ValleyRolling

"Back to Service"

Steel Roofing and Siding Information & Installation Guide

Locally Owned and Operated in Woodburn, Oregon

Wholesale Manufacturer of Steel Roofing, Siding & Trim

Introduction

Valley *Rolling* metal roofing, siding and trims are an excellent choice for many applications such as:

Barns
Horse Arenas
Backyard Sheds
Garages
Residential Roofs

Our trims are designed to work with all of our steel roll-formed sheets and we stock all accessories that will ensure your metal building or roof will last for many years.

Valley *Rolling* does care about quality, we are proud of what we sell and the service we offer. Don't just believe us; ask the people who use our product and enjoy the service we provide!

Our steel sheets are ordered to A.S.T.M. A446 Grade E, 80,000 PSI Minimum yield point and 82,000 PSI Minimum tensile strength.

All metal skids are protected with top and bottom metal coversheets!!

Preparation Prior to Metal Panel Installation

Roofs:

Metal panels can be used in both new construction and re-roofing applications. It is recommended that the metal panels be installed over plywood, wood decking , or intermittent supports (wood or metal purlins).

For installation over plywood or wood decking, cover the entire roof with a minimum of 30 lb felt paper. Begin at the eave and roll the felt horizontally (parallel to the eave). Allow each consecutive course to overlap the previous one by 3 inches. Overlap the end a minimum of 6” when starting new roll of felt. Replace or repair areas of the felt paper that have been torn or cut.

For roof installation over spaced framing, it is highly recommended to utilize a moisture barrier. Condensation does occur, and when it does happen, it will “rain” in the building.

Valley Rolling highly recommends the use of Laminated Fiberglass Insulation. Insulation should be in lengths that will cover the distance from eave to eave, plus a one foot overhang on each side of the building. When necessary to splice two rolls, the joint should be made at a point other than the ridge. Starting at the end of the roof, clamp the end with vice grip pliers. Pull the insulation across the purlins with the vapor barrier toward the interior. Install the next roll in the same manner, making sure the rolls are stretched tight, aligned properly and closely butted. Fasten tabs together.

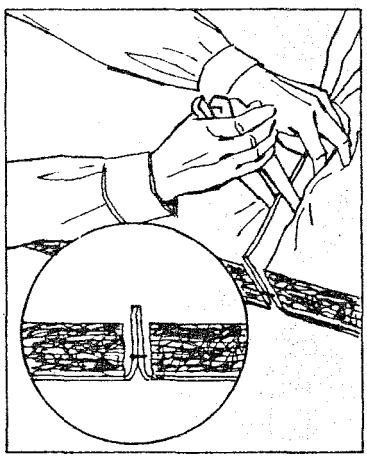
Preparation Prior to Metal Panel Installation

Sidewalls and Endwalls:

Insulation should be cut to length in multiples of lengths of wall sheets, plus a minimum 12” allowance per sheet for overhang. Unroll the insulation and cut the dimension from base angle to eave strut or rake plus 6” extra. Attach one end of the insulation to the base angle. Pull from the other end to stretch the insulation tightly outside the girts to the eave or rake. Install the facing toward the building interior. Attach the panel to the structure. Place the next roll of insulation in the same manner, with edges butted snuggly, and fasten.

Fastening Tabs:

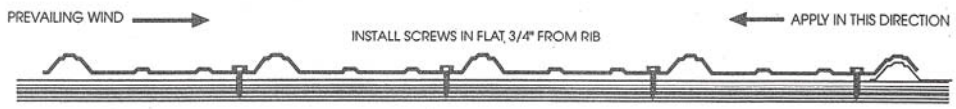
At the seam where the two rolls of insulation are joined, pull the tabs upward and staple approximately every 8” from bottom of faced side insulation. Staple the tabs every 4” to ensure a tight vapor seal.



Panel Installation

Panels should be started at the end of the building, opposite from the direction of prevailing wind. Suggested minimum overhang is 2” and minimum pitch is 3/12. For pitches less than 3/12, sealant is suggested.

Girt spacing should be no more than 36” for siding application, and purlin spacing should be no more than 24” for roof application.



Procedure:

1. Place trims and inside closure prior to panel installation.
2. Align the edge of the first sheet along the edge of the roof. The panel should hang over a minimum of 2” at the eave, and should not extend past the center of the ridge space.
3. After the first panel is placed properly, using the proper screw, secure the panel, following the screw selection and placement guidelines.
4. Lay down the next two panels, checking the alignment at the eave and ridge to ensure the panels are square.

Cutting and Drilling Steel Panel

Steel panels may be cut with metal snips, electric or pneumatic shears, a portable profile shear, or an electric nibbler. Some installers prefer using a circular saw to cut metal panels. Do Not use self-consuming abrasive blades because of the following:

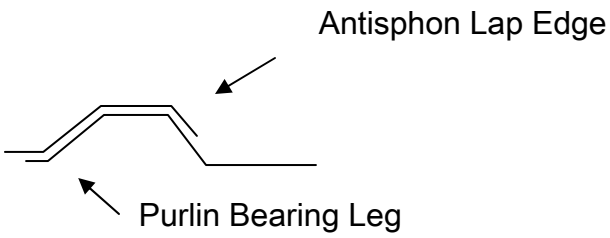
1. Abrasive blades burn the paint and galvanizing at the cut edge, leaving edges that are jagged and unsightly and rust more quickly.
2. Abrasive blades produce hot metal filing that embed in the paint and cause rust marks on the face of the panel.
3. All saw cut panels must be turned face down and cut in a location down-wind and well away from the building and other panels to avoid embedment of metal filings on other panels.
4. All saw cut panels must be thoroughly wiped to ensure the removal of all metal filings.

If saw cutting cannot be avoided, select a carbide-tipped blade specially designed for cutting light gauge ferrous metal panels. These blades are now available at many home centers and lumber yards. Pre-drilling wall panels gives uniform alignment of screw rows. Be sure to remove drill filings once panels are installed to avoid rust marks from filings.

Panel Laping

Each sheet measures 39” in width. After lapping appropriately, the panel has full coverage of 36” (3’00”).

The steel laps as follows:



On roofs that have a 2/12 or less pitch, butyl tape, or caulking is recommended along the lap edge to prevent any leaking.

The steel panels are roll-formed and cut to the exact length, within a 1/4” to the specifications of the customer. Valley Rolling’s post cut rollformers can cut lengths from 3” to 50’, hauling of longer lengths

Selecting Fasteners

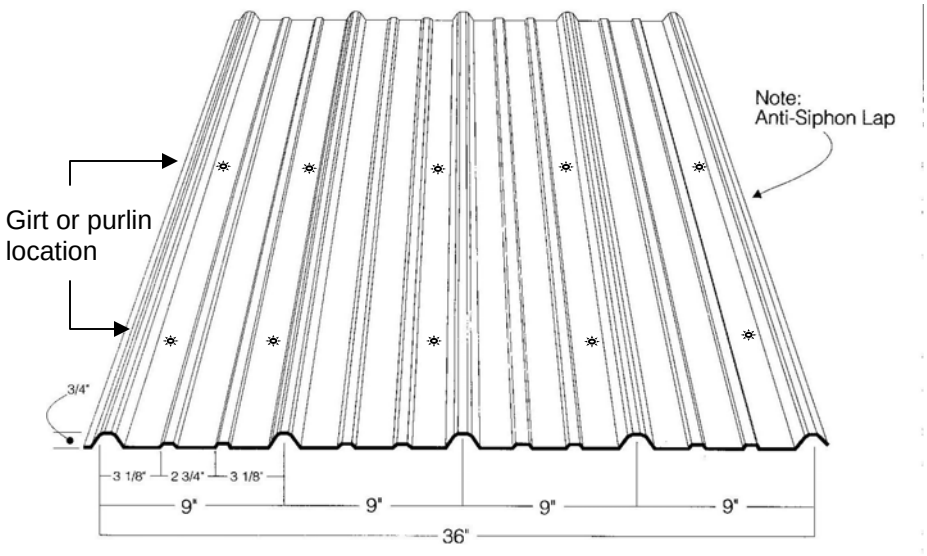
Screw fasteners have been proven to have 2 to 3 times the holding power of nails. Screws should have a minimum penetration into wood of 5/8".

Determine the screw required by using the following table.

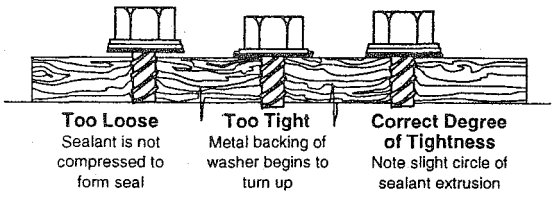
Woodfast (No. 9) 1", 1 1/2", 2", 2 1/2", 3" 1/2" Hex Head	Panel to Wood Studs (2x4, 2x6,etc)
Type "S" (No. 14) 1", 1 1/2", 2", 2 1/2" 5/16" Hex Head	Panel to Plywood (1/2", 3/4" 5/8")
Stitch (No. 12) 3/4" 1/4" Hex Head	Trim & Side Lap
Lap Tek (No. 14) 7/8" Self Driller 5/16" Hex Head	Trim & Side Lap
Tek (No. 12) 1", 1 1/4", 2", 2 1/2" Self Driller 5/16" Hex Head	Panel to metal purlin or decking.

Screw Placement

Generally, 1” screw fasteners are placed in the flat area of the panel at 24” on center, along the length of the panel and next to each major rib approxi-mately 1/2” from the rib. If purlins are placed over 24” apart, stitching screws are recommended on the lapping rib between the purlins.

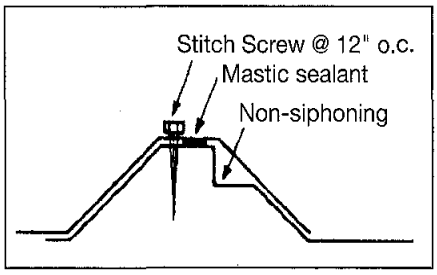


Proper Installation of Washer Fasteners



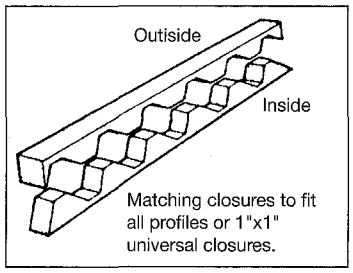
Lap Sealants

If your roof pitch is less than 3/12, a side-lap sealant is recommended. Caulk side-laps at the top of the rib. Seal end laps across the width of both the top and bottom panels, below the fasteners, and 1” to 2” above end of the overlap.



Closures

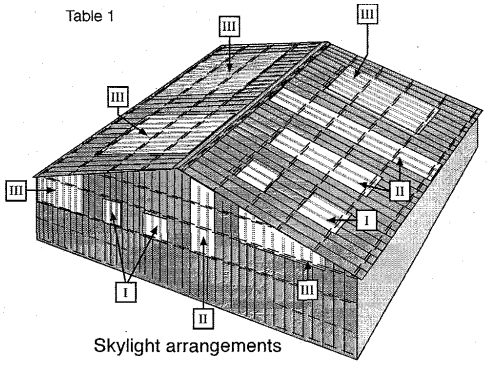
3’ Closure strips are available in all panel profiles. Closures are recommended under the ridge cap, endwalls and panels at the eave, unless ridge venting is utilized. Silicone caulking is applied to the top and bottom of the closure, and will assist in keeping closures in place.



Emseal is a better quality closure application. This product expands to fit the panel, and has an adhesive applied to the strip, which makes installation easier. Emseal lasts longer, and is highly recommended for closure applications.

Light Panels

The use of Polycarbonate panels are designed to integrate with metal roofing and siding panels, and are intended for single or multi-panel run skylights or sidelights in roof and walls of metal cladded structures.



Skylight arrangements

Figure 2

Polycarbonate panels are a better choice for skylights or side-lights. These panels have a 10 year manufacturers warranty, will not yellow or crack. They are available in three colors, which allow the following percentage of light transmission:

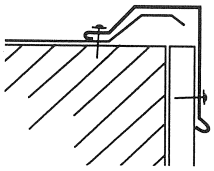
Clear - 90% of Light
Soft White - 85% of Light
White Opal - 45% of Light

Polycarbonate panels are virtually unbreakable, easily and safely installed and are hail and wind resistant. Also provide 100% UV Protection.

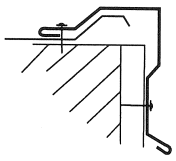
TRIMS

All trims produced by Valley Rolling are 12’4” long and manufactured using the same metal that the roofing and siding panels are produced from. The following is illustrations of trim design and installation. Any custom trim can be bent per your specifications. Take a drawing with the design needed to your dealer and we will be happy to bend a custom piece!

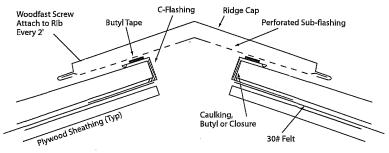
Standard Gable
Apply gable to both roof sheeting ends. Fasten at top and sides. Install before ridge cap.



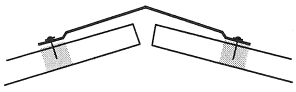
Step Gable
Aesthetically pleasing and covers the fascia board fully, Step Gable is another Gable Design. Apply Step Gable to both roof sheeting ends. Fasten at top and sides. Install before ridge cap.



Venta-Ridge System
Apply Venta-Ridge system as shown, fastening through cap and roofing at every rib. Provides adequate ventilation.

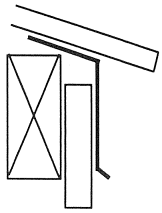


Standard Ridge Cap
Apply ridge cap as shown, fastening through cap and roofing at every rib. Ridge Cap is applied and fastened over the Gable Trim.



Eave

Apply Eave Trim prior to panel.



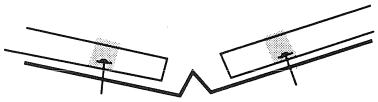
Fasten panel, screwing through to secure Eave Trim. Inside Closure strips optional. Specify Pitch.

Endwall

Fasten upstanding leg to wall every 24". Then fasten through lower leg near edge of flashing on every rib. Specify Pitch.

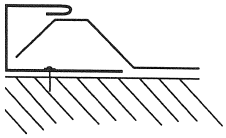
W-Valley

Prior to installing roof panels, install W-Valley. Apply 2 rows of silicone parallel, 6" to 8" up from roof valley, onto the W-Valley. Apply roof panels 4" from center of Valley.



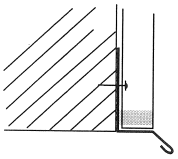
C-Casing

Apply C-Casing around door and window opening. Also used with the Venta-Ridge



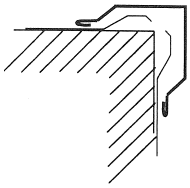
Base

Apply Base Trim to the wall prior to installing wall paneling. Fasten wall panel, securing Base Trim every 24"



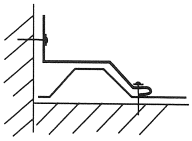
Outside Corner

Apply Outside Corner as shown. Fasten both outside edges at 24" on center.



Sidewall

Fasten lower leg to sheeting every 24". Fasten leg to wall every 24".

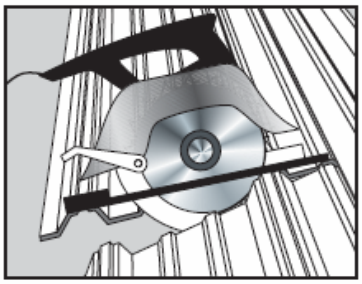


Polycarbonate Tips & Recommendation List

1. ***Always predrill and over drill panels by 1/16" larger than the screw size.*** Avoid overtightening the fasteners. Allow gaskets to squeeze slightly until full contact with the panel. Overtightening induces undue internal stresses, leading to premature failure.
2. Never use soft PVC (vinyl) washer/gaskets. Soft PVC is totally incompatible to polycarbonate and will harm the panel.
3. Never apply paints, shading compounds, paint thinners, or any material that may chemically attack the polycarbonate material.
4. Maximum span: Net spans should not exceed 5 ft. to avoid thermal expansion buckling.
5. Fastening: always use recommended fasteners for securing polycarbonate panels. Never install by nailing.
6. Extra Fastening: On long runs, where polycarbonate panel overlaps metal panels on both sides, it is recommended to use side stitching fasteners beside the main fasteners connecting the polycarbonate panel to the frame. These should be spaced along the side-laps about 12"-16" apart.
7. Cleaning: Most normal dirt & dust accumulation is washed off by periodical rains. Regular hosing of panels with clean lukewarm water is sufficient in dry areas. In polluted, oily environment mild household detergent may be used, assisted by a soft rag or brush. Never use aggressive or abrasive cleaning agents or glass window cleaners. Dry with soft rags to avoid spotting.

Sawing, Cutting & Drilling Polycarbonate Panels

1. Polycarbonate panels can be cut or sawed by manual or power tools. A bench/table circular saw is best for straight long cuts. For better results, cut a few panels together. Portable circular are suitable for on-site straight cuts. A jigsaw is used for cutting limited length of irregular or curved lines. Hand tools such as handsaw, metal shears, or hand-held cutting knives can be used for localized, limited work.



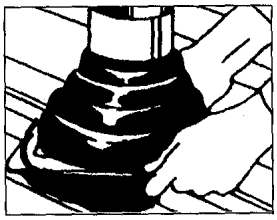
Sawing the panels

2. Sawing is done with hardwood saw blades, with small teeth, or special blades for plastics, spinning at high speeds, with a slow feed rate. Panels should be clamped during sawing, to avoid vibrations. Avoid intersecting cuts. Drill a hole at intersection point, then cut the panel to the hole.
3. Drilling is done using a power drill, with regular high-speed steel bits intended for metal, rotating at about 1,000 RPM. Better results with polycarbonate panels are achieved using bits ground to shallower tip angle than for metal. Clamp the drilled panel down to avoid vibrations or movement during operation. ***Always predrill and over drill panels by 1/16" larger than the screw size.***
4. Keep the cut area clean. Blow away saw dust and drilling swarf with compressed air.

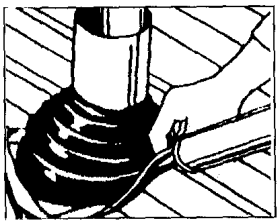
Pipe Flashing Application

Step 1 - TRIM
Trim opening to 20% smaller than pipe diameter.

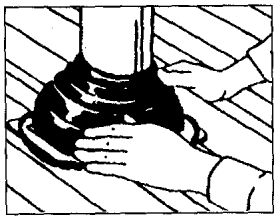
Step 2 - SLIDE
Slide pipe flashing down over pipe



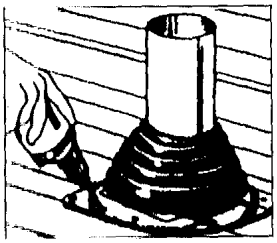
Step 3 - SEAL
Apply silicone sealant between pipe flashing and metal panel.



Step 4 - FORM
Press down, bending flashing to fit panel profile. Use large slot screw-driver to press down into tight angles.



Step 5 - FASTEN
Use fasteners to finish sealing



NOTE: Retro-fit “zipper” pipe flashings are available for electrical, weather-head pipes. Also, high temp pipe flashes available for stove pipes.

From The Glidden Company

KEEPING METAL WALLS AND ROOFS LOOKING TIP-TOP

REGULAR MAINTENANCE SUGGESTED

A regular exterior maintenance/cleaning program may be desirable in unusually dirt laden or aggressive environments.

Power washing with plain water may be adequate. When heavy dirt deposits dull the paint surface, a long handle soft bristle brush and a solution of water and detergent may be used in other situations it may be necessary to use a detergent solution in the power washer.

SUGGESTED CLEANING METALS

Strong solvent and abrasive cleaners should not be used for factory painted panels.

A good basic detergent
Cleaning solution is 1/3
Cup Tide® detergent
Dissolved in 1 gallon of
Water.

If black/green mildew is apparent, the above detergent solution should be modified as follows:

1/3 cup detergent (e.g.
Tide®)
2/3 cup tri-sodium
phosphate (e.g.
Soilex®)
1 quart 5% Sodium
hypochlorite solution
(e.g. Chlorox®)
3 quarts of water

There is not enough room here to list all the possible cleaning detergents, solutions or procedures. Consult maintenance professionals and/or label instruction for proper handling and disposal of washings. However, the last and very important step in any cleaning procedure should be thorough rinsing with clear water.

It is also advisable to test any cleaning procedure on a representative, small area for the desired results before working on a larger scale.

Caulking compounds, oil, grease, tar, wax and similar substances can usually be removed with a cloth dampened with mineral spirits. Spot clean contaminated areas only. Again, since different paint finishes show different solvent sensitivities, test a small area first. Follow any solvent cleaning procedure with a water-detergent washing and thorough clear water rinsing.

IMPORTANT: KEEP DRY

If metal panels and trims are not going to used immediately, please be sure to store the panels in a dry, well-ventilated area. Prevent moisture from building up between the panels, but ensuring that air can circulate freely between the panels, therefore, we recommend you unbundle the panels and stand them on end, if possible.

Moisture that accumulates between panels will cause the paint to bubble and white rust to form on unpainted metal. Do not store the panels in direct contact with the ground.

This booklet contains suggested application guidelines for steel roofing, siding, trims and accessories installation. Responsibility for conformance to state and local building codes rests with the installer. **Valley *Rolling* Corp**. assumes no responsibility for any problems which might occur due to improper installation.

Valley*Rolling*

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