

Typical Pump Tank Detail

1. The pump tank shall have a watertight access manhole (minimum diameter of 24 inches) with a removable lid located over the pump. The manhole access shall extend a minimum of 6 inches above finished grade.
2. Pump and control circuits shall be provided with manual circuit disconnects within a watertight, corrosion-resistant, outside enclosure (NEMA 4X or equivalent) adjacent to the pump tank, securely mounted at least 12 inches above finished grade. The pump(s) shall be manually operable without requiring the use of special tools or entrance into the tank for testing purposes. Conductors shall be conveyed to the disconnect enclosure through waterproof, gasproof, and corrosion-resistant conduits, with no splices or junction boxes provided inside the tank. Wire grips, duct seal, or other suitable material shall be used to seal around wire and wire conduit openings inside the pump tank and disconnect enclosure.
3. The pump tank shall have a properly functioning high-water alarm. The alarm circuit shall be supplied ahead of any pump overload and short circuit protective devices. The alarm shall be audible and visible by system users and included in the pump and control enclosure (Simplex or Duplex Control Panel).
4. A float tree shall be used for all systems requiring an effluent pump.
5. Float switches shall be secured to the float tree with stainless steel hose clamps. One clamp is required for each float installed. Plastic zip-ties and electrical tape will not be permitted for use.
6. The float switch for the high water alarm shall be set to activate within 6 inches of the pump-on level.
7. The pump-off level shall be set to keep the pump submerged at all times or in accordance with the manufacturer's specifications. A minimum of 12 inches of effluent shall be maintained in the bottom of the pump tank at all times.
8. The installer shall leave enough wiring inside the pump tank to allow for complete removal of the float tree without having to disconnect any electrical connections for the system.
9. The effluent pump shall be set on a concrete block placed in the bottom of the pump tank. The concrete block shall raise the bottom of the pump a minimum of 6" off of the bottom of the pump tank.
10. Pump discharge piping shall be of Schedule 40 PVC or stronger material and adequately secured.
11. The pump discharge piping shall have a properly installed check valve.
12. If required a 3/16" anti-siphon hole shall be drilled in the discharge piping between the pump and the check valve.
13. A threaded union shall be installed on the discharge piping inside the pump tank.
14. A ball or gate valve shall be installed on the discharge piping inside the pump tank. The valve shall be installed after the check valve and union.
15. All submersible pumps shall be provided with a corrosion-resistant rope or chain attached to each pump enabling pump removal from the ground surface without requiring dewatering or entrance into the pump tank.
16. A leak detection test to ensure that the pump tank is watertight may be required on two piece pump tanks.

*See drawing on back of this sheet for reference.

Typical Pump Tank Drawing
Not to Scale

