



Northland Steel and Trim

INSTALLATION INSTRUCTIONS

Extremely Important

Store Northland Steel panels in a dry place. Stand the panels on end and fan them out at the bottom to provide positive air circulation and moisture run-off. If panels must be stacked, they should be kept off the ground on wooden blocks or strips in an inclined position in a dry place.

The panels should be stored outside only when it is absolutely necessary and then only for short periods of time. The use of canvas or waterproof paper should be used only when allowing ventilation. Plastic tarping, which may cause sweating and condensation and trap moisture, should never be used.

If these precautions are not taken and moisture is trapped in the panel, superficial staining may occur. When moisture remains in the bundle of Northland Steel panels for a considerable time, wet-storage stains can occur, reducing the effective life of the panel.

Failure to comply with the above recommended procedures relieves Northland Steel and Trim of responsibility for any resultant damage or deterioration and voids all warranties.



Northland Steel and Trim

Handling

When unloading bundles of Northland Steel extreme, caution is advised. A forklift can dent or puncture the underside of the Northland sheets. It is recommended that a spreader device be used on the forklift for bundles over 20 feet in length to avoid bending in the middle of the sheets.

Care should also be exercised to protect the finish when lifting individual panels from the stack or bundle. Dragging of individual sheets from the bundle can scratch the surface and reduce the paint performance. The paint finish of Northland panels is tough enough to withstand usual weather conditions but can be scratched and abraded if care is not taken.

The panel edges must be protected at all times during the unloading and handling process to assure good fitting and good looking lap joints on the finished installation.

CAUTION: Sheet metal roofing can have sharp edges. Safety equipment should be worn by workers.

Cutting & Trimming

There will always be a certain amount of cutting and trimming necessary on the jobsite, such as for openings and gable end panels. Whether cutting with the rib or against it, the use of a steel cutting blade or a Carborundum Blade with electric saw is imperative. For even better results, cutting may also be accomplished by a portable shear profiled to conform to the Northland panels for perfect across-the-profile cutting.

Panels are to be cut one at a time and should be turned with the exterior side down and the reverse side up in order that the hot metal particles and filings from the cutting do not become embedded in and cause rust marks on the exterior face of the panel. Also, care should be taken to brush off all panel particles after cutting to further reduce the possibility of rust marks and bleeding on the panel after it is installed.

Failure to comply with the above procedures relieves Northland Steel and Trim of responsibility for any resulting damage to, or deterioration of, the finish and voids the paint warranty.

CAUTION: When cutting roofing and siding, safety glasses and other safety equipment should be worn by workers.

Roofing Installation Sequence

Begin laying the roofing panels on the end of the building away from the prevailing wind so the side lap seams shall face away from the prevailing wind-driven rain. This provides extra security against water penetration.

The first panel determines the alignment of all remaining panels on the roof, so *extreme* care should be taken to accurately square the first sheet. The over-

lapping rib edge should be flush with the edge of the roof, and the panel should overhang the eave approximately three inches 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. When the panel is positioned, it should be fastened through the first rib, top and bottom. The Northland panel should be attached completely before starting the next panel.

A tip for assuring straight alignment for successive rows of panels is to stretch chalk lines between nails driven into the ridge and end of each edge rafter. 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 main 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 the Panel. 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. Refer to Figure 1.

Figure 2 shows the proper sequence for the installation of one row of Northland Steel roofing.

CAUTION: Do not leave unattended or unattached sheets on a roof.

Siding Installation Sequence

Siding panels should be installed with the lap joint facing away from the prevailing wind like the roof. Beginning at an opening, such as a door or window, minimizes cutting.

Do not run siding sheets all the way to the ground. It is important that all siding panels be prevented from permanently contacting the soil; siding panels should lap at least three inches over the foundation or splash board.

The first siding panel must be plumb to assure straight alignment of the entire row of panels. Temporarily fasten the first Northland panel at the starting edge. Install the second panel next to the first with the Northland panel overlapping. Temporarily fasten all panels; permanently fasten when all panels are in line.

Roof Pitch

Northland Steel roofing requires a certain degree of pitch to ensure proper drainage. Roofing should be applied on roofs with a pitch of at least 2-1/2 inches per foot.

When end lapping roof panel sheets, a 12 inch lap is recommended for roofs having a pitch under three-inch rise per foot. From three inches to five inches of rise per foot, an eight inch end lap is recommended. Any slope five inches or more requires a six inch end lap.

Prevailing Winds

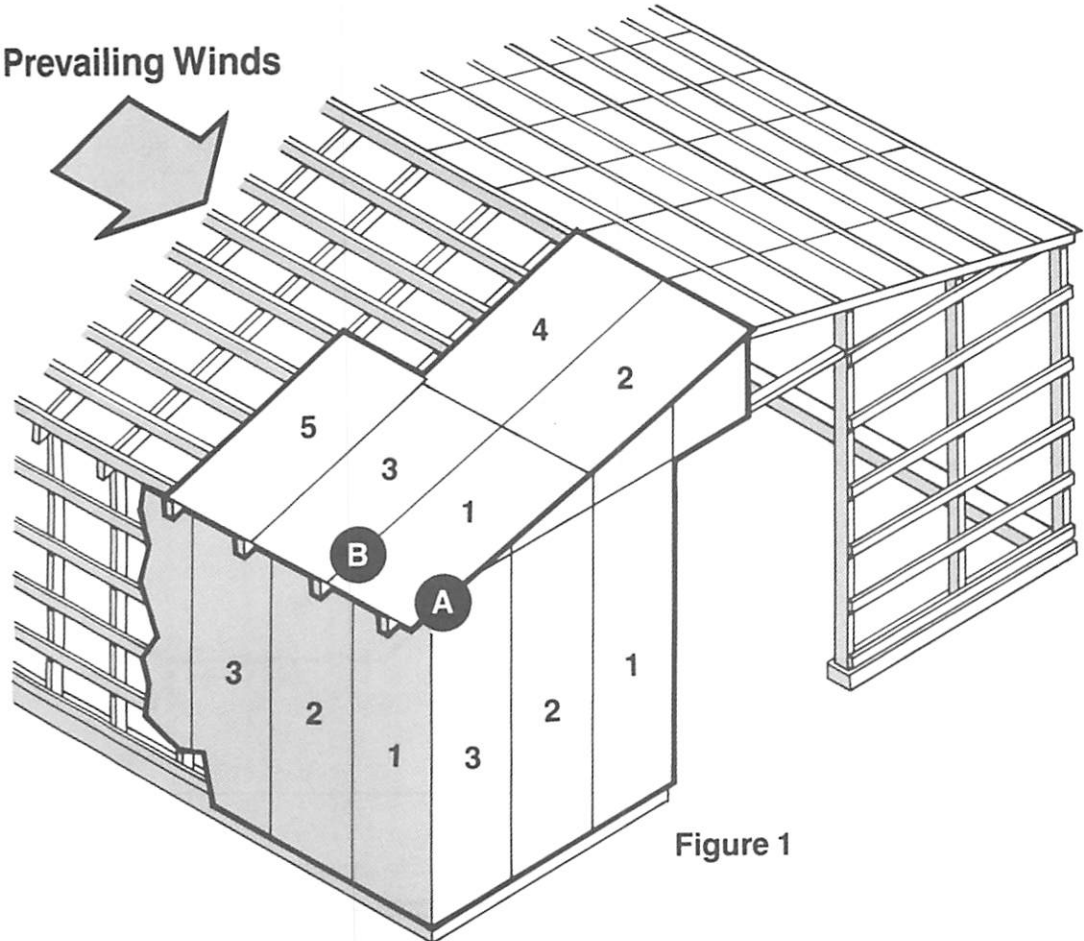
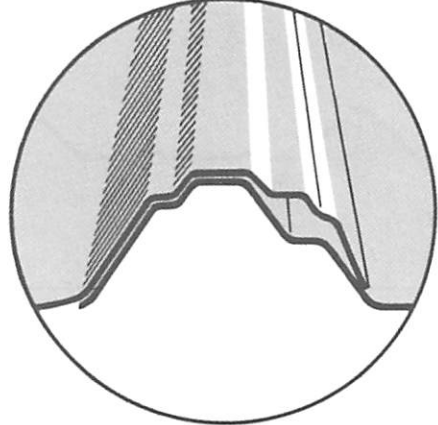
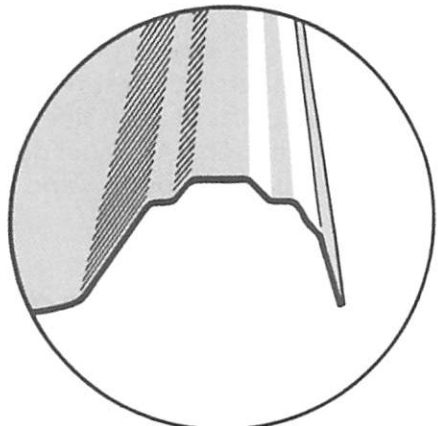


Figure 1

D-RIB



Prevailing Winds

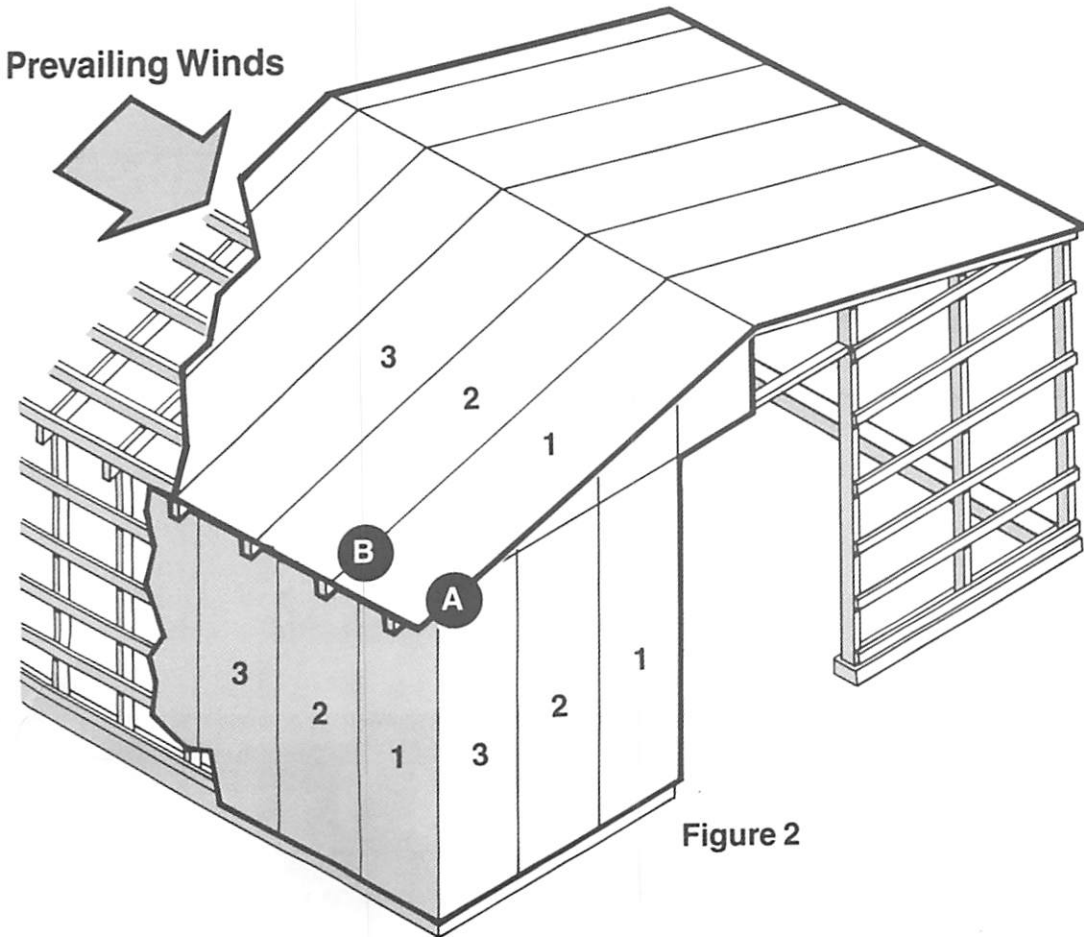
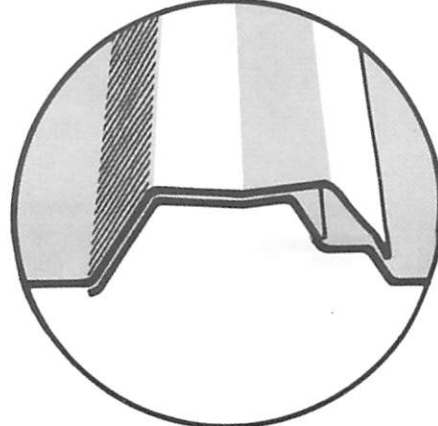
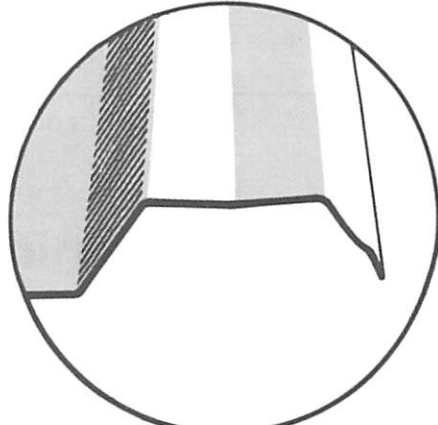


Figure 2

A-PANEL



Drill Screw Fastening

Northland Steel roofing and siding may be installed by use of color-coated/plated steel drill screws with sealing washers. For best results, fasten panels to purlins and girts at each side lap and in all flat areas between ribs, on "A" Panel design.

Fasten panel to purlins and girts, next to major ribs

on "D" Rib design. See diagram below. Fastening lap rib is acceptable on both "A" Panel and "D" Rib profiles, but usually not necessary on the "D" Rib design.

Use 1-1/2" or 2" long screws at side laps, along nailing strip farthest away from finishing edge of lapping rib; use 1-1/2" long screws at flat areas.

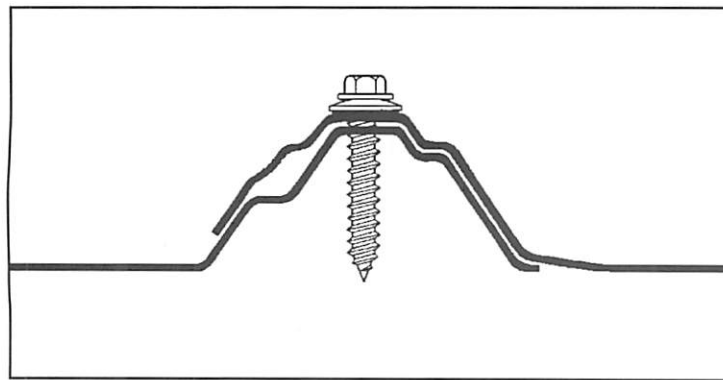
D-Rib Fastening Diagram



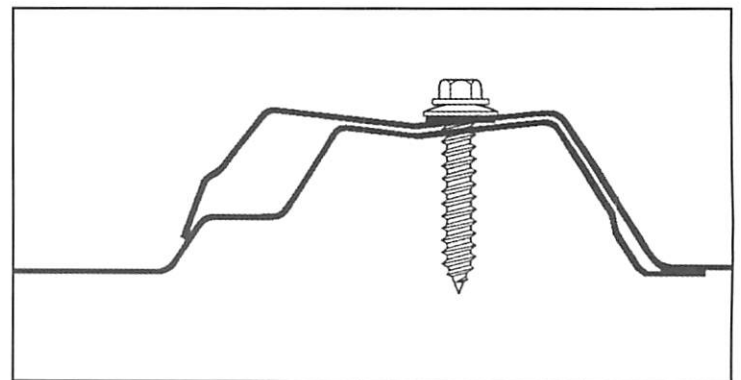
End Lap and Eaves



Intermediate Support



D-Rib Fastening Details



A-Panel Fastening Details

A-Panel Fastening Diagram

