

SM5533TT TotalTite™
TANK CHAMBER

Installation instructions.

A. General

The following instructions are for the installation and commissioning of the SM5533TT TotalTite tank chamber on single or double wall steel tanks.

The tank builder has to provide a reverse flange square upstand frame around the tank manway. The square upstand frame with reverse flange measuring typically 960mm x 960mm (note: dimensions may vary from country to country; maximum dimension is 1.000mm x 1.000mm).

The square upstand frame with 4 x 10 holes will serve as installation base for the tank sump. (see drawing "APP/ASSY/E016 issue A")

The tank builder has to provide one square nitrile rubber gasket, metal compression strips, 40 bolts, washers and nuts.

This mounting kit is not supplied by TCI-Environment

Bostik FS2639 Polyurethane sealant is available from TCI-Environment.

Note: A round upstand frame with reverse flange is also possible provided the diameter is min 800mm and max. 960mm.

B. Installation of the sump base on the square upstand frame

step one:

Turn sump base up-side-down on a hard surface (concrete floor, hard dirt soil).
Place the square gasket on the bottom of the sump base and align even with the sides.
Using the gasket as a template, mark with an alcohol marker the 40 bolt holes and the square (inside the gasket) to cut.

step two:

Drill the 40 bolt holes using an M11 drill.

step three:

Drill in each corner of the marked square a hole of 30mm, using an appropriate hole saw. Cut out the square using a sabre saw or jig saw.

step four:

Apply BOSTIK FS2639 sealant to the square upstand frame and position the gasket. The sealant has to be applied evenly without excess in a pattern which surrounds all holes.

step five:

Apply BOSTIK FS2639 to the surface of gasket in a similar way.
Place the sump base carefully on it.

step six:

Install the 4 compression strips, bolts, washers and nuts inside sump base.
Tight the nuts at a torque of 7,5 kgm.

Remark:

Although the sump base can be installed on site by the contractor we advise, when possible, to pre-install the sump base at the tank manufacturer's premises. This guarantees proper installation in ideal conditions and an important gain of time for the contractor on site.

C. Installation of the riser on the sump base

The riser is installed when all pipe connections have been made on the tank manhole. Make sure you have the mounting kit BK0048 and LG0000 available (part of the tank sump delivery by TCI).

step one:

Insert from bottom to top of the base interface 4 bolts with washers (one per quadrant) and block them with one of the special self-locking washers on the top of the bolt.

step two:

Put the round gasket carefully on the interface. It shall be kept in place by the 4 previously installed bolts.

step three:

Put the riser on the round gasket in such way that all 4 bolts are pointing correctly through the holes in the riser.

step four:

Install from bottom to top the other bolts with washers and nuts and do this in a star pattern. Tight all nuts at a torque of 0,5kgm.

Remark:

Shallow burial of the tank sump – Trimming of the riser

The height of the riser can be adjusted by cutting one or more ribs with a sabre saw. When cutting be careful to stay within the cutting area as indicated on the enclosed drawing (APP/ASSY/EO35/issueA). Do not damage the horizontal part of the corrugation and remove all burrs.

The lid gasket will seal on the horizontal part of the riser corrugation.

Deep burial of the tank sump

Riser extensions are available from TCI.

The extension has to be welded to the riser by the means of a hot air gun with special welding tip and hdPE welding wire.

D. Mounting of the lid on the sump riser

step one:

Check the lid to riser sealing surface (flat part of the riser top corrugation).
The surface should be smooth and clean, and free from burrs, sand and cement.

step two:

Check that the lid gasket is properly inserted into the groove of the lid.
The gasket lip should be bent outwards.

step three:

Align the lid locking rods with the positioning grooves in the riser.
Insert the lid into the riser and turn clockwise till it locks.

Remark:

*An observation cap (OC0008) can be installed in the centre of the lid.
To do so, drill an opening with a 200mm hole saw (can be done in TCI's warehouse
or on site by the contractor).*

E. Backfilling and Compacting

A minimum layer of 30cm lean mix has to be installed around the sump base and to mid-height of the riser.

This lean mix has to be applied and compacted manually.

Make sure that all lean mix is filling all corners and spaces underneath and up the base and on the riser.

When the lean mix is hardened, traditional backfill material can be applied and compacted in the classical way.

F. Periodic maintenance

To ensure long term sealing of the lid with the riser, never close the lid with dirt, sand or debris on the sealing surface of the riser.

It is advised to regularly clean the sealing surface and check the lid gasket.

Never put oil on the lid gasket or sealing surface.

Replacement gaskets are available from TCI.

G. Product codes

SM5533TT Components	Product code
Base	SM5500
Base to Riser bolting kit	BK0048
Base to Riser gasket	LG0000
Riser	RI0033-42TT
Lid	LT0033
Lid Gasket	LG0033

Options	Product code
Observation cap	OC0008

Consumables	Product code
BOSTIK sealant	FS2639