# Trachte Erection Guide Insert
## Variable Roof Pitch Self-Storage System

**1”:12” to 5”:12” Pitch**
**Self-Storage Systems**

This insert manual is used for 1”:12” roof pitches and above and is to be used in combination with Trachte’s 1/4”:12” pitch erection manual. Trachte’s standard erection manual will cover the basics on how to build your building. This insert provides additional information needed to complete your higher pitch building.

TBS TRACHTE Building Systems

**PLEASE REFER TO THE VARIABLE ROOF PITCH ERECTION MANUAL FOR STEPS ON LAYING OUT THE INTERIOR STRUCTURE AND COLUMN ORIENTATION.**

1. The interior columns are longer to accomodate the roof pitch.

2. The purlins for all higher roof pitches are in a Z form. The top leg of the Z follows the roof slope.

3. There is a peak purlin that needs to have peak angle bolted to it. This will provide the pitch down from the peak.

4. The peak purlin angle looks like this once installed.

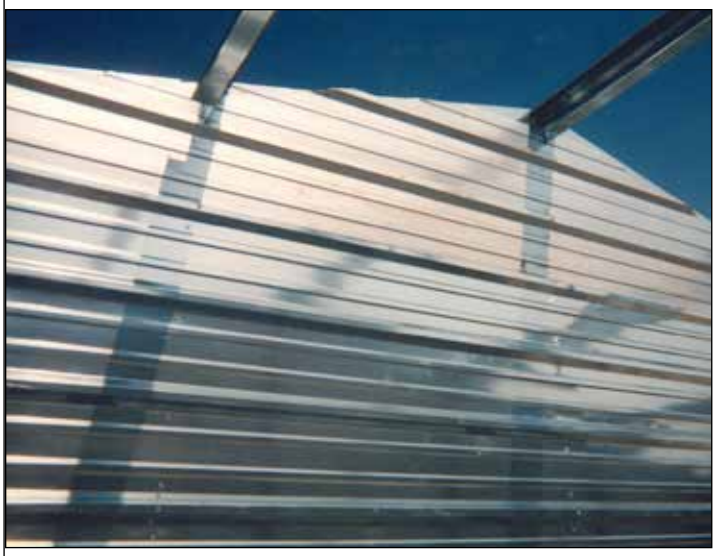
5. Partition the building following the steps in the variable roof pitch erection manual.

6. The partition sheets must be cut to follow the roof pitch. Save the drop as you may need it for the next wall.

7. The opposite side of the partition wall.

8. The partition can be cut after it is installed on the wall, or it may be cut on the ground.

9. Layout the peak partition sheet. If you make a template, you can cut the partitions all at once.



10. The completed partition wall.

11. The inside view of the completed partition wall.

12. Install an end closet of all 5′ wide units following the steps in the variable roof pitch erection manual. Endwall purlins attach to endwall columns.

13. Install the jambs and headers following your plans. Install a rake angle following the roof pitch.

14. Install gable sill trim on the headers and jambs. Install A-panel and bottom closures, starting at the peak and then out towards the eave. Then cut the A-panel to follow the roof pitch.

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**NOTE: Install the first panel with the minor rib approximately 2″ off the structural lines. This will minimize bolt head interference.**

15. At the corner of the building, install a piece of J-trim vertically where the A-panel ends.

16. The finished end closet.

17. An inside view of an end closet 5′ x 10′ unit.

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**NOTE: Top closures will be installed with the rake trim later.**

18. This endwall has no doors. The wall entire wall will be covered with A-panel.

20. Install all the girts. Install the rake angle to the columns. The rake angle will follow the roof pitch. Install the sill trim at the bottom of the wall and then install the A-panel.

19. The A-panel must be cut to follow the roof line. Bottom closures install with the panel. Top closures will be installed later with the rake trim.

## STEPS 20-33 DESCRIBE HOW TO INSTALL AN R-PANEL ROOF.

20. Measure the building and mark at 3′ intervals with a 100′ tape measure. Align the closures so they start and finish on a major rib. Each closure is 3′ long with each rib being 1′ apart. Install the presstite chalk following the eave line. Then apply closures to the caulk. Apply a top layer of caulk tape to the top of the closure with the protective backing left on.

**NOTE: Maintain 1′ centers for ribs over entire length of the building.**

21. For roof insulation, drape (1) 4′ roll of insulation over the building. Fold the insulation tails equally at each eave and attach with #760600 screws and #766000 fender washer (refer to picture 27, page 11).

**NOTE: Fasten insulation to top track or header flange.**

22. Prior to cutting the bands on the roof sheets, predrill stitch screw holes 20″ on center on non-purlin bearing leg side (large half rib). Wipe off purlin bearing leg before applying presstite caulk #760703 to roof sheet, following the detail in the plans.

23. Install the first roof panel by aligning the center of the first rib (non-purlin bearing) with the edge of building structure. Do not align with the outside edge of A-panel. Refer to your plans for specific details.

24. Install the opposite side roof panel.

25. Once you aligned the roof and start to screw it down, follow the screw pattern layout that is in your building plans.

26. Attach the string line to the opposite side, maintaining the same distance from the eave trim.

27. The remaining rolls of insulation are 3′ wide. Attach the insulation by using fender washers #766000 and screws #760600 as shown in photo. Position the next panel. Remove the paper from the caulk, tap, and fasten your panel in place.

**NOTE: In this photo, the insulation is attached to the top track.**

28. Screw the roof down at the peak. Measure the panel width on both ends to make sure you control the 3′ rib center. The bottom of the panel is already measured with the closures on it. The top of the panels do not get any inside closures.

**NOTE: Always measure and maintain the 1′ centers of your roof panel. Roof paneling can easily grow or shrink if not checked regularly.**

29. The purlin location must be marked.

30. Install the colored 1 1/4″ long roof screws.

**IMPORTANT: If you miss a purlin, take out the screw and use #104132 goof screw to fill the hole.**

**NOTE: Thicker insulation will require longer screws.**

31. Install the ridge cap starting on one endwall with outside closures #779600 and presstite caulk above and below the closures. The closures are placed 1/2″ from the edge of ridge cap. Fasten cap with 7/8″ screws at 12″ centers (each rib).

32. A photo of a ridge cap once installed. Notice the overlap of the caps and two layers of presstite caulk.

33. Sweep or blow off all of the metal shavings immediately. Metal shavings will rust and stain the roof.

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**CAUTION: Never walk on the ribs, always walk on the flat of the panel, and always walk on the purlin line.**

**IF YOUR BUILDING HAS AN OPTIONAL STANDING SEAM ROOF WITH 6″ INSULATION ONLY, PLEASE FOLLOW STEPS 34-54.**

34. If you have 6″ roof insulation, two purlins and columns are needed at the peak of the building. Follow your plans for their exact location.

35. Install a rake angle by attaching the leg of the angle to the purlins. See your roof detail page to ensure you install the correct leg of this angle vertically. The leg length varies by the amount of insulation the roof has.

36. Starting from the rake angle, measure and mark every 2′ on the eave trim. This will ensure 2′ centers for the roof closures (see roof details).

**IMPORTANT: Install all the inside closures on 2′ centers to ensure the standing seam roof starts and stops exactly where it is supposed to BEFORE any roof panels are installed. This is a critical step in preventing the roof from growing or shrinking as more panels are added.**

37. Cut and apply a 3″ piece of caulk #710963 on the bottom of each inside closure. Install the closure using (2) #760600 screws. Align the locating arrow and tab on the bottom of the closure at 2′ centers. Once the inside closures have been installed, apply expanding tape caulk #710989 along the eave over the inside closure.

38. To begin roofing, install (1) 3′ wide roll of insulation. Attach to header using fender washers #766000 and tek screws #760600. In this example, we are installing 6″ thick insulation (only used when you have a climate-controlled building). Every roll of insulation that follows should be 4′ wide. For thicker insulation, use the longer #710969 screw instead.

39. Overlap or cut off excess insulation. Then, screw down insulation using tek screws and fender washers.

40. Snap the first standing seam panel female leg over the rake angle. Screw the panel to the rake angle at 5′ centers.

41. Use a 2′ spacer tool (the one shown is made of wood) to hold the panel width on 2′ centers at each clip installation.

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**NOTE: If your building requires styrofoam thermal blocks, they must be installed as shown in the detail pages of your drawings. Install the blocks at each clip location.**

42. Clip height varies according to the thickness of the insulation. Be sure to install the proper clips for the insulation you are using (see your detail drawings).

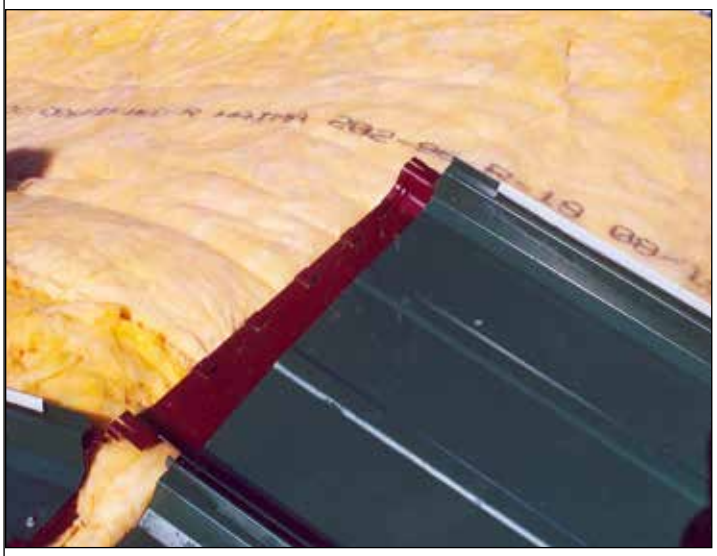
43. The next standing seam panel has to be snapped into place by stepping on the rib or using the shaping tool #710967.

**CAUTION: To walk on the roof concentrate your weight on the ribs and at the purlin lines. Avoid walking on the flats, especially if your roof has thick insulation.**

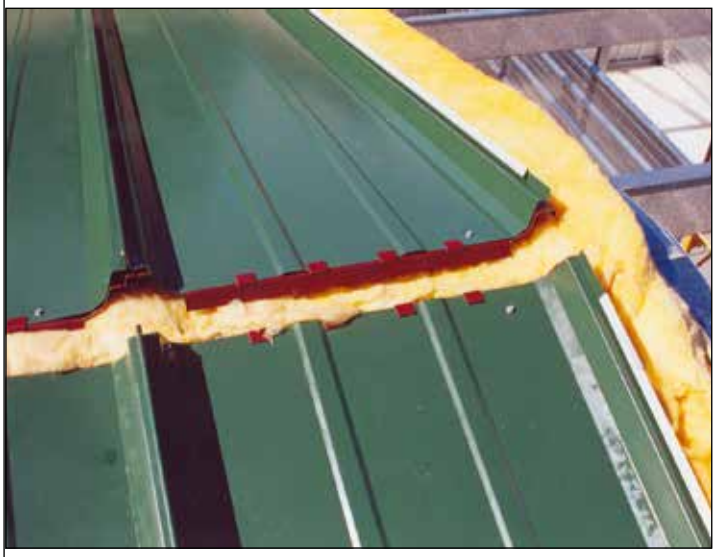
44. Once the panel is in place, make sure to screw down the panel following the screw pattern in your building plans.

**NOTE: Pre-drilling these holes can assure a straight line of fasteners on the roof edge. Take great care in determining the proper location for these.**

**CAUTION: For a proper fit, the panel screws must be installed in the right sequence (see your detail pages).**



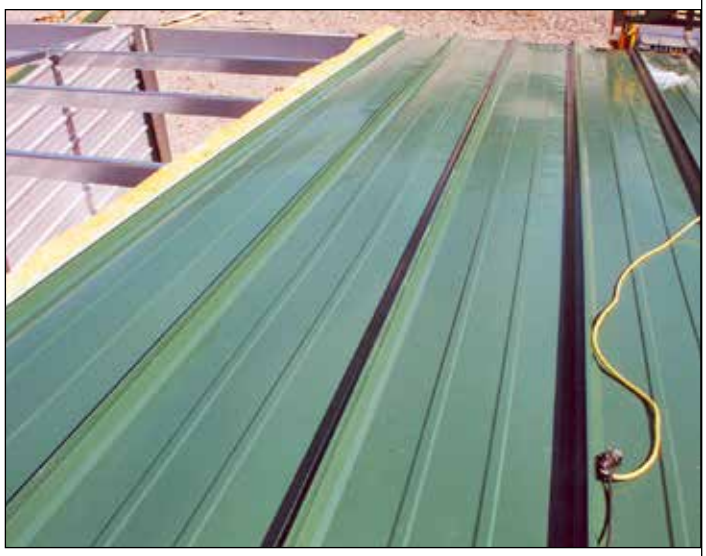
45. Be sure to install a backer plate at the peak to ensure the roof panel does not grow or shrink in width at the peak.



46. The backer plates look like this once installed.

47. It is very important to make sure the roof is not growing or shrinking in width at the top. Trachte recommends always measuring the top to keep the panels at on 2′ centers.

48. The standing seam panels look like this once installed.



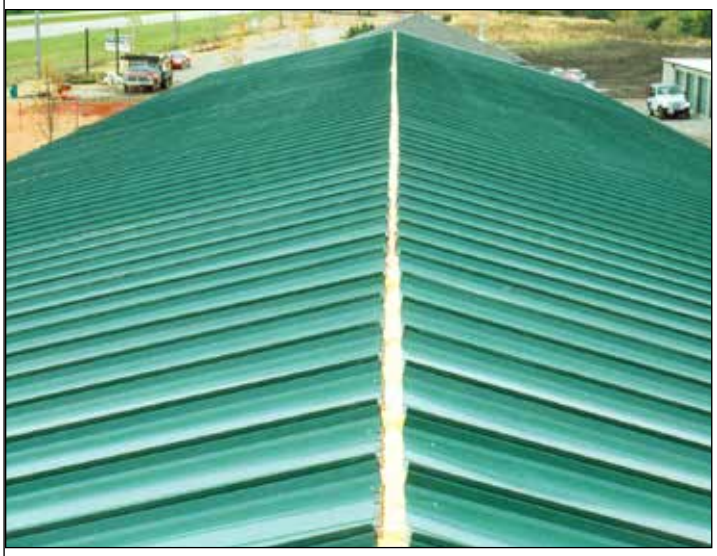
**NOTE: The standing seam panels may show pillowing or oil canning. This is not a material defect.**



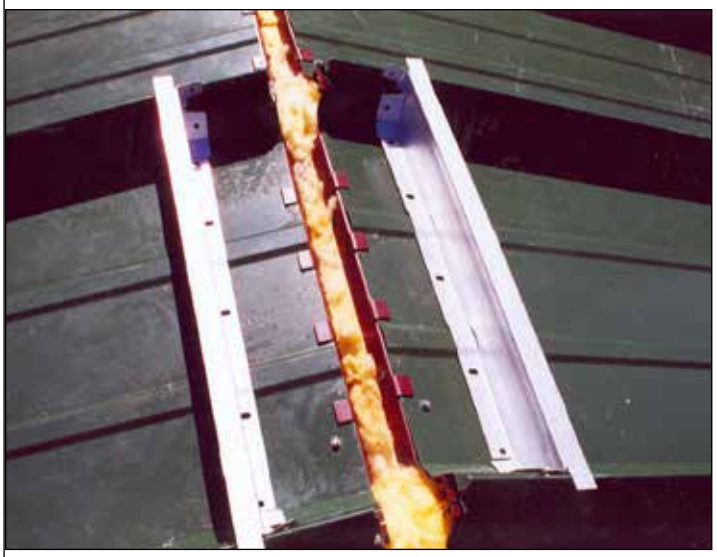
49. At the opposite end of the building, screw the standing seam roof male leg to the rake angle on 5′ centers.

**IMPORTANT: Refer to your detail page to see how the last closure is cut. An additional piece of trim may be needed after the rake trim is installed.**

50. This photo shows a view of the roof screws on the edge of the building.



51. The roof is now ready for the ridge cap to be installed.



52. Install two outside closures at the ridge. Apply tape caulk below and above the closure. Attach the closure using #12-14 x 1 1/4″ tek screws. Use a string line to maintain a straight row.

53. Install the ridge cap using the stitch screws as shown.

54. Install the trim adaptor to the endwall rake angles as detailed in your drawings. Install the rake trim endcap to the end of the rake trim. It should line up with the edge of the roof. Now install the rake trim.

55. *Congratulations!* You have completed your Trachte high pitch building. If you have any questions, please call us at **1-800-356-5824**.





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