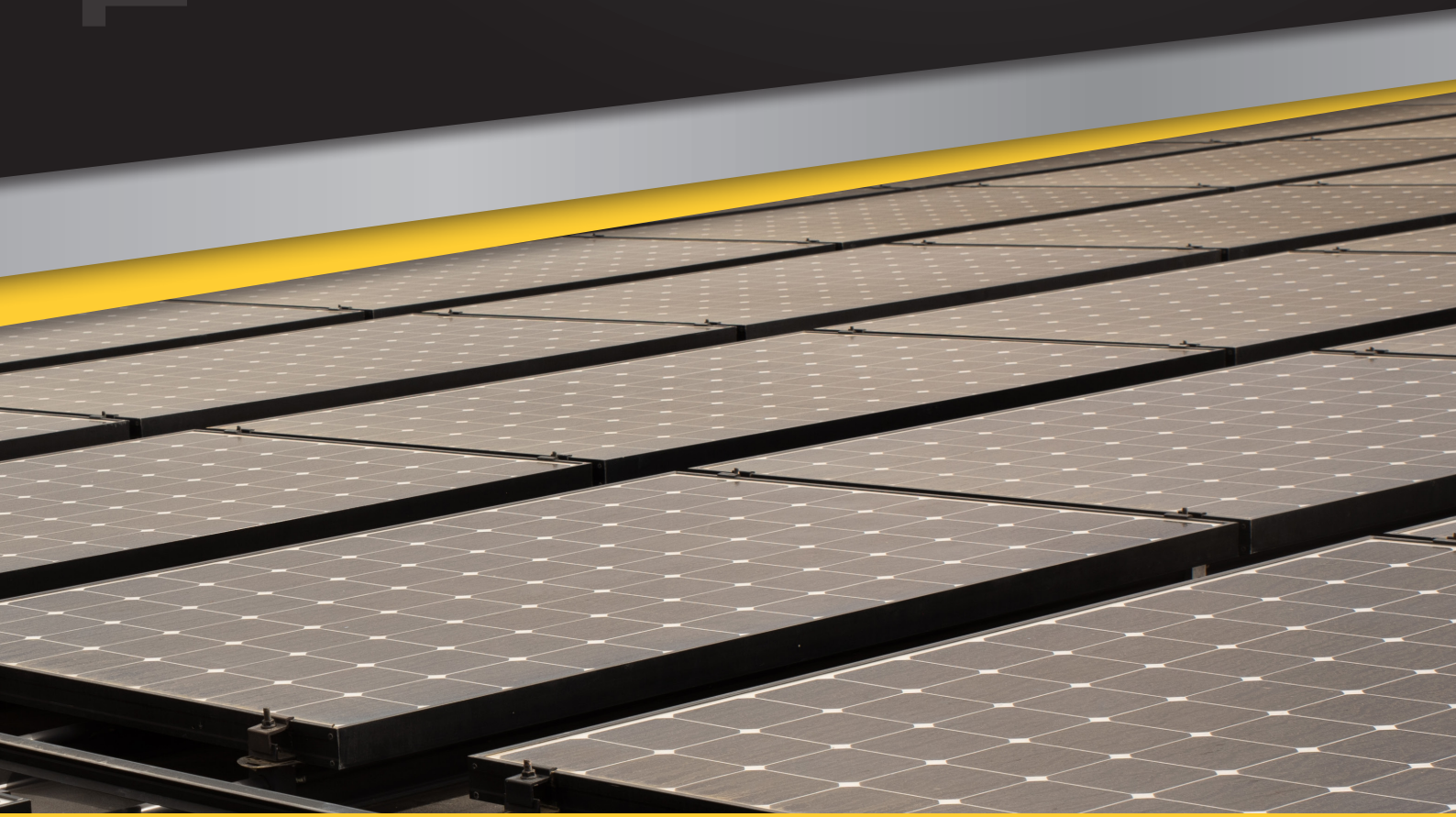
THE RIGHT WAY!™

S-5!®
The Right Way

SOLAR

Mounting Solutions to Fix Virtually Anything to Your Metal Roof

APAC



Made in USA

Tested. Trusted. Engineered.

For the life of the roof from the metal roof experts.

Fixing to Metal Roofs Worldwide…*The Right Way™*

With nearly 150 patents and a track record as the industry's leading provider of metal roof attachments, S-5! offers the highest-quality, made in the U.S.A., engineered products at surprisingly low costs. Our clamps and brackets make it easy to fix virtually anything to concealed-fix, exposed-fix and corrugated metal roof profiles. Established in 1992, S-5! is the most trusted name in the metal construction, solar, snow and utility mounting industries.

Quality Assurance: Zero Defects

- Proven performance since 1992
- Family-owned
- Certified material and manufacturing processes
- Load-tested for holding strength on more than 500 different roof profiles, materials and gauges
- Limited Lifetime Materials & Workmanship Warranty*
- State-of-the-art manufacturing facility
- Available at hundreds of locations worldwide

Extensive Quality Control Protocols

- ISO 9001:2015
- Underwriters Laboratories
- Factory Mutual
- TüV
- ICC-ES



"We strive to align our brand with the desires of the architects and the designers with whom we work, as we are a known provider of market-leading technologies. We never substitute on quality because we know the products we install will stand the test of time, and the warranties in place will make our customers happy. S-5! is our mounting system of choice. A lot of thought and research has gone into the S-5! product—simple things like how it's designed and put together, the materials used and how it makes the installer's life so much easier.

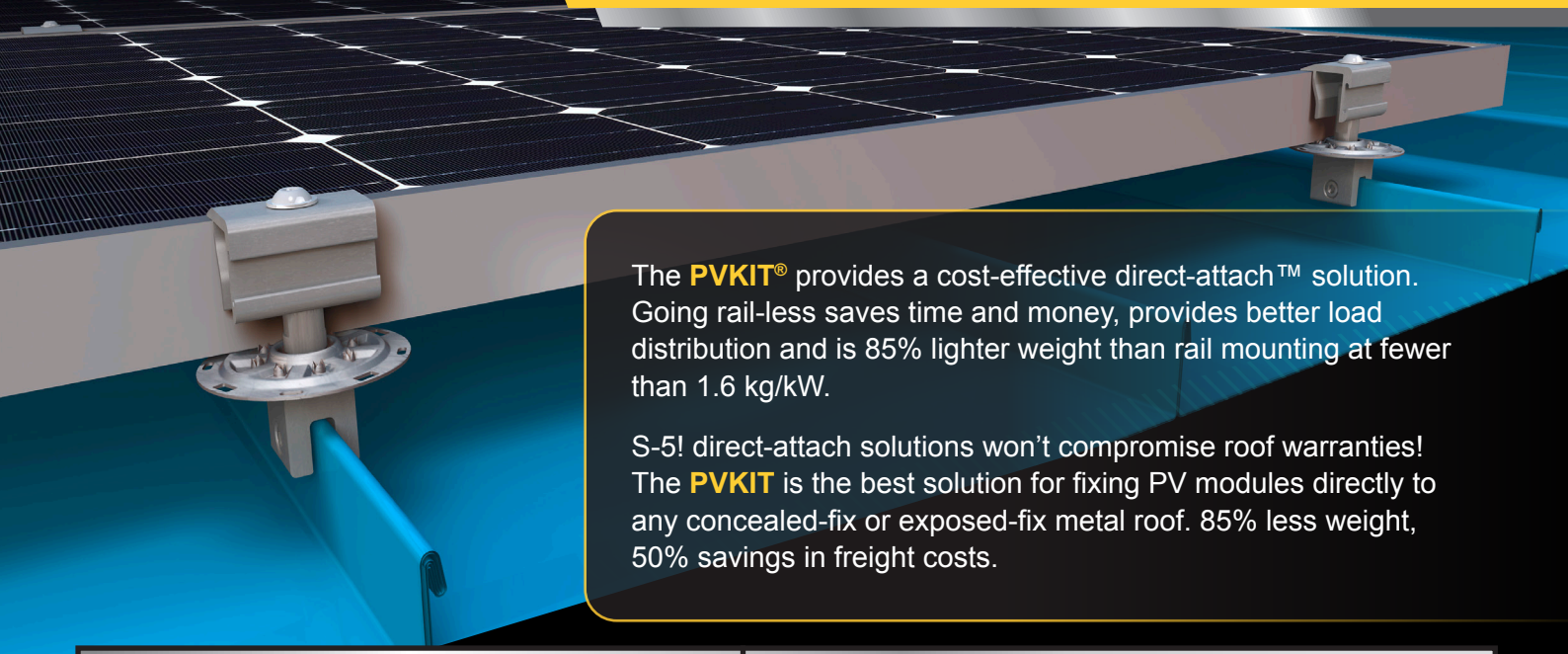
There's really no other system! For us, it is either S-5! or nothing."

—Mark O'Shea, Owner, Frontier Electrical, Albany, New Zealand

*Visit our website for warranty details.

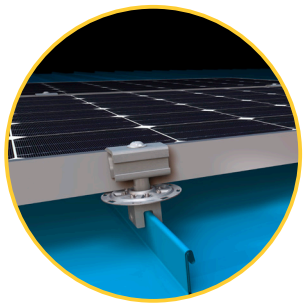
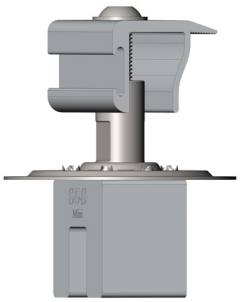
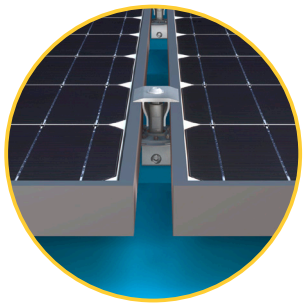
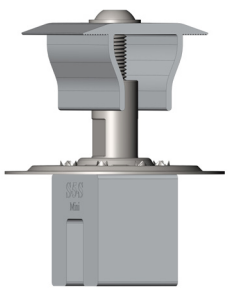
S-5! PVKIT® Solar Solution

For "Rail-Less" Mounting (Use with any S-5! Clamp or Bracket)



The **PVKIT®** provides a cost-effective direct-attach™ solution. Going rail-less saves time and money, provides better load distribution and is 85% lighter weight than rail mounting at fewer than 1.6 kg/kW.

S-5! direct-attach solutions won't compromise roof warranties! The **PVKIT** is the best solution for fixing PV modules directly to any concealed-fix or exposed-fix metal roof. 85% less weight, 50% savings in freight costs.

Product		Features & Benefits
	**EdgeGrab** 	• Cuts material costs in half • Reduces installation time by up to 50% • 85% lighter than rail mounting, providing 25% better load distribution • Save up to 50% savings in freight costs due to lightweight solution • Low-profile provides aesthetic solution and reduces wind effects • Greater flexibility in module placement • 100% aluminium and stainless components, providing superior corrosion resistance • UL 2703 bonding is integrated and automatic • Allows load reductions per ASCE 7-15 • ICC approved • Made in the U.S.A. in our ISO 9001:2015 certified facility • Warranted for the life of the roof/PV system • Only tools needed—stringline, gun and driver tip • Assembly available in black • Endorsed by all leading roof manufacturers
	**MidGrab** 	

SolarFoot™

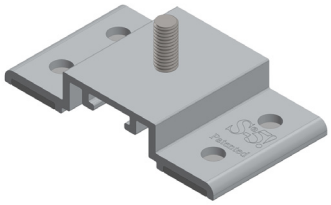
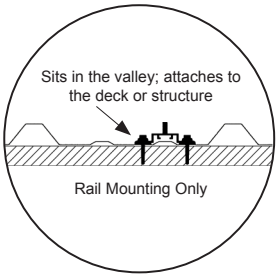
Fix rail with L-Foot. Must fix to deck or structure. (Screws sold separately)



Rail-Mounted Solution:

The **SolarFoot** is compatible with almost any exposed-fix roof profile – with the strength, testing, quality and time-proven integrity you come to expect from S-5!

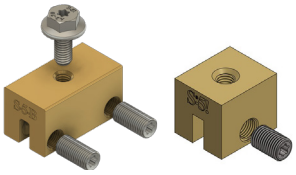
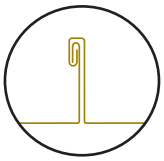
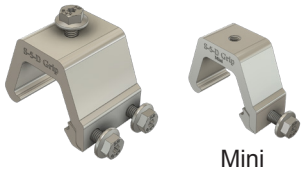
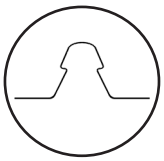
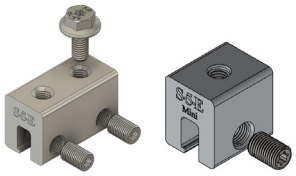
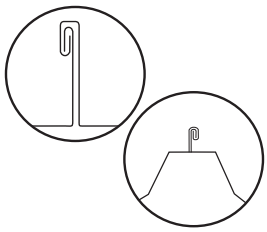
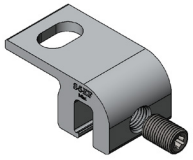
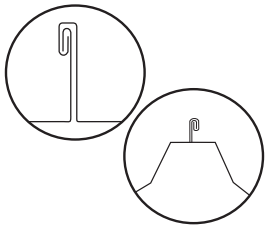
Fix any rail producer's L-Foot to the roof with ease and dependability. This solution is ***The Right Way***™ to secure any rail-mounted solar system to exposed-fix metal roofs such as AG-Panel or R-Panel.

Product	Profile	Features & Benefits
		• 100% aluminium & stainless components • Compatible with all L-Foot products • Secure rail-mounted systems to trapezoidal roof profiles • Water-tight, factory-applied, butyl sealant • Integral reservoir prevents over-compressing seal • Easy-to-find load test results on website • Utilises either two or four fasteners • Integral M8 stud and hex flange nut provided

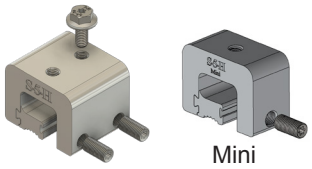
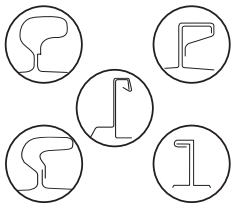
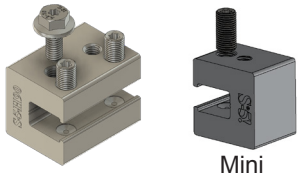
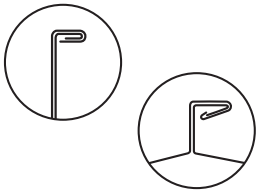
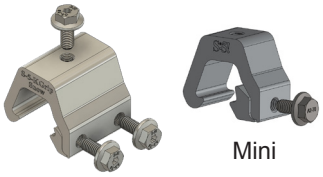
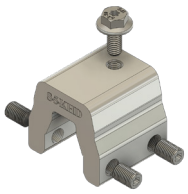
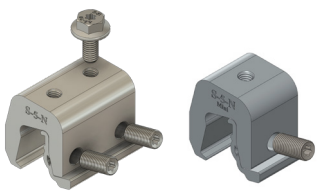
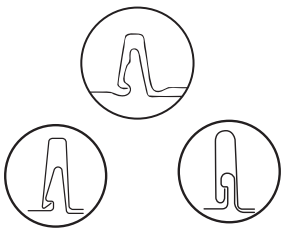
S-5! clamps are compatible with rail-mounted systems.

S-5!® The Right Way

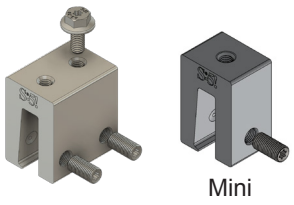
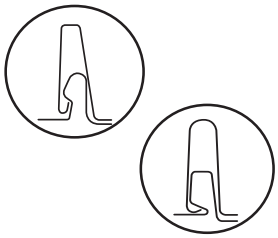
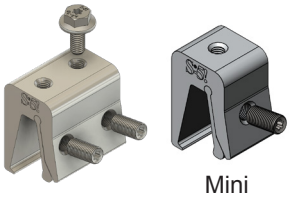
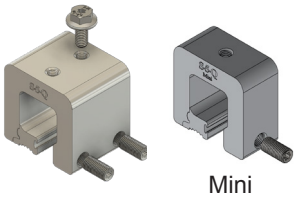
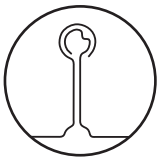
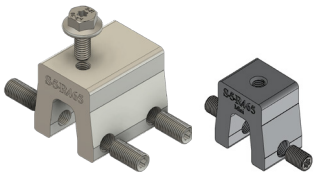
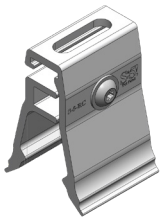
CLAMPS

Product / Seam		Features & Benefits
S-5-B™ & Mini  Mini		• Brass clamps designed for double-folded, copper standing seam roofing • Metallurgical compatibility with copper • Preserves aesthetics of the copper roof
S-5-D Grip™ & Mini  Mini		• Developed specifically to fit DimonDek® 630 and other bulb concealed-fix roof profiles • Design utilises an insert (sold separately) to accommodate variations in brand-specific rib dimensions • Mounting bolt directly at center of seam (included)
S-5-E™ & Mini  Mini		• Designed for double-folded, concealed-fix roofs popular in Europe and the world over • Comparable strength to S-5-U, but at a lower cost • Fits Butler's MR-24® and other double-folded, concealed-fix roofs
S-5-EF™ 		• Unique flange design increases ease and versatility of fixing to bottom-mount PV rails and other nut and bolt connections • Specifically designed for double-fold, concealed-fix roofs popular in Europe and the world over, including Butler MR-24®

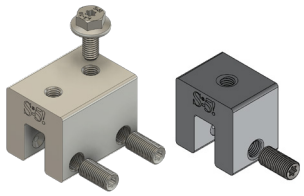
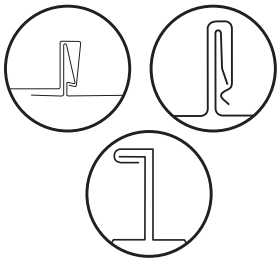
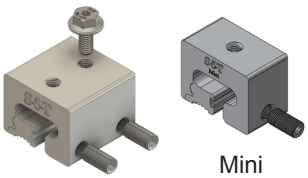
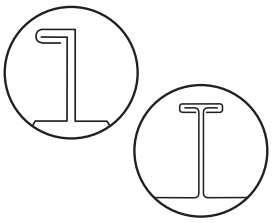
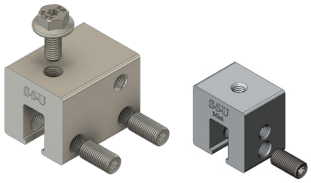
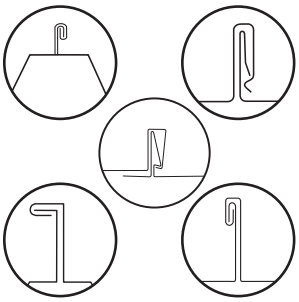
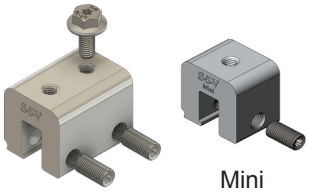
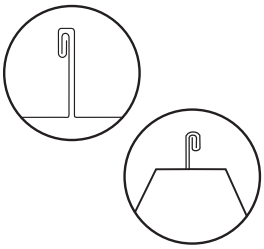
S-5! clamps are compatible with rail-mounted systems.

Product / Seam		Features & Benefits
S-5-H™ & Mini  Mini		• Designed to accommodate roof panels with horizontal seams not fully closed with side securement • Unique two-piece design allows fixing anywhere along the length of the seam • Insert allows clamp to fit over wider horizontal seams for fast and easy installation
S-5-H90™ & Mini  Mini		• Designed for concealed-fix panels with horizontal, single-folded seams • Secure and cost-effective solution for horizontal seam dimensions ≥ 16.5 mm • Fits all seams the S-5-U fits horizontally & more cost-effective
S-5-HR™ 		• Zero-penetration fixing • Fits Steel & Tube Hi-Rib and Legacy profiles, with unmatched holding strength • Fixes a wide range of rooftop ancillaries • Pairs easily with PVKIT® for rail-less solar mounting
S-5-K Grip™ & Mini  Mini	**Inserts for the S-5-K Grip**  S-5-GX 10 S-5-GX 50 **Inserts for the S-5-K Grip Mini**  S-5-GXM 10 S-5-GXM 50	• Developed to fit Klip-Rib®, KlipLok® and other bulbous type snap-together profiles • Design utilises multiple inserts (sold separately) to accommodate various rib dimensions • Mounting bolt directly over center of seam
S-5-KHD™ 		• Most heavy-duty and durable clamp in the S-5! family • Stands for Klip-Rib® Heavy Duty and fits Lysaght® Klip-Lok 406, McElroy Mirage, Metal Sales Clip-Loc and AEP Span Klip-Rib® profiles • Mount fall protection, snow guards and other “super-duty” applications; holding capacity of 3,000+ pounds
S-5-N™ & Mini  Mini		• Special design for “nail-flange” SSR profiles ≤ 25 mm in height • Angled setscrews for easier installation • Fits seam profiles having base of rib dimension < 20 mm • Clamp insert facilitates best fit without damage to panel seam • New design ensures straight clamp position on seam

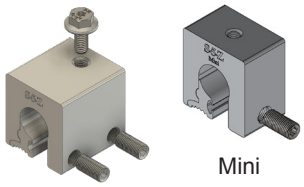
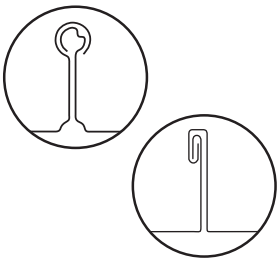
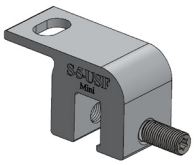
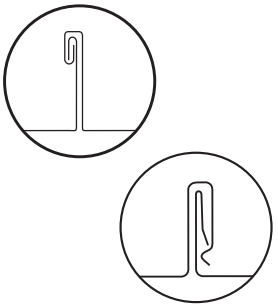
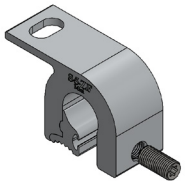
S-5! clamps are compatible with rail-mounted systems.

Product / Seam		Features & Benefits
S-5-N™ 1.5 & Mini  Mini		• Designed for use on popular 38 mm nail strip metal roof profiles • Angled wall with nose permits the clamp to engage the triangle-type profiles during the installation process • Wider throat accommodates most nail strip profiles; no need to crimp
S-5-NH™ 1.5 & Mini  Mini		• Nail strip profiles horizontal base rib dimension ≤ 20mm • Hinge forms to shape of seam preventing damage at the point of fixing • Reversible hinge for wide and medium-width profiles
S-5-Q™ & Mini  Mini		• Accommodates metal roof panels with a wide variety of profiles, including large, round “bulb” seam configurations up to 29 mm in diameter • Also fits smaller bulb-shaped profiles when seamed incorrectly, allowing seam to be utilised without correction
S-5-R465™ & Mini  Mini		• Designed specifically to fit the Zambelli RIB-ROOF 465, McElroy Metal Mirage II, Rib Roof Metal Systems Rib Roof and similar roof profiles • Unique design with opposing setscrews that engage the ribs beneath the top bulb, maximising published holding strength
S-5-RC™ 		• Zero-penetration fixing • Fits Riverclack® profiles, with unmatched holding strength • Quick, easy installation • Secure and warranted long-lasting quality • Fixes a wide range of rooftop ancillaries • Pairs easily with PVKIT® for rail-less solar mounting

S-5! clamps are compatible with rail-mounted systems.

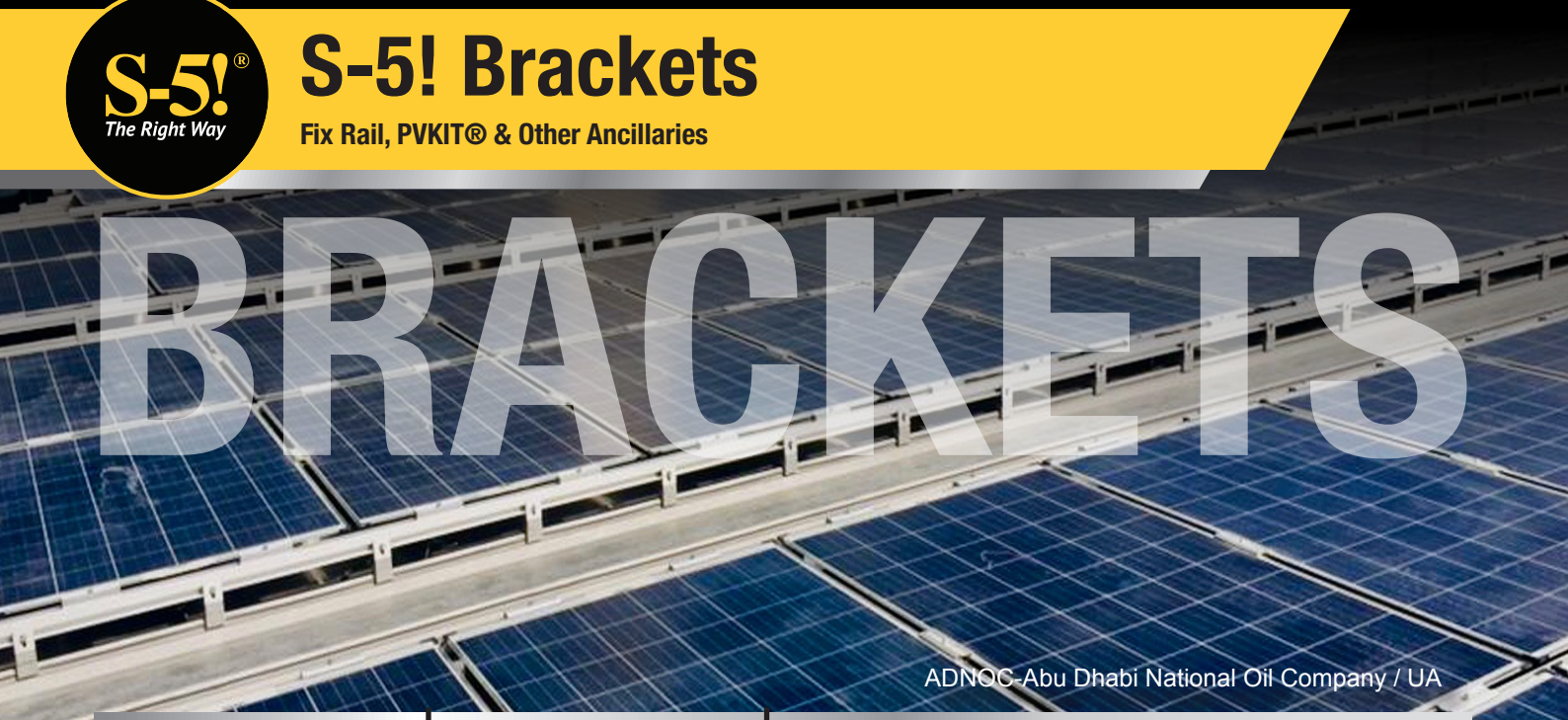
Product / Seam		Features & Benefits
S-5-S™ & Mini  Mini		• Versatile clamp created for popular snap-together profiles, including the Firestone UC4, Peterson SnapClad™, MBCI LokSeam™ and all similar seam types • Also used on single-folded (horizontal seams) under ≤ 13 mm to avoid necessity of field crimping the seam
S-5-T™ & Mini  Mini		• Developed for profiles having a T-shaped seam configuration with a horizontal dimension ≤ 33 mm • Two-piece design allows clamp to be placed over the top of the T-seam at any desired location • Fits architectural single-fold (or “angle-seam”) and horizontal single-fold seam with horizontal dimension ≤ 15 mm
S-5-U™ & Mini  Mini		• Our most versatile clamp • Fits 85% of concealed-fix profiles manufactured in North and South America, including structural and architectural profiles • Use on vertically oriented seams • Rotate clamp 90° and use on most horizontal seam profiles w/ horizontal dimensions ≥ 16.5 mm
S-5-V™ & Mini  Mini		• Fits the same vertically oriented seams as the S-5-U • Less versatile but more cost-effective than the S-5-U • Specifically designed for vertical machine-folded seams

S-5! clamps are compatible with rail-mounted systems.

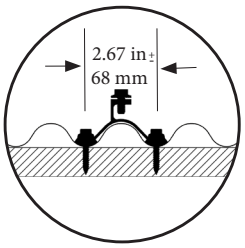
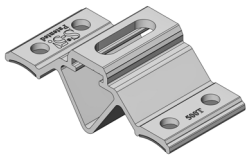
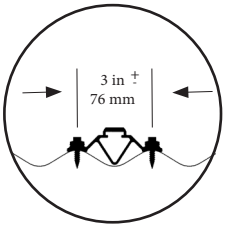
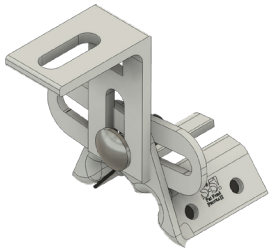
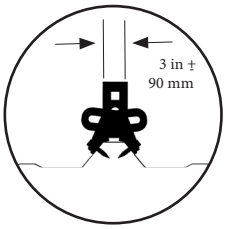
Product / Seam		Features & Benefits
S-5-Z™ & Mini  Mini		• Specially designed to fit Zip-Rib®, BEMO, Kalzip® and similar profiles with a round "bulb" seam configuration and seam diameters of ≤ 19 mm • Two-piece clamp design allows for ease of installation anywhere along length of the rib
S-5-USF™ 		• Unique flange design increases ease and versatility of fixing to bottom-mount PV rails and other nut and bolt connections • Fits 85% of U.S. (vertical) concealed-fix profiles, including most snap-together and machine-folded seams • Designed for snap-together and vertical-folded seams
S-5-ZF™ 		• Flange clamp specifically designed to fit bulb-shaped profiles • Unique flange design increases ease and versatility of fixing to bottom-mount PV rails and other nut and bolt connections
S-5-ZH™ 		• Fits round "bulb" seam configuration ≤ 22 mm in diameter • Can be used at halter locations • Design prevents clamp from pinning the roof to the clip (halter)

S-5! Brackets

Fix Rail, PVKIT® & Other Ancillaries

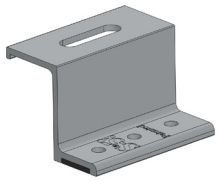
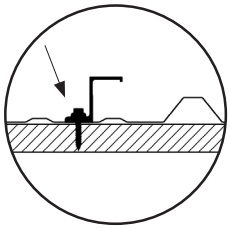
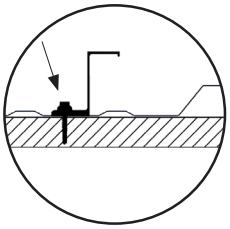
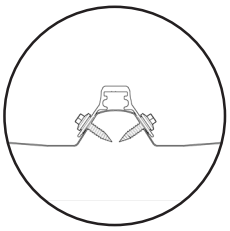
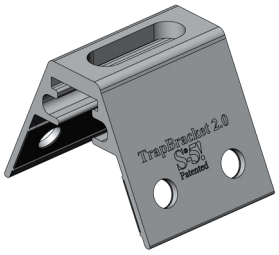
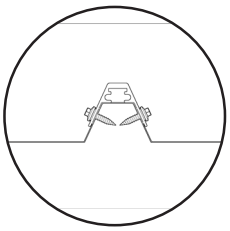


ADNOC-Abu Dhabi National Oil Company / UA

Product	Profile	Features & Benefits
CorruBracket™ (Imperial Dimensioning; Bottom-Fixed; Low Profile) 		• Compatible with 22 mm and 19 mm x 68 mm rib pitch U.S. corrugated profiles • Comes with factory-applied, non-curing, butyl sealant – the same sealant used in roof construction for over 40 years • Reservoir conceals sealant from UV exposure, preventing UV degradation and over-compression of sealant when fasteners are secured • Fastens into deck or structure using fasteners designed to outlast roof (sold separately)
CorruBracket™ 500T (Metric Dimensioning; Top-Fixed; Low Profile) 		• Mounts directly to crest of corrugation, straddling valley of metric profiles common in Australia, Asia, Africa, Europe and South America • Compatible w/ 16-22 mm x 76 mm rib-pitch corrugated roofing • Fastens directly to sheeting OR through sheeting into structure • Slotted, top hole simplifies alignment, maximising flexibility in attaching ancillaries
Protea™ II 		• Designed to fit trapezoidal-rib roofs with top length up to 90 mm • Compatible with PVKIT® for rail-less solar mounting • Four self-piercing screws provided • Pre-applied EPDM gasket on the base prevents accidental shifting during installation

S-5! Brackets

Fix Rail, PVKIT® & Other Ancillaries

Product	Profile	Features & Benefits
VersaBracket™ 47 	Sits in the valley; fixes into the decking or structure 	• Compatible with almost any trapezoidal, bottom-fixed, exposed-fix profile • Height: 47 mm • Mounting face comes with 25 mm slot on top for adjustability • Factory-applied, non-curing, butyl sealant • Patented reservoir conceals sealant from UV exposure, preventing UV degradation and over-compression of sealant • Fastens into the deck or structure using fasteners specifically designed to outlive the roof (fasteners sold separately) • NOT recommended for side-bolted rail with L-Foot (see VersaGard or SolarFoot)
VersaBracket™ 67 	Sits in the valley; fixes into the decking or structure 	**All the same features as the VersaBracket 47 with noted exceptions:** • Increased height: 67 mm to clear higher ribs • Mounting face has no holes or slots, designed to be fixed with a self-drilling fastener
TD Bracket™ 		• Use on common Australian exposed-fix, trapezoidal-rib roof profiles • Slotted top hole accommodates standard M8 nuts and bolts • Stainless-capped, self-piercing screws specifically designed to maximise holding strength and prevent swarf; EPDM sealing washer • Sheeting-only attachment can be placed anywhere along roof ribs • 4 self-piercing screws and 1 M8 hex flange nut included
TrapBracket™ 		• Designed for one of the most common Australian exposed-fix, trapezoidal-rib profiles, Kingspan® KS1000RW and similar profiles • Slotted top hole accommodates M8-1.25 hex flange nut • Stainless-capped, self-piercing screws specifically designed to maximise holding strength and prevent swarf; EPDM sealing washer • Sheeting-only attachment can be placed anywhere along roof ribs • 4 self-piercing screws and 1 M8 nut included



PVKONCEAL™

You've made the investment in a metal roof and selected PVKIT® as your rail-less solar module mounting solution. Now you want your solar panel fixing to complement the beauty of your roof.

PVKONCEAL is a module skirt that conceals the upper or lower edge of the solar array and mechanical and electrical components underneath to give you an attractive, finished look. Clean aesthetic prefinished black with high-quality polyvinylidene fluoride (PVDF - the same substance used to coat metal roofs), use **PVKONCEAL** to match black module frames.

The module skirt is made of corrosion-resistant aluminium to last the life of your solar panels and your metal roof. The versatile solution can be oriented in two directions to cover module frames from 30-46 mm thick.

PVKONCEAL also helps to minimise the intrusion of small animals, debris and unwanted objects under the solar array. Give a clean aesthetic to your array to create a more appealing visual profile.

- **Conceals the upper or lower edge of solar modules, and other components**
- **Accommodates modules 30-46 mm thick**
- **Corrosion-free aluminium and stainless steel screws with black prefinished cap**
- **Lightweight and easy to install**
- **Works with new or existing PVKIT® installations**
- **Prefinished in black PVDF to last the life of the roof**

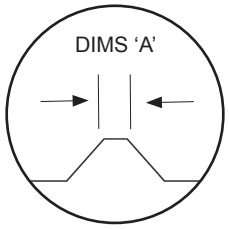
S-5! Brackets

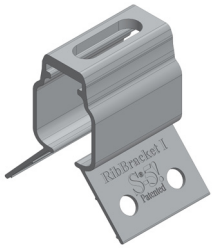
Fix Rail, PVKIT® & Other Ancillaries

S-5!® The Right Way

Product / Seam	Features & Benefits
RibBracket™ I-V	

RibBracket™ I

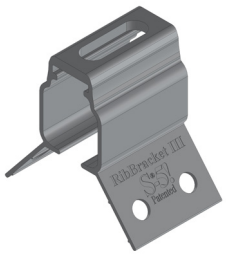




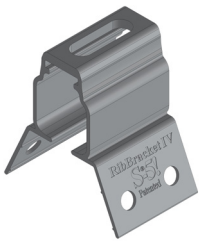
RibBracket™ II



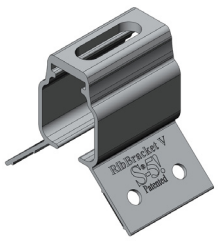
RibBracket™ III



RibBracket™ IV



RibBracket™ V



	DIMS 'A'
RibBracket I	16 - 25 mm
RibBracket II	25 - 32 mm
RibBracket III	25 - 35 mm
RibBracket IV	32 - 35 mm
RibBracket V	19 - 25 mm

- Flex-to-fit legs endure proper fit
- Large channel above rib can be used for cable management
- Sheeting-only attachment can be placed anywhere along roof ribs
- Stainless-capped, self piercing screws specifically designed to maximise holding strength and prevent swarf
- EPDM sealing washer
- Bracket allows for 100 mm of air space above rib
- 4 self-penetrating screws and 1 M8 Nut included
- **RibBracket I:** Designed for popular Hawaiian profiles, such as HPM Custom 4-Rib, HPMCustom 6-Rib and similarly dimensioned narrow ribs.
- **RibBracket II:** Designed for popular African and Australian profiles, such as Lysaght Trimdek® 1015, Safintra Trimflute 1015 and similarly dimensioned profiles.
- **RibBracket III:** Designed for popular North American and Indian profiles, such as PBR Panel, R-Panel, Kirby Roof (KR) and similarly dimensioned profiles.
- **RibBracket IV:** Designed for popular African and North American profiles, such as Safintra IBR, KingSpan® KS1000 and similarly dimensioned profiles.
- **RibBracket V:** Designed for Ternium TR and similarly dimensioned profiles.
- ***Rib angles and dimensions vary on trapezoidal profile. It is suggested to test fit the RibBracket on actual roof profile.***

Balance of System

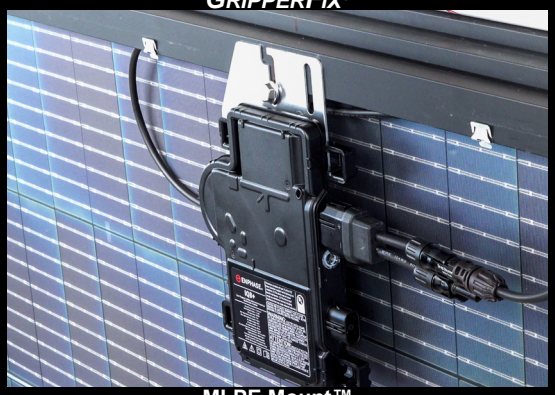
Balance of System (BOS) refers to all of the various components of a photovoltaic (PV) system beyond the actual modules themselves. This includes the mounting system (rails or racking, S-5! clamps and PVKIT®), as well as wiring, switches, battery chargers, junction boxes, inverters, optimisers, MLPEs, service walkways, conduit and cable chases.



GRIPPERFIX®



CanDuit™



MLPE Mount™



GRIPPERFIX®

Clamps

Designed for concealed-fix metal roof profiles, S-5! clamps can be used to mount ancillary components directly to the roof seams, without the need for any additional interfacing hardware.

Brackets

S-5! brackets are designed for mounting on exposed-fix (face-fixed or thru-fixed) metal roofs. Bolt BOS components directly to the appropriate bracket without additional interface hardware.

GRIPPERFIX®

GRIPPERFIX® provides a dependable and corrosive-resistant fixing solution. Mount BOS components with zero-penetration to concealed-fix roofs. No need for field-applied sealants for exposed-fix roofs.

CanDuit™

With the **CanDuit** securement clamp, you can contain piping and conduit in an easy, organised manner with no scratching, corrosion or other damage to your roof.

PV Module Cables/Cable Clips

Cable management clips to secure PV cables to module frame



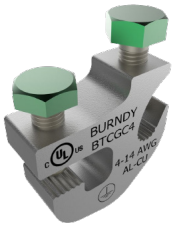
ACC-F90-1
Cable clip for module
double graduation



ACC-F2-90
Cable management clip;
for 1 or 2 USE-2 or PV cables



ACC-F1-270
Module cable clip
double graduation



BTCGC4SS Lug
Tray clamp aluminium ground

Ground Tray Clamps

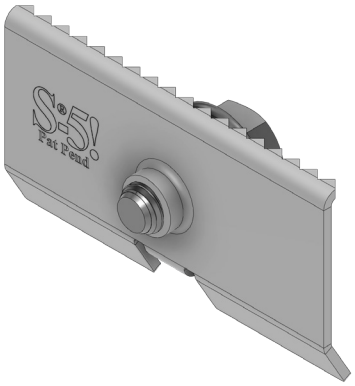
The lug accepts size #14 AWG to 4 AWG ground cables

- Tin-plated aluminium for long-lasting corrosion resistance



Bonding Jumper

- Electrical connection of the columns (chains of modules) of the photovoltaic array
- Clip to the bottom of the module frame
- Improve installation time
- Get an easy path to land
- Compatible with PVKIT® rail-less mounting solution
- Recognised by UL 2703 and UL 46



MLPE Mount™

- Fixes MLPE devices anywhere along aluminium module frames
- Designed for microinverters and optimisers under 1.36 kg
- 304 stainless steel body and fastener
- Tab design aligns w/ MLPE slot, easing installation
- Bonds MLPE to module frame - UL 2703 approval pending

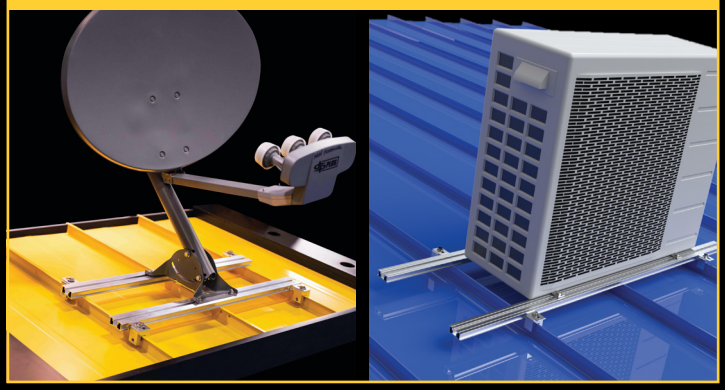
GripperFix®

Fix Cable Trays, Conduits, Walk-ways & Other Ancillaries

The Wrong Way



The Right Way™

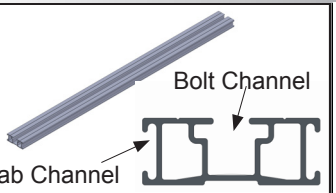
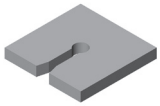
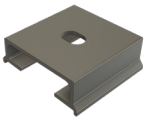
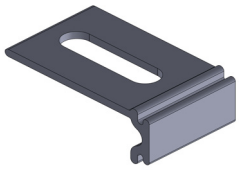
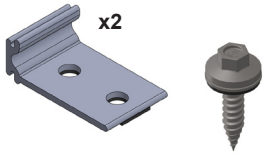


Concealed-Fix or Exposed-Fix Roof Components

Universal strut for fixing of roof-mounted equipment

Components

To customise your solution, all components are sold separately.

GripperStrut™ 300, 600, 1200 mm lengths	
Damper/Leveling Pad 6 mm 	**Leveler** 
M8 Bolt (listed price is average of all bolt sizes: 1.25 x 17, 20, 40 mm - bolts sold separately) & **M8 Hex Flange Nut**	
Concealed-Fix CF Tab Concealed Fix	
Exposed-Fix EF Tab (Includes Self-Piercing Screws)	

Features & Benefits

- No field applied sealants needed
- Factory-applied "double-seal" gasket
- 100% aluminium and stainless
- Eliminates corrosion and rust
- Ease of installation
- No damage to roof system
- Free flow of rainwater under rails
- Load distribution over multiple bearing points
- Custom lengths available on quantity orders. Call for specifics.

CanDuit™ Pipe Clamps

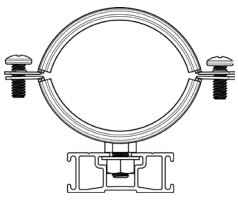


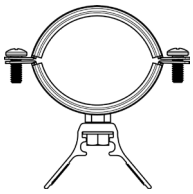
CanDuit securement clamps eliminate corrosive wood and rubber blocking. Contain piping and conduit in an easy, organised manner with no scratching, corrosion or other damage to your roof.

CanDuit is compatible with S-5! non-penetrating clamps for concealed-fix roofs, S-5! waterproofed brackets for exposed-fix roofs and the *GRIPPERFIX®* utility system.

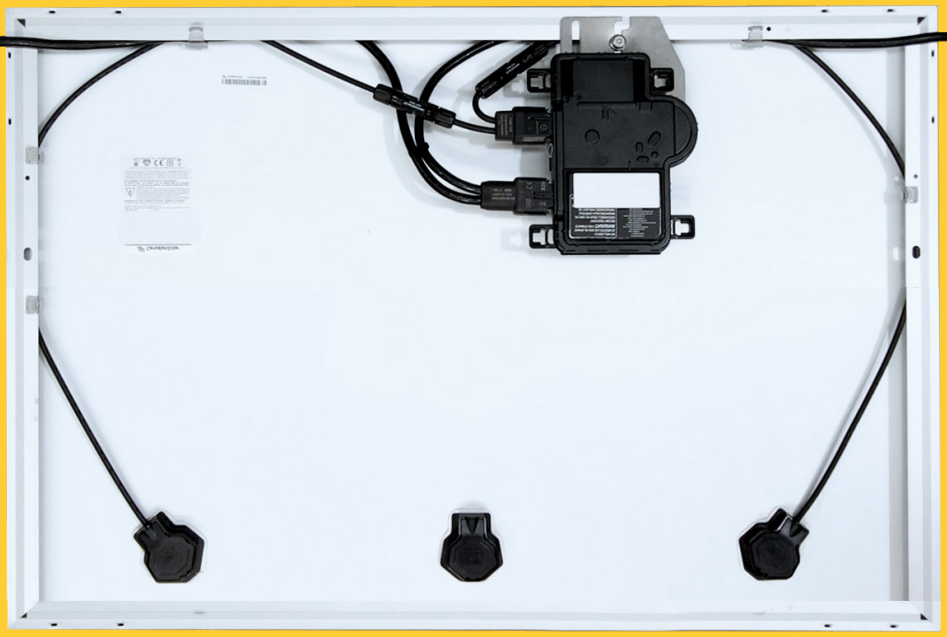
Nominal Trade Range			Adjustability Range*		
#1	13 mm	20 mm-24 mm	#8	67-77	67 mm-76 mm
#2	19 mm	25 mm-30 mm	#9	64 mm	74 mm-80 mm
#3	25 mm	32 mm-37 mm	#10	83-93	83 mm-93 mm
#4	32 mm	40 mm-46 mm	#11	76 mm	86 mm-94 mm
#5	38 mm	48 mm-53 mm	#12	94-104	94 mm-104 mm
#6	53-5	54 mm-59 mm	#13	102-111	102 mm-111 mm
#7	50 mm)	58 mm-66 mm	#14	102 mm	108 mm-117 mm

**Match outer diameter of the pipe-conduit to the adjustability range.*









Cable Management and Earthing

The best practice is to fix wires to the underside of the module frames using wire clips, which prevents wires from touching the roof. Module preparation on the ground minimises your time on the roof, resulting in a smooth installation and less net time on the job.

Once all components are bonded together, an earth-path chain is established and only one of the components in the chain needs a wire to connect the system to the earth (as each bonded metal component is then also earthed).

Building codes require any metallic item in your solar PV system not carrying power/electricity (like the metal module frames) to be earthed. The earthing path has to go to the system ground of your building for protection in case a wire carrying electricity breaks over time and electrifies some other metallic component.

These other metallic items must be electrically bonded to one another using an approved method to maintain a continuous earthing path. Some rail-less mounting solutions function as UL-listed bonding devices and make the bonded connection automatic.

PVKIT

- Rail-less solar mounting solution
- UL-listed for bonding

MLPE Mount

- Secure and bond microinverters and power optimisers– to solar PV panel frames

PV Cable Clips

- Secure PV cables to the module frame

Aluminium Ground Tray Clamp

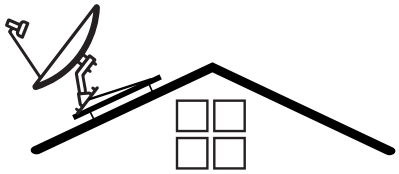
- Accommodates ground wire size #14 AWG to 4 AWG
- Tin-plated aluminium for durable, long-lasting corrosion resistance
- Accommodates most popular styles of cable tray with inside or outside flange
- Quick and easy installation
- No drilling or special tools required
- Setscrew bonds clamp to the cable tray while another setscrew securely fastens the grounding conductor to the clamp providing vibration resistance and outstanding pull-out values
- Grounding green hardware as required in Section 8.4 of UL2703

Countless Applications

Fix snow retention and wind-performance systems, satellite dishes, solar arrays, signs/banners, light fixtures, gas piping, stack/flue bracing, walkways, HVAC, lighting protection, equipment screens, conduit, condensate lines and more **— all without violating the integrity of the roof or the roof manufacturer's warranty!**



Wind Protection and Performance Systems



Satellite Dishes



Rooftop Signage



Pipes and Conduit



HVAC and Rooftop Equipment



And...Everything Else



S-5!®
The Right Way

"S-5! is the greatest thing to happen to metal roofing since Galvalume."
Angelo Borzillo - *Co-Inventor of Galvalume® Coating Technology*

Learn More About S-5!® Products!

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