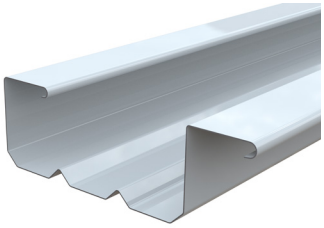
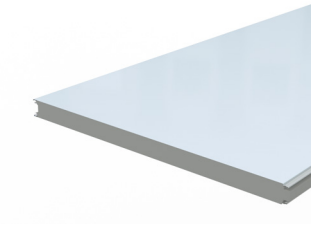
AMERICAN STRUCTURES & DESIGN

Patio Cover

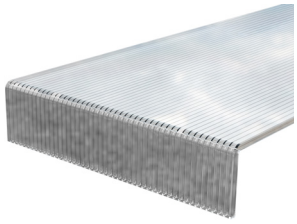
V-Pan



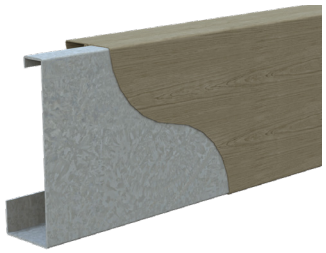
Flat Pan



Insulated



PolyPanel



Lattice Wrap

PATIO COVER INSTALLATION INSTRUCTIONS

Table of Contents

American Structures & Design - WA | 1801 132nd Ave. E | Sumner, WA 98390 | P: 253-833-4343 | F: 253-833-4545
American Structures & Design - OR | 13444 NE Jarrett St. | Portland, OR 97230 | P: 971-645-4201 | F: 971-645-4212

AS&D IMPORTANT NOTE

- Consult your local building department for any required permits. You may be required to obtain a building permit for this structure.
- Patio cover design and engineering do not allow for bearing any additional loads (for example: hanging plants, swings, people, trellises or other objects).
- American Structures and Design is not responsible for replacing parts lost or damaged due to incorrect assembly.
- All points of attachment to existing structures (such as house or patio) must be to solid, structurally sound, and secure material. Example: wood or metal studs, joists, headers, plates, or sills. Additional engineering may be required if surface you are attaching to is not included in the engineering report.

  Note: Failure to properly attach and anchor unit per engineering requirements to existing structure may result in damage to the unit, damage to the structure it is attached to, and could cause serious bodily injury.

BEFORE YOU BEGIN

Check the Sales Order paperwork for any missing parts. Also, make sure that you have the correct quantities and sizes of components and hardware. If you find anything missing, please contact AS&D within two business days of receipt of materials.

Before beginning installation, make sure you read each step carefully.

- Clear work area of all obstacles prior to beginning installation.
- To prevent damage to material finishes, place patio components on protective surface (for example, on soft grass, etc).
- Have all the necessary tools and equipment. A list can be found on page 2.

PATIO COVER DO'S AND DONT'S

DO follow the instructions in this guide.	DON'T proceed without reading this guide
DO check local building regulations before you begin.	DON'T assume that any structure will meet local regulations without checking.
DO use only fasteners per the engineering requirements.	DON'T substitute with fasteners that do not meet engineering requirements.
DO store all materials indoors, under cover or keep them in a cool and protected environment until installation.	DON'T store materials which have protective film (such as PolyPanel or Insulated Panel) in direct sunlight. Expansion prior to installation can cause installation difficulties.

American Structures & Design - WA | 1801 132nd Ave. E | Sumner, WA 98390 | P: 253-833-4343 | F: 253-833-4545
American Structures & Design - OR | 13444 NE Jarrett St. | Portland, OR 97230 | P: 971-645-4201 | F: 971-645-4212

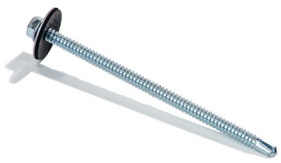
Required Tools:

Tools	Description
	Safety Glasses
	Tape Measure
	Drill or Impact Gun Hammer Drill for Concrete Applications
	Hex Head Driver 1/4", 5/16", 3/8"
	Screw Driver Flat
	Screw Driver Philips
	Metal Drill Bits: 5/8", 3/8"
	3/8" Masonry Drill Bit
	Level and Square
	Ladders 2x6' (or height appropriate)

Tools	Description
	Rubber Mallet
	Hammer
	Sealant Gun
	2" Hole Saw
	Tin Snips or Aviation Snips
	Miter Saw With min. 65 tooth carbide blade for cutting aluminum material
	Steel Cut Off Saw with metal abrasive blade for cutting steel material
	Crescent Wrench
	Chalk Line Tool

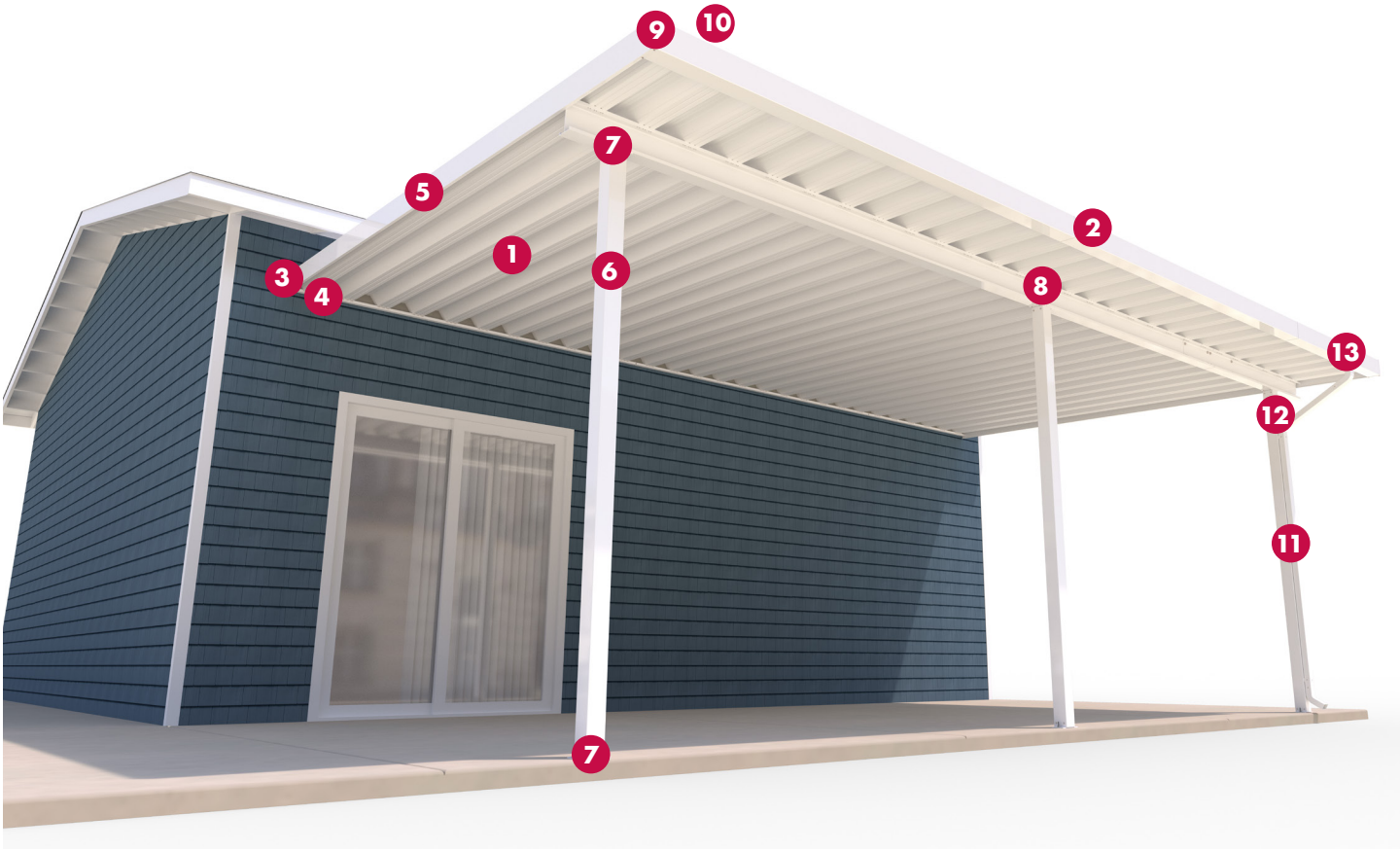
American Structures & Design - WA | 1801 132nd Ave. E | Sumner, WA 98390 | P: 253-833-4343 | F: 253-833-4545
American Structures & Design - OR | 13444 NE Jarrett St. | Portland, OR 97230 | P: 971-645-4201 | F: 971-645-4212

Required Hardware:

PART	PRODUCT DESCRIPTION (Inches)	DIMENSIONS	PART NO.
	Hex Lag	3/8" x 3"	FS-3/8X3.00HEXLAG-18-8
		3/8" x 4"	FS-3/8X4.00HEXLAG-18-8
		3/8" x 5"	FS-3/8X5.00HEXLAG-18-8
	Hex Tek	#10 x 5/8"	FZ-10X.625-HEXTEK
		#12 x 3/4"	FZ-12X.75-HEXTEK
		#14 x 3/4"	FZ-14X.75-HEXTEK
		#14 x 1"	FZ-14X1-HEXTEK
	Hex Tek with Neo Washer	#14 x 4"	FZ-14X4-HEXTEKZINC-NEOWASH
		#14 x 5"	FZ-14X5-HEXTEKZINC-NEOWASH
		#14 x 6"	FZ-14X6-HEXTEKZINC-NEOWASH
	Lattice Tube Scew with Neo Washer	2 1/2"	PC-SMS23
	Wedge Anchor	3/8" x 3 3/4"	FS-WA-3/8X3.75-304
	Hex Sheet Metal Screw	#12 x 2 1/2"	FZ-12x2.50-SMS-ZINC

American Structures & Design - WA | 1801 132nd Ave. E | Sumner, WA 98390 | P: 253-833-4343 | F: 253-833-4545
American Structures & Design - OR | 13444 NE Jarrett St. | Portland, OR 97230 | P: 971-645-4201 | F: 971-645-4212

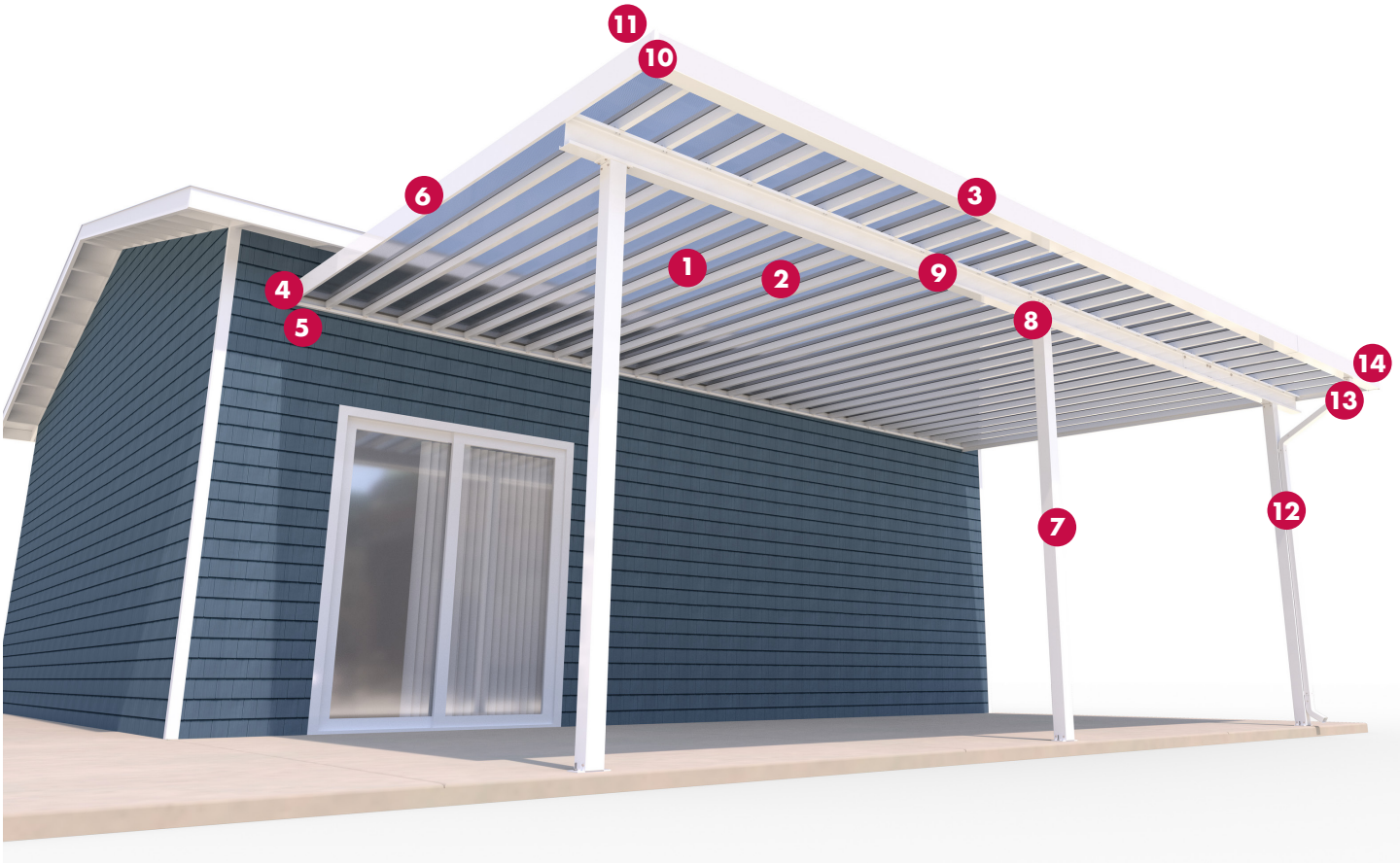
Roof Panel Overview: V-Pan, Flat Pan, Insulated



1.Roof Panel Types
   4" V-Pan (PC-VP4)
   6" Flat Plan (PC-FPT6),
   3", 4.25", 6" Insulated Roof Panels
   (PC-IP3, PC-IP4.25, PC-IP6)
2. Gutter (PC-G2), Gutter Splice (PC-GS-2)
3. 2 1/2" or 4" Hanger (PC-H2.5, PC-H4-2)
4. Hanger Rail (PC-HR-2)
5. Side Fascia (PC-SF)
6. 3" or 4" Post (PC-P3, PC-P4)
7. 3" or 4" Post Bracket (PC-PB3, PC-PB4)
8. 4" or 7" I-Beam (PC-IB4, PC-IB7), 4", 7" I-Beam Splice (PC-IBS4, PC-IBS7)
9. Corner (PC-DKC)
10. Gutter Dam (PC-GDAM)
11. Downspout (PC-102X3DS)
12. A-Elbow or B-Elbow (PC-AE, PC-BE)
13. 2" x 3" Dropout (PC-2xDRP)

American Structures & Design - WA | 1801 132nd Ave. E | Sumner, WA 98390 | P: 253-833-4343 | F: 253-833-4545
American Structures & Design - OR | 13444 NE Jarrett St. | Portland, OR 97230 | P: 971-645-4201 | F: 971-645-4212

Roof Panel Overview: PolyPanel

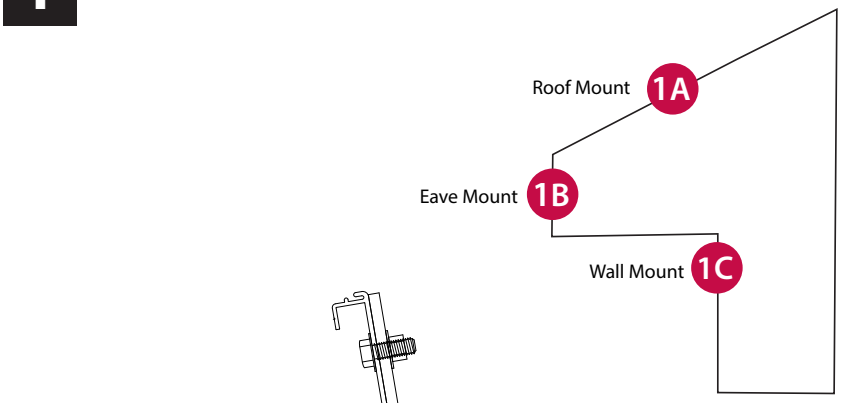


1. Roof Panel Types
   11.75" x 6mm PolyPanel (PC-PP6)
2. 4" T-Bar (PC-TB4), Snap Bead (PC-TBSB)
3. Gutter (PC-G2), Gutter Splice (PC-GS-2)
4. 4" Hanger (PC-H4-2), Hanger Snap Bead (PC-HSB)
5. Hanger Rail (PC-HR-2)
6. Side Fascia (PC-SF)
7. 3" or 4" Post (PC-P3, PC-P4)
8. 3" or 4" Post Bracket (PC-PB3, PC-PB4)
9. 4" or 7" I-Beam (PC-IB4, PC-IB7),
   4" or 7" I-Beam Splice (PC-IBS4, PC-IBS7)
10. Corner (PC-DKC)
11. Gutter Dam (PC-GDAM)
12. Downspout (PC-102X3DS)
13. A-Elbow or B-Elbow (PC-AE, PC-BE)
14. 2" x 3" Dropout (PC-2xDRP)

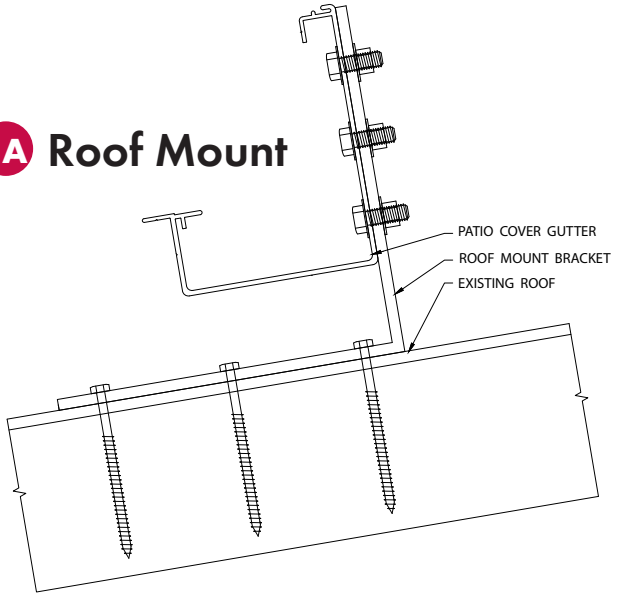
American Structures & Design - WA | 1801 132nd Ave. E | Sumner, WA 98390 | P: 253-833-4343 | F: 253-833-4545
American Structures & Design - OR | 13444 NE Jarrett St. | Portland, OR 97230 | P: 971-645-4201 | F: 971-645-4212

Attachment Types

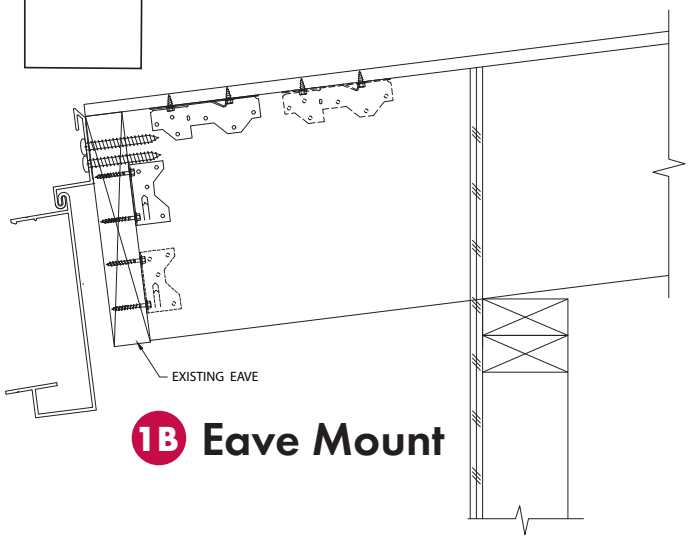
1



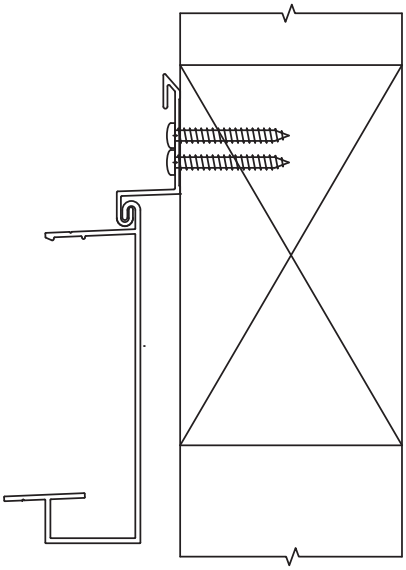
1A Roof Mount



1B Eave Mount



1C Wall Mount

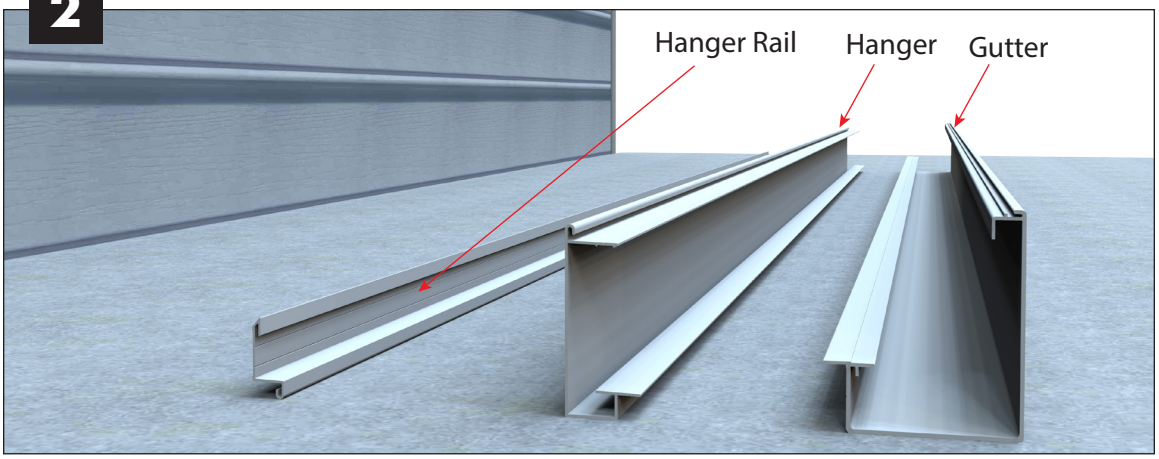


1A,1B,1C - Patio covers are mounted to the structure in multiple ways. Always refer to AS&D Engineering documentation. Contact your local representative for detailed information.

American Structures & Design - WA | 1801 132nd Ave. E | Sumner, WA 98390 | P: 253-833-4343 | F: 253-833-4545
American Structures & Design - OR | 13444 NE Jarrett St. | Portland, OR 97230 | P: 971-645-4201 | F: 971-645-4212

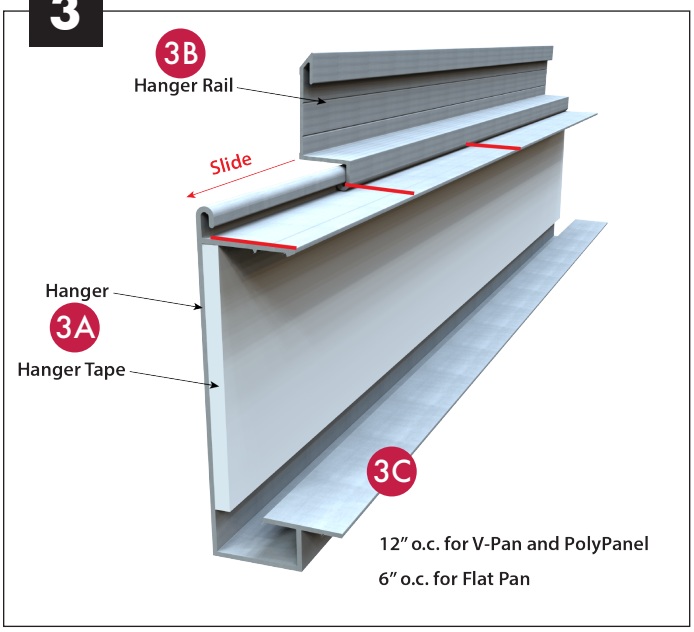
Preparation

2



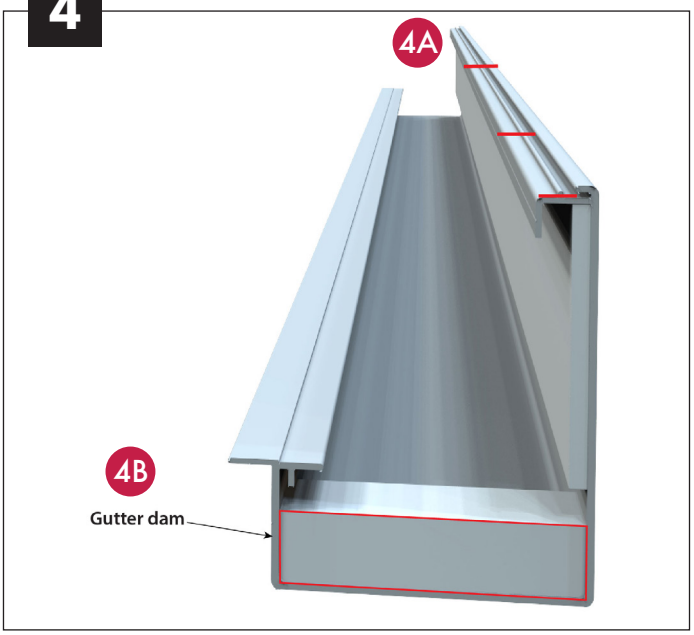
Lay out hanger rail, hanger, and gutter extrusions on the ground in the same direction as they will be installed on the house.

3



3A. Install hanger tape to the inside of the hanger between the top and bottom flange.
3B. Slide the hanger rail onto the hanger until they align on each end.
3C. Starting on the LEFT, mark the top flange of hanger as per your roof type:
12" o.c. for V-Pan and PolyPanel
6" o.c. for Flat Pan

4

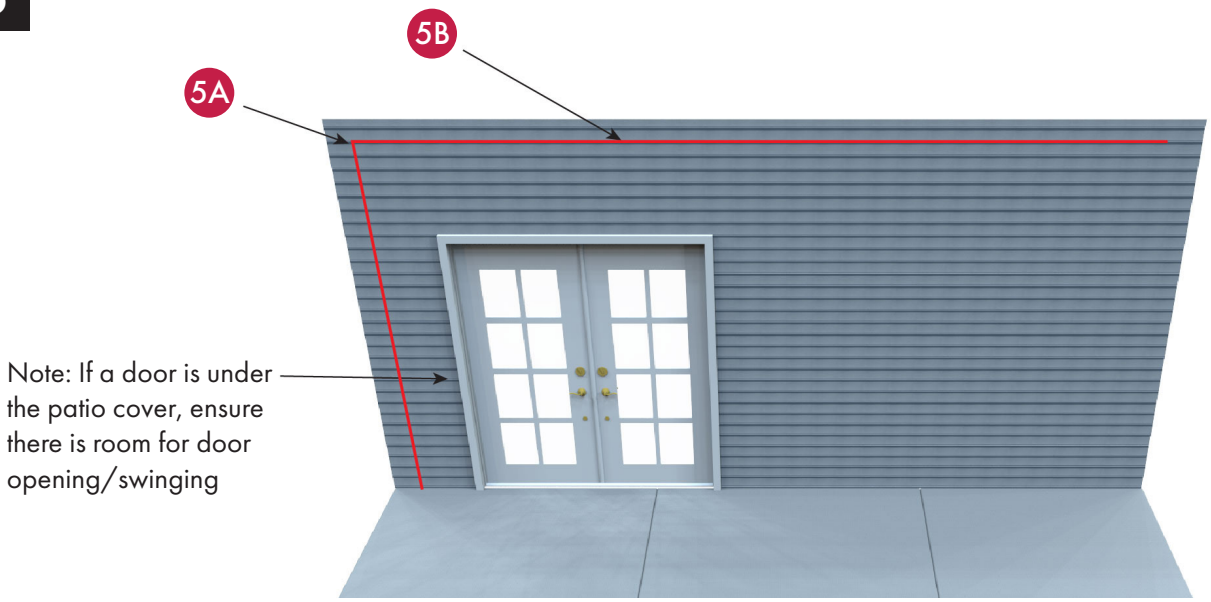


4A. Starting at the left end of the gutter, mark the top flange according to panel type.
4B. Using a razor knife, modify the gutter dam to snugly fit inside the gutter. Apply a generous bead of caulk around the gutter dam and the gutter. Spread evenly for a watertight fit.

American Structures & Design - WA | 1801 132nd Ave. E | Sumner, WA 98390 | P: 253-833-4343 | F: 253-833-4545
American Structures & Design - OR | 13444 NE Jarrett St. | Portland, OR 97230 | P: 971-645-4201 | F: 971-645-4212

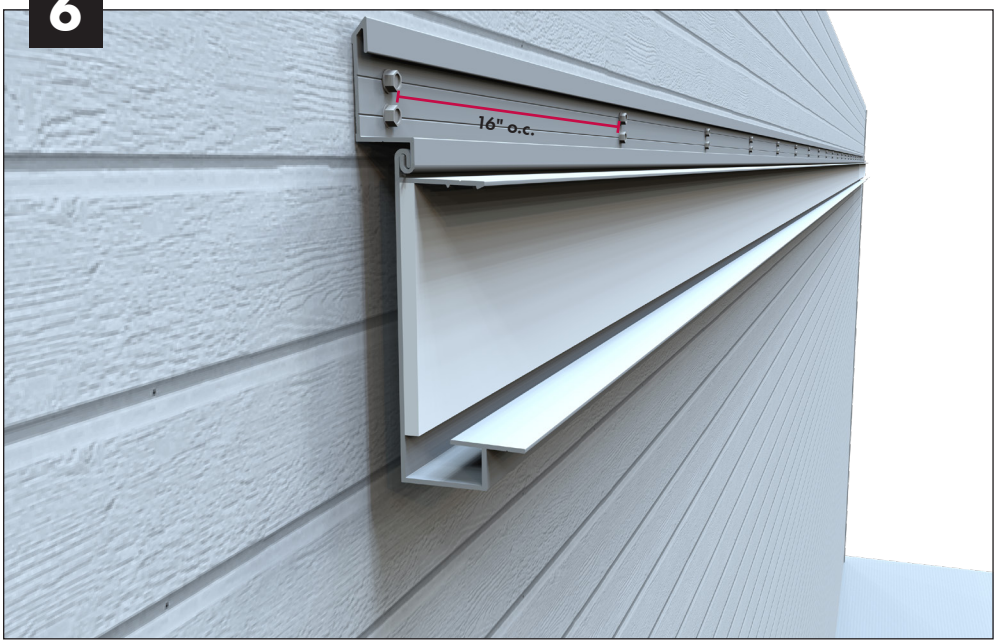
Hanger and Rail Installation

5



5A. Starting on the LEFT side of desired attachment point, determine and mark the appropriate height.
5B. Using a leveling tool or chalk line, mark the width of the cover on the attachment wall.
Note: Cover must slope a minimum of 1/2" per foot.

6



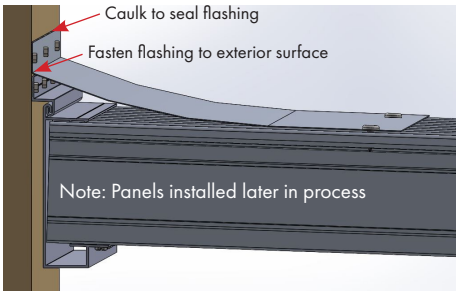
Important Note: Customer is responsible for determining required lag screw length based on siding type.
Attach hanger rail using Hex Lag Screws 3/8" x 3", 4", or 5" (Part No.: FS-3/8X HEX-LAG-18-8) @ 16" o.c. with a minimum of **3" penetration** into wall studs.
Note:

- Ensure fasteners are fully secured into stud framing.
- [For additional attachment options, see engineering pages S4.4]

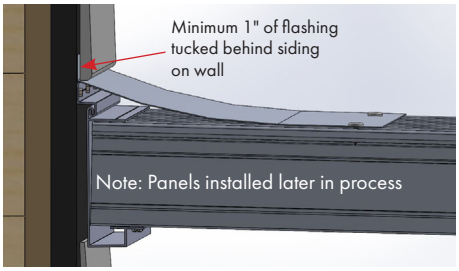
American Structures & Design - WA | 1801 132nd Ave. E | Sumner, WA 98390 | P: 253-833-4343 | F: 253-833-4545
American Structures & Design - OR | 13444 NE Jarrett St. | Portland, OR 97230 | P: 971-645-4201 | F: 971-645-4212

Rain Flashing Installation

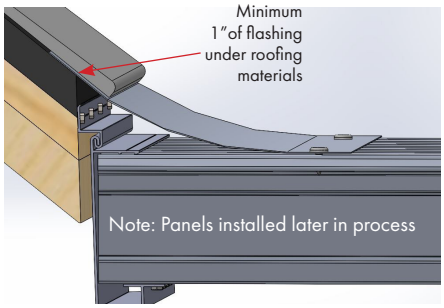
7



Wall Flashing Application



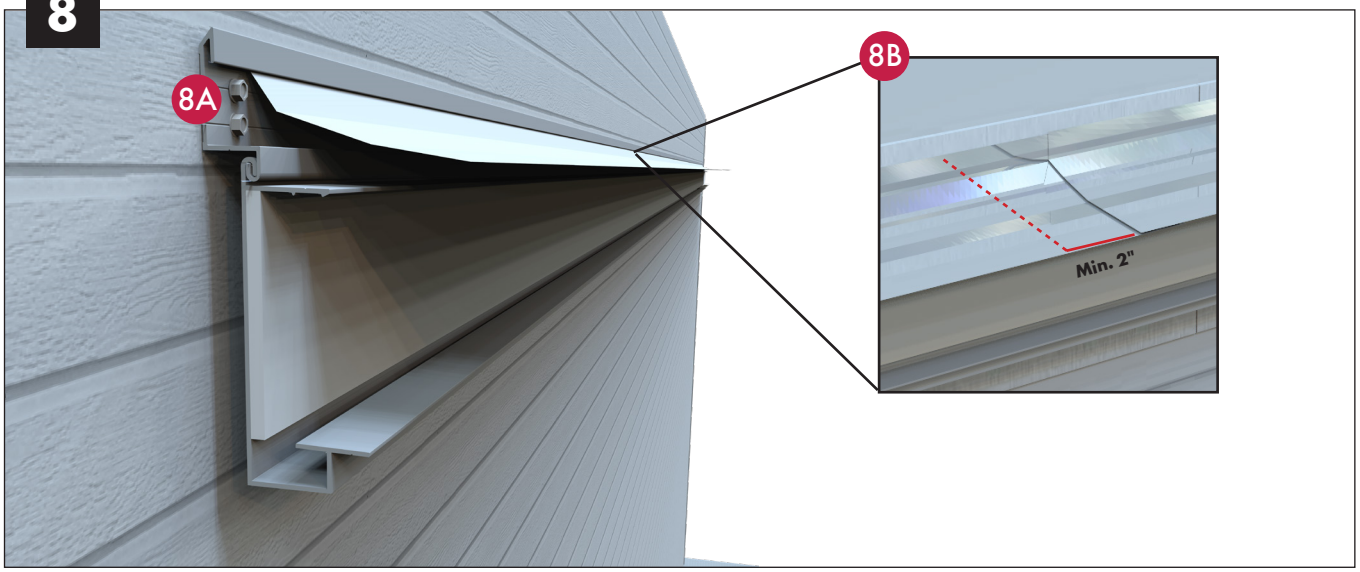
Siding Flashing Application



Roof Flashing Application

Depending on your site conditions, there are three different ways to secure flashing.

8



Flashing Installation

8A. Starting at the left end, fasten flashing per Step 7, using appropriate fasteners.

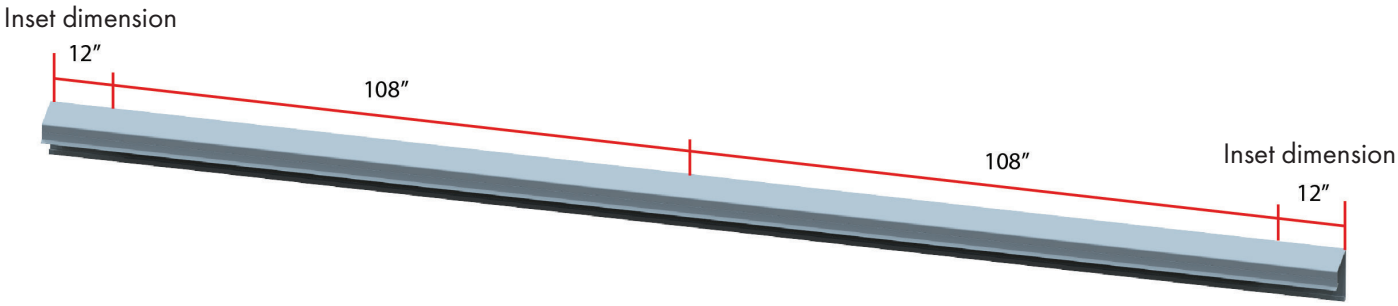
8B. When two courses of flashing come together (over 10'), **tuck the second course UNDER the first course** a minimum of 2".

8C. Repeat process the width of the patio cover.

American Structures & Design - WA | 1801 132nd Ave. E | Sumner, WA 98390 | P: 253-833-4343 | F: 253-833-4545
American Structures & Design - OR | 13444 NE Jarrett St. | Portland, OR 97230 | P: 971-645-4201 | F: 971-645-4212

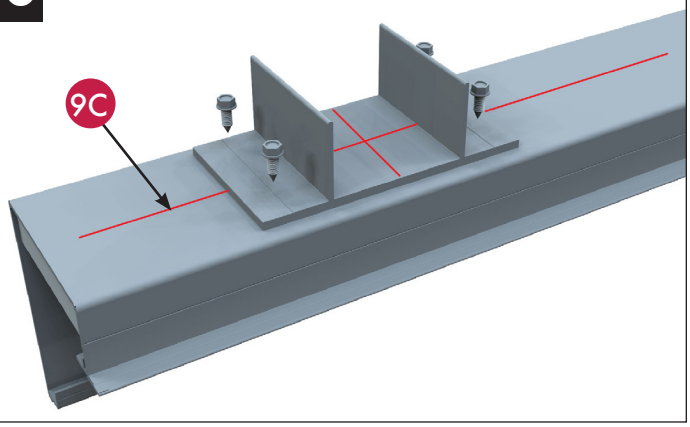
Preparation for Gutter, Post, and Beam Assembly

9



9A. Prior to laying out post and brackets, find a protected work area (to avoid material damage) to mark bracket locations on gutter or I-Beam.
9B. If there are more than 2 posts, determine intermediate post spacing.
9C. Determine desired post layout and mark centerline of each post bracket location on gutter or I-beam.
Note: Post spacing is not to exceed engineering specifications.

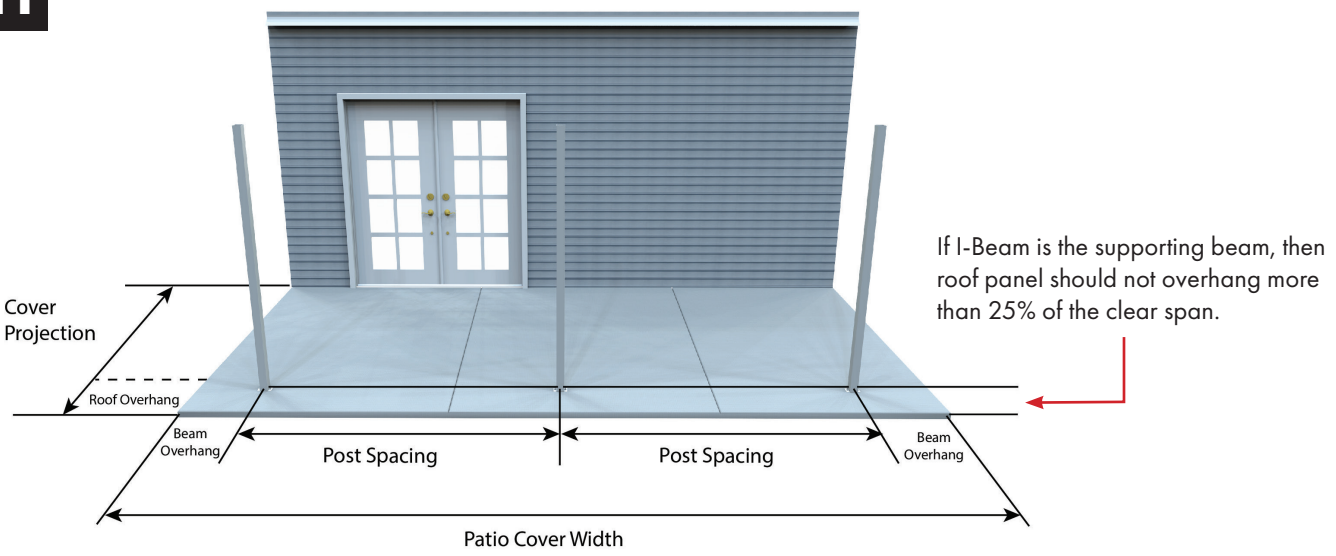
10



Attach bracket to gutter or I-Beam using 4ea. Hex Tek #14 x 1" fasteners (Part No.: FZ-14X1-HEXTEK).

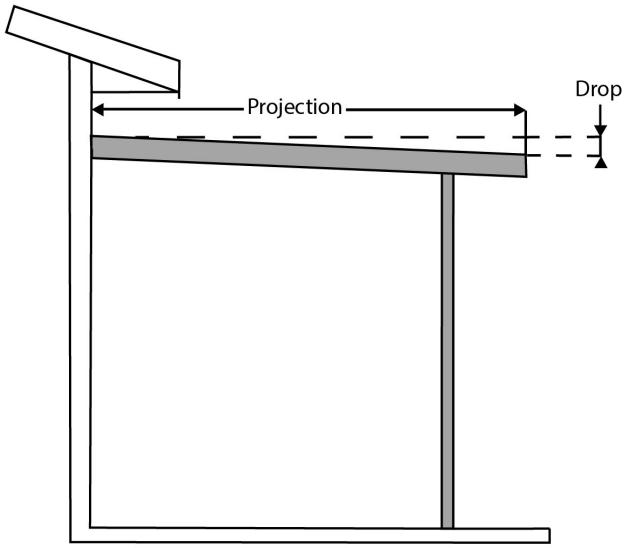
Site Layout for Post Locations

11



American Structures & Design - WA | 1801 132nd Ave. E | Sumner, WA 98390 | P: 253-833-4343 | F: 253-833-4545
American Structures & Design - OR | 13444 NE Jarrett St. | Portland, OR 97230 | P: 971-645-4201 | F: 971-645-4212

12



Understanding Patio Cover Slope

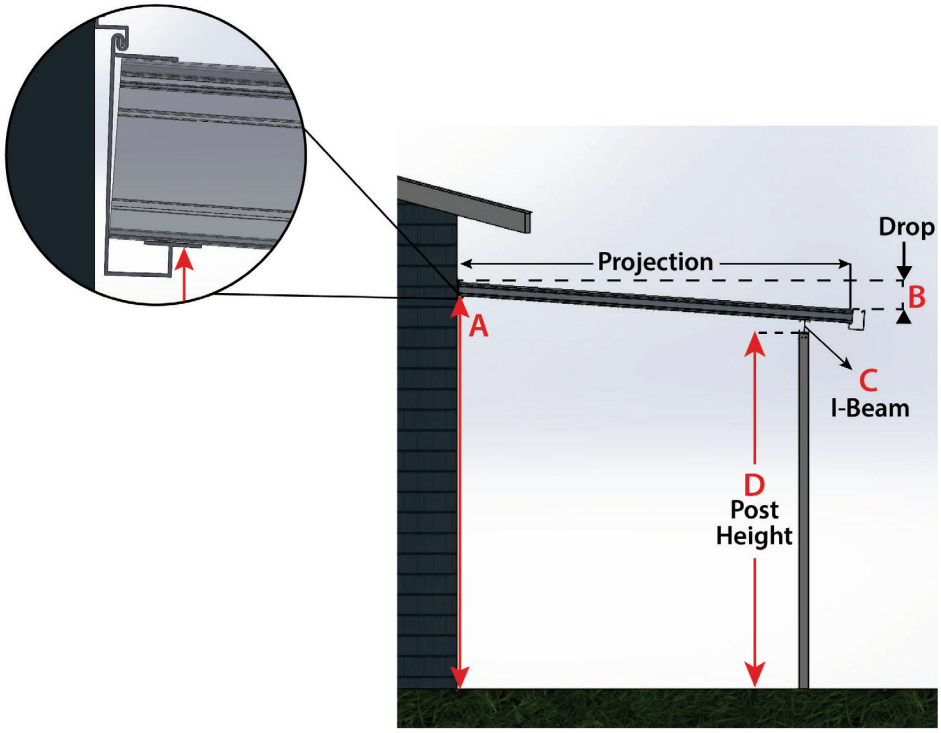
The front of the patio cover must be lower than the back. This will ensure water drains away from the house. The minimum slope must be ½" per foot.

Examples:

12'-0" Projection = 6" Drop
10'-0" Projection = 5" Drop
8'-0" Projection = 4" Drop

Important: Do NOT install patio cover completely flat.

13



Key:

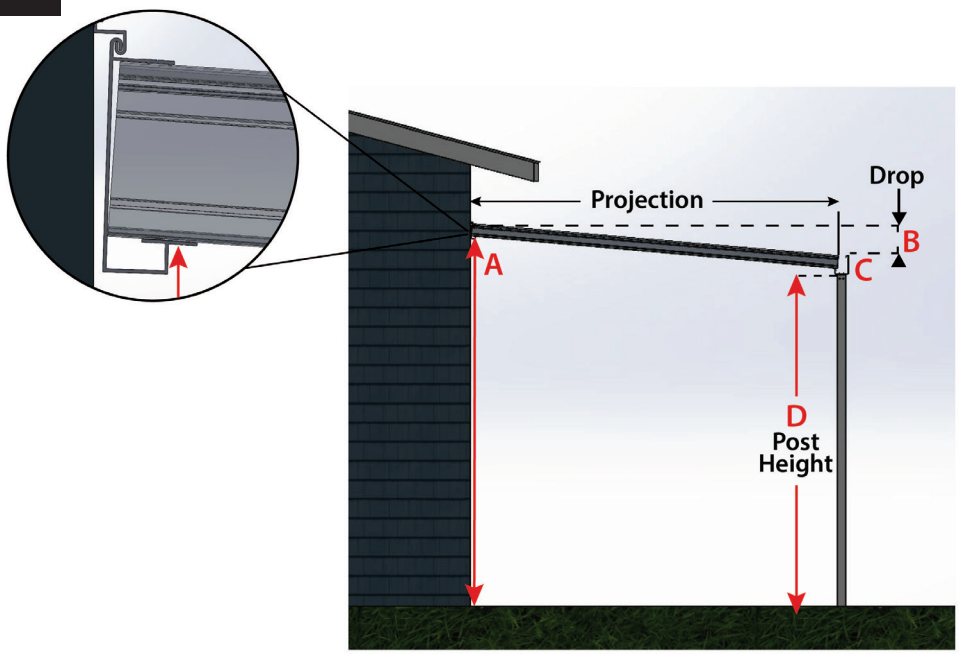
A = Height of hanger to ground surface
B = Slope/Drop (min ½" per foot)
C = I-Beam dimension 4" or 7"

Determine post height with I-Beam system

To determine the post height, follow this formula: A-B-C = Post height dimension
4" I-Beam Example: 120" (A) – 5"(B) – 4"(C) = Post Height (D) = 111" (9' 3")
7" I-Beam Example: 120" (A) – 5"(B) – 7"(C) = Post Height (D) = 108" (9")
Cut post to desired dimension (D) using a miter saw, Step 15.

American Structures & Design - WA | 1801 132nd Ave. E | Sumner, WA 98390 | P: 253-833-4343 | F: 253-833-4545
American Structures & Design - OR | 13444 NE Jarrett St. | Portland, OR 97230 | P: 971-645-4201 | F: 971-645-4212

14



Key:
A = Underside of hanger height to ground surface
B = Slope/Drop (min ½" per foot)
C = Gutter dimension deduction 2"

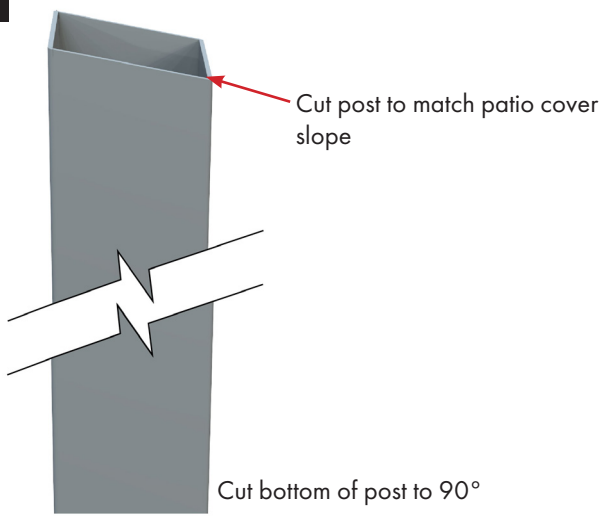
Determine Post Height with Gutter System

To determine the post height, follow this formula: A-B-C = Post height dimension

Example: 120"(A) – 5" (B) – 2" (C) = Post Height (D)=113" (9' 5")

Cut post to desired dimension (D) using a miter saw, Step 15.

15



Cutting Post to Size

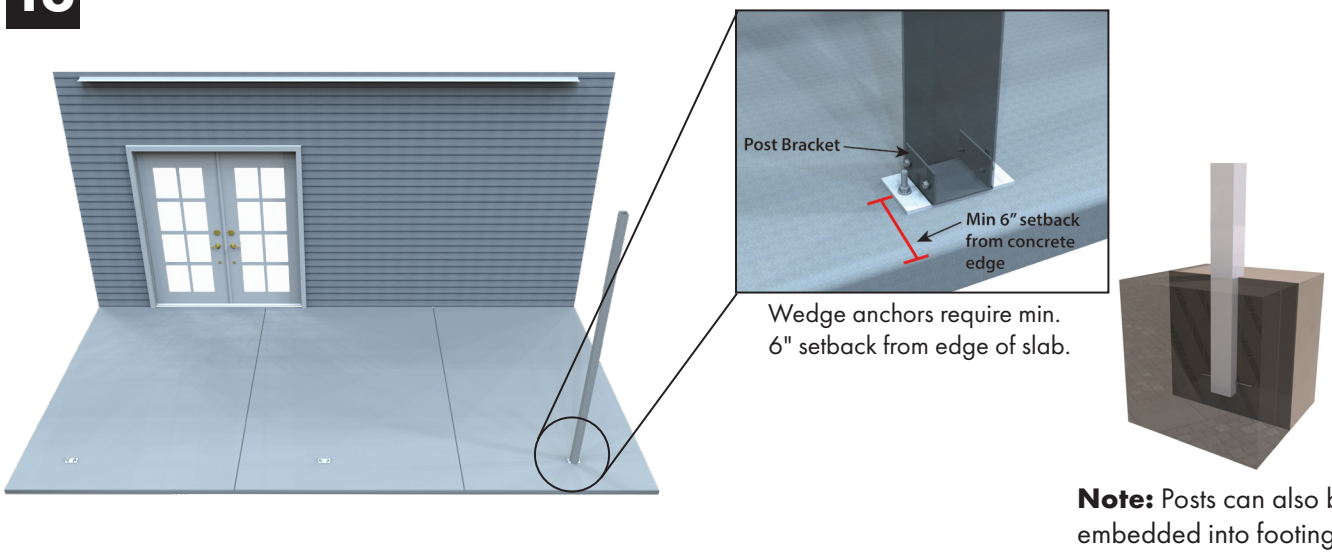
15A. Cut top of post to match patio slope as determined in steps 13 or 14.

15B. Cut bottom of post at 90 degrees.

Note: Use appropriate saw as per post material type; aluminium or steel.

American Structures & Design - WA | 1801 132nd Ave. E | Sumner, WA 98390 | P: 253-833-4343 | F: 253-833-4545
American Structures & Design - OR | 13444 NE Jarrett St. | Portland, OR 97230 | P: 971-645-4201 | F: 971-645-4212

16



Bracket Attachment to Post and Concrete Slab

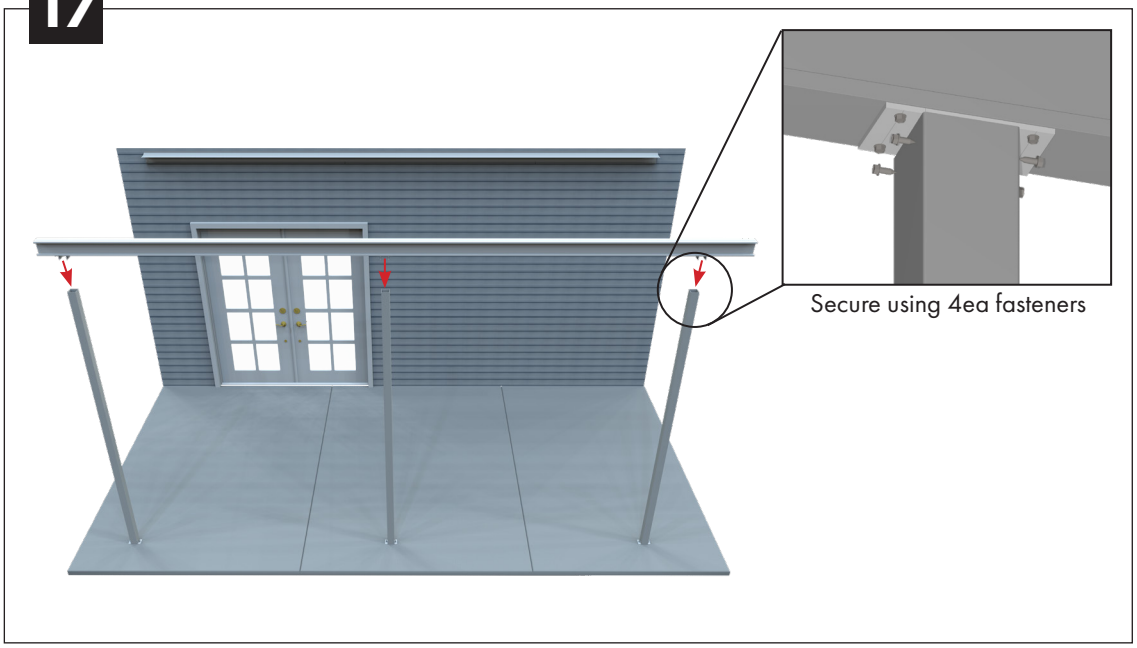
16A. Transfer dimensions from previously installed post brackets to slab. (Step 11)

16B. Install post brackets using wedge anchors.

Note: Minimum 6" setback from concrete edge is required.

See Engineering report for wedge anchor or footing sizes

17



Install Support Framework

Install gutter or I-Beam to posts, secure using 4ea. Hex Tek #14 x 1" fasteners (Part No.: FZ-14X1-HEXTEK), 2ea. per side, 2 ea per side.

Note: Post brackets are already installed to I-Beam or gutter in Step 10.

American Structures & Design - WA | 1801 132nd Ave. E | Sumner, WA 98390 | P: 253-833-4343 | F: 253-833-4545
American Structures & Design - OR | 13444 NE Jarrett St. | Portland, OR 97230 | P: 971-645-4201 | F: 971-645-4212

V-Pan and Flat Pan Roof Panel Installation

18

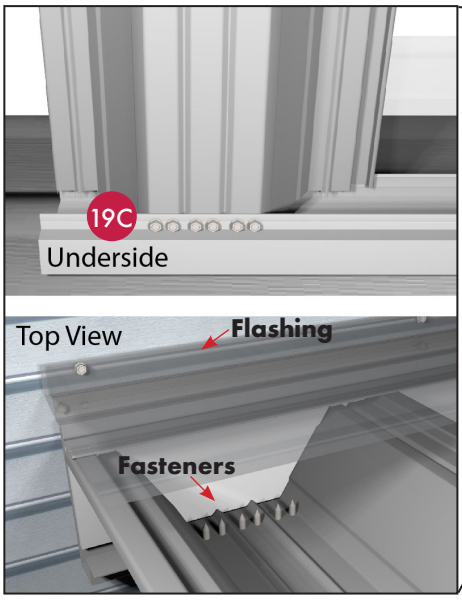
Important Note: For PolyPanel instructions see pages: 27-31

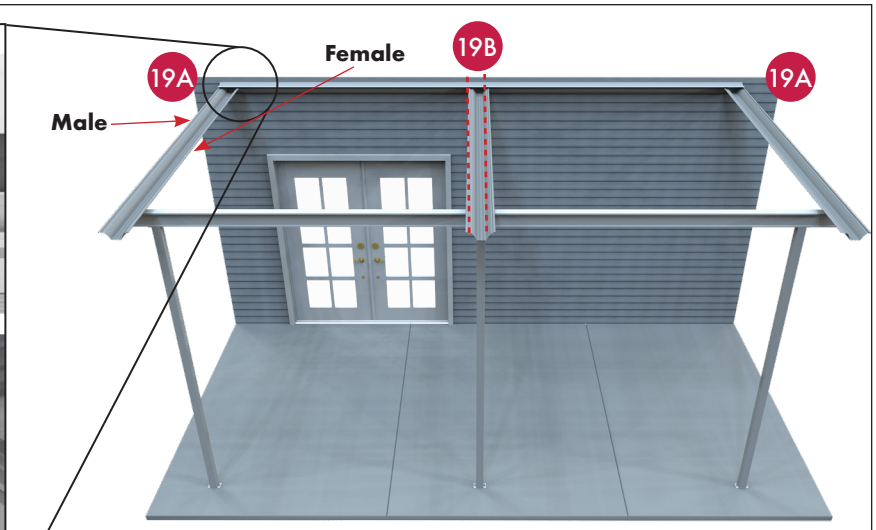
18A. Identify male and female lock side of panel.

18B. Stack all panels with female and male locks on the same side.

Note: Use shortest panels for framing in Step 19.

19





Roof Panel Installation

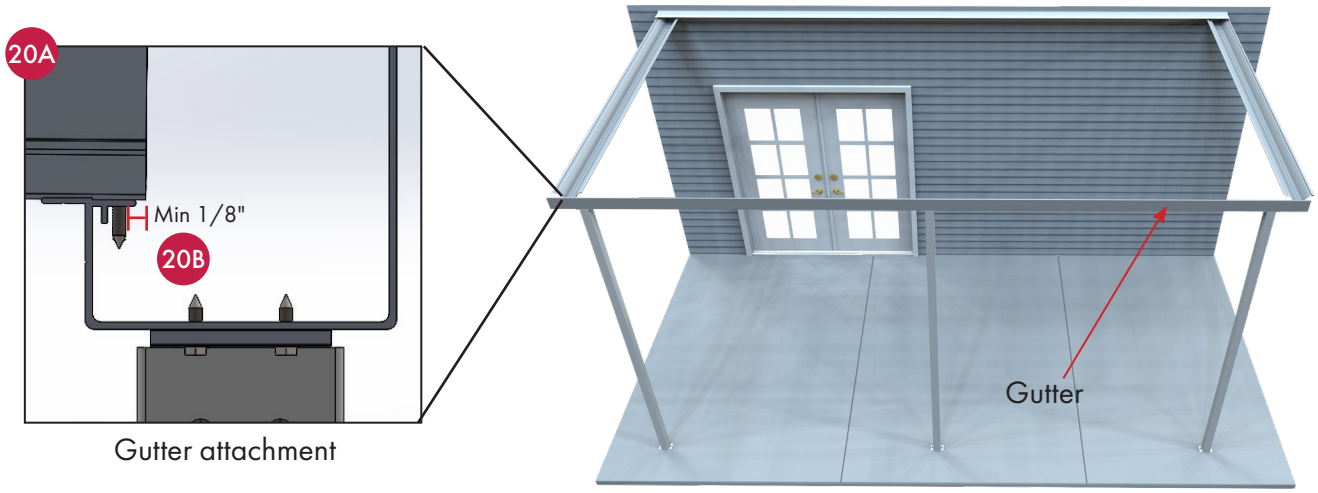
19A. Starting at the LEFT side of the hanger, insert roof panel into hanger, ensure male lock is on the outside and female lock is on the inside.

19B. If patio cover is over 16' **temporarily** install a middle roof panel to avoid sideways ratcheting and bowing.

19C. Fasten roof panel to hanger using Hex Tek #10 x 5/8" fasteners (Part No.: FZ-10X.625-HEXTEK).
Number of fasteners is based on your roof type and per engineering detail S3.3 no.: 1 and 2.

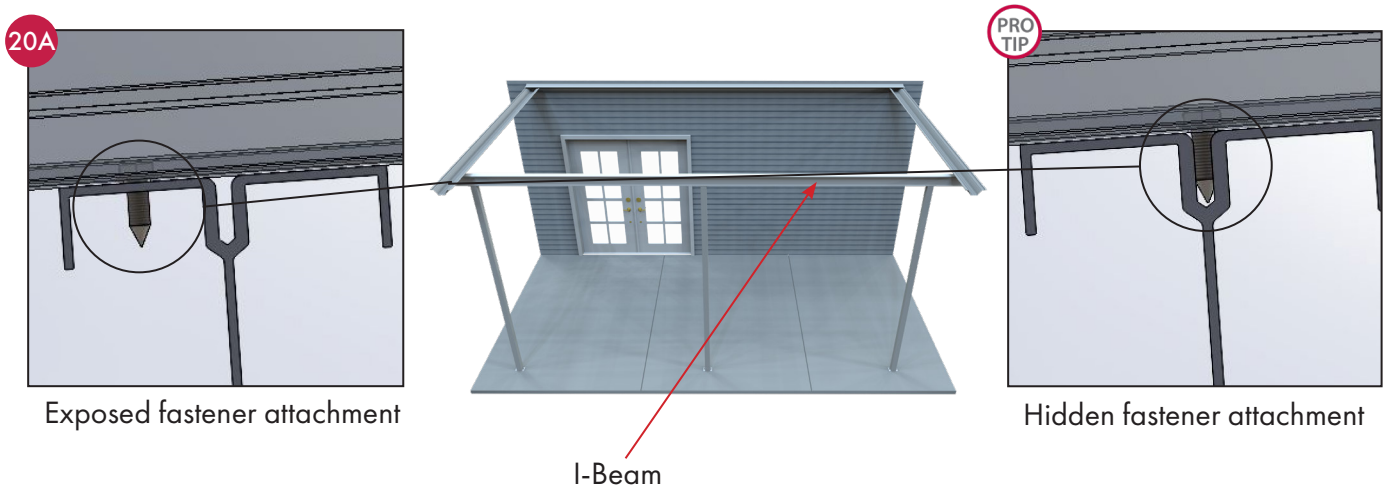
American Structures & Design - WA | 1801 132nd Ave. E | Sumner, WA 98390 | P: 253-833-4343 | F: 253-833-4545
American Structures & Design - OR | 13444 NE Jarrett St. | Portland, OR 97230 | P: 971-645-4201 | F: 971-645-4212

20 Option 1 - Gutter



20A. Ensure a minimum overhang of 1/8" into the inside lip of the gutter.
20B. Fasten roof panel to gutter end using Hex Tek #10 x 5/8" fasteners (Part No.: FZ-10X.625-HEXTEK).

20 Option 2 - I-Beam



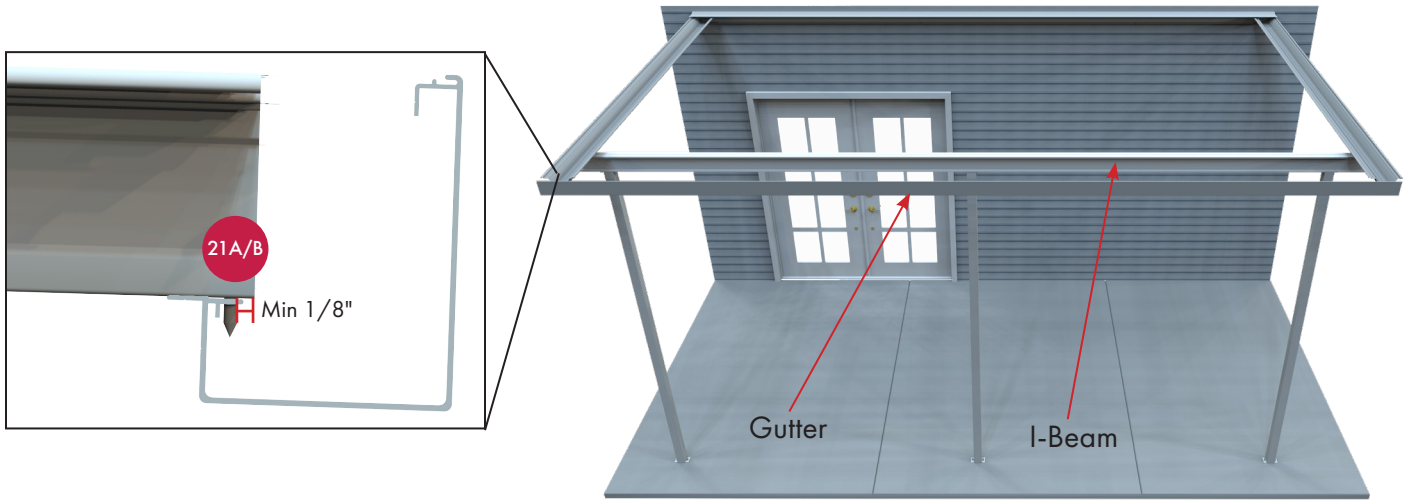
20A. Fasten roof panel to I-Beam through the top of the I-Beam on the outward-facing side as shown using Hex Tek #10 x 5/8" fasteners (Part No.: FZ-10X.625-HEXTEK).

PRO TIP **1.** Fasten roof panel to I-Beam in the hidden fastener channel using Hex Tek #10 x 5/8" fasteners (Part No.: FZ-10X.625-HEXTEK).

PRO TIP **2.** For 7" I-Beam (not pictured) to conceal exposed screws, use a piece of Column Shoe (PC-20CSSW-WHT) to cover.

American Structures & Design - WA | 1801 132nd Ave. E | Sumner, WA 98390 | P: 253-833-4343 | F: 253-833-4545
American Structures & Design - OR | 13444 NE Jarrett St. | Portland, OR 97230 | P: 971-645-4201 | F: 971-645-4212

21



Important Note: This step requires two people for installation.

Gutter attachment with I-Beam system

21A. Starting at left side of cover, hoist gutter up so that the inside lip of gutter meets the underside of the panel, ensure gutter is flush with outside edge of panel.

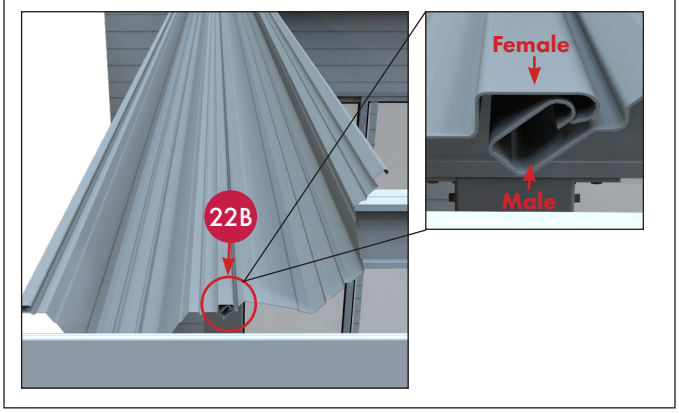
21B. Using Hex Tek #10 x 5/8" fasteners (Part No.: FZ-10X.625-HEXTEK), secure gutter through panel to inside lip of gutter. Ensure a minimum overhang of 1/8" into the inside lip of the gutter.

21C. Repeat process to secure right end of gutter to roof panel.

Note: If patio cover is over 16', secure gutter to middle panel (Step 19A) using 2ea. Hex Tek #10 x 5/8" fasteners (Part No.: FZ-10X.625-HEXTEK). Attach gutter clip to the male lock (left side) using 1ea. Hex Tek #10 x 5/8" fasteners (Part No.: FZ-10X.625-HEXTEK).

Continuing Roof Panel Installation

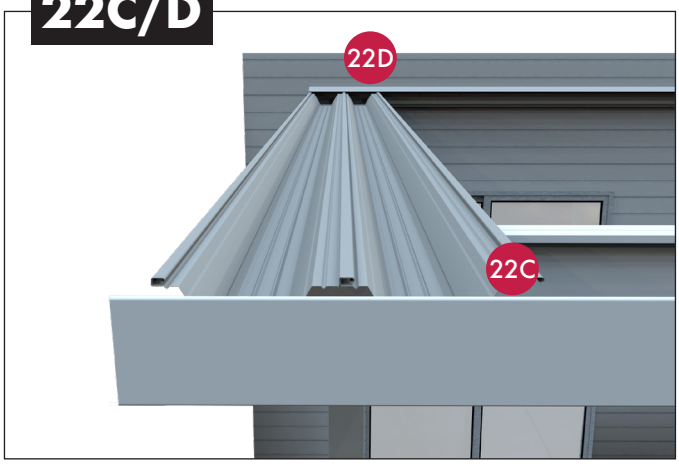
22A/B



22A. Starting at left side of patio cover, continue installing roof panels.

22B. Tilt the male end of the next panel and interlock it with female end of the previously installed panel.

22C/D

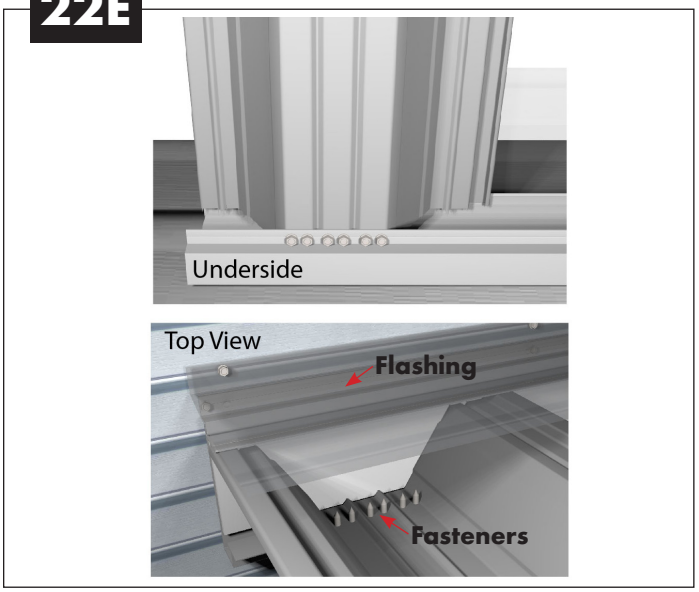


22C. Roll panel downward until it lies flat completing the joining of the two locks.

22D. Slide interlocked roof panel back until it is seated against the hanger tape.

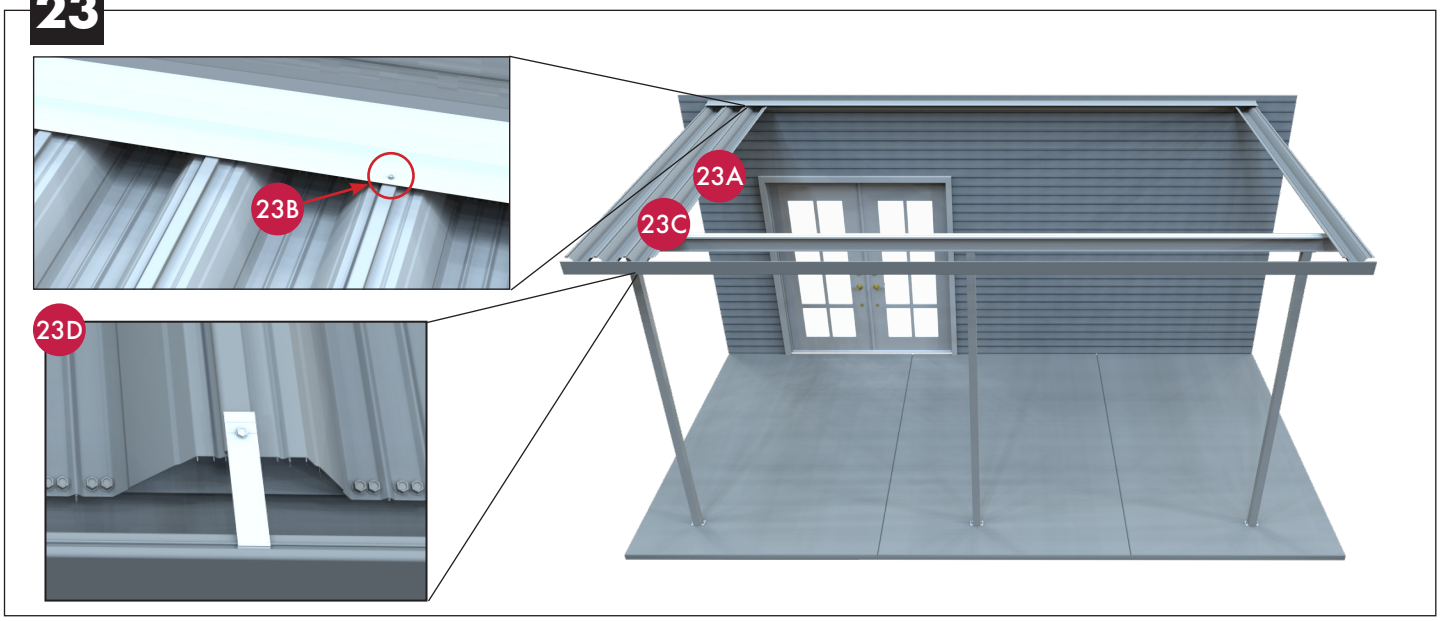
American Structures & Design - WA | 1801 132nd Ave. E | Sumner, WA 98390 | P: 253-833-4343 | F: 253-833-4545
American Structures & Design - OR | 13444 NE Jarrett St. | Portland, OR 97230 | P: 971-645-4201 | F: 971-645-4212

22E



22E. Fasten roof panel to hanger using Hex Tek #10 x 5/8" fasteners (Part No.: FZ-10X.625-HEXTEK). Number of fasteners is based on your roof type and per engineering detail S3.3 no.: 1 and 2.
Note: The outside of the panel should be flush with the centerline previously marked in Steps 3 or 4.

23

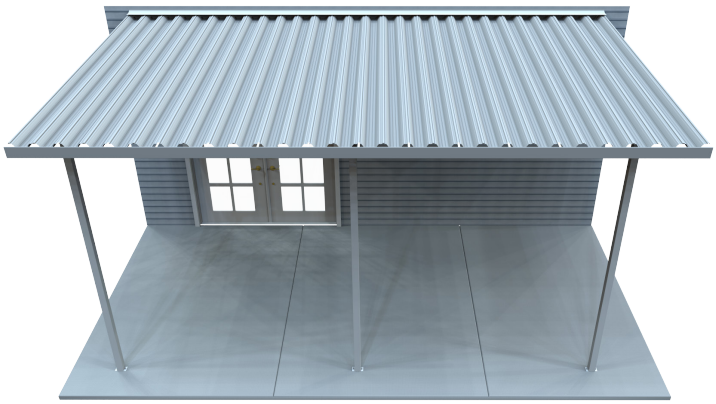


Continuing roof panel installation

23A. Continue installing three (3) additional roof panels. A total of four (4) roof panels are now installed.
23B. Anchor previously installed flashing (Step 8) with 1ea. Hex Tek #10 x 5/8" (Part No.: FZ-10X.625-HEXTEK) to the lock of the THIRD installed roof panel. **Important Note**: Secure flashing through locked roof panels ONLY.
23C. If using the I-Beam system anchor panels to I-Beam (Step 20, Option 2 or 3), then secure panels to gutter Step 21. If using gutter system anchor panels to gutter (Step 20, Option 1).
23D. Attach gutter clips to every other interlocked panel (Example: 20' cover requires 10 gutter clips). Slide flanged end of clip into gutter lip and secure clip to interlocked panels using 1ea. Hex Tek #10 x 5/8" fasteners (Part No.: FZ-10X.625-HEXTEK).
Note: Do NOT install clip onto unlocked end panel, it will interfere with sliding on the next panel.

American Structures & Design - WA | 1801 132nd Ave. E | Sumner, WA 98390 | P: 253-833-4343 | F: 253-833-4545
American Structures & Design - OR | 13444 NE Jarrett St. | Portland, OR 97230 | P: 971-645-4201 | F: 971-645-4212

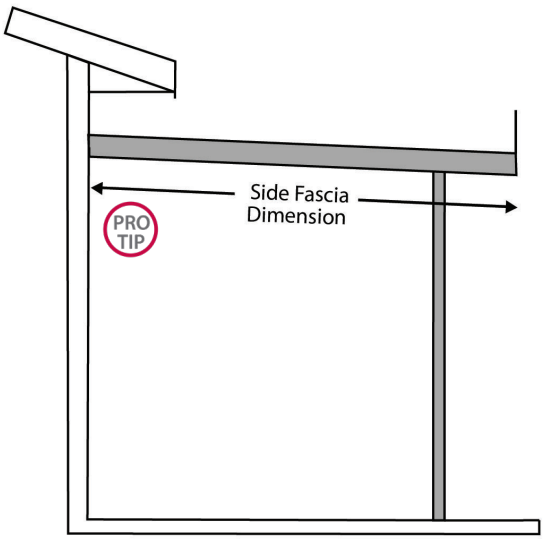
24



24. Continue installing all roof panels, securing flashing, and adding gutter clips following Steps 22 and 23.

Fascia Installation

25

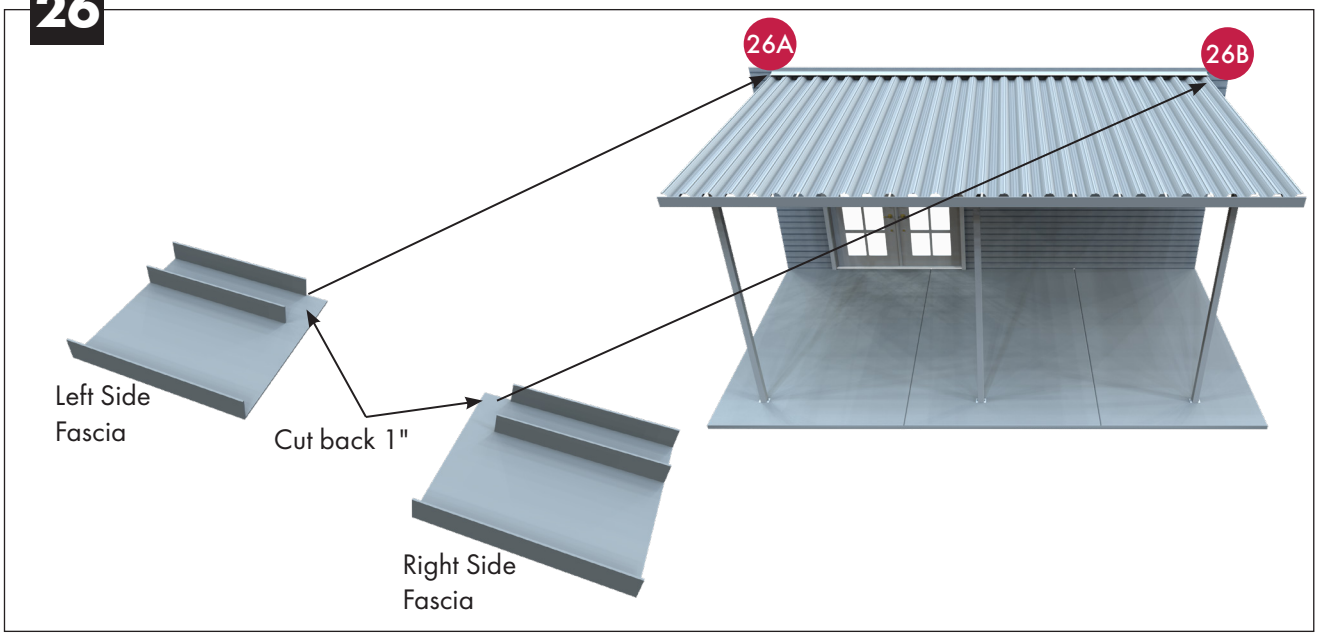


Cut side fascia to this dimension
USING A MITER SAW.

25. Measure from the wall to the outside of the bottom of the gutter. Cut side fascia to this dimension.
PRO TIP Cut the back side of the side fascia to the angle of the slope of patio cover.

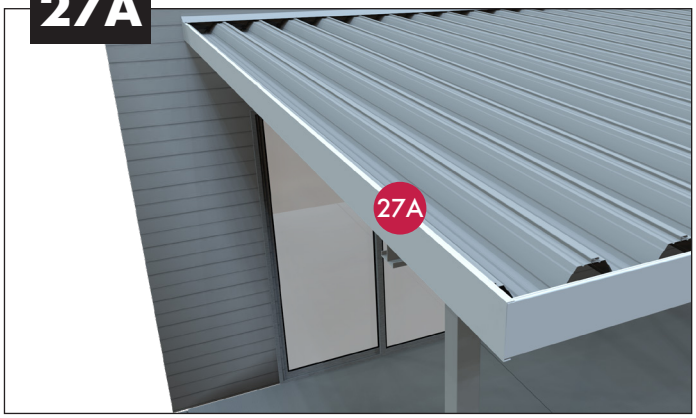
American Structures & Design - WA | 1801 132nd Ave. E | Sumner, WA 98390 | P: 253-833-4343 | F: 253-833-4545
American Structures & Design - OR | 13444 NE Jarrett St. | Portland, OR 97230 | P: 971-645-4201 | F: 971-645-4212

26



26A. At the hanger end of the side fascia cut back the top and middle flanges 1".
26B. Repeat process for right side fascia.

27A



27A. Hang the side fascia on top of panel. Ensure top and bottom of side fascia are flush with OUTSIDE edge of gutter.

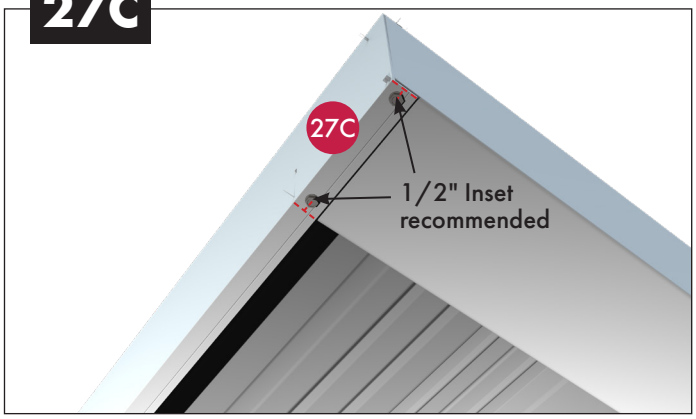
27B

27B. Secure side fascia to top of gutter using 1ea. Hex Tek #10 x 5/8" fastener:
(Part No.: FZ 10X.625 HEXTEK).

American Structures & Design - WA | 1801 132nd Ave. E | Sumner, WA 98390 | P: 253-833-4343 | F: 253-833-4545
American Structures & Design - OR | 13444 NE Jarrett St. | Portland, OR 97230 | P: 971-645-4201 | F: 971-645-4212

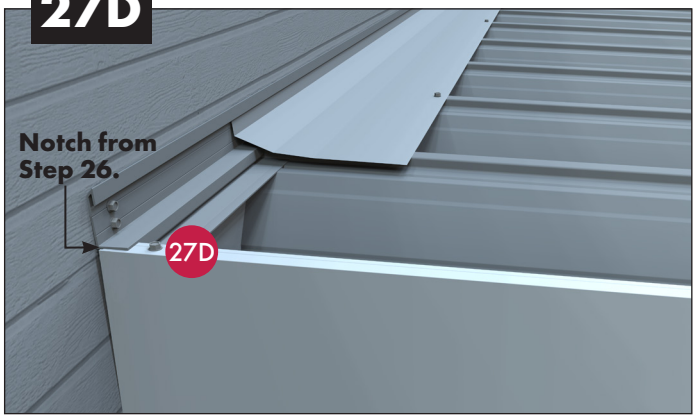
Fascia Installation Continued

27C



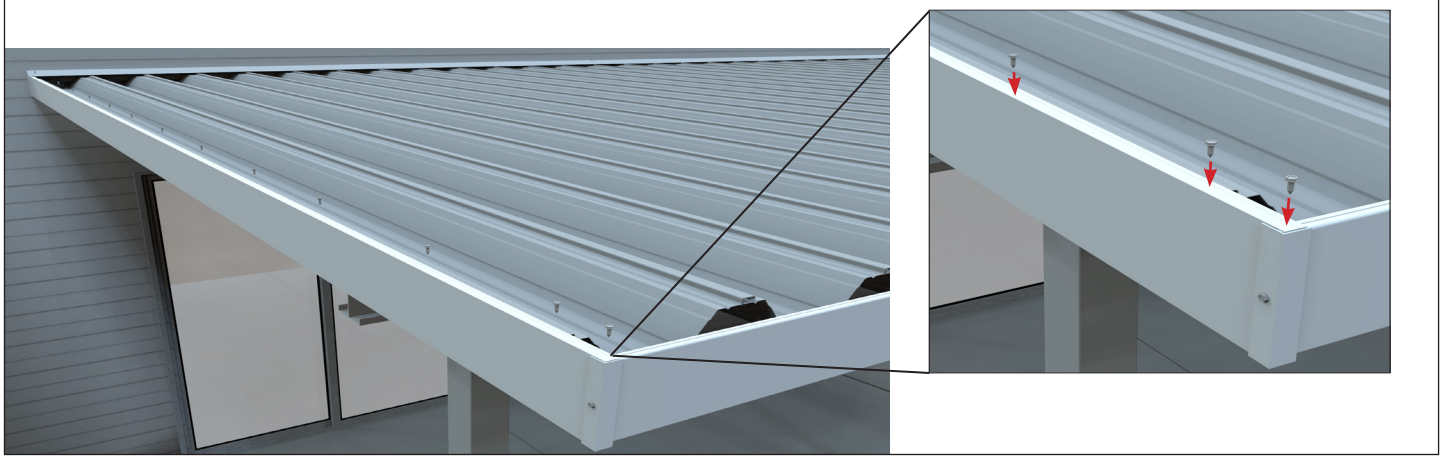
27C. Secure side fascia to underside of gutter using 2ea. Hex Tek #10 x 5/8" fastener:
(Part No.: FZ 10X.625 HEXTEK)

27D



27D. Secure side fascia at hanger using 1ea. Hex Tek #10 x 5/8" fastener:
(Part No.: FZ 10X.625 HEXTEK).
Note: Flashing is installed but not shown in image for installation clarity.

27E



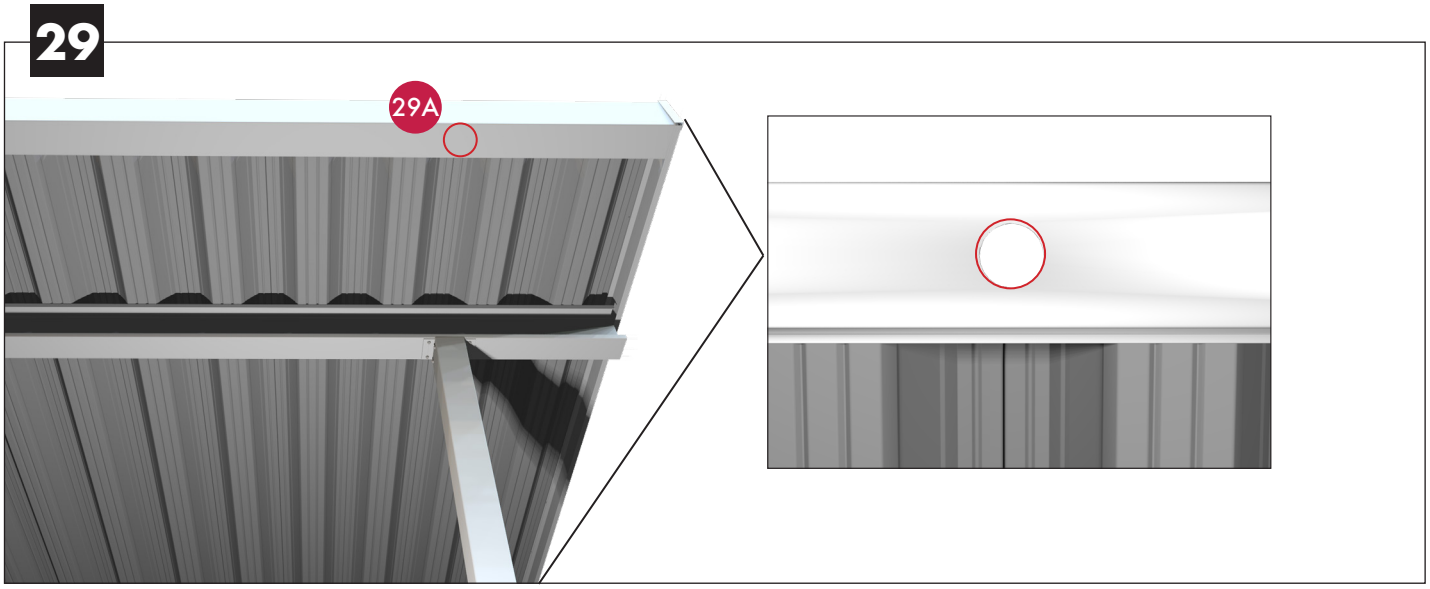
27E. Using Hex Tek #10 x 5/8" fastener (Part No.: FZ 10X.625 HEXTEK) fasten side fascia to the length of the panel every 12-16".
27F. Repeat process for right hand side fascia.

American Structures & Design - WA | 1801 132nd Ave. E | Sumner, WA 98390 | P: 253-833-4343 | F: 253-833-4545
American Structures & Design - OR | 13444 NE Jarrett St. | Portland, OR 97230 | P: 971-645-4201 | F: 971-645-4212

Corner Installation

28A. Install corner flush with the bottom of the side fascia.
28B. Secure corner using 1ea. Hex Tek #10 x 5/8" fastener (Part No.: FZ 10X.625 HEXTEK) on either gutter or side fascia. (installer's preference, pictured side fascia).

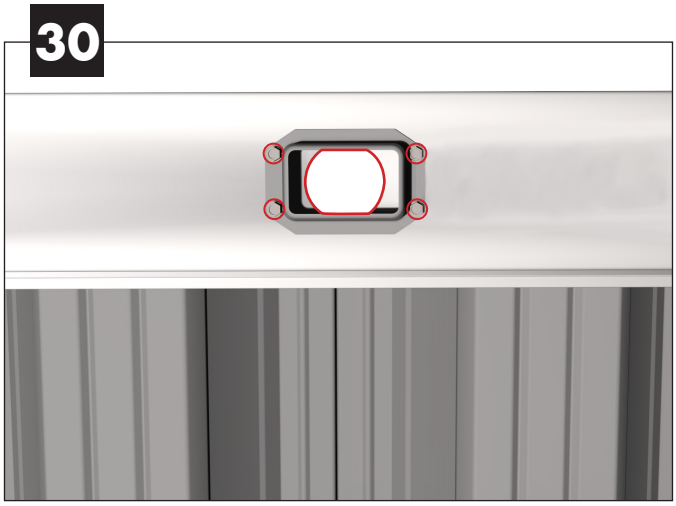
Downspout Installation



Note: Downspout can be installed to front of post or to side of post, depending on installer preference.
29A. Mark location for dropout hole.
29B. Cut using a 2-inch hole saw.

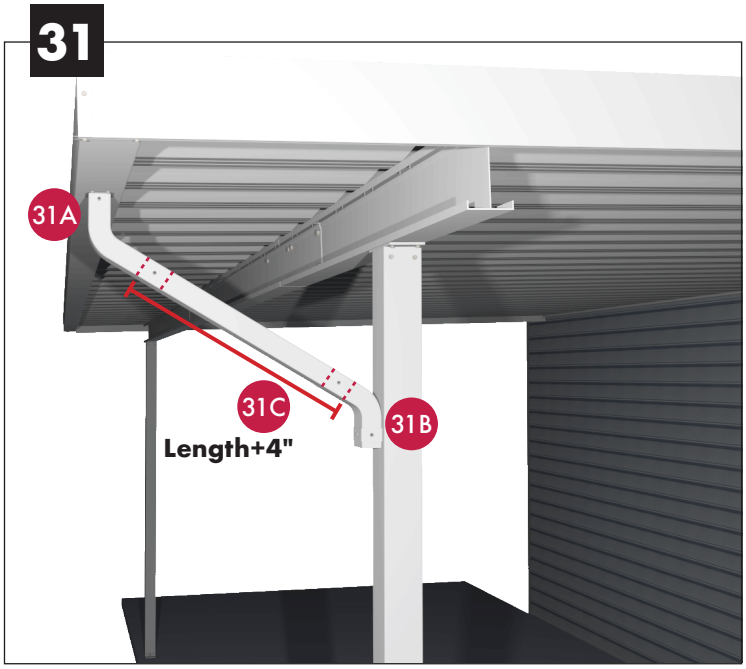
American Structures & Design - WA | 1801 132nd Ave. E | Sumner, WA 98390 | P: 253-833-4343 | F: 253-833-4545
American Structures & Design - OR | 13444 NE Jarrett St. | Portland, OR 97230 | P: 971-645-4201 | F: 971-645-4212

Downspout Installation



30. Center Dropout (Part No.: PC-2x3DRP-WHT) over hole and attach using 4ea. Hex Tek #10 x 5/8" fasteners (Part No.: FZ-10X.625-HEXTEK).

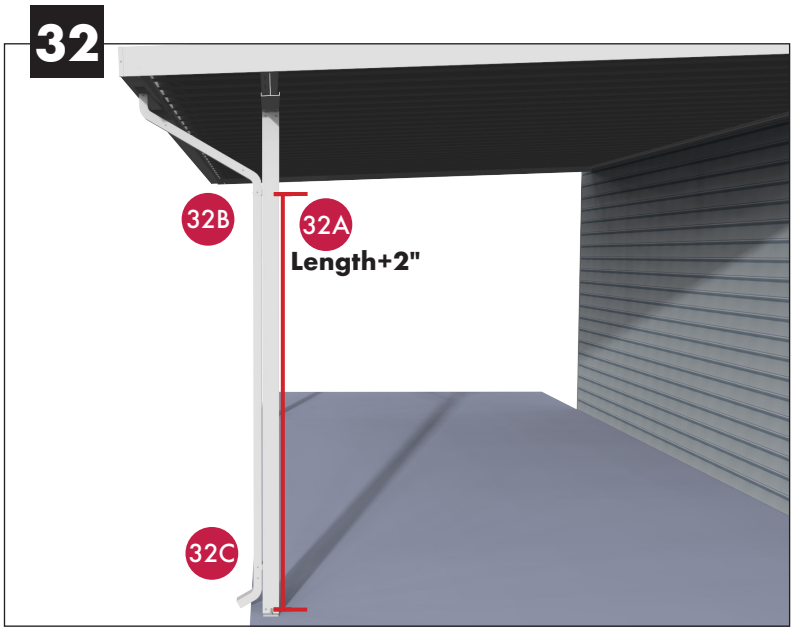
Gutter and I-Beam Configuration



31A. Attach A-Elbow to dropout using 2ea. Hex Tek #10 x 5/8" (Part No.: FZ-10X.625-HEXTEK), one on each side.
31B. Place second A-Elbow in desired location.
31C. Measure the dimension between the two elbows and add 4", cut downspout to this dimension.
31D. Install downspout by crimping the bottom of first A-Elbow (31A) to fit inside the downspout (31C).
31E. Complete downspout installation by crimping base of downspout to fit into the lower A-Elbow (31B).

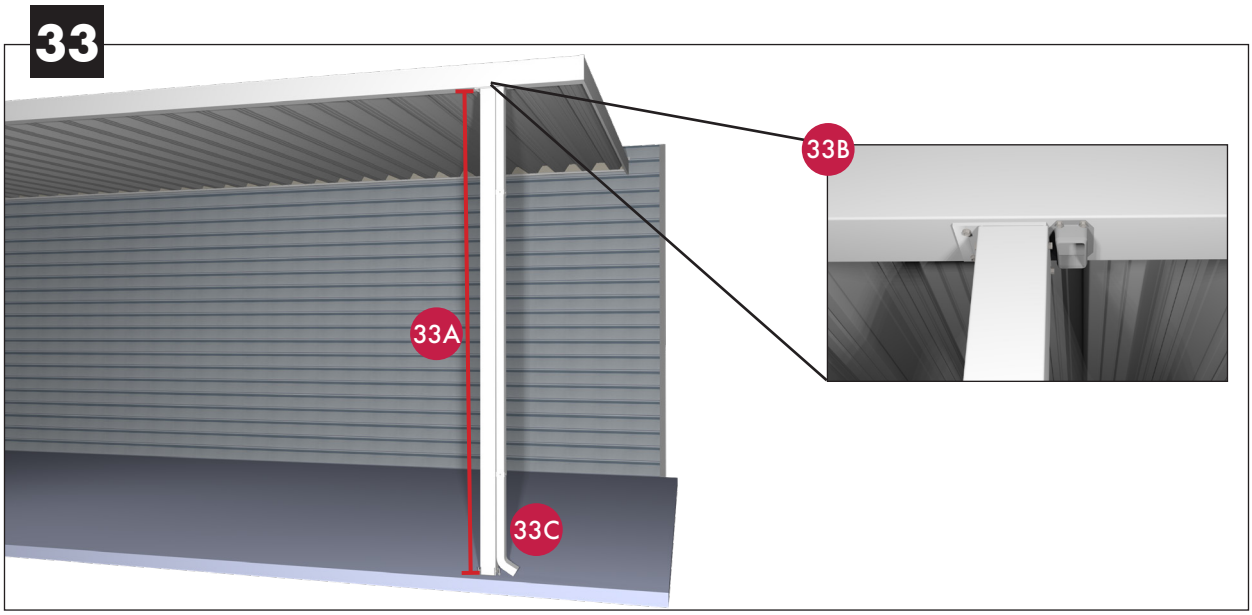
American Structures & Design - WA | 1801 132nd Ave. E | Sumner, WA 98390 | P: 253-833-4343 | F: 253-833-4545
American Structures & Design - OR | 13444 NE Jarrett St. | Portland, OR 97230 | P: 971-645-4201 | F: 971-645-4212

Gutter and I-Beam Configuration



32A. Measure from bottom of the second installed elbow to ground level and add 2", cut downspout to this dimension.
32B. Crimp bottom of upper elbow and attach the downspout to the upper elbow using 2ea. Hex Tek #10 x 5/8" (Part No.: FZ-10X.625-HEXTEK), one on each side.
32C. Secure lower end (optional upper end) of downspout to post using a piece of aluminum downspout strap.

Gutter Only Configuration: Downspout Installation



33A. Measure from bottom of gutter to ground level, cut downspout to this dimension.
33B. Attach the downspout to the drop out using 2ea. Hex Tek #10 x 5/8" (Part No.: FZ-10X.625-HEXTEK) one on each side.
33C. Secure lower end of downspout to post using a piece of aluminum downspout strap.
Note: Elbow is attached to the downspout.

American Structures & Design - WA | 1801 132nd Ave. E | Sumner, WA 98390 | P: 253-833-4343 | F: 253-833-4545
American Structures & Design - OR | 13444 NE Jarrett St. | Portland, OR 97230 | P: 971-645-4201 | F: 971-645-4212

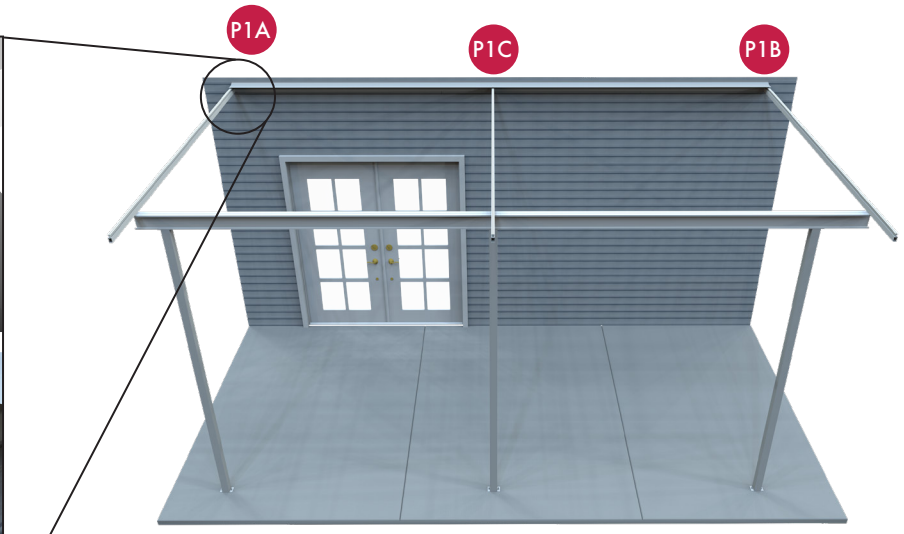
PRO TIP

PRO TIP To eliminate gap between downspout and post. Cut off one side of a post bracket flange in order to locate the drop out hole as close as possible to the post. Per engineering, a minimum of 4 screws must be used to attach post bracket to gutter.

American Structures & Design - WA | 1801 132nd Ave. E | Sumner, WA 98390 | P: 253-833-4343 | F: 253-833-4545
American Structures & Design - OR | 13444 NE Jarrett St. | Portland, OR 97230 | P: 971-645-4201 | F: 971-645-4212

PolyPanel Single Bend Roof Panels Installation Instructions

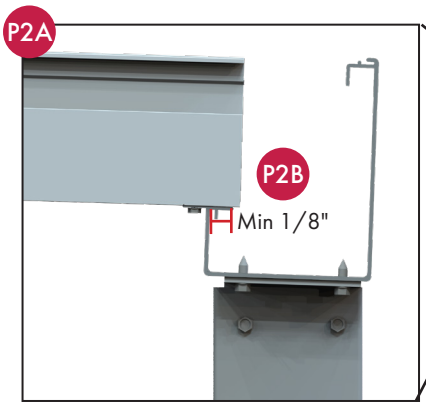
P1



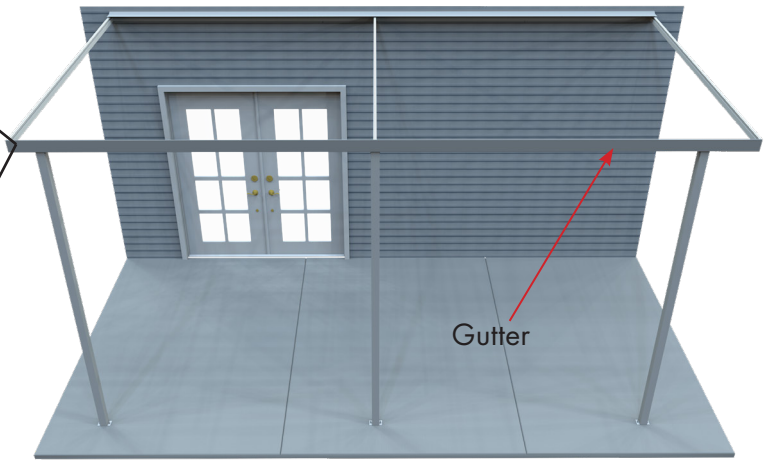
Note: Flashing is installed but not shown in image for installation clarity.

P1A. Starting on the **LEFT** side of the hanger, fasten T-Bar to the hanger through the top of hanger using 2ea. Hex Tek #10 x 5/8"(Part No.: FZ-10X.625-HEXTEK).
P1B. Repeat T-Bar installation for **RIGHT** side.
P1C. If patio cover is over 16' **temporarily** install a T-Bar to avoid sideways ratcheting and bowing of beam.

P2 Option 1 - Gutter



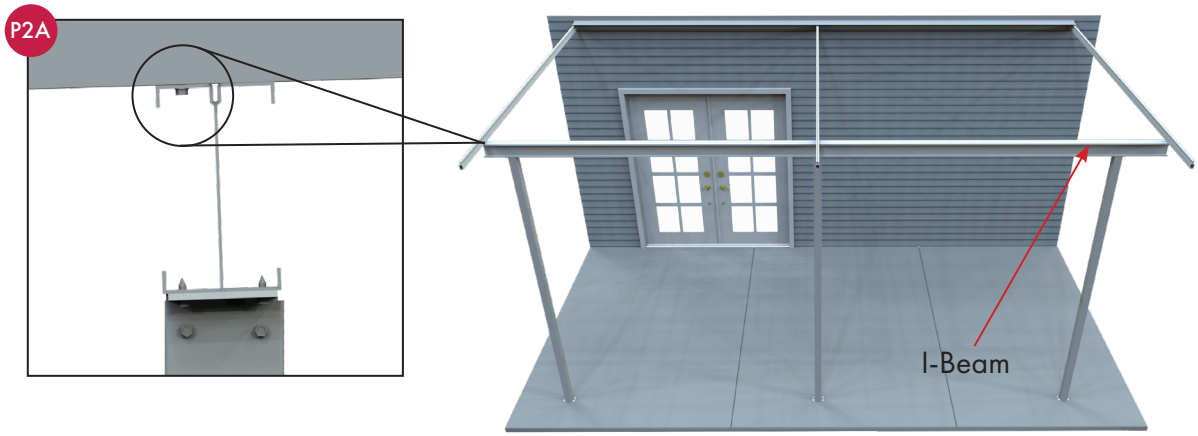
Gutter attachment



P2A. Ensure a minimum overhang of 1/8" into the inside lip of the gutter.
P2B. Fasten T-bar to gutter end using 2ea. Hex Tek #10 x 5/8" fastener (Part No.: FZ-10X.625-HEXTEK).

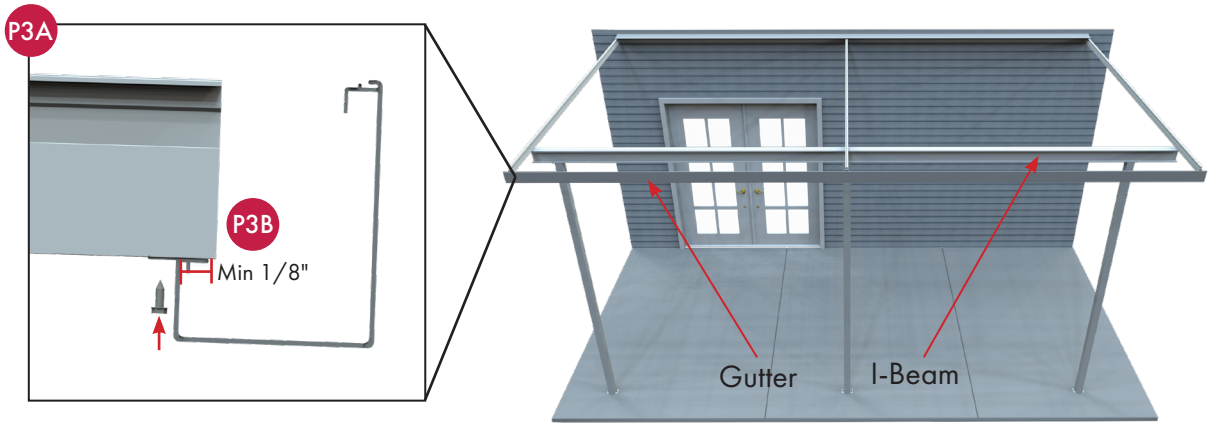
American Structures & Design - WA | 1801 132nd Ave. E | Sumner, WA 98390 | P: 253-833-4343 | F: 253-833-4545
American Structures & Design - OR | 13444 NE Jarrett St. | Portland, OR 97230 | P: 971-645-4201 | F: 971-645-4212

P2 Option 2 - I-Beam



P2A. Fasten T-Bar to I-Beam by screwing up through the top of the I-Beam using 2ea. Hex Tek #10 x 5/8" fasteners (Part No.: FZ-10X.625-HEXTEK).

P3



Important Note: This step requires two people for installation.

Gutter attachment with I-Beam system

P3A. Starting at left side of cover, hoist gutter up so that the inside lip of gutter meets the underside of the T-Bar, ensure gutter is flush with outside edge of T-Bar.

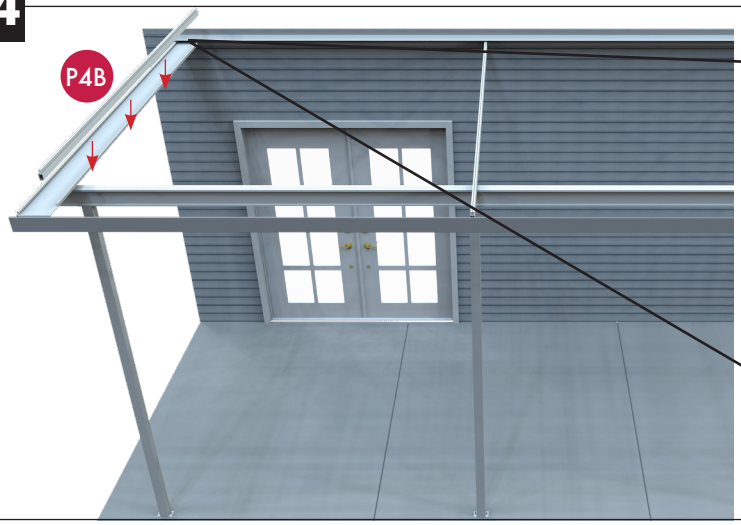
P3B. Using 2ea. Hex Tek #10 x 5/8" fasteners (Part No.: FZ-10X.625-HEXTEK), secure gutter by screwing fastener up through inside lip of gutter into T-Bar. Ensure a minimum overhang of 1/8" into the inside lip of the gutter.

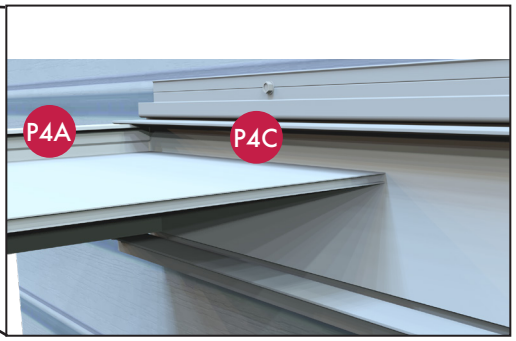
P3C. Repeat process to secure right end of gutter to T-Bar.

Note: If patio cover is over 16', secure gutter to middle T-Bar (Step P1C) using 2ea. Hex Tek #10 x 5/8" fasteners (Part No.:FZ-10X.625-HEXTEK).

American Structures & Design - WA | 1801 132nd Ave. E | Sumner, WA 98390 | P: 253-833-4343 | F: 253-833-4545
American Structures & Design - OR | 13444 NE Jarrett St. | Portland, OR 97230 | P: 971-645-4201 | F: 971-645-4212

P4



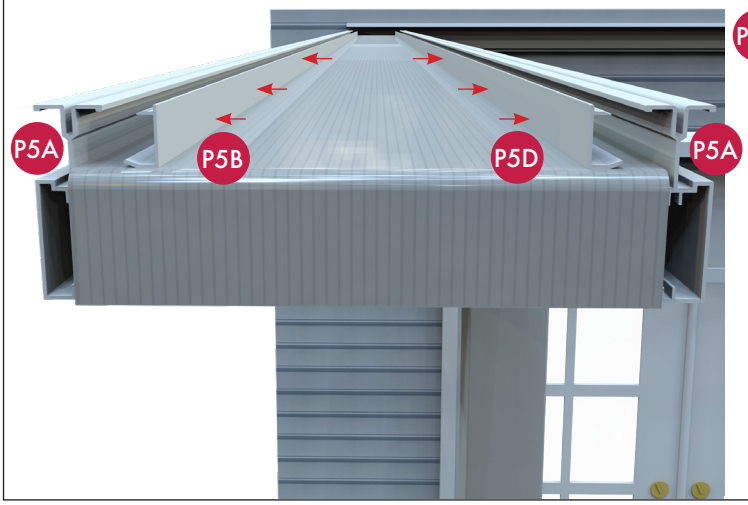


Note: Second T-Bar is installed but not shown in image for installation clarity.

Installing PolyPanel Roof Panels

P4A. Rest PolyPanel on inside lip of T-Bar.
P4B. Install the next T-Bar 12" o.c. as per steps P2 (Gutter Option 1, I-Beam Option 2).
P4C. Ensure PolyPanel is seated into hanger tape.

P5

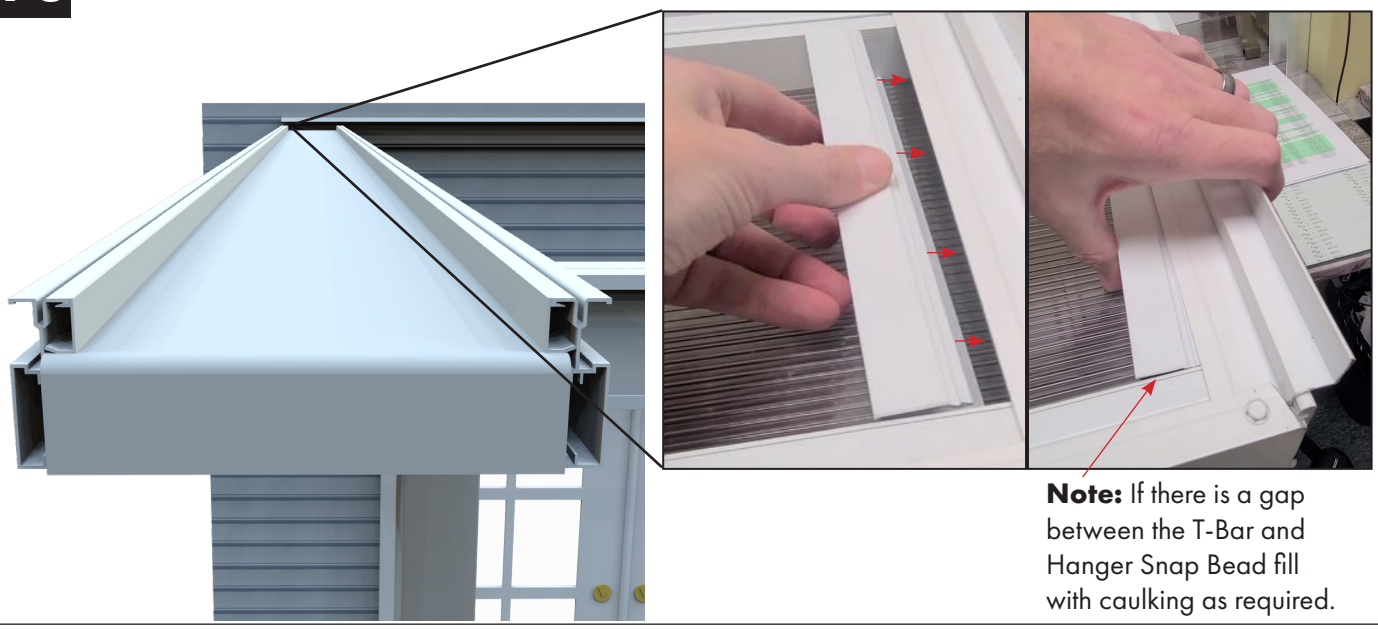


T-Bar Snap Bead Installation

P5A. Prior to installing T-Bar Snap Bead, center PolyPanel between the two T-Bars.
P5B. Lay T-Bar Snap Bead (Part No.: PC-TBSB-241-WHT or 289-WHT) to the INSIDE of the farthest T-Bar.
P5C. Using a rubber mallet gently tap the T-Bar Snap Bead so it is firmly seated to the T-Bar.
P5D. Install T-Bar Snap Bead on the opposite T-Bar.

American Structures & Design - WA | 1801 132nd Ave. E | Sumner, WA 98390 | P: 253-833-4343 | F: 253-833-4545
American Structures & Design - OR | 13444 NE Jarrett St. | Portland, OR 97230 | P: 971-645-4201 | F: 971-645-4212

P6

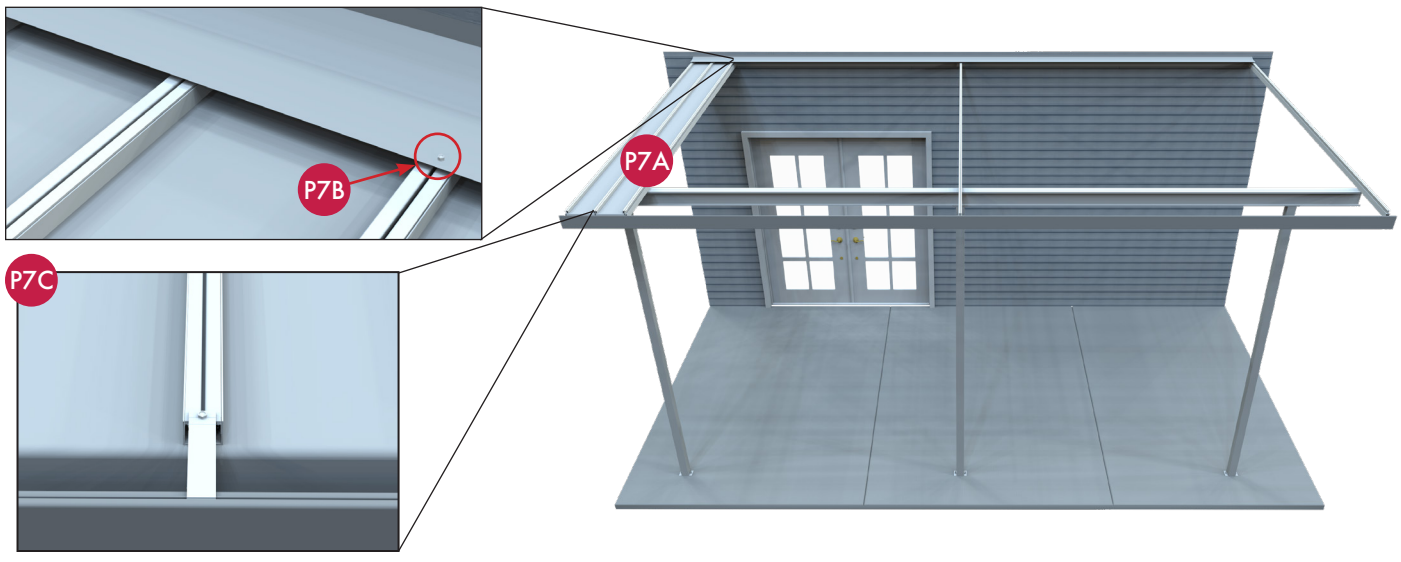


Note: If there is a gap between the T-Bar and Hanger Snap Bead fill with caulking as required.

Hanger Snap Bead Installation

P6A. Lay Hanger Snap Bead (Part No.: PC-HSB-10.4375-WHT) on PolyPanel, gently push Hanger Snap Bead into hanger until it snaps into place.

P7



Continue PolyPanel Roof Panel Installation

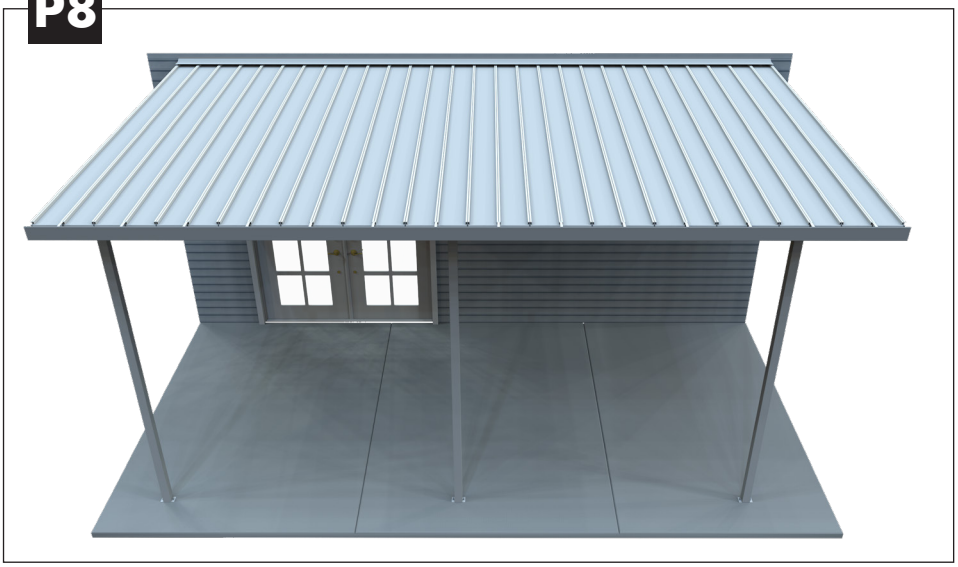
P7A. Continue installing one additional T-Bar, PolyPanel roof panel, T-Bar Snap Bead and Hanger Snap Bead.

P7B. Anchor previously installed flashing (Step 8) through the screw chase center on the T-Bar with 1ea. Hex Tek #10 x 5/8" (Part No.: FZ-10X.625-HEXTEK).

P7C. Attach gutter clips to every second T-bar. Slide flanged end of clip into gutter lip and secure clip to T-bar using 1ea. Hex Tek #10 x 5/8" fasteners (Part No.: FZ-10X.625-HEXTEK).

American Structures & Design - WA | 1801 132nd Ave. E | Sumner, WA 98390 | P: 253-833-4343 | F: 253-833-4545
American Structures & Design - OR | 13444 NE Jarrett St. | Portland, OR 97230 | P: 971-645-4201 | F: 971-645-4212

P8



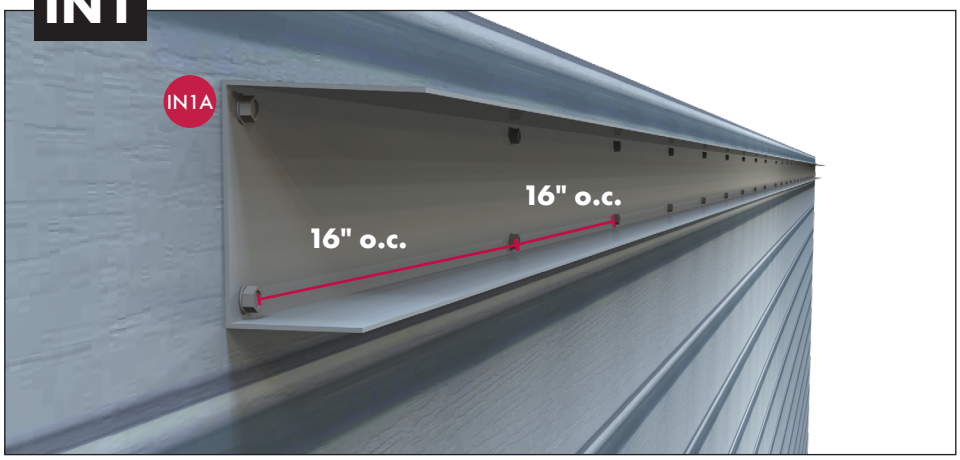
P8A. Continue installing T-Bars and PolyPanel roof panels
P8B. Install side fascia, refer to page 19 for continued instruction.

American Structures & Design - WA | 1801 132nd Ave. E | Sumner, WA 98390 | P: 253-833-4343 | F: 253-833-4545
American Structures & Design - OR | 13444 NE Jarrett St. | Portland, OR 97230 | P: 971-645-4201 | F: 971-645-4212

BEFORE YOU BEGIN

- Do not drag or jam the panels while moving or storing them.
- Always use two people while handling panels.
- Since protective film can stick to panel, do not store in direct sunlight.
- Insulated panels are larger than other panel options, so greater care is needed when handling in order to preserve finish.
- Before the installation of each panel, peel off protective coating

IN1



IN1A. Attach insulated hanger using 2 ea. 1/4" Lag Screws @ 16" o.c. maximum with a minimum of 2½" penetration into wall studs. If space allows above the hanger, apply and smooth a bead of caulk.

Note:

- Customer is responsible for determining required lag screw length based on siding type.
- Ensure fasteners are fully secured into stud framing.
- For additional attachment options, see engineering pages S6.1

IN2

Post Installation

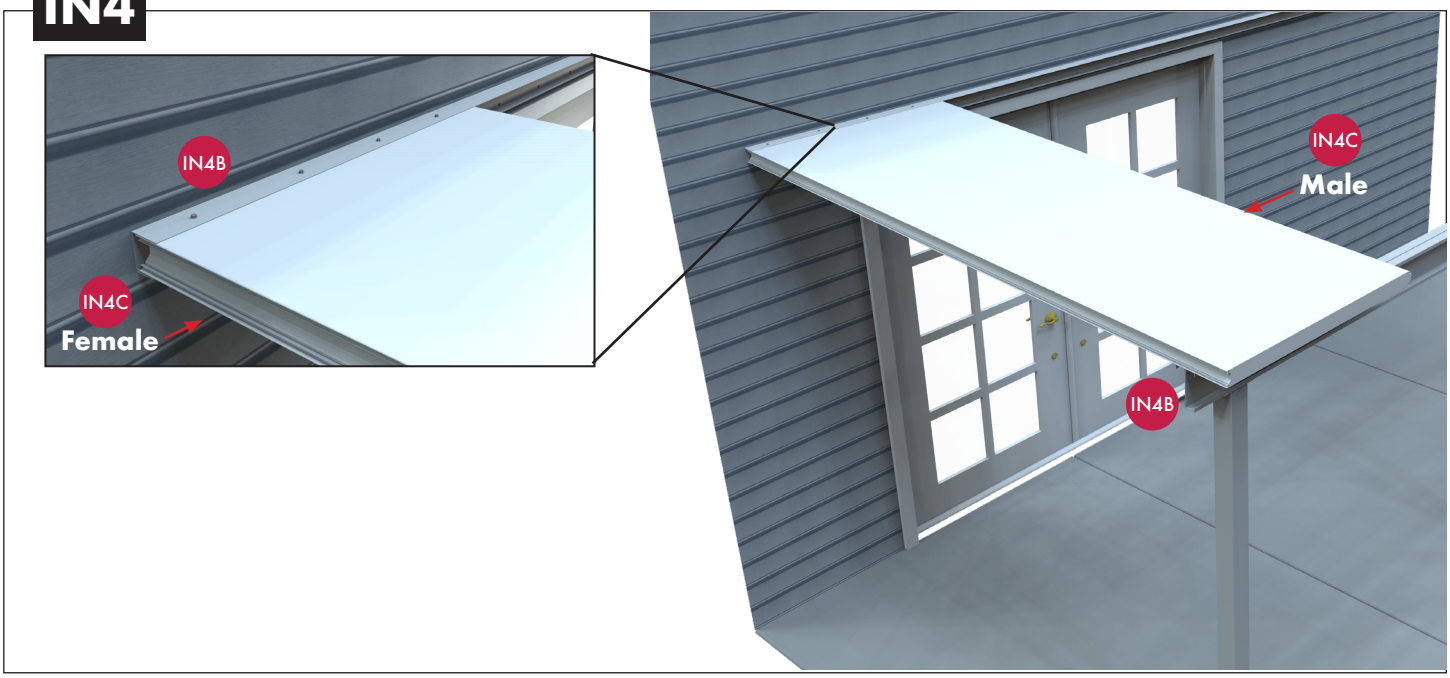
For post installation follow steps 11, 12, 13, 15, 16.
For 4" or 7" unwrapped I-Beam follow step 17.
For 3" x 8" beam sleeve with insert follow steps L3, L4, L8.
Note: Insulated panels require an I-Beam and non-structural gutter system.

IN3

IN3. Identify the male and female lock end of each panel.

American Structures & Design - WA | 1801 132nd Ave. E | Sumner, WA 98390 | P: 253-833-4343 | F: 253-833-4545
American Structures & Design - OR | 13444 NE Jarrett St. | Portland, OR 97230 | P: 971-645-4201 | F: 971-645-4212

IN4



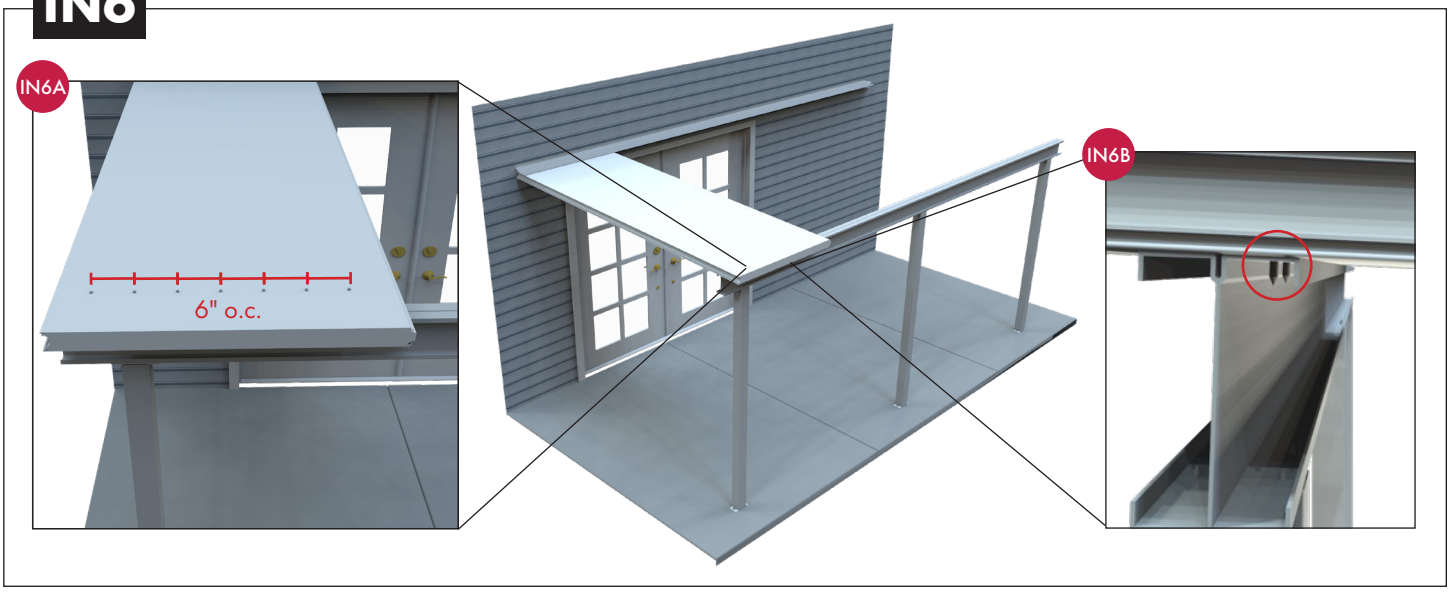
IN4A. Remove protective film BEFORE installation of each panel.
IN4B. Starting from the LEFT, insert roof panel into hanger, with other end resting on beam.
IN4C. Ensure that FEMALE lock is on the outside and flush with the end of the hanger, and that MALE lock is on the inside.

IN5

IN5A. Fasten panel to the hanger using 2 ea. Hex Tek #10 x 5/8" fasteners (Part No.: FZ-10X.625-HEXTEK), one at top, one at bottom, every 12" o.c.
Note: Do not install fasteners within 4" of either side of the locks.

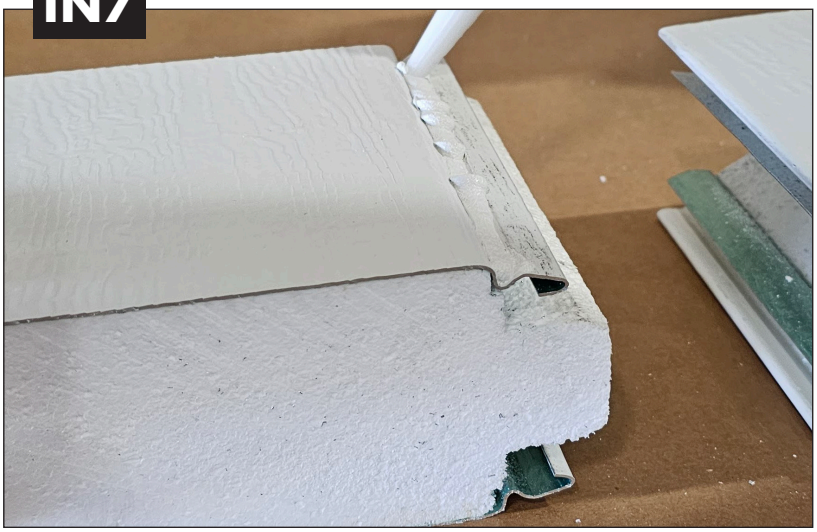
American Structures & Design - WA | 1801 132nd Ave. E | Sumner, WA 98390 | P: 253-833-4343 | F: 253-833-4545
American Structures & Design - OR | 13444 NE Jarrett St. | Portland, OR 97230 | P: 971-645-4201 | F: 971-645-4212

IN6



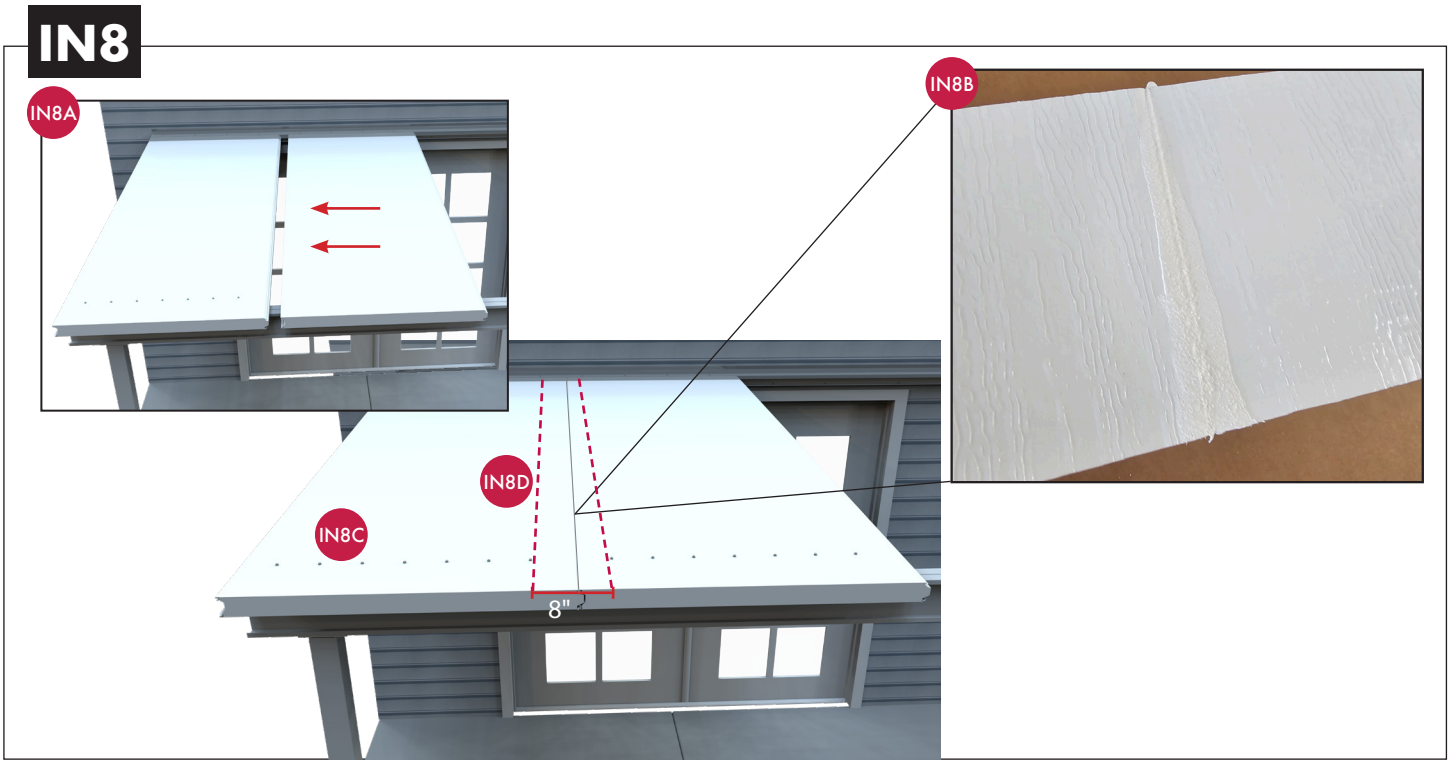
IN6A. Fasten panel to the top of the beam using 1 ea. ¼" x 4" Hex Tek with Neo Washer (FZ-14x4-HEXTEKZINC-NEOWASH) spaced every 6" o.c.
IN6B. Ensure fasteners are on the outside of the beam.
Note: Length of screw depends on insulated panel thickness selected, and should provide ½" minimum penetration, as shown in IN6B. Do NOT install fasteners within 4" of either side of the lock.

IN7



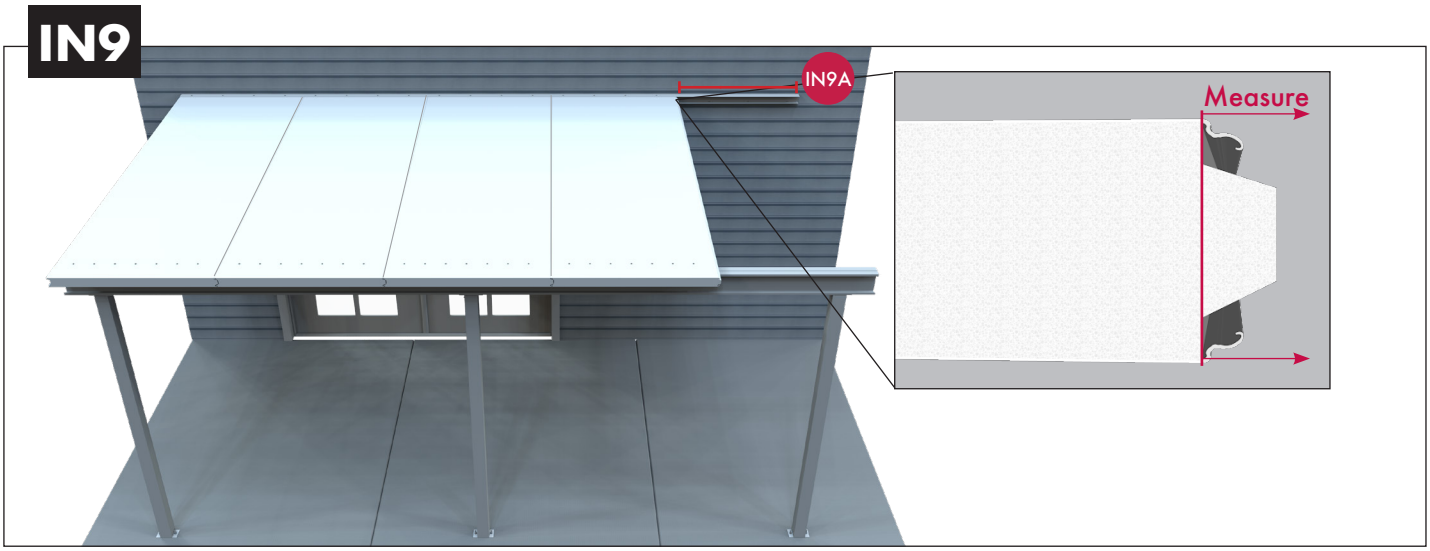
IN7A. Prior to installing the next panel, run a bead of caulking down the top seam of the MALE LOCK where the panels will lock together.

American Structures & Design - WA | 1801 132nd Ave. E | Sumner, WA 98390 | P: 253-833-4343 | F: 253-833-4545
American Structures & Design - OR | 13444 NE Jarrett St. | Portland, OR 97230 | P: 971-645-4201 | F: 971-645-4212



IN8A. Position second panel into hanger and firmly push into lock of first panel until locked in place.
IN8B. Using light pressure smooth excess caulking along EACH seam.
IN8C. Fasten panel to the top of the beam using 1 ea. ¼" x 4" Hex Tek with Neo Washer spaced every 6" o.c.
IN8D. Do NOT install fasteners within 4" of either side of the lock.
IN8E. Install remaining panels, by repeating steps 7 and 8.
Note: Follow the steps in IN9 for last panel installation.

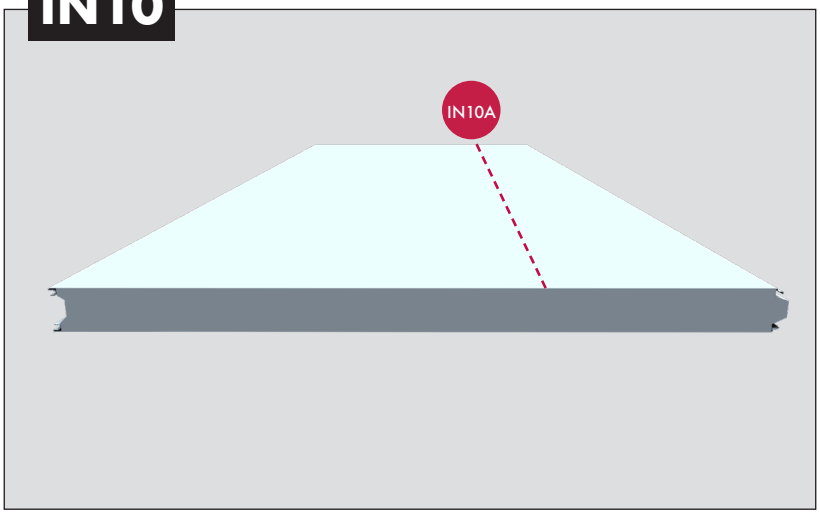
Installing Last Panel



IN9A. Starting at the male edge of the second to last panel, measure to the outside end of the hanger (PC-IRH3).
IN9B. Mark the LAST PANEL with this dimension.

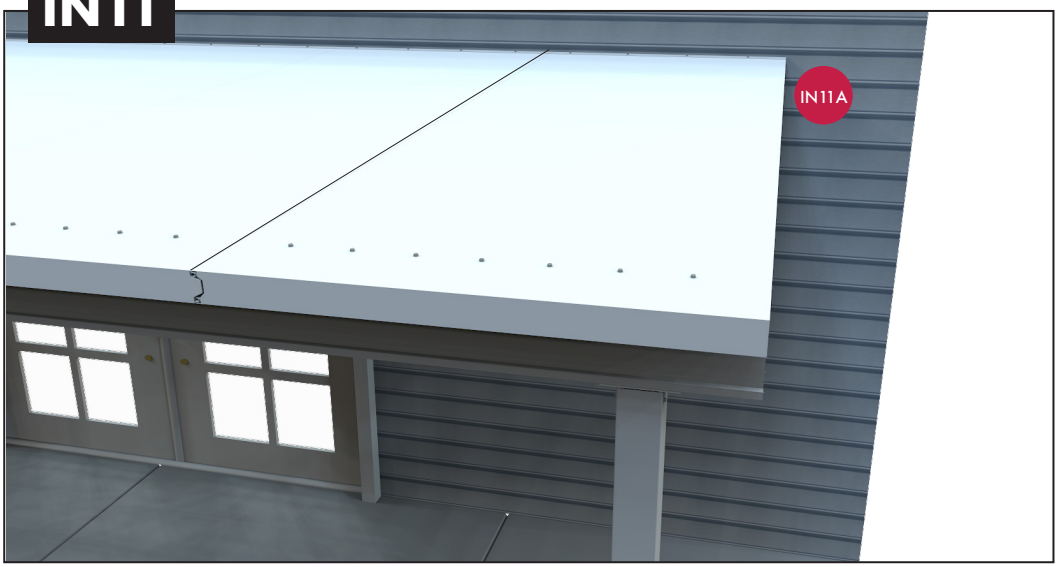
American Structures & Design - WA | 1801 132nd Ave. E | Sumner, WA 98390 | P: 253-833-4343 | F: 253-833-4545
American Structures & Design - OR | 13444 NE Jarrett St. | Portland, OR 97230 | P: 971-645-4201 | F: 971-645-4212

IN10



IN10A. Using a skill saw, cut the LAST PANEL to the dimension from Step IN9B.
Note: If skill saw does not cut all the way through the panel, flip the panel over, mark dimensions and complete cut.

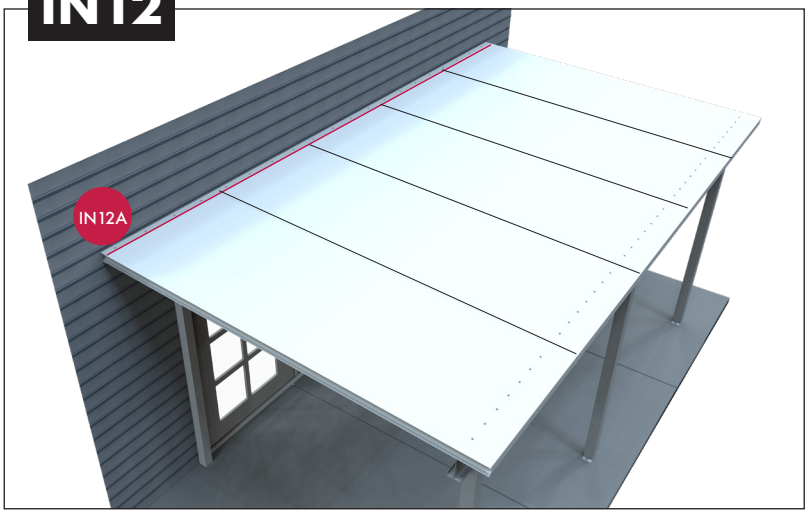
IN11



IN11A. Install last panel following Steps 7and 8.

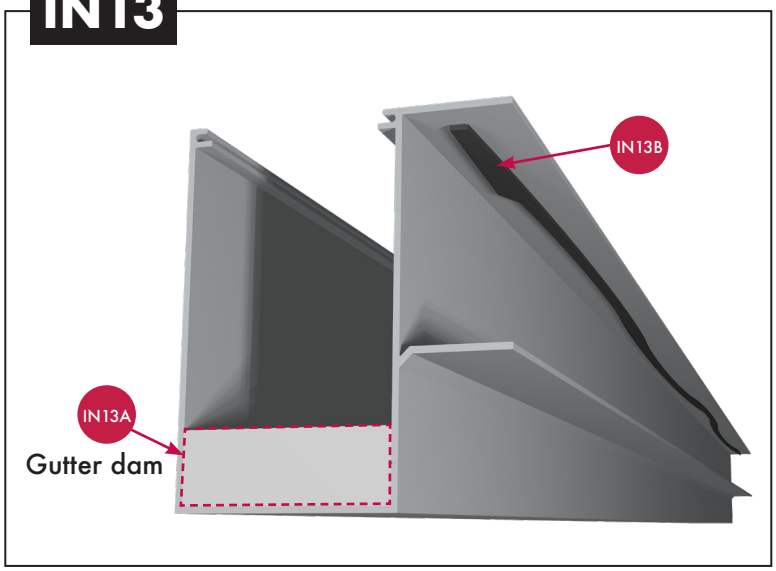
American Structures & Design - WA | 1801 132nd Ave. E | Sumner, WA 98390 | P: 253-833-4343 | F: 253-833-4545
American Structures & Design - OR | 13444 NE Jarrett St. | Portland, OR 97230 | P: 971-645-4201 | F: 971-645-4212

IN12



IN12A. After all roof panels are installed, run a bead of caulking where the top edge of the hanger meets the panel. Smooth caulking as required.

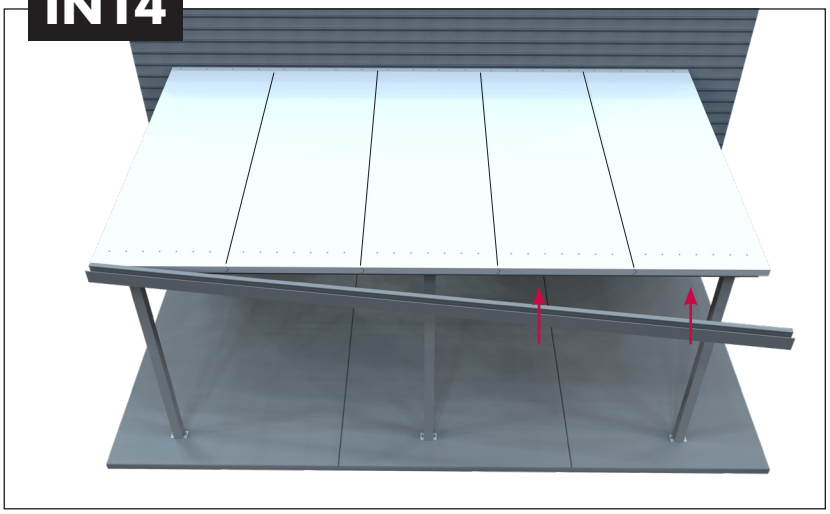
IN13



IN13A. Using a razor knife, modify the gutter dam to snugly fit inside the gutter. Apply a generous bead of caulk around the gutter dam and the gutter. Spread evenly for a watertight fit.
IN13B. Run a heavy bead of caulking along the underside edge of the upper flange of gutter.

American Structures & Design - WA | 1801 132nd Ave. E | Sumner, WA 98390 | P: 253-833-4343 | F: 253-833-4545
American Structures & Design - OR | 13444 NE Jarrett St. | Portland, OR 97230 | P: 971-645-4201 | F: 971-645-4212

IN14

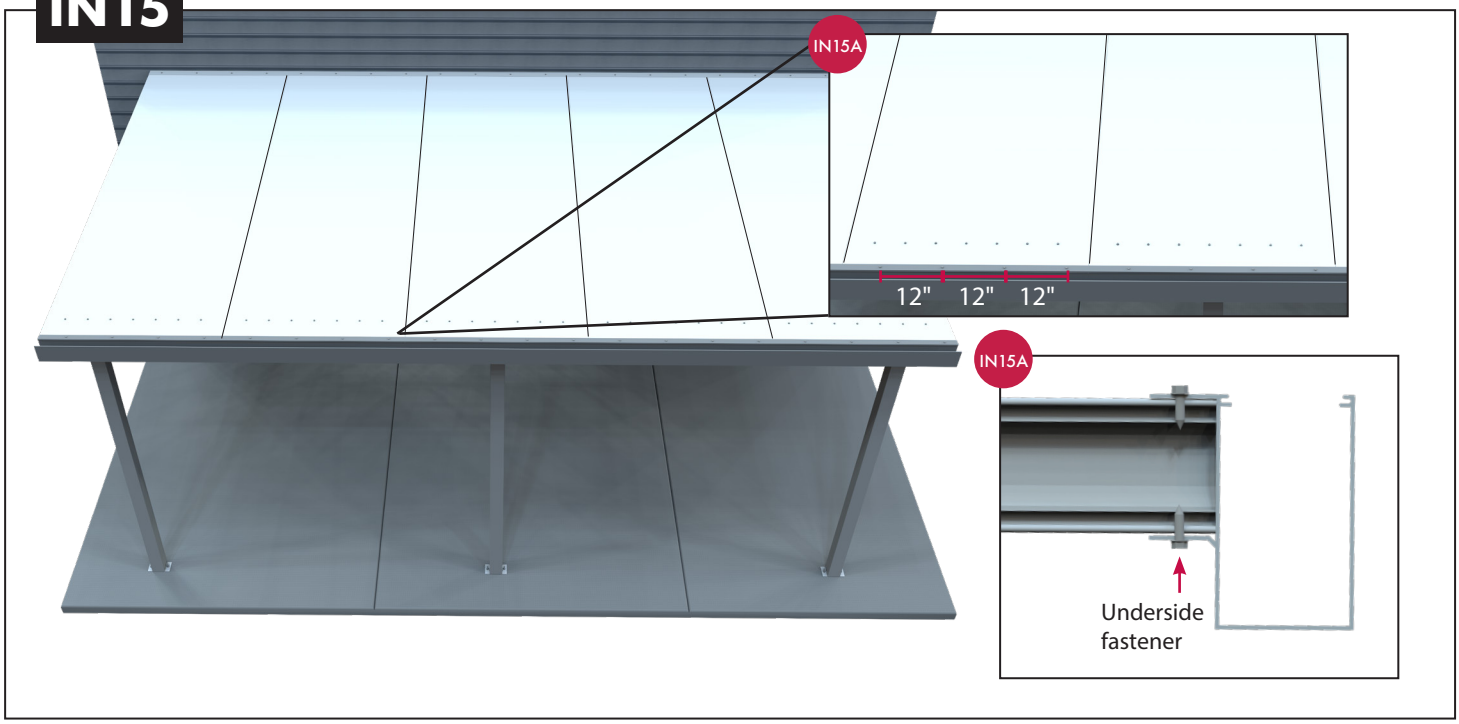


IN14A. Starting on the left side, slip the gutter over the end of the panels and work the gutter down the width of the panels

PRO TIP If the fit is tight, use a thin putty knife to facilitate gutter application.

Installing Gutter

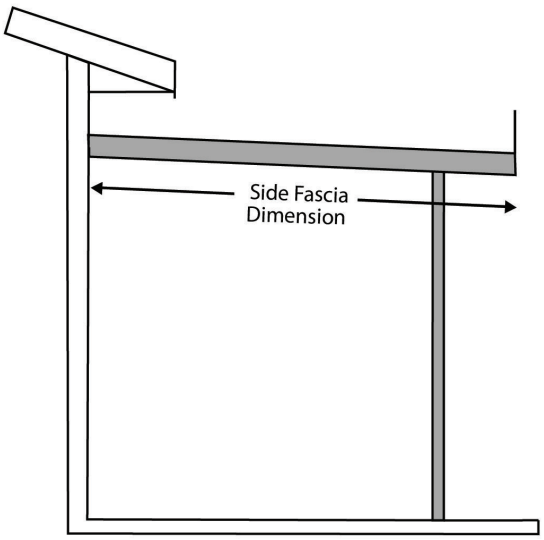
IN15



IN15A. Every 12" o.c. fasten gutter to the panels at the front edge using 2 ea. Hex Tek #10 x 5/8" fasteners (Part No.: FZ-10X.625-HEXTEK) one at top, one at bottom.
IN15B. Do NOT install fasteners within 4" of either side of the lock.
IN15C. Seal all fasteners with caulking

American Structures & Design - WA | 1801 132nd Ave. E | Sumner, WA 98390 | P: 253-833-4343 | F: 253-833-4545
American Structures & Design - OR | 13444 NE Jarrett St. | Portland, OR 97230 | P: 971-645-4201 | F: 971-645-4212

IN16

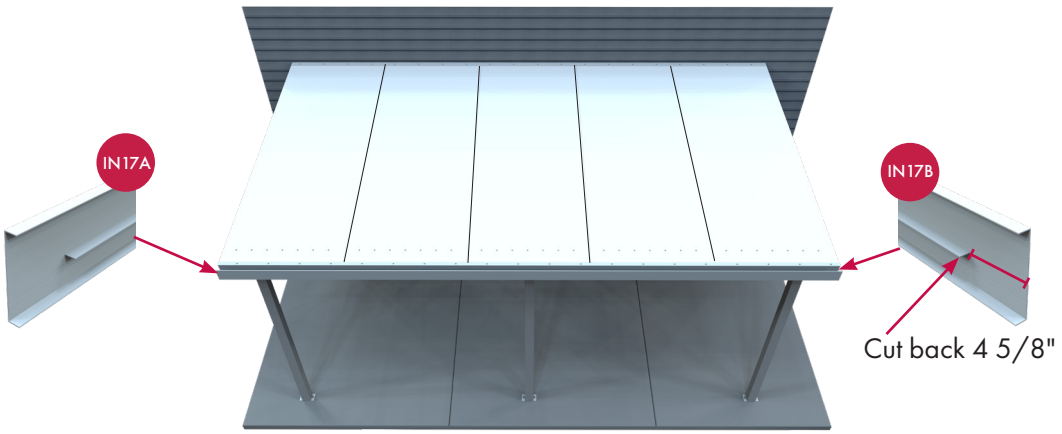


Cut side fascia to this dimension
USING A MITER SAW.

IN16A. Measure from the wall to the outside of the bottom of the gutter. Cut side fascia to this dimension.

PRO TIP Cut the back side of the side fascia to the angle of the slope of patio cover.

IN17



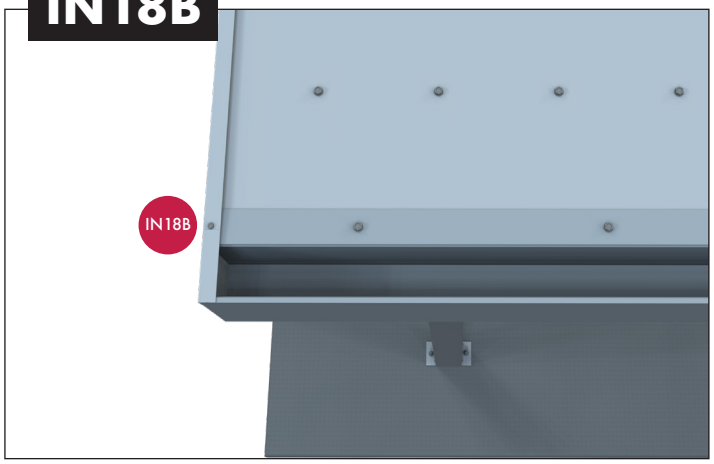
IN17A. At the GUTTER end of the side fascia (PC-IRSF), cut back the middle flange 4 5/8".
IN17B. Repeat process for opposite side.

American Structures & Design - WA | 1801 132nd Ave. E | Sumner, WA 98390 | P: 253-833-4343 | F: 253-833-4545
American Structures & Design - OR | 13444 NE Jarrett St. | Portland, OR 97230 | P: 971-645-4201 | F: 971-645-4212

IN18A

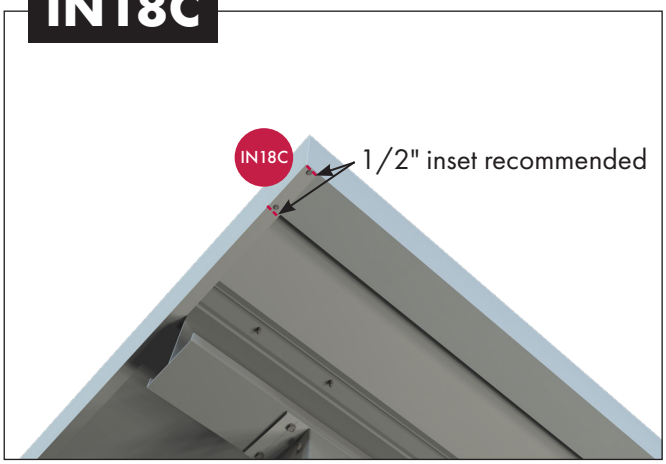
IN18A. Hang the side fascia on top of panel. Ensure top and bottom of side fascia are flush with OUTSIDE edge of gutter

IN18B



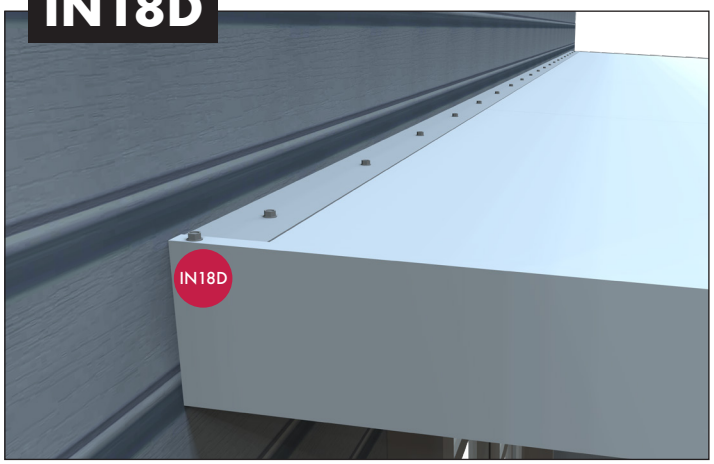
IN18B. Secure side fascia to top flange of the gutter using 1 ea. Hex Tek #10 x 5/8" fastener:
(Part No.: FZ 10X.625 HEXTEK)

IN18C



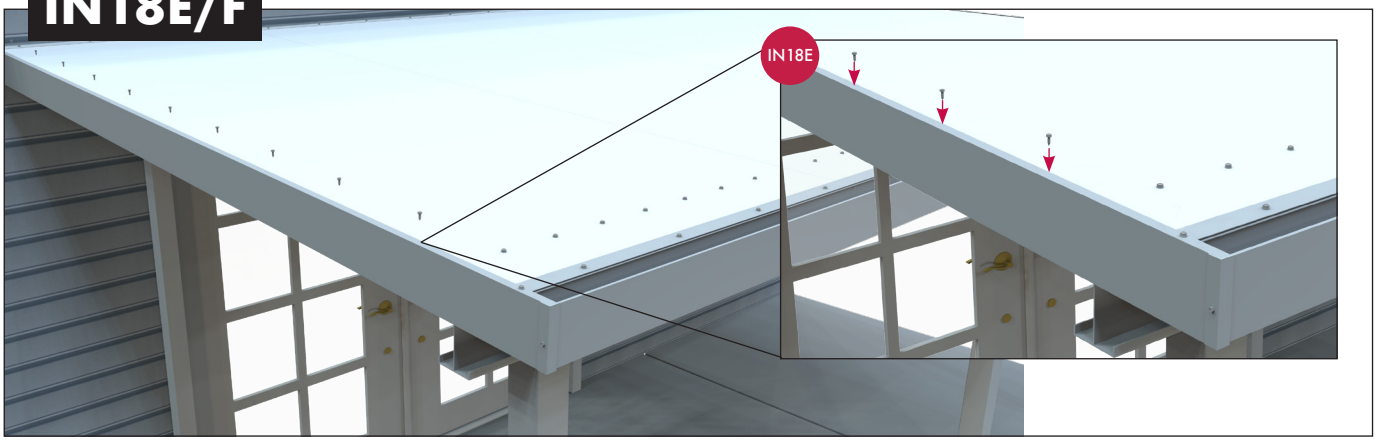
IN18C. Secure side fascia to underside of gutter using 2 ea. Hex Tek #10 x 5/8" fastener:
(Part No.: FZ 10X.625 HEXTEK)

IN18D



IN18D. Secure side fascia at hanger using 1ea. Hex Tek #10 x 5/8" fastener: (Part No.: FZ 10X.625 HEXTEK)

IN18E/F

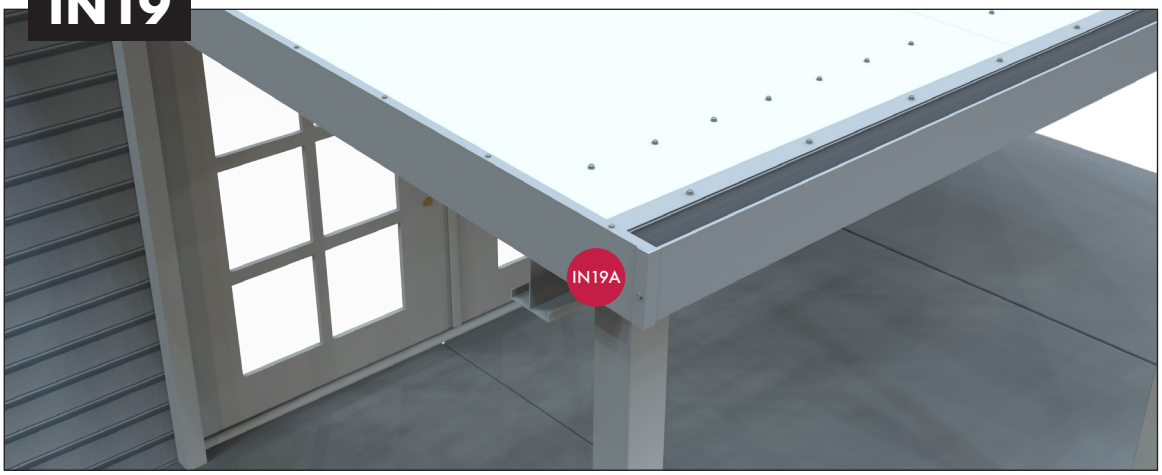


IN18E. Using Hex Tek #10 x 5/8" fastener (Part No.: FZ 10X.625 HEXTEK) fasten side fascia to the length of the panel every 12-16"

IN18F. Repeat process for right hand side fascia

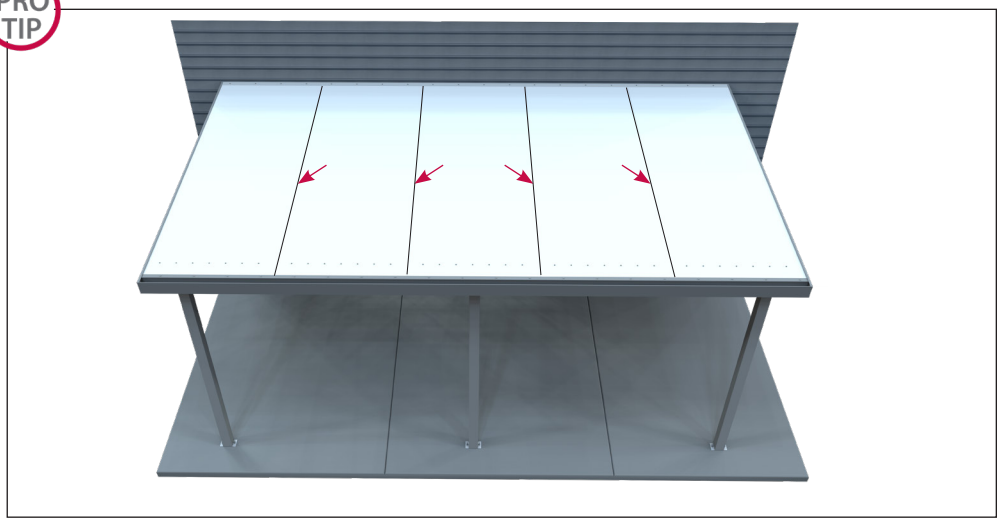
American Structures & Design - WA | 1801 132nd Ave. E | Sumner, WA 98390 | P: 253-833-4343 | F: 253-833-4545
American Structures & Design - OR | 13444 NE Jarrett St. | Portland, OR 97230 | P: 971-645-4201 | F: 971-645-4212

IN19



IN19A. Install corner flush with the bottom of the side fascia.
IN19B. Secure corner using 1ea. Hex Tek #10 x 5/8" fastener (Part No.: FZ 10X.625 HEXTEK) on either gutter or side fascia (installer's preference, pictured side fascia).

PRO TIP



After caulking has cured and to extend the life of the caulking, where the panels join, apply sealant tape such as GeoBond®, EternaBond® or equivalent.

IN20

IN20A. Continue Installation of Lattice Wrap and Downspout as designed.

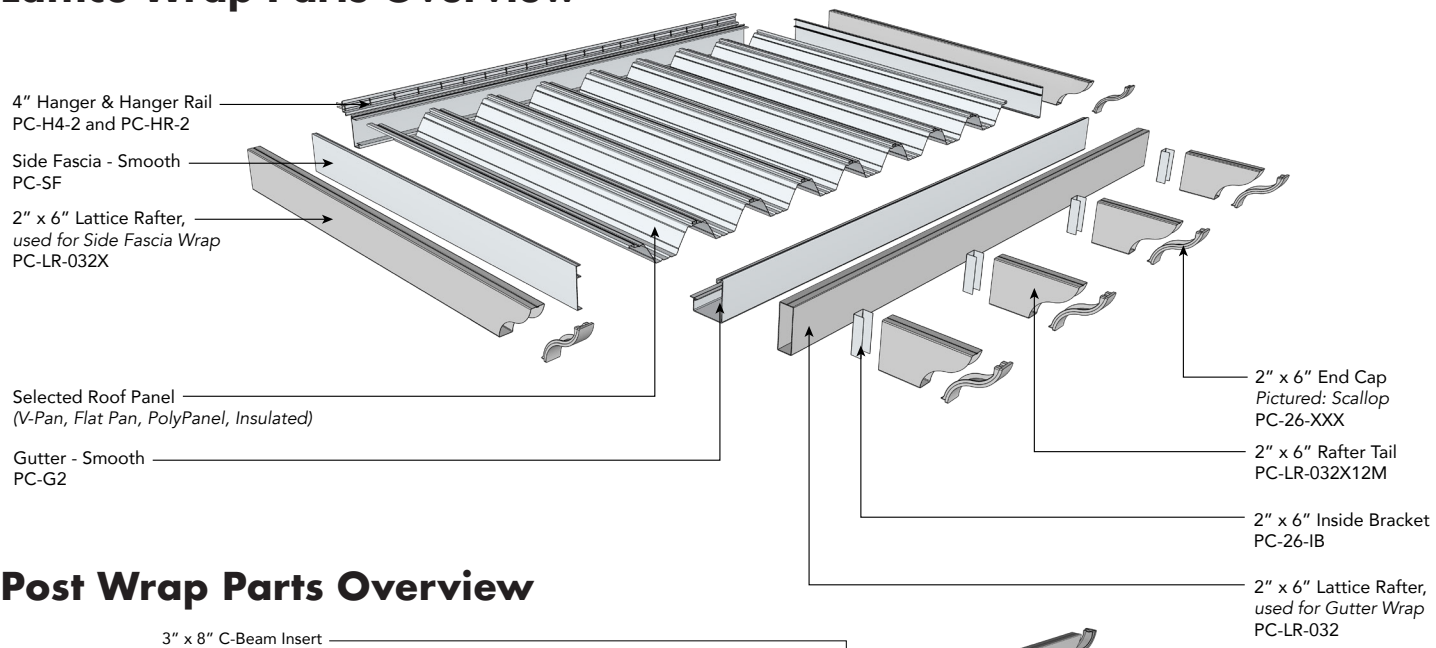
American Structures & Design - WA | 1801 132nd Ave. E | Sumner, WA 98390 | P: 253-833-4343 | F: 253-833-4545
American Structures & Design - OR | 13444 NE Jarrett St. | Portland, OR 97230 | P: 971-645-4201 | F: 971-645-4212

Overview

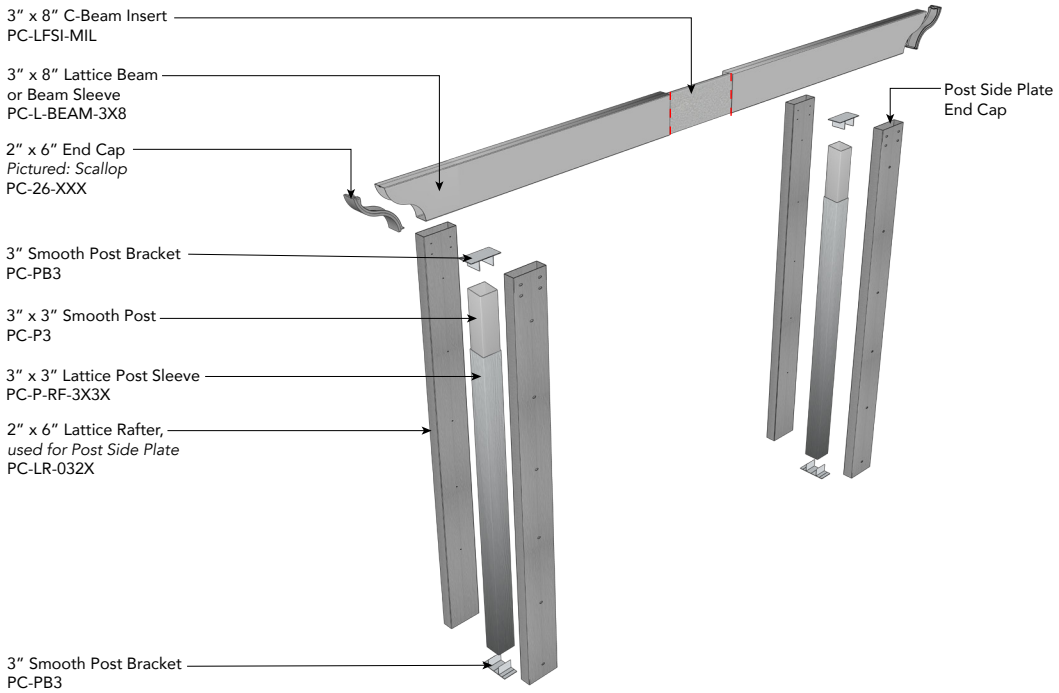
Lattice Wrap is an optional, non-structural, aesthetic upgrade. The methods of installation described in these instructions are best practices. The finished design can be modified depending on each individual's desired look.

	Lattice Wrap End Cut Options:			
Lattice Wrap Part:	Scallop	Miter	Corbel	Bevel
Side Fascia Wrap	X	X	X	X
Rafter Tails	X	X	X	X
Lattice Beam or Beam Sleeve	X	X	X	X
Post Side Plates		X		X

Lattice Wrap Parts Overview



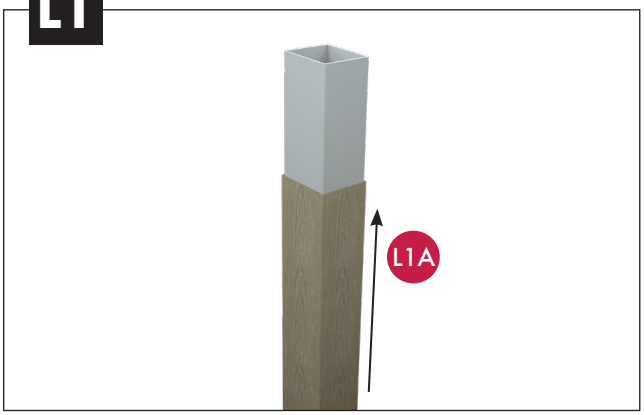
Post Wrap Parts Overview



American Structures & Design - WA | 1801 132nd Ave. E | Sumner, WA 98390 | P: 253-833-4343 | F: 253-833-4545
American Structures & Design - OR | 13444 NE Jarrett St. | Portland, OR 97230 | P: 971-645-4201 | F: 971-645-4212

Lattice Post Sleeve

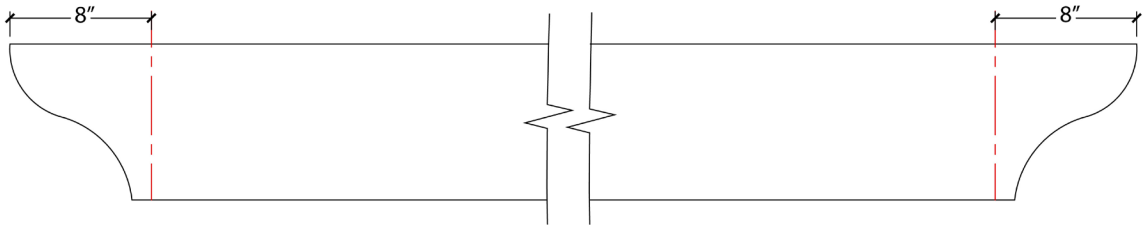
L1



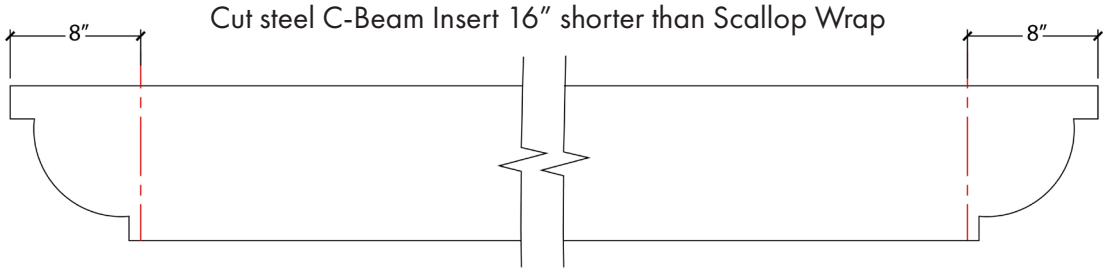
L1A. Slide lattice post sleeve over smooth post.
L1B. Using either a cut off or miter saw, cut the top of **BOTH** post sleeve and post together to match the slope of the patio cover.
L1C. Install sleeved posts, as per instructions on page 14.
Note: Do not bury post sleeve in concrete footings.

Cutting Steel C-Beam

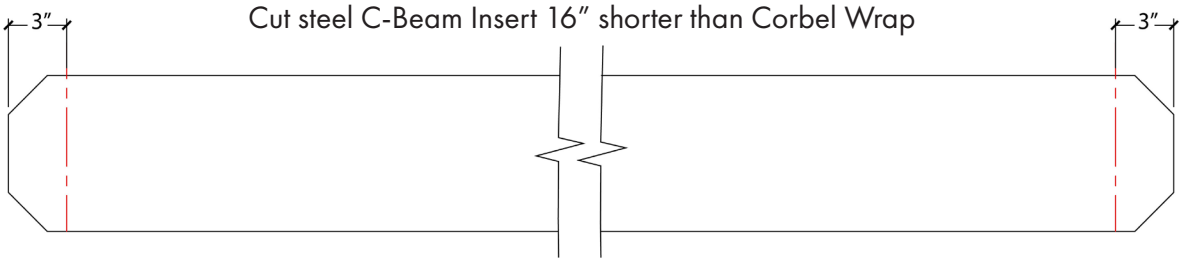
L2



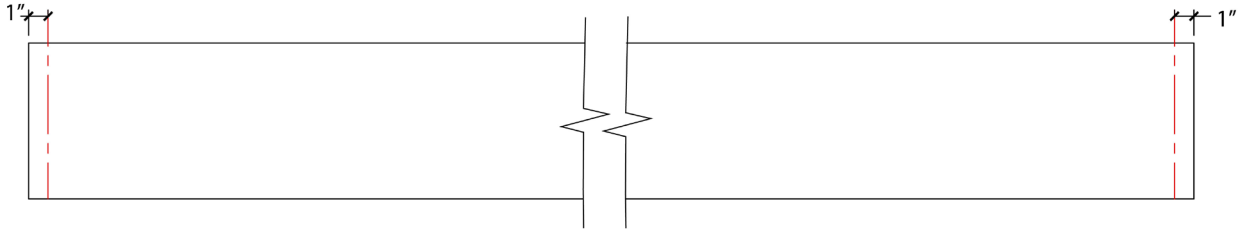
Cut steel C-Beam Insert 16″ shorter than Scallop Wrap



Cut steel C-Beam Insert 16″ shorter than Corbel Wrap



Cut steel C-Beam Insert 6″ shorter than Miter Wrap

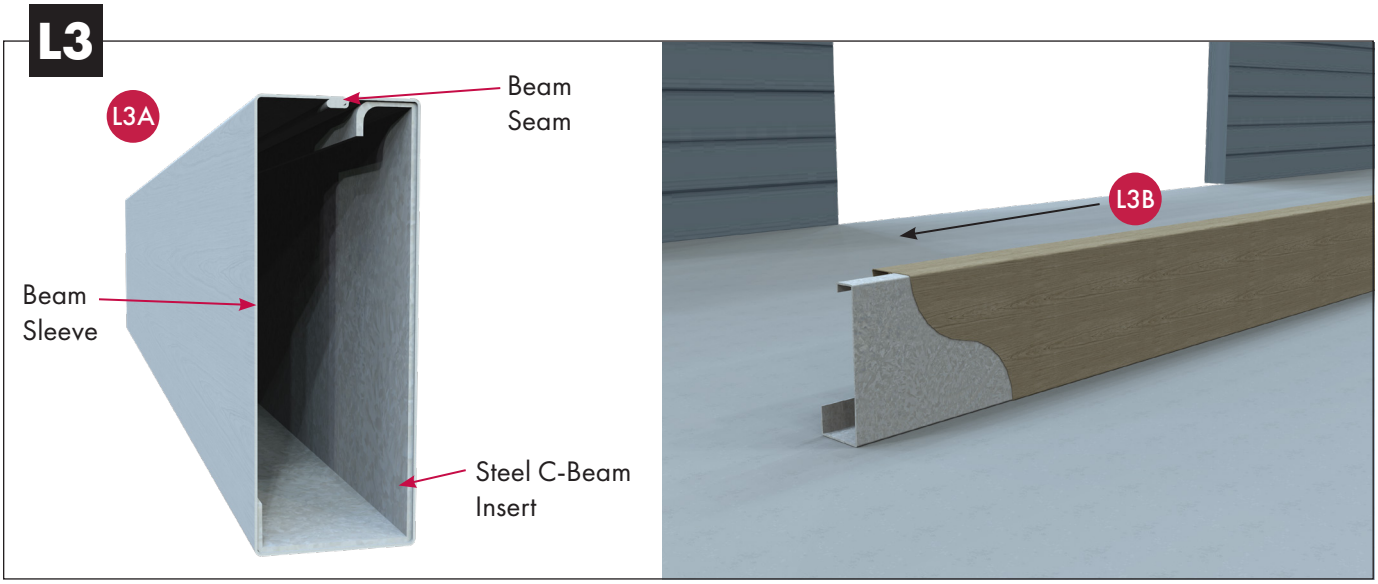


Cut steel C-Beam Insert 2″ shorter than Bevel Wrap

L2A. Choose end cut style. Measure steel C-Beam insert to appropriate size.
L2B: Using a cut off saw with a metal abrasive blade, cut the steel C-Beam insert to size.

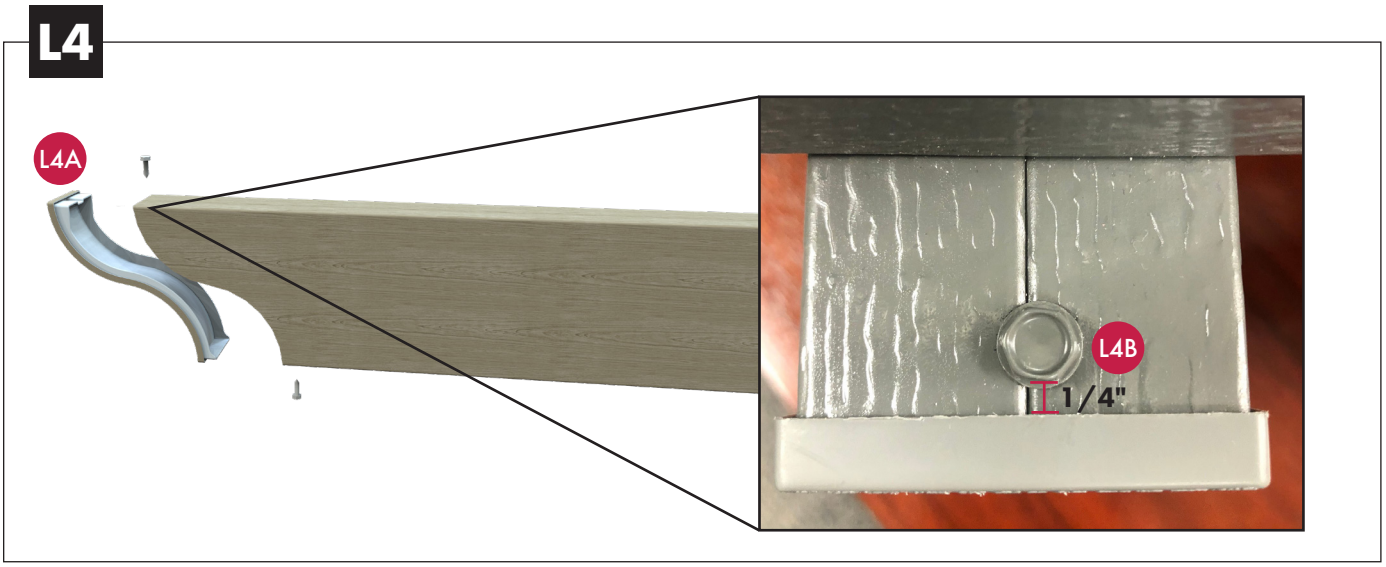
American Structures & Design - WA | 1801 132nd Ave. E | Sumner, WA 98390 | P: 253-833-4343 | F: 253-833-4545
American Structures & Design - OR | 13444 NE Jarrett St. | Portland, OR 97230 | P: 971-645-4201 | F: 971-645-4212

Installing Beam Sleeve



L3A. Ensure beam sleeve seam is facing upwards.
L3B. Slide beam sleeve over the cut C-Beam. When installing ensure the beam open cavity is facing toward the house/ structure.

End Cap Installation

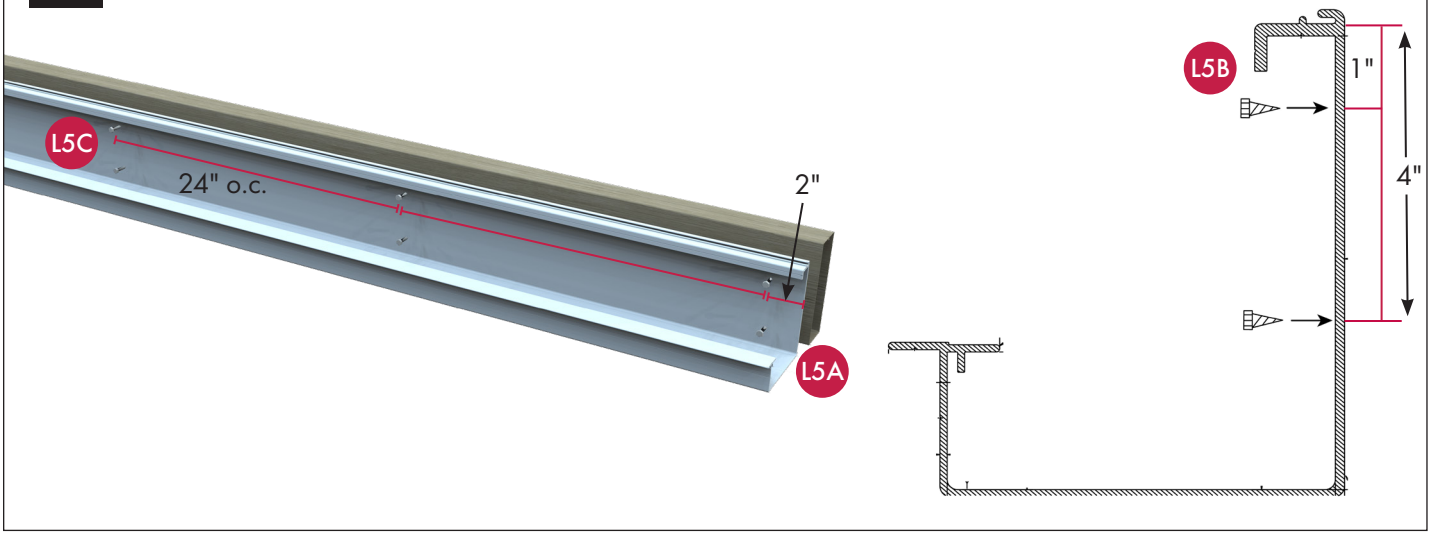


L4A. Install end caps to both ends of the sleeved beam.
L4B. Fasten end cap approx. ¼" away from the end cap reveal and centered over seam using 2ea. Hex Tek #10 x 5/8" fasteners (Part No.: FZ-10X.625-HEXTEK), one at the top and bottom.

American Structures & Design - WA | 1801 132nd Ave. E | Sumner, WA 98390 | P: 253-833-4343 | F: 253-833-4545
American Structures & Design - OR | 13444 NE Jarrett St. | Portland, OR 97230 | P: 971-645-4201 | F: 971-645-4212

Installing Gutter Wrap

L5



L5A. Cut gutter wrap (Part No.: PC-LR-032) to the same dimension as the gutter.
L5B. Starting 2" from the end of the gutter mark the inside of the gutter max. 24" on center, for 2 fasteners, one toward the top lip of the gutter the other toward the bottom.
L5C. Following the marks from Step L5B, and screwing from the inside of the gutter, fasten gutter wrap to the FRONT of the gutter using Hex Tek #10 x 5/8" fasteners (Part No.: FZ-10X.625-HEXTEK).
Note: fasteners should NOT be visible through the front of the gutter wrap.

Installing 2"x6" Inside Brackets and Rafter Tails (Optional)

L6

L6A. Equally space and attach 2" x 6" Inside Bracket for Rafter Tail (Part No.: PC261B-MIL) using 2ea. Hex Tek #10 x 5/8" fasteners (Part No.: FZ-10X.625-HEXTEK).
L6B. Attach rafter tails using 4ea. Hex Tek #10 x 5/8" fasteners (Part No.: FZ-10X.625-HEXTEK), 2ea on each side.
L6C. Install and fasten end caps to each rafter tail using 2ea. Hex Tek #10 x 5/8" fasteners (Part No.: FZ-10X.625-HEXTEK), one on each side. See step L4B for spacing and placement requirements.

American Structures & Design - WA | 1801 132nd Ave. E | Sumner, WA 98390 | P: 253-833-4343 | F: 253-833-4545
American Structures & Design - OR | 13444 NE Jarrett St. | Portland, OR 97230 | P: 971-645-4201 | F: 971-645-4212

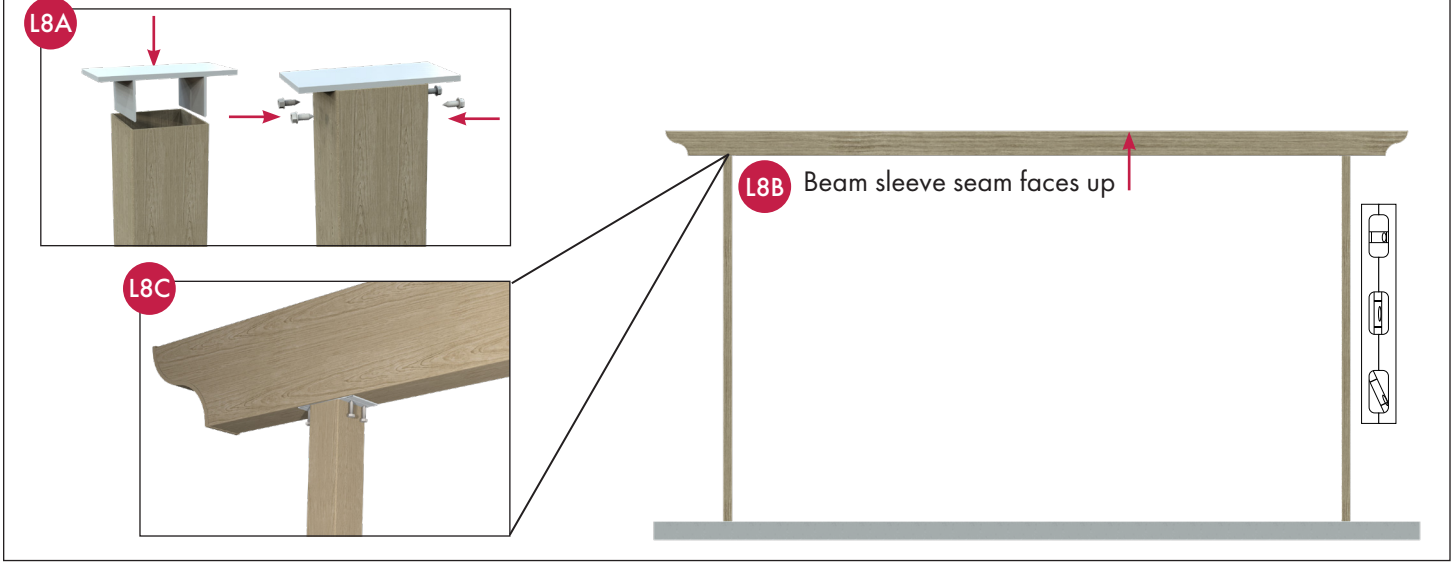
Setting Posts

L7

L7A. Set posts per Steps 11-16.
Note: Step 15 is already completed.

Attach Beam to Posts

L8



L8A. Set Smooth Post Bracket (Part No.: PC-PB3) inside the top of posts and attach using 4ea. Hex Tek #14 x 1" (Part No.: FZ-14X1-HEXTEK), 2ea on per side.
L8B. Ensuring the beam sleeve seam is facing upwards (Step L3), set wrapped beam on top of post. Plumb post and center beam onto brackets.
L8C. Attach beam to post brackets using 4ea. Hex Tek #14 x 1" (Part No.: FZ-14X1-HEXTEK), 2ea. on per side.

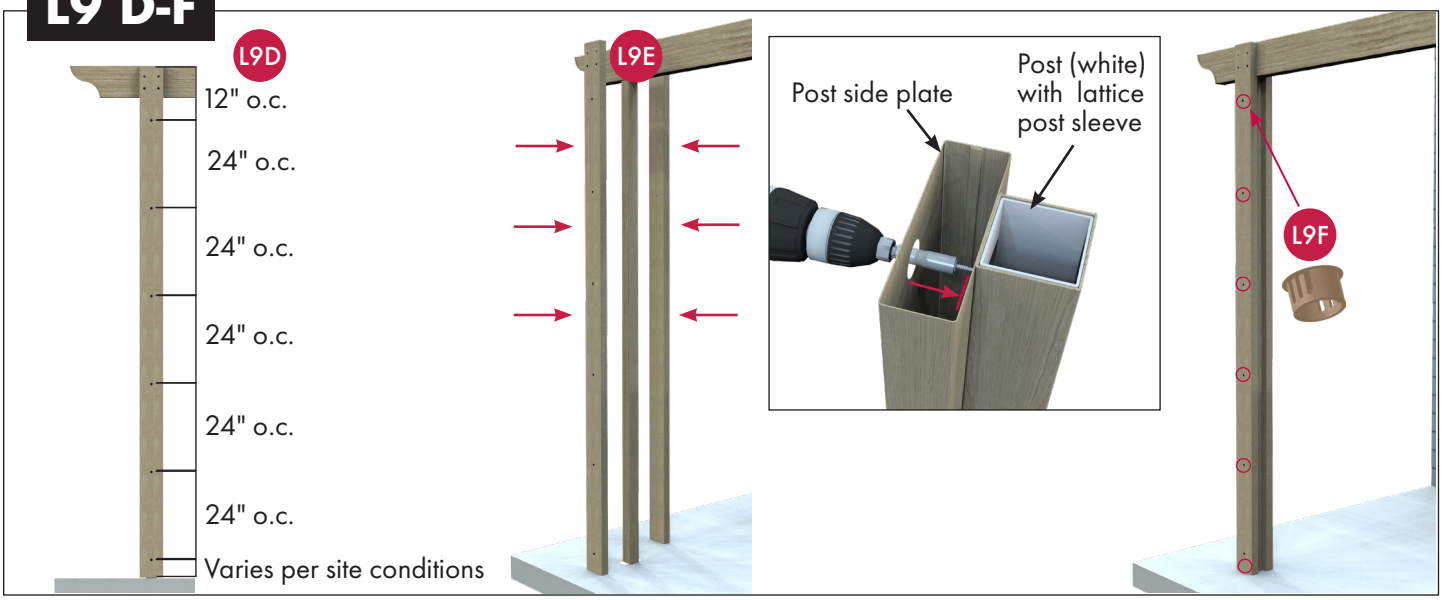
L9 A-C

L9A. Insert Side Plate Foam (Part No.: PC-SPF-WHT) into Post Side Plates (Part No.: PC-LR032X).
L9B. Install end cap (Bevel or Miter) on top of post side plate.
L9C. Measure from ground to top of the beam sleeve and cut the bottom of post side plate to this dimension.

American Structures & Design - WA | 1801 132nd Ave. E | Sumner, WA 98390 | P: 253-833-4343 | F: 253-833-4545
American Structures & Design - OR | 13444 NE Jarrett St. | Portland, OR 97230 | P: 971-645-4201 | F: 971-645-4212

Installing Side Plates onto Post

L9 D-F



L9D. Using a 5/8" metal drill bit, drill **ONLY** outside face of post side plate, 24" o.c.
Important Note: Do not puncture or dent opposite side.
L9E. Center and attach pre-drilled post side plates, one per side, to sleeved post using Hex Tek #14 x 1" (Part No.: FZ-14X1-HEXTEK).
L9F. Insert 5/8" plugs into each hole to cover fastener head.

PRO TIP For end/outside posts, orient the vertical seam on the side plate to the center of the patio cover.

Install Selected Roof Panel

L10

L10: Install V-Pan or Flat Pan follow steps 18-27E Install PolyPanel follow step P2A Option 1 or 2
Important Note: For V-Pan/Flat Pan, Step 21 or PolyPanel Step P3A install pre-assembled gutter/gutter wrap/rafter tail assembly.

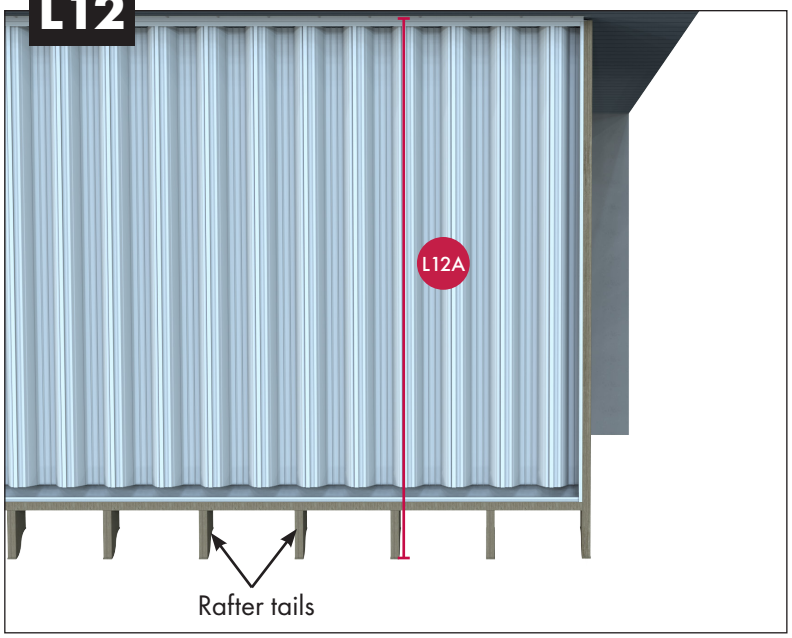
Preparation Side Fascia Wrap to Side Fascia

L11

L11: Install 2ea, one on each side, 2" x 6" Inside Brackets (Part No.: PC-26-IB) onto siding or fascia board board 1/8" from installed side fascia. This ensures the side fascia wrap can slide over the bracket. Fastener type is determined by siding/fascia board type and thickness.

American Structures & Design - WA | 1801 132nd Ave. E | Sumner, WA 98390 | P: 253-833-4343 | F: 253-833-4545
American Structures & Design - OR | 13444 NE Jarrett St. | Portland, OR 97230 | P: 971-645-4201 | F: 971-645-4212

L12

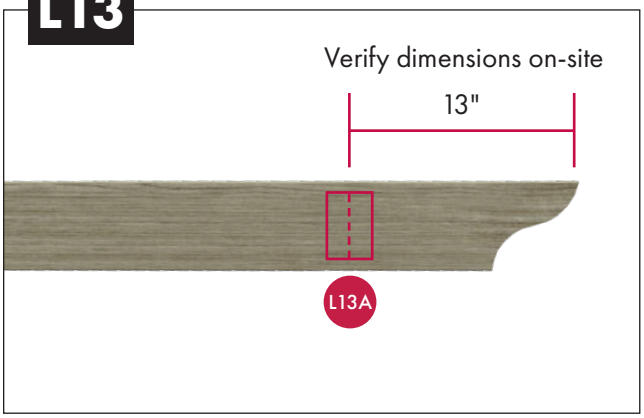


L12A. . Measure the distance from the back of the cover/house to the tip of the rafter tails. Cut Side Fascia Wrap (Part No.: PC-LR-032X) to this dimension, as pictured.

PRO TIP Cut the house end of the side fascia wrap to match the angle of the side fascia.

Preparation Side Fascia Wrap to Side Fascia Cont.

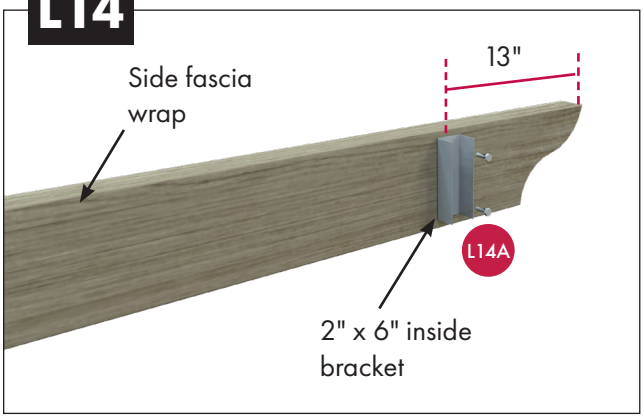
L13



L13A. Mark the placement for the 2" x 6" inside bracket 13" o.c. from the front end of the side fascia wrap.

Note: This dimension is based on 12" rafter tails. Verify dimensions on site according to design.

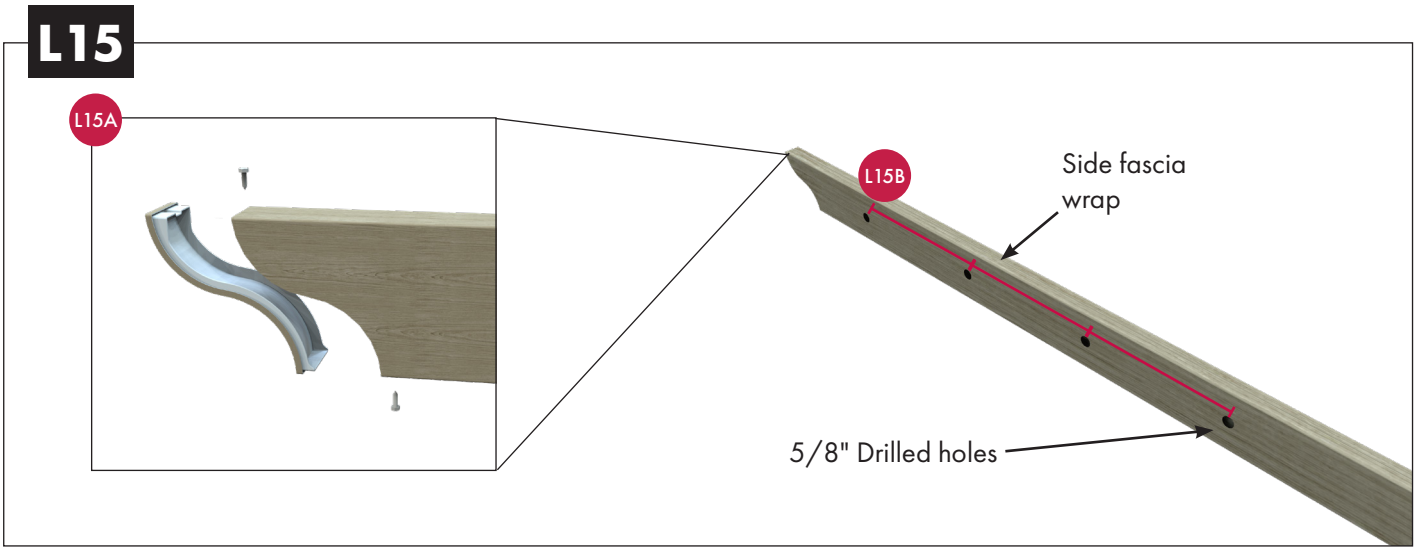
L14



L14A. Attached 2" x 6" inside bracket to the side fascia wrap using 2ea. Hex Tek #10 x 5/8" fasteners (Part No.: FZ-10X.625-HEXTEK).

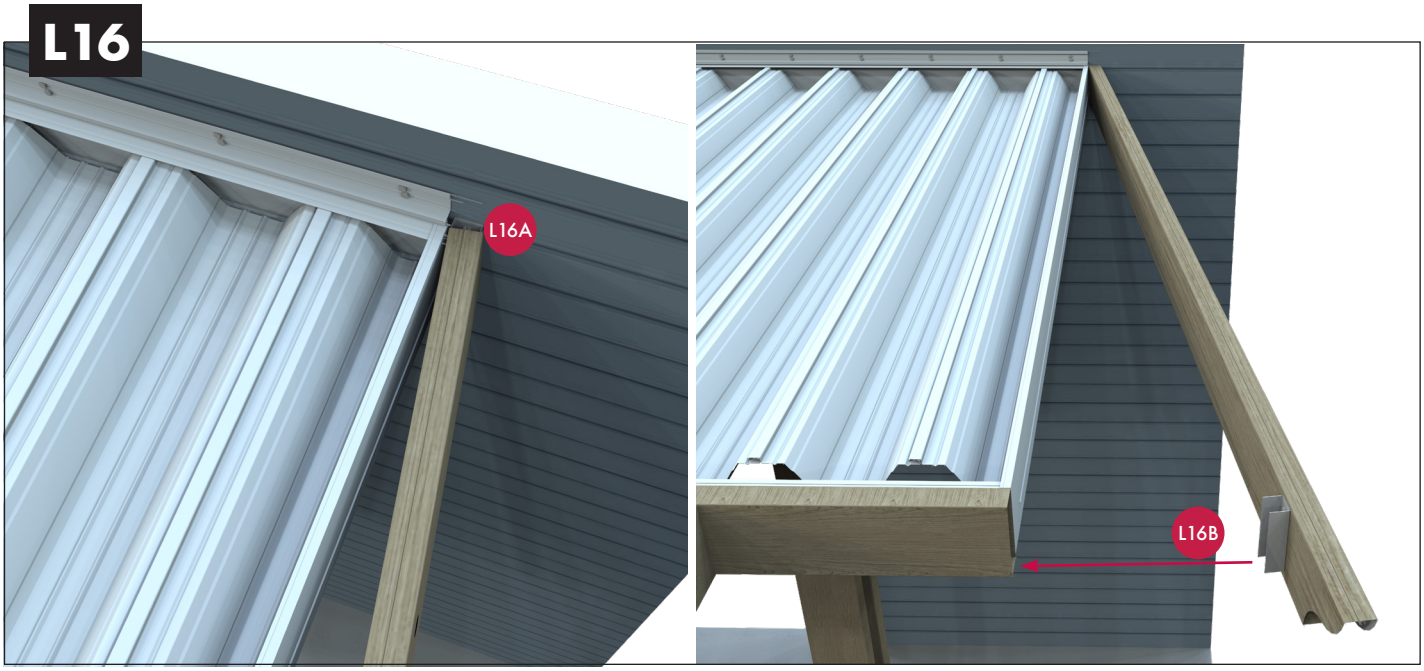
Note: Pre-drilling the 2" x 6" bracket is recommended.

American Structures & Design - WA | 1801 132nd Ave. E | Sumner, WA 98390 | P: 253-833-4343 | F: 253-833-4545
American Structures & Design - OR | 13444 NE Jarrett St. | Portland, OR 97230 | P: 971-645-4201 | F: 971-645-4212



L15A: Install 2" x 6" end caps to side fascia wrap and secure with 2ea. Hex Tek #10 x 5/8" fasteners (Part No.: FZ-10X.625-HEXTEK), one at the top and bottom.
L15B: Pre-drill equally spaced 5/8" pilot holes into the outside of the side fascia wrap, maximum 36" o.c.

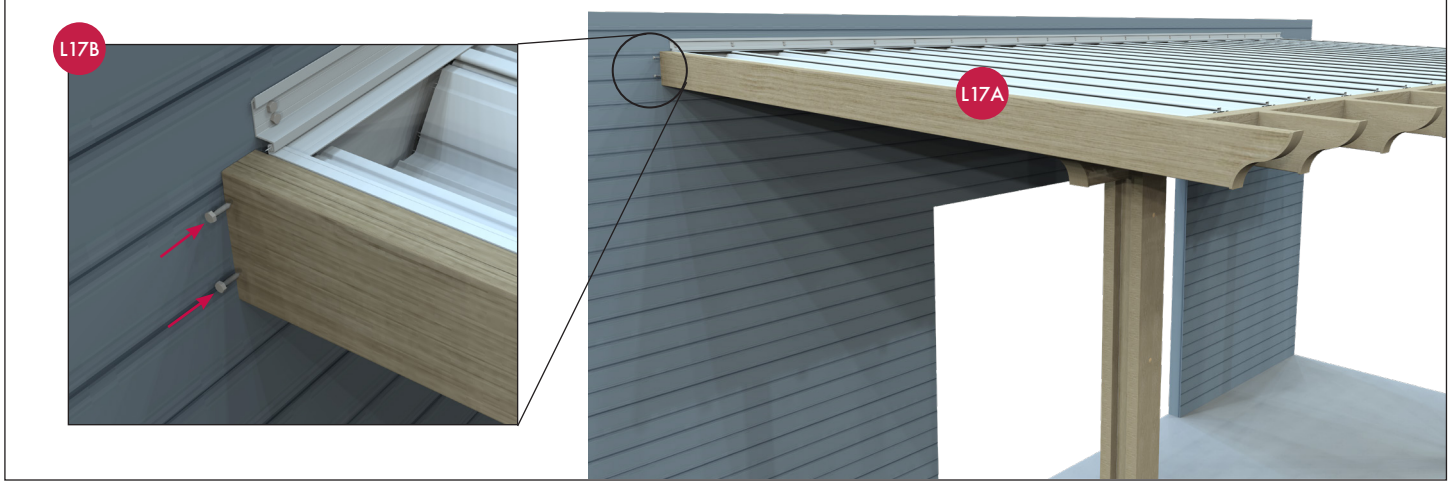
Installation Side Fascia Wrap to Side Fascia



L16A. Slide back end of side fascia wrap onto 2" x 6" inside bracket at house.
L16B. Swing 2" x 6" inside bracket on side fascia wrap into the end of the gutter wrap.

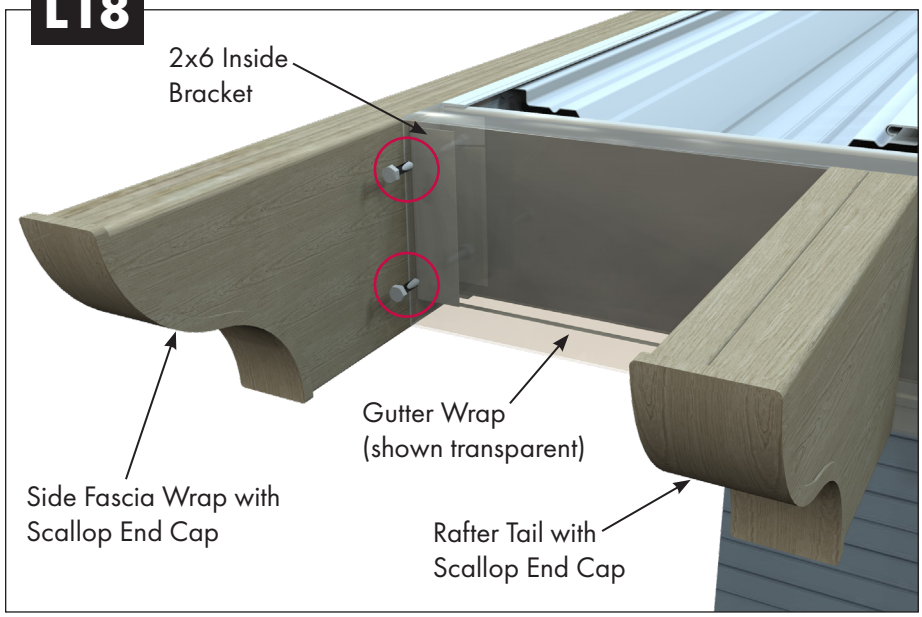
American Structures & Design - WA | 1801 132nd Ave. E | Sumner, WA 98390 | P: 253-833-4343 | F: 253-833-4545
American Structures & Design - OR | 13444 NE Jarrett St. | Portland, OR 97230 | P: 971-645-4201 | F: 971-645-4212

L17



L17A. Ensure top of side fascia wrap is flush with top of side fascia.
L17B. Using 2ea.Hex Tek #10 x 5/8" fasteners (Part No.: FZ-10X.625-HEXTEK) attach side fascia wrap to house/structure through the outside of the side fascia wrap into the previously installed 2" x 6" inside bracket.

L18



L18A. Using 2ea.Hex Tek #10 x 5/8" fasteners (Part No.: FZ-10X.625-HEXTEK) attach gutter wrap to side fascia wrap through the front of the gutter wrap and into the previously installed 2" x 6" inside bracket.

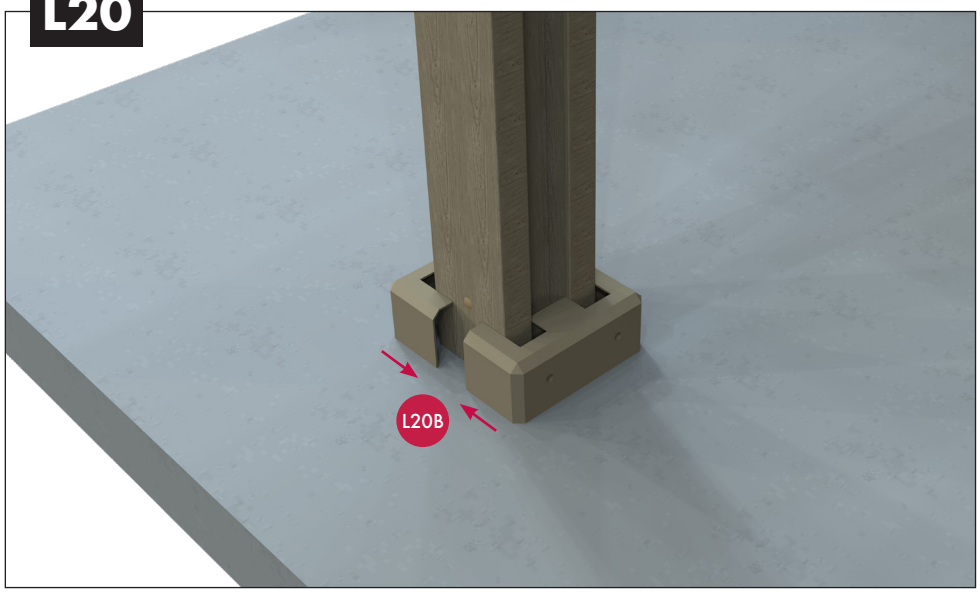
American Structures & Design - WA | 1801 132nd Ave. E | Sumner, WA 98390 | P: 253-833-4343 | F: 253-833-4545
American Structures & Design - OR | 13444 NE Jarrett St. | Portland, OR 97230 | P: 971-645-4201 | F: 971-645-4212

L19

L19A. Attach side fascia wrap to the side fascia using Hex Tek #10 x 5/8" fasteners (Part No.: FZ-10X.625-HEXTEK) through the pre-drilled holes from Step L15. Repeat for opposite side.
L19B. Plug holes in side fascia with 5/8" Plugs (PC-.625PLUG-[COLOR].
L19C. Repeat Steps L19A, L20A for the opposite side.

Attaching Base Covers

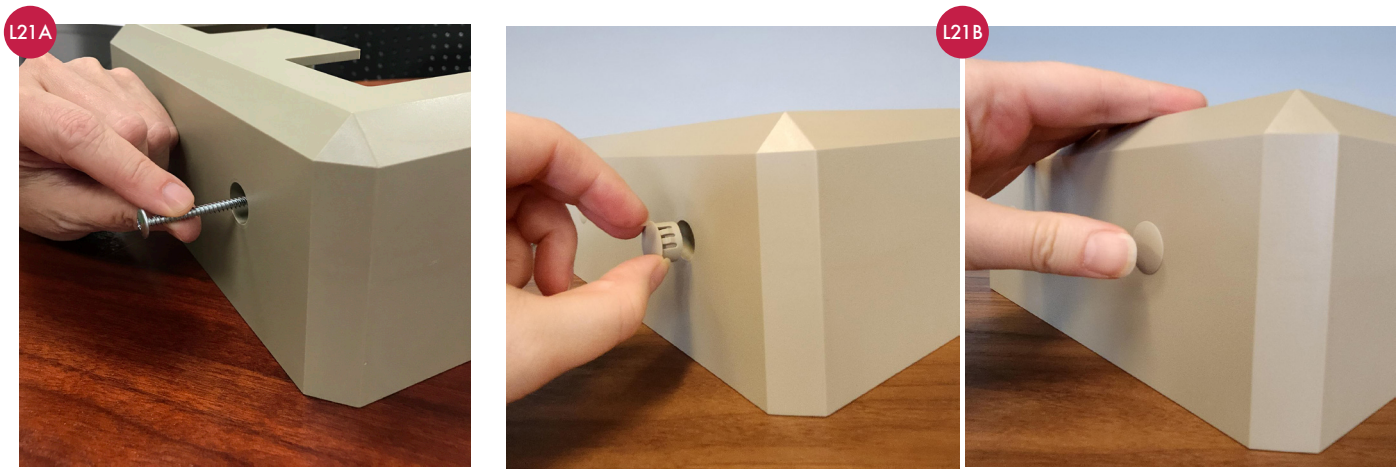
L20



L20A. Prepare posts for base cover installation. Ensure that post side plates are symmetrical and post reveal on the opposite side of the side plates is equal, approx. 1 ¾". Remove plugs and fasteners as required, so the base plate is in two (2) pieces.
L20B. Slide the base cover around the post and side plates, ensuring a snug fit. Do NOT force fit the base cover.

American Structures & Design - WA | 1801 132nd Ave. E | Sumner, WA 98390 | P: 253-833-4343 | F: 253-833-4545
American Structures & Design - OR | 13444 NE Jarrett St. | Portland, OR 97230 | P: 971-645-4201 | F: 971-645-4212

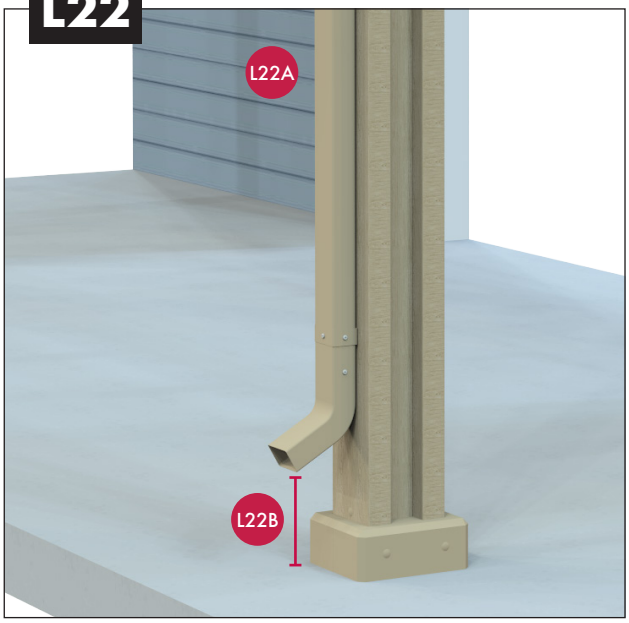
L21



L21A. Using 2" sheet metal screws provided, secure the base cover to the post side plates.
L21B. Cover fastener holes with plugs.
Note: If side post plates were adjusted to ensure a snug fit, re-secure as required and plug screw holes.

Attached Downspout

L22



L22A. Install downspout kit per Steps 31-33.
L22B. If posts include a base plate cover, Step L21-22, cut the downspout 6.5" shorter to allow room for base cover.

American Structures & Design - WA | 1801 132nd Ave. E | Sumner, WA 98390 | P: 253-833-4343 | F: 253-833-4545
American Structures & Design - OR | 13444 NE Jarrett St. | Portland, OR 97230 | P: 971-645-4201 | F: 971-645-4212

L23

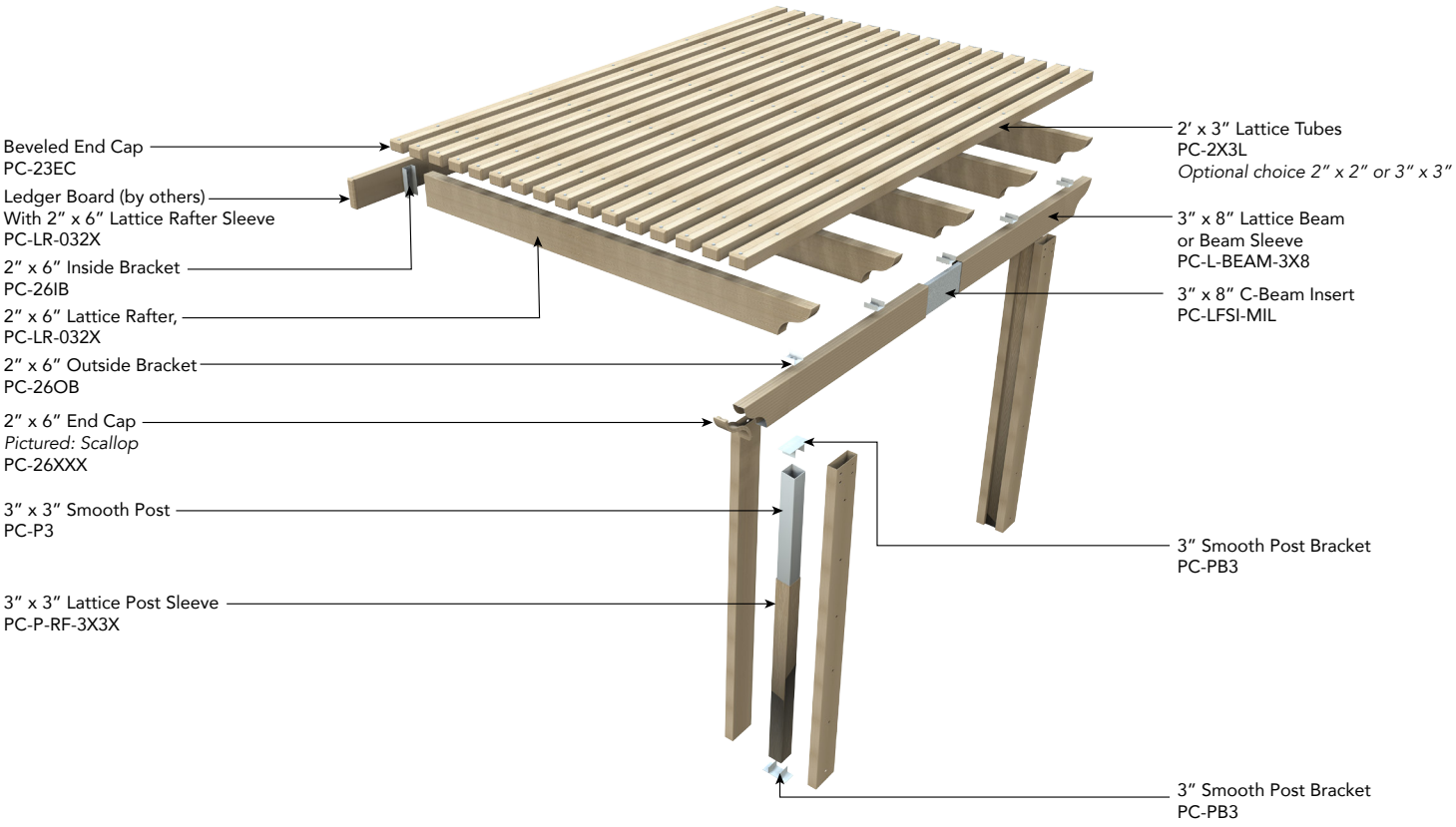
L23. Finished patio cover with lattice wrap.

American Structures & Design - WA | 1801 132nd Ave. E | Sumner, WA 98390 | P: 253-833-4343 | F: 253-833-4545
American Structures & Design - OR | 13444 NE Jarrett St. | Portland, OR 97230 | P: 971-645-4201 | F: 971-645-4212

IMPORTANT NOTE:

Rafter, tube sizes, and spacing patterns may vary. The methods of installation described in these instructions are best practices. The finished design can be modified depending on desired look. Contact your sales representative for more details.

Overview



American Structures & Design - WA | 1801 132nd Ave. E | Sumner, WA 98390 | P: 253-833-4343 | F: 253-833-4545
American Structures & Design - OR | 13444 NE Jarrett St. | Portland, OR 97230 | P: 971-645-4201 | F: 971-645-4212

Ledger Board and Brackets - Preparation on Ground

LP1

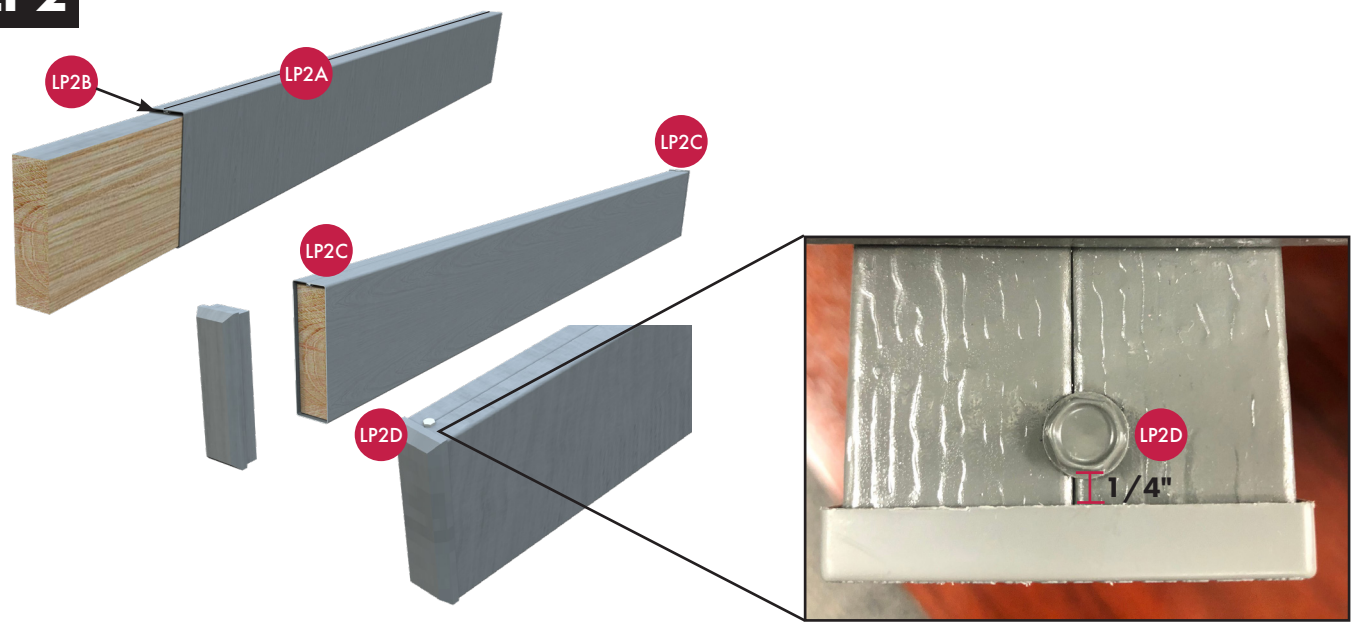
Ledger Board

Important Note: Customer is responsible for supplying ledger board lumber.

LP1A. Ledger board specifications: 2" x 6" lumber, standard or better**.**

LP1B. Measure and cut ledger board 2" shorter than the width of the cover.

LP2



Ledger Board Sleeve and End Caps

LP2A. Ensure ledger board sleeve seam is facing upwards.

LP2B. Slide ledger sleeve over the ledger board, there will be a 1" gap between the sleeve and board.

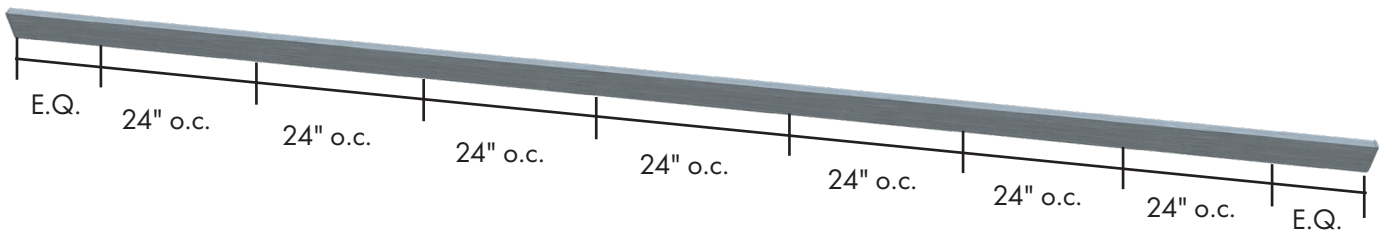
LP2C. Install end caps to both ends of the sleeved ledger board.

LP2D. Fasten end cap approx. ¼" away from the end cap reveal and centered over seam using 2ea. Hex Tek #10 x 5/8" fasteners (Part No.: FZ-10X.625-HEXTEK), one at the top and bottom.

American Structures & Design - WA | 1801 132nd Ave. E | Sumner, WA 98390 | P: 253-833-4343 | F: 253-833-4545
American Structures & Design - OR | 13444 NE Jarrett St. | Portland, OR 97230 | P: 971-645-4201 | F: 971-645-4212

Ledger Board and Brackets - Preparation on Ground

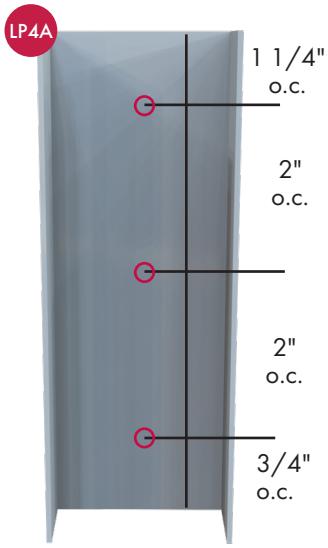
LP3

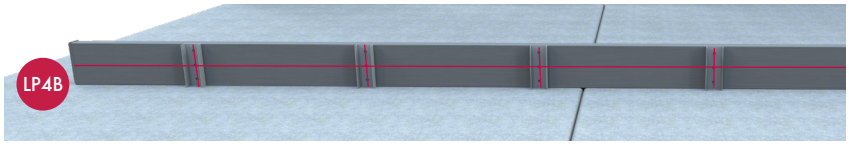


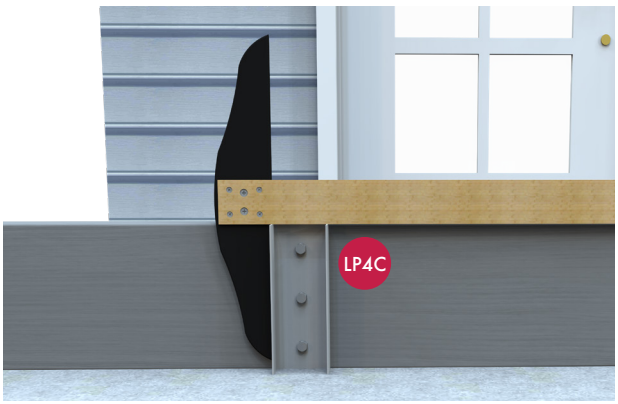
LP3A. Using a straight edge, mark the ledger board to designed rafter spacing, typically 24" o.c., as shown.
LP3B. Ensure ends are of equal length.
Note: Engineering requirements may require different spacing.

Inside Bracket Installation

LP4







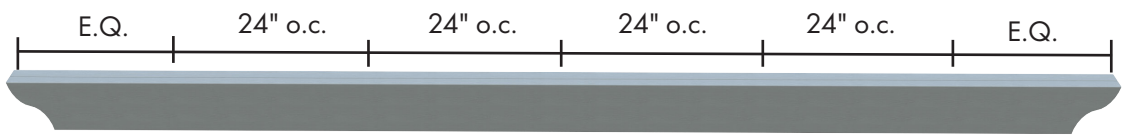
LP4A. Prepare 2"x 6" Inside Brackets [PC-26IB] by drilling pilot holes using a 1/8"drill bit.
LP4B. Align the 2" x 6" inside brackets to the ledger board center marks made in Step LP3.
LP4C. Use a framing square to straighten the 2"x6" inside bracket, fasten with 3ea. Hex Lags (FZ-14X1.5HEXLAG-MIL).

American Structures & Design - WA | 1801 132nd Ave. E | Sumner, WA 98390 | P: 253-833-4343 | F: 253-833-4545
American Structures & Design - OR | 13444 NE Jarrett St. | Portland, OR 97230 | P: 971-645-4201 | F: 971-645-4212

Beam and Bracket - Preparation on Ground

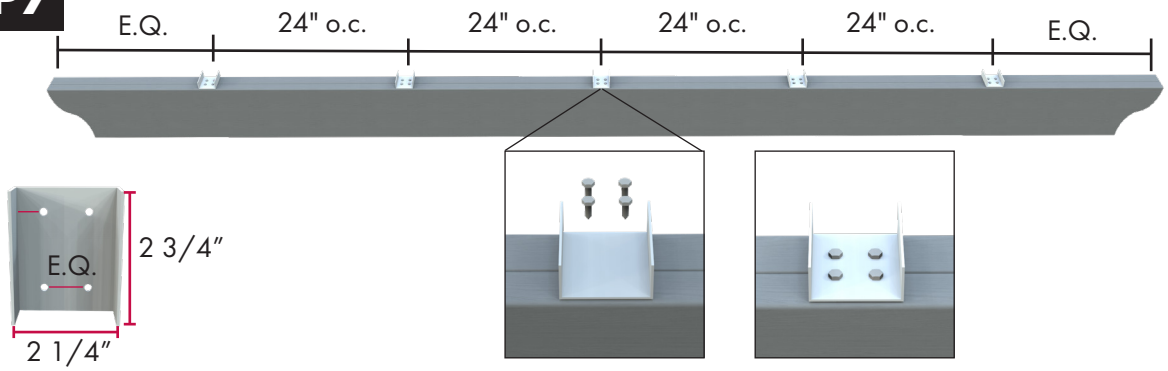
LP5 **LP5.** Prepare 3" x 8" beam insert and sleeve per Steps L2-L4.

LP6



LP6. Mark the sleeved beam to the identical dimensions as the ledger board in Step LP3.

LP7

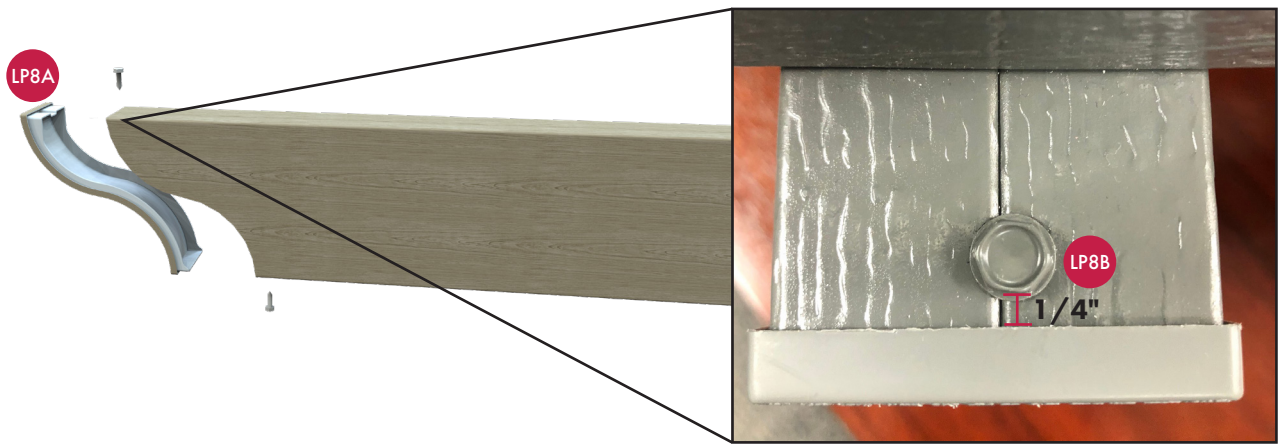


Outside Brackets to Beam

LP7. Attach the 2"x 6" Outside Brackets (PC-26OB) to the top of the beam (seam side), using 4 ea. Hex Tek #14 x 3/4" fasteners (Part No.: FZ-14X.75-HEXTEK)

Rafters and Tubes - Preparation on Ground

LP8

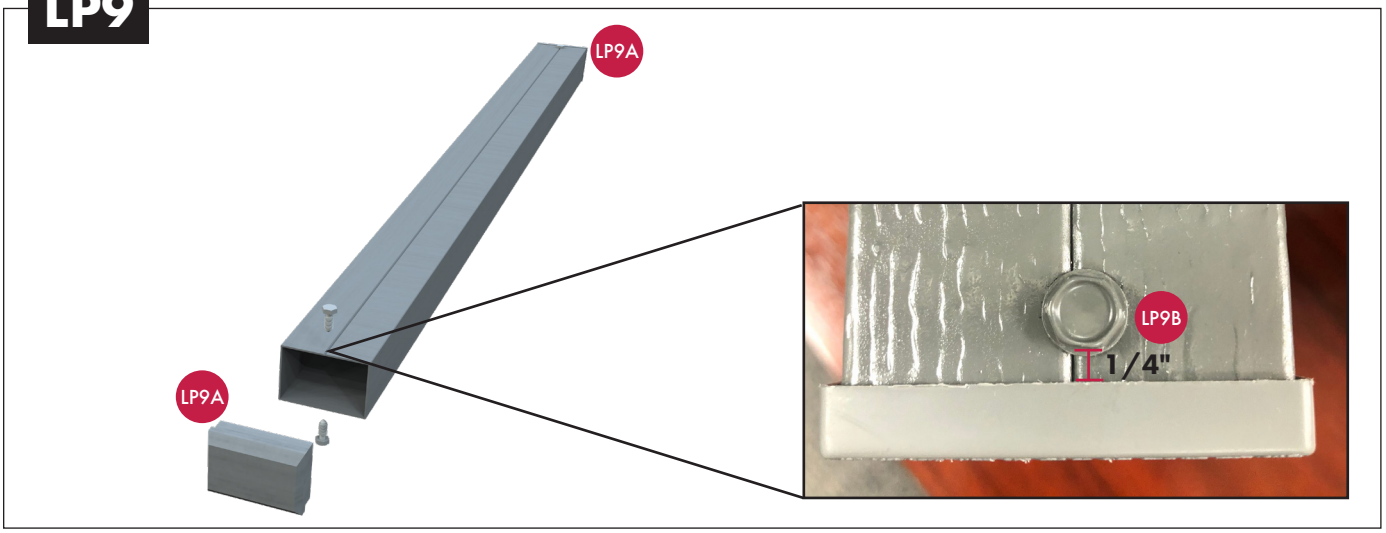


LP8A. Install end cap to one end of the rafter.

LP8B. Fasten end cap approx. ¼" away from the end cap reveal and centered over seam using 2ea. Hex Tek #10 x 5/8" fasteners (Part No.: FZ-10X.625-HEXTEK), one at the top and bottom.

American Structures & Design - WA | 1801 132nd Ave. E | Sumner, WA 98390 | P: 253-833-4343 | F: 253-833-4545
American Structures & Design - OR | 13444 NE Jarrett St. | Portland, OR 97230 | P: 971-645-4201 | F: 971-645-4212

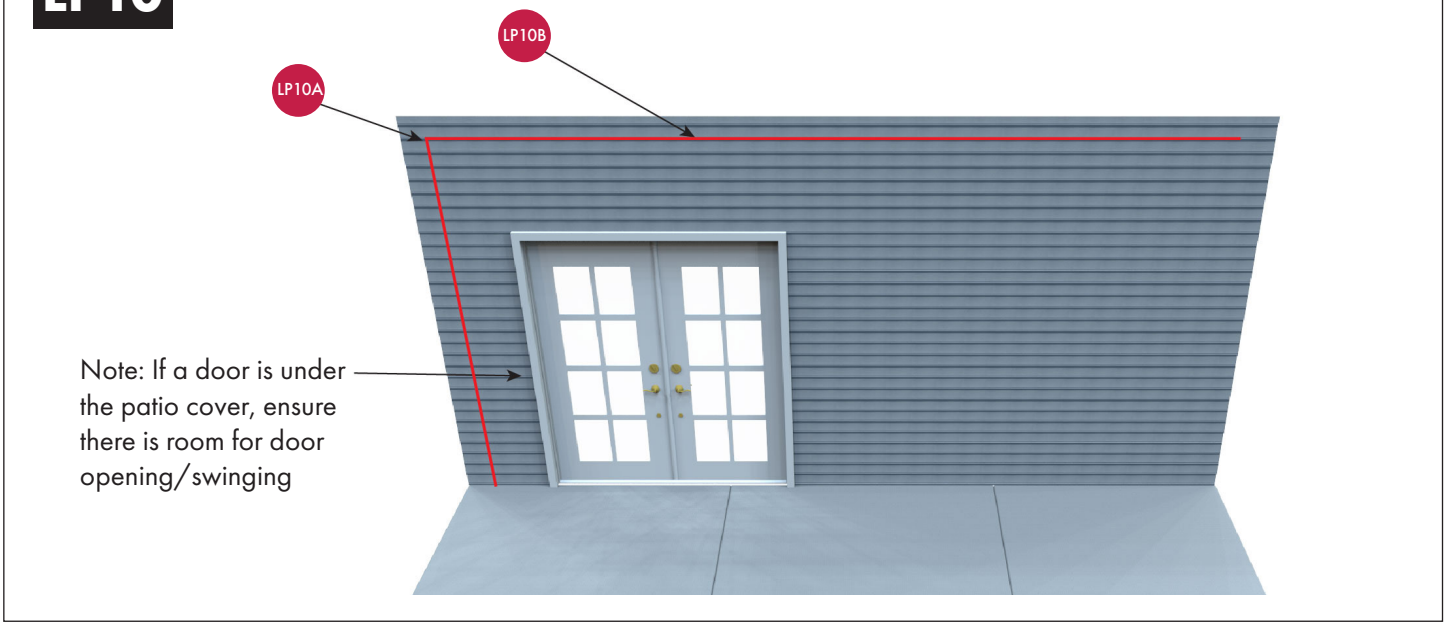
LP9



LP9A. Install end caps to both ends of the 2"x3" Lattice Tubes (PC-2X3L).
LP9B. Fasten end cap approx. ¼" away from the end cap reveal and centered over seam using 2ea. Hex Tek #10 x 5/8" fasteners (Part No.: FZ-10X.625-HEXTEK), one at the top and bottom.
Note: You may choose to use 2 x 2 Lattice Tubes (PC-2L) on your cover. See your sales representative for more information.

Ledger Board Attachment

LP10

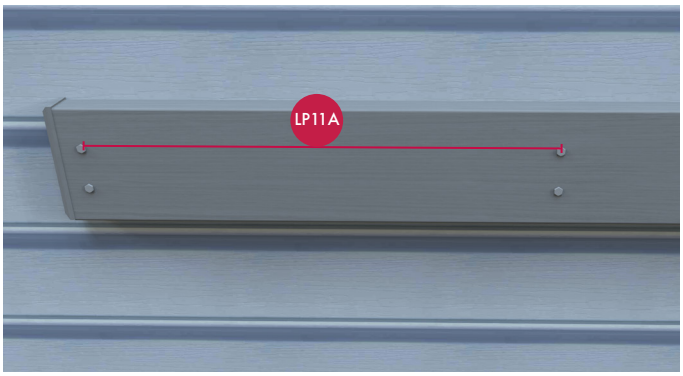


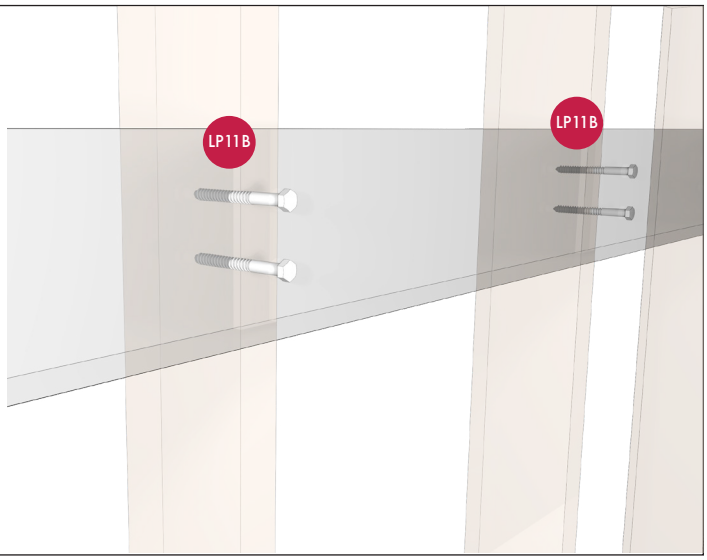
LP10A. Starting on the LEFT side of desired attachment point, determine and mark the appropriate height.
LP10B. Using a leveling tool or chalk line mark the width of the cover on the attachment wall.
Note: The bottom of the ledger board will be the head clearance height.

American Structures & Design - WA | 1801 132nd Ave. E | Sumner, WA 98390 | P: 253-833-4343 | F: 253-833-4545
American Structures & Design - OR | 13444 NE Jarrett St. | Portland, OR 97230 | P: 971-645-4201 | F: 971-645-4212

Ledger Board Attachment

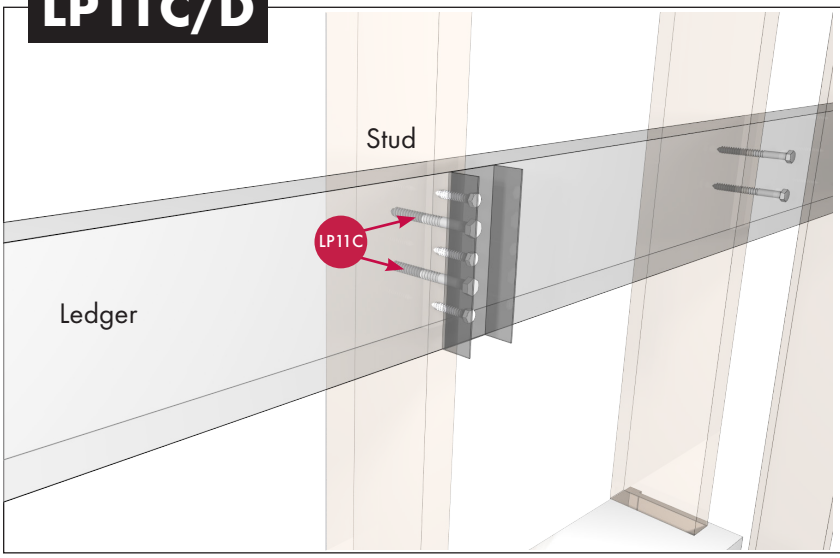
LP11A/B

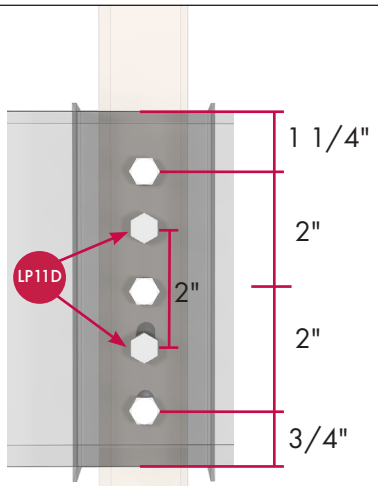




LP11A. Attach ledger with fasteners and spacing predetermined per engineering requirements.
See engineering pages L6-1, Table 3A.
LP11B. Ensure fasteners are fully secured into stud framing.
Important Note: Customer is responsible for determining required lag screw length based on siding type.

LP11C/D





Bracket and Stud Intersection Installation
LP11C. When a wall stud and bracket intersect, add two additional lag fasteners through the inside bracket into the stud.
LP11D. Ensure stud lags are spaced 2" apart.

American Structures & Design - WA | 1801 132nd Ave. E | Sumner, WA 98390 | P: 253-833-4343 | F: 253-833-4545
American Structures & Design - OR | 13444 NE Jarrett St. | Portland, OR 97230 | P: 971-645-4201 | F: 971-645-4212

Ledger Board Attachment

LP12

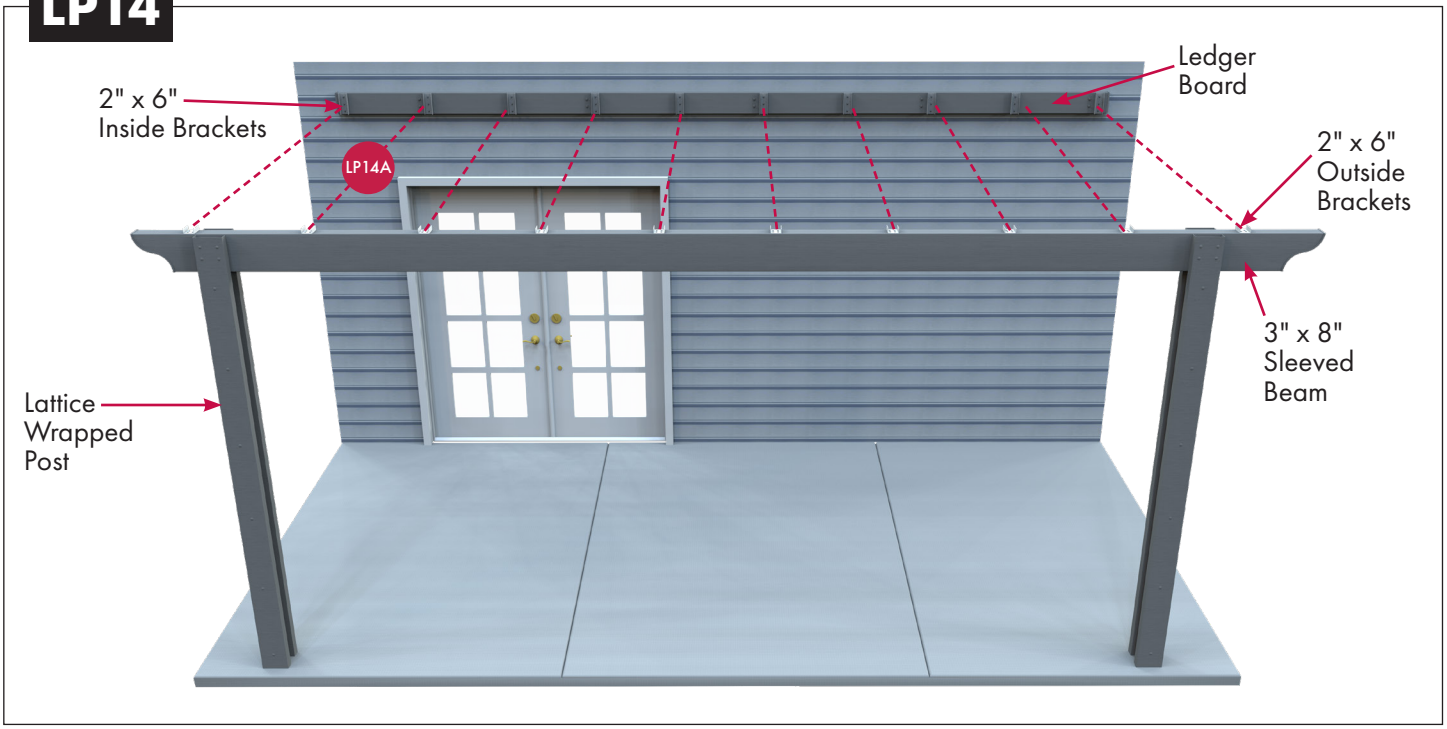
LP12A. Seal the ledger to the wall, by applying a bead of caulk to the top.

LP13

LP13A. Wrap and install posts as per Step L1A – L1C.
LP13B. Install wrapped beam as per Step L8.

Post and Beam Installation

LP14

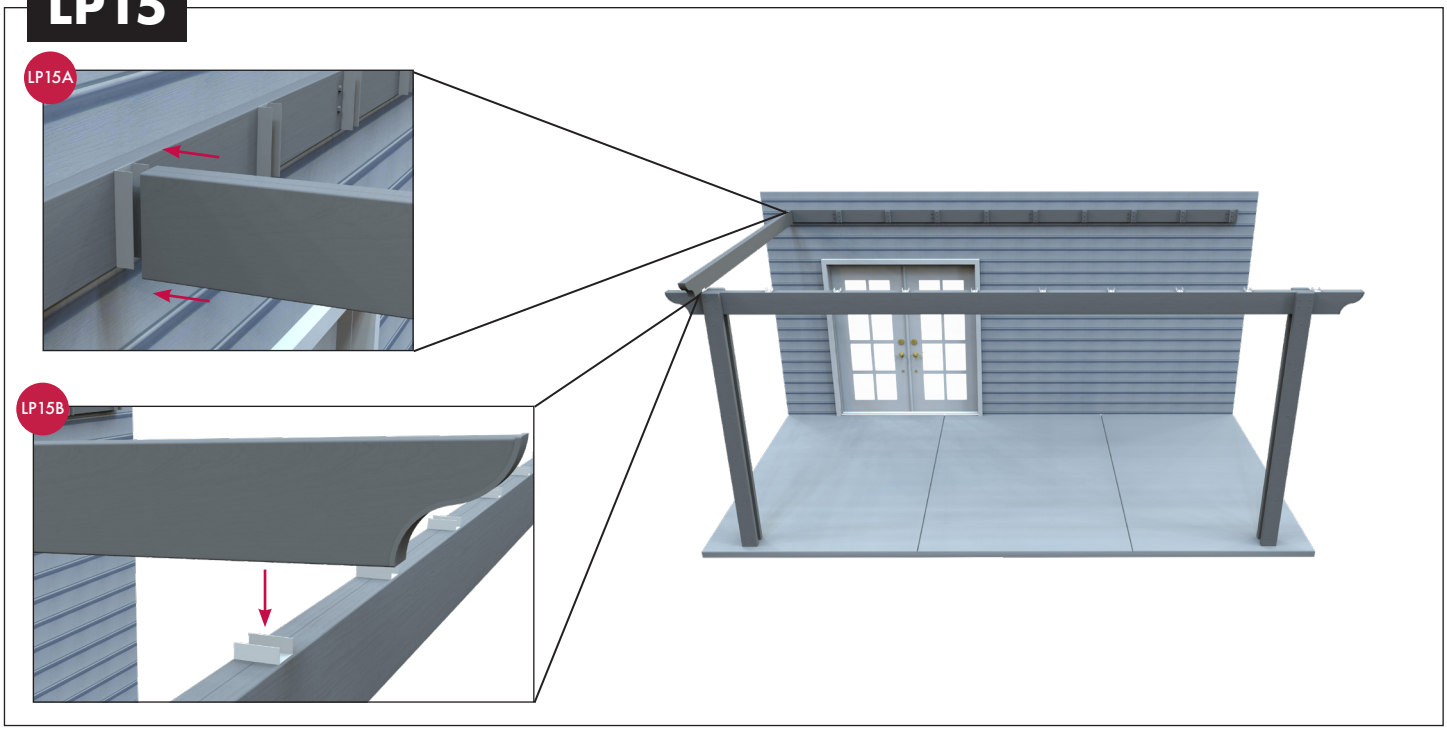


LP14A. Ensure brackets are aligned and evenly spaced between the ledger board and the sleeved beam.

American Structures & Design - WA | 1801 132nd Ave. E | Sumner, WA 98390 | P: 253-833-4343 | F: 253-833-4545
American Structures & Design - OR | 13444 NE Jarrett St. | Portland, OR 97230 | P: 971-645-4201 | F: 971-645-4212

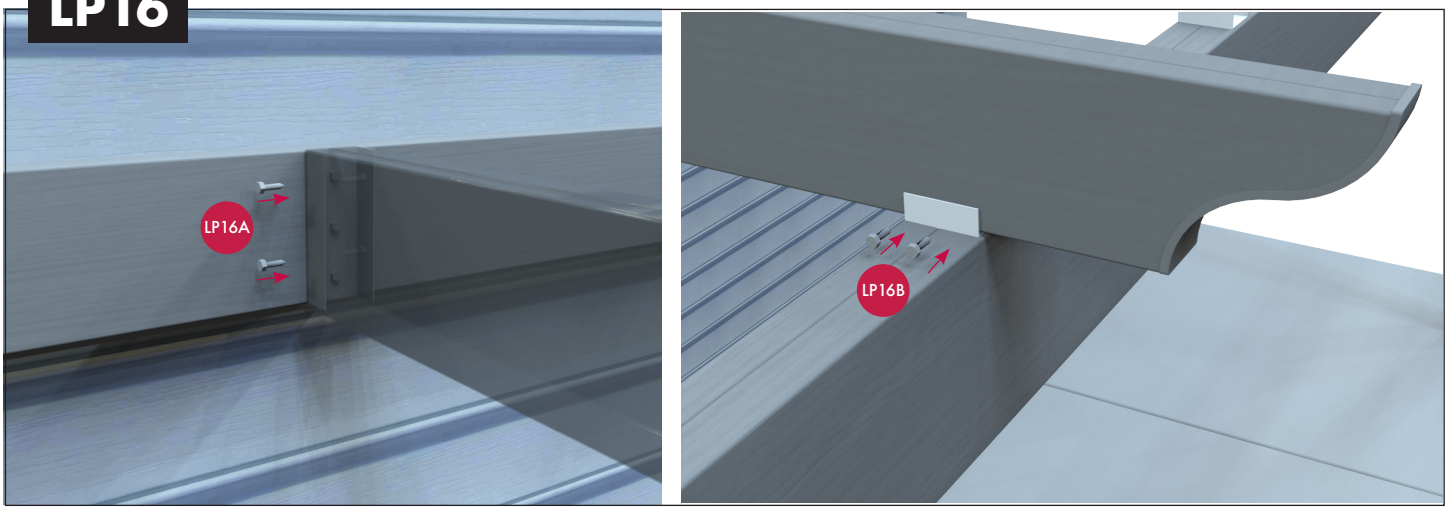
Rafter Installation

LP15



LP15A. Starting at the left side of the cover, and with the seam side up, place the back end of the rafter over the 2"x6" Inside Bracket (PC-26IB) on the ledger board.
LP15B. Rest the opposite end of the rafter in the corresponding Outside Bracket (PC-26OB) on the sleeved beam.

LP16

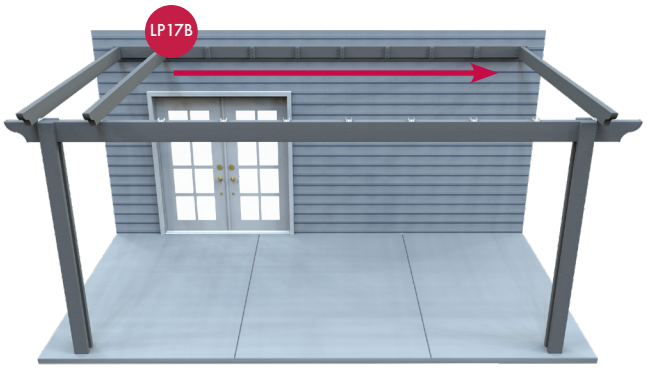


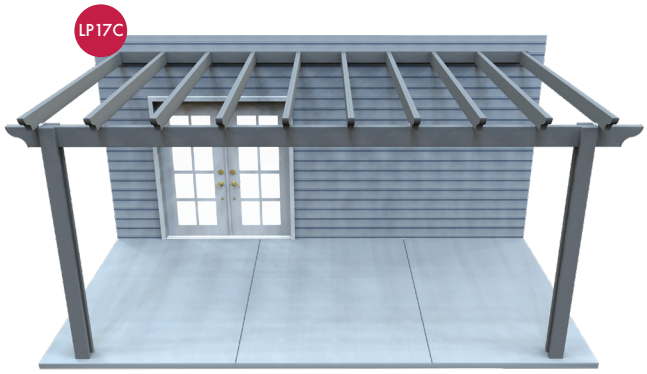
LP16A. Secure the rafter to the inside bracket at the ledger board using required number of Hex Tek #14 x 3/4" fasteners (Part No.: FZ-14X.75-HEXTEK) as per engineering (L6.2(3)).
LP16B. Secure the rafter to the outside bracket at the beam using 4ea.Hex Tek #14 x 3/4" fasteners (Part No.: FZ-14X.75-HEXTEK), two on either side.

American Structures & Design - WA | 1801 132nd Ave. E | Sumner, WA 98390 | P: 253-833-4343 | F: 253-833-4545
American Structures & Design - OR | 13444 NE Jarrett St. | Portland, OR 97230 | P: 971-645-4201 | F: 971-645-4212

Rafter Installation

LP17

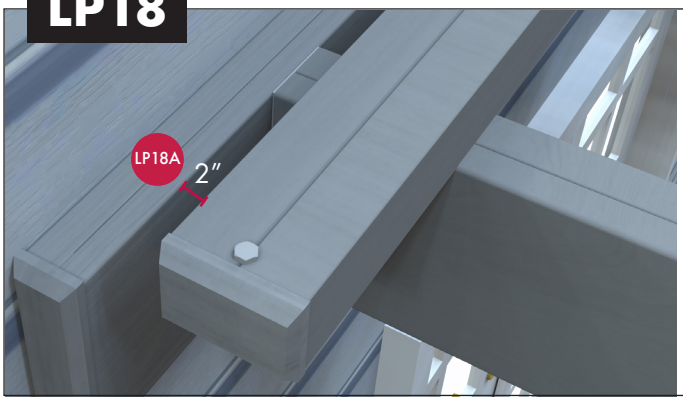


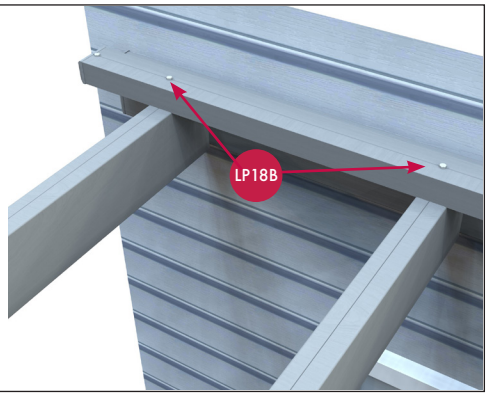


LP17A. To avoid sideways racheting, repeat steps LP15-LP16 for the right side rafter.
LP17B. Then install the remaining rafters.
LP17C. Completed rafter installation.

Lattice Tube Attachment

LP18



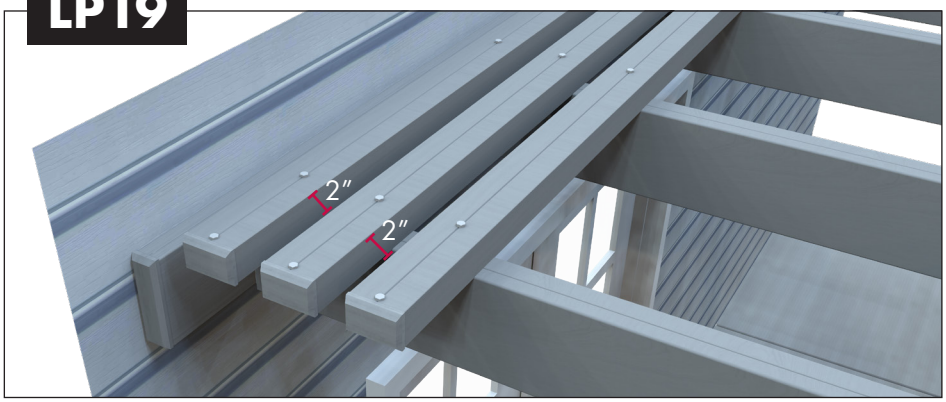


LP18A. Starting 2″ away from the ledger board, with the side seam up, set the first lattice tube in place.
LP18B. Secure the lattice tube to the rafters using the Lattice Screws (PC-SMS23). DO NOT over tighten.

American Structures & Design - WA | 1801 132nd Ave. E | Sumner, WA 98390 | P: 253-833-4343 | F: 253-833-4545
American Structures & Design - OR | 13444 NE Jarrett St. | Portland, OR 97230 | P: 971-645-4201 | F: 971-645-4212

Lattice Tube Attachment

LP19

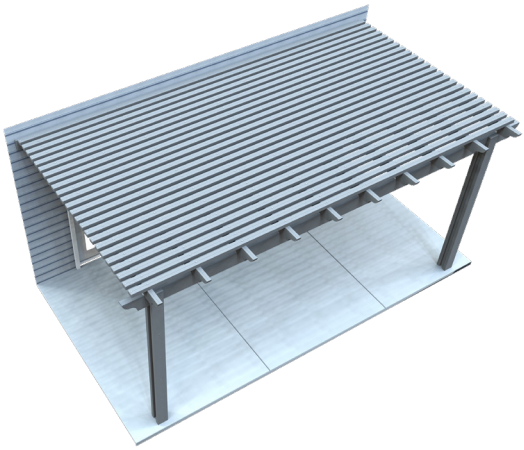


LP19A. Install and fasten the remaining lattice tubes with a 2″ space between the each tube. Check periodically to maintain uniform overhang.

PRO TIP Use a tube as a spacer to ensure consistent spacing.

LP20

Finished lattice pergola.

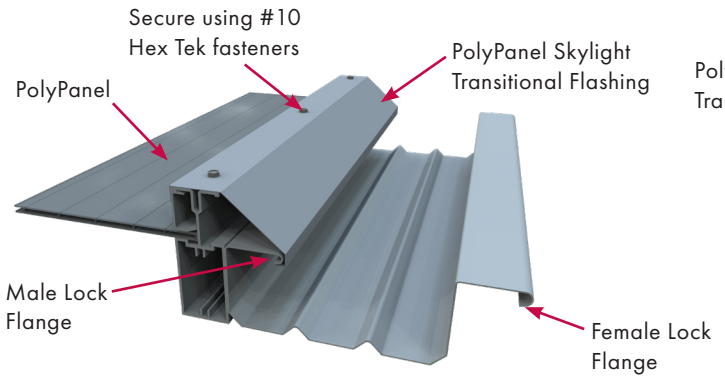


Finished lattice pergola.

American Structures & Design - WA | 1801 132nd Ave. E | Sumner, WA 98390 | P: 253-833-4343 | F: 253-833-4545
American Structures & Design - OR | 13444 NE Jarrett St. | Portland, OR 97230 | P: 971-645-4201 | F: 971-645-4212

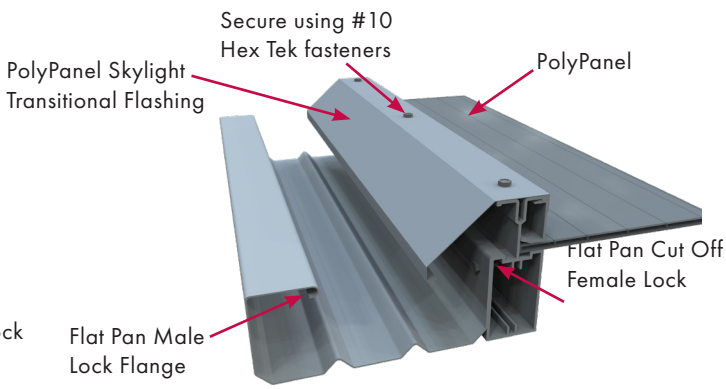
How it Works

Transition Right



When transitioning to the right of the PolyPanel T-Bar, the flashing tucks over the male Flat Pan flange.

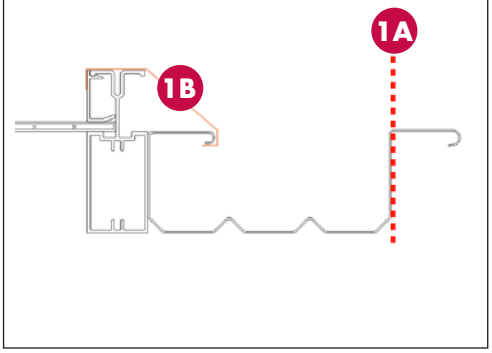
Transition Left



When transitioning to the left of the PolyPanel T-Bar, cut off the Flat Pan female flange and the flashing will hang over at an angle, protecting the transition.

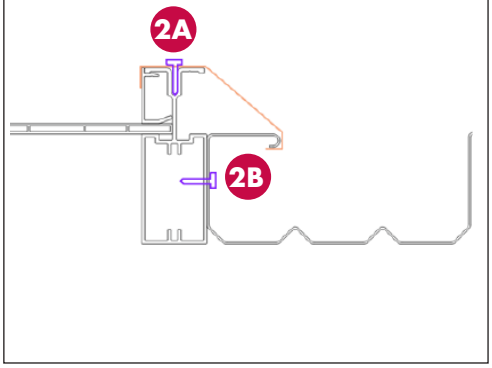
Installation

PS1



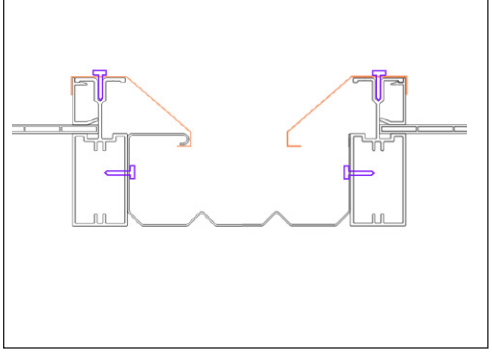
1A. Prepare Flat Panel (PC-FPT6) at transition by cutting off right flange.
1B. Place Transition Flashing (PC-TBF-1) over transition between T-Bar (PC-TB4) and Flat Pan.

PS2



2A. Using #10 Hex Teks (FZ-10X.625-HEX-TEK) secure transition flashing to T-Bar using screw chase on top of T-Bar. Space every 12", caulk each fastener.
2B. Secure wall of Flat Pan to side of T-Bar. Space Hex Teks every 12", caulk if desired.

PS3



3. At the end of the transition, repeat steps as shown.

American Structures & Design - WA | 1801 132nd Ave. E | Sumner, WA 98390 | P: 253-833-4343 | F: 253-833-4545
American Structures & Design - OR | 13444 NE Jarrett St. | Portland, OR 97230 | P: 971-645-4201 | F: 971-645-4212

Installation Inspection Checklist for Patio Cover

Location:_____ Contact Person:_____

Inspection Item	V-Pan Flat Pan	PolyPanel	Insulated	Lattice Wrap	Lattice Pergola	Notes
1. Bottom post brackets attached to concrete.	●	●	●		●	☐
2.Top post brackets attached to beam.	●	●	●		●	☐
3. Post brackets attached to post.	●	●	●		●	☐
4. Hanger attachment to wall has been flashed and sealed.	●	●	●			☐
5.Ledger board attachment to wall has been caulked.					●	☐
6. Roof panel flashing is secured, locked with fasteners, and caulked.	●	●	●			☐
7. Roof panels attached to hanger.	●	●	●			☐
8. T-Bars attached to hanger.		●				☐
9. Rafters attached to ledger.					●	☐
10. Roof panels attached to gutter and/ or I-Beam.	●	●	●			☐
11. If using beam support, ensure all roof panel screws are caulked.	●	●	●			☐
12. Rafters attached to beam.					●	☐
13. T-Bars attached to gutter.		●				☐
14. Ensure snap beads and hanger snap beads are secure.		●				☐
15. Tubes attached to rafters at each intersection.					●	☐
16. Gutter clips installed at every other roof panel lock location.	●		●			☐
17. Gutter clips installed on every other T-Bar and secured in T-Bar screw chase.		●				☐
18. Hanger, fasteners, and roof panels are caulked and sealed.			●			☐
19. Side fascia attached to hanger, roof panel, and gutter.	●		●			☐
20. Side fascia attached to hanger, T-Bar, and gutter.		●				☐
21. Check all plugs and fasteners.				●	●	☐
22. Clean dirt and debris from cover using soap and water as required.	●	●	●	●	●	☐

● = Applies to roof panel type

American Structures & Design - WA | 1801 132nd Ave. E | Sumner, WA 98390 | P: 253-833-4343 | F: 253-833-4545
American Structures & Design - OR | 13444 NE Jarrett St. | Portland, OR 97230 | P: 971-645-4201 | F: 971-645-4212