

FLEXITANK INSTALLATION GUIDE



**INNOVATIVE
SOLUTIONS**

WARNINGS BEFORE INSTALLING AND USING A TECHNO-TANKS FLEXITANK

- Dangerous goods, hazardous materials, or any cargo classified as dangerous under applicable transport regulations must not be loaded into or transported using the flexitank under any circumstances.
- Installation must be performed only in a reinforced 20' ISO container with a minimum payload capacity of 30 metric tons.
- The flexitank must be inspected to confirm it is in proper condition and free from visible damage or defects.
- Installation requires a 3-inch female quick coupler or compatible camlock connection.
- Ensure the cargo to be loaded is fully compatible with the flexitank being used. Verification of cargo compatibility and compliance with all applicable loading tolerances, operational procedures, and transport regulations are solely the Customer's responsibility.
- The loaded volume must not be less than 97% nor exceed 103% of the flexitank's rated capacity. These are manufacturers and COA operational requirements. For cargo volumes outside these tolerances, contact Techno Group prior to loading.
- The liquid temperature during loading must not exceed 60°C (140°F).
- The maximum permitted loading rate is 500 liters per minute.
- Flexitanks are designed for single-use transportation only and must not be reused. Reuse significantly increases the risk of rupture, leakage, or operational failure.
- Flexitanks must be within their valid shelf life and are not recommended for routes exceeding sixty (60) days of total transit time.
- Flexitank shipments should be insured by the shipper or cargo owner regardless of any manufacturer-backed insurance program.

*It is extremely important that the installer read, understand, and follow this manual. Compliance with these step-by-step instructions will help ensure that the cargo travels safely and reduce the risk of damage to the flexitank, cargo, and related equipment.

For any questions regarding the use or installation of a flexitank, please contact us at service@technogroupusa.com. The user is responsible for ensuring that installers and operators perform their work properly in order to minimize the risk of spills, damage, or operational failures. Insurance policies do not cover damages resulting from improper installation, misuse, or failure to comply with applicable operational procedures.

Techno Group may provide installer training and technical assistance through video conference, email, phone calls, or other reasonably available means to help ensure proper flexitank installation. For additional information, please contact us.

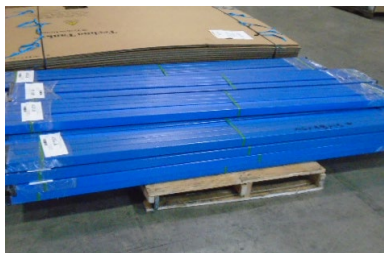
CONTENT OF YOUR FLEXITANK KIT

All flexitanks come with four main parts:

1. A box containing the flexitanks and all its accessories



2. 5 Metallic Bars



3. A Bulkhead and a valve support



4. Cardboard roll to dress the container and protect the flexibag



WARNING

Techno-Tanks is not responsible for any damages that might occur due to negligence or inadequate use on behalf of the operators, installers or shippers. We are also not liable for damages due to the improper storage of the flexitanks, nor for acts of vandalism nor for natural disasters or "Acts of God"

FLEXITANK INSTALLATION

INSTALLING FOR THE FIRST TIME?

If they have experience this manual can serve as a reminder. If it is your first time doing an installation please follow this manual as it guarantees a good installation.

If you want or need assistance there are several ways in which we can assist you. Contact us that we are at your disposal.

***Prior to installation of the flexitank , read the documentation at the end of this manual ***

I – REQUESTING YOUR CONTAINER

Ask the shipping company to send a 20-foot container in good condition. The container must have a net capacity of 30,480 kilos.



II - INSPECTING THE CONTAINER

1. Verify that the doors open and close easily.
2. The floor of the container must be smooth and leveled. The walls should be flat with no deformities.
3. All parts of the door such as levers, handles, locking mechanisms, etc.... should be present and operative.
4. Make sure that the CSC Safety Approval is on the container (Above Image)

NOTE: IF YOU SEE SOMETHING THAT IS DANGEROUS OR HAS THE POTENTIAL TO DAMAGE THE FLEXITANK MAKE A WRITTEN REPORT AND REJECT THE CONTAINER.



III – CLEANING THE CONTAINER

It's very important to make sure there is nothing inside the container that could potentially damage the flexitank. Thoroughly inspect the container with adequate light to make sure there are no dents, pronunciations, nails or solders that could puncture or cut the flexitank. If you find nails, remove them. For the walls, you can use the included tape to cover any sharp deformities in the container in an attempt to smoothen the surface and create separation between the flexitank and the rough edges.



IV – DRESSING THE CONTAINER WALLS

Using the cardboard roll, dress all internal walls and floor of the container. Remember that if you spot a nail or sharp edge you should remove it and/or cover it with tape before laying down the cardboard. (All the materials you need are included in your kit)

1. Cover the corners in the back of the container.



2. Cover the walls second and the floor at the end.



3. It should look like this...



4. *(If you will use a heatpad, proceed to install it at this point) Separate instructions.*

Place the box containing the flexitank on the container. Remove the accessories bag as you will use this later. Then extend the flexitank until it looks as it does in the left picture below. The 3" valve should be facing the front and located slightly off centered of the right door (when standing in front of the container)

We recommend that no shoes are used once you are working inside the container with the flexitank.

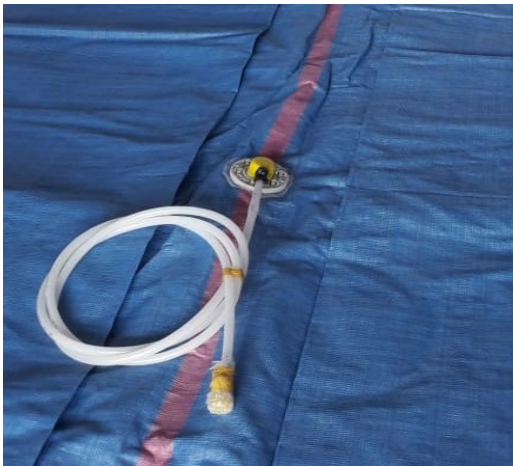
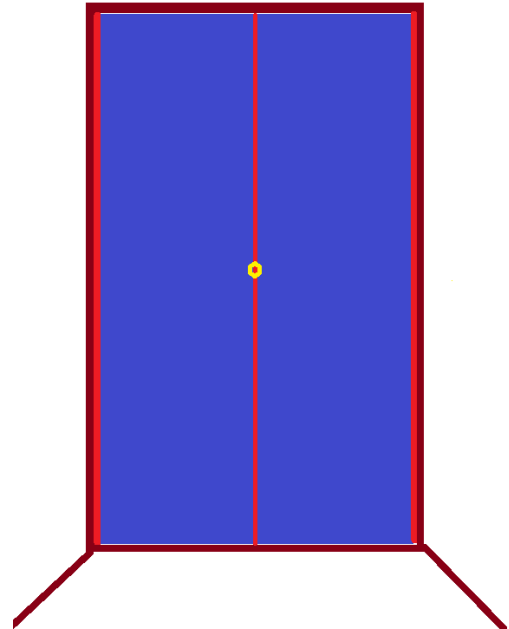
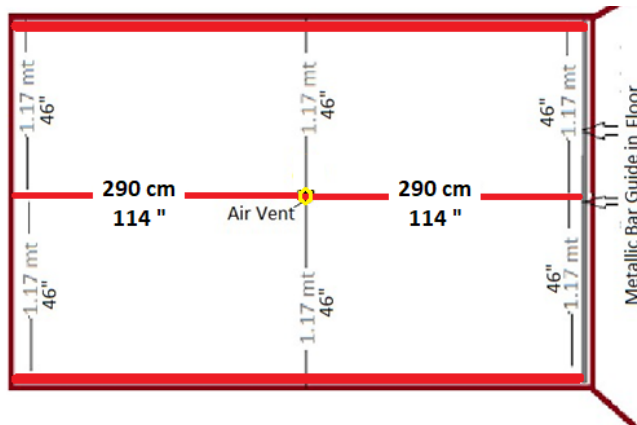


(It's normal for the flexitank to be larger and wider than the container. Position it with its foldings as shown above)

V – CENTERING THE FLEXITANK

Extend the flexitank as shown and center it using the red central line that runs through the length of the flexibag. The yellow air vent is the exact center of the flexitanks in terms of width and length. The distance from the air vent to the back wall or front doors is 290 cm / 114 in. The distance from the vent to the walls is 117 cm / 46 in.

Be careful when centering the flexibag, **DO NOT APPROXIMATE**. If the tank is not properly centered then you will not be able to close the valve upon loading it.



Release the venting hose, untangle it, and extend it towards the front of the container. Ensure the flange cap and the screw cap at the end of the hose are tightly closed. (Do not overtighten.)



Pass the hose through the security strap and lightly tighten the straps to secure the hose in position while still avoiding excessive pressure or restriction. Ensure the hose end and cap remain accessible near the front container doors for easy access and inspection.

VI – INSTALLING THE BULKHEAD

1. Fold the internal bottom part of the bulkhead towards the inside of the container right along the dotted line and then place the bulkhead in between the flexitank and the containers doors.



2. Place the plastic spacers starting with the smallest one (labeled #1) on the grooves located on each side of the container right before the doors. Over each spacer, mount a horizontal metallic bar and then repeat the process until all bars have been placed with the appropriate separation given by the plastic spacers. Follow the sequence of numbers as you go from the floor up.



3. You can put some tape on the spacers to secure them and prevent them from moving or falling as you set up the steel bars. You will notice that holes on the bulkhead are conveniently located at the height of each metallic bar. Use the tie wraps provided in the accessories bag to secure each bar to the bulkhead. This will prevent the bars from moving as you begin loading the flexitank.



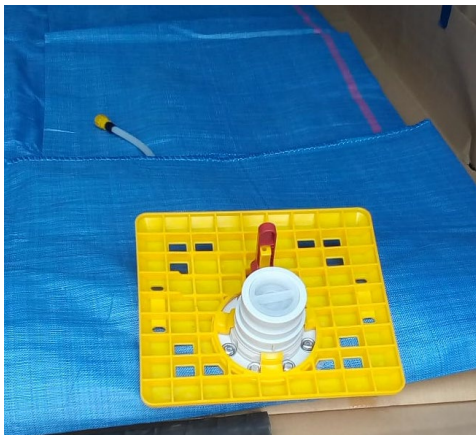
4. Your kit comes with 5 steel bars. There are 4 (2"x2") wrapped together. Inside one of this bars you will find one of that is smaller and adjustable. This bar must go first and it will be located on the floor of the container. This bar comes in two parts so you can easily fit it under the container hooks and secure it with the provided screw. To find the fifth bar gently shake the 4 bars until you find the one containing the fifth one. Then, remove the black cap from either side and extract the fifth bar.



5. Install the 4 black door bumpers right in front of the edge or frame of the left door. When the door is closed this bumpers must be resting against the door of the container. The bottom bar does not require a bumper (see image above)



6. Install the yellow valve support by pressing the valve through the hole of the valve support until you hear it clicks in.



7. A person standing on the inside of the container must place the yellow valve support with the valve in such a way that this goes through the hole on the bulkhead. Make sure it is properly centered and that the valve is straight and not tilted in any direction. Then secure the valve with the straps as shown below. (Straps in the accessories bag)



If there's a gap between the surface of the valve support and the bulkhead then the flexitank is not centered correctly and it is too far back. Make sure there are 290 cm from the vent to the bulkhead.

8. Remove the valve cover and open it by turning pressing on the trigger and turning it until it is facing forward.



9. Ensure the cap on the venting hose remains fully closed during operation and transport. The cap should only be opened momentarily to release accumulated air or gases if necessary. Before closing the container doors, verify that the vent cap is securely tightened and fully closed.



10. Connect your 3" loading hose or use a Camlock adapter if you have 2" lines. Make sure the connection is completely horizontal, secure the levers, place the safety pins and place some tape around the levers for added security.



VII – CLOSING DOORS AND LOADING LIQUID

1. Close the containers left door and secure it.
2. Load the flexitank up to its capacity. The max rate of flow is of 500 liters or 132 gallons per minute and a maximum pressure of 0.075 Mpa or 10.87 psi.

UNDER NO CIRCUMSTANCE SHOULD YOU OPEN THE LEFT DOOR IF YOU HAVE ALREADY FILLED UP THE FLEXITANK!

It is ideal and recommended to have a flow meter to establish when the flexitank has reached its capacity. Some users prefer weighing an unloaded container and then a loaded container to determine the volume in the flexitank. If you can't determine your load by any of these two methods you can alternatively use the following tips.

A

The moment in which the liquid starts to drain through the air vent hose is the moment you have reached max capacity. Shut off your pumps. If you loaded in excess, simply let the liquid drain out until it stops. Remember it's your responsibility not to exceed weight limits along your route of transportation.



If that happens, it is best to verify by using the distance method (B).

B

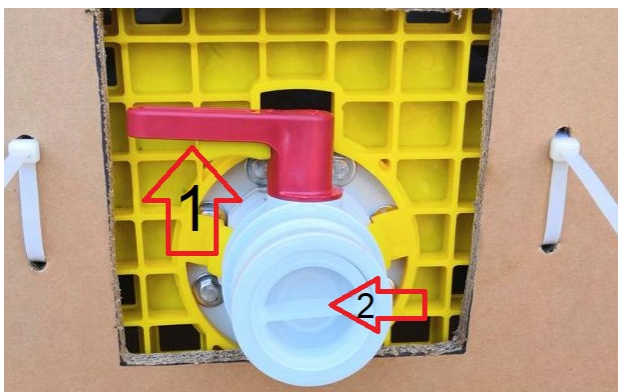
If your flexitank has a capacity for 24,000 liters, you can measure the distance from the air vent and the ceiling of the container. If your flexitank is for a different capacity use method (A).



It is always recommended to weight your container to establish your net cargo load. The tare of the flexitank is 96 kilos inclusive of all accessories.

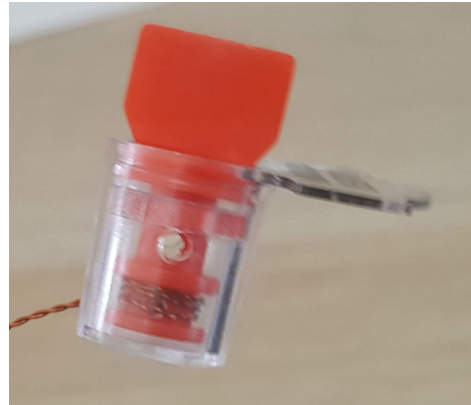
VIII – CLOSING THE VALVE

1. Make sure the pump is off and close the valve by turning it clockwise.
2. Screw the plastic stopper on the valve as shown below.
3. Make sure to clean up any liquid that might drip on the container once you're done and disconnected all hoses. Many ports will reject containers if they see any signs of spills.



IX – SEALS

1. Place the camlock cap and install the safety seal as shown below. (Take a picture of the seal and door lock once you are done)



2. Close the right door, secure it and place the lock as shown below.



3. Take a picture of the serial on the tank for your records.



DOCUMENTATION

Certain Techno Tanks Flexitanks may be supported by a manufacturer-backed insurance program covering approved claims involving verified manufacturing defects, including certain cargo losses and related third-party charges arising directly from an approved covered incident. Any coverage is subject to the applicable policy terms, exclusions, operational compliance requirements, insurer investigation, and insurer approval.

In order to preserve eligibility for any potential insurance or warranty-related claim, it is extremely important to maintain complete installation and operational documentation demonstrating compliance with all applicable installation procedures, loading tolerances, operational requirements, and transport conditions.

We strongly recommend maintaining the following records and images for every shipment:

1. Installed and empty flexitank prior to loading.
2. Flexitank serial number and identification markings.
3. Front interior of the container showing the bulkhead, both doors, and the upper and lower sections of the container.
4. Loaded flexitank showing the valve area, valve support, and overall fill condition from both upper and lower viewpoints.
5. Container door locking condition and seal information.
6. Container number, permits, shipping documentation, and loading records.

In the event of a spill, leak, incident, or operational irregularity, the vessel operator, shipping line, terminal, port authority, carrier, or other involved parties may issue notifications to the cargo owner or shipper. Immediate notification to Techno Group and all applicable insurers is critical in order to facilitate investigation procedures and preserve potential claim eligibility. Delayed reporting, incomplete documentation, alteration of evidence, or failure to preserve the installation condition may result in denial of warranty or insurance-related claims.

Techno Tanks Flexitanks have maintained an excellent operational history over many years of use. Nevertheless, operational incidents may occur due to numerous factors including installation errors, cargo incompatibility, transport conditions, operational misuse, third-party handling, environmental conditions, or other circumstances beyond Techno Group's control. Proper documentation, operational compliance, and adherence to all installation and handling procedures are essential to minimizing operational risk.