

TUBOSIDER



ENREGIS / TUBUS

Features and benefits

Concrete chambers or cellular type systems are limited by size and shape whereas TUBOSIDER fabricated tanks can be fabricated to an infinite variety of layouts using pipes from 0,3 m diameter to 3,6m. TUBOSIDER tanks are accessible for routine inspection. This is now a fundamental requirement with many authorities and is impossible using "cellular" or "crate" systems.

Load bearing strength.

Designed structurally to Highways Agency Standard BD12, TUBOSIDER tanks will carry full motorway live loads if required.

Fully prefabricated. Tanks include access shafts, ladders, inlet and outlet connections, all factory fabricated.

There is no concrete work or fabrication work on-site. Tanks are assembled from components using standard gasketed joints. The fastest system there is to install. TUBOSIDER can supply and factory fit Flow Regulators to restrict discharge to the specified rate. This eliminates the need for expensive regulator chambers, which are required with "crate" type systems. TUBOSIDER gasketed joints are fully tested and WRc approved to "Sewers for Adoption" standards of watertightness.

Durability

All pipe is manufactured from high quality pre-galvanised coil to BS EN 10143 with 305 gms/m2 zinc coating on each surface. This is normally adequate to provide a design life of 50 - 60 years in non-aggressive environments.

Pumped systems

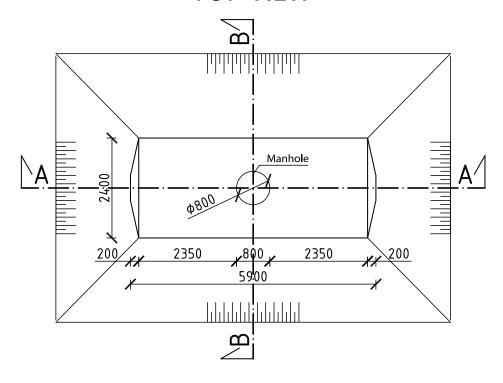
For aggressive environments or combined sewer applications, Trenchcoat Polymer secondary coating is utilised giving a BBA Certified add on life of 50 years in an aggressive environment. Increasingly, storage volumes cannot be achieved with conventional gravity systems. In these cases, TUBOSIDER can incorporate pump chambers and supply and fit submersible electric pumps complete with switchgear and control panels.

Name:	Volume	Diemeter	Length	Weight
TUBUS 25	25 m³	2400 mm	5 900 mm	-
TUBUS 50	50 m ³	2400 mm	11 400 mm	-
TUBUS 75 linear	75 m³	2400 mm	17 400 mm	-
TUBUS 75 parallel	75 m^3	2400 mm	2 x 8 900 mm	-
TUBUS 100 linear	100 m³	2400 mm	22 400 mm	-
TUBUS 100 parallel	100 m ³	2400 mm	2 x 11 400 mm	-

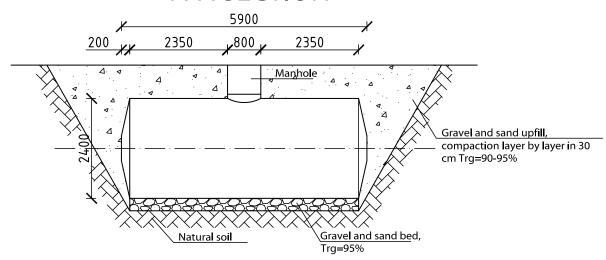


TUBUS STEEL TANK - 25 M³ LINEAR DESIGN

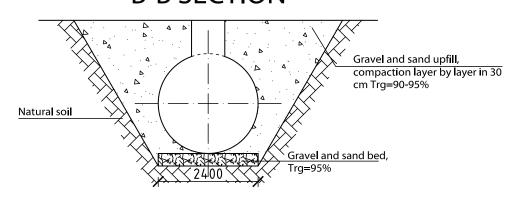
TOP VIEW



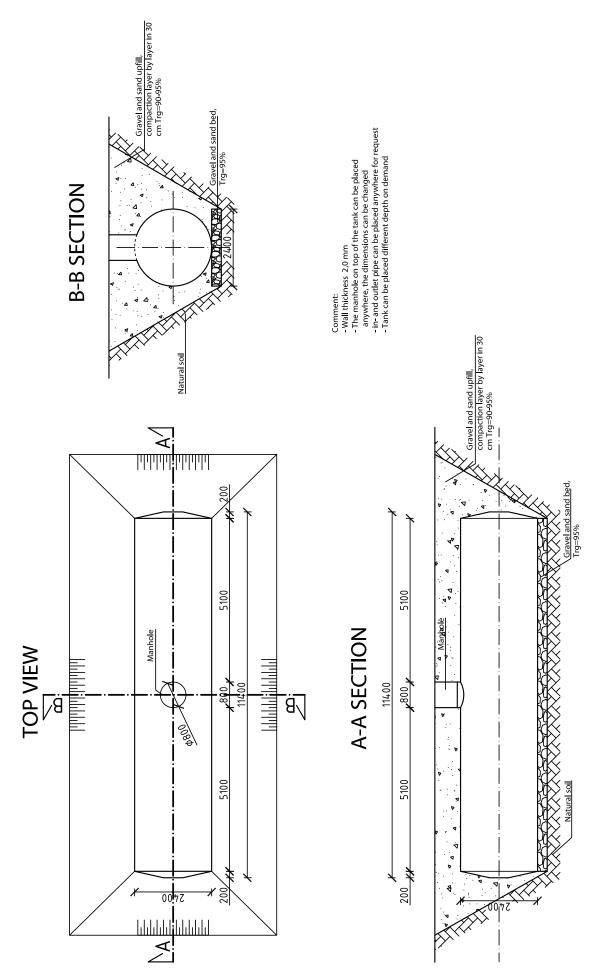
A-A SECTION



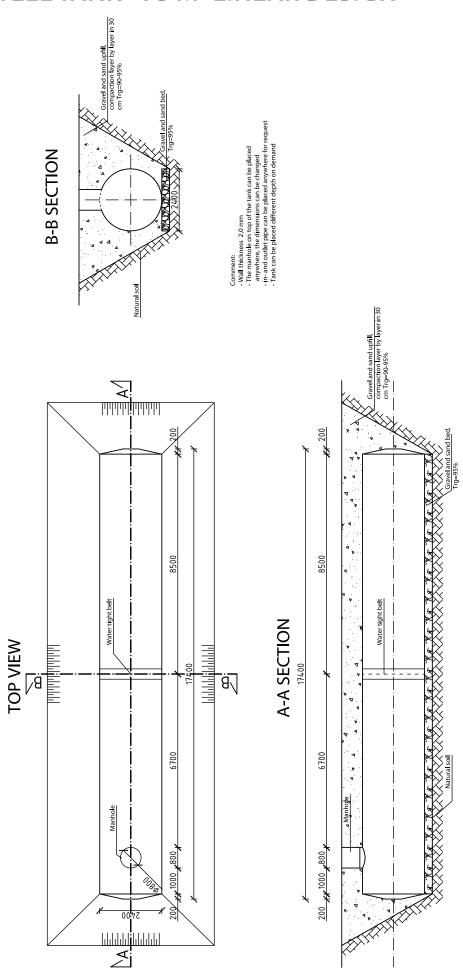
B-B SECTION



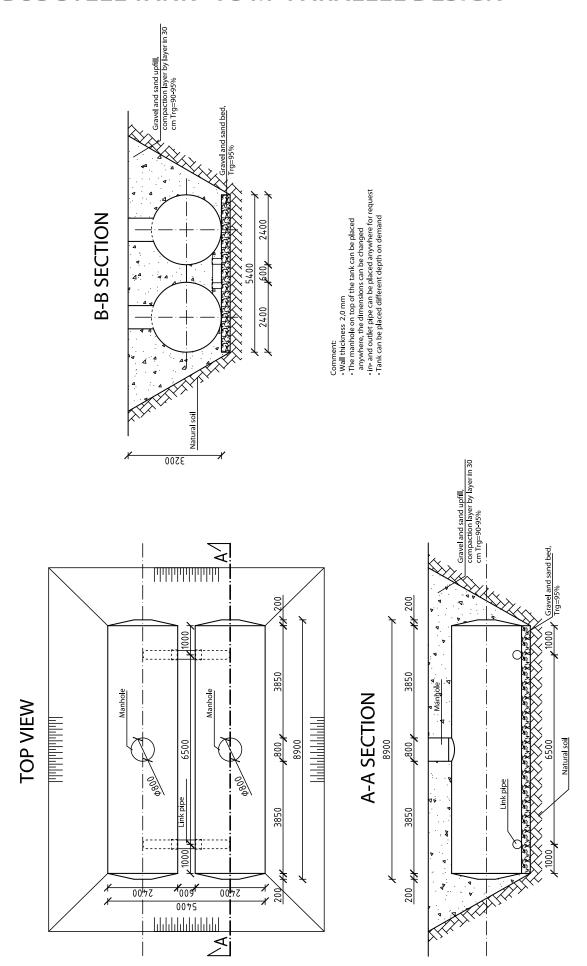
TUBUS STEEL TANK - 50 M³ LINEAR DESIGN



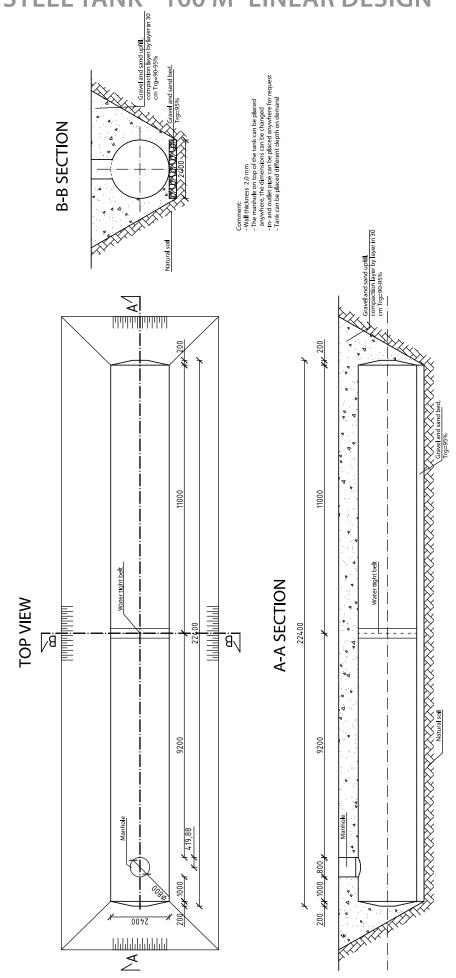
TUBUS STEEL TANK - 75 M³ LINEAR DESIGN



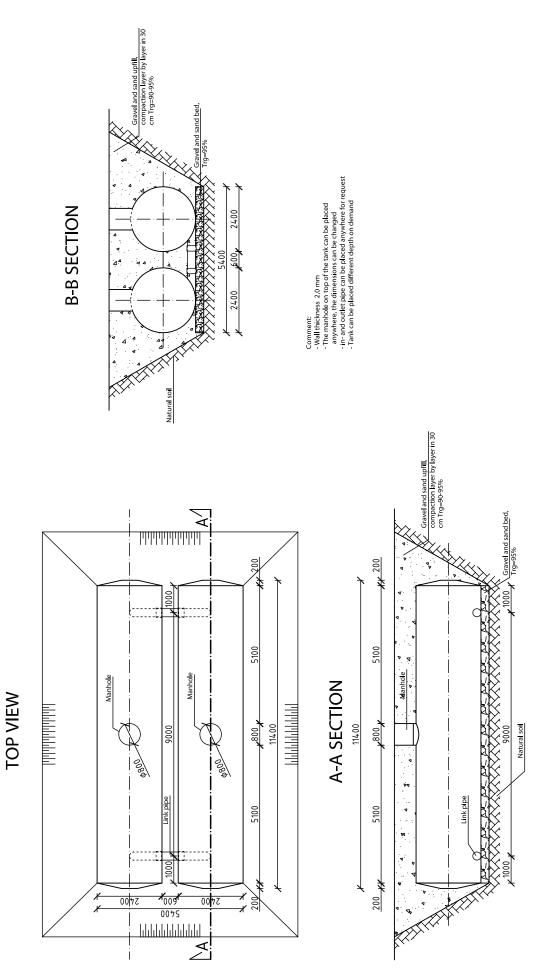
TUBUS STEEL TANK - 75 M³ PARALLEL DESIGN



TUBUS STEEL TANK - 100 M³ LINEAR DESIGN



TUBUS STEEL TANK - 100 M³ PARALLEL DESIGN



HELIBORE INSTALLATION GUIDE – TUBUS

- 1. Bed pipe on pre-shaped bed.
- 2. Where gaskets are being used, the gaskets should be placed around the pipe ends, equally over the joint. Overlap the gasket at the crown of the pipe and fix in place with double-sided tape. Lightly grease the inside face of the coupling band with the pipe grease provided.
- 3. Place bottom segment of the band with the band dimple seated into the second corrugation of the re-rolled section of the pipe.
- 4. Bed next pipe so that it's second re-roll corrugation seats into the band dimple.
- 5. Place the second part of the band over the pipe ensuring a good and even seating of the band dimple into the second re-roll corrugation of each pipe.
- 6. Locate the M12 studs provided through the lugs and loosely tighten the nuts ensuring that the curved face of the saddle washers sit into the radius of the lugs.
- 7. Tighten down the nuts on the studs, evenly on each lug at both sides of the pipe. If necessary "dress" the band with a small rubber mallet while tightening.
- 8. Inspect internally to ensure uniform contact with the GASKET, IF GASKETS ARE USED.

It is important that the pipes are laid at a constant grade and line relative to each other. Any significant deviation from line and level will create problems in locating and tightening the coupling band. The larger the pipe diameter, the more important true line and level will be.

Where bitumen paved inverts are installed, there might be a tendency for the pipes to assume a slightly egg-shaped profile during lifting and handling. This should be monitored when the pipes are placed end to end prior to positioning the second or third segments of the coupling band. If there is a poor match in terms of shape then the pipe ends should be jacked into shape by the use of Acrow props or similar and held in a true circular profile whilst the coupling bands are placed and tightened and if needed be left in position until backfill is placed. All pipes over 1.4m diameter have match marked ends and each pipe is marked with a pipe sequence number

NOTES:

- 1. When calculating access shaft heights Tubosider allow 500 mm between finished cover level (FCL) and top of shaft.
- 2. The 500 mm is typically made up of a concrete "biscuit" in course of bricks and a steel manhole frame. Any discrepancy can be taken up within the brickwork.
- 3. Prior to placing the "biscuit" the top of the shaft should be wrapped with denzo or polystyrene and the concrete ring should be cast with the top approx. 50 mm above the top of the shaft. The "biscuit" should then be bedded onto the concrete ring.
- 4. Concrete ring, "biscuit", bricks and steel frame supplied by others

HANDLING MANUAL - TUBUSOSIDER

Maintenance

The Tubosider product itself requires no maintenance. Tubosider products have a minimum design life of 60 years, the design life can be extended to suit individual project requirements.

The Tubosider product has been specifically designed with manhole access points with ladders, to gain entry to the system and it is the system that will require inspection.

The frequency of inspection will vary from project to project. We would recommend that the first inspection is carried out 12 months after the product has been installed. Over a period of time all attenuation tanks will have a very gradual build up of silt, the level of build up needs to be monitored and from this information the frequency of inspection can be deicide.

A gully sucker can be used to remove any silt build up or this can be done manually.

The tank inspection needs to be carried out by someone who has successfully completed a confined space training course.