Standard Details for Metal Roofing & Siding

Post Frame and Residential Structures

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Disclaimer
The details and written instructions described in this manual are suggested installation methods to ensure a quality application of our products, and should be considered as a guideline only. FABRAL recognizes that installation techniques can vary based upon builder and geographical preferences, and that there are other acceptable ways to install our products.
**Due to Product improvements, changes and other factors, Fabral reserves the right to change or delete information herein without prior notice or obligation to make changes in products previously purchased.**

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Installation Instructions

Building Design and Construction

In order to ensure the anticipated performance and longevity, protect metal panels from potentially corrosive situations and materials. When treated lumber will be in direct contact with metal panels or flashings please note the following: Galvanized steel is compatible with the CCA (Chromated Copper Arsenate) pressure-treated lumber that was predominantly used before 2004, but not with the older Penta treated lumber or the new ACQ (Alkaline Copper Quartenary), CA (Copper Azole), or CBA (Copper Boron Azole). Stainless steel or other special treated fasteners should be used in these non-compatible pressure treated lumbers. Aluminum must be separated from contact with all treated wood since the soluble copper in the preservative is corrosive to aluminum. Likewise, dissimilar metals also require a protective barrier between them to prevent galvanic corrosion. Request FABRAL Technical Bulletin #803, 106, and 107 for more information on treated lumber and dissimilar metals.

Plastic, builders’ felt, bituminous paint, caulking, or gasket material may be used to separate panels from treated wood and dissimilar metals. When using aluminum panels in direct contact with steel, use a separator as described above and fasten with Stainless Steel screws.

Fertilizer, lime, acids, feeds, manure, soils, and many other compounds also cause corrosion in metal panels. Contact between metal panels and any potentially corrosive materials should be prevented.

Porous insulation materials may absorb and retain moisture, and should not be used in direct contact with metal panels. Use a vapor barrier such as polyethylene plastic or 30-lb felt to prevent moisture from contacting both the insulation and the metal panel.

FABRAL’s translucent panels are intended for siding applications only. In all situations, foot traffic should be avoided on translucent panels. Translucent panels used in roofing applications will break down in a short time and cause staining and premature corrosion of the metal panels below. If used on roofs, apply butyl caulking to separate the fiberglass panels from the metal. Translucent panels should be cleaned and sealed regularly, as recommended by the translucent panel manufacturer.

Purlins, Girts and Roof Deck

The substructure to which the metal panels are fastened must be properly spaced and sufficiently thick to provide a roof or wall system able to meet required design loads.

A 2” nominal lumber thickness or 1” nominal thickness are both acceptable purlins. If snow guards are to be installed in the future, a 2 x 8 purlin can be installed in area for snow guard installation. Call engineer for locations of 2 x 8 purlins. When using purlins, FABRAL recommends a maximum spacing of 24” on-center (note that 5V requires solid deck). Pullout values decrease if the fasteners protrude completely through the purlins. Kiln-dried softwood is recommended for purlins or decking (pine, fir, hemlock, and spruce). Hardwoods are difficult to fasten into without splitting and contain tannic acids that are corrosive to metal panels. Green (non-kiln-dried) lumber may warp, twist, and shrink as the wood seasons fully, causing waviness in the panels as well as loosening and leaking of the fasteners.

Solid decking is highly recommended for all residential applications. When using solid decking or sheathing, always use 30-lb felt or underlayment and plan on using closer fastener spacing and larger diameter #14 screws. (Refer to the tables on page 31).

On re-roofing projects where the condition of the old decking is in question, or where existing shingles will be left in place, new 2x4 or 1x4 purlins should be fastened through the decking and into the rafters. This will provide a solid framework for attaching the metal panels. For more detailed information on Re-roofing applications, consult FABRAL Technical Bulletin #721, Re-Roofing With Metal. Load tables are available for all FABRAL panels; contact FABRAL for additional information.

Roofing

Panel sidelaps should face away from wind driven rain. To accomplish this, begin by installing the first sheet square with the eave and gable at the down wind end of the roof, farthest away from the source of prevailing winds or away from the primary viewing location.

In applications requiring a panel endlap, please refer to the detailed instructions in this booklet. For best results, lap panels as shown and install in the indicated sequence. All endlaps require sealant. When weather-tightness is critical, use sealant tape in all endlaps.

To provide a drip edge, allow an overhang of 1 to 2 inches at the eave. At the gable edge, use a gable or sidewall flashing. This will keep weather out, prevent lifting in high winds, and provide a neat, finished appearance. The trim and roofing sheet should be fastened every 12 to 24 inches along the gable edge. Do not step on panel ribs or on trim pieces to prevent kinking.

Roof Pitch

The metal roofing panels shown in this manual require a minimum slope of 2½” per foot to ensure proper drainage. Refer to the rain-carrying table in this booklet for the maximum allowable panel length per slope that will provide adequate drainage. For longer slopes and lower roof pitches, contact FABRAL for other suitable profiles.

Bending and Bowing

Aluminum roofing and siding sheets are rollformed from hardened, tempered metal for maximum strength. If a sheet must be bent, a gentle 90-degree bend is the maximum recommended. Metal should not be re-bent once it has been formed, nor should it be folded back on itself. When a metal roofing sheet must be installed on a curved roof, screws should be installed at every overlapping rib at the sheet ends to resist the natural tendency of the metal to spring back. The standard fastening pattern is permitted over the rest of the sheet. When installing the metal panels shown in this booklet over a curved arch, the minimum radius of the arch is 18’ for aluminum panels and 24’ for steel panels. Use sealant tape or butyl caulking at all sidelaps and endlaps.

Additional care and fasteners must be provided when securing the top and bottom purlins on an arched rafter building to prevent the curved panels from pulling the purlins loose from the rafters. Ring-shank pole barn nails, heavy wood screws, lag screws, or bolts are often used for attaching these purlins.

Siding

Siding should be installed using the standard fastening and overlap patterns to ensure optimum performance. For strong, neat corners use hemmed corner flashings. Do not run siding sheets all the way to the ground. Instead, provide a protective base of concrete, masonry, treated wood, or similar material and terminate the siding sheets 6” above grade.

If siding sheets are installed horizontally, use sealant tape or butyl caulking at the vertical laps to ensure weather-tight joints. Install panels from the bottom up so that water is directed away from, and not into, the lap joints.
Installation Instructions

Fastening
FABRAL can supply either screws or nails for fastening into dimension lumber. Always use screws with solid sheathing. Screws for use with steel panels are galvanized and then coated with an organic polymer for optimum corrosion resistance. For best results with aluminum panels, use #300 series stainless steel screws.

The FabrOseal® galvanized ring-shank nail, with its premium long-life silicone rubber gasket, assures a lasting seal and is the best nail available for steel panels when screws are not the method being used by the installer.

The correct way to fasten steel panels with nails is to drive the nail through the top of the rib so the washer is compressed securely against the metal. Nail placement must be in the ribs for roofing applications to minimize the potential for roof leaks. Over-driving the nail can split the washer and dimple the metal, causing leaks.

Wood screws with combination metal and neoprene washers should be installed in the flat area of the panel adjacent to the ribs, and tightened such that the washer is compressed as illustrated above. This will ensure a lasting, leak-proof seal. Remove any metal filings created by the drilling action of the screws or predrilling of the holes to avoid rust staining on the panel surface. Refer to the fastening schedules in this booklet for the correct fastener locations.

Flashing and Trim
Always begin flashing installation from the bottom and work up, so that upper flashings are lapped on top of lower flashings. This will prevent moisture from leaking under the flashings and into the structure. Endlap flashings a minimum of 6" and seal the lap joints with sealant. Extend flashings 4-6" beyond the building, cut along the bend lines, apply sealant, and fold the side flaps in and the top flaps down to cap off the ends. Secure with pop-rivets or stitch screws.

Some roof conditions, such as valleys, may require a longer endlap and/or a larger flashing to properly drain moisture from the roof. Factors that influence flashing size, shape, and endlap requirements include roof pitch, roof geometry, slope length, and climatic factors (such as heavy snowfall or rainfall).

Whenever possible, begin trim installation at the downwind end of the roof, farthest away from the source of prevailing winds, to allow flashing laps to face away from wind-driven rain. Refer to the details in this book for the proper location of fasteners and sealants.

The flashings and trims shown in this book are standard parts. Custom trims are available to meet your specific design needs. If you need a special trim, please furnish a drawing of the desired shape, including dimensions and angles, to your Fabral dealer to obtain pricing and availability.

Refer to the SMACNA Architectural Sheet Metal Manual for additional information about detailing and installing flashings.

Safety
Always work safely when installing metal products and use extreme caution on the roof at all times. Wear gloves and safety glasses to reduce the risk of injury, and use hearing protection when operating power tools. Always be sure that ladders are safely positioned and properly secured. Safety harnesses or other special equipment may be required; be sure to consult OSHA guidelines for compliance with all safety requirements.

Do Not walk on panels until all the fasteners are installed. Metal roofing panels are slippery when wet, dusty, frosty, or oily -- Do Not attempt to walk on a metal roof under these conditions. Wear soft-soled shoes to improve traction and to minimize damage to the paint finish. Always be aware of your position on the roof relative to any roof openings, roof edges, co-workers, and penetrations. Installing metal panels or flashings on a windy day can be dangerous and should be avoided if possible.

Cutting Aluminum Panels
To make a cut parallel to the ribs, score the panel deeply with a sharp utility knife and bend back- and- forth along the score, breaking the metal off cleanly. For cuts across the ribs, use straight-cut snips, electric or pneumatic shears, a portable profile shear, or an electric nibbler. Some installers prefer using a circular saw with a metal cutting blade (a fine-tooth hardwood blade, or a standard combination blade reversed in the saw works also). Light oil or soap on the blade will make cutting easier.

Cutting and Drilling Steel Panels
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-consum ing 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 filings 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-gage 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 the filings.

Building Maintenance
A metal roof should be inspected annually and cleaned as necessary to maintain its beauty and performance. Any debris or residue, including leaves, twigs, and dust should be cleaned off promptly to prevent moisture entrapment against the metal, which may lead to finish deterioration or premature corrosion. Flashings may need to be re-sealed periodically in order to maintain optimum weathertightness.

Proper Storage
Store metal panels indoors when possible; if outdoors, cover and elevate. Elevate one side higher for water drainage. Never cover in plastic; use a tarp that can breath. Allow for air circulation. If a bundle gets wet, break bands and separate sheets; allow sheets to dry completely and only restack if completely dry. Product should be stored for a maximum of 2-4 weeks before being installed.
Paint System & Warranties

Enduracote® is a paint system that takes performance to the next level. Based on cutting edge resin technology, this system offers unbeatable durability and superior long-term performance against the elements.

The Enduracote® Warranty for Galvanized Panels
- Lifetime film integrity for walls & roofs
- 30-year against fade & chalk for walls and roofs
- 10-year edge rust against acid rain
  For profiles: Grand Rib 3®, Alu-Tuff II, 5V Crimp, ProClad, StrongClad, Prime Rib

The Enduracote® Warranty for Galvalume Panels
- Lifetime film integrity for walls & roofs
- 30-year against fade & chalk for walls and roofs
- 20 year non-perforation warranty
  For profiles: 1 1/2" SSR, Climaguard™, MIGHTI-Rib®, Horizon S, Horizon 16, Ultra-Loc, Ultra-Rib

The Enduracote® PLUS Warranty
- Lifetime film integrity for walls & roofs
- 30-year against fade & chalk for walls and roofs
- 15-year edge rust against acid rain
- 25-year non-perforation against acid rain for walls;
  20-years for roofs
  For profiles: GrandRib 3® PLUS, Alu-Tuff

Other Warranties
Polyester Paint Warranty
- 25-year limited film integrity
- 10-year against fade & chalk
  For profiles: MP Panel, Shelterguard®, 5-Rib

Galvalume Perforation Warranty
- 20-year non-perforation warranty for GrandRib 3®, Mighti-Rib®, Climaguard™ and 1 1/2" SSR profiles

Aluminum-Zinc Alloy Warranty
- 20-year limited non-perforation
  For Bare Galvalume® Products

Aluminum Product Guarantee
- 30-year corrosion guarantee

The Energy Star® Program
The Energy Star Program promotes highly reflective roof systems that reflect solar energy. These roof systems allow buildings to stay cooler and, in turn, use less electricity for air conditioning; less electricity means a reduction in power generation and a reduction of pollutants discharged at power plants. Fabral has attained Energy Star approval for many of its Enduracote™ system colors. Ask for Technical Bulletin #724 titled “Energy Star Approval”, for program details and a list of approved Enduracote™ colors.

All Fabral Enduracote Colors are Energy Star Approved

Please contact your Fabral representative for more information about Fabral warranties and paint systems.
Steel Panel Profiles

Grandrib 3®
29 Gauge steel, Plain, and Painted Galvanized

MP Panel™
Screw patterns are the same as the Grandrib 3

Alu-Tuff

5V Crimp
USE ON SOLID DECKING

Mighti-Rib®

*Not all profiles are available in all areas. Please contact Fabral for availability.
Steel Panel Profiles

2 1/2" Corrugated

NAIL PATTERN
- ROOFING - INTERMEDIATE SUPPORTS
- ROOFING - EAVES, Ridges, AND ENDLAPS
- SIDING - ALL SUPPORTS

SCREW PATTERN
- ROOFING - INTERMEDIATE SUPPORTS
- ROOFING - EAVES, Ridges, AND ENDLAPS
- SIDING - ALL SUPPORTS

Screw Pattern

ROOFING - INTERMEDIATE SUPPORTS
ROOFING - EAVES, RIDGES, AND ENDLAPS
SIDING - ALL SUPPORTS

XPRT 936

38 3/8" Formed Width
36" Coverage

5/8"

Intermediate Roof Purlins and All Siding
Eaves and Endlaps - Roof Purlins

*Not all profiles are available in all areas. Please contact Fabral for availability.

Other Steel Profiles Available

1 1/2" SSR™
24 Gauge Standing Seam Roofing

16" Coverage
Shadow lines standard
Factory applied sealant.

Prime Rib®

16" Formed Width
36" Coverage

1/2"

Climaguard™
26 Gauge Standing Seam Roofing

12" or 16" Coverage
5 3/8"
Factory Applied Sealant

Horizon S
26 Gauge Standing Seam Roofing

16" Coverage Standard
(12" coverage available with additional lead times.)
Shadow lines standard
Factory applied sealant.

Grandbeam®
26 Gauge Roofing & Siding

*The panels above are available at certain locations and have their own particular details, flashings, and accessories. Please contact Fabral for more information.
Aluminum Panel Profiles

Grandrib 3°

Alu-Tuff

ROOFING - EAVES, RIDGES, AND ENDLAPS
ROOFING - INTERMEDIATE SUPPORTS
SIDING - ALL SUPPORTS

Strongrib®

.016 Aluminum, Plain, and Painted White

SCREW PATTERN
INTERMEDIATE ROOF PURLINS AND ALL SIDING
EAVE AND ENDLAPS - ROOF PURLINS

Fabrib

ROOFING - EAVES, RIDGES, AND ENDLAPS
ROOFING - INTERMEDIATE SUPPORTS
SIDING - ALL SUPPORTS

AluTwin

ROOFING - EAVES, RIDGES, AND ENDLAPS
ROOFING - INTERMEDIATE SUPPORTS
SIDING - ALL SUPPORTS

2 1/2" Corrugated

ROOFING - EAVES, RIDGES, AND ENDLAPS
ROOFING - INTERMEDIATE SUPPORTS
SIDING - ALL SUPPORTS

*Not all profiles are available in all areas. Please contact Fabral for availability.
Post Frame Estimating & Roof Types

Estimating Metal Roofing, Siding & Flashings

Panel lengths are to be determined by the truss top chord or actual field measurements. Remember to add for overhangs at the eaves; subtract for a gap at the ridge. Siding should be kept up away from the ground with a skirt board.

Number of Panels

The coverage of the panel being used will determine the number of panels at a length (i.e.: 3’ coverage panel on a 30 ft. long building would require 10 panels on each side of the ridge or 20 panels at the particular length.)

Horizontal Measurement to a Roof

Divide the building width in half, then multiply by the slope factor (i.e.: 40’ wide building with 4/12 slope. 40 divided by 2 equals 20’ times 1.054 equals 21’-1” in slope dimension.) Allow for 1/2” to 1” gap at peak and 1” to 2” eave overhang.

<table>
<thead>
<tr>
<th>Roof Pitch</th>
<th>Slope Factor</th>
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<tbody>
<tr>
<td>3/12</td>
<td>1.031</td>
</tr>
<tr>
<td>4/12</td>
<td>1.054</td>
</tr>
<tr>
<td>5/12</td>
<td>1.083</td>
</tr>
<tr>
<td>6/12</td>
<td>1.120</td>
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<tr>
<td>8/12</td>
<td>1.202</td>
</tr>
<tr>
<td>10/12</td>
<td>1.302</td>
</tr>
<tr>
<td>12/12</td>
<td>1.414</td>
</tr>
</tbody>
</table>

Flashing Conditions

Roof - Eave, Ridge, Gable, Sidewall, Endwall, Valley, Hip, Transition, Gambrel, Soffits
Siding - Base Perimeter, Corners, Inside Corners, Man Doors, Windows, Sliding Doors, Overhead Doors

Please contact Fabral’s Engineering Department for all your estimating & specification needs.

1-800-477-2741
717-735-1257 Fax
Post Frame Building Details

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Gable/Rake pg 11, 14, 18-20
Zee pg 13
Base Guard pg 13, 25
Drip Cap pg 14
J-Channel/Doors/Windows pg 11, 13, 26-27, 30
Endwall pg 12, 21
Inside Corner pg 13, 25
Sidewall pg 12, 22
Eave pg 11, 15-16
Outside Corner pg 13, 24
Sliding Door Track Covers pg 28-29
Post Frame Flashing Details

ENDLAP

1. Apply 3/32" x 1/2" butyl endlap sealant on bottom panel just below centerline of purlin (see endlap diagram for location) on panel #1.
2. Apply sidelap sealant on panel #1 and connect to endlap sealant.
3. Place panel #2 so it overlaps panel #1, 12" as shown. Install screws per endlap fastening pattern.
4. Apply sidelap sealant on panel #2 to connect to sidelap sealant of panel #1.
5. Place panel #3 over sidelap of #1 and #2.
6. Apply endlap sealant on panel #3.
7. Apply sidelap sealant on panel #3 and connect with endlap sealant.
8. Place panel #4 over endlap of panel #3. Install screws per endlap pattern.
9. Repeat sequence for entire roof.

ALLOWABLE PANEL LENGTHS (ft.) ALONG THE SLOPE FOR 4" RAINFALL PER HOUR

<table>
<thead>
<tr>
<th>Panel Name</th>
<th>Minimum Slope</th>
<th>2 1/2:12</th>
<th>3:12</th>
<th>3 1/2:12</th>
<th>4:12</th>
<th>5:12</th>
<th>6:12</th>
</tr>
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<tbody>
<tr>
<td>Alu-Tuff</td>
<td>2 1/2:12</td>
<td>58</td>
<td>61</td>
<td>64</td>
<td>67</td>
<td>73</td>
<td>78</td>
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<tr>
<td>Grandrib 3</td>
<td>2 1/2:12</td>
<td>58</td>
<td>61</td>
<td>64</td>
<td>67</td>
<td>73</td>
<td>78</td>
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<tr>
<td>Prime Rib</td>
<td>2 1/2:12</td>
<td>39</td>
<td>41</td>
<td>43</td>
<td>45</td>
<td>49</td>
<td>53</td>
</tr>
<tr>
<td>5V</td>
<td>2 1/2:12</td>
<td>43</td>
<td>45</td>
<td>47</td>
<td>49</td>
<td>54</td>
<td>58</td>
</tr>
<tr>
<td>2 1/2&quot; Corrugated</td>
<td>2 1/2:12</td>
<td>28</td>
<td>29</td>
<td>31</td>
<td>32</td>
<td>35</td>
<td>38</td>
</tr>
<tr>
<td>1 1/4&quot; Corrugated</td>
<td>2 1/2:12</td>
<td>16</td>
<td>16</td>
<td>17</td>
<td>18</td>
<td>20</td>
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<tr>
<td>Alutwin</td>
<td>2 1/2:12</td>
<td>37</td>
<td>39</td>
<td>41</td>
<td>43</td>
<td>46</td>
<td>50</td>
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<tr>
<td>Fabrib</td>
<td>2 1/2:12</td>
<td>32</td>
<td>34</td>
<td>36</td>
<td>38</td>
<td>41</td>
<td>44</td>
</tr>
</tbody>
</table>

Notes For Rain-Carrying Tables

1. All values based on a 1-hour duration storm of 4"/hr. intensity.
2. Values represent the point at which the panel ribs will flood.
3. Size and frequency of penetrations can greatly reduce the amount of water removed from a roof.
4. All panel endlaps must be caulked.
5. When weather-tightness is critical, use sealant tape in all sidelaps.
Standard Post Frame Flashing/Trims

All flashing is 10’ 6” in length & available in steel & aluminum, unless otherwise noted. Please contact Fabral for specifics on the trim available in your area.
Standard Post Frame Flashing/Trims

AGRN4
For Grandrib 3 40 1/2" Length
Notched Gambrel Flash

RV1
Valley Flash
Customer to specify roof pitch

AT1
Transition Flash
Typical for 8/12 to 4/12
(otherwise specify pitches)
Steel Only

RV2
W-Valley Flash
Steel Only
Customer to specify roof pitch

ASW1
Sidewall/Endwall Flash

AB1
Soffit Box

AB2
Soffit Box

AEWN4
For Grandrib 3 40 1/4" Length
Notched Endwall Flash

AB3
Soffit Box

AB4
Soffit Box

AEWN4
For Grandrib 3 40 1/4" Length
Notched Endwall Flash

AT2
Gambrel Flash
Typical for 3/12 to 15/12
(otherwise specify pitches)

See page 33 for Standard Residential Flashings/Trim
Standard Post Frame Flashing/Trims

AC1
Corner
Aluminum 10'
14'-6" in select colors

AL2,3,4,5
Angle Flashing
AL2 = 3 1/2"
AL3 = 5 1/2"
AL4 = 7 1/4"
AL5 = 9 1/4"

AZ2
Zee

AC2
Inside Corner

ABG1
Base Guard

AJ4
Jamb Trim
Steel Only
(For 2x wood)

AL6
Angle Flashing

AC3
Corner
Available in Lancaster service area only

AJ3
J-Channel
For Grandrib 3, Strongrib and all other Agri panels

AL7
Angle Flashing

AH5
10'-6" Length
Face-Mount Track Cover
for Cannonball Track with
2" Track Plank
(Replaces STC-503)
Matches Cannonball Trim #646225

AH3
10'-6" Lengths
Fits National 5100, 5103
and 5105 box rail.
Matches National trim #5120
(Replaces STC-504)

AJ2
Jamb Trim
Steel Only

See page 33 for Standard Residential Flashings/Trim
Standard Post Frame Flashing/Trims

See page 33 for Standard Residential Flashings/Trim

Post Frame Flashing Details

BOX GABLE

2" LONG FASTENER @ 24" C/C MAX

ROOFING

SEALANT TAPE

FLASH AG-1

SEALANT TAPE

FASTENER 24" C/C MAX

FLASH AB-1, AB-2, AB-3, OR AB-4

SIDING

OUTSIDE CLOSURE (OPTIONAL)

7 1/2" OR 11 1/2"

FASTENER @ EVERY MAIN RIB OR 12" C/C MAX.

1"x6" FASCIA

SEALANT TAPE

TOP & BOTTOM OF CLOSURE

SEALANT TAPE

ROOF PURLIN

END RAFTER

AD1 Drip Cap

AC4 Corner Steel Only

AJ5 Jamb Trim Steel Only (For 4x wood)

AB-1, AB-2, AB-3, OR AB-4 FASTENER @ EVERY MAIN RIB OR 12" C/C MAX.

24" C/C MAX

Standard Post Frame Flashing/Trims

See page 33 for Standard Residential Flashings/Trim

AC4 Corner Steel Only

AD1 Drip Cap

AB-1, AB-2, AB-3, OR AB-4 FASTENER @ EVERY MAIN RIB OR 12" C/C MAX.

24" C/C MAX

Standard Post Frame Flashing/Trims

See page 33 for Standard Residential Flashings/Trim

AC4 Corner Steel Only

AD1 Drip Cap

AB-1, AB-2, AB-3, OR AB-4 FASTENER @ EVERY MAIN RIB OR 12" C/C MAX.

24" C/C MAX

Standard Post Frame Flashing/Trims

See page 33 for Standard Residential Flashings/Trim

AC4 Corner Steel Only

AD1 Drip Cap

AB-1, AB-2, AB-3, OR AB-4 FASTENER @ EVERY MAIN RIB OR 12" C/C MAX.

24" C/C MAX

Standard Post Frame Flashing/Trims

See page 33 for Standard Residential Flashings/Trim

AC4 Corner Steel Only

AD1 Drip Cap

AB-1, AB-2, AB-3, OR AB-4 FASTENER @ EVERY MAIN RIB OR 12" C/C MAX.

24" C/C MAX

Standard Post Frame Flashing/Trims

See page 33 for Standard Residential Flashings/Trim

AC4 Corner Steel Only

AD1 Drip Cap

AB-1, AB-2, AB-3, OR AB-4 FASTENER @ EVERY MAIN RIB OR 12" C/C MAX.

24" C/C MAX

Standard Post Frame Flashing/Trims

See page 33 for Standard Residential Flashings/Trim

AC4 Corner Steel Only

AD1 Drip Cap

AB-1, AB-2, AB-3, OR AB-4 FASTENER @ EVERY MAIN RIB OR 12" C/C MAX.

24" C/C MAX

Standard Post Frame Flashing/Trims

See page 33 for Standard Residential Flashings/Trim

AC4 Corner Steel Only

AD1 Drip Cap

AB-1, AB-2, AB-3, OR AB-4 FASTENER @ EVERY MAIN RIB OR 12" C/C MAX.

24" C/C MAX

Standard Post Frame Flashing/Trims

See page 33 for Standard Residential Flashings/Trim

AC4 Corner Steel Only

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24" C/C MAX

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24" C/C MAX

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See page 33 for Standard Residential Flashings/Trim

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Standard Post Frame Flashing/Trims

See page 33 for Standard Residential Flashings/Trim

AC4 Corner Steel Only

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24" C/C MAX

Standard Post Frame Flashing/Trims

See page 33 for Standard Residential Flashings/Trim

AC4 Corner Steel Only

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24" C/C MAX

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See page 33 for Standard Residential Flashings/Trim

AC4 Corner Steel Only

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AB-1, AB-2, AB-3, OR AB-4 FASTENER @ EVERY MAIN RIB OR 12" C/C MAX.

24" C/C MAX

Standard Post Frame Flashing/Trims

See page 33 for Standard Residential Flashings/Trim

AC4 Corner Steel Only

AD1 Drip Cap

AB-1, AB-2, AB-3, OR AB-4 FASTENER @ EVERY MAIN RIB OR 12" C/C MAX.

24" C/C MAX

Standard Post Frame Flashing/Trims

See page 33 for Standard Residential Flashings/Trim

AC4 Corner Steel Only

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AB-1, AB-2, AB-3, OR AB-4 FASTENER @ EVERY MAIN RIB OR 12" C/C MAX.

24" C/C MAX

Standard Post Frame Flashing/Trims

See page 33 for Standard Residential Flashings/Trim

AC4 Corner Steel Only

AD1 Drip Cap

AB-1, AB-2, AB-3, OR AB-4 FASTENER @ EVERY MAIN RIB OR 12" C/C MAX.

24" C/C MAX

Standard Post Frame Flashing/Trims

See page 33 for Standard Residential Flashings/Trim

AC4 Corner Steel Only

AD1 Drip Cap

AB-1, AB-2, AB-3, OR AB-4 FASTENER @ EVERY MAIN RIB OR 12" C/C MAX.

24" C/C MAX

Standard Post Frame Flashing/Trims

See page 33 for Standard Residential Flashings/Trim

AC4 Corner Steel Only

AD1 Drip Cap

AB-1, AB-2, AB-3, OR AB-4 FASTENER @ EVERY MAIN RIB OR 12" C/C MAX.

24" C/C MAX

Standard Post Frame Flashing/Trims

See page 33 for Standard Residential Flashings/Trim

AC4 Corner Steel Only

AD1 Drip Cap

AB-1, AB-2, AB-3, OR AB-4 FASTENER @ EVERY MAIN RIB OR 12" C/C MAX.

24" C/C MAX

Standard Post Frame Flashing/Trims

See page 33 for Standard Residential Flashings/Trim

AC4 Corner Steel Only

AD1 Drip Cap

AB-1, AB-2, AB-3, OR AB-4 FASTENER @ EVERY MAIN RIB OR 12" C/C MAX.
Post Frame Flashing Details

EAVE

FLASH CE-1

SEALANT TAPE TOP & BOTTOM OF CLOSURE

FASTENER @ EVERY RIB OR 12" C/C MAX.

OUTSIDE CLOSURE (OPTIONAL)

SIDING

FASTENER

INSIDE CLOSURE

ROOF PANEL

SEALANT TAPE TOP & BOTTOM OF CLOSURE

FASTENER PER STANDARD EAVE PATTERN

ROOF TRUSS

POST

TOP PLATE

CE-1

Denver Eave

4½"

3"

AB-1, AB-2, AB-3, OR AB-4 AS REQUIRED

THICKNESS OF SIDING

PROVIDES 8" OR 12" OVERHANG WITH GRANDRIB 3, ALU-TUFF, OR STRONGRIB SIDING

BOX EAVE

FASTENER PER STANDARD EAVE PATTERN

MODIFIED AL-2

FASTENER @ 24" C/C MAX.

5½" OR 7½"

SEALANT TAPE

FLASH AB-1, AB-2, AB-3, OR AB-4 AS REQUIRED

7¼" OR 11¼"

SIDING

FASTENER

INSIDE CLOSURE

ROOF PANEL

SEALANT TAPE TOP & BOTTOM OF CLOSURE

AB-1 Soffit Box

AB-2 Soffit Box

AB-3 Soffit Box

AB-4 Soffit Box

11½"
Post Frame Flashing Details

VENTED EAVE

INSIDE CLOSURE WITH SEALANT TAPE TOP & BOTTOM

FASTENER PER STANDARD EAVE PATTERN

EAVE TRIM

FASCIA BOARD

FABRAL METAL ROOF PANEL

TRUSS OR RAFTER

16" COVERAGE

FASCIA L-TRIM, AL-3, 4, OR 5

FABRAL METAL SIDING PANEL

FABRAL ALUMINUM SOFFIT

RIDGE/PEAK - NON VENTED

2" LONG FASTENER @ EVERY MAIN RIB OR 12" C/C MAX.

AR-3, RIDGE FLASHING

OUTSIDE CLOSURE (ON HIP ROOFS, USE 1"X1"X19'-8" SEALER STRIP & RR-1 FLASHING)

SEALANT TAPE TOP & BOTTOM OF CLOSURE

PURLIN

GAP AS REQUIRED

If closures are omitted, Fabral suggests using screen wire between panels and ridge gap area to keep insects and birds out of attic area. Closures and sealant are recommended for optimum weather resistance.
VersaVent RX-10 Factory Applied To Ridge Cap
Vent Material and Ridge Cap Install As A Unit

ALTERNATE VENTED RIDGE

Fabral RR-1 Ridge Flash with CoraVent (shown). The RR-1 can be modified to fit many other solid, plastic vents. Other solid, plastic vents (ie..Ridge Master,...) are available from local lumberyards or dealers. The metal ridge flashing may have to be customized to fit the particular vent. Mesh vents or fiber-type vents are not recommended because a metal ridge can not be fastened securely. They are not rigid enough to give good support or appearance to the metal flash. CoraVent is available from Fabral.
Post Frame Flashing Details

ALTERNATE VENTED RIDGE

Profile Vent is pre-notched and self adhesive. Fabral stocks Profile Vent for Grandrib 3, Alu-Tuff, and 5v Crimp.

GABLE - STRONGBRIB, GRANDRIB 3
Post Frame Flashing Details

GABLE - FABRIB

FLASH AG-4

FASTENER @ 24" C/C MAX

ROOFING

OPTIONAL SEALANT TAPE
TOP & BOTTOM
OF CLOSURE

END RAFTER

OUTSIDE CLOSURE
(OPTIONAL)

SIDING

FASTENER @ 24" C/C MAX

SEALANT TAPE

PURLIN

GABLE - GRANDRIB 3, STRONGRIB

FLASH AC-1 OR AC-4

FASTENER @ 24" C/C MAX

ROOFING

OPTIONAL SEALANT TAPE
TOP & BOTTOM
OF CLOSURE

FASTENER @ 24" C/C MAX

END RAFTER

OUTSIDE CLOSURE
(OPTIONAL)

SIDING

SEALANT TAPE

PURLIN
Post Frame Flashing Details

FLYING GABLE DETAIL

OVERHANG PANELS TO CREATE APPROX. 1" OVERHANG

FASTENER

ROOF FELT

SEALER STRIP (ASPHALT IMPREGNATED)

BUTYL SEALANT TOP AND BOTTOM OF SEALER STRIP

CE1

FASCIA BOARD
Post Frame Flashing Details

ENDWALL

- Flash ASW-1
- Roof panel
- Inside closure
- Girt
- Sealant tape top & bottom of closure
- Outside closure
- Fastener per standard eave pattern

2” fastener @ every main rib or 12” C/C MAX.

ENDWALL - NOTCHED

- Flash notched flash AEW-N4 or AEW-N5
- Roof panel
- Inside closure
- Girt
- Sealant tape top & bottom of closure
- Outside closure
- Fastener per standard eave pattern

2” fastener @ every main rib or 12” C/C MAX.
Post Frame Flashing Details

SIDEWALL

SEALER STRIP WITH BUTYL SEALANT TAPE

SIDING

FASTENER PER STANDARD EAVE PATTERN

SPACE AS REQUIRED

FLASH ASW-1 FIELD BEND AS REQUIRED

2" FASTENER @ 24" C/C MAX.

PURLIN

SLOPING RAFTER

SEALANT TAPE

VALLEY

BUYTL SEALANT TOP & BOTTOM OF SEALER STRIP

CUT PANEL AS NECESSARY

6" MINIMUM

LARGER VALLEYS MAY BE REQUIRED FOR LONG PANEL RUNS OR HEAVY SNOW AREAS.

METAL ROOF PANEL

SCREWS EACH SIDE OF MAIN RIB (EAVE/ENDLAP PATTERN)

RV-2 SHOWN

ROOF STRUCTURE SOLID 2X'S OR PLYWOOD

ROOF FELT AND ICE & WATER SHIELD

SEALER STRIP, 1"x1"x19'-8" BLOCK CLOSURE FILLS RIB VOIDS

NOTE: VALLEY FLASH MUST HAVE SOLID SUPPORT.

FOR ADDITIONAL INFORMATION ON THE VALLEY DETAIL REFER TO PAGES 42 AND 43 OF THIS BOOK.
**Post Frame Flashing Details**

**GAMBREL**

- **BUTYL SEALANT TAPE**
  - TOP & BOTTOM OF CLOSURE

- **INSIDE CLOSURE**

- **FLASH AT-2 OR AGR-N4 (GRANDRIB 3)**
  - 2" FASTENER @ EVERY MAIN RIB OR 12" C/C MAX.
  - BUTYL SEALANT TAPE
    - TOP & BOTTOM OF CLOSURE

- **OUTSIDE CLOSURE**

- **FASTENER PER STANDARD EAVE PATTERN**

---

**NOTE:** Specify both roof pitches for AT-2 flash. AGRN-4 for Grandrib 3 and AGRN-5 for Strongrib are for 3/12 to 15/12 Gambrel's

---

**TRANSITION**

- **BUTYL SEALANT TAPE**
  - TOP & BOTTOM OF CLOSURE

- **INSIDE CLOSURE**

- **FLASH AT-1**
  - 2" LONG FASTENER @ EVERY MAIN RIB OR 12" C.C MAX.

- **BUTYL SEALANT TAPE**
  - TOP & BOTTOM OF CLOSURE

- **ROOF PANEL**

- **OUTSIDE CLOSURE**

- **FASTENER PER STANDARD EAVE PATTERN**

---

**NOTE:** Specify both roof pitches when ordering AT-1. Standard is 9/12 to 3/12.
Post Frame Flashing Details

MONOSLOPE RIDGE

MONOSLOPE RIDGE CAP

METAL CLOSURE (RIDGE)
Butyl Sealant tape
Top & Bottom of Closure

#10x1" WOODFAST PAINTED SCREW

SIDING

ROOF SHEATHING

2" Ridge Screws Every Rib

OUTSIDE CORNERS

* Available in Lancaster service area only.
Post Frame Flashing Details

INSIDE CORNER

- FASTENER @ 24" C/C MAX.
- FLASH AC-2
- POST
- SEALANT TAPE
- GIRT

BASE GUARD

- BARRIER BETWEEN METAL AND ACQ TREATED LUMBER
- TREATED BASE PLANK
- FLOOR 4"
- 6" MIN.
- FLASH ABG-1
- GRADE
- SIDING PANEL
- INSIDE CLOSURE (OPTIONAL)
- STAINLESS STEEL FASTENER PER STANDARD SIDING PATTERN
- 4"
Post Frame Flashing Details

**DOOR JAMBS**

- Door Jamb
- Door
- Fastener
- Girt
- Siding
- Door Stop
- Flash PJFB

**FLASH AL-2, AL-3, AL-4, AL-5, OR AL-7 DEPENDING ON WIDTH OF JAMB**

- Sealant
- Flash AJ-3

**FIELD BEND OR CUT THIS AREA IF NECESSARY**

- Sealant Tape
- Girt
- Siding
- Fastener

- Door
- 1x3 Door Stop
- Flash AJ-2
Post Frame Flashing Details

OVERHEAD DOOR JAMBS

1 x 3 GUIDE
FLASH AL-5 OR AL-7
FASTENER
SEALANT TAPE
FLASH AJ-4
DOOR OPENING

FIELD BEND OR CUT THIS AREA IF NECESSARY

DOOR JAMB
GIRT
SIDING
FASTENER
FLASH AL-3, AL-4, AL-5 OR AL-7
SEALANT
FLASH AJ-3

DOOR JAMB
POST
GIRT
SIDING
FASTENER

FLASH PJFB

DOOR
1 x 3 GUIDE
GIRT
SIDING
FASTENER
FLASH AJ-2
DOOR OPENING
Post Frame Flashing Details

DOOR HEADER

SIDING

DOOR HEADER

FASTENER PER SIDING PATTERN

FLASH AD-1

DOOR STOP

MAN DOOR

OVERHEAD DOOR

FLASH AL-2, AL-3, AL-4, AL-5 OR AL-7

SLIDING DOOR JAMB DETAIL

POST

WALL GIRT

OPTIONAL AL-3 TRIM

AJ-4 JAMB TRIM

2 x 2 FILLER BLOCK

SIDING PANEL

FLASH AL-6

SEALANT TAPE

FLASH AJ-3

FASTENER

SIDING

SLIDING DOOR

NOTE: QUICK FRAME REPLACES AL-6 AND AJ-3
Post Frame Flashing Details

SLIDING DOOR HEADER DETAIL

FLASH AH-2, AH-3 (SHOWN), AH-4, OR AH-5. REFER TO PAGE 11 FOR CORRECT FLASHING FOR PARTICULAR MANUFACTURER'S DOOR TRACK BEING USED.

SIDING ON SLIDING DOOR

2x6 TRACK BOARD

2x2 FILLER BLOCK

SIDING BEYOND OPENING

TREATED BASE PLANK

AD-1 OR BOTTOM RAIL FROM DOOR MFR.

DOOR GIRT

TRACK SUPPORT

TRANSLUCENT PANEL

SEALANT TAPE TOP & BOTTOM OF CLOSURE FASTENER PER STANDARD PATTERN

FLASH AZ-2

SEALANT TAPE TOP & BOTTOM OF CLOSURE

METAL SIDING OR TRANSLUCENT PANEL

INSIDE CLOSURE (OPTIONAL)

GIRT

OUTSIDE CLOSURE (OPTIONAL)

TRANSLUCENT SIDING OR METAL SIDING

USE TRANSLUCENT PANELS AS SIDING PANELS TO ALLOW LIGHT INTO THE BUILDING. DO NOT USE ON ROOFS.
Post Frame Flashing Details

WINDOW DETAILS

SILL

WINDOW UNIT 1x6 BEVELED

FLASH AJ-3

FASTENER PER STANDARD PATTERN SIDING

HEAD

SEALANT TAPE TOP & BOTTOM OF CLOSURE

FASTENER PER STANDARD PATTERN AD1 DRIP CAP

WINDOW UNIT

INSIDE CLOSURE (OPTIONAL)

JAMB

WINDOW UNIT

FLASH AJ-3

FASTENER

OPTIONAL SEALANT TAPE

GIRT

SIDING
Residential Building Details

Basics for Residential Installation

1. Determine the thickness and type of substrate to be used to support the metal roofing.
   **Solid decking is highly recommended for all residential applications (i.e., plywood, OSB).**

2. Refer to the Load-Span tables to select the proper fastener and spacing to meet loads on your structure.
   **Nails are NOT recommended for residential applications.**

3. Consult local building codes and restrictions to determine acceptable methods of construction for residential applications in your area.

4. Solid decking with 30# felt or Pro Master® underlayment for residential applications is recommended. Ice & water shield or similar self-adhesive membrane is recommended at all valleys, dormers, chimneys, transitions, skylights and other critical areas.

5. When re-roofing with metal panels over an existing shingle roof, 2x4 purlins or 1x4 furring strips run parallel with the ridge of the roof and must be securely fastened into the roof rafters or trusses.

6. Request Fabral’s technical bulletins # 720 and # 721 for more details on residential roofing.
Residential Load Table

GRANDRIB 3®

Load-Span Tables For 29 Gauge Grandrib 3® & Alu-Tuff

Allowable Wind Uplift Loads (psf)

<table>
<thead>
<tr>
<th>Substrate</th>
<th>Fastener</th>
<th>9”</th>
<th>12”</th>
<th>15”</th>
<th>18”</th>
<th>21”</th>
<th>24”</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/4” Plywood</td>
<td>#14 Woodtite</td>
<td>275.6</td>
<td>206.7</td>
<td>165.4</td>
<td>137.8</td>
<td>118.1</td>
<td>103.4</td>
</tr>
<tr>
<td>5/8” Plywood</td>
<td>#14 Woodtite</td>
<td>160</td>
<td>120</td>
<td>96</td>
<td>80</td>
<td>68.6</td>
<td>60</td>
</tr>
<tr>
<td>1/2” Plywood</td>
<td>#14 Woodtite</td>
<td>135.9</td>
<td>101.9</td>
<td>81.5</td>
<td>67.9</td>
<td>58.2</td>
<td>51.0</td>
</tr>
<tr>
<td>23/32” OSB</td>
<td>#14 Woodtite</td>
<td>115.9</td>
<td>86.9</td>
<td>69.5</td>
<td>57.9</td>
<td>49.7</td>
<td>43.5</td>
</tr>
<tr>
<td>19/32” OSB</td>
<td>#14 Woodtite</td>
<td>100.7</td>
<td>75.5</td>
<td>60.4</td>
<td>50.3</td>
<td>43.1</td>
<td>37.8</td>
</tr>
<tr>
<td>7/16” OSB</td>
<td>#14 Woodtite</td>
<td>61.5</td>
<td>46.1</td>
<td>36.9</td>
<td>30.7</td>
<td>26.3</td>
<td>23.1</td>
</tr>
<tr>
<td>Solid 2x SPF</td>
<td>#14 Woodtite</td>
<td>293</td>
<td>220.0</td>
<td>176.0</td>
<td>146.7</td>
<td>125.7</td>
<td>110.0</td>
</tr>
<tr>
<td>Solid 1x Pine</td>
<td>#14 Woodtite</td>
<td>207.1</td>
<td>155.3</td>
<td>124.2</td>
<td>103.5</td>
<td>88.7</td>
<td>77.7</td>
</tr>
<tr>
<td>Solid 2x SPF</td>
<td>#9 WoodFast</td>
<td>218.7</td>
<td>164.0</td>
<td>131.2</td>
<td>109.3</td>
<td>93.7</td>
<td>82.0</td>
</tr>
<tr>
<td>Solid 1x Pine</td>
<td>#9 WoodFast</td>
<td>168.4</td>
<td>126.3</td>
<td>101.0</td>
<td>84.2</td>
<td>72.2</td>
<td>63.2</td>
</tr>
<tr>
<td>Screws per Square</td>
<td></td>
<td>190</td>
<td>150</td>
<td>120</td>
<td>100</td>
<td>90</td>
<td>80</td>
</tr>
</tbody>
</table>

The Above Loads and fastener quantities are based on the standard fastening schedule shown on page 5 of this book, with the fastener having an embedment depth of 1” into the solid wood or penetrating the plywood or OSB. Contact FABRAL for additional design information on our products.

Other Residential Profiles

1 1/2” SSR
24 Gauge Standing Seam Roofing

Horizon S
24 Gauge Standing Seam Roofing

Climaguard™
26 Gauge Standing Seam Roofing

5V Crimp
26 Gauge Roofing

The above Fabral profiles have their own detail manuals, flashings, and accessories. Please contact Fabral for additional information.
Standard Residential Flashings/Trim

All flashing is 10’ 6” in length & available in steel & aluminum, unless otherwise noted. Please contact Fabral for specifics on the trim available in your area.
Residential Flashings Detail

All residential flashings are formed for a 4/12 pitch unless otherwise requested by the customer.

RESIDENTIAL RIDGE/HIP

2" LONG FASTENER @ EVERY MAIN RIB OR 12" C/C MAX.

SEALANT TAPE
TOP & BOTTOM OF CLOSURE OR SEALER STRIP

ROOF STRUCTURE

RIDGE CAP
RR-1 or AR-3

OUTSIDE CLOSURE
(ON HIP ROOFS USE 1" x 1" x 19'-8"
SEALER STRIP AND RR-1 FLASHING)

RESIDENTIAL VENTED RIDGE

2" LONG FASTENER @ EVERY MAIN RIB OR 12" C/C MAX.

VERSAVENT RX-10
OR
PROFILEVENT
OR
MARCO LP2
Residential Flashings Detail

RESIDENTIAL VENTED EAVE

INSIDE CLOSURE WITH SEALANT TAPE TOP & BOTTOM

FABRAL METAL ROOF PANEL

FABRAL METAL SIDING PANEL

FASCIA L-TRIM

FABRAL ALUMINUM SOFFIT

F/J TRIM

TRUSS OR RAFTER

16" COVERAGE

RESIDENTIAL EAVE

BUTYL TAPE TOP & BOTTOM OF CLOSURE

FASTENER PER STANDARD EAVE PATTERN

FASTENER @ 24" C/C MAX.

CE-1

ROOF PANEL

ROOF STRUCTURE

INSIDE CLOSURE
Residential Flashings Detail

RESIDENTIAL GABLE

- RG-1, WG-1 OR AG-4
- SCREW FASTENER @ 24" C/C MAX.
- ROOF PANEL
- BUTYL TAPE
- ROOF STRUCTURE

START GABLE

CUT PANEL AS NECESSARY

FINISHING END GABLE

RESIDENTIAL ENDWALL

- BUTYL TAPE TOP & BOTTOM OF CLOSURE
- OUTSIDE CLOSURE
- ROOF PANEL
- FLASH ASW-1
- 2" FASTENER @ EVERY MAIN RIB
- SIDING
Residential Flashings Detail

**RESIDENTIAL GAMBREL**

- **FLASH AT-2 OR AGR-N4 (GRANDRIB 3)**
- **BUTYL SEALANT TAPE TOP & BOTTOM OF CLOSURE**
- **INSIDE CLOSURE**
- **2" FASTENER@ EVERY MAIN RIB OR 12" C/C MAX.**
- **BUTYL SEALANT TAPE TOP & BOTTOM OF CLOSURE**
- **ROOF PANEL**
- **OUTSIDE CLOSURE**

**RESIDENTIAL SIDEWALL**

- **SIDING**
- **FLASH ASW-1**
- **2" FASTENER @ 12" C/C**
- **BUTYL SEALANT**
- **ROOF PANEL**
- **ROOF SHEATHING**
- **ROOFING FELT AND ICE AND WATER SHIELD FOR ADDED WEATHER TIGHTNESS**
**RESIDENTIAL TRANSITION**

- **ROOF PANEL**
- **FASTENER PER EAVE FASTENING PATTERN**
- **INSIDE CLOSURE**
- **30# FELT AND ICE AND WATER SHIELD FOR ADDED WEATHERTIGHTNESS FLASH AT-1**

- **OUTSIDE CLOSURE**
- **BUTYL TAPE TOP & BOTTOM OF CLOSURE**
- **FASTENER @ EVERY MAIN RIB OR 12" C/C MAX.**

**NON-CONDUCTIVE TAPE**

**RESIDENTIAL PIPE BOOTS**

- **(OPTIONAL) SILICONE SEALANT AROUND CUT OF BOOT**
- **ROOF PANEL**
- **BUTYL SEALS TAPE UNDER BASE OF PIPE BOOT**
- **PLYWOOD DECK**
- **VENTILATION PIPE**
- **PIPE BOOT**
- **SCREWS SPACED 2" TO 3" MAX AROUND BASE TO SECURE**

**PIPE BOOT SIZES**

- #3 1/2" TO 5" PIPE DIA.
- #5 4 1/2" TO 7 1/2" DIA.
- #8 7" TO 13" DIA.
Residential Flashings Detail

SKYLIGHT & CHMINEY DETAILS

NOTE: SEE CROSS SECTIONS A-A, B-B, C-C

For optimum weathertightness, use ice and water shield or similar around penetrations.

CRICKET FIELD FORMING

ALTERNATIVE CRICKET DETAIL

0.125" SW/WHIT "HIP" CLOSURE

USE TO CREATE BASE/PARAPET OF CRICKET

TOP OF CRICKET FIELD FORMED FROM FLAT SHEET

FASTEN TOP OF CRICKET TO BASE USING #14 MP. CAULK ALL JOINTS AND SEAMS WITH ONE-PART POLYURETHANE SEALANT.

FABRICATE SMALL CAP TO COVER AREA WHICH WAS SUIT

CUT TRIANGULAR CRICKET TOP FOLD UP WIDE END OF TRIANGLE SUIT CENTER OF FOLD AND BEND SLIGHTLY DOWN THE CENTER.
Residential Flashings Detail

SKYLIGHT DETAILS

SEALANT
FLASHING ASW-1 - FIELD MODIFY AS REQUIRED
FASTENER @ 6" C/C
SEALANT
ICE AND WATER SHIELD AND 30# FELT OR TITANIUM UDL UNDERLAYMENT

SIDEWALL DETAIL
SECTION A-A

FRAME
SASH
SCREEN
JAMB
ROOF FRAMING
ROOF SHEATHING
BATT INSULATION
HEADER
SEALANT TAPE
TOP & BOTTOM OF CLOSURE
CUSTOM DIVERTER FLASH CONTINUE SUCH THAT THE DIVERTER AND VALLEY FLASH OVERLAP
FASTENER @ 6" C/C MAX.

CRICKET FIELD FORMING
SECTION B-B

SEALANT TAPE BETWEEN FLASH AND ROOF PANEL
FASTENER @ 6" C/C
ROOF SHEATHING
BATT INSULATION
DICETIC TAPE
ROOF PANEL
ICE AND WATER SHIELD AND 30# FELT OR TITANIUM UDL UNDERLAYMENT
ASW-1 FLASHING FIELD MODIFIED TO FIT
2" FASTENER @ EVERY MAIN RIB OR 12" C/C MAX.
SEALANT
FASTENER
BUTYL TAPE TOP & BOTTOM OF CLOSURE
ROOF PANEL
HEADER
ROOF SHEATHING
OUTSIDE CLOSURE

SIDEWALL DETAIL
ALTERNATE SECTION A-A

CONTINUOUS SIKAFLEX CAULK @ PERIMETER
FLASHING -REVERSE AL FLASHING
ICE AND WATER SHIELD AND 30# FELT OR TITANIUM UDL UNDERLAYMENT

ENDWALL DETAIL
SECTION C-C
Residential Flashings Detail

CHIMNEY DETAILS

SIDEWALL DETAIL

SAW CUT REGLET
1/2" - 1" DEEP
BLOW OUT DUST & FILL WITH SIKAFLEX
SEALANT. SET FLASH & FASTEN WITH
COMPATIBLE MASONRY ANCHOR

FLASHING ASW-1 - FIELD MODIFY
AS REQUIRED
FASTENER @ 6" C/C

ICE AND WATER SHIELD AND
30# FELT OR TITANIUM UDL
UNDERLAYMENT

SAW CUT REGLET
1/2" - 1" DEEP
BLOW OUT DUST & FILL WITH SIKAFLEX
SEALANT. SET FLASH & FASTEN WITH
COMPATIBLE MASONRY ANCHOR

AL FLASHING

ALTERNATE FLASHING

SEALANT

ALTERNATE FLASHING

SEALANT

AL FLASHING

SEALANT

ALTERNATE FLASHING

Butyl Tape
Top & Bottom
of Closure

FASTENER @ 6" C/C
MAX.

ROOF SHEATHING

ICE AND WATER SHIELD AND
30# FELT OR TITANIUM UDL
UNDERLAYMENT

ENDWALL DETAIL

1/2" PLYWOOD
1/2" RIGID INSULATION

SAW CUT REGLET
1/2" - 1" DEEP
BLOW OUT DUST & FILL WITH SIKAFLEX
SEALANT. SET FLASH & FASTEN WITH
COMPATIBLE MASONRY ANCHOR

CUSTOM DIVERTER FLASH
CONTINUE SUCH THAT
THE DIVERTER AND
VALLEY FLASH OVERLAP

ICE AND WATER SHIELD AND
30# FELT OR TITANIUM UDL
UNDERLAYMENT

SIDEWALL DETAIL

SAW CUT REGLET
1/2" - 1" DEEP
BLOW OUT DUST & FILL WITH SIKAFLEX
SEALANT. SET FLASH & FASTEN WITH
COMPATIBLE MASONRY ANCHOR

FLASHING - REVERSE
AL FLASHING

CONTINUOUS SIKAFLEX
CAULK @ PERIMETER

FASTENER @ 6" C/C
ROOF PANEL

ICE AND WATER SHIELD AND
30# FELT OR TITANIUM UDL
UNDERLAYMENT

SEALANT TAPE
BETWEEN FLASH
AND ROOF PANEL

ROOF SHEATHING

SEALANT

AL FLASHING

ALTERNATE FLASHING

ROOF PANEL

FLASHING ASW-1 - FIELD MODIFY
AS REQUIRED
FASTENER @ 6" C/C

CONTINUOUS SIKAFLEX
CAULK

SEALANT TAPE
BETWEEN FLASH
AND ROOF PANEL

SEALANT

ROOF SHEATHING

ICE AND WATER SHIELD AND
30# FELT OR TITANIUM UDL
UNDERLAYMENT

SEALANT

ROOF PANEL
SOLID SUPPORT IS REQUIRED UNDER THE VALLEY. EPDM LINING IS RECOMMENDED UNDER LAPPED PANELS AND VALLEY FLASHING. LINING MUST CONTINUE DOWN TO EAVE LINE.
Residential Flashings Detail

DORMER DETAILS

CUT VALLEY PEAKS TO JOIN CLEANLY AND SEAL; COVER JOIN WITH ADDITIONAL FLASHING AND SEAL

VALLEY CENTERLINE

RIDGE CAP; EXTEND TO VALLEY PEAK; CUT, FOLD, TRIM, SEAL, AND FASTEN AS SHOWN ON SECTION

SEALER STRIP BUTYL SEALANT TOP & BOTTOM OF SEALER STRIP

SECREWS EACH SIDE OF MAIN RIB (EAVE/ENDLAP PATTERN) AND ONE ADDITIONAL, CENTRALLY LOCATED IN THE PAN OF THE PANEL

VALLEY FLASHING RV-2 SHOWN

METAL FLASHING TO COVER LAP AT VALLEY PEAKS (CAULK)

SECTION A-A

CLOSURE; CAULK PERIMETER TRIM AND SEAL AT VALLEY PEAK
Accessories

Venting / Closures

**VersaVent RX-10**

**Product Specifications:**
- Venting factory applied to the ridge cap
- Save up to half of your installation time
- Non-profile specific material
- Clean, dust free installation. Virtually NO WASTED material.
- 1 1/2" x 3" material provides 17 sq. inches/lineal foot free area at the ridge

Also available as X-10 version (for field installation; not pre-applied to ridge cap)

**RV35 and RV100 Product Specifications:**
- 10’ long metal ridge vent
- Variety of colors available

**ProfileVent Product Specifications:**
- Available in Grandrib 3, Alutuff and 5V profiles
- 10.66 sq. in. per lineal ft. of ridge (5.33 / side)

**LP2 Weather-Tite Ridge Vent Product Specifications:**
- Available in Climaguard, Grandrib 3 and Mighti-Rib profiles
- Lower, custom-fit profile
- Moisture and pest barrier
- Non-obtrusive appearance
- Reduces utility costs
- One-person installation

**Closure Product Specifications:**
- Inside (Eave)
- Available in Grandrib 3, Strongrib, 1 1/4" Corrugated, 2 1/2" Corrugated and 5V profiles
- 10.66 sq. in. per lineal ft. of ridge (5.33 / side)
- Outside (Ridge)
- Available in Grandrib 3, Strongrib - White, Green - 8’, 10’, 12’; Strongrib - White - 10’, 12’; Fabrib - Green - 12’
- SunSky Polycarbonate:
  - Grandrib 3 & Alutuff - Clear & White - 8’, 10’, 12’; Mighti Rib - Clear & White - 12’

**Sealant / Sealer Strip**

**Sealant Product Specifications:**
- Waterproof sealant to fill gaps up to 1"
- UV-resistant
- Permanent flexibility - won’t crack
- Standard color: gray (stocked)
- Up to 50 additional color options (non stocked)

**Sealant Tape Product Specifications:**
- 3/16” x 1/4” x 40’
- 3/32” x 1/2” x 40’
- 1/8” x 2” x 30’

**Asphalt Impregnated Sealer Strip Product Specifications:**
- Use at valleys and hips
- 1” x 1” x 19’6.8” long

**Flat Sheets**

**Product Specifications:**
- Used for field forming crickets around chimney, skylights and penetrations, and special flashing as necessary
- 29 gauge painted and plain galvanized
- Full width (40’ 13/16” x 10’ 6")
- Grade 33 steel for better hemming, forming and flexibility for field forming

**Translucent Panels**

**Fiberglass:**
- Grandrib 3 - White, Green - 8’, 10’, 12’; Strongrib - White - 10’, 12’; Fabrib - Green - 12’

**SunSky Polycarbonate:**
- Grandrib 3 & Alutuff - Clear & White - 8’, 10’, 12’; Mighti Rib - Clear & White - 12’

**Pipe Boots**

**EPDM Product Specifications:**
- Colors: gray and black
- Up to 250°

**Silicon Product Specifications**
- Color: orange
- Up to 450°
- Ranging for pipe sizes from 1” to 13”
- Larger sizes available on request

<table>
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<th>Pipe Size</th>
<th>Item No.</th>
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<th>max</th>
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<td>7 1/2&quot;</td>
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<tr>
<td>16 1/2&quot;</td>
<td>8</td>
<td>7&quot;</td>
<td>13&quot;</td>
</tr>
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</table>
Fasteners

#9-16 WoodFast
- Use with dimensional lumber 5/8" plywood and thicker
- Available in 1", 1 1/2", 2", 2 1/2" and 3"
- 1/4" hex head, EPDM/metal washer
- Oxyseal Long-Life Coating
- Plain or Painted
- 250/bag

#9-16 300 Series Stainless Steel
- Use for high corrosive environments
- Use with ALUMINUM panels
- Available in 1", 1 1/2", and 2"
- 1/4" hex head, EPDM/metal washer
- Use with treated lumber
- Plain or Painted
- 250/bag

#10-16 Ultimate WoodTite
- Use with ALL panels
- Available in 1", 1 1/2", 2", 2 1/2" and 3"
- 5/16" case zinc hex head
- Hex head & washer all one piece
- Plain
- 250/bag

#10-14 410 Stainless Steel
- Use with 26 gauge or thinner to avoid pre-drilling
- NOT as corrosive resistant as the 300 Series
- Steel is harder than 300 Series
- Available in 1", 1 1/2", and 2"
- 1/4" hex head, EPDM/metal washer
- Use with steel panels installed on treated lumber
- Plain or Painted
- 250/bag

#10-12 Wafer Head
- Use with all screw flange panels
- Check with engineering department for spacing with OSB or 1/2" plywood
- Available in 1", 1 1/2", 2" and self drillers
- Available with square drive head
- Plain only
- 250/bag

#12 x 3/4" Stitch Screw
- Used for attachment of trim to top of seam for screw flange panels
- Use with STEEL panels
- Used to stitch sidelaps for exposed fastener panels (as needed)
- Used for miscellaneous metal to metal attachments
- 1/4" hex head, EPDM/metal washer
- Plain or Painted
- 250/bag

For more information, review Fabral's installation manuals.
Snow Guards

MINI Clear Snow Guard
The “Mini” Clear Snow Guard is manufactured in a premium, polycarbonate plastic. This U.V. stabilized snow guard provides maximum protection to fit an economical budget. The two to one base to blade ratio, 4.5 square inch holding area and gusseted blade snow pocket combine to effectively retain snow. Well suited for mechanical attachments with washer face screws into the purlin sealed with Surebound Everseal caulk, part number (6769020) or fully adhered with same.

CL Snow Guards
The CL Snow Guards are manufactured in a clear polycarbonate with U.V. stabilizers. The unique vent rib system allows for adhesive out gassing, which increases the shear and mechanical strength. The three to one base to blade ratio adds significantly to the shear and peel adhesion of the device to the surface. Well suited for mechanical attachments with washer face screws into the purlin sealed with Surebound Everseal caulk, part number (6769020) or fully adhered with same.

(Snow Boss #690 is 3 3/4” wide)

SM Snow Guard
Manufactured of cast aluminum and designed to be adhered to the pan surface of prefinished metal roofs. This Snow Guard is very effective where there are no suitable seams for a seam mounted device, including batten and lap seam panels, or other profiles having a flat surface of as little as 2 3/8” in width. It can be custom color matched. Adhere using a high strength construction adhesive or combination of mechanical fasteners and an adhesive/sealant.

(Ap Snow Guards)
Produced in cast aluminum, the deep throat permits the AP Snow Guard to be secured directly without damaging caps or compressing internal gasketing or sealant pockets. AP-300 is for seams up to 9/32” wide; AP-400 for seams 3/8” and the AP-516 for seams just over 1/2” in thickness.

Snow Meister Snow Guards
Classically designed to fit almost any metal roof. Available in mill finished aluminum, black e-coat primer or custom colors to match the roof. SG-1 for seams 1.0” or 1-1/2” deep x .250” wide; SG-175 for seams 1.75” deep x .475” wide; SL-1 for seams 1.0” deep x .475” wide.
Fabral Plants Nationwide

Light Gauge/Post Frame Plants

Cedar City, UT       (800) 432-2725
Gridley, IL         (800) 451-3974
Idabel, OK          (800) 926-8509
Lancaster, PA       (800) 477-2741
Marshfield, WI      (800) 528-0878
Jackson, GA         (800) 884-4484
St. Joes, MN        (800) 873-3440
Salem, OR           (800) 477-8028
Spokane, WA         (800) 456-9124
Tifton, GA          (800) 749-8144
Grapevine, TX       (800) 477-9066

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