



# **G+L FLEXITANK OPERATION MANUAL LEAFLET**



THANK YOU, ARIGATŌGOZAIMASHITA, 謝謝  
TERIMA KASIH, SALAMAT, ຕ່ອມກຳ,  
**DANKESCHÖN, GRAZIE, MERCI,** جزءیال شکر ا  
□ □ □ □ □ □ □ □, KYAAYYJUUTAINPARTAAL,  
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# FLEXITANKOPERATIONS MANUAL

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## FLEXITANK SPECIFICATIONS:

24.000 Lt Flexitank 3" Ball Valve BL/BD 3 x 125mu + 1 PP	
4 Metal bar + 1 Adjustable steel Bar + PP door spacers + Paper Tubes	
Cardboard bulkhead with Cable Tie	
Corrugated paper	

## I. Container Selection

The Flexitank Operator is responsible for selecting a container that meets the quality requirements, as displayed in the Appendix 1 - "Container Selection Specification". This form should be filled out during the selection process.

### Container appearance

- The container should be 20" international standard with a recommended age of less than 3 years. The outer corrugations should be consistent should not have irregularities.
- The minimum tare weight of the container should be 23tons and the container load-bearing should be minimum 30,480 kg.
- The container should appear in good conditions without serious cracks, creases or repairing welding lines. The air vent should not be blocked and the container should be free from any types of residues and previous cargo odors. The floor of the container should be leveled, clean and free from splinters and protruding nails, screws and other elements. No damp floor stains should be visible.
- The inside walls should be free of bumps, sharps or rough welding points. In case, repair layers should be added in order to pad with tape, cardboard or corrugated paper. In addition, there should be no transferable stains, large areas of rust or crusty paint.
- The inside container doors should be clean and free of sharp points and edges. The locking catches, the door handles and the stops should be intact and well-functioning.



## II. Installation/ Fitting

### 1. The Fitting Operator should:

- Wear flat rubber shoes in order to prevent pebbles or sharp objects being carried into the container.
- Avoid wearing accessories or carrying keys during the flexitanks installation process.

## 2. Container inspecting and cleaning

- Open both container doors and sweep the floor, checking for any rough edges, nails, splinters, screw heads, or any other sharp point inside the container.
- Open the flexitank carton box and take out the plastic bag with adhesive tape and other useful tools to complete the fitting procedure.
- Cover any sharp point in the side walls and side lines of the container rear with adhesive tape and cardboard.

## 3. Container Lining with Corrugated Paper

- After rechecking for sharp objects, tape the container walls and floor area with corrugated paper.
- The paper roll should be spread starting from the left side of the container. Ensure that 20 cm of corrugated paper is kept above the container floor and there is an overlap where the corrugated paper on the floor meets the corrugated paper on the container side.
- The corrugated paper should first be lined in the container side wall and afterwards must be fixed on the top with adhesive tape. The tape should be affixed every five lines of container corrugation.
- Spread another roll of corrugated paper over the right side of container. Follow the same procedure as described for the left side container lining.





#### 4. Flexitank fitting

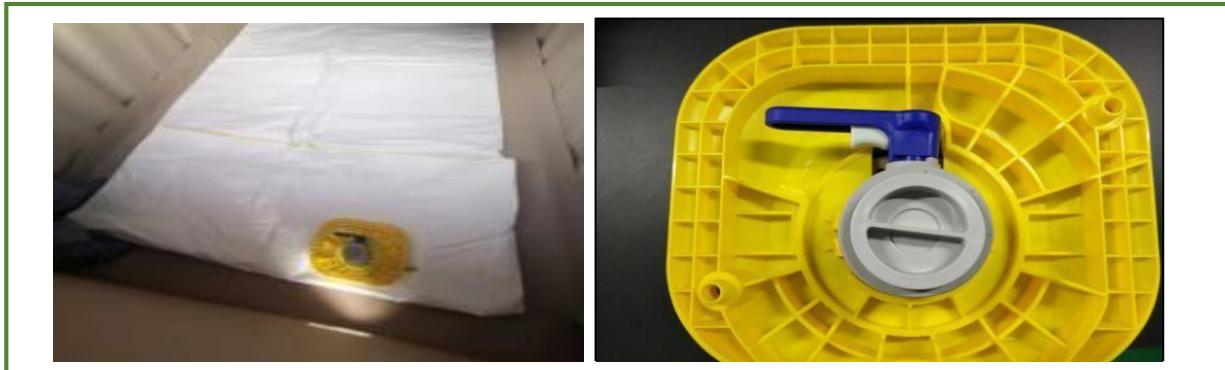
- After ensuring the corrugated paper are properly lined, proceed with the flexitank fitting.
- Take out the flexitank from the carton box and place it along the right side of container. Afterwards, roll the flexitank in order to open it to the front and rear of the container.
- Unfold the flexitank to the full length of the right side of the container.
- Unfold the flexitank to the left in order to have it centered in the container and it is spread along the whole floor area.



## 5. Bulkhead and Steel Bars Installation

- Place the Cardboard bulkhead in the container door.
- Install the bottom steel bar, which is connected by two short vertical bars, into the channel at the bottom of the container. Secure the inserts of the short vertical bars by implanting the black plastic nails into the bar slots.
- Place a single steel bar starting from the top of the bulkhead; repeat with second, third and fourth single bars.
- Insert the provided carton tube spacers into the side channel above the bottom steel bar; repeat with the rest of the steel bars.
- Using the zip ties(ropes) provided in the flexitank carton box, attach the cardboard bulkhead to the steel bars..
- Place the four Polypropylene door spacers on upper steel bars.
- Ensure the bulkhead holes are properly aligned with the steel bars.
- Ensure the valve is positioned correctly in the valve window in the bulkhead and the Polypropylene liner covers the valve properly.





## 6. Fitting process completion

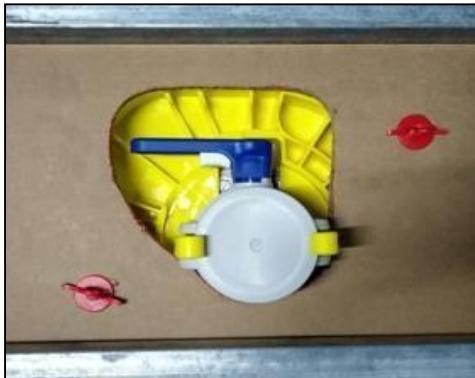
- Close the left door of the container.
- Stick the caution stencils on the container door and steel bar.
- Close the right door of the container.



### III. Flexitank Loading Instructions

The operator must carefully follow the loading and unloading instructions, as displayed in the Appendix 2 - "Flexitank Loading/Unloading Checklist". This form should be filled out during the loading and unloading process.

- Open the right side door only and ensure that the flexitank and bulkhead have not shifted during the transit and are positioned correctly in the container.
- It is very important to make sure that the left side door of the container remains closed during the whole loading process.
- Remove the dust cap and screw plug from the flexitank valve.
- Connect the female cam quick-release coupling to the flexitank valve male cam lock and ensure a proper seal is achieved. The hose connection should fit the flexitank valve, which is a 3" ball valve with a 3" male camfitting.
- Ensure the pumps are food grade approved in case of handling food grade products.
- A properly calibrated flow meter is required to ensure the optimum loading capacity. The flexitank should not be overloaded or under loaded, it is very important to confirm the approved loading quantity.
- Turn the flexitank valve handle to the open position, turn on the loading pump, and start loading.
- When flexitank has loaded till the appropriate capacity, turn off the loading pump and close the valve handle.
- After making sure the connector arms of the dust cap are in the proper locked position, close and lock right side container door.
- Ensure there is no presence of leakage.



## IV. Flexitank Unloading Instructions

### Container Inspection

- Before proceeding with the unloading, please inspect the appearance of container, check the locking handles on the left side hand container door and make sure that they are secure and in a locked position. Inspect the container and ensure there is any leakage.
- Check the seals condition in the container door and note down the seal numbers. Check the delivery receipt, the weight and type of the cargo and the necessary flexitank information in order to proceed with the discharging process.
- Ensure the left door of the container remains closed during the whole unloading process.



### Unloading Procedure

- After checking that the dust cap and internal cover of the valve are in normal conditions, remove dust cap from flexitank valve.
- Firstly, make sure the size of coupling on the connecting tube is the correct size and check whether it has inner seal ring and the thickness of inner seal ( $6\text{mm}\pm0.2$ ) is appropriate. Ensure the pumps are food grade approved in case of handling food grade products
- Connect the female cam coupling to the flexitank valve male cam fitting and adjust the cam arms to ensure a proper seal has been achieved. Ensure to firmly handle the coupling in order to confirm a complete inlet the opening of the valve.
- Turn the flexitank valve handle slowly to the open position and start the pump operations to unload. Let the cargo outflow slowly. The recommended discharging rate is  $\leq 700\text{liter}/\text{minute}$  ( $\leq 42\text{m}^3/\text{hour}$ ).
- The unloading staff is recommended to assist the whole discharging process and, if necessary, to be ready to intervene if any problem occurs.
- When the remained cargo in the flexitank is about 10cm from the floor level, two members of the discharging staff should enter in the container. This will not only allow to a better observation of the discharging process but also the staff can assist the unloading by rolling and lifting up the flexitank.
- When all the liquid in the flexitank is discharged, close the valve, turn off the suction pump and remove the coupling from the flexitank valve.



## V. Flexitank Disposal & Recycling

### Recycling

- For an environmentally friendly solution, the polyethylene and polypropylene materials used in the flexitank can be recycled under certain circumstances.

### Incineration

- Recycling and/or incineration are the preferred methods for flexitank disposal. The receiver should ensure that the flexitank is disposed at an authorized facility that complies with local environment regulations that apply to both the flexitank and the cargo it transports.

### Landfill Disposal

- Disposal in landfill facilities is considered to be a safe and approved method for flexitank disposal in most countries. Prior to landfilling, the valve and air vent should be removed from the flexitank and the flexitank itself should be cut into pieces (no larger than 1sq.m). The material can then be delivered to a designated and authorized company, which complies with local and environmental regulations.