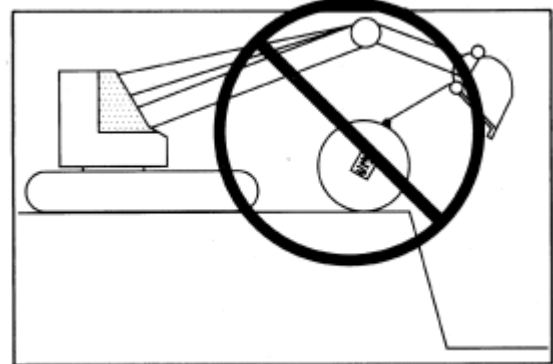


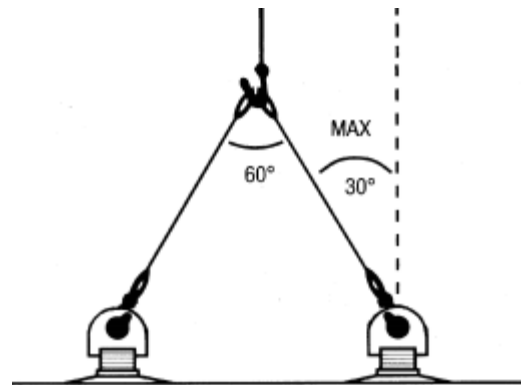
1.0 EXCAVATION AND BEDDING

- 1.1** The bottom of the excavation shall be covered with a minimum of 300mm of bedding, suitably graded and levelled. Bedding and backfill material surrounding the tank, to a width and depth of 300mm all around the tank, shall be clean material.
- 1.2** Where anchoring by means of a concrete pad, the tank shall not be placed directly on the pad. Bedding material at least 150mm deep must be spread evenly over the dimensions of the pad to separate the tank from the pad
- 1.3** Bedding and backfill material shall consist of homogenous pea gravel crushed stone, clean sand or natural earthen materials. Crushed stone, clean sand and natural earthen materials shall be capable of passing 100% through a 13mm sieve. Pea gravel shall be no larger than 19mm. The materials shall be free of all foreign materials, such as but not limited to, bricks, metals, concrete and plastics.
- 1.4** The backfill material may be from the tank site if it meets this description, or it may be delivered to the site from another source.
- 1.5** Sand or natural earthen materials used as backfill shall be placed into the excavation in 305-458mm vertical lifts, compacted after each lift, at least 60% up the vertical height of the tank.
- 1.6** In a tidal area, the tank "bedding" material shall be crushed stone or pea gravel. Sand and natural earthen material may be used only if measures are taken to prevent washout of material during the design life of the system.

2.0 TANK HANDLING & PREPARATON



- 2.1** Equipment to handle the tank shall be of adequate size to lift and lower the tank without dragging and dropping to prevent damage to the tank.
- 2.2** The tank may arrive with factory installed removable lifting lugs for tank handling. Make sure lifting lugs are secured to the tank and positioned properly, parallel to the longitudinal centreline of the tank, before using.



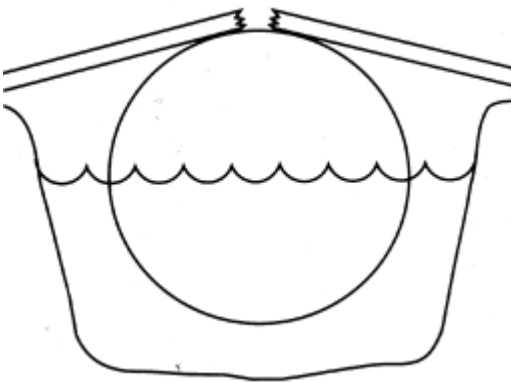
- 2.3** The tank shall be carefully lifted and lowered into the excavation hole by use of cables or chains of adequate length attached to the lifting lugs provided. A spreader bar shall be used where necessary. Do not use slings, chains or cable around the tank to lift it. Do not roll or drag tank.
- 2.4** The angle between the vertical and one side of the lifting cable must not exceed a 30 degree included angle. Lift tank only at designated lift points with the lift lugs provided by the tank fabricator. Lift points are designated either by a sticker or by the presence of a lifting device.

- 2.5 Care shall be taken to prevent impact of the tank with any objects which can damage the tank, including concrete pads, deadman anchors, other tanks tools and compaction equipment. Use of tank guide lines attached to lift lugs will provide a means of manually controlling tank movement and placement.
- 2.6 Do not store or place tank on sharp objects or debris. Use non-abrasive cushion-type chocks (i.e. rubber tyres) to prevent tank movement during storage. For high wind conditions the tank should be tied down using non-metallic straps.

3.0 TANK STORAGE

- 3.1 If the tank must be temporarily stored, prior to installation, it should be placed in an area away from activity where tank damage could occur.
- 3.2 Factory-installed protective padding material on the tank should remain on the tank until it is ready to be placed in the excavation. Set the tank on the ground such that the protective material is between the tank and the ground. Installation in the excavation with the protective material is optional.

4.0 ANCHORING TANK



- 4.1 High water tables or partially flooded excavation sites exert significant upward buoyant forces on tanks. Buoyant forces are partially resisted by the weight of the tank, the backfill and the pavement on top of the tank. Additional buoyant restraint, when required, is obtained using properly designed hold-down

straps in conjunction with concrete hold-down pads or Deadman anchors. The use of steel cable and round bar as hold down straps on the tank is prohibited. Galú should be informed prior to manufacture if anchoring straps are required. Anchor points will then be designed into and clearly marked on the tank. Do not over tighten hold-down straps beyond snug and do not re-tighten hold-down straps after ballasting.

5.0 BACKFILL

- 5.1 Homogeneous backfill similar to bedding material shall be placed carefully around the entire tank to create a uniform homogeneous environment.
- 5.2 Special care shall be taken when installing backfill along the bottom sides of the tank to ensure that the tank is not damaged and is fully and evenly supported around the bottom quadrant.
- 5.3 Special care shall be taken when installing backfill along the bottom sides of the tanks to ensure that the tank is not damaged and is fully and evenly supported around the bottom quadrant.
- 5.4 The backfill material shall be carefully placed and consolidated along the bottom, under the tank shell, by manually shovelling and tamping.
- 5.5 The initial 600mm of backfill shall be completed in 300mm maximum lifts, uniformly placed around the tank. Light hand-operated compaction equipment is recommended for all sand backfills to at least 950mm above the tank.

6.0 FINAL BACKFILL

- 6.1 Homogenous backfill shall be deposited carefully around the tank up to top of the tank and to a depth of at least 300mm over the to avoid damage to laminate, especially where tamping is required.

Disclaimer

These instructions are intended only as an aid to tank installers who are knowledgeable and experienced in underground tank installation. Compliance herewith does not necessarily meet the requirements of applicable state and local laws, regulations and ordinances concerning tank installation. Galú makes no warranties, express or implied, including but not limited to any implied warranties of merchantability or fitness for a particular purpose, as a result of these installation instructions.