The smart solution for photovoltaics in open spaces

Anyone looking to implement a small-scale open space photovoltaic project often finds themselves facing significant challenges. The market primarily focuses on large-scale systems. Recognizing this gap, PMT (Premium Mounting Technologies) has introduced PMT TITAN, a system specifically designed to meet the needs of small and medium-sized photovoltaic systems.

To ensure a future-proof business, sustainable energy supply is essential. Many businesses have untapped potential on their premises, whether in the form of unused commercial land, vacant lots or open spaces that could be harnessed for solar energy. However, despite these opportunities, many companies fail to implement photovoltaic systems.

Why? Because finding suitable solutions and reliable partners for smaller projects remains difficult.

'A central issue in the market is that companies often receive rejections or no response at all when inquiring about smaller systems,' says Philipp Gentner, Product Development & Project Manager at PMT. As a result, businesses are unable to utilize their available spaces sustainably.

To bridge this gap, PMT has designed PMT TITAN, a flexible and highly customizable standard mounting system that makes photovoltaic installations more accessible for businesses of all sizes.

Simple, flexible, secure

What makes the system particularly suitable for small photovoltaic systems of up to 10 MW? Open spaces on company premises often do not provide ideal conditions for standard mounting systems. Retrofitting standard systems to fit specific site requirements can be costly and time-consuming, making smaller projects financially unfeasible.

This is where PMT TITAN comes in. The new system from the Stadtsteinach-based company is flexible and adaptable thanks to its modular design with minimal components. It can be planned and configured according to the available space.

Moreover, the system's table size can be customized to fit module dimensions of up to 2500 mm in length and 1350 mm in width, accommodating various photovoltaic panel sizes. Installations starting from 3150 mm in width and 6000 mm in depth are easily achievable, ensuring even the smallest spaces can be put to good use.

The true intelligence behind PMT TITAN lies in the details. It's not just a single component that makes the system so flexible; rather, it's the combination of PMT's well-established approaches to mounting system optimization and the specific requirements of small spaces.

One of the key elements for system customization is the purlins on which the modules are mounted. These are available in lengths of 3310 mm and 6000 mm. The real innovation, however, lies in their telescopic design; each purlin consists of an inner and an outer section that can slide into or extend from one another. This allows for adjustable table widths from 3390 mm to 11600 mm, enabling optimal and flexible use of available space without material modifications.

Clamped, not bolted

Another unique feature of the system is the connection between the beams and purlins. Unlike conventional methods that rely on bolts, PMT uses an innovative clamping system. The cross clamp can be hooked directly into the purlin's contour, creating a stable connection between the two components.

Since material modifications such as drilling and cutting are unnecessary during the intuitive assembly process, installation time is significantly reduced. Additionally, all components are coated with ZM310, a durable protective layer that shields against environmental and weather-related impacts. The self-healing effect of this special coating ensures that minor scratches or damages repair themselves over time.

Bottom-up installation

A common challenge with photovoltaic installations is the risk of microcracks forming in solar modules during installation and maintenance. These microscopic fractures can go unnoticed but may lead to long-term performance degradation or even early system failure.

To minimize this risk, PMT TITAN features a bottom-up mounting system. By installing the module clamps from below, the risk of excessive pressure on the panels, a frequent issue with top-down installation methods, is greatly reduced.

This approach not only protects the modules but also makes ongoing maintenance and repairs safer. Technicians can work comfortably and securely, with unrestricted access to system components.

Stepless tilt adjustment

The company also maximizes flexibility in module inclination. Modules on the system can be continuously adjusted between 10 and 20 degrees using a perforated grid system integrated into the pile extension posts. The piles themselves are available in lengths of 2500 mm, 3000 mm and 4000 mm. This allows optimum adaptation to the ground conditions.

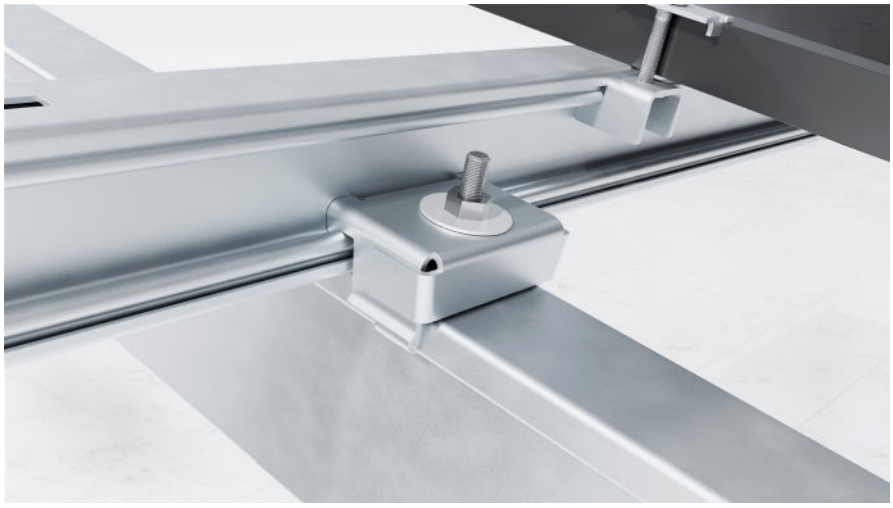
Moreover, the system compensates for uneven terrain and obstacles with its flexible length adjustment between pile and extension, eliminating the need for costly modifications. For particularly challenging ground conditions, additional piles can reinforce the system. PMT is also considering alternative foundation options, such as concrete foundations. The modular design allows for creative solutions while maintaining stability.

An integrated and weather resistant cable management system ensures smooth operation. A compatible inverter mount can also be added to complete the system.

'We actively engage with our customers and the industry,' says COO Jörg Weber-Schorsch. 'We have consistently received feedback from small businesses and project developers about their challenges. Instead of ignoring them, we develop solutions. PMT TITAN is our answer to their needs.'

Unmatched speed

Because PMT TITAN is designed as a standardized system, the company guarantees high availability and fast delivery times. The intuitive installation method is also fully implemented in this system. Simple connection mechanisms and logically arranged components guide installers effortlessly through the setup process. Pre-assembled components and an efficient design ensure that no additional steps are required on-site. The number of parts has been minimized, further simplifying logistics and assembly.



This easy handling allows for direct, secure and precise installation.

At the same time, customers can rely on the high quality of the components. Every element has undergone rigorous testing at the company's in-house test center to guarantee maximum safety and durability.

With reliable planning, short installation times and cost efficiency, without compromising on quality, this is the ideal solution for small to medium-sized photovoltaic installations. It provides an accessible gateway to renewable energy.

Sustainable and thoughtful

The company from Stadtsteinach not only builds mounting systems for sustainable energy solutions but also ensures that its system designs and materials are resource-efficient.

'One of our key goals was to minimize resource consumption through material selection,' says Philipp Gentner. 'We chose steel as the primary material because it is relatively energy efficient in both production and recycling.'

Additionally, its optimized logistics ensure that only essential transportation routes are used, reducing emissions and minimizing environmental impact.

With PMT TITAN, small and medium-sized businesses now have access to a highly efficient, customizable and easy-to-install solar mounting system. Its smart design, modular flexibility and sustainable approach make it a perfect fit for businesses looking to embrace renewable energy without unnecessary complexity or cost.

https://pmt.solutions/en/

About PMT

Premium Mounting Technologies GmbH & Co. KG develops and produces aerodynamic photovoltaic substructures for all types of roofs on commercial buildings and builds industrial carport systems.

Headquartered in Stadtsteinach, Upper Franconia, the company was founded in 2012 as a supplier of flat-roof constructions for conventional solar systems.

Today, with over 90 employees, the company develops individual and tailor-made solutions for flat and pitched roofs in accordance with the highest safety and quality requirements for the global market.

PMT's customer base includes a wide range of EPCs, distributors, installers and sales partners.

CLIP Logistics in Poland in collaboration with PMT completed the largest PV system to date, with EVO 2.0 in a southern orientation at the project site in Jasin in 2019.

An impressive 22,947 modules provide a total output of 7 MWP on five roofs of the logistics group, an area of over 3,000 square metres.