

## SYNERGY WASTEWATER TREATMENT PRODUCTS

### PUMP SUMP INSTALLATION DETAILS Sheet 1 of 2

**Please read and understand the following instruction before commencing the installation. These instructions are of a general basis and are not intended to cover ever eventuality or site specific issues. Failure to follow these instruction and good building practices may compromise the structural or operational integrity of the system supplied.**

#### DELIVERY

**Please check that the items delivered correspond with the delivery notes**

The client or their appointed agent is responsible for the offloading of the equipment in a safe and proper manner by suitably trained personnel.

During storage on site, the tank should be placed on a firm level base avoiding all possibility of accidental damage. On exposed sites or in windy conditions the tank should be tied down and chocked to prevent damage to the unit or any persons. Synergy Wastewater Treatments cannot be held responsible for damage to the tank or property, once the delivery vehicle arrives on site. Any suspected damage should be reported to the delivery driver and stated on the delivery note prior to offloading.

Should you have question relating to the installation of the unit please contact us.

- Excavate to the dimension of the tank allowing another 225mm minimum to all sides and 300mm to the base. Level the base of the excavation, and ensure that the excavation is free of any sharp materials which may puncture the tank walls.
- In wet ground conditions it is important to keep the excavation dry during the installation until the concrete backfill has fully cured. It is recommended that in high water table site that suitable de-watering equipment is made available prior to commencement of the installation.
- Pour concrete base to a level of 300mm; allow for an initial set the lower the tank into position, taking care not to damage the unit. Line up inlet / outlet and any other connections which are to be made.
- Stabilise tank in the require position. Take care not to distort the tank.
- Commence back filling with concrete at a maximum of 500mm lifts allowing an initial set before commencing the next poor. ***(Do not discharge concrete directly onto the body of the tank)***.NB Ensure that the tank is filled with water maintaining equilibrium between the level of the concrete and the ballast water. Do not allow concrete to enter the tank, place any temporary covers over tank openings/apertures.
- Ensure that the concrete backfill is worked underneath and around tank to prevent any voids, compacting each stage by hand. **Do not use vibrating pokers**, over zealous compacting may result in the tank being distorted.

## INSTALLATION INSTRUCTIONS CONTINUED sheet 2 of 2

- Connect pipe work connections. Tanks supplied with loose turret(s) should be placed in position and a water proof seal made between the mating surfaces using a propriety mastic sealant Sika Flex or similar. (This is not of Synergy W.T.P supply). NB it is the responsibility of the installer to effect a water proof seal to prevent **any** ground water entering the tank.
- Continue with the concrete back fill until the tank is fully encased with a minimum of 225 mm of concrete. On tanks supplied with turret(s) remainder of the back fill may be carried out with a free flowing granular back fill (Not Sand)
- In high water table areas a weighting slab may be required. If the tank is in an area of traffic or other superimposed loads then a full structural slab should be cast over the tank to prevent such loads being imposed on the tank structure. The structural slab should be designed by a suitably qualified Civil Engineer. Synergy W.T.P regrets we are unable to assist with the design criteria of the Structural Slab.

**Pump Stations with 'Free Standing' Pumps.** The Pump and riser pipe work are disconnected from the outlet connection, for transit. Lower the pump & riser pipe into the chamber. Apply some general-purpose grease, to both faces of the galvanised union, and to the threads of the union. **Do not overtighten the galvanised union,** this only need be a little more than hand tight. We recommend that you connect the internal pipework, prior to connecting the rising main on the outside. Avoid standing on the rising main or subjecting it to any other loading as this may distort the tank wall making the internal pipework connection misalign. Where pump lifting chain(s) are supplied attach the upper end to the eye bolt provided. Keep the chain reasonably taught to prevent excess chain interfering with the operation of the float switch(s).

**Never reduce the size of the Outlet on the sump (40mm ID for effluent, 50mm ID for Sewage Minimum). Unless stated otherwise on a particular contract.**

We recommend that the threads on the union(s) be greased before Tightening.

### **Note**

Recommended Equipment & Materials

- 1) Normal construction Plant & Machinery of a quality reliable nature.
- 2) Concrete to 20 Newton's/mm 55-75 slump
- 3) Adequate supplies of water capable of maintaining equilibrium with the back fill process.
- 4) De-watering equipment where required.
- 5) An adequate supply of qualified professional labour.

These Installation Instructions are intended as a guide. All installations should be carried out observing the Health and Safety at Work Act, and good building practice. Excavations should be carried out in accordance with BS 8000-1:1989.

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**E&OE**