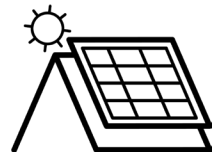




Case Study — James Bought a House Umina Beach, Australia

PVKIT® | S-5-S™ Clamp | S-5-S™ Mini



At-A-Glance

Project Name

James Bought a House

Location

Umina Beach, Australia

Designer

James Treble

General Contractor

James and Sandro Treble

Project Manager

Alessandro Nocentini

Solar Installer

Freedom Solar and Batteries

Module Manufacturer

LONGi

Inverter Manufacturer

GoodWe

Roofing Contractor

No. 1 Roofing & Building Supplies

Roof Profile

Snap-Lock Standing Seam Metal Roof

Industry

Residential

The Situation

With so much work done to the roof over the years, it presented various challenges that would have made it difficult to install a traditional rail system, and it would have limited the number of modules able to fit on the roof. Additionally, utilising a discreet, low-profile system was extremely important to the owner.

The Result

Providing a faster and easier installation than a traditional rail system, S-5! turns the roof into a canvas, allowing panels to be installed anywhere on the roof, not just on roof purlins. The ability to design and install a landscape-oriented system maximised the roof space and the power production of the system.

Project Stats

- **Roof Measured:** 130 square meters
- **Roof Pitch:** 15 degrees
- **Project Size:** 10kW
- **S-5! Products Supplied:**
 - S-5-S™ Mini (68)
 - PVKIT® (in black) EdgeGrab (40)
 - PVKIT® (in black) MidGrab (28)
 - Bonding Jumpers (18 pc)
 - S-5 S™ Clamp (for Safety Link Fall Protection—12)



The Project

Australian designer, James Treble has three decades of knowledge and experience in the building, real estate and interior design industries. He shares his expertise as a guest presenter and subject matter expert on the TV lifestyle show, *“Open Homes Australia.”* He was also a regular guest on the award-winning lifestyle show, *“The Living Room”* as an interior design expert, and has his own YouTube Channel, *“Designer James Treble”* where he is launching his own series called *“James Bought a House.”*

Treble and his partner, Sandro purchased a 1970s home in Umina Beach, a one-hour drive north of Sydney. Although their initial intent was to renovate the home and place it back on the rental market, as they walked through, they recognised the building as solid and full of potential. The property is located just minutes away from beautiful beaches, and the area is renowned for its increasing property values, so they decided to keep it and make it the beach retreat they have always wanted.

However, it needed a lot of work—everything from floor-plan changes, a kitchen, new bathrooms, a façade update and a new roof. As an ambassador for Australia’s leading environmental organisation, Planet Ark, Treble firmly believes in sensible purchasing, recycling and creative re-purposing. He wanted to utilise the most environmentally friendly and technologically advanced products and solutions available on the market.



The Challenge

Every aspect of the home had something that needed to be repaired or renovated, including a new roof.

The owner chose a standing seam metal roof for its durability and long-term sustainability. He also wanted to add rooftop solar to supplement the home's power needs and lower his carbon footprint; standing seam metal made the solar attachment "seamless."

A top priority for him was an orderly, low-profile aesthetic solar mounting solution that would complement the look of his roof. The solar installer was also in favor of a low-profile system as it would reduce the wind uplift effects on the array.

Given the location of the property by the sea, another concern was the salt air and salt spray, which accelerate corrosion, so utilising quality construction materials that could withstand such environmental conditions for the long term was of utmost importance.

The Solution

The owner chose the S-5! PVKIT® rail-less, solar mounting solution (powder coated in black). The solar installer had first discovered U.S.-based S-5! at an Australian energy trade show years before and reconnected with the team again through distributor, No. 1 Roofing who recommended the system.

Featuring just three components, the PVKIT enabled solar installers to "lay & play" solar panels directly onto the seams of the metal roof (penetration-free) utilising S-5-S™ clamps with tested, engineered attachment. The PVKIT's pre-assembled components considerably reduce installation time and cost for photovoltaic (PV) mounting by eliminating the need for an elaborate rail system, while also providing better load distribution into the roof and substructure.

The PVKIT provided the precise low-profile, aesthetic solution the owner desired. By directly attaching the PV to the seams of the roof, the S-5! system also allowed for the maximum number of solar panels due to the virtual limitless potential attachment points to choose from and infinite flexible module placement and module density.

Additionally, on any project by the sea, an installer prefers to use aluminium and stainless-steel components to combat corrosion and the effects of salt air. S-5! uses non-corrosive materials made from high-tensile aluminium that are salt-fog corrosion tested in accordance with ASTM B 117 standards—providing the environmentally friendly, durable, weather-resistant product the owner sought.

How Did the S-5 PVKIT Help?

- Cut mounting material costs by 1/3 (compared to rail-mounting), including freight costs
- Simplified assembly using only three components
- Cut installation costs in half by eliminating the assembly and installation required by traditional racking
- Minimised the amount of time workers must spend in harnesses
- Improved aesthetics—direct mount system with low finished profile
- Eliminated the risk of a voided roof manufacturer warranty—no holes/no damage

Long-Term Outlook

The homeowner was able to achieve the quality look he wanted with an aesthetically pleasing, low-profile rooftop solar mounting solution that would last the life of the roof, endure the effects of salt air for the long term, and offset his power usage.

"Using S-5! makes life so much easier. The PVKIT rail-less system enabled us to eliminate one full step as compared to a traditional rail system, so it saved us a lot of time on installation. We are not restricted by baton lines or baton spacing, and on some jobs, that is very restrictive and often reduces the amount of solar PV we can put on a roof. S-5! provides the ultimate flexibility on how many panels we can install."

—Cameron Scott, Owner, Freedom Solar and Batteries, Australia



The Right Way™ | +61 3 8595 7001 | www.S-5.com

