

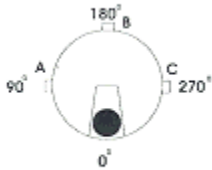
CHEM-TAINER

Tank Fitting, Install, Use and Safety Guideline

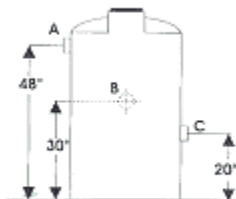
Specifying Fitting Locations

It is very important to be as precise as possible when specifying tank fittings and accessories. Location, type and size of fittings must be noted clearly on your drawing. If more than one fitting is being specified, mark each fitting with a letter A, B, C etc. Dimensional drawings are available for all tanks. Download a blank generic drawing and send or fax in with your order.

Vertical Bulk Storage Tanks



Plan View Calibration strip is at 0 degrees, in line with manway. Specify in degrees from 0 the location of fittings.



Elevation View Indicate in inches the height from the center of the fitting to the floor.

Example: Fitting A is at 90°, 48" up from bottom; Fitting B is at 180°, 30" up from bottom; Fitting C is at 270°, 20" up from bottom. Note: Use a dotted circle to indicate fittings which are on the opposite side of the elevation drawing (see fitting B)

Most Chem-Tainer vertical storage tanks have 8 x8 flat sections at least every 90 degrees along the circumference at the bottom of the side. These flats are ideal locations for bulk head fittings.

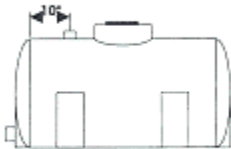
Horizontal Tanks



End View Round Horizontal



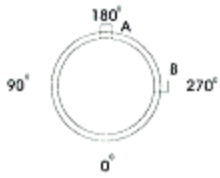
End View Leg Horizontal



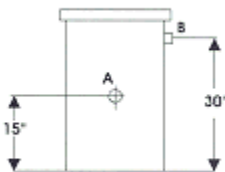
Side View

Drain fittings are generally located in one of the ends of the tank, close to the bottom. Indicate in inches any fitting(s) that are required in the top of the tank.

Cylindrical Open Top Tanks



Plan View if more than one fitting is being specified, indicate in degrees the location of the fittings.



Elevation View indicate in inches the height from center of the fitting to the floor.

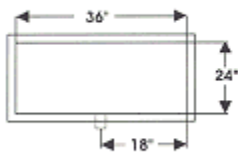
Example: Fitting A is at 180° , 15 up from bottom; Fitting B is at 270° , 30 up from bottom.

Note 1: Use a dotted circle to indicate fittings which are on opposite side of the elevation drawing (see fitting A)

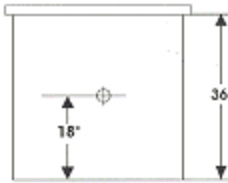
Note 2: Never include tank flange in your measurements.

Rectangular Tanks

Indicate width, length and height of tank using inches.



Plan View indicate in inches the distance from edge of tank.

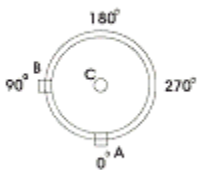


Elevation View indicate in inches the height from the center of the fitting to the floor.

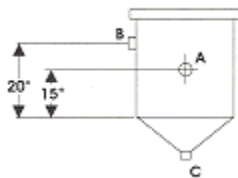
Example: 24 x 36 x 36 HT. Fitting is 18 in from side along the 36 wall, 18 up from floor.

Note: Never include tank flange in your measurements

Cylindrical Cone Bottom Tanks



Plan View if more than one fitting is being specified, indicate in degrees the location of the fittings.



Elevation View Indicate in inches the height from the bottom of the straight side to the center of the fitting. Do not include the cone. Stands have a lip 16 high. Consult sales office for minimum height of side fittings.

Example: Fitting A is a 0°, 15 up the straight side; fitting B is at 90°, 20 up from straight side; C is in cone flat.

Tank Handling, Installation & Use Guidelines

Although Chemtainer's tanks are extremely durable, improper handling and installation can result in damage to tank, fittings, and accessories. Failure to comply with handling and installation instructions voids all warranties.

1. At delivery, inspect your tank immediately for defects or shipping damage. Any discrepancies, or product problems, should be noted on both the driver's bill of lading and your packing list.
2. When unloading your tank from the delivery truck, avoid its contact with sharp objects. Forklift blades can cause significant damage if proper precautions are not taken. Do not allow tanks to be rolled over on the fittings. Large bulk storage tanks, whenever possible, should be removed from truck bed by use of a crane or other suitable lifting device. OSHA regulation 29CFR 1910.178 through 1910.189 addresses specific standards for hoisting and lifting. Keep unloading area free of rocks, sharp objects, and other materials that could damage the tank. If tank is unloaded on its side, carefully brace to prevent rolling.
3. Support bottom of tank firmly and completely. Concrete pads provide the best foundation. The pad should be clean, smooth, and level so it fully supports the entire tank bottom with no deflection. However, when seismic and wind factors are not being considered, tanks with a base load bearing of less than 800 pounds per square foot require a firm, even, compacted bed of sand, pea gravel, or fine soil that won't wash away. Tanks with a base load bearing of 800 pounds per square foot, or greater, require a reinforced concrete base. Steel support stands concentrate the loaded tank weight onto the stand leg pads. It is recommended that stands are mounted on a concrete base. Bolting of stands is necessary to prevent movement due to agitation, wind, seismic loads and accidental contact.
4. Install tanks in an area that is accessible. Ease of maintenance and removal should be considered.
5. Test by filling tank with water prior to use, to prevent material loss through unsecured fittings, shipping damage, or manufacturing defects. Tanks should be tested for a minimum 5 hours.
6. Plastic screw on bulkhead fittings are designed to be hand tightened. Overtightening can cause fittings to leak.
7. Support sides of rectangular tanks. In general, tanks with heights greater than 18" must be supported. However, specific applications must be considered: smaller tanks with contents that have high specific gravity and/or elevated temperatures must be supported. Some horizontal tank sizes may require support bands, see sales with any questions.
8. Do not mount heavy equipment on tank sides.
9. Do not allow weight on tank fittings. Fully support pipes and valves.
10. Use expansion joints to prevent damage at fittings from the differential expansion and contraction of the piping and tanks.

11. Tanks are designed for use only in the atmospheric storage of chemicals, never for vacuum or pressure applications.
12. Immersion heaters should never touch the walls of the tank. Minimum spacing should be 3" – 4" from wall.
13. Refer to the chemical capability chart on this site as a guide. Be certain tank, fittings, and fitting gasket material are compatible with chemicals at the anticipated operating temperatures. Contact our technical staff for information on chemicals not listed, or when uncertain conditions exist.
14. Protect tanks from impact, especially at temperatures below 40 degrees F.
15. Confined spaces must be considered hazardous. Do not enter tank without first taking proper precautions.
16. Tank sizes as listed are nominal and calibrations on molded tanks are only approximates, but provide an indication of volume. Polyethylene tanks expand and contract which will effect volume. The degree in which this occurs depends on the size of the tanks, wall thickness, specific gravity of contents, temperature of contents and ambient temperatures.

SAFETY CHECKLIST

- Confirm chemical compatibility of product being stored with that of the polyethylene tank and fittings.
- Tanks are to be used at atmospheric pressure only. Make sure tanks are vented as required to prevent pressure or vacuum from developing.
- Prevent excessive heat near or inside the tank. Polyethylene tanks are designed for a maximum continuous temperature of 70° F.*
- Have and use Material Safety Data Sheets (MSDS) for the product being stored.
- Regard tanks as confined spaces. Follow proper entry procedures.
- Do not stand on tank domes as the surface is flexible and slippery.
- Do not move tanks while holding liquid and never allow personnel under a tank when it is being lifted!

INSTALLATION CHECKLIST

- Locate the tank wisely. Protect personnel from chemical danger in the event of a leak and protect the tank from traffic damage and excessive heat. Tanks are designed for above ground use only.
- Utilize adequate secondary containment according to particular chemical danger and governmental and industry requirements.
- Fully support the entire bottom of the tank on a clean, smooth concrete foundation. Failure to provide proper foundation and support constitutes a misuse of the tank and will void your warranty.
- Fill the usable capacity of the tank with water and hydro test up to a minimum of 5 hours after installation and before product is introduced to ensure tank and fitting integrity.
- Install labels for chemical warning that complies with all local, federal and OSHA requirements.

OPERATING PARAMETERS

- Temperature - Tank specific gravity ratings based on product temperature of 70° F.
- Pressure - Atmospheric pressure must be maintained in tank at all times; vacuum must = 0.
- Make sure tank is properly vented for the type of material and flow rates expected.
- Plumbing - Flexible connections REQUIRED to preserve warranty.

MAINTENANCE GUIDELINES

- Tanks should be inspected on a routine basis.
 - Clean the exterior and interior of the tank. You cannot properly inspect a dirty tank.
 - Inspect the exterior and the interior of the tank for cracking and brittle appearance.
 - Pay particular attention to areas around fittings and where different planes of the tank radius into one another.
 - A bright light source should be used to inspect the interior from the man way opening to avoid a confined space entry.
 - Inspect fittings and exterior gaskets for leaks and signs of general corrosion and deterioration.
- * EXTREME CAUTION: Consult Customer Service on any applications where continuous use is above 70° F.

DISCLAIMER: Gallonage/size disclaimer volume and unit measurements are subject to variations due to thermal expansion, contraction and general molding tolerances