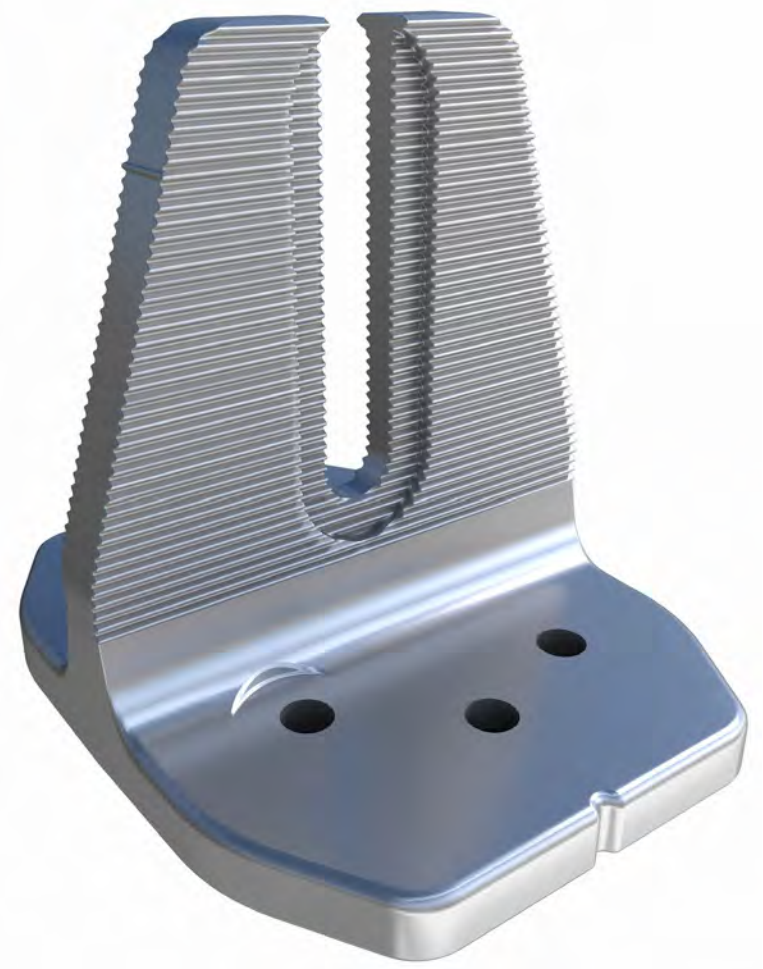
QuickMount®

HALO ULTRAGRIP®



INSTALLATION MANUAL

IRONRIDGE®

CONTENTS

RATINGS

WATER SEAL RATINGS

- UL 441 Rain Test
- TAS 100(A) Wind Driven Rain Test
- Tested and evaluated without roofing sealant
- Use approved sealants when required, see approved sealants list in Appendix 1
- Ratings applicable for roof slopes between 1:12 and 12:12

UL 2703A RATINGS

- Conforms to UL SUBJECT 2703A “Flashing Devices and Systems for Rooftop Mounted Photovoltaics” for Steep and Low Slope Roofs
- TAS100(A) Wind Driven Rain for Steep and Low Slope Roofs
- Steep Slope Ratings applicable for Asphalt Shingle roofs with slopes 2:12 and up
- Low Slope Ratings applicable for Roll Roofing (Rolled Comp) roofs with slopes 1:12 and up
- Low Slope Ratings applicable for Modified Bitumen (Mod-Bit) roofs with slopes 1/4:12 and up
- Installer must verify roof slope prior to installing HUG to validate applicable roof types
- Tested and evaluated without additional sealant

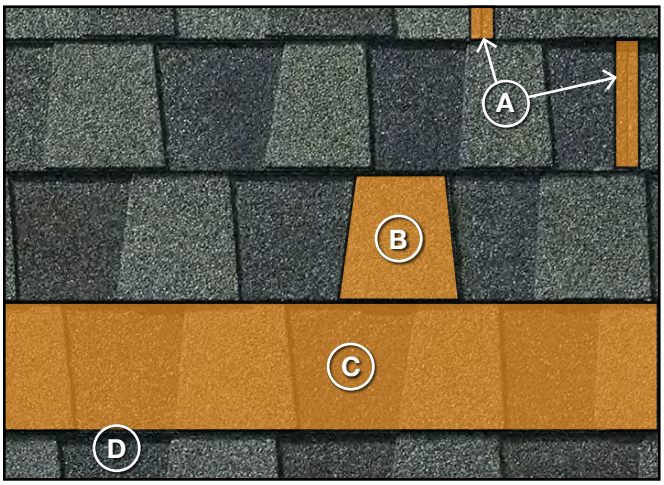
STRUCTURAL CERTIFICATION

- Designed and Certified for Compliance with the International Building Code & ASCE/SEI-7
- Conforms to UL 2703 Mechanical and Bonding Requirements
- See IronRidge Flush Mount Installation Manual for full ratings

THERMAL BREAK REQUIREMENTS

- Thermal breaks are required every 60 feet

COMPOSITION SHINGLE INFORMATION



A. BUTT JOINT

B. SHINGLE STEP

C. SHINGLE COURSE

D. DRIP EDGE

Keyways are the gaps between each tab of a 3-tab shingle.

HUG® can be installed on most composition shingle types and asphalt-based rolled roofing.

PLACING ATTACHMENTS

Tools Required: Tape measure, chalk line, marking tool, hand brush, cordless drill or impact, and 5/16” hex socket with adapter (or 5/16"x4" power nut setter).

Installation Temperature: Min Ambient Temp = 5°F (-15°C) / Max Ambient Temp = 118°F (48°C)

1. SNAP LINES

Snap chalk lines for attachment locations up to 2” below the drip edge of the upslope shingle course.

- **Attachments can be installed anywhere along a shingle course, but should not overhang drip edge.**

1

2. MARK LOCATIONS

Mark HUG® locations based on the allowable span between attachments.

- **Draw long vertical marks over HUG® locations which can be used to help align them during installation.**

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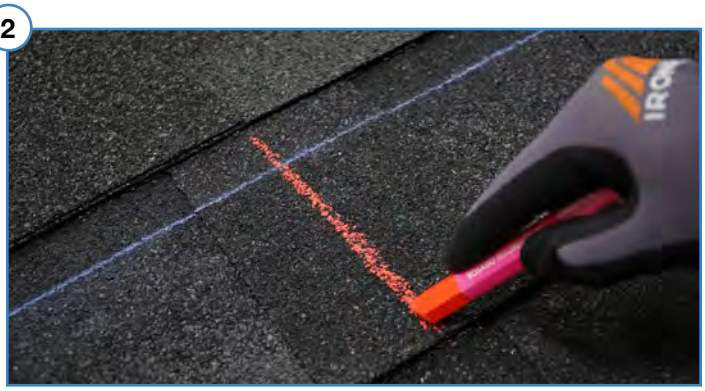

3. CLEAN LOCATIONS

Clean HUG® locations with brush to clear any dirt, debris. Make sure the roof is clear of ice and snow.

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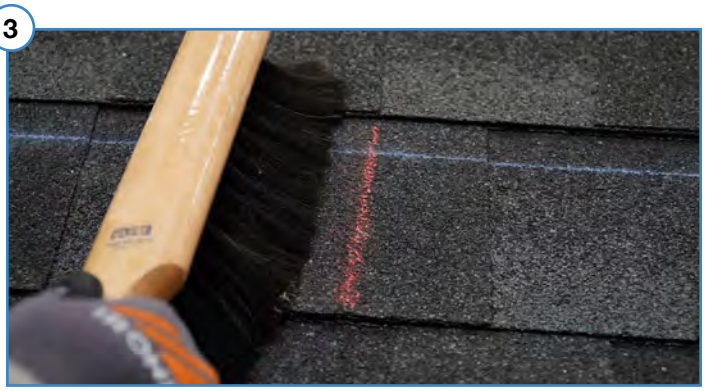

4. PROPER PLACEMENT

Install HUG® on individual shingle course, DO NOT straddle two different shingle courses.

- **If the shingle course is wavy, it is acceptable to cut away the second course to properly align the attachment.**

4

5. SHINGLE STEPS

HUG® should be installed on the flat part of the shingle when possible. Avoid installing HUG® on shingle steps taller than 1/8".

IMPORTANT: DO NOT APPLY SEALANT TO BOTTOM SURFACE OF HUG™ ATTACHMENTS.

5

6. SHINGLE KEYWAYS & BUTT JOINTS

Avoid placing HUG® attachments directly over shingle keyways or butt joints. If they cannot be avoided, fill butt joint or keyway from the top edge of the attachment up to the shingle course above with approved sealant.

See Appendix 1 for list of approved sealants or visit www.IronRidge.com for most up-to date list.

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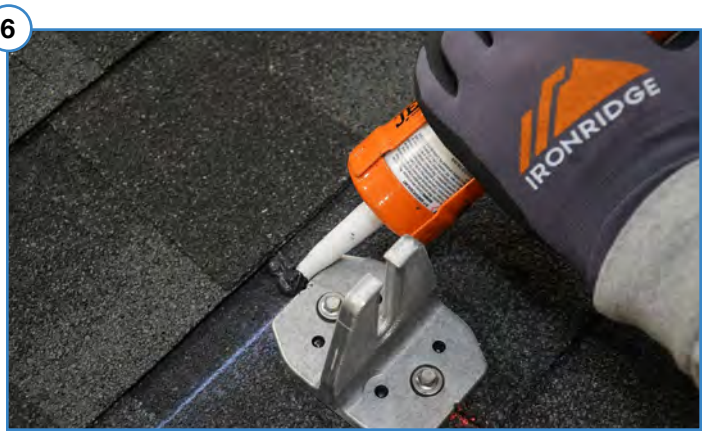

7. REMOVE LINER

Remove release liner from bottom of HUG® attachments before installing.

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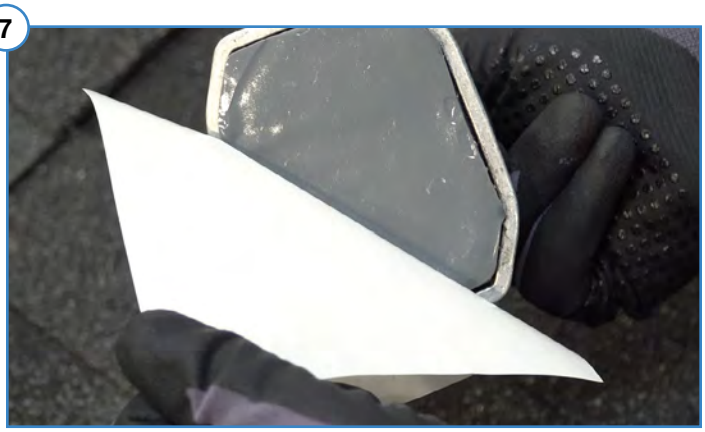


8. PLACE HUG®

Place HUG® attachment into position on roof. Minimal force is required when pressing HUG® into position. There is no need to apply excessive pressure.

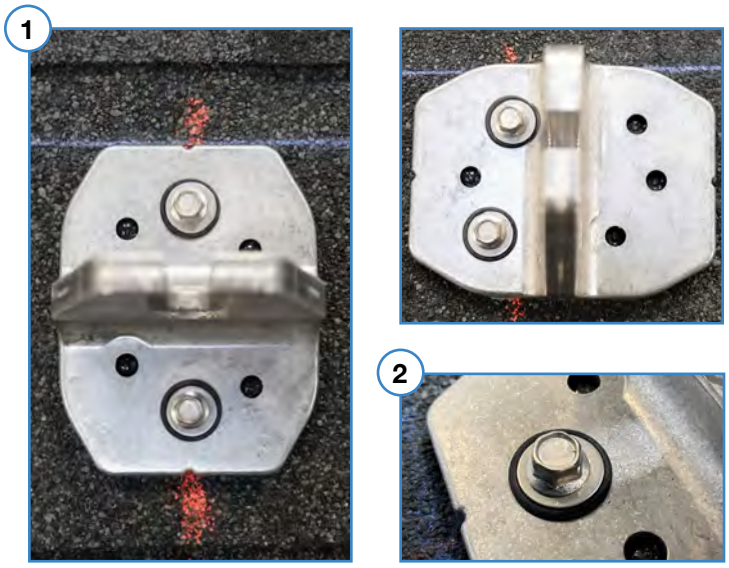
IMPORTANT: ALWAYS DOUBLE CHECK ATTACHMENT POSITIONS BEFORE PLACING ON ROOF. HUG® ATTACHMENTS WILL BE DIFFICULT TO RELOCATE AFTER APPLYING PRESSURE.

8

RAFTER-ATTACHED INSTALLATION

1. RD STRUCTURAL SCREWS

All rafter-attached installations require two RD Structural Screws. For rails running E/W on the roof, use the two holes in the center of HUG®. For rails running N/S on the roof, use two holes on one side of the rail attachment slot.



2. DRIVE SCREWS

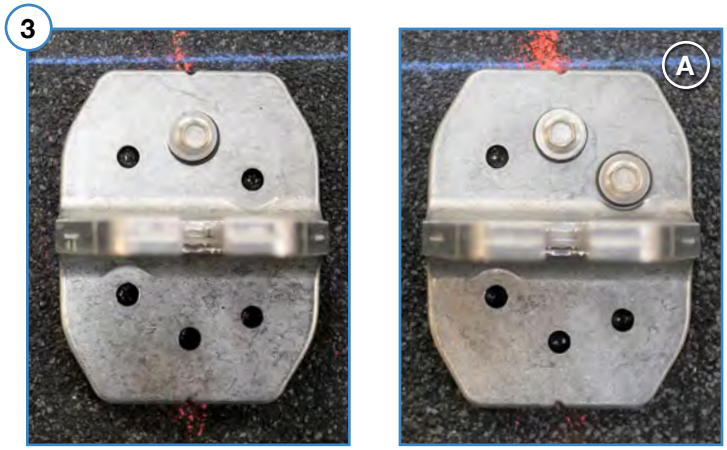
Drive each screw, checking to make sure the EPDM washer is fully compressed.

3. RAFTER MISSING & ADAPTION

If the first screw misses the rafter or feels like it's on the edge of a rafter, follow the rafter friendly process shown in steps 3A-3C.

A. Drive a second screw through the adjacent hole either to the left or right of center, whichever is closest to the center of the rafter.

B. If the rafter is hit with the second screw, drive a third screw into the rafter through the corresponding hole to complete the attachment installation.



IMPORTANT: Two RD Structural Screws MUST be installed into the rafter.

C. If more than three screws miss the rafter, follow the deck attaching procedure and reduce attachment spacing as required to meet site specific engineering.

NOTE: For N/S rails, if the first two screws miss the rafter, the deck installation should be followed.

IMPORTANT: DO NOT REMOVE ANY SCREWS THAT HAVE MISSED THE RAFTER. DO NOT APPLY SEALANT TO BOTTOM SURFACE OF HUG®.

NOTE: Avoid placing HUG® attachments directly over shingle keyways or butt joints. If they cannot be avoided, fill keyway or butt joint from the top edge of the attachment up to the shingle course above with approved sealant.

See Appendix 1 for list of approved sealants or visit IronRidge.com for most up-to date list.

DECK-ATTACHED INSTALLATION

1. RD STRUCTURAL SCREWS

Install six RD Structural Screws in an alternating pattern. This ensures even compression of the HUG® attachment.

1

2. DRIVE SCREWS

After initial tightening, check to make sure all EPDM washers are properly compressed.

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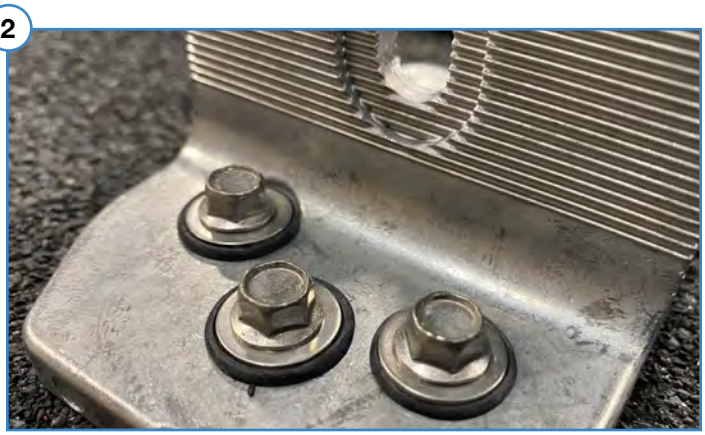

3. PROPER INSTALLATION

If three or more screws are stripped during installation, leave the HUG® installed and install another attachment within the acceptable attachment spacing for the project.

Cover the heads of stripped screws with approved sealant.

IMPORTANT: DO NOT REMOVE ANY SCREWS. DO NOT APPLY SEALANT TO BOTTOM SURFACE OF HUG®.

NOTE: Avoid placing HUG® attachments directly over shingle keyways or butt joints. If they cannot be avoided, fill keyway or butt joint from the top edge of the attachment to the shingle course above with approved sealant.

See Appendix 1 for list of approved sealants or visit IronRidge.com for most up-to-date list.

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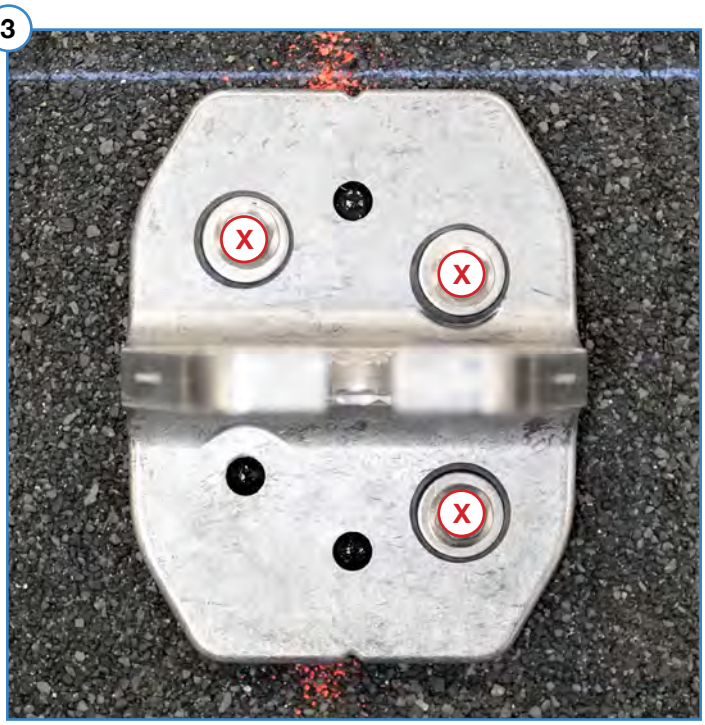
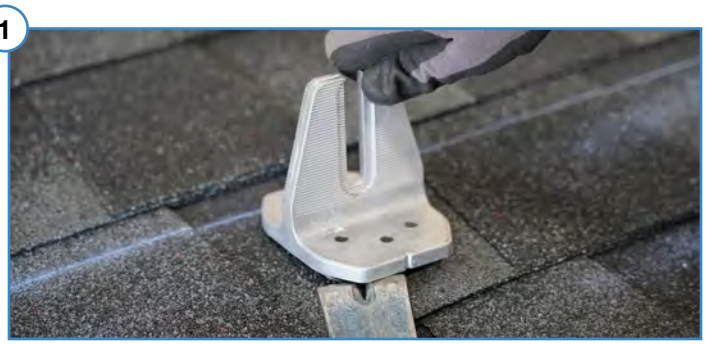


REMOVING & RELOCATING

1. REMOVE HUG®

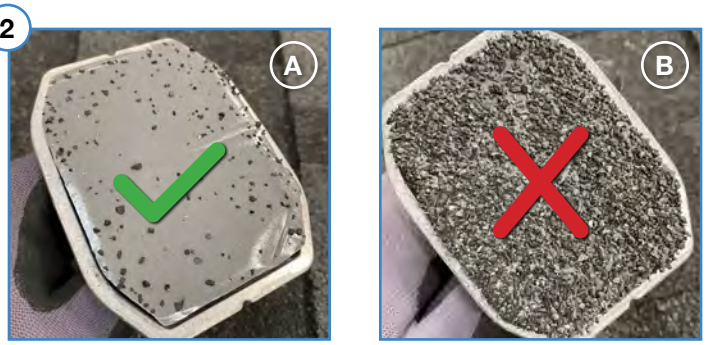
Remove screws and use a flat prybar to gently lift the HUG® from the roof without separating the UltraGrip® flashing system from the attachment.



2. INSPECT SEALANT

Before reinstalling HUG® attachments, inspect the sealant for damage or extreme granule coverage.

A. Acceptable granule coverage, reusable
B. Extreme granule coverage, not reusable



3. ULTRAGRIP® REMOVAL

If the UltraGrip® flashing system separates from the HUG® and is stuck to the roof, leave the flashing system in place, or use a pry bar or putty knife to remove the flashing system from the roof.

In colder conditions, a heat gun can be used to help loosen the UltraGrip® flashing system and make it easier to remove.

4. CARD FLASHING

Use roofing manufacturer approved sealant to backfill all screw holes, then apply to the bottom of a 12”x6” card flashing and insert the flashing under the shingle.

5. FINAL NOTES

Spare roof granules can be used to cover any left behind sealant to blend the area back into the roof.

Replace HUG® if UltraGrip® flashing system separates from bottom, becomes damaged, or has absorbed excessive roof granules.

Visit IronRidge.com to learn more about IronRidge and QuickMount products, design tools, and training.

COMPATIBLE ROOFING SEALANTS

LIST OF ROOFING SEALANTS COMPATIBLE WITH HUG®			
MANUFACTURER	**PRODUCT NAME**	**INSTALLATION TEMP**	**HUG COMPATIBLE?**
APOC	501	40°F to 120°F	Yes ✓
ChemLink	Duralink 35	32°F to 120°F	Yes ✓
ChemLink	Duralink 50	32°F to 120 °F	Yes ✓
ChemLink	M-1	32°F to 120°F	Yes ✓
Geocel	4500	30°F to 120°F	Yes ✓
Geocel	S-4	4°F to 120°F	Yes ✓
Geocel	4600	4°F to 120°F	Yes ✓
NPC	SolarSeal900	4°F to 120°F	Yes ✓
Top Industrial	RainBuster975	40°F to 125°F	Yes ✓

LIST OF ROOFING SEALANTS NOT COMPATIBLE WITH HUG			
MANUFACTURER	**PRODUCT NAME**	**INSTALLATION TEMP**	**HUG COMPATIBLE?**
Black Jack	Roof Cement	N/A	No ✗
DAP	Asphalt Roof Sealant	N/A	No ✗
Geocel	S2	N/A	No ✗
Geocel	2300	N/A	No ✗
Henry	HE289	N/A	No ✗
White Lighnting	Asphalt Roof Sealant	N/A	No ✗

This component is part of the QuickMount® product line.