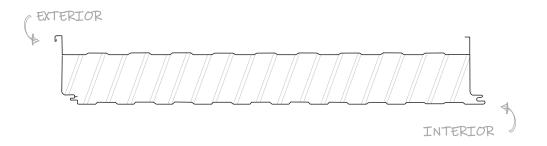


INSTALLATION **GUIDE**

STANDING SEAM **ROOF PANEL** SSR - 42



EVERYTHING YOU NEED TO KNOW ABOUT

raw materials, production, transportation and storage, installation, finishing, accessories, maintenance, usage, recycling and warranty.









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NOTICE

THIS INSTALLATION GUIDE IS PROVIDED AS A REFERENCE TO THE DESIGN AND INSTALLATION COMMUNITY RELATIVE TO THE ACCEPTABLE TECHNIQUES PERMITTED BY FALK AS IT RELATES TO THE INSTALLATION OF HFW40 INSULATED METAL PANELS. DETAILS PROVIDED WITHIN THIS DOCUMENT ARE MINIMAL ACCECTABLE GUIDELINES TO ENSURE APPROPIATE INSTALLATION. ENHANCEMENTS TO DETAILS CONTAINED WITHIN THE DOCUMENT ARE PERMITTED PROVIDING FALK IS NOTIFIED IN ADVANCE AND ACCECPTS ENHANCEMENTS IN WRITING. IT IS THE RESPONSIBILITY OF THE INSTALLATION CONTRACTOR TO INSPECT ALL MATERIALS PRIOR TO INSTALLATION AND ANY DISCREPANCIES BETWEEN PROJECT ERECTION DRAWINGS, BILL OF MATERIALS, MATERIALS AND ACCESSORIES PROVIDED FOR A PROJECT MUST BE REPORTED TO FALK WITHIN 48 HOURS OF ACCEPTANCE OR DELIVERY. IF NON-CONFORMING PROJECT MATERIALS ARE PROVIDED TO A PROJECT, NEVER INSTALL THE MATERIALS WHILE ALSO REPORTING IT TO FALK.

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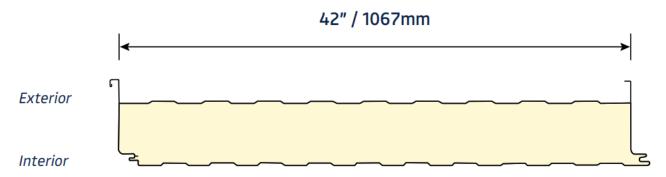
FALK's insulated metal panels are manufactured by FALK Production



PRODUCT DESCRIPTION

FALK SSR42

ROOF PANEL FOR SLOPES 1/2:12 - 6:12 FOR COMMERCIAL/ INDUSTRIAL APPLICATIONS



Coverage Width- 42"

Panel Attachment – SSR Panel clips and Fasteners

Exterior Panel Finish - Embossed / Non-Embossed

Exterior Panel Profile - Box

Exterior Panel Gauge - 26, 24 & 22-Other gauges available

Interior Panel Finish - Embossed / Non-Embossed

Interior Panel Profile - Box

Interior Panel Gauge - 26 - Other gauges available

Coatings* - Exterior: SMP, PVDF -Standard and Special Requests

Interior: Polyester (PE) and Special Requests

* Refer to Falk Color Cards for standard and special color offerings



INTRODUCTION

BACKGROUND

Progress and ambition. This is what sets FALK apart from the rest. Established in the Netherlands in 2007 by an elite team of installation contractors, Falk has assembled a dedicated team of professionals working hard to always put the customer wishes first while implementing methodologies to install insulated metal panels in and efficient, environmentally conscious manner. FALK Panel (referred to as FALK in this installation guide) has developed this installation guide to provide answers to frequently asked questions. Following you will find guidelines for transportation, storage, treatments, installation tips and tricks, and warranty options available for your next project. We realize that each project is tailor-made and that not all your questions will be answered in this manual. In case you require additional information, please contact our technical support department by phone at 616.541.4500 or email your question to info@falkpanel.com. In addition to this, more information about our products, technical drawings and details can also be found at our website www.Falkpanel.com.

WHAT IS A SANDWICH PANEL?

Sandwich panels (aka Insulated Metal Panels or IMP) are innovative building materials that bring design and functionality together. These panels provide an excellent solution to rapidly cover and insulate building projects. A sandwich panel consists of a profiled inner sheet and outer sheet, both made from high-quality steel and a core insulating material called polyisocyanurate foam (PIR). PIR is one of the most efficient insulation materials used in construction. PIR insulation provides acoustic and thermal properties, rigidity, durability, and excellent compressive strength. The adhesion between this insulation and sheets gives a sandwich panel (compared to a profiled sheet) additional firmness which permits larger spans to be reached. Sandwich panels are gaining in popularity in North America, since they are a high-quality, safe and easy to use product.

THERMAL VALUES

Falk SSR-42 Hidden Fixed Roof Panels are available in the following configurations:

SSR-42 Specifications						
Core Thickness	Width	Steel 6	iauge	Thermal Values		Weight
in mm	in mm	Exterior	Interior	R-Values	U-Values	lbs/sf
3.0 76.2	42 1067	24ga	26ga	22.79	0.043	2.33
4.0 101.6	42 1067	24ga	26ga	30.38	0.032	2.55
5.0 127	42 1067	24ga	26ga	37.98	0.026	2.77
6.0 152.4	42 1067	24ga	26ga	45.46	0.021	2.99

Nominal 7.5 per inch with lamba ($\lambda[W/mK)$) of 0.019

ASTM C518-21, Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Meter Apparatus.



Falk SSR-42 Hidden Fixed Roof Panels offer the building designer R values of approximately 7.5 per inch Nominal, as well as the ability to balance initial cost versus long-term energy savings. Falk also offers a full line of accessories to include attachment clips, metal trims, matching flat stock.

WARRANTIES

FALK can furnish various performance warranties as required for your project. The items covered by these warranties include weather tightness, corrosion, structural performance, and finish performance. Weather tight warranties require the use of Falk's Authorized Installers. In addition, these projects may require jobsite inspections throughout the installation process. Warranty charges vary, so please contact your Falk representative for more information. Falk requires that all specifications and shop drawings are reviewed prior to warranty issuance.

Note: warranties are limited to materials supplied by FALK and are not issued until full payment for all services and material provided is received.

PRODUCT GUARANTEE

FALK offers a guarantee of two years from the date of delivery for each panel and parts affixed thereto (the "Panel") it produces and supplies to the above customer or original owner of the Panel if different than the customer. This guarantee covers the following functional features: Product insulation, dimensional stability, and material quality. FALK does not offer a guarantee or warranty on interior finishes or non-supplied attachments to the Panel. This certificate of guarantee is nontransferable and shall be for the sole benefit of the original customer or owner who purchases the Panel from FALK. This written guarantee represents the full, complete, and final agreement of the parties and supersedes all prior guarantees or agreements relating to guarantees, or related negotiations between the parties. This guarantee cannot be modified, altered, or extended without the express written consent, signed by a duly authorized officer or employee of FALK. Disclaimer of implied guarantees and warranties. EXCEPT FOR THE EXPRESS GUARANTEES SET FORTH HEREIN, FALK MAKES NO GUARANTEE OR WARRANTY WHATSOEVER REGARDING THE PANELS, INCLUDING ANY (1) WARRANTY OF MERCHANTABILITY; OR (2) WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE; WHETHER ARISING BY LAW, COURSE OF DEALING, COURSE OF PERFORMANCE, USAGE OF TRADE OR OTHERWISE. Additional guarantees and warranties are available for paint and coating systems in addition to the guarantee provided for herein. Contact your sales representative for further information. The information in this document is effective when provided to the customer or owner of the panel. Because FALK products and policies may improve or change in the future, FALK reserves the right to make modifications to this guarantee without notice. Important note, the sales conditions as well as this certificate of guarantee have been drawn up in the English language.

GUARANTEE CONDITIIONS

- A certificate of guarantee applies to panels erected solely in the continental United States, Alaska, and Canada. This guarantee specifically excludes Hawaii and Mexico and any other Country not identified above.
- Handling, storage, technical details, and installation must be carried out in accordance with FALK LLC instructions. These instructions are available on request. The guarantee provided for herein does not apply to Panels installed improperly and not in compliance with the FALK instructions, Panels subjected to abuse, misuse, neglect, negligence, accident, improper installation, improper storage, improper handling, abnormal physical stress, abnormal environmental conditions or use contrary to the instructions issued FALK.
- It is the responsibility of the Panel owner to maintain the building and Panel affixed thereto in good order, and to prevent damage by equipment, intentional damage, negligence, or waste.



- Accumulated dirt and grim should be washed off the Panels at regular intervals. FALK recommends
 yearly. Continuous long-term ponding of water, continuous emersion or waterlogging damaging the
 Panel will void the guarantee provided for herein.
- Any defects must be reported to FALK in writing within 30 days of discovery.
- Dimensions, tolerances, and other relevant items for the Panels follow the ATSM standards.
- In case of a legitimate and justified claim, FALK, in its sole discretion shall determine whether the Panel is to be repaired or replaced. The choice of materials to be used or working methods to repair or replace the Panel is the sole responsibility of FALK.
- Repair or replacement costs shall not exceed the original invoiced amount per square foot of the original Panel purchased by the customer or owner.
- If Panels need to be replaced, <u>within</u> the original warranty period, the replacement panel will come with a two-year warranty.
- If Panels need to be replaced because of product defects or damage, <u>after</u> two years from date of purchase, the warranty recipient shall be fully responsible for the replacement cost of the panel.
- The guarantee provided for herein is only valid after all invoices related to the supplied Panels are paid in full. In the event the customer or owner fail to pay for the Panels in full at the time invoiced, the guarantee provided for herein is void.

EXCLUSIONS

- Damage to a panel due to mechanical or chemical exposure and elements, abnormal environmental conditions, hail, fire, war, riot, falling objects, vandalism, natural disaster, lightning, or any other unforeseen circumstances are excluded and void the guarantee provided for herein.
- Any damage to the Panels caused during storage, transport, or installation, is excluded.
- Damage to the Panels due to incorrect installation, handling, or treatment is excluded. Panels that
 are damaged or blistered by rain or water entering the uncovered cut ends are also excluded. Cut
 ends of all panels must be immediately protected from the elements by means of flashings or other
 waterproof barriers.
- Damage to the Panels caused by Panels being installed in improperly ventilated areas, or in areas deemed inappropriate for insulated metal panel use by FALK are excluded.
- Any defects in the Panels caused by exposure to continuous high temperatures, other than heat due
 to solar radiation, are excluded from this guarantee. Continuous surface temperature exceeding 180
 degrees Fahrenheit are not covered by this guarantee.
- If Panels with known defects are installed, the guarantee herein is null and void.
- If damaged Panels need to be replaced or repaired, FALK will only be held responsible for replacement or the repair cost of those Panels.
- FALK will not be responsible for replacing building accessories like skylights, electrical installations, solar panels, etc. in a building, if a Panel requires repair of replacement.
- Any damage attributed to Panels being altered without prior authorization from FALK is not covered
 by this guarantee. This includes, but is not limited to add-ons, fixtures, or utilities placed against or
 attached to the Panels, installation of signage, vents or other breaches or cutting of the Panel,
 including, address numbers, mailboxes, skylights, solar panels, HVAC units, plumbing vents,
 electrical service, or ventilators.
- This guarantee does not cover damage that results from projectile damage from lawn or snow removal equipment, falling objects, recreational activities or contact of Panels from material storage of any kind.
- Damage to a Panel due to corrosion is not covered by this guarantee. This includes corrosion caused by drainage, leaking or overflowing gutters and downspouts, leaks from roof top units or equipment, salt (marine) or atmospheric contaminants, unusual or harsh contaminants that are generated within the building, including moisture due to in adequate or improper ventilation. Even if



contaminants are identified or in existence at the time of installation of the Panels, FALK shall be under no obligation by the terms of this guarantee and warranty.

OTHER

- This guarantee is voided if any repair work to a Panel is carried out by a third-party contractor, without the prior written consent of FALK.
- The product owner acknowledges FALK is responsible for the execution of this guarantee.
- FALK is not responsible for any incidental or consequential damage or losses arising from the use or damage of a Panel or any claims arising under this guarantee.
- The exclusive remedy to the customer or owner of the Panel is to have FALK repair or replace a damaged panel under this guarantee.
- Oil canning and minor imperfections are not a valid reason for rejection or a claim under this guarantee.
- This guarantee does not cover damages or events where Panels have been removed from their original location and re-installed in a secondary location.

COATINGS

Sherwin-Williams Fluropon 70% PVDF Coatings

FALK is pleased to offer THE FOLLOWING Limited Warranty on our Fluropon® coil coatings. 1. This Warranty applies if any of the following Warranty Conditions occurs during the time period specified in the attached Warranty Table: a. Fluropon® exhibits cracking, flaking or peeling (loss of adhesion) to an extent that is apparent on ordinary outdoor visual observation. Minute fracturing, which may occur in proper fabrication of the building parts, is not a covered Warranty Condition. Failure due to substrate corrosion is not a covered Warranty Condition. b. Fluropon® chalks in excess of ASTM D-4214 method A number 8 rating when properly maintained as described herein. c. Fluropon® changes color more than five (5.0) Hunter delta-E units as determined by ASTM method D-2244. Color change shall be measured on an exposed painted surface that has been cleaned of surface soils and chalk, and the corresponding values measured on the original or unexposed painted surface. Color changes may not be uniform on surfaces that are not equally exposed to the sun and elements and Sherwin-Williams does not warrant that color changes will be uniform.

Product	Product Film integrity Warranty (Section 1a) (Years From Date of Coating Application)	Standard Colors Color Change Warranty (Section 1c) (Years From Date of Installation of Coated Panels)	Chalking Warranty (Section 1b) (Years From Date of Installation of Coated Panels)
Fluropon®	35	30	30
Fluropon® Extreme (Hardcoat)	35	30	30
Fluropon® Premiere (requires clear coat)	20	20	20
Fluropon® Classic (requires clear coat - Metallic)	20	20	20
Fluropon® Classic II (Mica)	20	20	20

This Limited Warranty is valid for products used for roofing and sidewall coil applications only.



Sherwin-Williams WeatherXL Siliconized Polyester Coatings

FALK is pleased to offer the following Limited Warranty on our WeatherXL Siliconized Polyester coil coatings. 1. This Warranty applies if any of the following Warranty Conditions occurs: a. Within 40 years from the date of application of the paint, WeatherXL exhibits cracking, flaking, or peeling (loss of adhesion) to an extent that is apparent on ordinary outdoor visual observation. Minute fracturing, which may occur in proper fabrication of the building parts, is not a covered Warranty Condition. Failure due to substrate corrosion is not a covered Warranty Condition. b. Within 30 years from the date of installation of the panels, WeatherXL: i. Chalks in excess of ASTM D-4214 method A number six (6) rating on horizontally installed (roofing) panels and a number eight (8) rating on vertically installed (sidewall) panels, when properly maintained as described herein, and ii. Changes color more than seven (7.0) Hunter delta-E units on horizontally installed (roofing) panels and five (5.0) Hunter delta-E units on vertically installed (sidewall) panels as determined by ASTM method D-2244. Color change shall be measured on an exposed painted surface that has been cleaned of surface soils and chalk, and the corresponding values measured on the original or unexposed painted surface. Color changes may not be uniform on surfaces that are not equally exposed to the sun and elements and Sherwin-Williams does not warrant that color changes will be uniform.

Sherwin-Williams Polyester Coating Guarantee

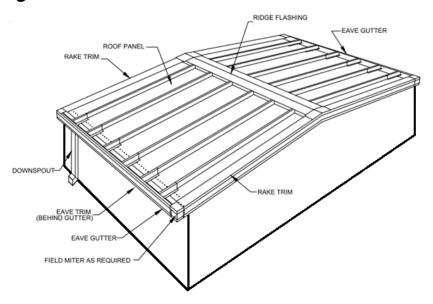
FALK is pleased to offer the following Limited Warranty on our Polyester coil coatings. 1. This Warranty applies if any of the following Warranty Conditions occurs: a. Within 20 years from the date of application of the paint, Polyester exhibits cracking, flaking or peeling (loss of adhesion) to an extent that is apparent on ordinary outdoor visual observation. Minute fracturing, which may occur in proper fabrication of the building parts, is not a covered Warranty Condition. Failure due to substrate corrosion is not a covered Warranty Condition. b. From the date of installation of the panels, Polyester: i. Chalks in excess of ASTM D-4214 method A number six (6) rating on horizontally installed (roofing) panels within five (5) years and a number eight (8) rating on vertically installed (sidewall) panels within ten (10) years, when properly maintained as described herein, and ii. Changes color more than seven (7.0) Hunter delta-E units on horizontally installed (roofing) panels within five (5) years and five (5.0) Hunter delta-E units on vertically installed (sidewall) panels with ten (10) years as determined by ASTM method D-2244. Color change shall be measured on an exposed painted surface that has been cleaned of surface soils and chalk, and the corresponding values measured on the original or unexposed painted surface. Color changes may not be uniform on surfaces that are not equally exposed to the sun and elements and Sherwin-Williams does not warrant that color changes will be uniform.

Please contact FALK customer service or your area sales manager to request copies of the coating suppliers' warranty terms, conditions, limitations, and exclusions.

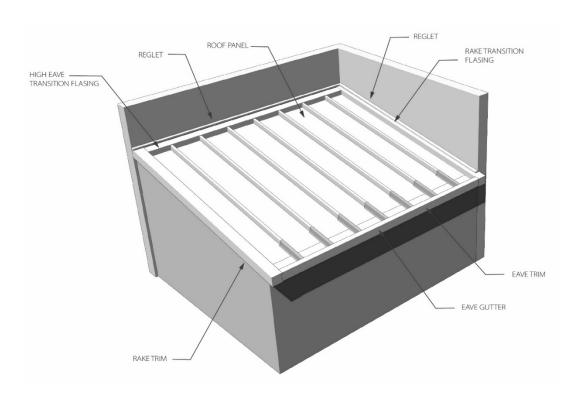


SSR PANEL INSTALLATION TERMS

Trim and Flashing Terms

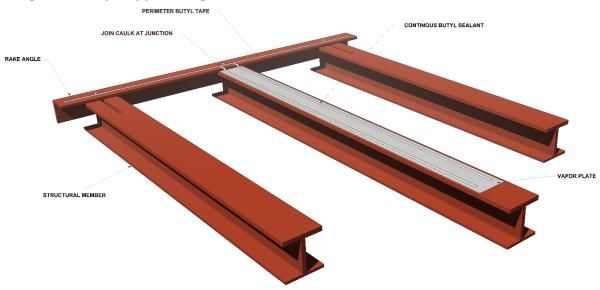


Transition Flashing Terms

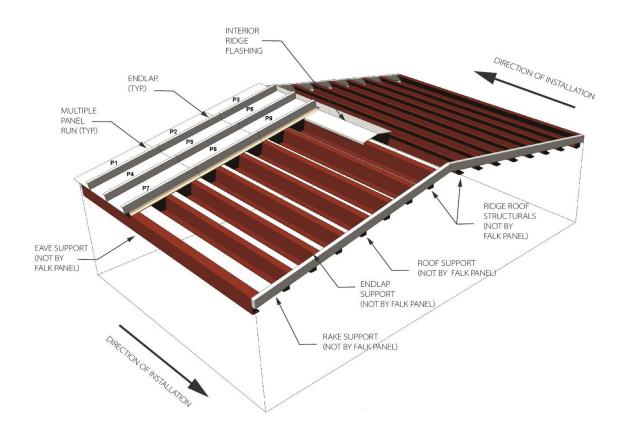




Rake Angle / Endlap Support Angle

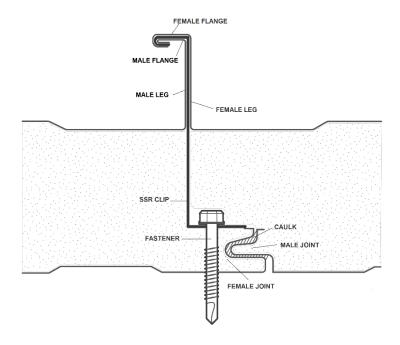


Roof Panel Orientation





SSR Joint Terms



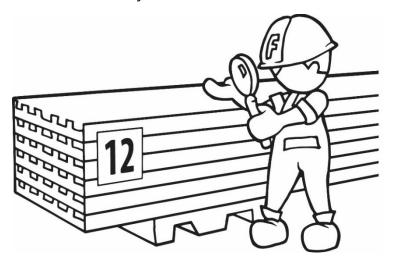


INSTALLATION RECOMMENDATIONS

Panel Inspection

It is critical that you inspect your panels for damage prior to unpacking. Falk IMP bundles will arrive at the project site with identifying placards summarizing your order and panel counts. If panels are missing or damaged while in the care of Falk's logistics team, please contact us immediately while also taking photos of the damaged panels while on the truck. While Falk makes every effort to mitigate and prevent shipping damages, we are not responsible for damages that occur following delivery, while in storage at the project site or when repositioned on-site. We recommend you open and inspect the delivered bundles while staging them appropriately across your construction site in to facilitate easy installation.

Falk recommends that our panels are installed under the direct supervision of an experienced sheet metal craftsman trained in the proper application of our products. To learn more about our Authorized Installer programs please contact Falk at 616.541.4500.



Panel Handling & Safety

When hoisting sandwich panels be sure to check the maximum working load limit of the forklift or crane. The package that needs to be lifted may never exceed this weight. The package should always be prevented from falling. That is why it is important to select the most suitable hoisting equipment first. We advise you to use a vacuum lift, pallet lifter or lifting slings combined with a wooden or metal support system for hoisting packages of sandwich panels.

Please take caution while handling the SSR42 Panel improper unloading and handling of panel material bundles may cause bodily injury or material damage. FALK is not responsible for bodily injuries or damage during unloading and staging.

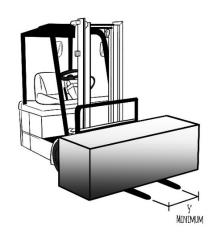
When using forklifts, make sure that forks are spread apart as far as possible. (5'-0" minimum)

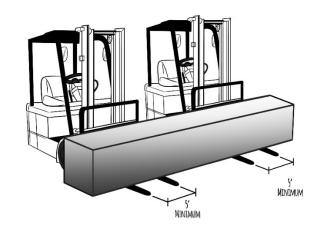
Handle with care and points of special attention.

- i. Be sure to avoid damaging panels on the opposite side of the struck when unloading.
- ii. Advance slowly and with caution once the bundle is on the forks.
- iii. Make sure to lift at the center of the bundle to avoid tipping.
- iv. Protective boards or foam should be placed on forklift load backrests to prevent damaging panel joints

If two forklifts are required, unloading must be coordinated. Operators must work in unison to prevent damage.





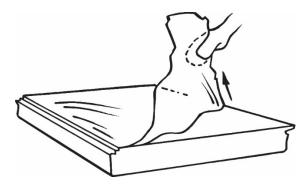


Protective Film

It is recommended to remove protective film as panels are installed. Film on installed panels should be removed by the end of each day. If panels are not installed within 60 days of receipt, the bundles should be unstacked, and the protective film removed from each panel. Carefully restack the panels while using foam slip sheets to protect the panels from damage. If adhesive residue remains on panel surfaces after the protective film is removed, panels may be cleaned with soapy water, WD-40, a cloth soaked in Oil-flo 141 or 409 cleaner.

Removal of Protective Film

The protective film on the panels needs to be removed within four weeks after production. If this is not removed within this time frame the film may be difficult to remove.





Covering

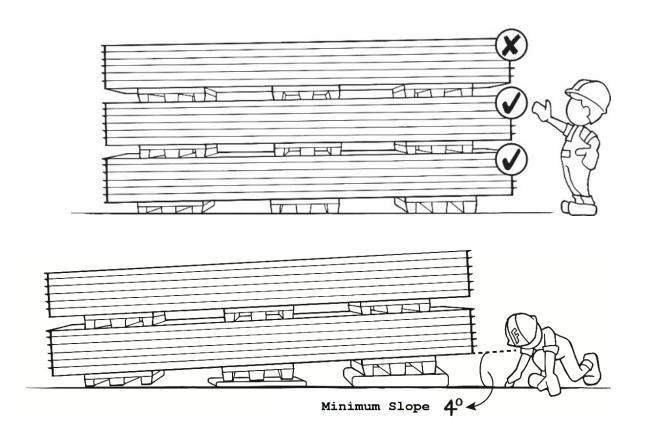
You can protect the panels from exposure to direct sunlight, rain, or any dirt by using a breathable tarp (for example a canvas tarp). Fasten this tarp with anchors so it will not blow away. However, please do not attach the tarp directly to the package. Plastic tarps should not be used since they may cause condensation below the surface. In addition to this, always remove stagnant water between panels. Please note packages

should be placed at a 4°-degree angle at least, so any moisture can flow away. Any shallow space below the Styrofoam pallets should also be filled so all pressure points are supported.



Storage Requirements

We recommend stacking two packages on top of each Other at the most. The longest package should be placed at the bottom. Please note: While stacking, the blocking and bracing needs to be clean and free from any other objects. This will limit the chance of irreparable damage to the top elements of the bottom package.



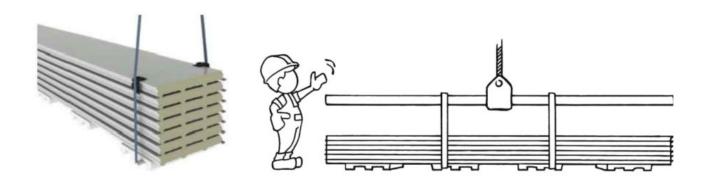


Unlimited Storage

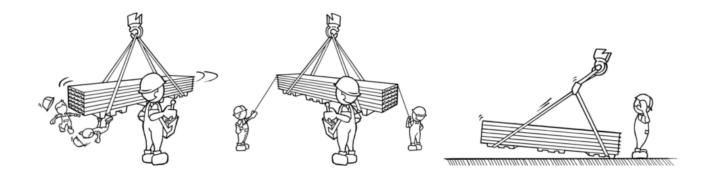
It is possible to keep panels in storage for a longer period. However, it is still important to remove the protection film within 60 days of manufacturer and/or store the goods indoors if panels are not installed for 90 days. It's highly recommended that you have adequate storage space to receive and store the panel bundles on a paved surface. This space must be level, firm, clean and free from standing water. Bundles should be stored in a dry condition, with one end slightly elevated to facilitate moisture drainage. Avoid outdoor storing for longer than 60 days. Moisture between panels can cause corrosion or staining. Staining of any kind is not considered to be a cause for rejection. If panels are not to be used immediately, then they should be stored under a temporary shelter with the plastic removed from the top and sides of the bundles.

Lifting Slings

Lifting slings always need to be pulled through below the blocking and bracing. This can be easily prevented by using a wooden support or metal tube that is at least 4 inches longer than the width of the package. Place these below the blocking and bracing and place the lifting slings through them. If necessary, also use temporary side protection such as a protective plate or bumper cushion, on top of the load.



Do not move any loads above people. For obvious reasons, loads should never be lifted above people. There is always a chance of something going wrong. Notify people who may walk below a load on time and never lift a load overhead. If possible, it is better to place an obstruction or close off the area.

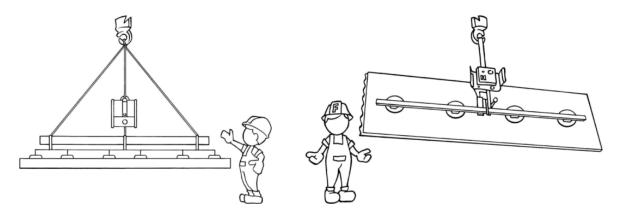




Pay attention to where you walk. While operating a crane, most focus is put on the load and the operating unit. However, please do not forget to also pay attention to the load while walking behind the crane. It is better to check for any obstacles beforehand. This will help avoid unnecessary risks. Also avoid walking backwards as much as possible.

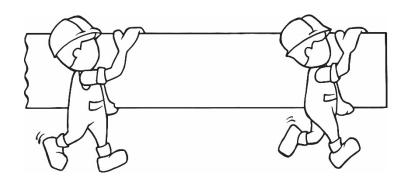
Vacuum Lifter

Always lift the panels from the package in a perpendicular position. Due to possible burr formation at the end of the panels damage may occur to the coating of the lower panel when they are not lifted in a perpendicular position. FALK recommends using a suitable and approved vacuum lifter for hoisting the panels. When using a vacuum lifter as your hoisting device the shape and size needs to be adjusted to the panel that requires lifting. This needs to remain in a flat position as much as possible. This is necessary to ensure a balanced division and maximum suction on the element during vertical transportation. Long and thin elements are prone to unwanted dents inflicted during handling.



Manual Carrying

Panels should be manually carried on their sides(vertically) and not on the horizontal as this may cause for the sheet to detach (delaminate). Workers should wear appropriate protective gear when handling panels. Failure to do so may cause injury. Be careful not to damage the joint areas as panel engagement may be difficult if joints are damaged.



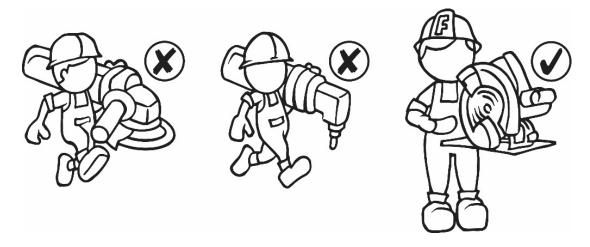


Job Site Safety & Sealant Applications

While working with FALK IMP's, please look out for sharp edges, burrs, and chips on the elements. Fine dust from the insulation core sometimes causes a skin rash or respiratory irritation. Some injuries may occur when processing and working with panels. Therefore, we advise you to always wear safety goggles or a face mask, gloves, dust mask and protective clothing. To avoid any hearing damage, please wear hearing protection as well.

Cutting a panel to size Use the right equipment to cut a panel to size. FALK suggests using a circular saw or panel cutter with a special saw blade suitable for steel sandwich panels, when making modifications to building elements.

Do not use an electric grinder, reciprocating saw, or any tool that may cause serious delamination which affects aesthetics, performance, and panel warranty.

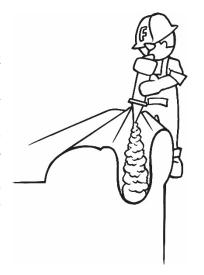


Caution: Modifying, substituting, cutting, or eliminating critical design component details will impact assemble performance and may nullify one's ability to receive a warranty. System assemblies' performance is tested based on all components working collectively at prescribed diameters and lengths. When modification and substitutions are made to these components, this directly impacts the assembly's performance. FALK cautions this practice and recommends interested parties contact the projects Engineer of Record to perform calculation prior to performing any modification and/or substitution.



Jobsite Sealant Applications

Some projects require higher levels of environmental protection from the elements, than the level that can be reached when using the standard joint containing a gasket. When this is the case, the side joint will need to be covered by butyl tape or sealant during the installation process. Apply butyl sealant to interior female joint to ensure proper vapor barrier. Joint should be dry and clean before applying sealant. Fill interior warm female pocket approximately 1/2 to 3/4 full. Add / delete as necessary during panel installation to maintain proper panel seal. In extreme cold weather locations, it may be advisable to caulk both interior and exterior joints. It is also advisable to keep sealants in a warming location until ready for use to ensure proper viscosity and flow rates are achieved.





PANEL INSTALLATION

- 1. As each panel is removed from the bundle, the male and female edges should be visually examined, and any overspill of insulation in the joint area and any excess should be carefully removed.
- 2. Prepping the panel:
 - a. Install the interior Ridge Cap, using flat pancake head screws, per standard details.
 - b. Install 7/8" Butyl Caulk around the entire perimeter of the building.
 - c. Cut, as required, the first SSR42 panel to achieve a flat finished edge as this will be installed along the rake edge.
 - d. Remove plastic film on exterior metal.
 - e. Flip the panel as needed. Use Tin Snips to release the cut back joint. Be sure to take the plastic cutback tape off the metal and scrape using a puddy knife to remove any foam visible on the interior of the exposed exterior metal.
 - f. Add a ¼" Bead of caulk to the female side of the SSR42 bottom joint of panel.
 - g. Using 1/4" Butyl Tape, apply tape to male top male leg of panel.
 - h. If overlapping panels, notch male leg to flange to cut back length.
- 3. Use lifting equipment to hoist panel into position.
- 4. The SSR42 panel should be laid flush with finished end wall structure, parapet or roof nailer as shown on the FALK shop drawings or standard details. It is important that the first tier of panels is laid true to line, properly lined with a string to ensure a true and square fit.
- 5. The starter panel should be fastened along the rake supporting member in the required spacing as shown in the FALK shop drawings. Typically, 12" OC is required.
- 6. SSR42 pressure clip and two fasteners will be affixed to each supporting member at designated spans.
 - a. Add a 1/4" Butyl Tape piece over the clip to waterproof the seam and joint clip interface.
 - b. Crimp the clip.
 - c. Place non-skinning caulk at eave strut location marrying eave strut, panel clip, and male leg.
- 7. Install panel from low eave to ridge before proceeding horizontally.
- 8. The remaining tongue and groove SSR42 panels should be engaged with the initial and subsequent panels to mate the panels as noted above. As each panel is positioned in place, ensure a watertight joint is achieved and the corresponding pressure plate and fasteners are affixed to each supporting member at the given span. (Repeat as needed to complete installation.)
- 9. At roof eave, ridge and laps, crimp a minimum of 12" along with crimping each additional roof clip.
- 10. Following temporary affixment, utilize a D.I. Seamer to seam entire roof.

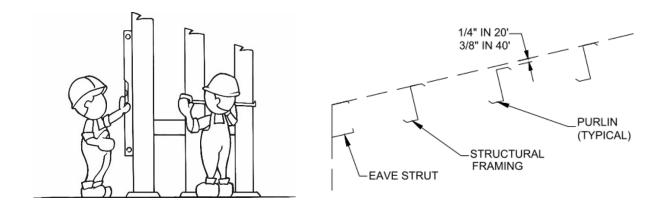
Starting Panel Installation

- 1. Before beginning the installation of FALK SSR42 Insulated Roof Panels, verify that all structural framing and bracing has been installed and that all connection bolts have been installed and tightened. Purlins must be properly braced to prevent rolling.
- 2. A rake angle must be installed on top of the secondary structural to provide a seal line along the rake of the roof.
- 3. If the roof has endlaps, an additional structural support must be installed at all endlap locations. It is critical that these endlap supports are installed at the exact location specified on the drawings.

NOTE: Check to ensure that the steel framing is plumb and that it is "in plane" from eave to ridge. An out-of-plane substructure will force the panels to bend when the panels are fastened, causing oil-canning and

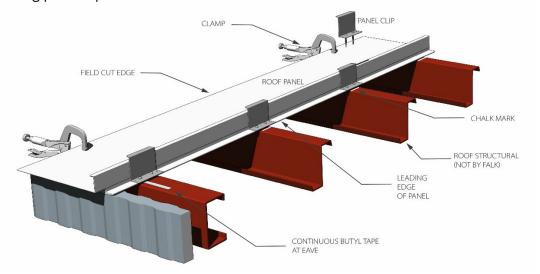


difficulty engaging the next panel. Tolerances for substrate alignment are as follows: 1/4" in 20' or 3/8" in 40', with no more than 1/16" between any two consecutive structural members.



TIPS:

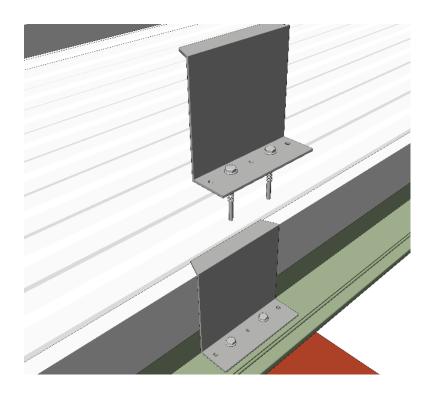
- 1. Field cut the starting panel to the required width and clean the panel of cutting residue.
- 2. Position the leading edge of the starting panel along the starting dimension chalk marks.
- 3. Position the end of the panel 2" beyond the face of the wall. This dimension may vary for specific job conditions refer to the job's installation drawings.
- 4. Temporarily clamp (or fasten) the cut edge of the panel to the rake structural.
- 5. Secure the leading edge of the panel to the eave and roof structural with the panel clips. See following panel clip installation detail.





Panel Clip Installation & Panel Engagement

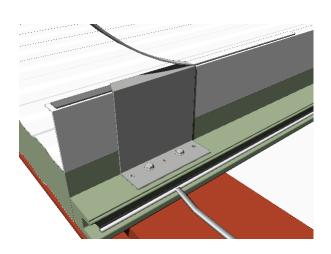
Application: Insulated standing seam roof panel clips are used for attachment of mechanically seamed IMP's for securing a fixed connection point where minimal differential movement is needed. Use manufacturer approved fasteners as noted within the approved shop drawings.

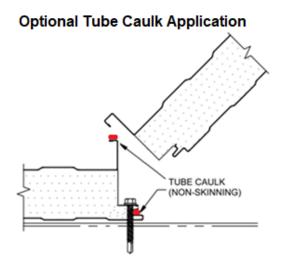




TIPS:

- 1. Apply clip sealant to underside of the clip's tab. Extend sealant 1/4" beyond ends of clip tab.
- 2. While holding the clip tight against the panel's edge, fasten the clip to the roof structural with the specified type and quantity of fasteners.
- 3. Crimp the clip's tab around the panel's male rib with the manual seaming tool.
- 4. FALK's SSR joint is highly engineered and depending on building alignment, it may be best to use a combination of caulk and butyl tape in the leg section of the panel.





Panel Clamping

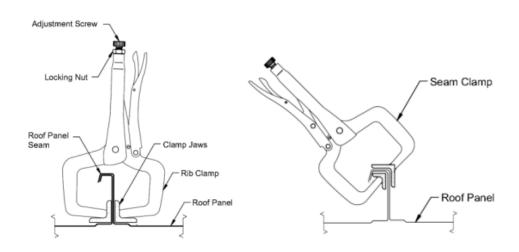
- Roof Seamer are set up for your specific panel profile. Never use this machine on any other roof panel
 or profile. Do not attempt to alter or modify the machine in any way. Falk Panel recommends D.I Roof
 Seamers for rental equipment. http://diroofseamers.com
- Follow all safety suggestions and warnings in this guide as well as those posted on the machine itself.
- It is recommended to "seam as you go". In other words, seam the roof panels as they are being installed. This helps ensure that each panel is kept within module and installed correctly.
- Use a hand crimper to start the roof seamer on each rib.





STEP 1

Before beginning, ensure that the panels are installed correctly and are free of all debris and contaminants such as sand, snow, excessive fluids, sealant/mastic, tools, extensions cords, etc. Always attach a tether to the safety hook any time the seamer is on the roof to prevent it from falling off. Failure to do so could result in machine damage, serious injury, and/or death.

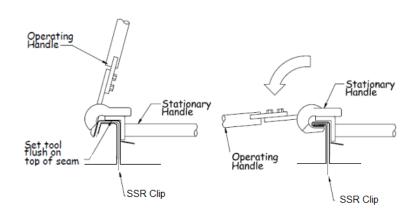


STEP 2

Hand crimping at the beginning of each panel is required to start the seamer. Hand crimped to a 90° seam before seaming. Please contact D.I. Roof Seamers to rent the correct hand crimpers for this profile.







TIPS

DO NOT OVER CRIMP. THIS WILL DAMAGE THE CRIMPER.

Step 3

Place the machine on the hand-crimped portion of the panel at the beginning of the seam, then engage by pulling the handles into the locked position. See the proper seamer engagement below. This is a bidirectional seamer. This machine can complete the 90°(Single Lock) seam from the ridge to eave and/or eave to ridge.

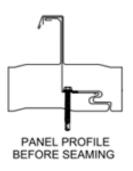
Step 4

Connect the power supply into the quick-release plug near the handle of the machine and turn the machine on. Run the seamer approximately 12" to ensure that you are receiving the desired seaming operation.



Seaming Operation - Mechanical







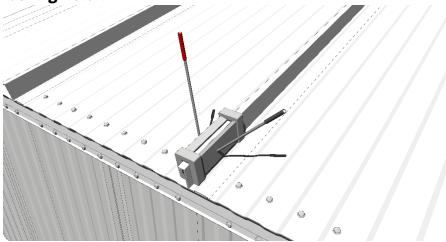
PANEL PROFILE AFTER SEAMING

The electric seamer will run upslope and downslope and is controlled by a hand-held forward and reverse remote switch. The seamer will form the seam when running in either direction. An orientation plate on the seamer indicates forward and reverse. The remote switch is designed to stop the seamer when the button is released. The seamer will continue for approximately 6 to 8 inches after the button is released. Do not try to stop the seamer.

- On lower roof slopes, walking with the seamer is recommended.
- On steep sloped roofs (6:12 and greater) a 12-gauge extension cord (not included with seamer kit) may be installed between the remote switch and the seamer. Seaming can then be accomplished by starting the seamer at the eave from a man lift. When using this method, the seam will be formed upslope and then the seamer will be reversed down the seam to the eave, removed and placed on the next seam. During panel installation, hand crimp the end of the panels 12"-18" downslope from the ridge or high side of the roof. Stop the seamer at this point to prevent the seamer from running into the flashing or running off the roof. Finish remainder of seam with the hand crimper. To prevent the seamer from running off the roof, always hand crimp the first and last 12" -18" of panel seam.
- To begin seaming, set the seamer on the seam with the locking arm up and to the open side of the seam. The wheels should be even with the edge of the panel. Push the locking arm down to engage the tools and turn on the seamer.



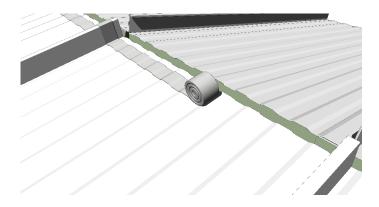
Interior Ridge Flashing Detail



TIPS:

- 1. If the roof has a ridge condition, the interior ridge flashing must be installed before the butyl tube caulk and roof panels are installed.
- 2. Position the flashing so that it is centered over the ridge structural.
- 3. Align the end of the flashing flush with the outer edge of the rake structurally.
- 4. Fasten the flashing to the structural with self-drilling screw 1/4" x 14x1. As necessary to secure the flashing until the roof panels are installed.
- 5. At flashing splices apply butyl tube caulk, lap finishes 2" and secure lap with flashing screws @3" O.C. and centered over butyl tube caulk.

Ridge Closure Sealant Application



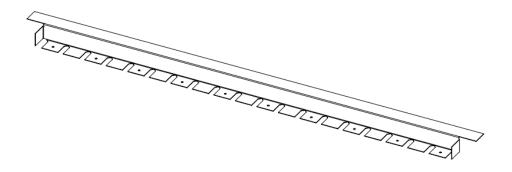
TIPS:

1. If the roof panel ends are within the specified tolerance use the endlap assembly gauge to guide the sealant placement. If the panel ends are not within tolerance, use the alignment marks to guide the placement of the 2 ½" tape sealant.



2. Apply endlap sealant continuously across the roof panels, and wrap the sealant completely around the panel ribs. Install pigtail sealant to cover any exposed area of the panel's factory notch.

Ridge Closure Installation

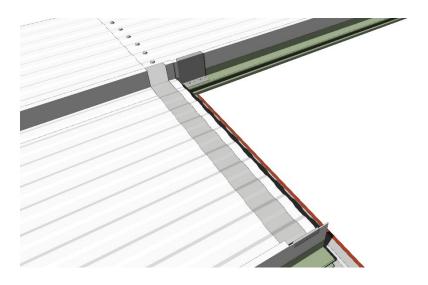


TIPS:

- 1. Position the ridge closure so its end flange is on the roof panel's leg. Bend to mirror leg angle if excess hangs over leg. Confirm 2 1/2 "tape sealant is not displaced during the closure installation and the closure is firmly engaging the tape sealant.
- 2. Align the face of the closure with the alignment marks. Check that the closure sits fully on the sealant. If required, use clamps to pull down and hold the closure during fastening.
- 3. Install the fasteners through the pre-punched hole at the low rib bottom flange of the closure. Check that the fasteners penetrate through the sealant and into the roof panels. Tighten the fasteners as necessary to assure uniform and complete contact of the sealant to the closure and panel surfaces.
- 4. At the rakes, field cut and tab the end of the ridge closure to fit with the rake closure. Fasten the tab to the rake closure with screw.
- 5. Screw side tab through leg into the existing structure.
- 6. As required, place caulk along interior ridge closure to ensure watertight condition.



Ridge Flashing Installation

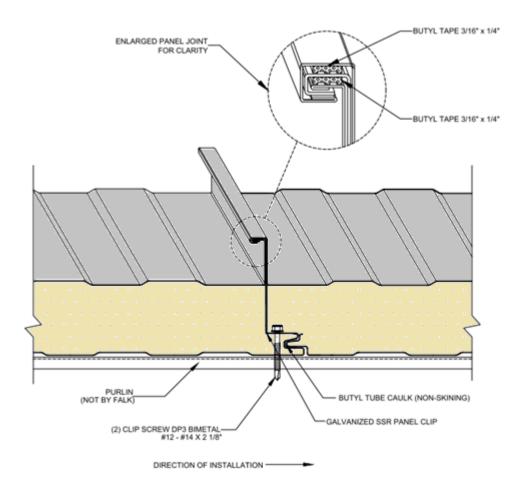


TIPS:

- 1. Apply flashing sealant along top of ridge closures at the rakes, apply the pigtail sealant on top of the rake closure.
- 2. Center the ridge flashing over the ridge closures use a string line to assure a straight ridge run.
- 3. Set the ridge flashing in position and clamp to the ridge closures. Check that the flashing is set at a pitch 1/2: 12 greater than the roof pitch. This will ensure that the flashing will not sag during cold weather contraction.
- 4. Fasten the ridge flashing edges to the ridge closures with flashing fasteners penetrate the sealant.
- 5. At splices overlap the ridge flashing 2". Apply flashing fasteners at 2" O.C. check that the splice is secured at its proper pitch to prevent sagging of the finished splice.



SSR Panel Joint



TIPS:

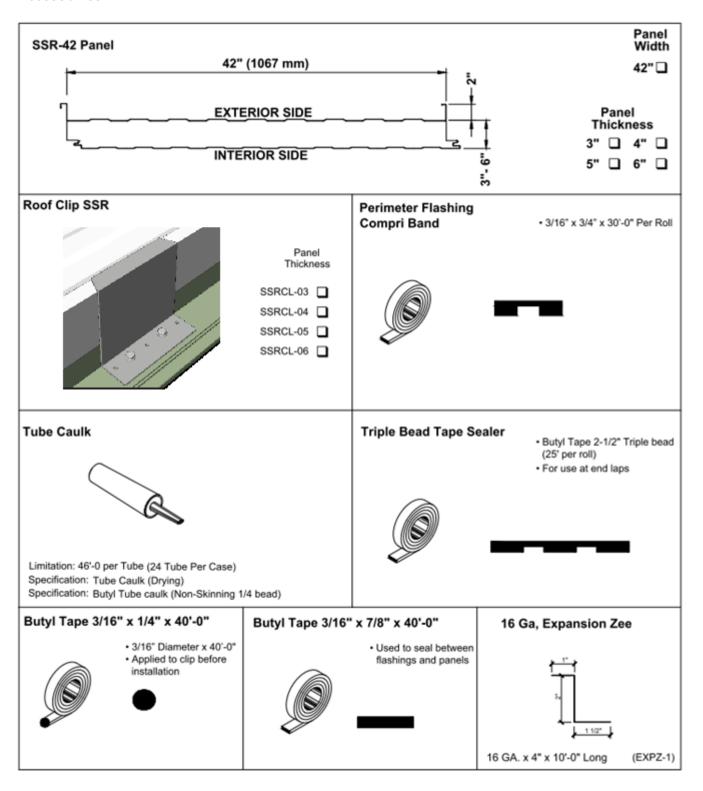
1. Butyl caulk and/or tape is permitted in panel joint. Field conditions to determine the type of closure needed.



ACCESSORIES & FASTENERS

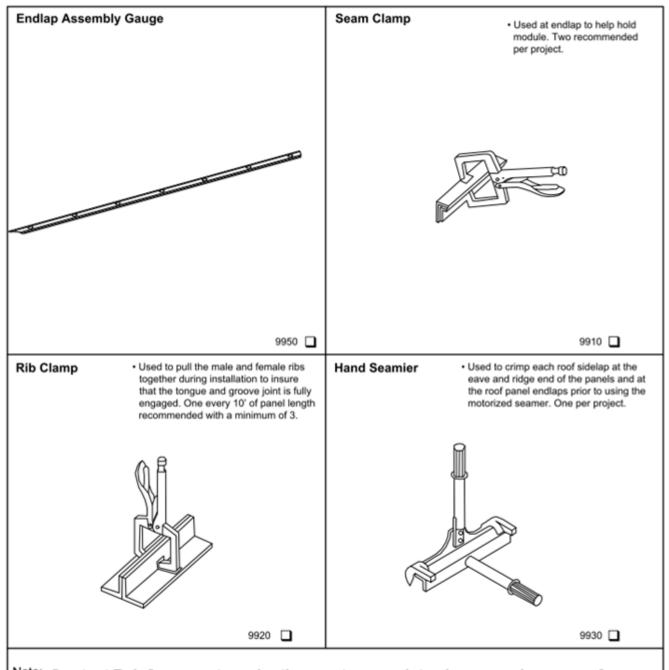


Accessories-1





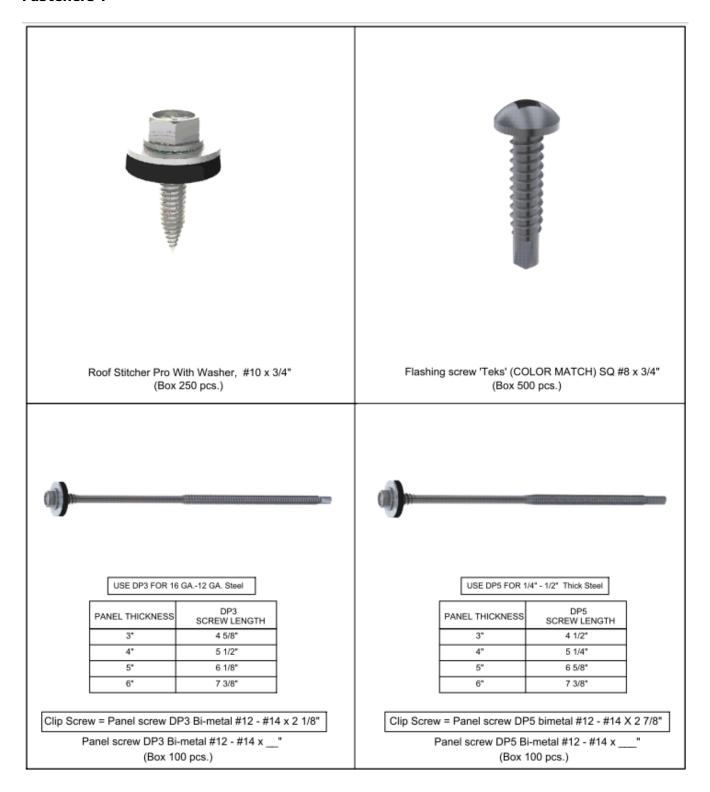
Accessories-2



Note: Contact D. I. Seamers to order the most appropriate clamps and seamers for SSR-42. Failure to secure the proper tools will impact roof performance.

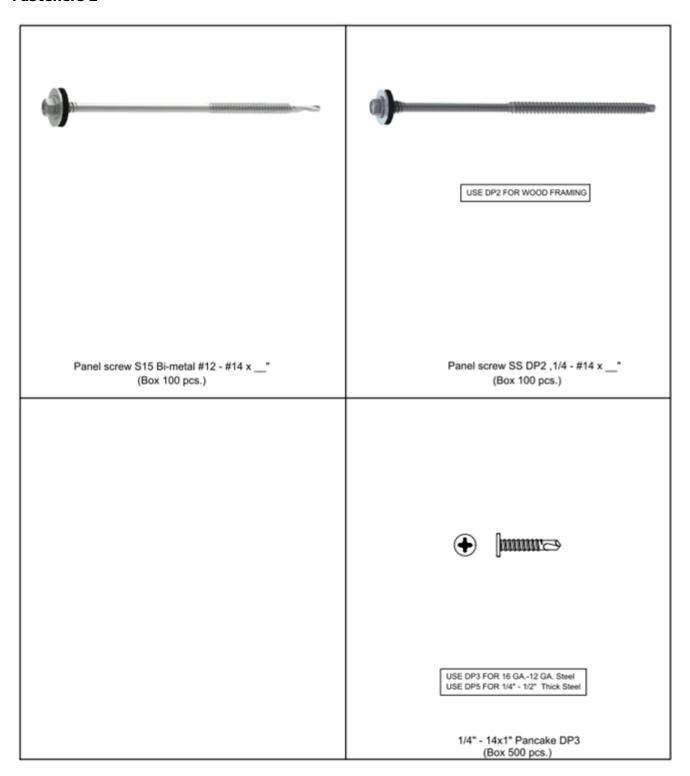


Fasteners 1





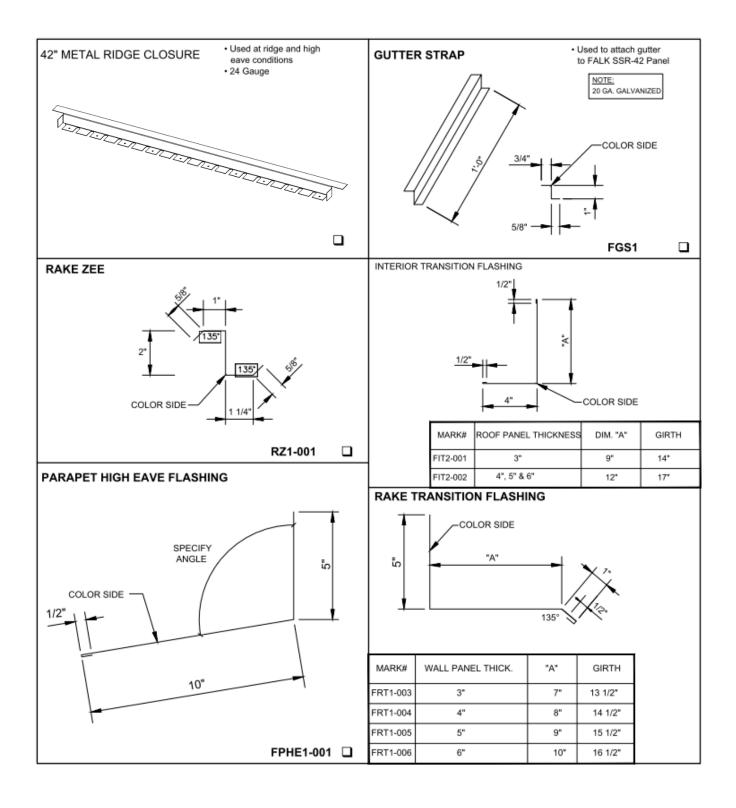
Fasteners 2



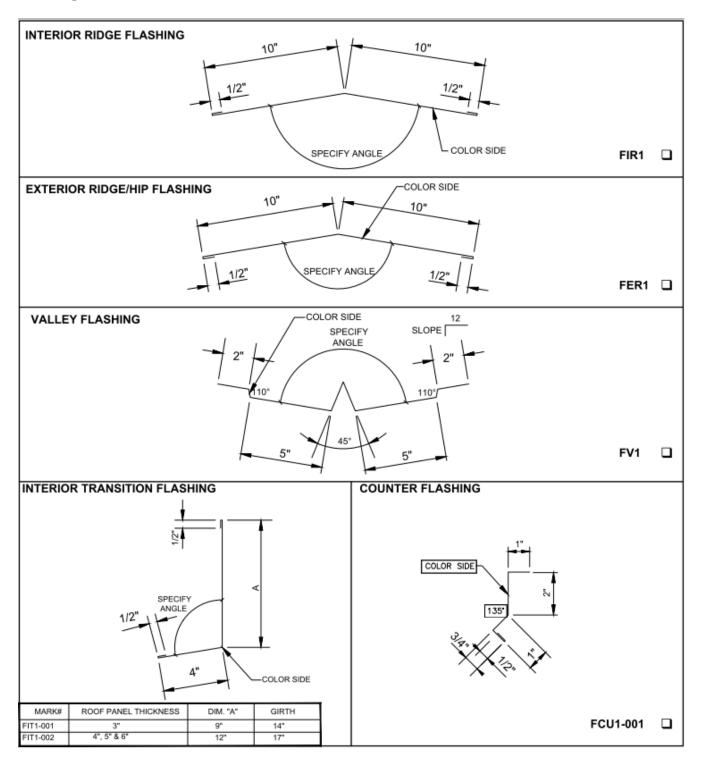


FLASHING PROFILES

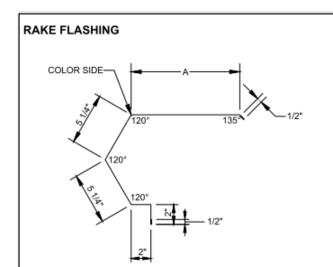




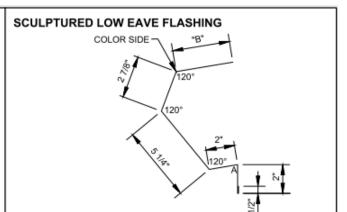




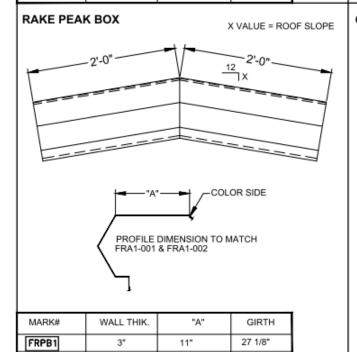




MARK#	WALL THIK.	"A"	GIRTH
FRA1-001	3"	11"	27 1/8"
FRA1-002	4", 5", 6"	13"	29 1/8"

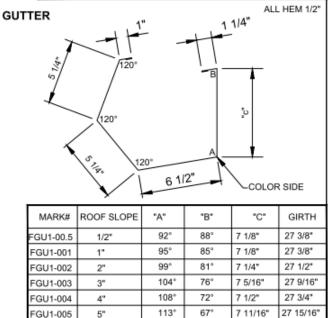


MARK#	ROOF SLOPE	"A"	"B"	GIRTH
FSLE1-00.5	1/2"	88°	3 1/2"	16 1/8"
FSLE1-001	1*	85°	3 1/2"	16 1/8"
FSLE1-002	2"	81°	4"	16 5/8*
FSLE1-003	3"	76°	4"	16 5/8*
FSLE1-004	4"	72°	4 1/2"	17 1/8"
FSLE1-005	5"	67°	5"	17 5/8*
FSLE1-006	6"	63°	6*	18 5/8"



13"

29 1/8"



117°

63°

7 15/16"

28 3/16"

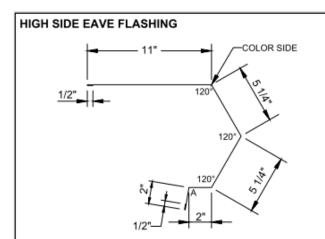
FGU1-006

6"

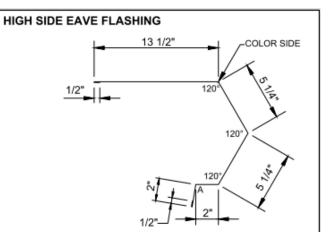
FRPB2

4", 5", 6"



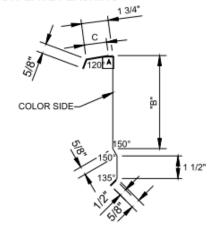


MARK#	ROOF SLOPE	WALL THIK	"A"	GIRTH
FHSE1-00.5	1/2"	3*	92°	26 1/2*
FHSE1-001	1"	3*	95°	26 1/2"
FHSE1-002	2"	3"	99°	26 1/2*
FHSE1-003	3"	3*	104°	26 1/2"
FHSE1-004	4"	3*	108°	26 1/2"
FHSE1-005	5"	3*	113°	26 1/2*
FHSE1-006	6"	3*	117°	26 1/2"

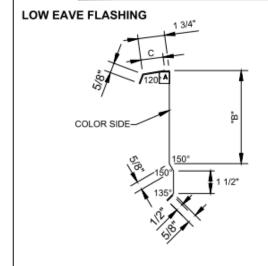


MARK#	ROOF SLOPE	WALL THIK.	"A"	GIRTH
FHSE2-00.5	1/2"	4", 5", 6"	92°	29"
FHSE2-001	1"	4", 5", 6"	95°	29"
FHSE2-002	2"	4", 5", 6"	99°	29"
FHSE2-003	3"	4", 5", 6"	104°	29"
FHSE2-004	4"	4", 5", 6"	108°	29"
FHSE2-005	5"	4", 5", 6"	113°	29"
FHSE2-006	6"	4", 5", 6"	117°	29"



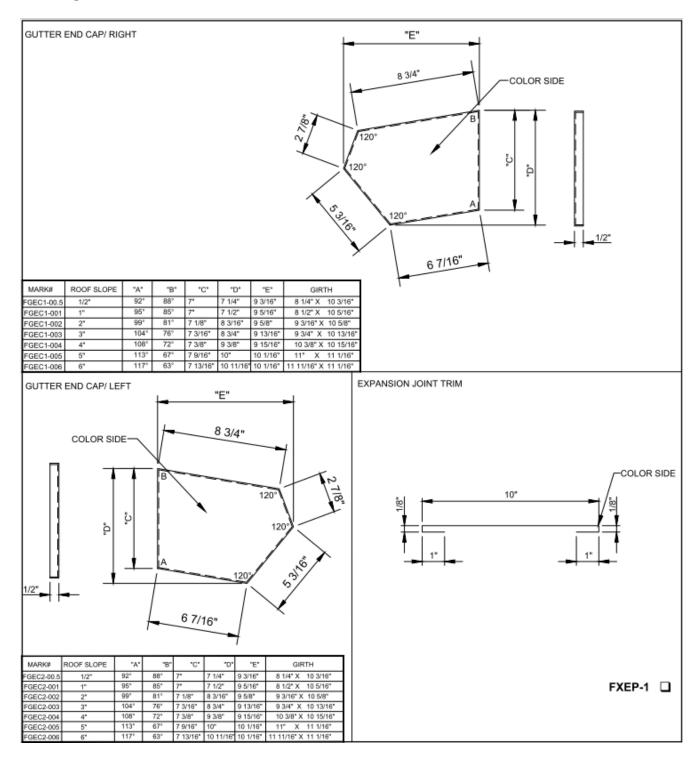


MARK#	ROOF SLOPE	ROOF THIK	.A.	"B"	"C"	GIRTH
FLE2-00.5	1/2*	5", 6"	88°	7"	1 1/4"	14 1/2"
FLE2-001	1"	5", 6"	85"	7"	1 1/4"	14 1/2"
FLE2-002	2"	5", 6"	81"	7"	1 1/4"	14 1/2"
FLE2-003	3*	5", 6"	76°	7 1/4*	1"	14 1/2"
FLE2-004	4"	5", 6"	72"	7 1/4*	1"	14 1/2"
FLE2-005	5"	5", 6"	67"	7 1/4*	1"	14 1/2"
FLE2-006	6*	5", 6"	63"	7 1/4*	1"	14 1/2"

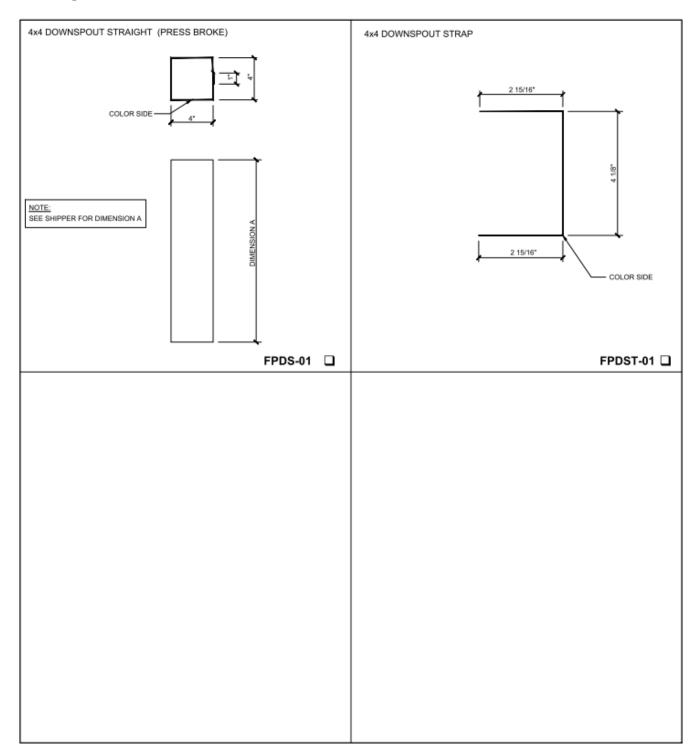


MARK#	ROOF SLOPE	ROOF THIK.	"A"	"B"	,C,	GIRTH
FLE1-00.5	1/2"	3*, 4*	88°	6"	1 1/4"	13 1/2*
FLE1-001	1"	3*, 4*	85°	6"	1 1/4"	13 1/2*
FLE1-002	2"	3*, 4*	81°	6"	1 1/4"	13 1/2*
FLE1-003	3*	3", 4"	76°	6 1/4	1"	13 1/2*
FLE1-004	4"	3", 4"	72°	6 1/4*	1*	13 1/2*
FLE1-005	5*	3", 4"	67°	6 1/4*	1*	13 1/2*
FLE1-006	6"	3", 4"	63°	6 1/4°	1*	13 1/2*











DETAILS

Please refer to FALK's website at www.falkpanel.com for common details as it may relate to your site specific conditions. If you have specific questions, feel free to contact our Customer Service team for immediate assistance at 616.541.4500.

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