



Technical Product sheet

Technical product sheet: flat bottom outlet

Product: flat bottom outlet for water storage systems, like tanks; reservoirs and storage bins; characteristic for application of this type of outlet in the bottom of water tank or reservoir is the possibility to empty the tank or reservoir completely; this in contrast to our standard conical outlets which protrudes at a minimum of 30 cm. above the bottom of the tank / reservoir; which is therefore also the minimum water level.

Construction: The flat bottom outlet consists of a PVC bottom plate with in it's centre a glued PVC pipe Ø 110 mm. (both PVC-U); connected to the PVC-U bottom plate is a flexible geomembrane plate, which is used to glue or weld the outlet into the tank or reservoir lining. The type of flat bottom outlet is related to the type of membrane plate which is connected to the outlet. For application the type of membrane plate in the outlet should be the same as the type of liner in order to achieve maximum compatibility in watertight connection on base of gluing or welding

There are 3 types of flat bottom outlets which **only** differ in the type of flexible geomembrane plate which is connected to the outlet; these are:

1. Flat bottom outlet with EX 1 mm. geomembrane plate (article number: 60000576)
2. Flat bottom outlet with PVC 1.0 mm. geomembrane plate (article number: 60000441)
3. Flat bottom outlet with Extreme 0.75 mm. geomembrane plate (article number: 60000592)

The flexible geomembrane plate dimensions are 450 x 450 mm.

Application: the flat bottom outlet is applied when a complete emptying of the tank or reservoir is required, this is not possible with the standard conical outlet. The flat bottom outlet can be prefabricated in the lining in our factory; in this case the outlet is welded into the lining. The PVC outlets can also be glued in the lining.

Installation: for installation of the flat bottom outlet on site the following steps have to be taken:

1. Cut the PVC pipe situated in the bottom to the correct length; dig the pipe on top free, so it's accessible on top all around. The correct length is the length of the pipe including a socket (PVC-U) put on top of the pipe which is level with the bottom (soil) in the tank.
2. Put the socket Ø110 on top of the pipe; customer has to supply the socket himself, **it is not part of the delivery.**
3. Restore the moved soil around the pipe and socket, take care for sufficient compaction of the bottom soil around the pipe, so large inclination of the soil will be avoided
4. When necessary install a bottom protection sheet with a opening at the location of the flat bottom outlet
5. Roll out / unfold the lining and position first the flat bottom outlet; put/push the pipe into the socket
6. Install the liner according to the installation instructions.

Remark:

- For the PVC-U socket Ø110 a socket with both sides rubber seals or glue connections can be applied; for gluing PVC-U glue has to be used.

Points of attention:

- Flat bottom outlets are installed only on the bottom side of the lining
- Standard deliverable for pipe Ø 110 mm.
- Minimum distance between 2 flat bottom outlets: 50 cm.; minimum distance from the wall: 25 cm.
- More than 2 flat bottom outlets in bottom side of lining **is on request**; depending on the requested location it can be determined whether it is possible or not; one and another depends on the way of folding of the liner for transportation
- **WATCH OUT!** for outside use of water tanks a minimum water level of 30 cm. is prescribed according to our installation instructions; complete emptying of the tank in outside use is at risk of the customer.

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Empty tanks in outside application are very sensitive for strong winds /storm which can easily lead to damage to the steel construction and moving of the bottom liner from it's position; this can also cause problems during refilling of the tank.

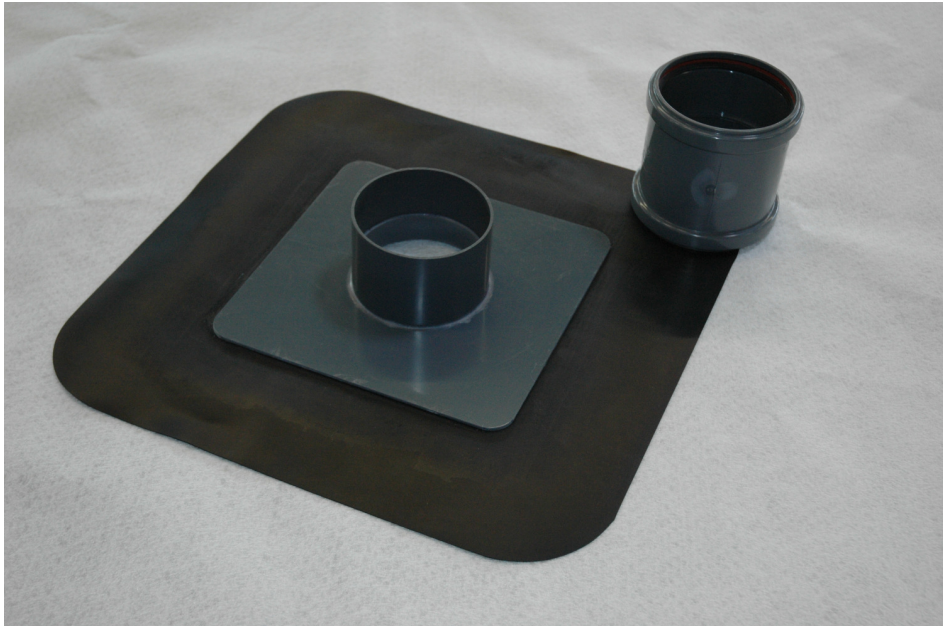


Photo 1: Flat bottom outlet with geomembrane plate (EX 1.0 mm.) and socket Ø110 (socket is not part of the delivery)

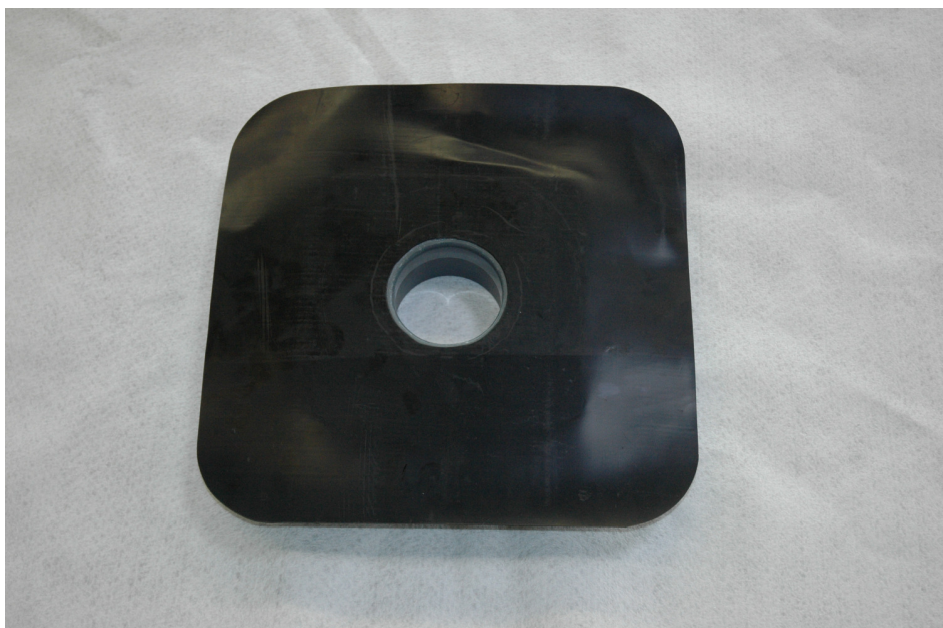


Photo 2: Flat bottom outlet orientated as being welded into the lining (top view bottom)