

S-5-PVKIT[®] 2.0 & RibBracket[™] III Case Study — EVA Mexico



At-A-Glance

Project Name "La Corona" Soap Factory

Location Mexico City, Mexico

EPC EVA Mexico

Roofing Profile

Ternium TR-101, trapezoidal metal sheet

Industry

Commercial

Situation

"La Corona" Soap Factory needed to supplement the power required to run its main 257,795-square-foot manufacturing facility.

The Result

S-5!'s RibBracket[™]III, specifically designed for this roof profile, and the S-5-PVKIT[®] 2.0 allowed for rail-less PV mounting to the exposed-fastened metal roof.

Project Stats

- Roof Measured: 257,795 square feet (23,950 m²)
- Roof Pitch: 8 degree

Project Size

- Total Installed Capacity: 539 kWp
- Solar Panels: (1,400) JA Solar 385 Wp
- Type of Inverter Used: (8) SMA CORE1-62kW

S-5! Products Supplied

- RibBracket III (3,600)
- S-5 PVKIT 2.0 (3,600)



The Project

"La Corona" Soap Factory in Mexico City, Mexico is a large-scale manufacturer of soaps, detergents and cooking oil with multiple locations throughout Mexico and a distribution network in North America, the Caribbean, Central and South America.

Because of the power required to run its main 257,795-square-foot manufacturing facility, La Corona identified the need to supplement the factory's power generation by adding solar photovoltaics (PV) to its exposed-fastened metal roof. They collaborated with EPC Contractor, EVA Mexico, to install a 539 kWp solar array using S-5!'s tested, trusted and engineered technology.

EVA Mexico is dedicated to the development of solar energy and energy efficiency projects that ensure economic and environmental benefits, using innovative, safe and cutting-edge technology. "The fact that this mounting system allows a rail-less installation was a big winner. Not only did it bring our cost-per-watt down, it's faster to install and less weight on the roof. Shipping was relatively easy and cheap, as this whole system only meant about 20 small boxes."

- Luis Suarez Partearroyo, COO, EVA Mexico

The Challenge

The primary challenge was to ensure the alignment of the solar panels and to accurately determine bracket placement on the roof. Because it is an exposed-fastened, trapezoidal metal roof profile, it was critical to get the spacing of the brackets precise from the start. This type of roof requires fastening brackets directly into the roof, an irreversible process.

Any deviation of bracket placement could result in a large gap further down the road, which would interrupt panel installation. (Fortunately, S-5! brackets have slotting mounting attachments, so small errors are forgiven.)

The Solution

Installation resources, provided by S-5!, made it easy for EVA Mexico to determine the best spacing and proceed with the install. Once the spacing was determined and the installation began, the team was able to move much faster.

S-5's **RibBracket III**, specifically designed for this roof profile, and the **PVKIT** solar solution, allowed for direct-attach or railless PV mounting to the metal roof.

A rail-less approach to solar mounting provided a significant reduction in the amount of material required vs. a traditional rail mounting system. It also meant the 1,400 PV panels could be directly-attached to the ribs of the exposed-fastened metal roof, providing ease of installation. S-5!'s user-friendly products assisted in the overall ease of completion of the project.

How Did the PVKIT Help?

- Cut material costs in half, including freight costs
- Cut installation costs in half by eliminating the assembly and installation required by traditional racking
- Minimized the amount of time workers must spend in harnesses on a steep roof
- Improved aesthetics



Long-Term Outlook

"La Corona" Soap Factory was able to supplement its power generation by adding solar PV to its exposed-fastened metal roof.

The PVKIT and RibBracket system provided an aesthetically-pleasing, cost-effective PV mounting solution – saving the customer time and money on installation and materials.



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