

Installation Instructions for MasterRib®

Storage

If metal is not to be used immediately, store inside in a well ventilated, dry location. Condensation or other moisture can form between the sheets during storage causing water stains or white rust which detract from the appearance of the product and may affect the product's useful life. **Trapped moisture between sheets of painted metal can cause white rust to form underneath the paint. This can cause the paint to flake off the panel immediately or several years later.** To prevent white rust and staining, break the shipping bands on the material. Store the material on end or on an incline of at least 8" with a supporting board underneath to prevent sagging. Fan the sheets slightly at the bottom to allow for air circulation. Keep the sheets off of the ground with an insulator such as wood. Any outdoor storage is at the customer's own risk. If outdoor storage cannot be avoided, protect the metal using a canvas cover or waterproof paper. Never cover the metal with plastic as this will cause condensation to form.

Some Safety Precautions

Always wear heavy gloves when working with steel panels to avoid cuts from sharp edges. When cutting or drilling steel panels, always wear safety glasses and sweep off any metal shavings immediately to prevent eye injury from flying metal fragments. If you must walk on a metal roof, take great care. Metal panels can become slippery, so always wear shoes with non-slip soles. Avoid working on metal roofs during wet conditions when the panels can become extremely slippery. Walking or standing on a metal roof which does not have a plywood or other deck beneath it is not recommended. However, if you must do so, always walk on the purlins, never between. Do not for any reason walk on a roof made of material less thick than 29 gauge.

General Installation Information

Insure that the structure is square and true before beginning panel installation. If the structure is not square, the panels will not properly seal at the side laps.

Green or damp lumber is not recommended. Moisture released from the damp lumber may damage the metal panels. Nails installed in green or damp lumber may back out.

Remove any loose metal shavings left on roof surface immediately to prevent corrosion. After installing roof, remove any debris such as leaves or dirt to prevent moisture from getting trapped on panels.

Fastening

If you wish to predrill fastener holes, use a cover sheet to prevent hot shavings from sticking to panels.

Screws -For best results use a 1-1/2" double washered wood screw in the flat of the panel as shown in the illustration below. Fasteners should be applied at every purlin. Drive the fastener so that the washer is compressed securely against the metal. Do not over drive the fastener as this will form a dimple that can collect water and cause leakage. Do not leave any loose fasteners that have missed the purlin. Use a #14 stitch screw or caulk to fill the hole.

Nails - If the panels are nailed, use 1-3/4" ring-shanked neoprene washered nails. Nail into the crown of the major ribs of the panel as illustrated below. (See Figure #2 below). **NOTE: If rigid insulation is used directly under the panel, the fastener length needs to be increased to allow a minimum of 1" penetration into the wood.** General installation instructions listed above for screws also apply to nails. Do not apply nails into flat area of panel.

Figure #1 - Fastening Patterns for MasterRib®

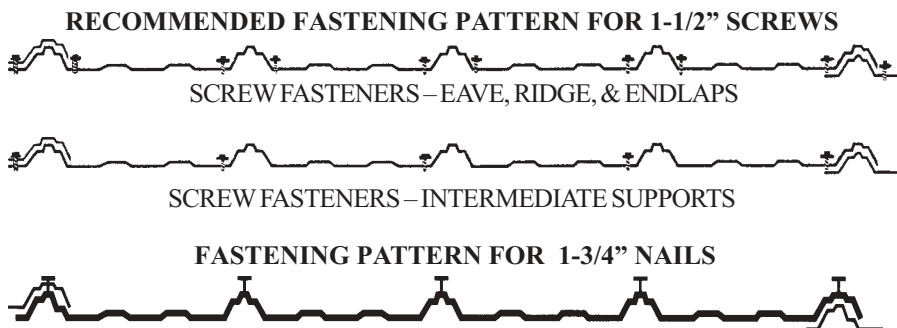


Figure #2 – (Nails only)

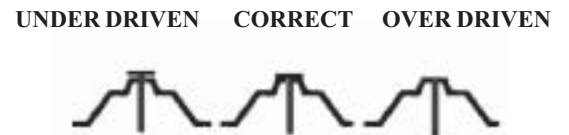


Figure #3



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Roofing

Slopes of less than 3" in 12" are not recommended. For slopes of 3" on 12" or greater, end lap panels 6". Side laps should face away from the prevailing wind. Lay the first sheet along the eave at the down-wind side of the roof, farthest away from the direction of the prevailing winds. (See Figure #4). Install sheets in the sequence shown in Figure #4.

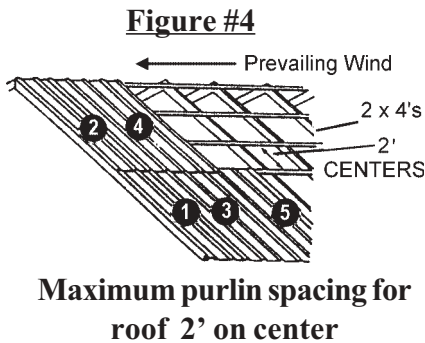
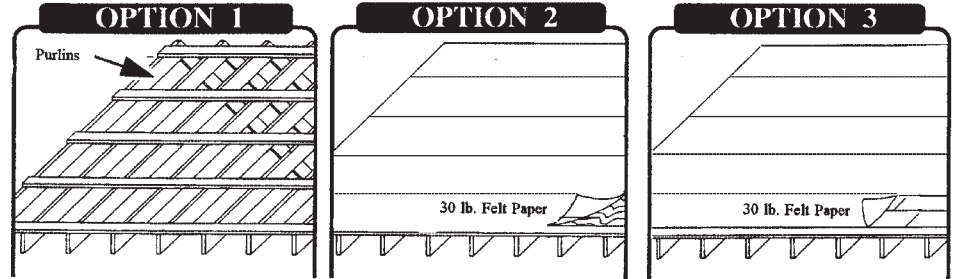


Figure #5 - Installation Options



OPTION 1
Install Metal Directly To Wood Frame

- Use Maximum 2' Purlin Spacing
- Install Metal
- *DO NOT USE THIS OPTION FOR HEATED SPACES

OPTION 2
Install Metal On Solid Deck

- Lay Plywood Deck
- Apply 30 lb. felt paper
- Install Metal

OPTION 3
Install Metal Over Existing Shingles

- Apply 30 lb felt paper
- Install Metal

*Proper ventilation and vapor barrier protection recommended for heated spaces.

Allow an overhang of 2" at the eave to provide for a drip edge. Use inside closure at eave to prevent insect or bird infestation at openings.

To protect against uplifting winds and to provide a finished appearance, apply rake trim or other standard gable trim. Apply fasteners every 6-10".

14" ridge roll or ridge cap is recommended to prevent leakage. Seal off ridge and panel using outside closure strip.

Use of 3/8" side lap tape is recommended. Apply the tape as shown in Figure #6 along the top of all lap ribs. Do not block the siphon channel with the tape. For best results, apply a 7/8" lap tek screw into the crown of the rib to secure the side lap.

Figure #6 - Proper Application of Side Lap Tape



Siding

For best results, start siding at a door, window or other opening in the wall. Use corner trim, base molding, eave trim, and other trim to improve the weather-tightness and appearance of the structure.

ALLOWABLE UNIFORM LOADS PER SQUARE FOOT

Maximum purlin spacing for roof 2' on center and maximum girt spacing for sidewall 3' on center.

Place fasteners in the pan of panel for best results.

(Three Spans or More)

Span (inches)	LIVE LOADING							WIND UPLIFT LOADING						
	18"	24"	30"	36"	48"	60"	72"	18"	24"	30"	36"	48"	54"	72"
29 Gauge	200	112	72	50	28	18	14	281	158	101	70	40	25	18
26 Gauge	268	151	97	67	38	24	24	368	207	132	92	52	33	23

NOTES:

- The panel weight has been deducted from the allowable stress values.
- The wind uplift stress values have been increased by 33-1/3%.
- The properties and load tables are for the panel alone.
- The panel section properties have been calculated in accordance with the 1996 AISI Specification.
- Steel panel material conforms to ASTM A446-85.

MasterRib UL Ratings: UL2218 Impact Resistance Class 4 --- UL790 Fire Resistance Class A

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