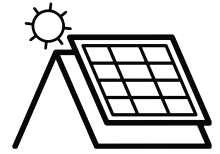




# CASE STUDY — Riverton Forum Shopping Centre Perth, Australia



PVKIT® | S-5-K Grip™ Mini & Insert | S-5-K700™ Clamp

## AT-A-GLANCE

### EPC

Solar Suite Pty. Ltd.

### Module Manufacturer

Sunpower Maxeon Q Cell 480W panels (2,781)

### Inverter Manufacturer

Sungrow 110k VA Inverters (9)

### Primary Roof Profile

Klip Lok 700 standing seam roof

### Industry

Commercial

## The Situation

The shopping centre wished to achieve 30 to 40% overall load coverage to supplement the power required to run such a large facility.

## 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 the roof purlins. The flexibility of module placement enabled installers to maximise rooftop space for solar and achieve the facility's energy goals.

## Project Stats

**Roof Measured:** 8,000-square-metres

**Roof Pitch:** 3-5 degrees;  
some up to 35 degrees

**Project Size:** 1.334 MW

**Cable Trays:** 1.2 kilometres

### S-5! Products Supplied:

- PVKIT® (4,890)
- S-5-K Grip™ Mini (3,450)
- S-5-GXM™ 50 insert (3,450)
- S-5-K700™ clamp (1,440)
- Ray bolt (1,000)
- Grounding jumpers (1,200)
- Bonding clamps (100)
- Cable clips (11,000)



## The Project

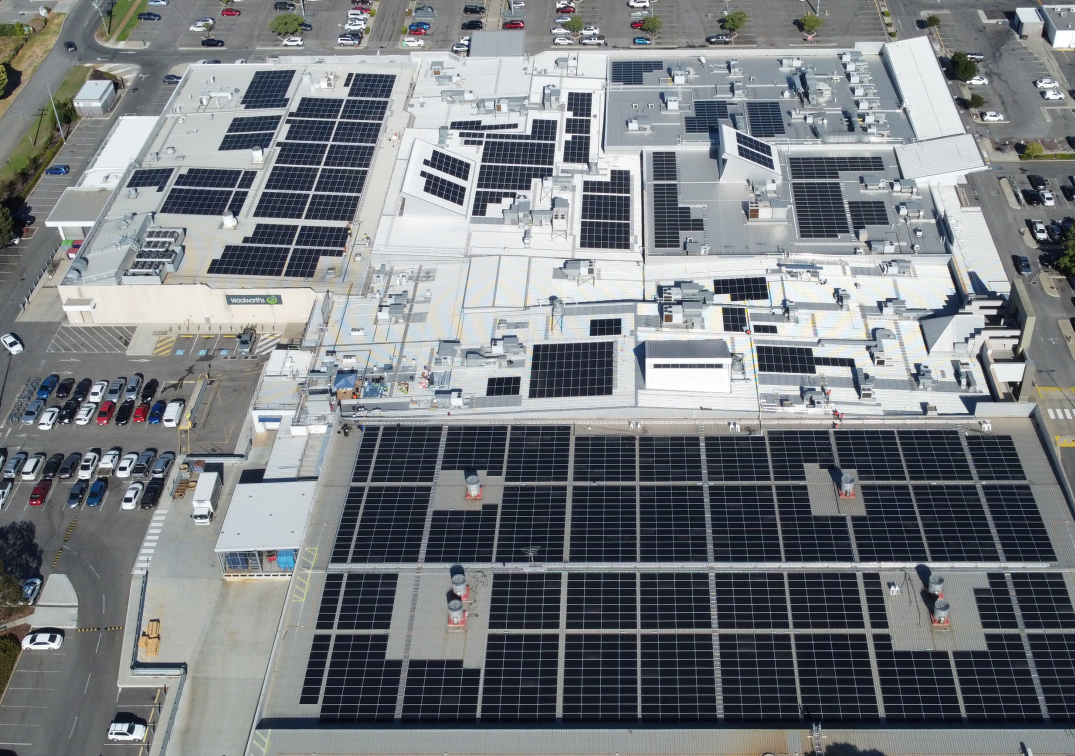
Riverton Forum Shopping Centre, located just outside of Perth, is a bustling retail hub with 60+ shops and restaurants. The 19,783-square-metre shopping centre features a standing seam metal roof with a large-scale 1.334-megawatt solar array.

Perth-based, EPC, Solar Suite Pty. Ltd., recently installed the array utilising the S-5! PVKIT direct-fixing, rail-less, solar mounting solution along with other S-5! components.

## The Challenge

The building is over 20 years old and has several different profiles of roof sheeting. In addition, there were multiple rooftop obstacles to work around including HVAC units, piping, and other machinery. Shading was also a concern.

The goal for the project was to install a solar array that would supplement 80 percent of the centre's power consumption, with the remaining 20 percent powered by the local power grid. The installer wanted to maximise the roof space to achieve as much solar power as possible.



for PV mounting by eliminating the need for an elaborate rail system and labor hours, while also providing better load distribution into the roof and substructure.

Furthermore, the logistical challenge of transporting materials to the site and up to the roof was drastically reduced because the entire solar mounting solution was 85% less weight and 90% less volume of rail components, so the S-5! system could easily be transported.

Also, eliminating the use of rails meant they improved safety by reducing trip hazards associated with installing rails on the roof. Additionally, they saved steps by not having to transport rail up onto the roof and/or cut it beforehand.

## The Solution

The centre chose the PVKIT solar mounting solution paired with the **S-5-K Grip Mini**, the **S-5-GXM 50** insert and the **S-5-K700** clamp to secure the 2,781-panel-solar array.

The S-5! rail-less system allowed for the panels to be installed anywhere on the roof, not just on the roof purlins, providing a vast number of potential attachment points to choose from for flexible module placement. Not being restricted by batten lines or purlin spacing enabled the installer

to maximise the roof space and the number of solar panels installed.

S-5! provided the ultimate flexibility, not only for module placement but the flexibility to easily manoeuvre around the various rooftop obstacles.

Featuring just three components, the PVKIT enabled solar installers to mount the solar panels directly onto the seams of the metal roof utilising S-5! clamps with tested, engineered attachment. The PVKIT's pre-assembled components considerably reduced installation time and cost

## How Did S-5! Products Help?

- Cut material costs in half, including freight costs
- Cut installation costs in half by eliminating the assembly and installation required by traditional racking
- Significantly reduced the cost and complexity of transporting mounting materials to the site
- Minimised the amount of time workers must spend in harnesses
- Improved system aesthetics
- Eliminated the risk of a voided roof manufacturer warranty—no damage
- And the PVKIT is 85% lighter than rails while providing 25% better load distribution

## Long-Term Outlook

The shopping centre was able to reduce its dependency on external electricity and supplement the property's power generation by 80%. The PVKIT system eliminated the need for a traditional rail system and provided a cost-effective PV mounting solution—saving the customer time and money on installation and materials.

*"S-5! is a game-changer. With the PVKIT, you can put panels virtually anywhere on the roof, which also allows you to maximise the number of panels used, and it makes the customer happy because they have in turn increased the number of kilowatt-hours they can save on their power bills. On smaller roof projects, rail would cover the whole roof and so the question is then, where are you going to load the panels to? You must store them on the ground somewhere. You eliminate all these concerns with the PVKIT.*

*This is a Godsend. The S-5! team was fantastic and came out multiple times to show us the best practices for installation. They were always accessible by phone, and we haven't experienced that level of service with other companies."*

**Adrian Lehmann, Operations/Project Manager, Solar Suite Pty Ltd., Australia**



**The Right Way™ | +61 3 8595 7001 | [www.s-5.au](http://www.s-5.au)**

