

AG Panel

INSTALLATION

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 panels 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 panels 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 airflow. Keep the panels 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. TCM recommends that you install metal panels immediately after purchasing them.

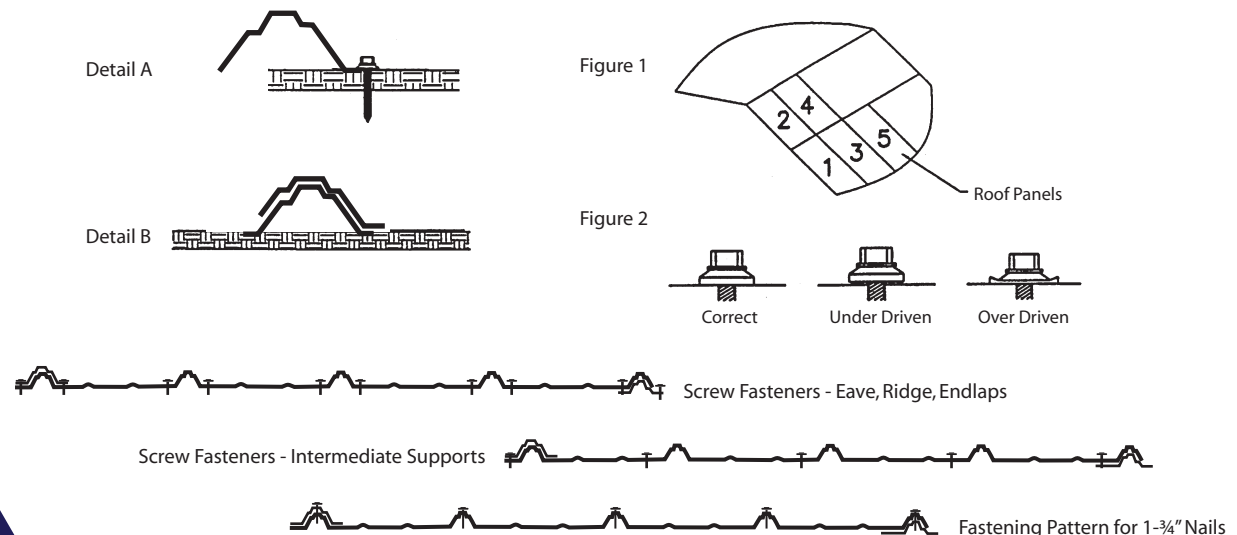
General Installation Information

Install flashings prior to panel installation that are to be covered by panel ends such as Drip Edge and Valley. Begin laying the roofing panels on the end of the building away from the prevailing wind so that the side lap seams face away from the prevailing wind-driven rain. This provides extra security against water penetration. 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. The prevention of steel debris staining is the responsibility of the installer. The recommended tools for on site cutting are profile shears, hand shears or electric nibblers. TCM sells the TurboShear which can turn any power drill into heavy duty power shears instantly. Friction saws and abrasive discs should not be used to cut panels. Remove any loose metal shavings left on roof surface immediately to prevent corrosion. The first panel determines the alignment of all the remaining panels on the roof, so extreme care must be taken to accurately square the first sheet. The overlapping rib edge should overhang the edge of the roof by 1/2" (Detail A), and the panel should overhang the eave approximately 1" to provide for a drip edge. The side rib with the drain channel should face the direction in which the sheets are being laid down (Detail B). When the panel is positioned, it should be fastened approximately 1" away from the side of the first rib in flap top to bottom. The panel should be attached completely before starting the next panel. TIP: Assure straight alignment of successive rows of panels by stretching chalk lines between screws. These lines will serve as guidelines to align panels.

If roof requires more than one horizontal row of panels, temporarily fasten at two points, not the ends, along the middle ribs of Panel #1 in lower corner. Next, install Panel #2 above and end lapping over Panel #1. Align both panels with chalk line. Install Panel #3 next to Panel #1 side lapping it. Install Panel #4 above Panel #3 side lapping over Panel #2 and end lapping over Panel #3. Check alignment at Ridge and Eave again. Temporarily fasten all panels; permanently fasten when all panels are in line (Figure 1). After installing roof, remove any debris such as leaves, dirt, and/or metal shavings 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. For best results use a 1 1/2" wood screw in the flat of the panel as shown below. Fasteners should be applied at every purlin. Drive the fastener so that the washer is compressed securely against the metal (Figure 2). 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. TCM does not recommend using nails to install the AG Panel.



TCM

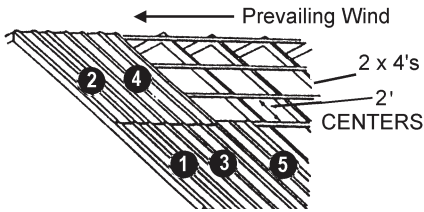
Installation Instruction for AG Panel

Roofing

Slopes of less than 3" on 12" are not recommended. For slopes of 3" on 12" or less, end lap panels 6".

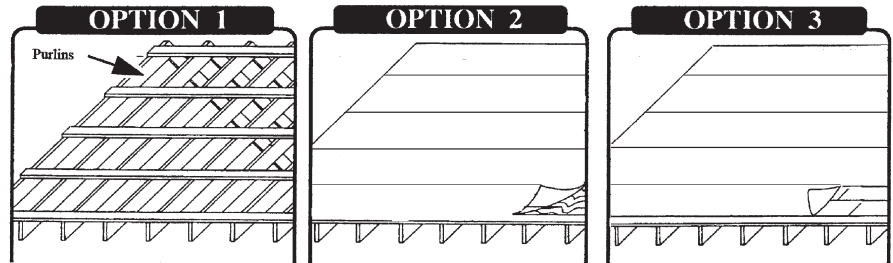
Side laps should face away from the prevailing wind. Lay the first sheet along the eave at the down-wind side of the roof, farthest away from the direction of the prevailing winds. (See Figure #4). Install sheets in the sequence shown in Figure #4.

Figure #4



Maximum purlin spacing for roof 2' on center

Figure #5 - Installation Options



Install Metal Directly To Wood Frame

- Use Maximum 2' Purlin Spacing
- Install Metal

Install Metal On Solid Deck

- Lay Plywood Deck
- Apply UDL or FSK Underlayment
- Install Metal

Install Metal Over Existing Shingles

- Apply UDL or FSK Underlayment
- Install Metal

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

Allow an overhand 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

