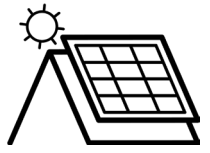




Case Study – Scandinavian Home Furnishings Retailer Centennial, CO

Facet™ Mount



At-A-Glance

Solar Developer

BayWa r.e. Power Solutions

EPC & Solar Installer

Elevated Independent Energy

Engineer

TRC Companies

Roofing Contractor

Nations Roof

Modules

JA Solar 545W

Inverter

Solar Edge

Roof Profile

Elevate KEE 80-mil single-ply membrane

Industry

Commercial Retail

The Situation

The Scandinavian home furnishings retailer required a full rooftop solar retrofit as part of a roof replacement, calling for a secure, low-profile mounting system compatible with a TPO membrane and capable of withstanding high wind loads.

The Result

Facet Mount provided a reduced-ballast, solution that delivered fast installation, superior hold-down strength, and watertight integration on the new roof.

Project Stats

Roof Slope: ¼:12

Project Size: 1.7 MW DC
(3,360 solar modules)

S-5! Products Supplied:

- Facet™ Mount (167)



The Project

Centennial, Colorado, is a flagship location for an iconic global Scandinavian home furnishings retailer, known for its clean, modern furniture design, expansive showroom, high customer traffic and commitment to sustainability. Located just south of Denver, the 415,000-square-foot building features a large, low-slope rooftop, ideal for hosting one of the state's most prominent commercial solar arrays.

The project, a collaboration between overall project developer BayWa r.e. Power Solutions and local contractor, Elevated Independent Energy (EIE), with S-5! serving as its solar attachment technology partner. EIE's field team handled installation of the new array atop the retailer's recently renovated roof. S-5!'s **Facet™ Mount** attachment system was selected to secure the solar panels, integrating with a PanelClaw dual-tilt racking design in a hybrid approach—combining mechanical attachments with traditional ballast blocks.

This solar upgrade was timed with a necessary roof replacement. The store's existing PV system was removed and recycled, a new Elevate KEE 80-mil single-ply membrane roof was applied, and a new 1.7 MW DC rooftop solar array was installed.

The Challenge

Implementing a project of this scale on an existing retail building came with several key challenges. Weight limitations played a critical role. The team had to balance structural load constraints with the need for a secure and code-compliant solar installation, carefully managing how much weight could be permanently placed on the roof.

Project timing and sequencing added further complexity. The solar installation had to be coordinated with a complete roof replacement—requiring removal of the existing solar system, installation of a new TPO membrane, and then redeployment of the new array. This phased approach demanded close coordination between the roofing and solar installation teams.

Environmental conditions in Colorado's Front Range also shaped design decisions. The system needed to withstand high wind gusts, rapid temperature swings and seasonal freeze-thaw cycles. A rooftop attachment with exceptional hold-down strength was essential to support the hybrid ballast-mechanical design.

Finally, the owner and design team required a proven attachment solution with flashing that exactly matched the new roofing system. This ensured full compatibility and helped maintain all manufacturer warranties—an essential requirement for long-term performance and roof integrity.

The Solution

The team selected the Facet Mount mechanical attachment system for low-slope roofs. This innovative hybrid approach offered the strength of mechanical anchoring while reducing reliance on heavy masonry units ballast—significantly minimizing the number of concrete blocks that needed to be placed on the roof. The result was a balanced system that met structural load constraints and delivered a long-term solution that reduces ongoing stress on the roof assembly.

Facet Mount's patented low-profile raised plate allowed multiple fasteners to be deployed beneath a single molded membrane layer. This design supports manufacturer-approved waterproofing using the same roofing material already installed on the building—ensuring full compatibility and protecting long-term warranty coverage.

Each mount includes a factory-designed flashing. Once secured to the deck, a pre-cut membrane cover is heat-welded over the base by certified roofers, creating a watertight seal that preserves both the roof's integrity and manufacturer warranties. The flashing is customized for each roof manufacturer's material chemistry and membrane thickness (60–80 mil) and can be color-matched to the roof. Solar supports or rails are then bolted to the mounts.

Facet Mount's lightweight design and repeatable installation process improved jobsite safety and reduced manual labor. Its robust anchoring system—with up to 16 fasteners, including angled screws—delivered exceptional uplift and shear resistance, addressing the region's severe wind gusts and dynamic weather conditions.

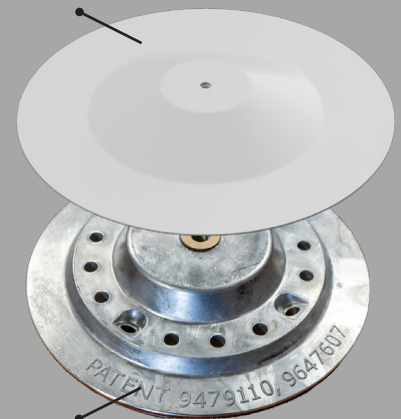
With best-in-class structural capacity, Facet Mount enabled the engineering team to reduce the number of attachments per kilowatt installed—without sacrificing system strength or code compliance. This performance was especially valuable in Colorado's high-wind environment and has been validated through successful deployments in hurricane-prone regions.



How Did Facet Mount Help?

- **Quick installation** – Just a few screws and bolts; mounts install in minutes
- **Reduces needed ballast** – Minimizes heavy lifting and improved safety on slippery TPO roofs
- **Roof-friendly design** – Integrated flashing maintains a watertight seal and preserves integrity
- **Strong wind resistance** – Angled screws and multiple fasteners prevent uplift and shifting
- **Low training curve** – Utilizes existing OEM's installation processes; crews are already trained
- **Positive feedback** – Installers praised speed, ease and reliability across all sites

Facet Cover



Facet Mount

Long-Term Outlook

The success of the installation has built strong momentum for using Facet Mount on future projects. BayWa r.e. and EIE plan to continue specifying it for its proven performance, ease of use and positive installer feedback. Facet Mount is well-positioned as a go-to solution for commercial solar.

“The installers just love it – it's easy to install, the roofers' flashings are easily applied, and it goes down quickly. I would recommend using Facet Mount for any commercial roofing project. I've used other mechanical attachments, and Facet Mount is so much easier to use and is superior to all the rest.”

– Darrell Moomey, Director of Construction, BayWa r.e. Power Solutions



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