

Metal-Over-Metal
Re-Roof Solution

Retro-Master™

High Performance Retrofit Roof Systems

Re-roof with metal over any
existing metal roof for superior
performance and beauty

Be inspired.

ms metal sales™
manufacturing corporation

Retro-Master™

from Metal Sales™

Metal-Over-Metal Re-Roof Solution

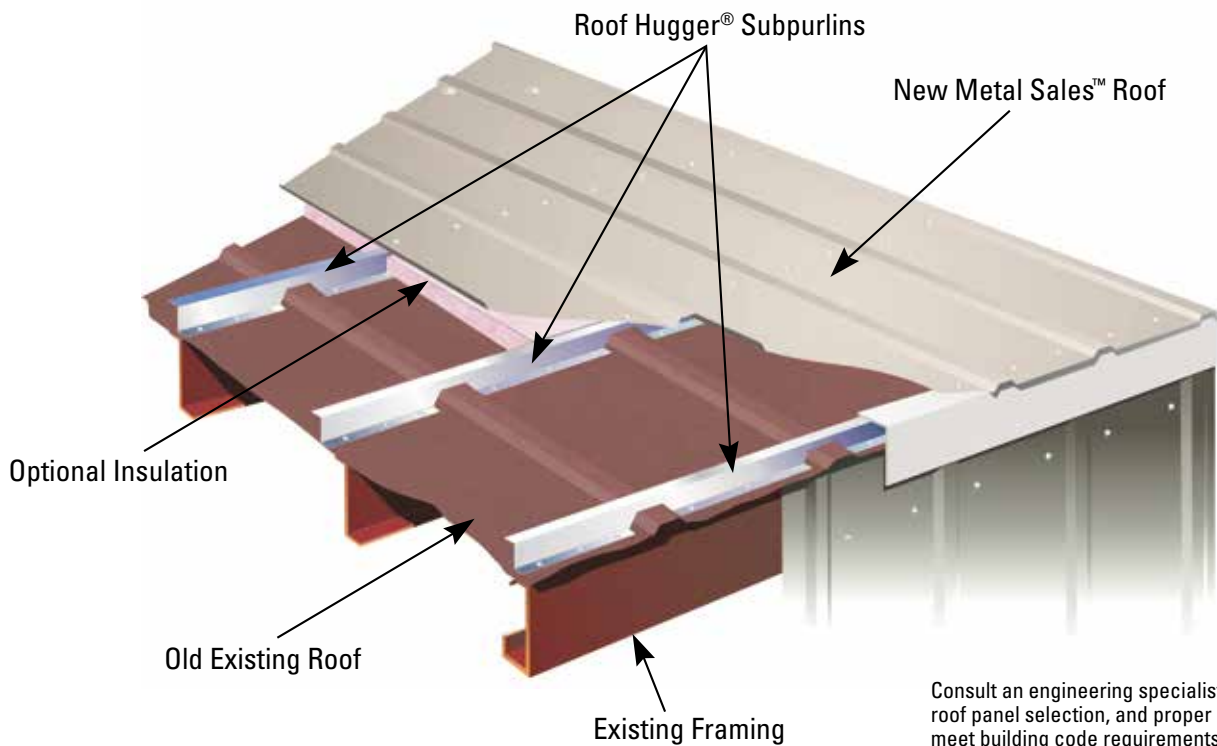
If your building has an existing metal roof in need of replacement, Retro-Master™ from Metal Sales is your most complete and convenient solution. This easy, efficient and virtually waste-free system is installed over your existing roof, allowing your business to operate uninterrupted. As cost-effective as it is convenient, a Retro-Master Metal-Over-Metal roof system can add 45+ trouble-free years to the life of your roof.

Retro-Master Metal-Over-Metal Re-Roof Solution combines high quality Metal Sales roof panels with the patented Roof Hugger® subpurlin retrofit framing system to deliver a new, structurally sound roof that will stand the test of time.

Choose from a wide variety of panel profiles and cool roof colors to enhance the appearance of your building, meet current building codes, improve energy efficiency, and reduce your building's environmental footprint.

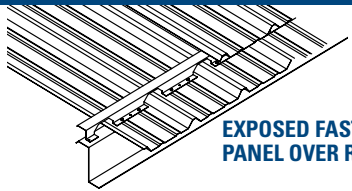
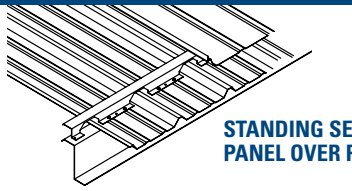
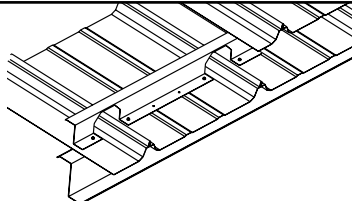
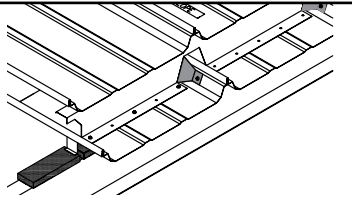
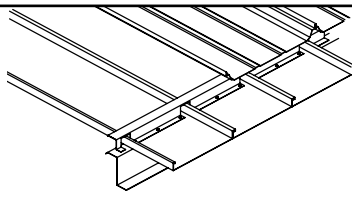
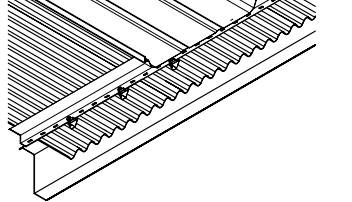
Retro-Master from Metal Sales offers inspiring features and benefits for the replacement of any existing metal roofing system.

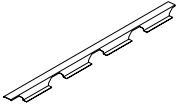
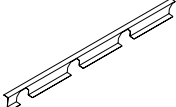
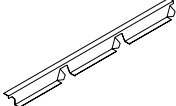
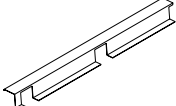
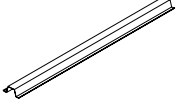
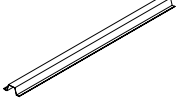
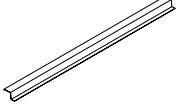
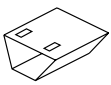
FEATURES	DESCRIPTION	BENEFITS
Ease of installation	<ul style="list-style-type: none">• Subpurlin Z shape with pre-punched flange• Subpurlin notched approximately 1/2" larger than existing panel rib configuration• 10'-0" lengths• Sub-rafter available to accommodate edge/corner zone loading	<ul style="list-style-type: none">• Save time and money with installation 40-70% faster than a typical roof replacement• Reduce preparation time• Minimize installation errors with precision pre-punches for anchoring
Panel testing and approvals	<ul style="list-style-type: none">• ASTM A 653 for 16 ga. or 14 ga. subpurlin G90 galvanized• ASTM E 1592 Test Method for Structural Performance of Metal Roof• Florida Product Approvals FL9352.2, FL9352.3	<ul style="list-style-type: none">• Meet applicable panel performance requirements, including hurricane force wind loads
Energy efficiency	<ul style="list-style-type: none">• Add depth to subpurlin to increase space for insulation thicknesses• Integrate convective cooling system (known as Above Sheathing Ventilation)• Install an ENERGY STAR® and/or cool roof compliant product• Platform for renewable energy options	<ul style="list-style-type: none">• Increase the building's thermal resistance (R-value)• Help reduce heat gain in the summer months and heat loss in the winter• Reduce energy consumption• Meet sustainable building goals
High performing Metal Sales panel options	<ul style="list-style-type: none">• Upgrade to a standing seam roof with concealed clip• Meet current building codes• Subpurlin can accommodate any existing Metal Sales roof panel profile	<ul style="list-style-type: none">• Gain thermal movement capability• Comply with requirements for higher wind speeds and increased snow load capacity• Choose from a wide variety of options at different price points
Building operations and maintenance	<ul style="list-style-type: none">• Install over existing roof• Add insulation or ventilate new air-space cavity• Virtually maintenance free metal roof	<ul style="list-style-type: none">• Eliminate facility disruptions• Prevent demolition waste in landfill• Increase thermal efficiency and save on energy costs• Lower maintenance costs



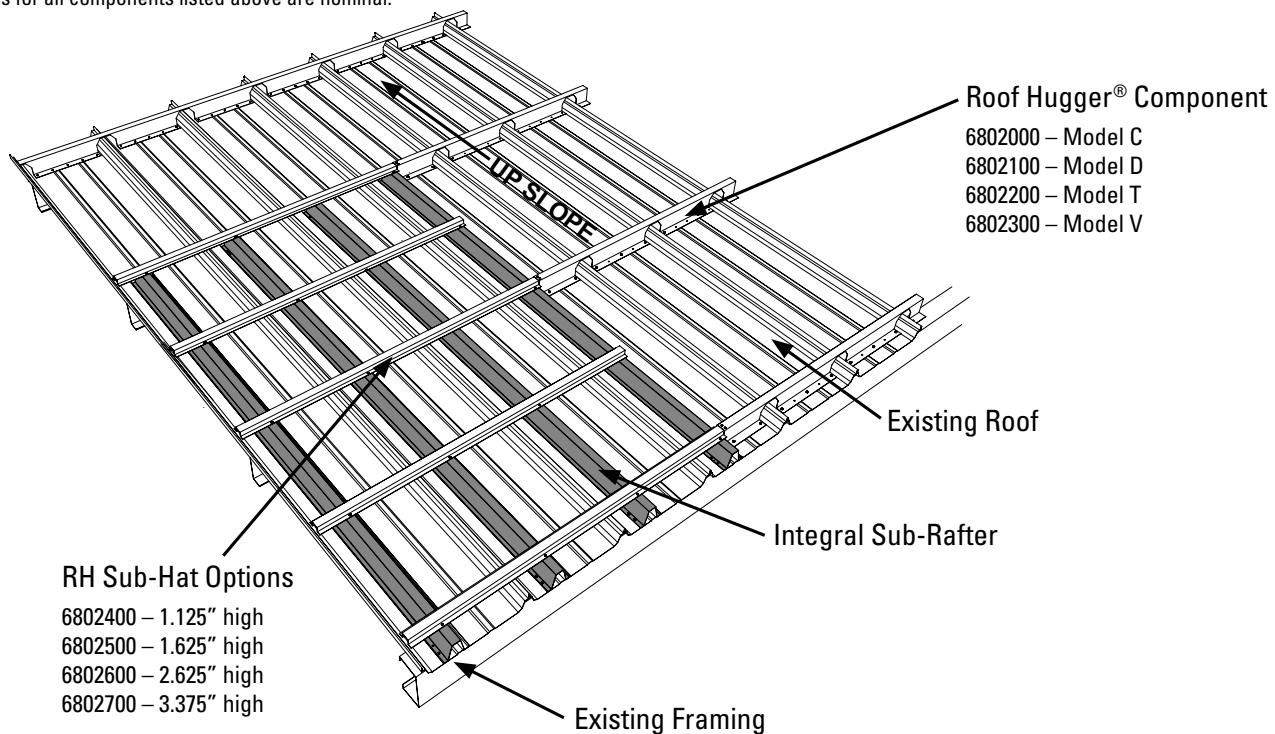
Consult an engineering specialist to determine the loads, roof panel selection, and proper subframe spacing to meet building code requirements in your area.

Roof Hugger components nest over the existing sloped roof panels and are compatible with the most popular Metal Sales roof profiles. Choose the re-roof solution appropriate for your retrofit needs with exposed fastened or standing seam panel options. Consult your Metal Sales representative for assistance in making your selection.

COMMON RETROFIT CONDITIONS		METAL SALES SOLUTION	PART NAME
 <p>EXPOSED FASTENED PANEL OVER R-PANEL</p>	 <p>STANDING SEAM PANEL OVER R-PANEL</p>	Exposed Fastened Panels: PBR-Panel, IC72-Panel, V-Line 32 Standing Seam Panels: Magna-Loc, T-Armor, [™] Seam-Loc 24, [®] Snap-Loc 24	Model C
 <p>STANDING SEAM OVER TRAPEZOIDAL RIB</p> <ul style="list-style-type: none"> • Spacing between ribs vary from 12" to 30" • Rib height – 3" 			Model D
 <p>STANDING SEAM OVER ROOFS WITH HIGH PROFILE CLIPS AND/OR THERMAL BLOCKS</p> <ul style="list-style-type: none"> • Requires special attachment with an anti-rotational tab • Attachment prevents Roof Hugger component from rolling front to back under thermal load 		Standing Seam Panels: Magna-Loc, T-Armor, [™] Seam-Loc 24, [®] Snap-Loc 24	Model T
 <p>STANDING SEAM OVER VERTICAL RIB</p> <ul style="list-style-type: none"> • Spacing between ribs vary from 12" to 18" • Rib heights – 2" to 3" 			Model V
 <p>EXPOSED FASTENED OR STANDING SEAM OVER CORRUGATED</p> <ul style="list-style-type: none"> • Requires specially designed spacers to solve inconsistent rib spacing on existing roof • Fits all corrugations up to 3/4" tall 		All panels listed above	Corru-Fit Purlin

PRODUCT CODE	ROOF HUGGER® COMPONENT	DESCRIPTION*
6802000	RH R Model C 	Height 1.83", Base 1.06", Top 2", Kick – 0.25", Length 10'-2" Use: 12" O.C. "R" Panels (1.50" maximum existing rib height)
6802100	RH 24" Trap Model D 	Height 4.50", Base 1.45", Top 2", Kick – 0.25", Length 10'-2" Use: 24" O.C. Trapezoidal Standing Seam Panels (3" maximum existing rib height)
6802200	RH 24" Trap Model T 	Height 4.5", Base 1.5", Top 2", Kick 0.25", Length 10'-2" Use: Trapezoidal Standing Seam Roofs with 1" stand off clips and thermal blocks
6802300	RH 16" Vertical Rib Model V without tall clips 	Height 2.75", Base 1.25", Top 2", Kick 0.25", Length 10'-2" Use: 2" tall Vertical Rib Standing Seam Roofs
6802400	RH Sub-Hat 	16 ga. Galvanized Steel, Height 1.125", Length 25' maximum
6802500		16 ga. Galvanized Steel, Height 1.625", Length 25' maximum
6802600		16 ga. Galvanized Steel, Height 2.625", Length 25' maximum
6802700		16 ga. Galvanized Steel, Height 3.375", Length 25' maximum
6802800	RH Integral Sub-Rafter for Model C only 	16 ga. Galvanized Steel, Height 1.680", Length 10'-2"
6802900	RH Corru-Fit 	Zee 1.12", Base Height 1.5", Top 2", Kick 0.25", Length 10'-2" Use: 2.5", 2.67", 2.75" O.C. Corrugated Panels (0.75" maximum existing rib height)
6803000	RH Corru-Fit Spacer for Corru-Fit only 	Height 1.25" Use: install at variable spacing to eliminate inconsistent corrugated rib spacing

*Dimensions for all components listed above are nominal.



Alternate heights in RH Sub-Hat, Sub-Rafter, and Roof Hugger components are available.
For other models and heights, contact your Metal Sales Representative.

RETRO-MASTER METAL-OVER-METAL RE-ROOF SOLUTION PRICE REQUEST

Email this form to _____

Phone _____ Fax _____

Metal Sales Customer Name _____

Ship To _____

Project Ref _____

C/O _____

Address _____

Address _____

Address _____

City/State/Zip _____

Phone _____

Delivery Contact _____

Fax _____

Telephone _____

Email _____

Required Delivery Date _____

Metal Sales Contact Name _____

Roof Hugger Quantity (LF) _____ Gauge _____

Metal Sales Location _____

New Metal Sales Roof System _____

Area Wind Speed per Code _____ MPH

SELECT PANEL PROFILE AND FILL IN CRITICAL DIMENSIONS BELOW

These dimensions are essential for us to quote and/or fabricate a Retro-Master system correctly for you.

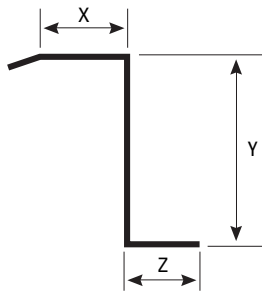
PROVIDE CORRESPONDING DIMENSIONS AS SHOWN AT RIGHT FOR SELECTED PROFILE

A = _____
 B = _____
 C = _____
 D = _____
 E = _____

If your panel does not resemble any of the profiles at right, provide a sketch on a separate page.

NEED A CUSTOM SOLUTION? Roof Hugger components are normally 3/8" to 1/2" taller than existing ribs. If you require a taller component for insulation or other reasons, please provide the dimensions below.

X = _____
 Y = _____
 Z = _____



CHECK BOX TO SELECT APPROPRIATE EXISTING PANEL PROFILE

R-PANEL

MINI-RIB

7.2 RIB

CORRUGATED
 If A=2.67" (9 Ribs=24")
 If A=2.50" (8 Ribs=20")
 If A=2.75" (8 Ribs=22")
 If A=4.20" (5 Ribs=21")

*TRAPEZOIDAL-RIB SSR

*VERTICAL-RIB SSR

*T-RIB SSR

***IMPORTANT:**
 If existing roof panel is a Standing Seam Roof (SSR), does it have thermal blocks?
 Yes No

Contractor should verify at several locations that the existing panel module (rib centers) is maintained on the existing roof. If existing panel module is not maintained, adjustments to Roof Hugger component punching may be required. **This should be known in advance to ensure a job done well.**

I hereby certify that the above dimensions are correct and comply with actual field obtained information.

Your Name (Please Print Clearly) _____ Date _____

Signature _____ Title _____

Is it time to replace your old metal roof?

If your metal roof is leaky, poorly insulated, damaged, or beyond servicing, it's time to take action. A metal-over-metal re-roof can solve these problems and allow you to:

- Beautify and increase the value of your building
- Meet or exceed current building codes
- Eliminate roof tear-off and disposal costs
- Reduce energy costs by increasing R-value and solar reflectance
- Lower your insurance premiums
- Upgrade to a superior metal roof system that employs the latest technology in weathertightness and enhanced thermal and wind performance
- Create the ideal platform for innovative sustainable and Net-Zero technologies like photovoltaic panels, micro wind turbines, rainwater harvesting, and solar water heating systems

Choosing Retro-Master™ Metal-Over-Metal Re-Roof Solution provides a beautiful roof that will perform for decades. With rigorously tested, high-quality products in a broad range of profiles and colors, Metal Sales offers more choices. All of our colors are ENERGY STAR® listed, cool roof compliant, and many are CRRC listed to deliver proven energy efficiency benefits.

Our 50 years of American manufacturing experience, combined with the largest sales and technical team in the industry, means expert support when you need it, where you need it.

Be inspired.



metalsales.us.com 800.406.7387

