R & M STEEL CO
STEEL BUILDING COMPONENTS

VS-216 (24-GA) Standing Seam Roof

Thank you for your business.
To place an order, you may:
Phone: 1-208-454-1800 Toll Free: 1-866-454-1800
Fax: 1-208-454-1801 Toll Free: 1-866-454-1801
Email: sales.rmsteel@gmail.com

R & M STEEL VS-216 STANDING SEAM ROOF

1) GENERAL:

- Specifically included are panels, panel clips, flashing, panel splices, ridge material and all necessary fasteners.
- Minimum roof slope is 1/2" in 12".
- Panels are rated for UL90® uplift rating UL580 when installed to roof support members spaced as listed in UL Construction Listing #332, supported at a maximum of 5'-0" on center by either joists or purlins.

2) PANEL MATERIAL:

- R & M Steel VS-216 Standing Seam Roof profile shall be precision roll-formed from 24 gage Galvalume® AZ50 or AZ55 aluminum-zinc alloy-coated steel sheet with a minimum yield strength of 50 ksi in accordance with ASTM A-792, Grade 50, Class 2. It has a coating thickness of .50 oz. to .55 oz per square foot.
- Roof panels provided by R & M Steel for exterior use are precision roll-formed from pre-painted Galvalume® aluminum-zinc alloy-coated steel coils. Coils to receive finish paints are subjected to a strenuous cleaning process prior to coating. Next, the coils are prime coated and oven cured. The finish coat is then applied and monitored for proper oven-cure temperature and color uniformity. Finished material is subjected to stringent quality control tests including: physical bend and impact resistance, film thickness, hardness, gloss and color. This process is time-tested and uses a Ceram-A-Star 1050 topcoat. A 70% Kynar 500® finish is available at an additional cost upon request. VS-216 gutter brackets are provided as the same color as the roof. VS-216 ridge closure zees are provided unpainted but a roof colored cover flash is provided.
- Panel are not factory-punched or notched.
- Panel sidelaps shall have factory-applied non-skinning Butyl mastic.

3) PANEL CONFIGURATION

- Panels shall have 2" deep vertical ribs spaced 16" on center. Striated or Pencil Rib pans are available. Buildings with Pencil Rib panels cannot be supplied on buildings *with* endlaps. The upper panels on buildings with endlaps need to be swaged. Swaging on Pencil Ribbed panels is not available.

Thank you for your business.
To place an order, you may:
Phone: 1-208-454-1800 Toll Free: 1-866-454-1800
Fax: 1-208-454-1801 Toll Free: 1-866-454-1801
Email: sales.rmsteel@gmail.com

4) PANEL CLIP & FASTENERS

- Floating panel clips shall be used and shall be self-centering and allow for up to 1" expansion and/or contraction of total movement from the centered position. The clip design shall insure that movement does not occur between the panel and clip.
- The panel clips shall have factory-punched holes in the top of the clip to allow the sidelap sealant to flow when installed. This is to insure a continuous weather-tight seal along the panel seam.
- Each clip shall be attached to the joist or purlin with two fasteners. Size and type will. be recommended by R & M Steel for the specific application. Clip fasteners for retrofit applications are not by R & M Steel and must be specified by the owner or his agent.
- Panel endlap fasteners shall be a 1/4-14 self-drilling carbon steel screw, hex washer head, 1-1/4" long. Fastener shall have a 20-year corrosion resistant coating.

5) TRIM AND FLASHING

- Color-coated trim and flashing shall be 26 gage. Trim shall be provided at eave, ridge, rake and where necessary to ensure a properly constructed building.
- High eave flashing and flashing parallel to the roof panels shall accommodate the thermal expansion and contraction of the roof without damage to the roof panels or flashing. Counter-flashing for parapet conditions and flash to existing buildings are not provided by R & M Steel.
- All exposed trim and flashing material shall be manufactured from galvanized or Galvalume® steel strip.
- Exterior gutters and gable flash shall typically be manufactured in 20' lengths wherever possible.

6) INSTALLATION

- Storage and installation of the roofing system shall be in accordance with R & M Steel's printed instructions.
- The R & M Steel VS-216 Roof hand crimper is specially designed for use with R & M Steel's VS-216 Standing Seam Roof. Under no circumstances shall the R & M steel crimper be used on any other manufacturer's roof system. In addition, under no circumstances is another manufacturer's crimper to be used on R & M Steel's VS-216 Standing Seam Roof (even if they appear to be the same). Permanent damage to the seam and/or the panel finish may occur if the R & M Steel crimping tool is not used and shall void all warranties.
- The panel splice shall have a 0.060" prime painted back-up plate.
- Panel splice shall be sealed with pre-cut tape mastic and butyl tube caulk.
- Standard maximum panel length shall be 50'-0".
- The use of cutting tools that damage the panel finish shall not be allowed.
- Panels shall not be marked with any graphite or lead markers.

Thank you for your business.
To place an order, you may:
Phone: 1-208-454-1800 Toll Free: 1-866-454-1800
Fax: 1-208-454-1801 Toll Free: 1-866-454-1801
Email: sales.rmsteel@gmail.com

7) CLEAN-UP

- Roof surface should be cleaned daily during construction of all filings, cuttings, screws, pencil markings and debris to prevent damage due to oxidation of foreign materials.
- Contractor shall thoroughly clean all panels, trim, and gutters of all foreign material upon completion of construction.

8) MAINTENANCE

- The owner shall keep the roof free and clean of debris and corrosive materials at all times.
- Gutters and downspouts shall be cleaned periodically and kept free-flowing at all times.
- Flashing and sheeting interfaces shall be inspected yearly to ensure connection and water-tightness.
- Endlaps, eaves, ridges, curbs, translucent panels and other interfaces shall be inspected and maintained yearly. Normal adjustments or tightening of fasteners may be required.
- The use of tar and other topical applied products shall not be permitted unless specified by the manufacturer.
- Copper, lead flashing, exposed iron, or debris shall not be permitted on the roof.
- Pipes to and supports for roof-supported units shall be of a non-corrosive or rust-free material. Field painting of pipes and supports may be required to resist corrosion. Condensation from roof-top units shall be piped to interior or exterior locations. Damage due to condensate water is not covered under manufacturer's warranty.

9) ERECTION SEQUENCE

- Buildings with the R & M Steel VS-216 Standing Seam Roof *without* an endlap are designed to be erected starting from either end of the building. Buildings that have an end lap will have swaged panels and will need to be erected right to left. In those cases, it will be noted as such on the erection drawings.
- Sequencing of steel shall be clearly marked on the order documents at the time of order entry.

10) COORDINATION WITH OTHER TRADES

- Supports for the R & M Steel VS-216 Standing Seam Roof shall be provided and are required as shown in the drawings and as noted in these specifications. All necessary clearance dimensions for proper elevations relative to the roof panels have been shown. The customer shall be responsible for coordinating these dimensional requirements with other trades associated with the building roof system.

Thank you for your business.
To place an order, you may:
Phone: 1-208-454-1800 Toll Free: 1-866-454-1800
Fax: 1-208-454-1801 Toll Free: 1-866-454-1801
Email: sales.rmsteel@gmail.com

11) ERECTION CARE

- The erector must be skilled in the erection of metal building systems and is responsible for complying with all applicable local, federal and state construction and safety regulations. This includes OSHA regulations as well as any applicable requirements of local, national, or international union rules or practices. The Erector remains solely responsible for the safety and appropriateness of all techniques and methods utilized by its crews in the erection of the metal building system and/or the VS-216 Roof. The Erector is also responsible for supplying any safety devices such as scaffolds, runways, nets, etc., which may be required by the governing codes to safely erect the metal building system and/or VS-216 Roof.
- Anchorage for safety devices may be added at an additional cost provided specific connections are designed and clearly noted on the order documents. All anchorage points must be noted with exact location, magnitude and direction of force for a fully-braced structure.
- The erector of the R & M Steel VS-216 Standing Seam Roof shall exercise great care and attention to the details as shown on the erection drawings and in the R & M Steel VS-216 Standing Seam Roof Installation Guide to insure a secure and proper fit of all components. R & M Steel shall not be responsible for supervising and/or coordinating the erection of the VS-216 Standing Seam Roof with other trades. Erection drawings take precedence when a situation differs from that shown in the Installation Guide.
- Due consideration must be given by the erector to the effects of thermal expansion and contraction when erecting a roof tie-in to an existing structure to insure a safe, secure, weather-tight condition. Flashing for tie-ins to existing buildings is typically not included as part of the material provided by R & M Steel. Refer to the sections and details for specific materials provided by R & M Steel.
- The erector acknowledges that all details for all conditions can not be noted on the plans and that due care and judgment are required to make a safe and watertight condition. Sealants and caulks may be required based upon actual conditions encountered.

12) FIELD-CUTTING OF PANELS

- When field-cutting or mitering R & M Steel VS-216 roof panels, non-abrasive cutting tools such as nibblers or tin-snips shall be used. Abrasive cutting tools such as mechanical grinders, saws, shears, or scissors can damage the Galvalume® or painted finish and create excess metal shavings that can corrode the panels. The use of non-approved cutting devices may void your manufacturer's warranty.

Thank you for your business.
To place an order, you may:
Phone: 1-208-454-1800 Toll Free: 1-866-454-1800
Fax: 1-208-454-1801 Toll Free: 1-866-454-1801
Email: sales.rmsteel@gmail.com

13) ROOF-TOP UNITS AND CURB SUPPORTS

- The R & M Steel VS-216 Standing Seam Roof Curb Framing System is level with roof secondary structural members. The outer roof curb, in a double curb system, will have channels attached to accommodate the clip off set of 1/2" for short clips and 1-1/2" for tall clips. Refer to the details for proper dimensions.
- The R & M Steel VS-216 Standing Seam Roof is designed as a floating system. Curb framing and flashing must be designed accordingly to allow the curb system to float with the VS-216 Roof during thermal expansion and contraction.
- Roof curbs should be laid out maintaining a "3-purlin-space" rule. This rule is that a roof curb should always be located a distance of at least the equivalent of three purlin spaces from the ridge or eave of a building and from any adjacent roof openings or curbs.