Underground Jacketed Storage Tanks

fts Tanks
For A Changing World

Certified System
Quality
ISO 9001
SAI GLOBAL

INSTALLATION GUIDELINES

F 1045 Rev B

1. Tanks installed in areas that will be subject to vehicular traffic shall be protected to:

   A) Minimum of 450mm of compacted backfill (refer to point 5 for specification) plus 150mm of reinforced concrete or 200mm of asphalt paving
   B) Maximum burial depth shall not exceed 2.1m of cover over top of tank.

2. Tanks not subjected to traffic loads must have a minimum cover depth of 600mm of backfill or 300mm of backfill plus 100mm of reinforced concrete or 150mm of asphalt. Tanks in HIGH WATER AREAS not subject to traffic loads must have a minimum of 920mm of backfill over the top of tank.

3. The foundation for the tanks should be suitably graded level and have 300mm of approved crushed stone or pea gravel (refer to FTS BACKFILL GUIDELINES for specifications). The tanks shall be encompassed by approved backfill, free from foreign matter.

4. Minimum spacing between the side and end cap of the tank and the side of the excavation must be 450mm (600mm for 3.5m tank). Where soil will not maintain a vertical wall, the excavation must allow a minimum space equal to ½ the diameter of the tank between the side and end cap of the tank and the excavation wall. Spacing between adjacent tanks to be a minimum of 450mm.

Note: Spacings are minimum and must be increased as needed to accommodate Deadmen or Anchor Slabs. Always allow sufficient clearance to allow the Deadmen to be set outside of the tank shadow.

5. Backfill material must be self compacting material ie, crushed stone or pea gravel in accordance with FTS' backfill published guidelines. Compact bedding and backfill materials to ensure adequate support of the tank. To prevent voids, deflection and to achieve the correct degree of compaction, all the backfill materials should be carefully and properly placed under the lower quadrant of the tank before ballasting.

6. After backfill is placed to the level of the top of the tank, it is recommended that ballast be added until the piping and installation is complete. Never allow ballast to be at a higher level than the surrounding backfill.

7. In the event a tank may "Float" or become buoyant due to flooding or a rise in the water table, anchor precautions, such as hold down straps, should be considered. FTS recommends for 2.2m and 2.8m tanks, deadmen 300mm wide x 300mm deep x 300mm longer than the overall dimension of the tank. For 3.5m diameter tanks deadmen should be 45mm wide x 300mm deep x 300mm longer than the overall length of tank.

Note 1: Bottom anchoring is the only acceptable method of anchoring. Pea gravel/crushed stone is FTS' preferred backfill materials. Y16 reinforcing to be used in hold down deadmen.

Note 2: For detailed instructions refer to PEI recommended practices 100-97.

Glasteel II Tanks