

ThermoPower™-VHP



INSTALLATION GUIDE & MANUAL

THERMOPOWER™ VHP SERIES SOLAR COLLECTOR

SUITABLE FOR COLLECTOR MODELS

- VHP10
- VHP20
- VHP30

WARNING!

For your safety, please read through this manual carefully before installation to minimize the risk of fire, property damage, and personal injury!

Page | 2

SAFETY PRECAUTIONS

- Only use solar hot water system as intended and described in the Installation Manual and the Technical Manual; use of a system other than described in this manual will void the warranty and may lead to fire, property damage, and personal injury.
- Solar hot water system must be properly installed in accordance with the Installation and Technical Manual before it is used.
- Do not store any combustible materials in the vicinity of the system. (Dry leaves, tree branches, gasoline, and other combustible materials)
- Wear protective gloves and safety glasses during installation.
- Use caution while handling the evacuated tubes; the pipe fittings of the evacuated tube manifold can be HOT.
- Keep solar hot water systems and components away from children and animals.

BEFORE YOU START

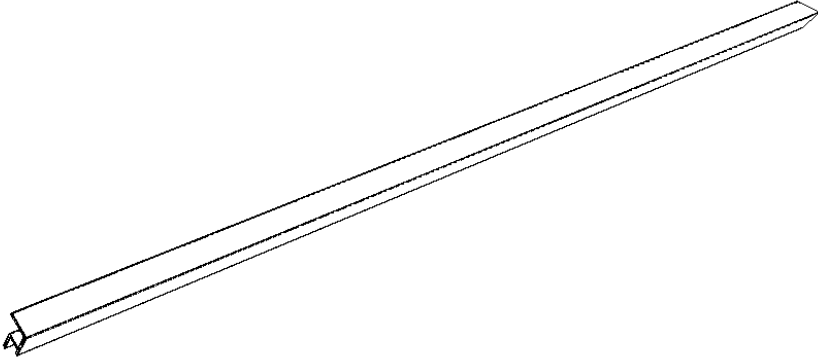
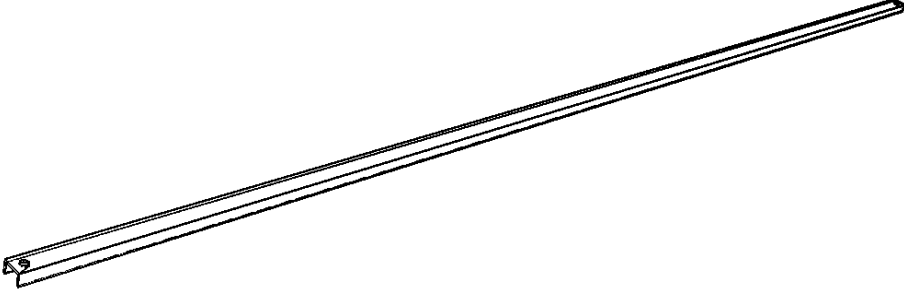
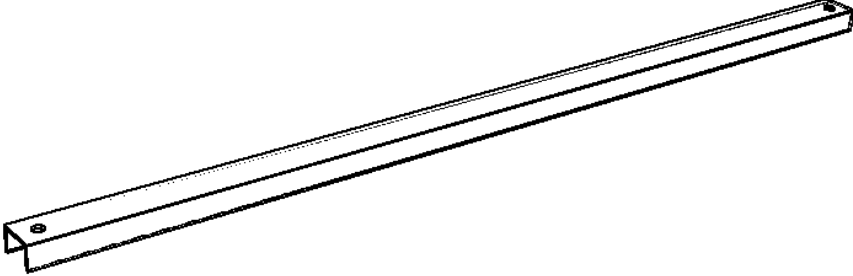
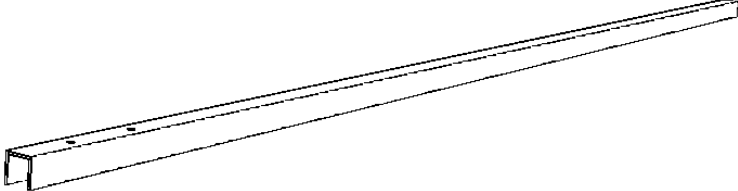
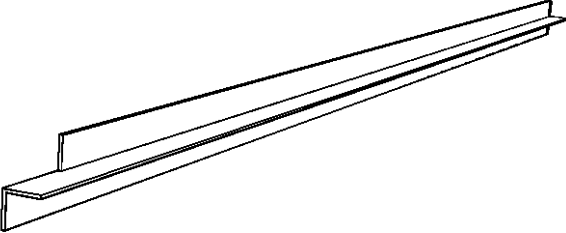
- The assembly of the solar hot water system requires two able persons with the ability to lift 50 pounds each.
- Best to install on cool and cloudy days.
- Store evacuated tubes in dark or shaded places until insertion into the manifold.

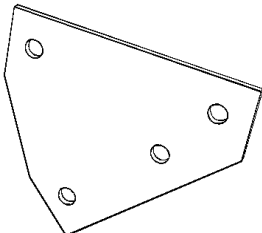
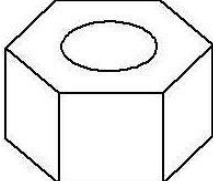
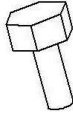
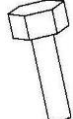
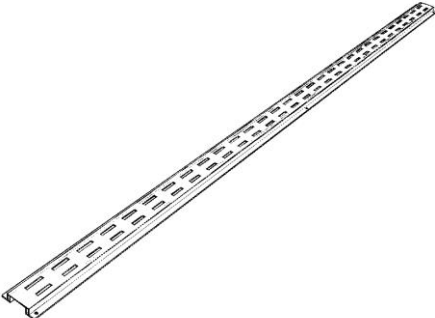
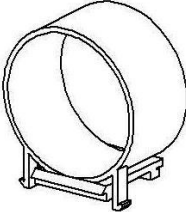
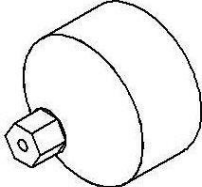
THINGS YOU NEED

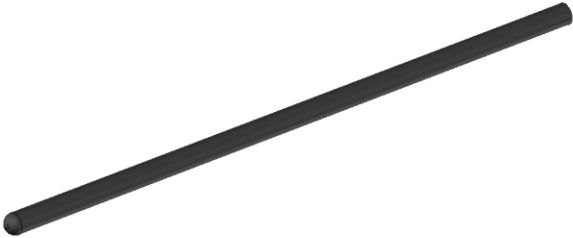
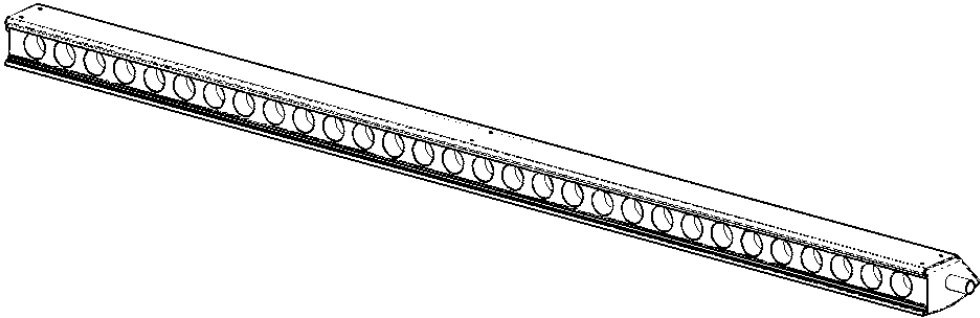
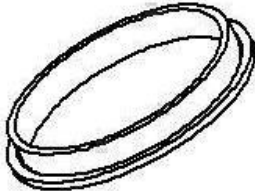
- 13 mm ratchet
- Adjustable Ranch
- Liquid soap or other non-flammable lubricant

Components

Page | 3

<p>Part A: Manifold Side Leg (2) (Shorter than part D)</p>	
<p>Part B: Back Brace (4) (Longer than Part C)</p>	
<p>Part C: Horizontal Support Brace (3) (Shorter than Part B)</p>	
<p>Part D: Manifold Arm (3) (Longer than Part A)</p>	
<p>Part E: Central T-Leg (1) (Same length as Part A)</p>	

Part F: Triangle Side Plate (3)	
Part G: Nut	
Part H-1: Small Bolt	
Part H-2: Large Bolt	
Part I: Base Tube Frame (1)	
Part J-1: Plastic End Cap (Female)	
Part J-2: Plastic End Cap (Male)	

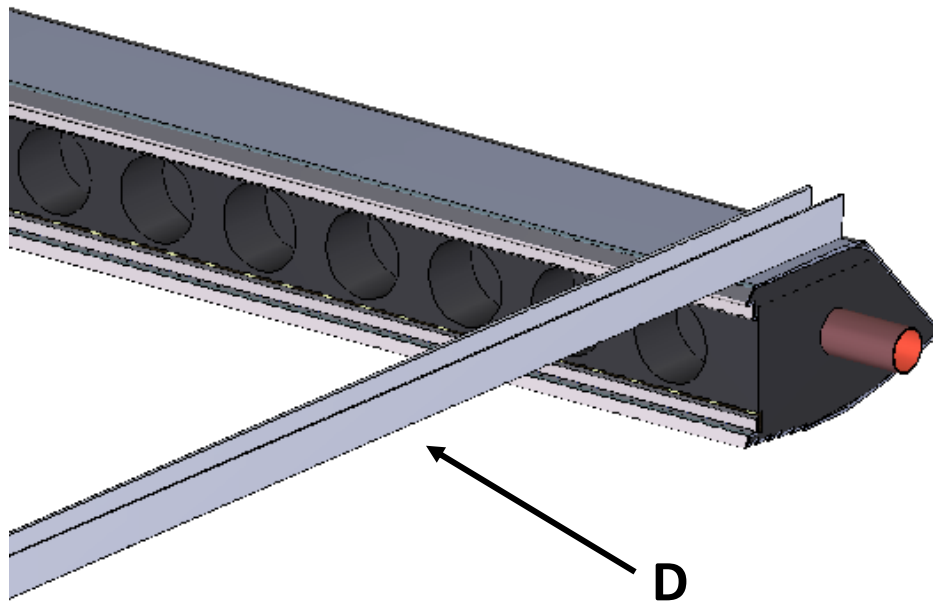
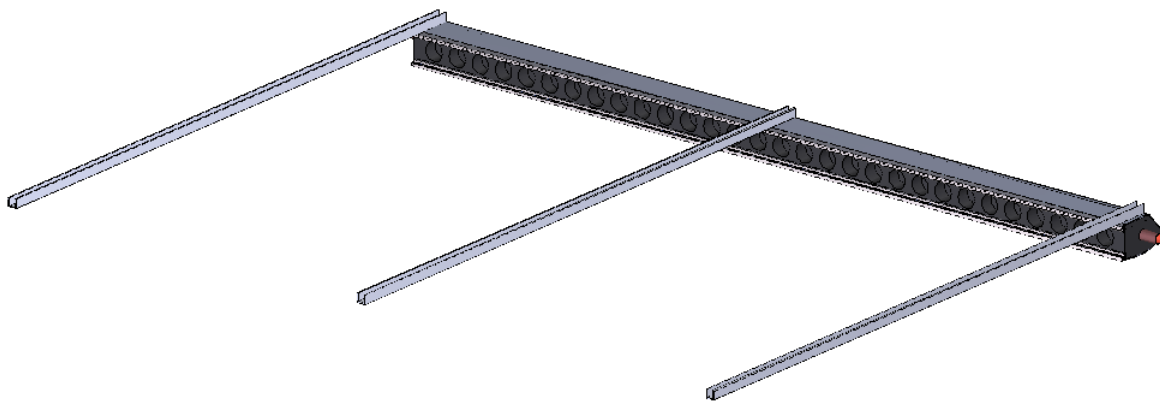
<p>Part K: Evacuated Tube</p>	
<p>Part L: Manifold</p>	
<p>Part M: Fit Ring</p>	

Installation Instructions

1) INSTALLING LEGS TO MANIFOLD

Page | 6

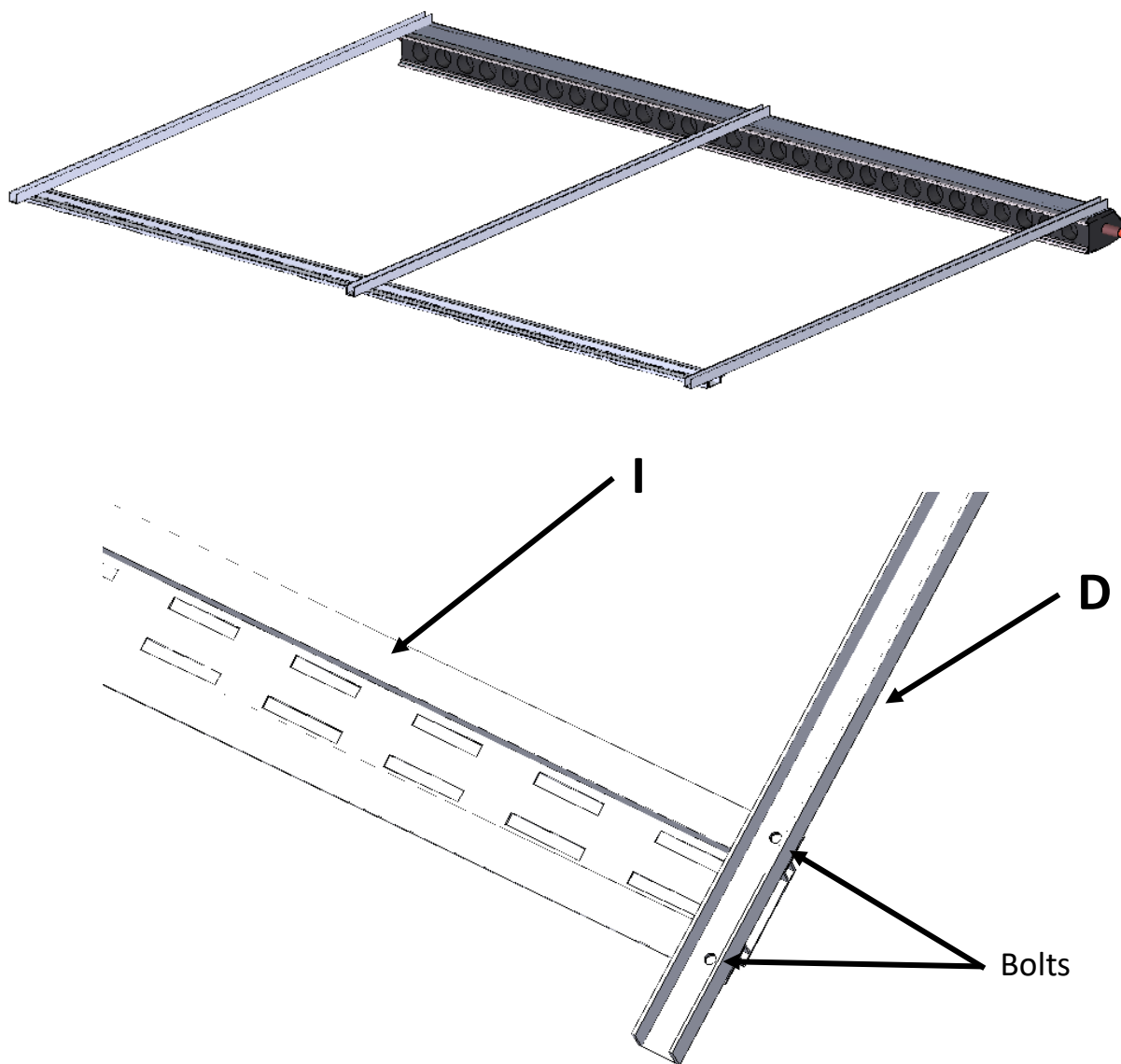
- a) Place the manifold flat so the bolts are facing up.
- b) Remove nuts already attached to bolts on the manifold.
- c) Secure legs (Manifold Arm – Part D) to the bottom of the manifold using a ratchet (13 mm).



2) INSTALLING BASE TUBE FRAME TO MANIFOLD ARM

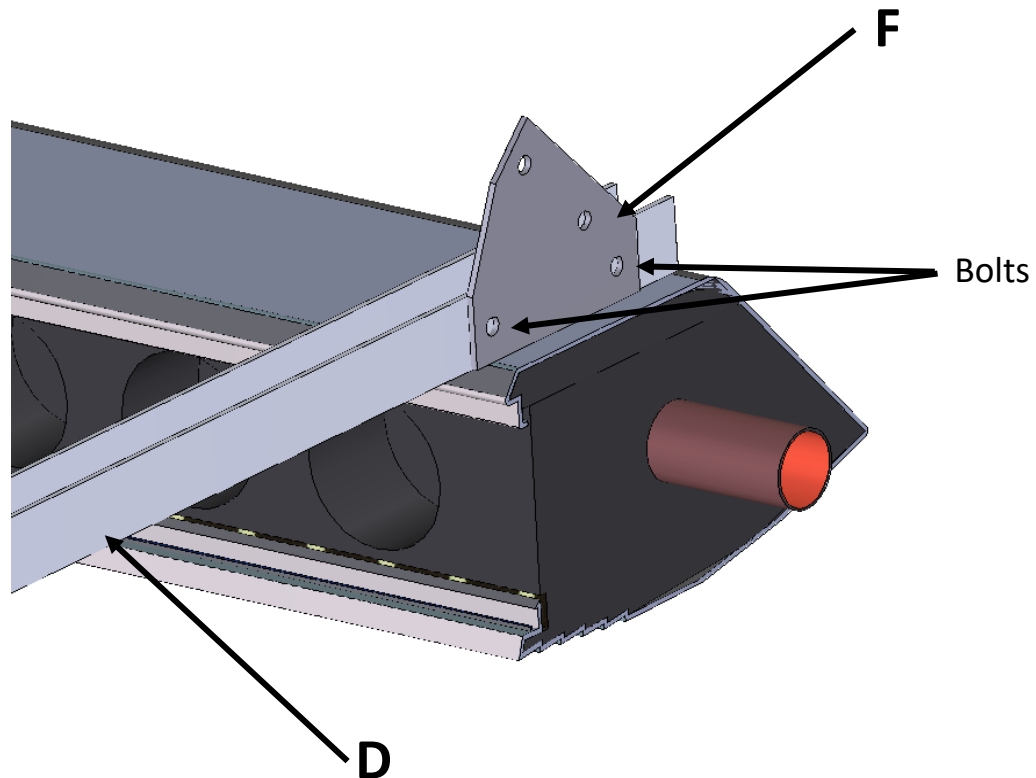
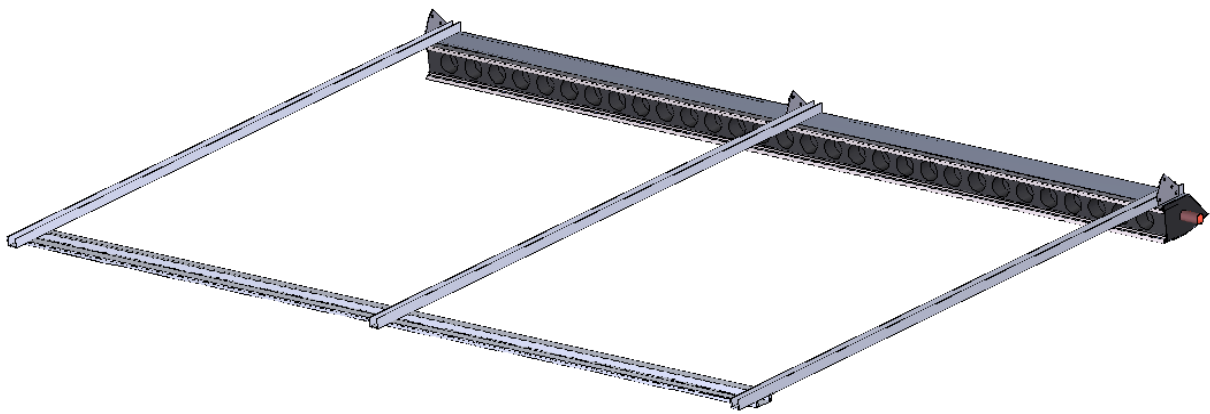
- a) Secure the manifold arm to the base tube frame using short bolts.
- b) Tighten the bolts with a 13 mm ratchet.

Page | 7



3) INSTALLING TRIANGLE STEEL SIDE PLATE TO MANIFOLD ARM

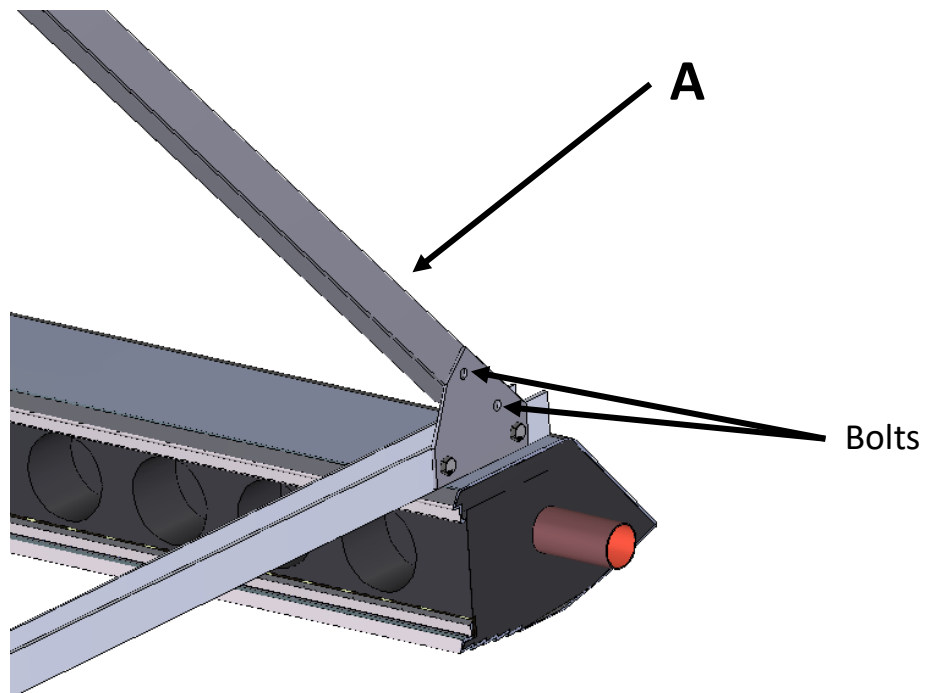
- a) Prepare the triangle steel side plate.
- b) Use two bolts (per plate) to install it to the manifold arm using a 13 mm ratchet and tighten them properly.
- c) Install a triangle side plate to each manifold arm – a total 3

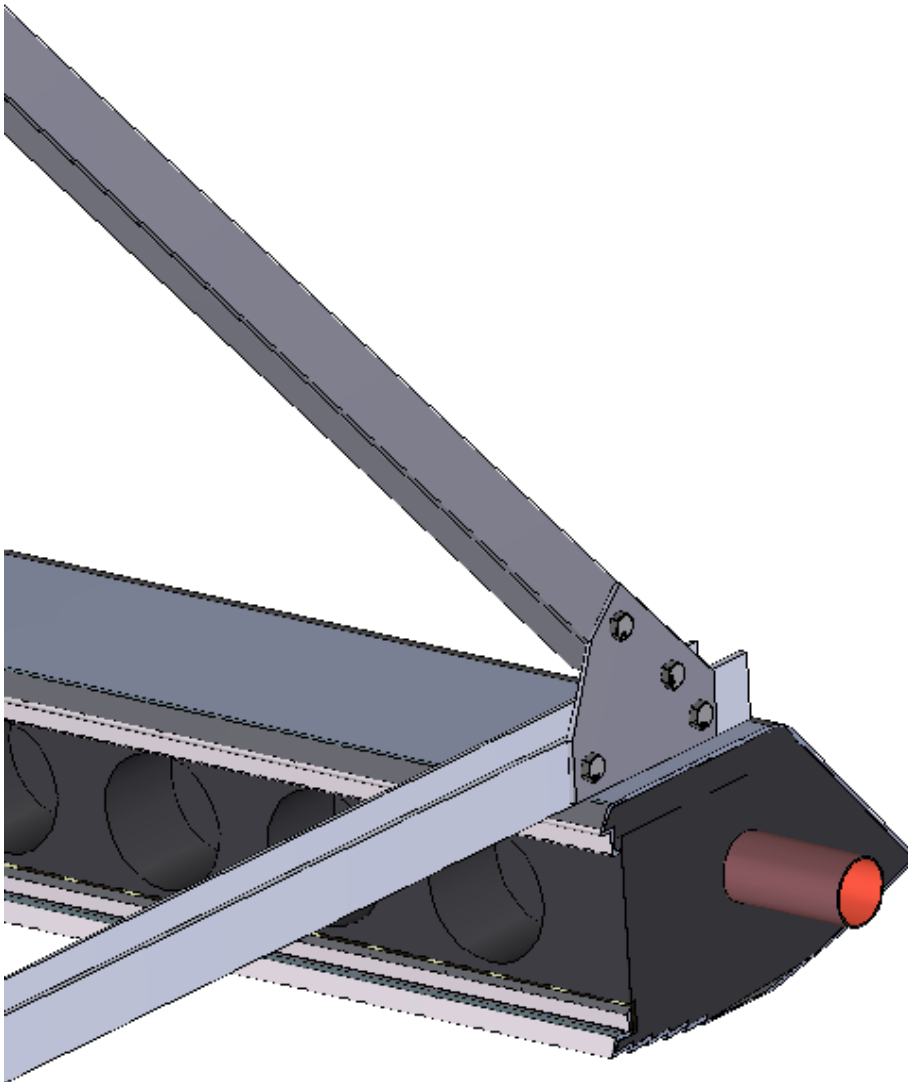


4) INSTALLING SIDE LEGS AND CENTRAL LEG TO ASSEMBLY

- a) Prepare the side legs (left, right) and central T-leg
- b) Align the edge of the triangle plate to the edge of the side leg
- c) Slide the bolts into a triangle plate then the side or central leg and tighten the connection using a 13 mm ratchet, repeat the process on each leg

Page | 9



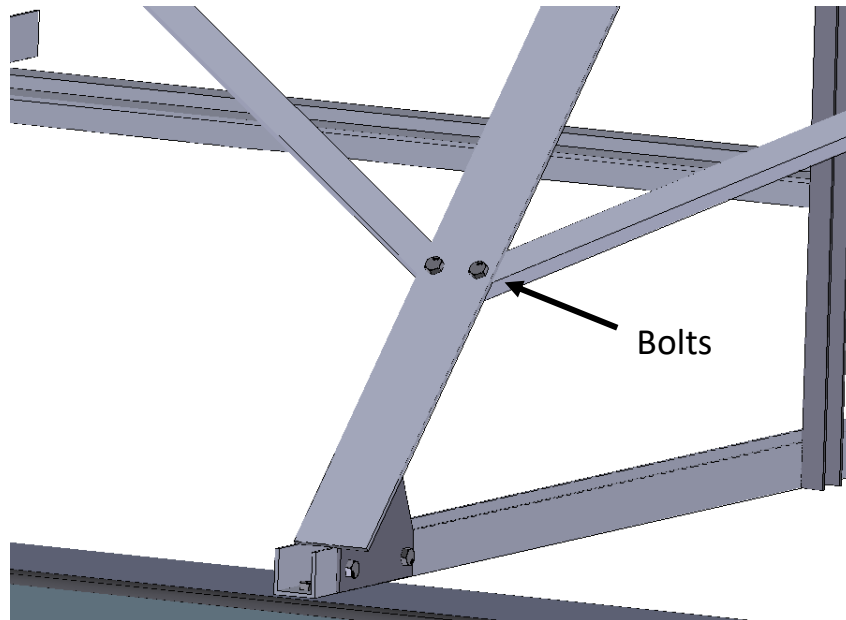
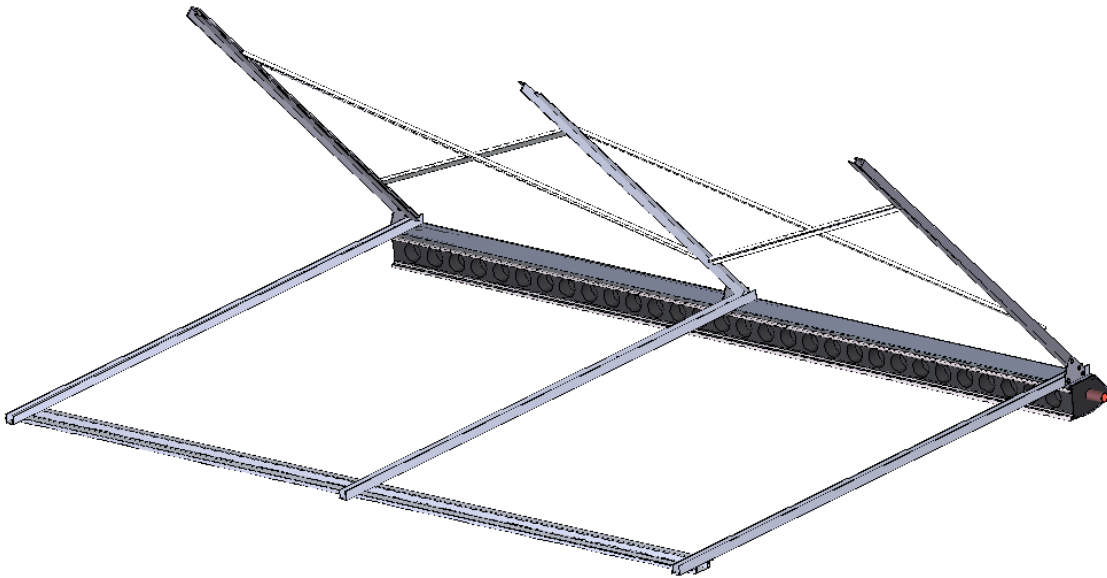


d) The full assembly is shown above.

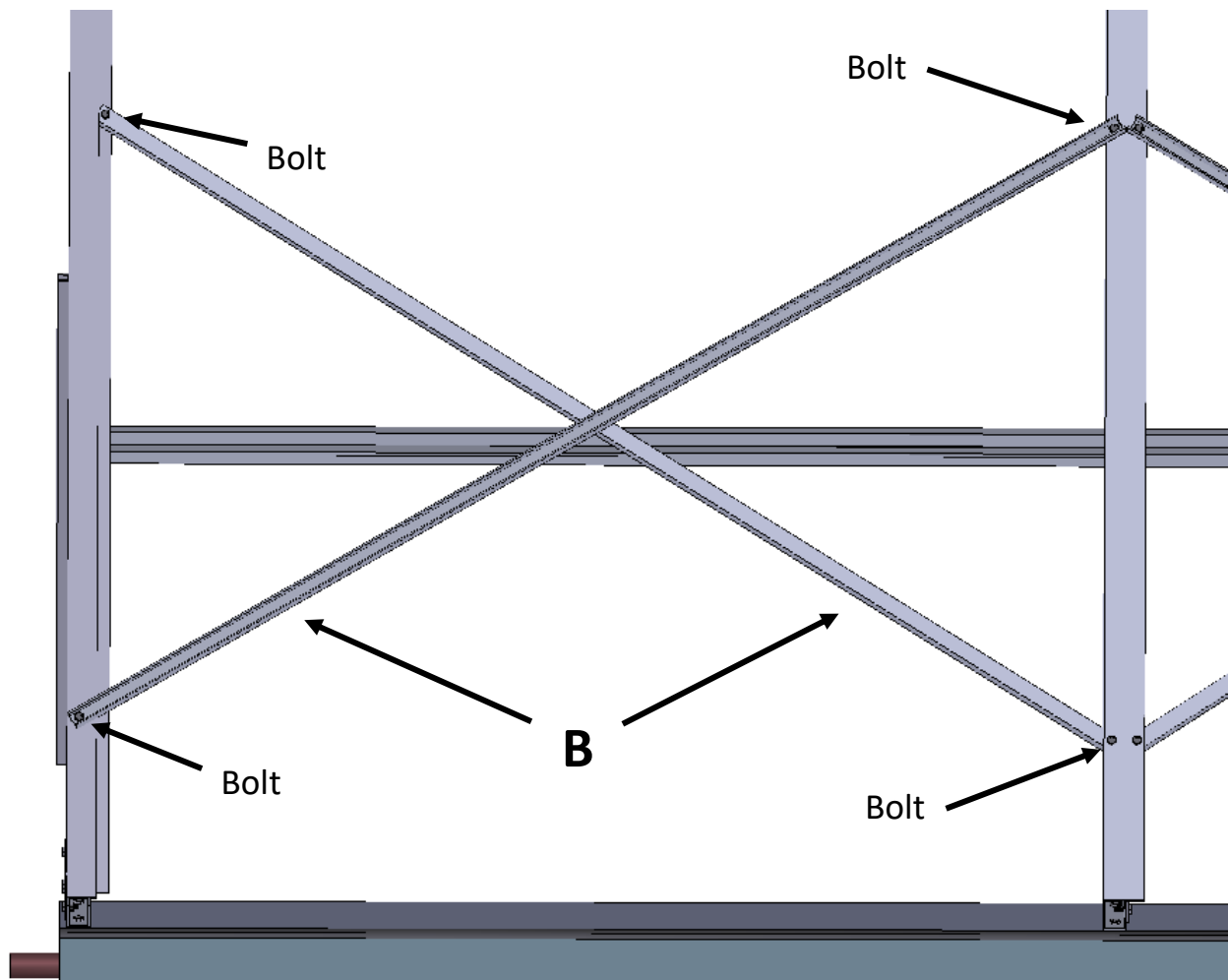
5) INSTALLING LEG SUPPORTS

- a) Attach back brace across manifold legs.
- b) Align so that both are from 8 to 10 inches from the edge of the manifold legs.

Page | 11

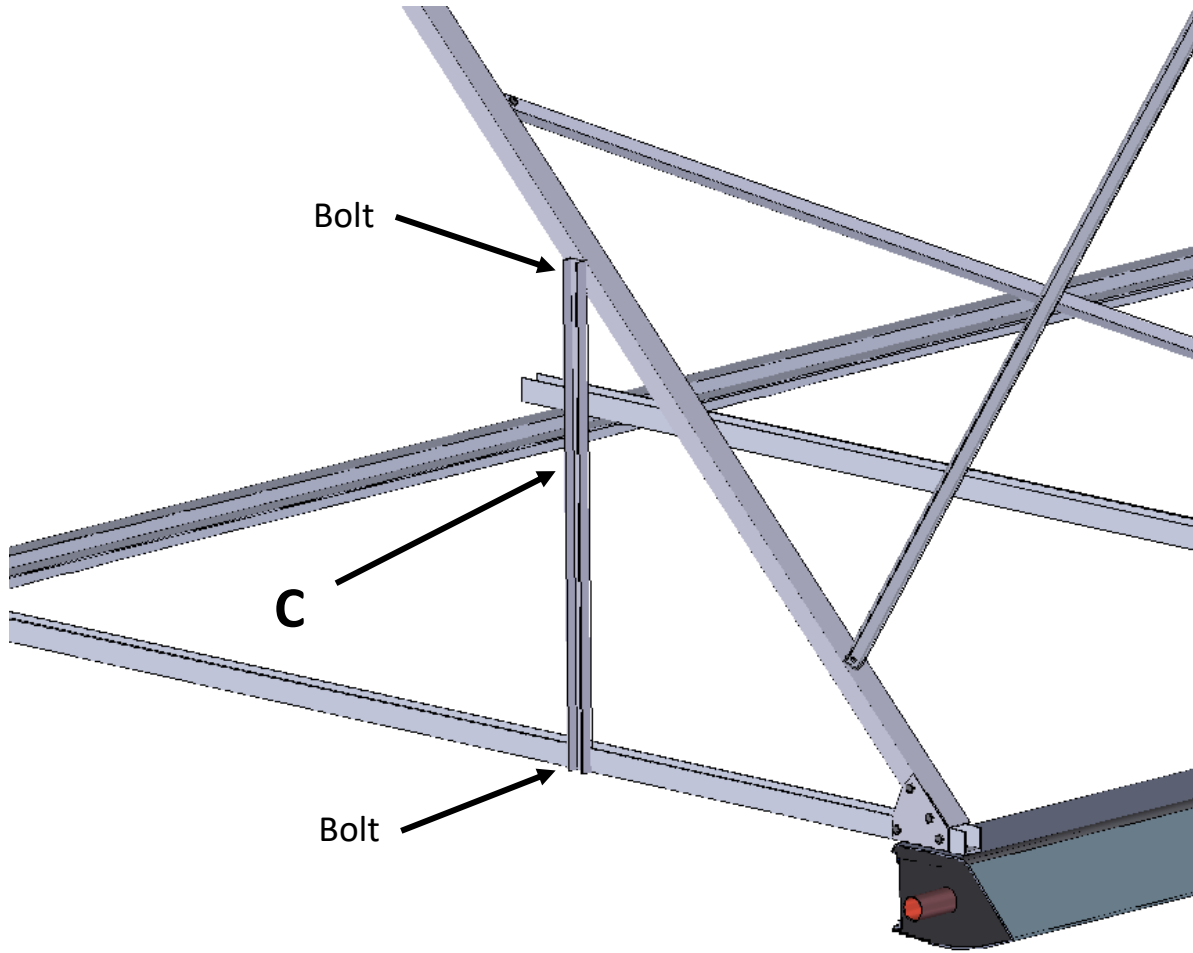


- c) Attach the remaining back brace supports across the previous ones, creating an X

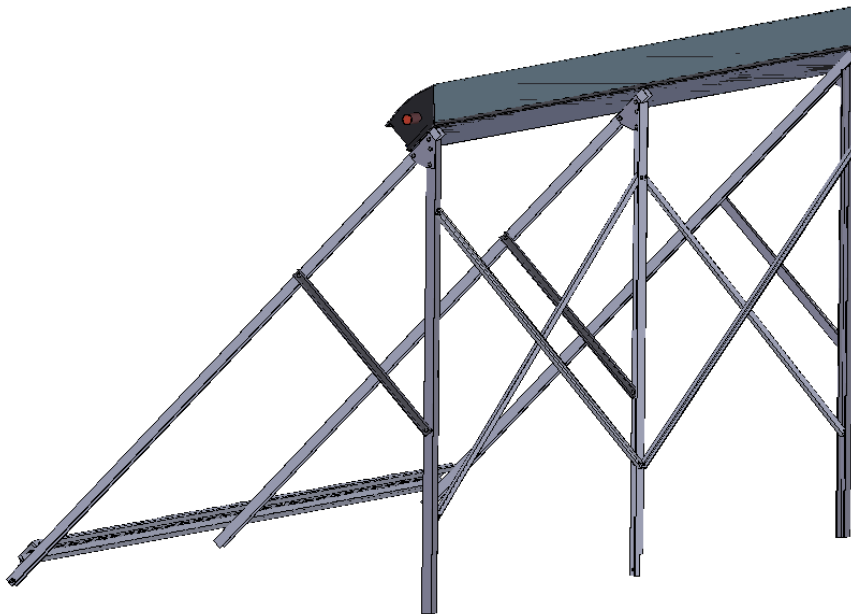


- d) Affix the back brace supports together with a large bolt through the middle of both supports.

- e) Attach horizontal supports at the midpoint of the manifold leg and arm. These braces allow to create the 45-degree angle of the solar collector mounting frame.



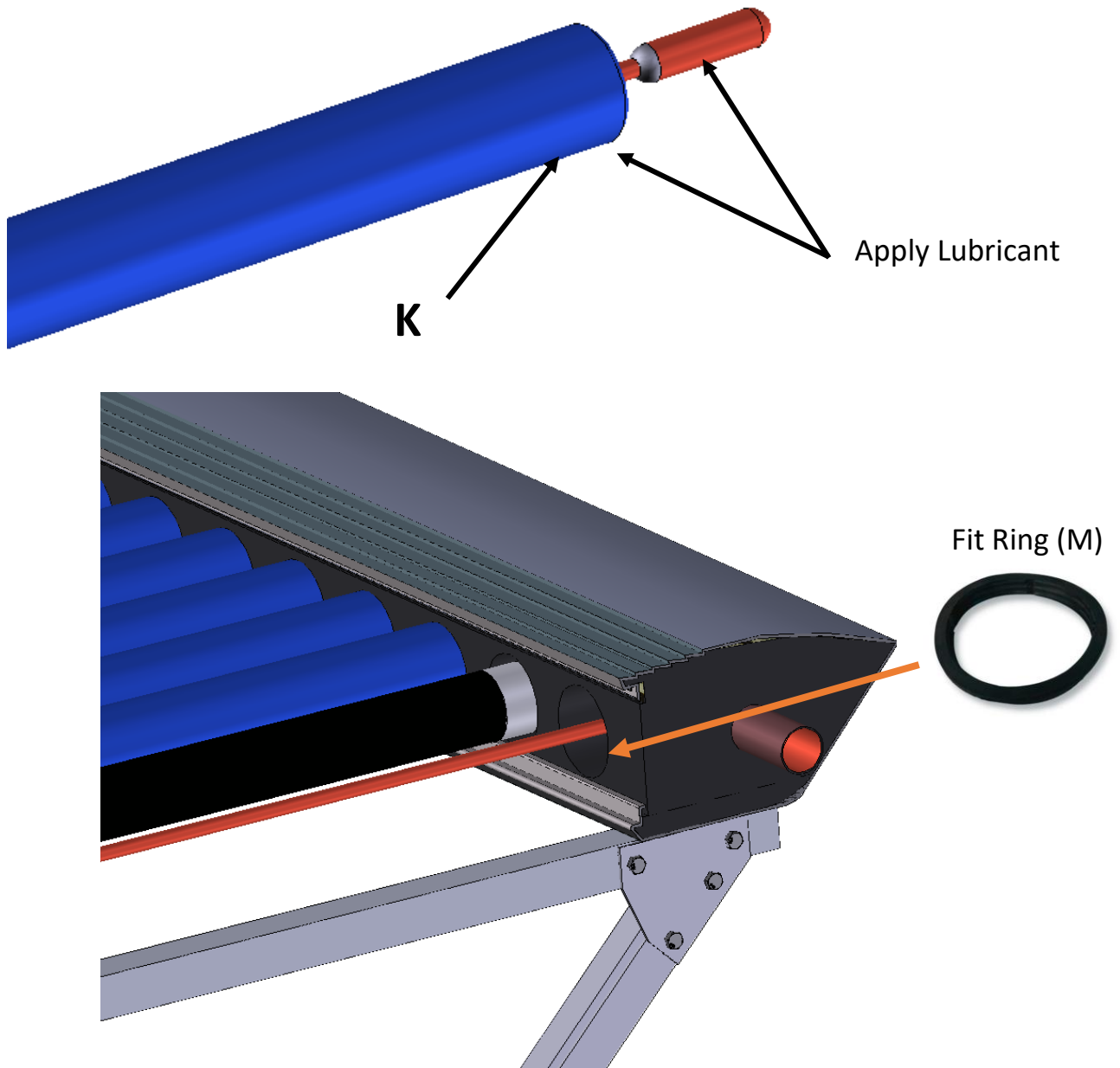
- f) Fully assembled mounting frame for the solar collector



6) INSTALLING EVACUATED TUBES

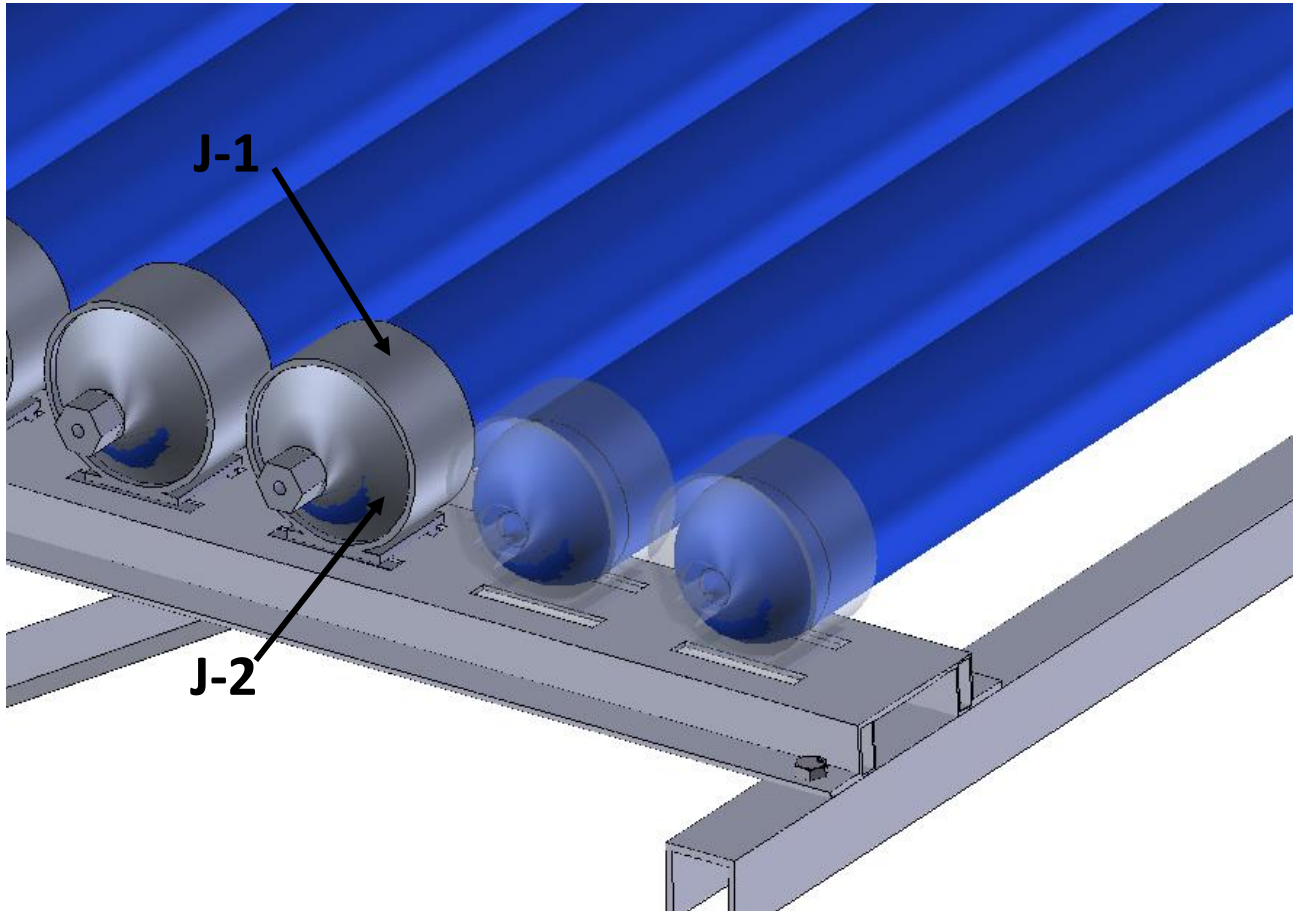
- a) Unscrew plastic end caps.
- b) Insert the fit ring into the hole in the manifold (check drawing below).
- c) Apply a small amount of liquid soap or other non-flammable lubricant around the marked area to ensure smooth insertion.

Page | 15



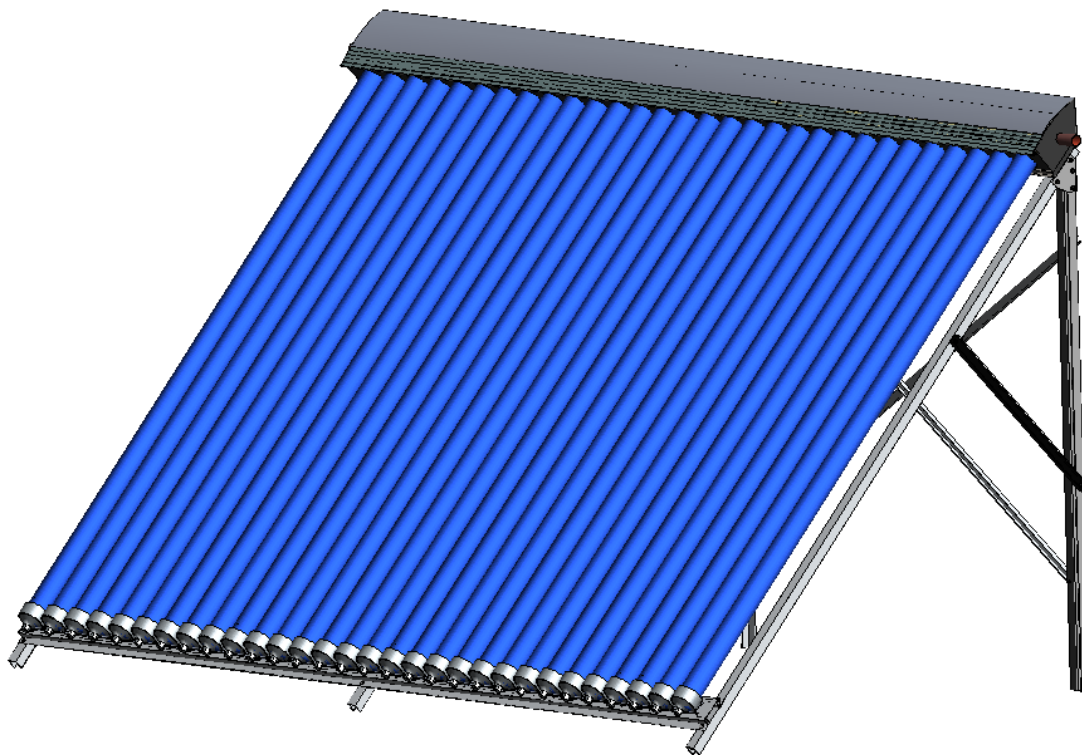
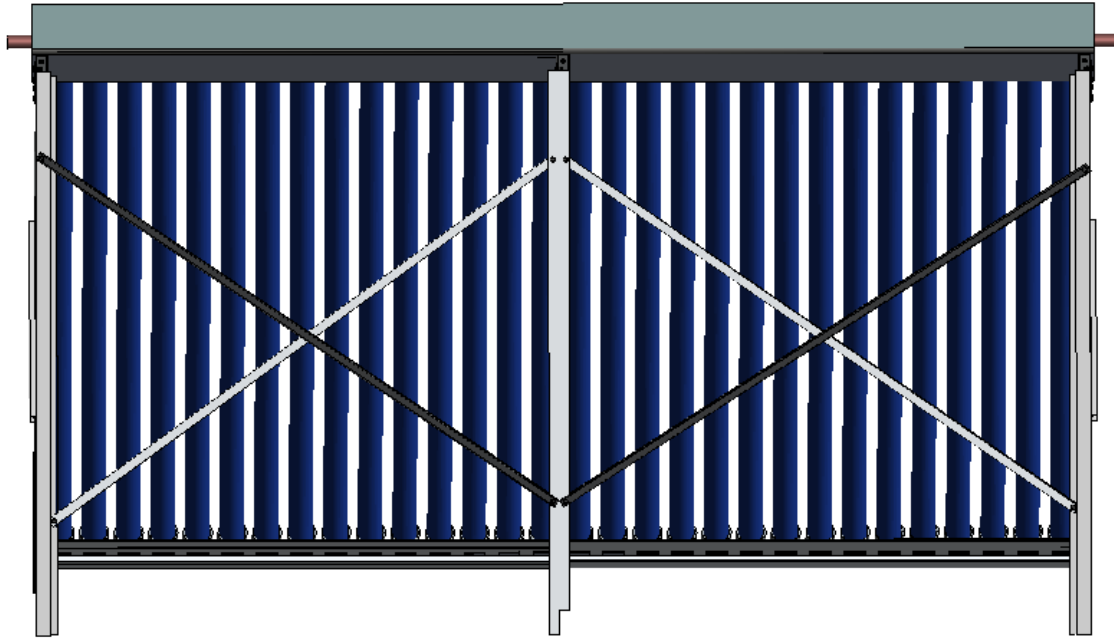
- d) Place the evacuated tube through the end cap and screw it into the manifold. Be careful – if you use too much force the glass can break.
- e) Screw the plastic end cap back into place.
- f) Repeat to install all evacuated tubes.

Page | 16



7) THE END PRODUCT SHOULD LOOK LIKE THIS

Page | 17



8) SOME PHOTOS FROM ASSEMBLING THE EVACUATED TUBE COLLECTOR

STEP 1

Page | 18



STEP 2



STEP 3

Page | 19



STEP 4



FULLY INSTALLED COLLECTOR MOUNTING FRAME

