

MEKJO Metals LLC

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This comprehensive installation guide details the steps required to properly install the **1.5" Snap Lock Metal Roofing Panel** manufactured by MEKJO Metals.

The **1.5" Snap Lock** profile is a premium standing seam system engineered for clean lines and hidden fasteners. It utilizes a male-and-female interlocking rib mechanism that eliminates the need for mechanical seaming tools during field assembly.

1. Pre-Installation & Safety Requirements

- **Slope Minimums:** Ensure your roof pitch meets a minimum of **2/12 or 3/12** based on project specification standards for hydrokinetic water-shedding profiles.
- **Safety Gear:** Always wear puncture-resistant gloves, safety glasses, soft-soled shoes for traction, and an OSHA-compliant fall protection harness.
- **Storage:** Keep stacked panel bundles elevated off the ground on one end to promote drainage. Cover loosely with a breathable tarp to prevent moisture trap staining.

2. Required Tools

- **Fasteners:** #10 x 1" flathead pancake screws (concealed). Do not use low-profile wafer heads that might push up or telescope through the finished metal.
 - **Cutting Tools:** Hand snips, nibblers, or power shears. *Avoid standard abrasive circular saw blades as hot metal shavings melt the paint finish and cause premature rust.*
 - **Hand Seamers:** For bending custom panel hem details at the eaves.
 - **Striking Tool:** Rubber mallet for cleanly engaging the locking joints.
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3. Step-by-Step Installation Process

Step 1: Substrate Preparation

1. Verify the roof deck is flat, clean, and entirely clear of protruding nail heads or structural debris.
2. Lay down an approved high-temperature synthetic underlayment or ice and water shield smoothly across the deck surface.

Step 2: Perimeter Trim Trimwork

1. Before setting any roofing panels, install all critical base perimeter trim, including the **eave drip edge, valley metal linings, and gable/rake trim starters**.
2. Apply a continuous bead of high-grade butyl sealant tape over the flashing flanges.

Step 3: Squaring and Adjusting the First Panel

1. **Critical Measure:** Ensure your starting line is perfectly square to the ridge and eave. If the building is slightly out of square, fan the panels slightly at the bottom over the span of several sheets to correct it.
2. Cut the panel lengthwise if needed to fit the roof edge.
3. Fabricate a **1-inch open hem** on the bottom tail of the panel using hand seamers, and slide it securely over the eave drip edge cleat.
4. **Pin the top:** Anchor the box end (top edge) of the first panel near the ridge with a few temporary structural fasteners to keep it from slipping.

Step 4: Install Panels

1. Drive the required screw directly through the center of the pre-punched slotted holes on the fastener hem of the panel. This allows the entire assembly the freedom to slide during thermal expansion and contraction.
2. Screw pattern 24" max every 12"-16" recommended.

Step 5: Snapping Subsequent Panels

1. Hook the 1-inch hemmed tail of the second panel onto the eave drip edge.
2. Position the female leg cleanly over the fastened male leg of the first panel.
3. Apply a firm downward stomp or strike smoothly along the rib with a **rubber mallet** until you hear the distinct "snap" of the interlocking continuous seam.
4. Fasten screws along the newly exposed fastener hem of the second panel and repeat this process uniformly across the deck footprint.

Step 6: Thermal Gaps & Expansion

- **The Gap Rule:** Leave roughly an **1/8-inch gap** between the internal panel return and the vertical face of the eave flashing. This buffer lets the metal lengthen on hot summer afternoons without buckling or rippling across the flat pans.

Step 7: Ridge Closures and Ridge Cap Finishing

1. Field-bend the panel pan upward 45-to-90 degrees at the ridge line to create a water barrier box end.
 2. Install metal **Z-closures** or vented closure strips across the top of the panels. Lay butyl sealant tape beneath the closure and fasten with five pancake screws per panel pan space.
 3. Overlay the final **Ridge Cap flashing** directly onto the Z-closures. Secure the ridge cap using color-matched lap screws driven into the structural closure profile ribs, ensuring you do not over-torque and crush the sealing washers.
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