

METAL ROOFING SYSTEMS



Roofing Integrity, Quality, Value and Service Since 1986

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METAL ROOFING Do it Right with Royalty

A metal roof can provide beautiful, watertight protection for 50 years or more - far exceeding the life span of a traditional shingle roof.

There are many different types of metal panels used by the construction industry. Each type of panel has its own application, depending on the type of building it's being installed on.

Standing seam metal roofing is a popular option for homeowners because, when the right materials are installed by the right contractor, a metal roof can provide beautiful, watertight protection for 50 years or more – far exceeding the life span of a traditional shingle roof.

Most homeowners and many contractors believe that any metal on a roof is “standing seam,” but that is incorrect. Often when a roofing contractor proposes standing seam to a homeowner, they are intending to install ribbed (bi-rib or classic rib) metal roofing panels, also known as “barn metal.” Barn metal panels are made from thin (26 or 28-gauge) metal and used extensively in agricultural and pole barn installations.

RESIDENTIAL STANDING SEAM PANEL

This edge of the panel is attached to the roof deck with fasteners that are covered by the adjacent panel.

Fasteners are tightened to a point that allows for thermal movement of the panel.



This edge of the panel overlaps the edge of the adjacent panel, protecting the fasteners from the elements. The edge is then snapped over the adjacent edge to create a “seam.”

The panel is flat, and easy to trim and bend at the gutter/drip edge of the roof, to provide a clean termination and exceptional wind uplift protection.

Standing Seam Metal Roof Technology
Standing seam roofs use **interlocking** panels that are typically made from high-quality 24-gauge metal. Residential Installations use hidden fasteners that are concealed and protected by the vertical “standing seam” that is created where adjacent panels lock together. This design accommodates the metal’s natural expansion and contraction during thermal changes and prevents fastener exposure to the elements. The result is an attractive, long-lasting, watertight and wind-proof metal roofing system.

RIB PANEL

This edge of the panel is installed under the edge of the adjacent panel.

Screws (and sometimes nails) are fastened through the exterior of the panel, leaving them exposed to the weather.



This edge of the panel overlaps the edge of the adjacent panel.



Ridges in the panel make it difficult to bend at the gutter edge of the roof to terminate cleanly and to provide protection against wind uplift. Foam is often used to fill the gaps between the panel and the deck.

Ribbed/Barn Metal Roof Technology
Barn metal roofs, by contrast, use **overlapping** panels and screws that penetrate the outside of the panel. The screws attach the panels tightly to the roof deck and allow virtually no movement for panel expansion and contraction. Screws are attached with a rubber washer to initially keep water from entering the penetrations on the roof. Over time, however, because of weather exposure and the normal expansion and contraction of roof panels, the screws will loosen or break, or the washers will deteriorate. The watertight integrity of the roof is lost and the roofing system will be susceptible to wind uplift.

Metal trim components are custom-made for each roof, ensuring good aesthetics and an excellent, long-term, watertight and bird-proof fit through all weather conditions.



Royalty Standing Seam Metal Roofing vs Ribbed Metal Roofing

FASTENING

Royalty installs standing seam roofs with hidden fasteners, which are not exposed to the elements and which are appropriately attached to the roof substrate with screws, not nails. This helps provide protection against wind uplift.

Roofs installed with thinner ribbed metal panels are usually installed cheaply with exposed fasteners. Some installations use nails instead of screws to attach the panel to the substrate. Nails are less secure, and eventually make panels prone to wind uplift problems.

FINISHING

Standing seam panels used by Royalty can be bent effectively to terminate securely and cleanly at the drip edge of the roof and other locations, virtually eliminating the potential for wind uplift damage. In addition, metal trim components are custom-made for each roof, ensuring good aesthetics and an excellent, long-term, watertight and bird-proof fit through all weather conditions.

Roofs with panels made from ribbed metal are usually not trimmed or finished effectively, because the ribs/striations in the panel inhibit bending the metal to provide a clean termination at the roof's gutter edge and other areas. Foam is often used to close gaps on ribbed panels, which can deteriorate over time, inviting wind uplift problems.

Metal trim details (rakes, caps, and other flashing pieces) are typically one-size-fits-all items that have to be adjusted to install properly. This can lead to problems down the road when the roof is subject to expansion and contraction, and components can work themselves apart, inviting water penetration and bird nesting.

DURABILITY & THERMAL STRESS

Standing seam metal installed by Royalty is less likely to be affected by thermal expansion and contraction, reducing long-term stress on fasteners. In addition, roofs made from 24-gauge standing seam metal will withstand hail better, won't bend as easily if walked on, and will maintain straighter lines than lightweight barn metal – it's a much more durable and attractive installation.

Thinner roofing panels are more susceptible to damage from hail and other rooftop activity, such as foot traffic. In addition, barn metal is subject to a greater degree of thermal expansion and contraction than thicker standing seam metal and more susceptible to "oil canning" – a visible unevenness on flat areas of installed panels.

The ribs (also known as striations) in the barn metal panel can help diminish oil canning and other visual defects to a degree, but ongoing thermal movement puts stress on fasteners. This can eventually cause them to fail and compromise the installation, which leads to rust and interior water damage.

SNOW & ICE SAFETY

Royalty uses bar-type snow/ice guards, which are attached to the metal seam with clamps. In addition to preserving the watertight integrity of the roof because they're non-penetrating, these snow guards are permanent and can enhance the look of the roof.

Metal roofs need snow and ice guards. Snow and ice do not slide on a shingle roof, but do on a metal roof, which can damage gutters and create a hazard for pedestrians and vehicles. On ribbed, barn metal roofs, snow guards must be attached with an adhesive that can deteriorate over time, or screws, which creates additional roof penetration problems.

WARRANTY

Royalty installs metal roofs with confidence, and backs all standing seam installations with our 10-year Workmanship Warranty, plus a 30-year paint and finish warranty. You can be sure that your Royalty roof will perform as expected for years to come.

A paint warranty for any gauge of metal can be 20, 30 or even 40 years. However, roof problems develop because of wind uplift and screw failure – common with barn metal panels. Most barn metal warranties are pro-rated and do not cover replacement costs, wind uplift, screw failure, or color fading.



Royalty is the Right Contractor for your Metal Roof Installation

Your home's long-term appearance and structural integrity are important, and that's why you should trust Royalty Roofing with your metal roof installation.

In addition to using the proper roofing materials, our standing seam installation crews are highly trained and qualified, and undergo regular safety instruction. We are fully insured, bonded and licensed for your peace of mind. Let us prove to you why Royalty Roofing has been installing roofing systems with quality, integrity, value and service since 1986.



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