.

- Strong, light and economic aluminium profiles.
- Wide range of adjustable and fixing stainless steel roof hooks.
- Full range of hanger bolts.
- Preassembled middle and end clamps for fast mounting.
- Availability of bituminous waterproof silicones for outdoor applications.





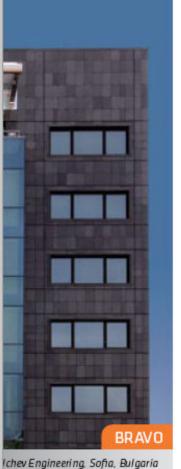




#### **VENTILATED FAÇADE SOLUTIONS**







#### → A NEW VISION IN INFRASTRUCTURE AND ARCHITECTURAL DESIGN

The diversity of façade materials observed over the past few years forms a new vision in infrastructure and architectural design.

ETEM Ventilated Façade Systems allow the use of such materials in contemporary buildings. Designed according to the strictest European standards and norms, these systems offer aesthetic quality and high security as well as energy saving through effective insulation.

These systems are installed on the external surface of the building usually leaving an air space of at least 40mm deep. The air gap is essential for activating the natural ventilation which allows the building to breathe and eliminates the condensation inside the premises.

VFS system is suitable for the mounting of Etalbond, ceramic panels and photovoltaic elements.

Adapting to nature and using PV panels give us the chances to be no longer restricted, but to produce the energy needed for contemporary buildings.

Ventilated system allows for optimal use of the PV panel capacity. Based on the principle of natural ventilation, it cools the PV panel and guarantees their fast and secure mounting.

Upon cooling the module temperature decreases with an average 10 to 14° C thus increasing the generated power ofthe photovoltaic system from 10 to 14 %.





### LAND-BASED SOLUTIONS







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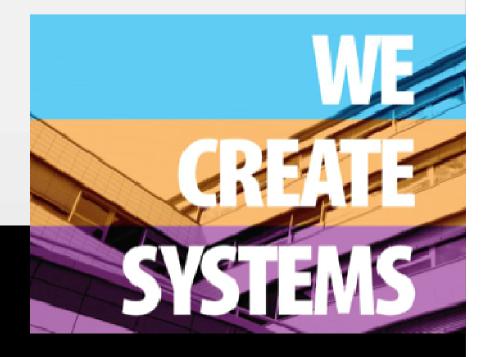








# ETEM BUILDING SYSTEMS CONTACTS



# Mr. Laspadakis Andreas Director ETEM Systems Romania

Mcb: +40 760 683 270

Email: alaspadakis@etem.com

Web: www.etem.com

# Mr. Beby Pavel PV Consultant

Mob: +40 762 232 256 Email: bpavel@etem.com