

Installation Instructions

GenaDome





Image 1

- Mount all brackets on the silo wall.
- Start with hanging the bent brackets over the silo edge.
- Put the two (black) spacers in between the silo and the bracket.
- Screw the inner bracket to the bent bracket with 2x M12x20 bolts and two washers.
- Now screw the outer bracket to the bent bracket with 2x M12x25 bolts and two washers.
- Do not tighten the bolts all the way. In this way repositioning the bracket is easy before definite tightening. For positioning; see next page.

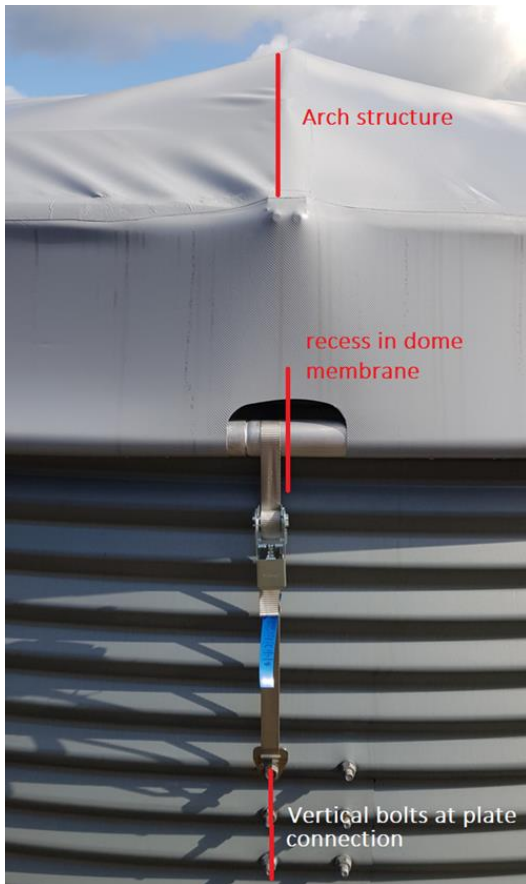


Image 2

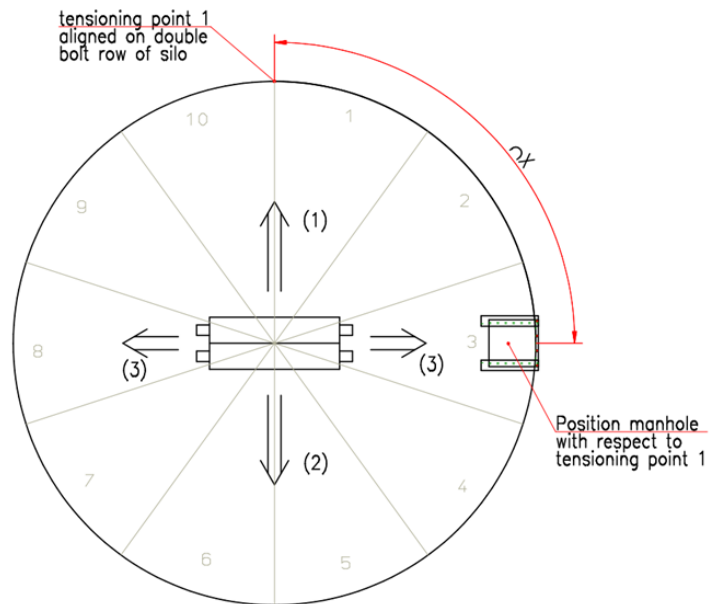


Image 3

- Align (1) arch on double vertical bolt row of the silo.
- After unfolding the dome membrane, align the recess on the arch as well as on the double vertical bolt row.
- Depending on the diameter; the location of the manhole will be given by dimension X; from the picture the unrolling / unfolding position can be determined, to achieve the manhole on the desired position.

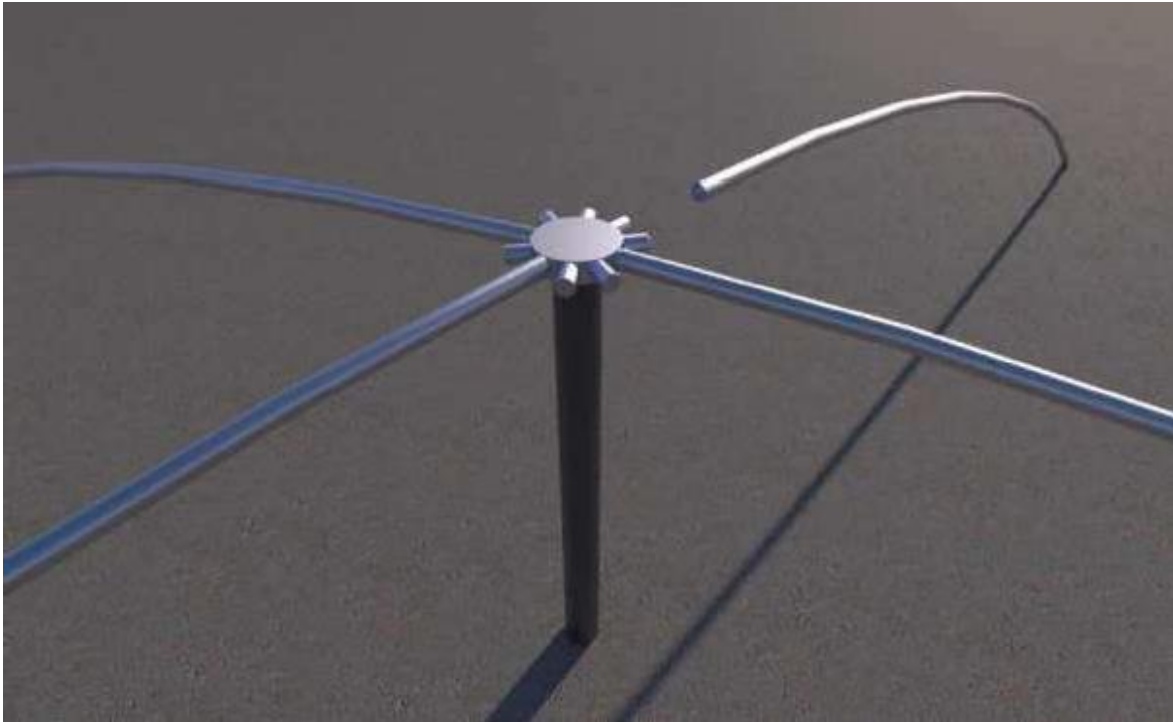


Image 4

- With every delivery of the GenaDome a piece of the central pole is supplied with the correct height, which is the height of the frame above the silo in the center.
- Place the centerpiece on this part and connect 4 or more arches to the centerpiece depending on the size of the silo.
- It is advised to build the roof steel structure beside or close to the silo.

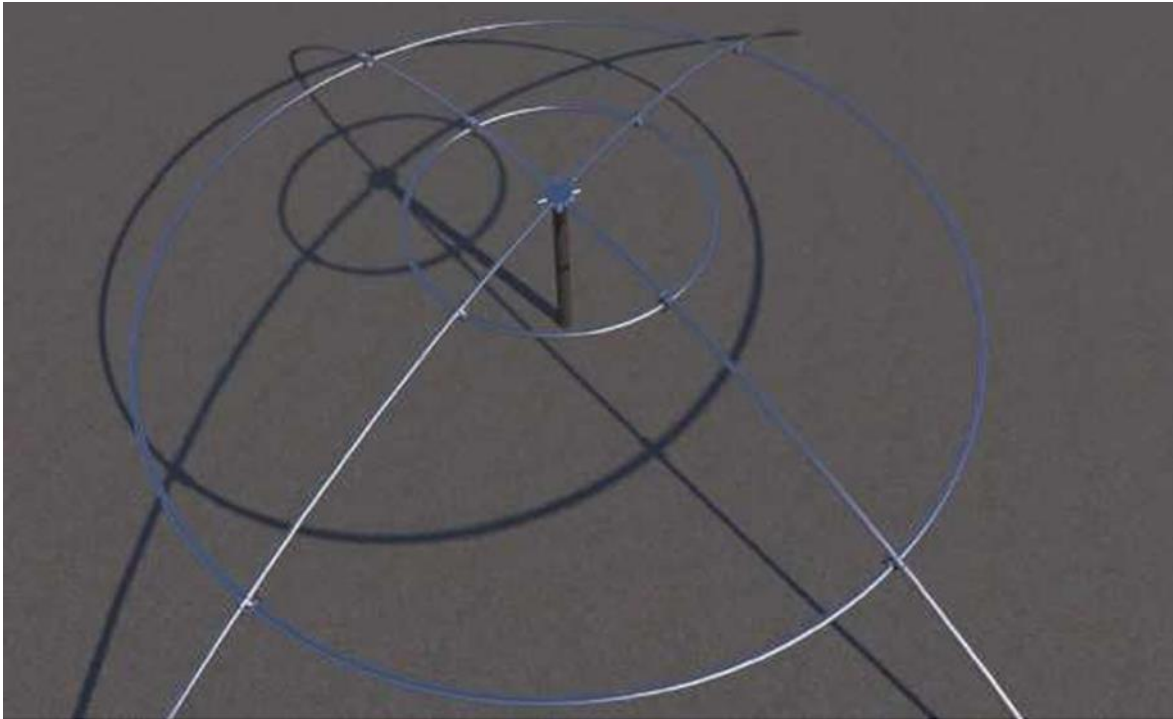


Image 5

- Attach the first circular ring to the arches with the help of the connectors.
- Do not fully tighten them so that the arches can still move a little. However, the arches must no longer come loose from the middle section.



Image 6

- Install the ring on the marker lines on the arches.
- Place the connector over the circular ring and push it against the ring and slide the U-bolts from above over the beam and through the holes of the connector. The marker line should be between the 2 U- bolts.
- Tighten the U-bolts with a washer and nut. Repeat this for the remaining arches.
- All mounting materials are stainless steel. Do not over-tighten them or they will break.
FIXED = FIXED.

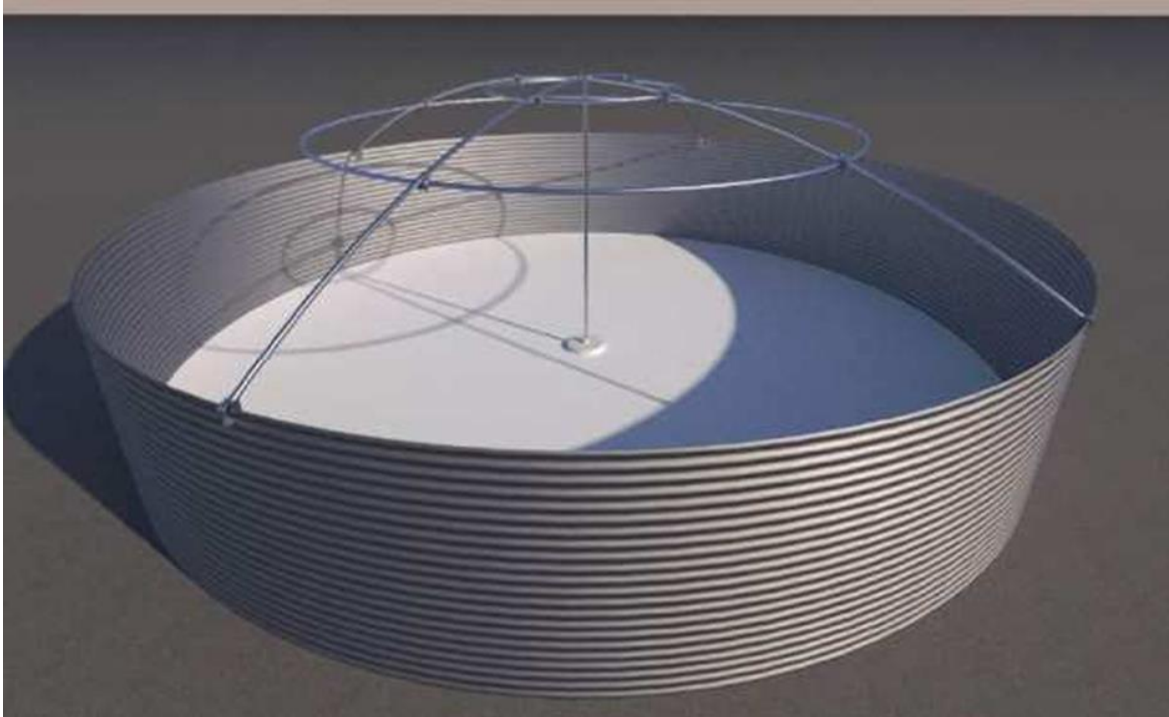


Image 7

- The central pole consists of 3 parts, which are adjusted to the correct height.
- This is the silo height + the height of the frame. This height is indicated on the assembly form.
- The pole is supplied with a concrete base and positioned in the middle of the silo..
- Now lift the frame onto the silo with sufficient people (or crane) and secure it in the already mounted brackets.
- Connect the pipe with the bolt, washer and nut. If it is difficult to fit the beams into the brackets, adjust the height of the center pole accordingly.
- **ATTENTION: put protection between concrete footplate and liner!**

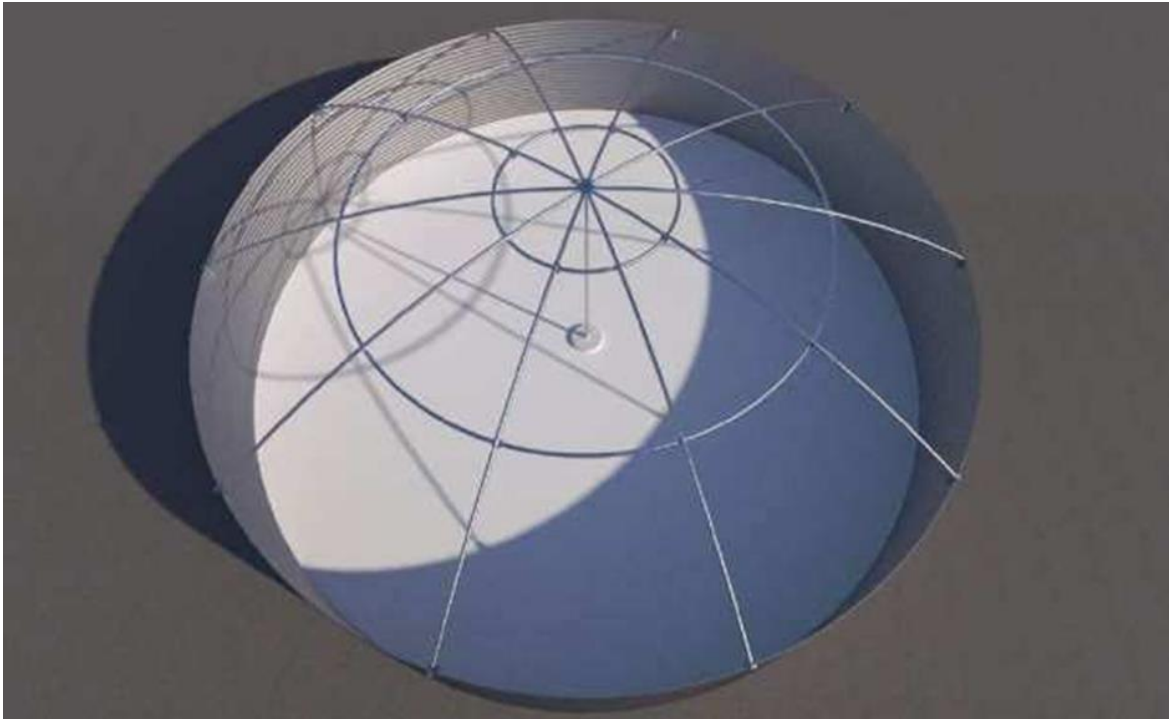


Image 8

- Mount the remaining arches from the silo edge.
- Always fit the arches **over** the circular rings.
- It is also possible and often easier and faster to build up the frame completely outside the silo and then lift it onto the silo with the assistants of a few people or with a crane, depending on the size of the silo / structure.

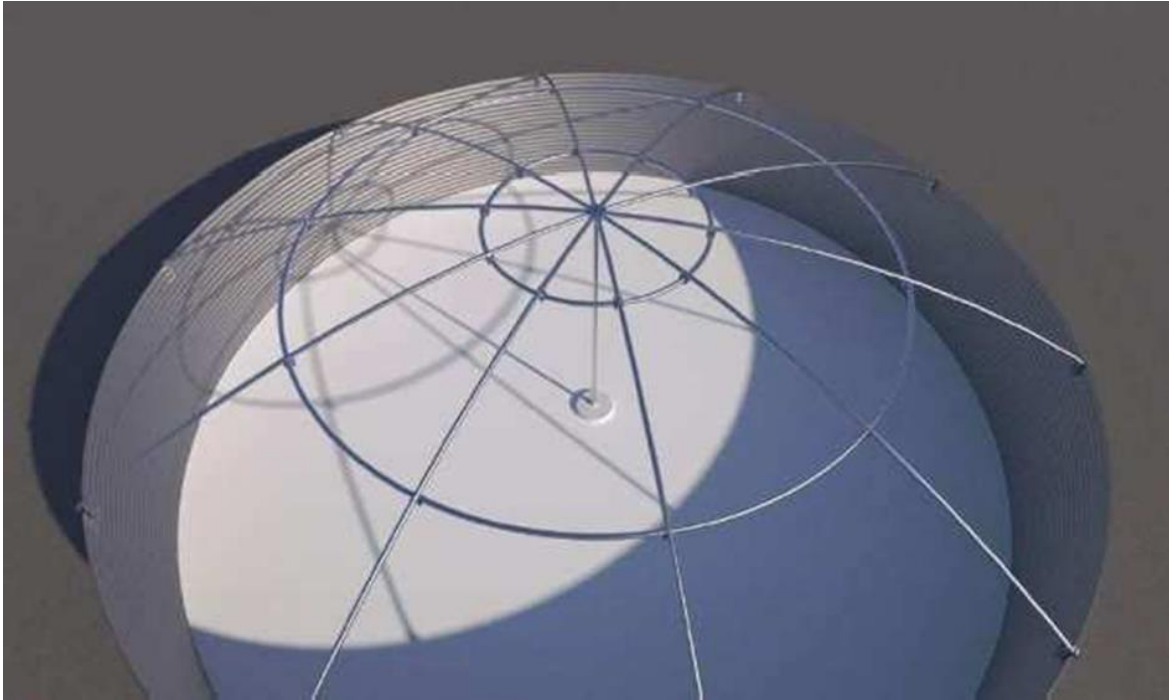


Image 9

- Now attach the remaining connectors to the arches and circular ring(s) so that all cross connections between ring and arches are fixed.
- Check the distance between the circular rings and tighten the stainless steel nuts by hand, do not overtighten them.
- do not overtighten them. FIXED = FIXED

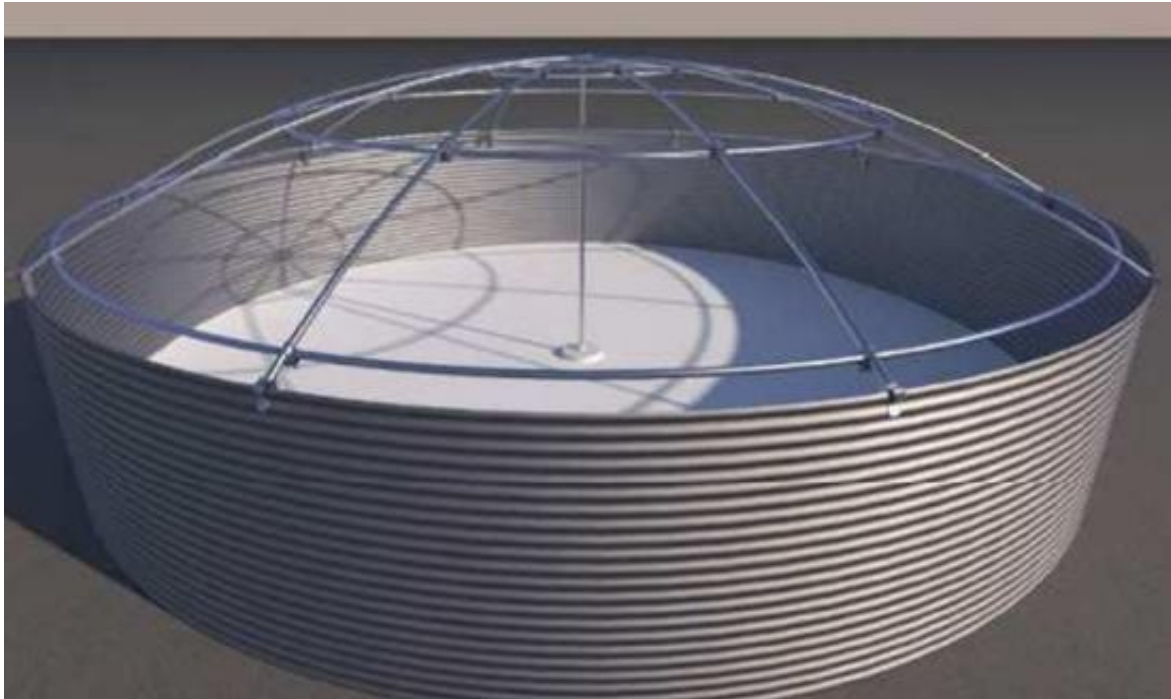


Image 10

- Finally, attach the outer circular ring (closest to the silo edge) and mount it as described.
- Check the distance between this ring and the silo edge.
- Tight the connections all permanently.

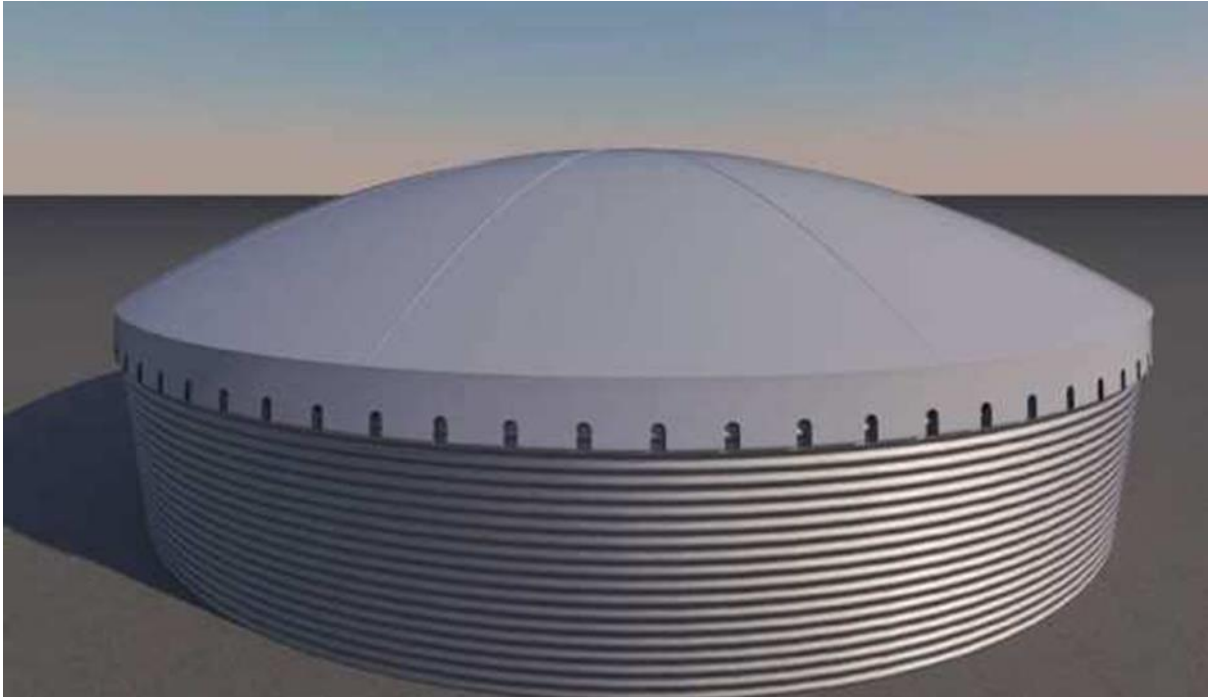


Image 11

- Now roll out the cover along the tank and pull the cover over the frame with sufficient people, or use a crane.
- Make sure that the manhole is between two arches; see page 3 regarding the position and alignment of the cover with respect to the support structure and silo.
- It can be useful to place a ladder against the frame in the middle to guide the cover over the frame.
- Make sure the cover is straight on the frame, so symmetrical all around.



Image 12

- When the cover is pulled over the frame, insert the arched tubes in the hem.
- The tubes are inter connected to a ring and tensioned by 2 ratchets per tank plate



Image 13

- When all arched tubes -except for the last one- are inserted you slide the endcoupler over the first arched tube.



Image 14

- Saw or cut the last arched tube to size and slide the end coupler over the first and last arched tube so it is positioned in the middle.

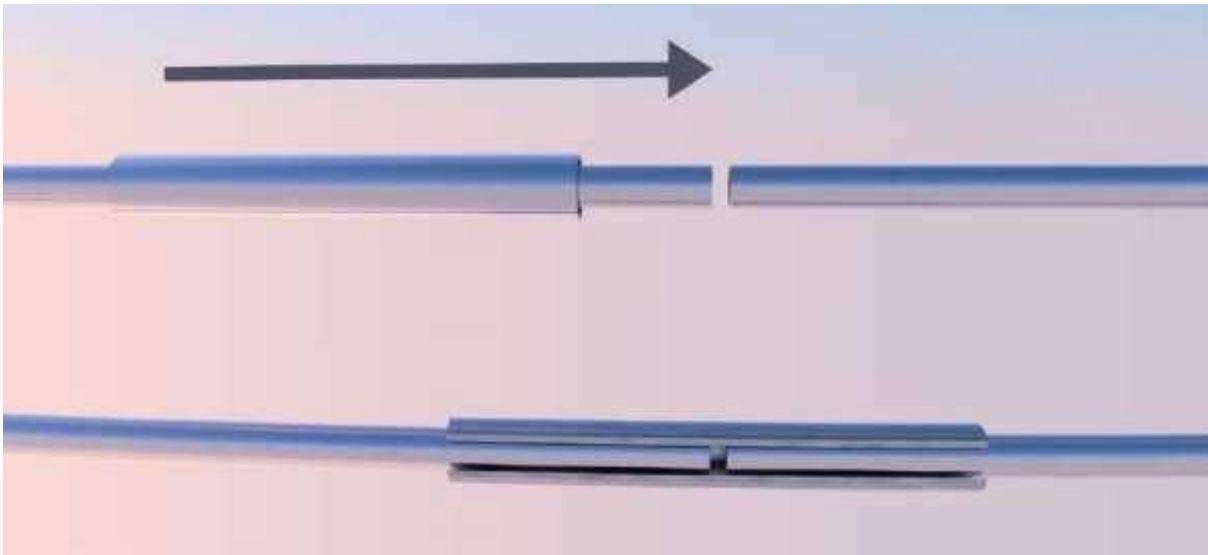


Image 15

- The end coupler connects the first and last arched tube to a closed ring.

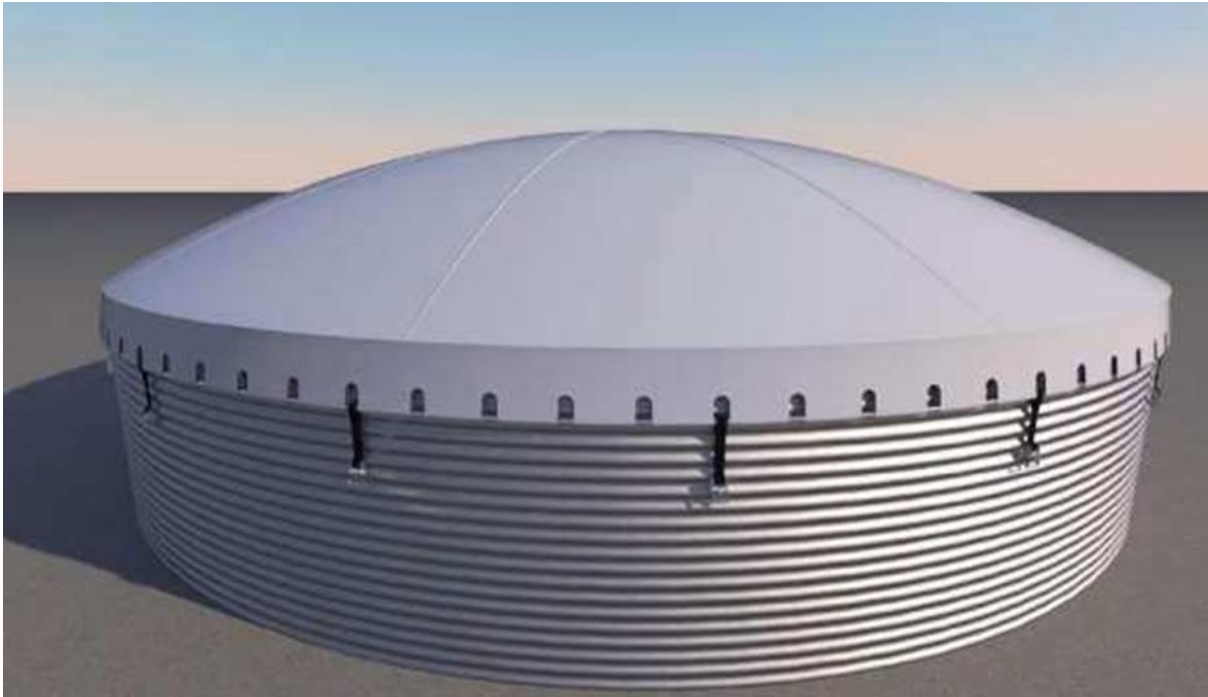


Image 16

- Install two ratchets per silo plate: at the plate connection and in the middle of the silo plate..
- Make sure the ratchets are positioned on the vertical bolt rows on the given positions. The position is also given by the recesses in the hem of the GenaDome.
- Tighten the ratchets evenly, going crosswise, until the complete dome is tensioned nicely over the supporting construction.
- The Genadome roof system is now ready for use.

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