



Atlantic Metal
Roofing Product LLC

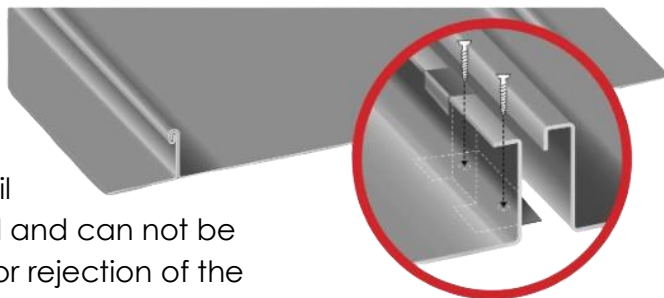
Mechanically Seamed

Panel coverage and fastening Mechanically Seamed Metal Roofing panels are 12", 16" wide coverage. However depending on the finish selected and the required coil feed, other sizes may be available.

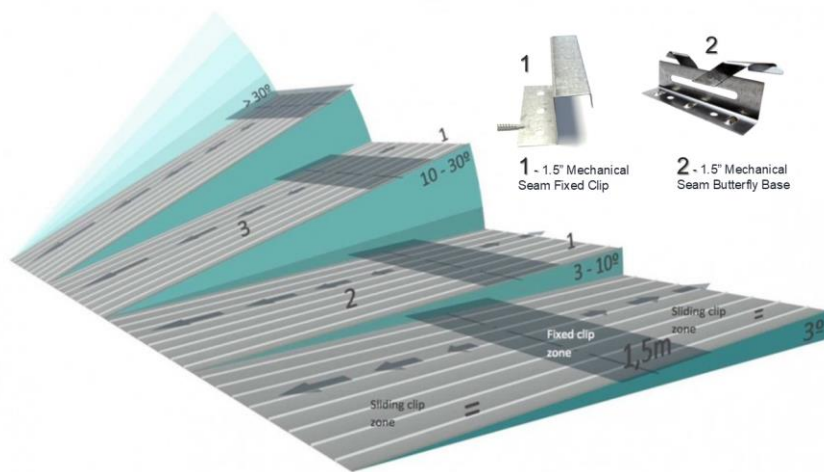
Underlayment. There are many types of underpayments on the market today that are all designed with a special purpose depending on the type of metal and profile. Many different types of metal will require a different type of underlayment, such as **Epistik SA-250**, which requires a high temperature underlayment. It is best to consult your design engineer for recommendations.

Framing and Substrates "Mechanically Seamed" panels are used over all type of substrates like steel framing, open purlins, spaced sheathing, and wood surface such as plywood. Most details in this guide are shown with panels attached to open framing.

Oil Canning Oil canning is a condition common with flat metal surfaces. This waviness is caused by steel mill tolerances, forming, variations in the structures surfaces, and hardness of the steel. Measures are taken at the roll forming process, like profile design, steel gauge, corrective leveling, to minimize the effects of oil canning. Oil canning is a characteristic of steel and can not be eliminated totally and therefore is not reason for rejection of the panels.



Job Site Storage While waiting to be installed on the job site, storage of panels, trim crates, and flat sheet should be sloped in order to allow for proper moisture run off. One end should be elevated so as not to allow ponding of water on the metal surface. When using tarps for protection, proper ventilation should be provided to prevent condensation. Moisture or condensation that is trapped inside a bundle can lead to white rust on sheeting. AMRP assumes no responsibility of liability for damage to our products which occurs in the possession of the consignee or which we deem to be improper handling and storage. Protective plastic film on trim or panel should be removed within 90 days. Failure to follow these instructions may void the warranty.



Slope Requirements The panels in this install guide should be used on slopes 1:12 or greater with mastic.



Condensation, Insulation, & Ventilation It is the designer's responsibility to determine the need and composition of condensation control materials including insulation and vapor retarders, as well as ventilation requirements. Metal roofing is susceptible to condensation, and its control should be carefully considered.

Pinning Requirements The Mechanically Seamed Panel must be "pinned" at one end only to resist the "drag" load caused by weight of the panels, live load, and snow loads. The intensity of the drag load is a function of the slope, the loads involved, and the panels. Please consult a design engineer for exact pinning requirements.

Installation Overview

1. Preparation:

- Ensure the roof deck is clean, dry, and structurally sound.
- Plan panel layout to minimize cuts and ensure proper water drainage.

2. Panel Placement:

- Start installation from the eave, aligning panels properly.
- Use concealed clips to allow for thermal expansion.

3. Seaming:

- Utilize a mechanical seamer to form a double-lock seam, ensuring water-tightness and wind uplift resistance.
- For slopes less than 3:12, consider using continuous in-seam sealant to enhance water resistance.

4. End Laps and Transitions:

- Avoid panel end laps when possible; if necessary, use fixed or floating end lap details as per manufacturer guidelines.
- Install ridge caps and valley flashing according to manufacturer specifications to ensure proper water flow.

5. Trim and Flashing:

- Use trim and flashing components designed for mechanically seamed panels to prevent water infiltration and provide a finished appearance.

Seaming process



Standing seam tray



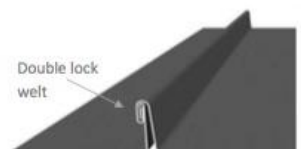
Clipped undercloak and



Small gap at base forms automatically and allows for lateral thermal expansion



Angle standing seam joint



Double lock standing seam joint



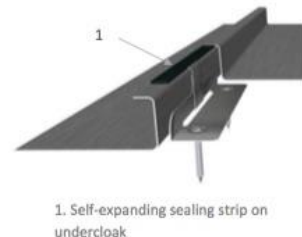
Atlantic Metal
Roofing Product LLC

Mechanically Seamed

Expansion & Contraction Both the panels and flashing must allow for expansion and contraction of the materials, especially where long lengths are used. The overlap between the hidden cleat and the turned under end of the panel at the eave may need to be increased to accommodate thermal movement when 30ft + sheets are used.

Valleys Valley dimensions must be the proper width to account for roof slope, snow, ice and rain conditions.

Fastener Selection will vary depending on type and thickness of substrate. Design Calculations for clip spacing should be completed by the design engineer. The use of Butyl tape mastic, Butyl sealants and Curing Sealants is always recommended to insure weather tight installation. Panels and flashings should never be installed in contact with dissimilar metals. Use only those flashings and accessories designed for use with this panel. Panel clip attachment screws must be long enough to fully penetrate through roof deck substrate or penetrate solid lumber at least one inch.



Maintenance and Quality Control

- **Regular Inspections:** Conduct periodic inspections to identify and address any potential issues.
- **Cleaning:** Keep panels free of debris and ensure gutters and downspouts are clear.
- **Seam Inspection:** Verify that seams are fully engaged and free of defects.
- **Fastener Check:** Ensure all clips and fasteners are properly installed and tightened.

