

TECH DATA

Retrofit Roof Framing 13145

-ROOF HUGGER™



1. MANUFACTURER

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2. PRODUCT NAME/DESCRIPTION

ROOF HUGGER Sub-Purlin System
BASIC USE

ROOF HUGGER, established in 1991 is the original manufacturer of Structural Factory-Notched Sub-Purlins for existing sloped metal roofs.

As an innovator in "Metal-over-Metal" re-roofing systems, ROOF HUGGER has made numerous product and technological contributions to the industry and continues to offer the latest technology for retrofitting over existing metal roofs.

ADVANTAGES

- ROOF HUGGER Sub-purlins are installed on the exterior of the existing building so operations within can continue without interruptions during the retrofit process.
- ROOF HUGGER Sub-purlins are custom punched to the profile of the existing metal roof allowing for the maximum structure to structure connection of the framing members
- ROOF HUGGER Sub-purlins can be fabricated to any specific height from 1.25" tall up to 10" tall to accommodate any specified thickness of insulation.
- ROOF HUGGER Sub-Purlins have had extensive E-1592 performance testing
- ROOF HUGGER has several Florida Product Approved and FM approved assemblies.
- ROOF HUGGER Sub-Purlins have been demonstrated, in some cases, to add capacity to the existing purlins.
- ROOF HUGGER projects can be engineered on a "project specific" basis for installations requiring any non-standard condition to be addressed.
- ROOF HUGGER patented anti-rotational Sub-purlins can be used to address drag load conditions, points of fixity conditions and existing tall clip metal roof assemblies
- The cavity created by the ROOF HUGGER Sub-Purlins can be incorporated to add

insulation, thermal collection and above sheeting ventilation.

PRODUCT TYPES

- MODEL "C" – This part is 1.83" tall and designed to accommodate existing ribbed metal roofing panels with 1-1/2" or less major ribs spaced at 12" on center.



Model "C" Profile

- MODEL "D" – This part is 4.5" tall and designed to accommodate existing 24" o.c. Trapezoidal SSR metal roof panels that do not have tall clips and thermal spacers.



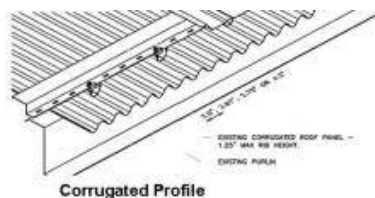
Trapezoidal Rib SSR Profile Model - D

- MODEL "T" – This part is 4.5" tall and designed with a patented anti-rotational arm to accommodate existing 24" o.c. Trapezoidal SSR metal roof panels that are installed with tall clips and/or thermal spacers.



SPECIAL 1.5 x 4.5 x 2 (Model T) FOR EXISTING TRAP SSR W/ TALL CLIPS

- CORRU-FIT® HUGGERS – This system is a 2.75" total height 2-piece assembly consisting of a 1.25" or 1.625" spacer mounted under a 1.625" or 1.125" respective Zee, with slots in the base flange specifically designed for corrugated roofs.



Corrugated Profile

- CUSTOM HUGGERS – This term refers to ROOF HUGGER Sub-Purlins that are produced to a non-standard panel profile or height to accommodate the project needs.

Custom Huggers are sometimes mixed with the above parts when conditions require.

3. COMPOSITION & MATERIALS

ROOF HUGGER Sub-Purlin System base materials is minimum 50 ksi yield strength G-90 galvanized finished steel sheet per ASTM A-446 or A-570. Material is US Produced Steel 0.060" minimum material thickness 16 gauge tested to meet design loads. 14 gauge is also available as is stainless steel or other special materials.

4. TECHNICAL DATA

APPLICABLE STANDARDS

American Iron and Steel Institute – AISI *Light Gauge Cold-Formed Steel Design Manual and American Society for Testing and Materials (ASTM)*

- ASTM A-446 Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) by the Hot-Dip Process, Structural (Physical) Quality
- ASTM E-1592 Standard Test Method for Structural Performance of Metal Roof and Siding Systems by Uniform Static Air Pressure Difference
- Florida Product Approvals
FL 9352-R-3 and FL 9352.1 – 9352.5

5. INSTALLATION

PREPATORY WORK

Handle and store product according to ROOF HUGGER recommendations. Protect products from damage during transit and at project site. Store components in dry storage area to prevent exposure to moisture.

The installer must first locate existing purlins or joist. If the existing roof is an exposed fastener system, then this process will be completed easily due to the existing structural member fasteners being exposed. If the existing roof system is a standing seam roof, inspection from the underside of the roof will be necessary. This will permit the installer to locate the existing purlins or joist. In this case, the installer must transfer the location of these members to the topside of the roof. Refer to the requirements mentioned above concerning existing standing seam roofs with thermal spacers and stand-off clips.

METHODS

Install and anchor in accordance with the ROOF HUGGER erection documents. Locate and attach ROOF HUGGER Sub-Purlin members to existing roof secondary support purlins or joist with the engineered quantity of anchors. The anchors are to attach through the pre-punched pilot holes. Fasteners must satisfy minimum wind uplift loads as determined by the project specifications.

PRECAUTIONS

Do not overload roof structure with stored materials. Do not proceed with installation until unsatisfactory conditions have been corrected. Isolate dissimilar metals to minimize possibility of galvanic actions. ROOF HUGGER sub-purlins and related systems are not watertight prior to new roof panel installation. Schedule construction to cover framing as installed or seal all fastener penetrations. Some standing seam panels may experience "panel rumble" under certain conditions if installed without insulation. Consult panel supplier for their specific installation recommendations.

BUILDING CODES

Current data on building code requirements and product compliance may be obtained from ROOF HUGGER technical support specialists. Installation must comply with the requirements of all applicable local, state and national code jurisdictions.

6. LIMITATIONS

ROOF HUGGER Sub-purlins are intended to attach directly above and to the existing building secondary support members. These members are most commonly zee shaped purlins, steel bar joist or other types of framing. When these members exceed the maximum spacing as dictated by the new roof panel system, the ROOF HUGGER Sub-purlins must employ "sub-rafter" and/or "struts that span over the existing purlins. By doing this, the ROOF HUGGER Sub-purlins can be installed at mid-span conditions (between existing purlins).

7. AVAILABILITY & COST

AVAILABILITY

ROOF HUGGER services the United States, Canada, Guam, Mexico and the Caribbean through direct sales and licensees. Contact the manufacturer for more information.

COST

Budget installed cost information may be obtained from a local ROOF HUGGER service office.

OFFERING

ROOF HUGGER Sub-purlins are offered as a component part or on a project-by-project lump-sum basis. ROOF HUGGER does not provide engineering analysis for anchors. For product performance data, refer to Section 9 on this page.

7. WARRANTY

ROOF HUGGER issues a standard 1 year industry workmanship warranty. Additional warranty lengths are available upon request. In addition, test reports, technical bulletins and engineering data are available from the manufacturer upon request.

8. MAINTENANCE

Once the new roof has been installed, the ROOF HUGGER Sub-purlins require no maintenance.

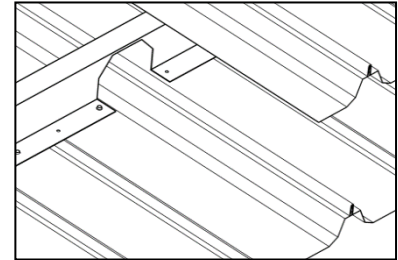
9. TECHNICAL DOCUMENTS

ROOF HUGGER's Design and Installation Guide is available for download at www.roofhugger.com. This manual contains specifications, applications and product information including complete installation details. CAD details are also available for download on the website.

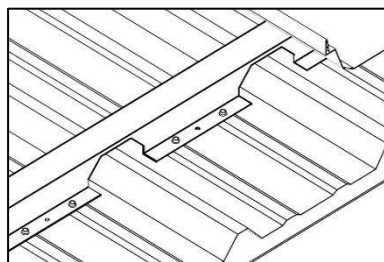
10. TECHNICAL SERVICES

Technical assistance and preliminary design load estimates are available at no charge upon request. Additional assistance and information is available from the manufacturer upon request.

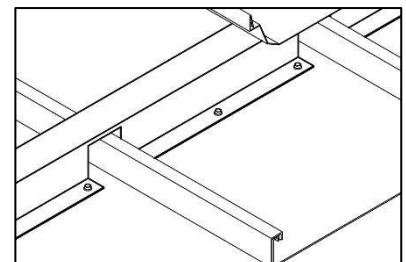
The illustrations and photos below show some of our standard profile sub-purlin systems.



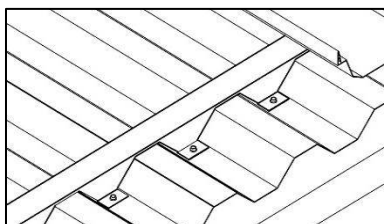
ROOF HUGGER Sub-purlin for existing Trapezoidal Rib standing seam panels with new Trapezoidal Rib SSR.



Model "C" ROOF HUGGER Sub-Purlin System installed over existing exposed fastener Ribbed Panel with new Trapezoidal Rib SSR. Also, available for existing 6" to 10" rib spacing.



ROOF HUGGER Sub-purlin for existing Vertical Rib standing seam panels with new Trapezoidal Rib SSR.



ROOF HUGGER Sub-purlin for existing exposed fastened 7.2" Ribbed Panels with new Trapezoidal Rib SSR (see photo to right).



Photo of 7.2" Rib as shown in illustration to Left