PVKIT 2.0 PV METAL ROOFTOP MOUNTING SYSTEM:

THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE 2024, 2021, 2018, 2015 AND 2012 INTERNATIONAL BUILDING CODE (IBC) AND THE 2024, 2021, 2018, 2015 AND 2012 INTERNATIONAL RESIDENTIAL CODE (IRC) AS WELL AS THE 2023 (8TH EDITION) FLORIDA BUILDING CODE INCLUDING HIGH VELOCITY HURRICANE ZONE (HVHZ) FOR PHOTOVOLTAIC MOUNTING SYSTEMS.

THIS PRODUCT HAS BEEN TESTED TO THE ASTM D7147 (LOAD) AND UL 2703 (PRESSURE).

THESE INSTRUCTIONS ARE FOR PRODUCT APPROVALS FOR ROOFTOP MOUNTING SYSTEMS AS SHOWN ON THESE DRAWINGS.

DESIGN WIND, DEAD AND SNOW LOAD FORCES IMPOSED ON METAL ROOF ASSEMBLIES, PANELS AND THEIR CONNECTIONS ARE ASSUMED TO BE ACCOUNTED FOR IN THE STRUCTURAL DESIGN AND ATTACHMENT OF THE ROOF PANELS.

THE INSTALLATION OF PRODUCTS OR SYSTEMS ATTACHED TO THE S-5 PVKIT 2.0 AND THE S-5! CLAMPS MAY IMPART NEW LOADS, SUCH AS DOWNSLOPE DRAG LOADS OR CONCENTRATED POINT LOADS, NOT ACCOUNTED FOR DURING THE ORIGINAL ROOF STRUCTURAL DESIGN AND ATTACHMENT OF THE ROOF PANEL DESIGN. CALCULATIONS, INCLUDING LOAD DETERMINATION AND DRAWINGS SHALL BE COMPLETED BY A REGISTERED DESIGN PROFESSIONAL AND BE PRESENTED AND APPROVED BY THE BUILDING OFFICIAL WHEN REQUIRED BY THE STATUES OF JURISDICTION IN WHICH THE PROJECT IS TO BE CONSTRUCTED.

ENGINEER OF RECORD (EOR) TO VERIFY THAT ROOF MEMBERS CAN SUPPORT THE PV MODULE ARRAY UNDER ALL CODE LEVEL LOADING CONDITIONS. INSTALLERS TO MAINTAIN THE WATERPROOF INTEGRITY OF THE ROOF.

INSTALLATION OF THE PV MODULES SHALL BE DONE IN ACCORDANCE WITH THE APPLICABLE BUILDING CODE.

INSTALLATION OF THE PVKIT 2.0 MUST BE COMPLETED AS DETAILED IN IAPMO UES ER 945.

DESIGN LOADS SHOWN ARE BASED ON "ALLOWABLE STRESS DESIGN (ASD)"

ALL ANCHORS SHALL BE CORROSION RESISTANT, SPACED AS SHOWN AND INSTALLED PER MANUFACTURER INSTRUCTIONS.

CONDITIONS NOT SHOWN IN THIS DRAWINGS ARE TO BE ANALYZED SEPARATELY, AND BE PROVIDED TO THE BUILDING OFFICIAL FOR APPROVAL.

INSTRUCTIONS:

STEP 1: A LICENSED PROFESSIONAL ENGINEER OR ARCHITECT DETERMINE DESIGN WIND LOAD REQUIREMENT BASED ON WIND VELOCITY, BUILDING HEIGHT, WIND ZONE USING APPLICABLE ASCE 7 STANDARD.

STEP 2: SELECT ROOF ATTACHMENT SYSTEM THAT MATCHES THE BUILDINGS ROOFING SYSTEM

STEP 3: VERIFY THE PHOTOVOLTAIC MODULE SIZE, LOAD CAPACITY AND BONDING & GROUNDING CAPABILITY WITH THE PVKIT 2.0

STEP 4: VERIFY THE NUMBER OF PVKIT 2.0 AND ROOF ATTACHMENTS NEEDED PER SOLAR MODULE BASED ON THE DESIGN LOAD IN STEP 1.

PV PANELS QUALIFICATIONS ARE NOT PROVIDED IN THIS DOCUMENT AND SHALL BE DETAILED AND PROVIDED SEPARATELY FOR REVIEW AND APPROVAL. PANEL DETAILS, GENERAL NOTES, COMPONENT SIZES, FIRE AND ELECTRICAL SAFETY STANDARDS, PANEL CONNECTION TO MOUNTS AND INSTALLATION REQUIREMENTS/LIMITATIONS SHALL BE PRESENTED TO THE BUILDING OFFICIAL FOR APPROVAL..

1 – CONTRACTOR TO BE RESPONSIBLE FOR THE SELECTION, PURCHASE AND INSTALLATION OF THIS PRODUCT EVALUATION PROVIDED THEY DO NOT DEVIATE FROM THE CONDITIONS DETAILED IN THIS DOCUMENT

2 – THIS PRODUCT EVALUATION DOCUMENT WILL BE CONSIDERED INVALID IF ALTERED BY ANY MEANS

3 – SITE SPECIFIC PROJECTS SHALL BE PREPARED BY A REGISTERED ENGINEER OR ARCHITECT WHICH WILL BECOME THE ENGINEER OF RECORD (E.O.R) FOR THE PROJECT AND WHO WILL BE RESPONSIBLE FOR THE PROPER USE OF THE P.E.D. ENGINEER OF RECORD, ACTING AS A DELEGATED ENGINEER TO THE P.E.D. ENGINEER SHALL SUBMIT TO THIS LATTER THE SITE SPECIFIC DRAWINGS FOR REVIEW

4 – THE P.E.D. SHALL BEAR THE DATE AND ORIGINAL SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER OF RECORD THAT PREPARED IT.

PVKIT 2.0 PV METAL ROOFTOP MOUNTING SYSTEM

IAPMO UES ER-945

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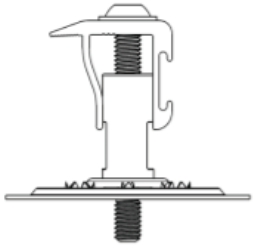
revisions:			
no	date	by	description

DATE: 07.01.2025

BY: Sabrina R.

CHK BY: Ricardo B.

ISO PVKIT 2.0 EDGE GRAB



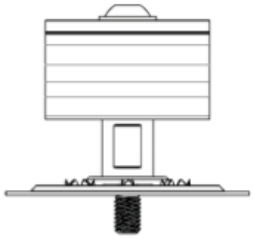
FRONT PVKIT 2.0 EDGE GRAB

FRONT PVKIT 2.0 EDGE GRAB

PVKIT 2.0 EDGE CONDITION

ISO PVKIT 2.0 MID GRAB

FRONT PVKIT 2.0 MID GRAB



FRONT PVKIT 2.0 MID GRAB

PVKIT 2.0 MID CONDITION

		Capacity of PV Clamp Perpendicular to Seams - Uplift (lbf)	Capacity of PV Clamp Parallel to Seams - Shear (lbf)
Edge Grab	0.125	353	934
Mid Grab	0.125	861	611

PVKit 2.0 UL 2703* System Information	
Maximum PV Module Size	30.54 ft²
Downward Pressure***	50 psf
Upward Pressure***	30 psf
Down-Slope Load***	10 psf

* See Metal Roof Innovation, Ltd. Master List of Photovoltaic Modules (Letter Report No. 105967256LAX-001) for UL 2703 approved list of compatible modules.

** Certifications by an independent third party certification agency shall be presented to the Building Official for use and approval of Photovoltaic Modules not listed in IAPMO UES ER 945

*** Pressures shown in the table were evaluated on a 30.54 ft² module. Design load for different sized panels may be calculated as follows:

$$\text{Design Load} = \text{Load From Table} \times \frac{98.483"}{\text{New Long Edge}} \times \frac{44.65"}{\text{New Short Edge}}$$

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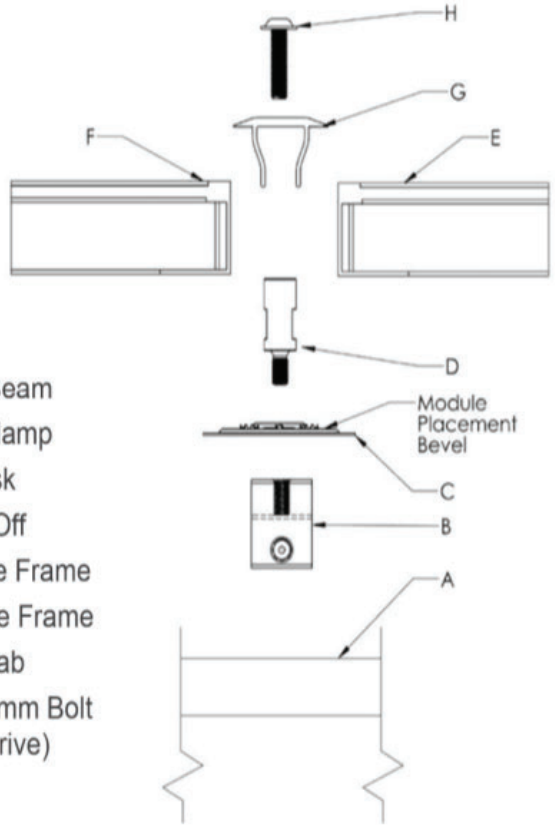
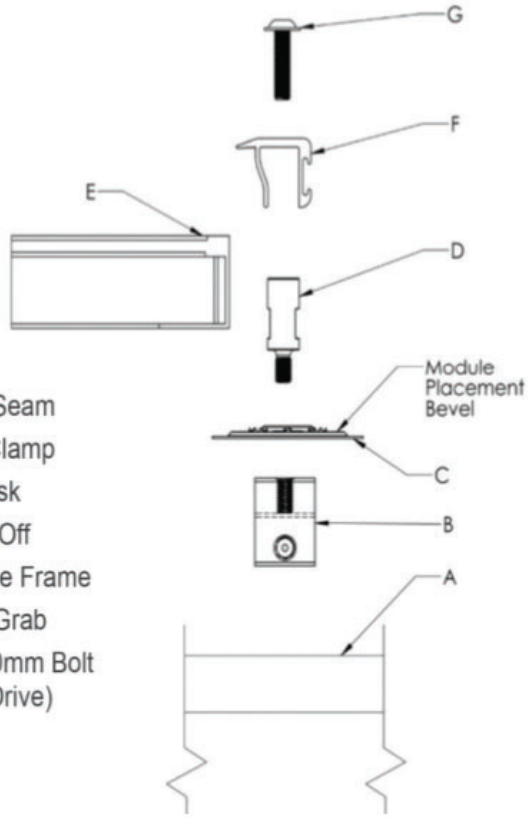
PVKIT 2.0 SYSTEM COMPONENTS



A. Roof Seam
B. S-5! Clamp
C. PV Disk
D. StandOff
E. Module Frame
F. Module Frame
G. MidGrab
H. M8/30mm Bolt (T30 Drive)

PVKIT 2.0 MID MOUNTING ASSEMBLY



A. Roof Seam
B. S-5! Clamp
C. PV Disk
D. StandOff
E. Module Frame
F. EdgeGrab
G. M8/30mm Bolt (T30 Drive)

PVKIT 2.0 EDGE MOUNTING ASSEMBLY

PVKIT 2.0 PV METAL ROOFTOP MOUNTING SYSTEM

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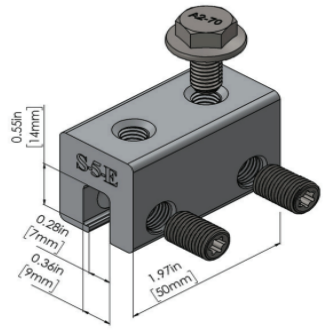
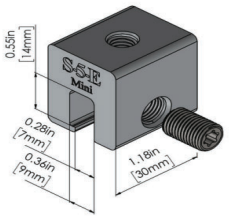
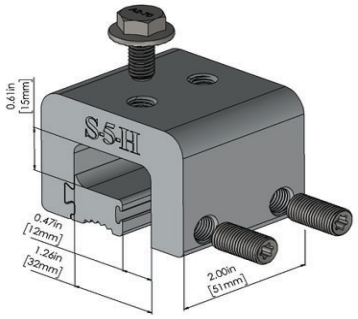
S-5! METAL ROOF CLAMP SYSTEMS*



S-5-E



S-5-E mini



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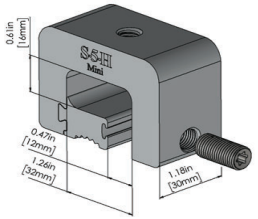

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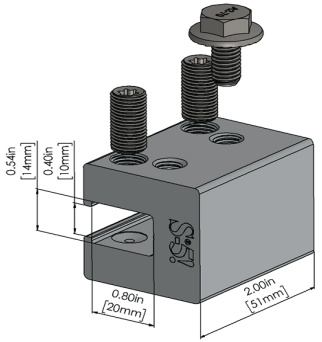

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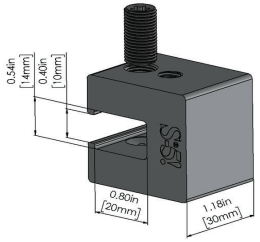

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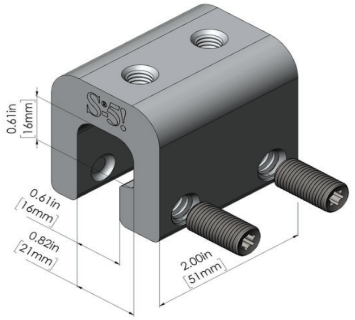

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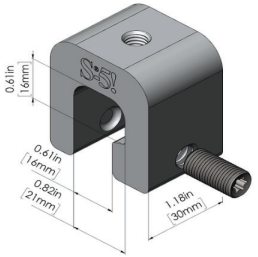
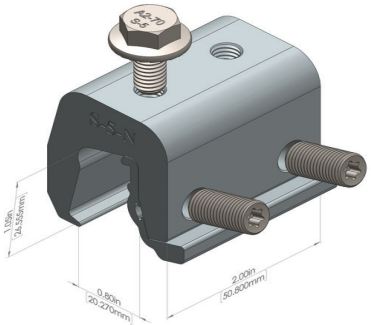


S-5-MX mini



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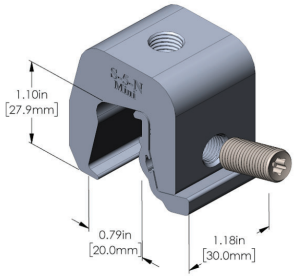

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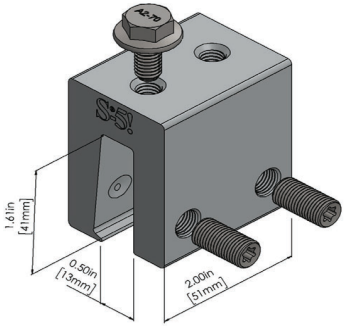
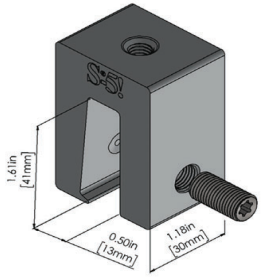


S-5-N1.5



S-5-N1.5 mini

* FOR EVALUATED METAL ROOF-CLAMP COMBINATIONS AND THE ASSOCIATED LOAD RATINGS REFER TO IAPMO UES ER 945

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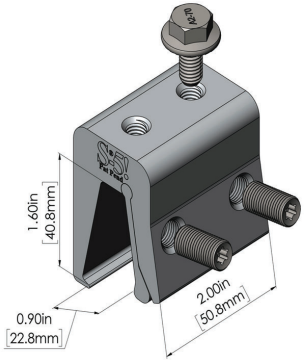
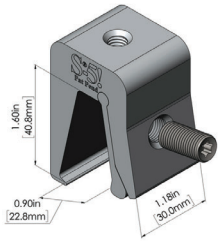
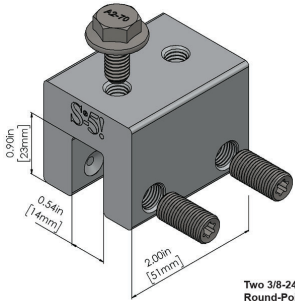
S-5! METAL ROOF CLAMP SYSTEMS CONT.*



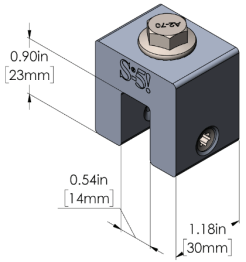
S-5-NH 1.5



S-5-NH 1.5 mini



S-5-S



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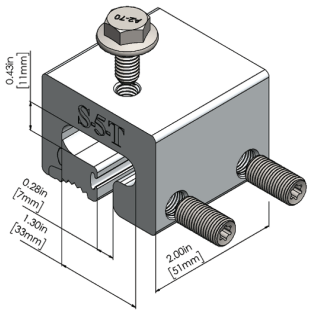

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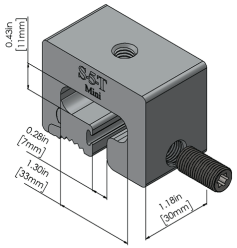

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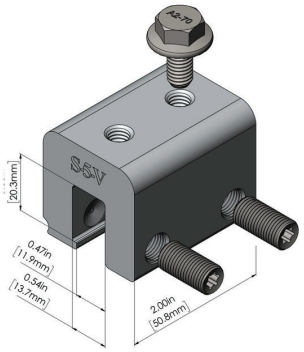

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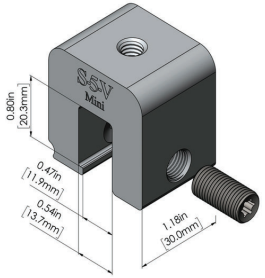

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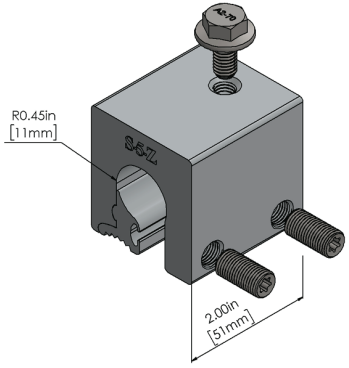
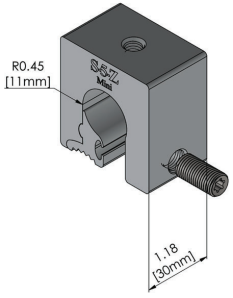


S-5-Z



S-5-Z mini

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