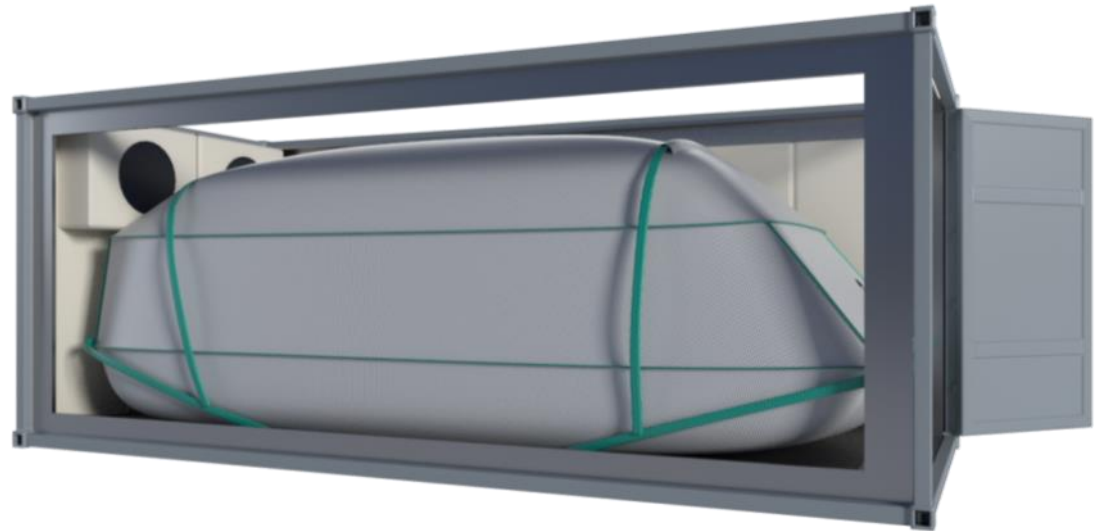


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Fitting Instructions Manual
R-Flex-20ft Reefer Flexitank

Rev05-230926

LiquA

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Contents of the Box



Open the R-Flex box and ensure that the following are in the package:

1. R-Flex
2. 4 x Steel Lashing Buckles (Optional)
3. 14 x Corrugated Plastic Boards
4. 2 x PP Lining Material for floor and side walls
5. Warning labels
6. 2 x Cable ties



The box will be used as door protection board. DO NOT throw it away!

Container Selection

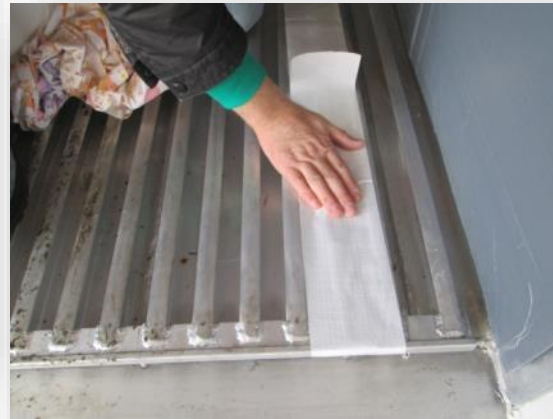
Ensure that:

- The reefer container is no older than 5 years.
IMPORTANT: The above is the requirement of Container Owners Assosciation. If it is not applicable ensure that below conditions are obtained.
- Reefer containers are clean, structurally sound and in excellent condition.
- The container is free of odor.
- The reefer container has no damage on the floor. The floor should be inspected / tested using a flat steel bar that will highlight any rough or sharp areas. The operator should test the floor both ways – towards the front wall and towards the door.



Container Preparation

- Any sharp objects or surfaces should be removed from the floor and the sides of the container. This should include loose sharp objects that might circulate when the reefer fans operate.
- Any sharp or uneven surfaces on the floor should be covered with a fabric tape. Nails, sharps or any other objects that may damage/puncture the R-Flex should be removed or covered with fabric tape to make it safe for the flexitank.



Container Lugs

Use the container lashing points if available between the outer most rails:

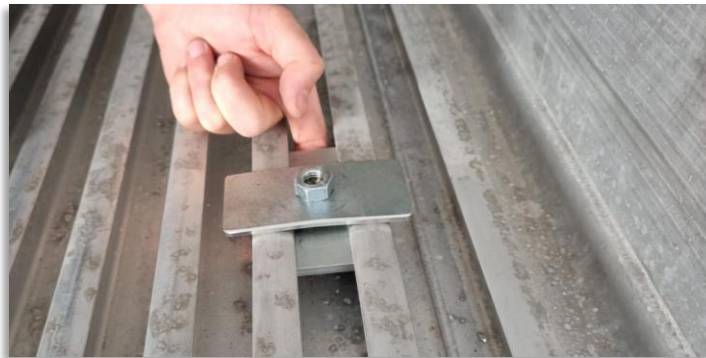
- The lugs should be between the outer most rails.
- The lugs should be on each side and at least 200cm from each end of the container.



| Buckles

If the reefer container does not have any lashing points between the outer most rails, use the buckles provided in the box.

- All 4 buckles must be fixed tightly, 2 pieces per side, to prevent movement of the R-Flex.



- Use a 19 mm (3/4") wrench to tighten the bolts.



Buckles

- Use a 19 mm (3/4") wrench to tighten the bolts.

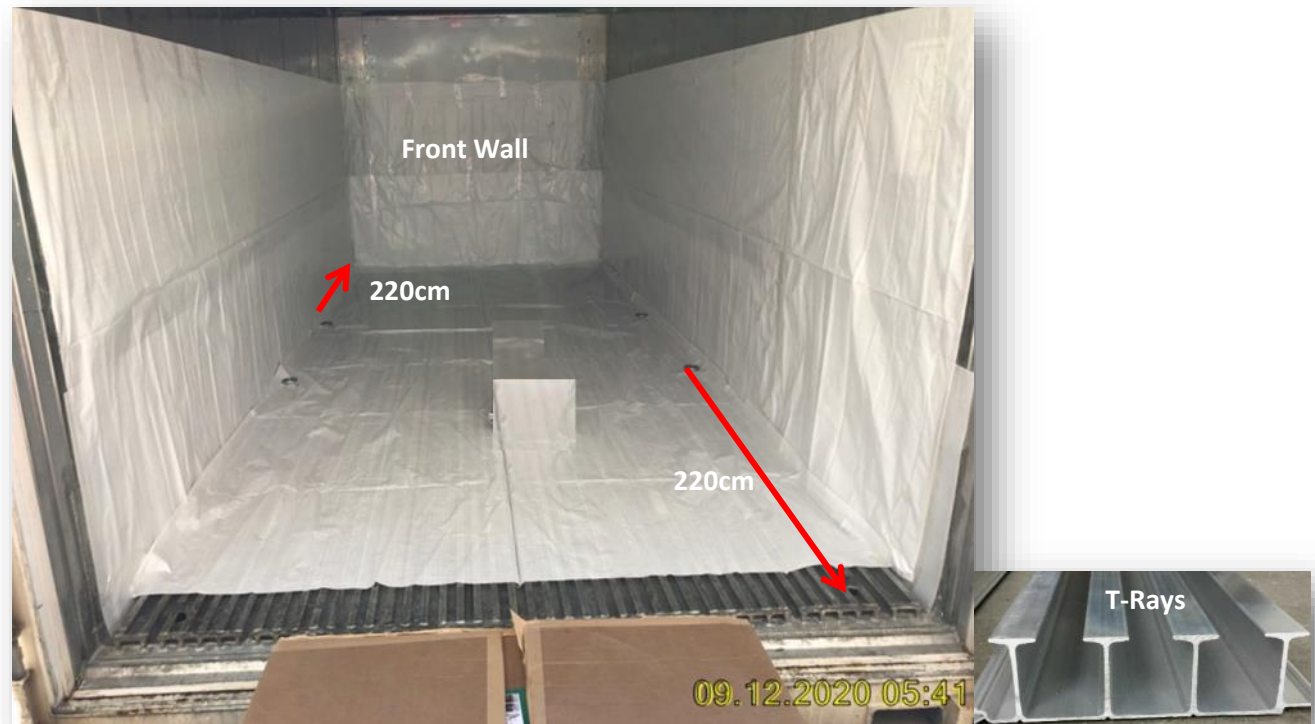


- Do not overtighten the floor fasteners.



Buckles

- Front wall buckles (opposite to doors) must be installed 220cm from the front wall.
- The door-end buckles must be installed 220cm away from the beginning of the floor T-Rays. Minimum allowed distance is 200cm from either end.



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Lining

- Cover the reinforcement/“kickboard” area on both side walls and the end wall as seen below with provided PP Flude Board Sheets. Ensure all edges are fully covered by tape.
- Ensure any remaining rough edges, joins, screws, surfaces are adequately protected by thick tape including the front wall.
- Cover any protruding areas such as finger holds in the front wall.



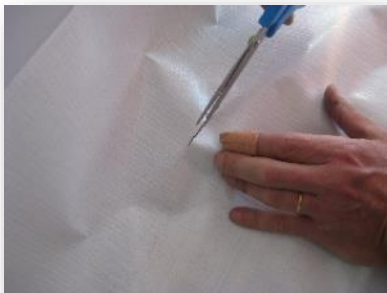
Lining

- Cover the supplied PP lining material on the side walls. **Ensure that the smooth surface is facing up.**
- Place the second supplied PP material on the floor. **Ensure that the smooth surface is facing up. Ensure the front of the liner is 25cm from the front edge of the container to allow optimal air circulation.**



Lining

- Secure the lining in place with strong tape that will withstand the reefer operation and temperatures.
- Carefully cut the floor liner and feed the 4 buckles through the PP.



Positioning the R-Flex

- Position the R-Flex leaning to the right touching wall on the right hand side.
- Unroll the R-Flex towards the front wall.
- Unfold the R-Flex towards the left wall.
- **DO NOT** step on the R-Flex with hard shoes.



Positioning the R-Flex

- Ensure the flexitank is centered in the middle of the floor of the container.
- Ensure the door end of the R-Flex is **25cm** from the inside of the closed container doors.



Belt Tying

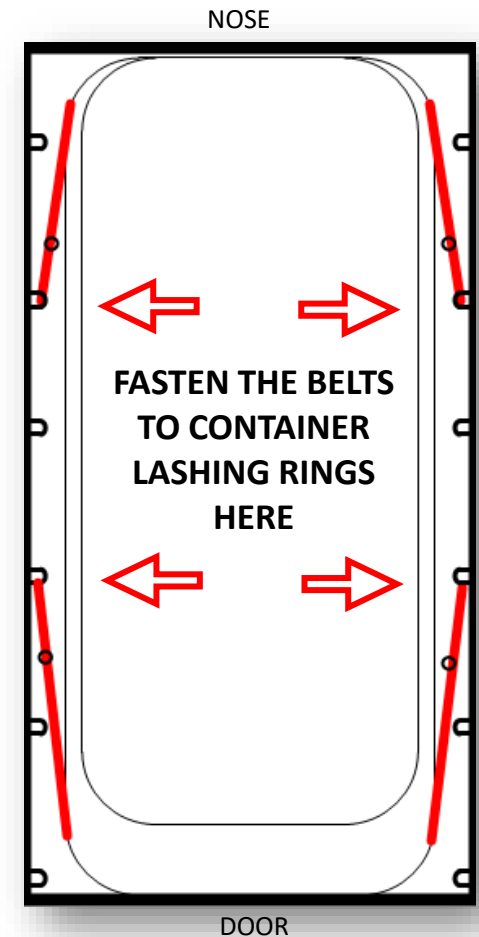
- R-Flex must be fastened to the lashing rings/buckles on the container floor in order to restrain the flexitank during the transportation.



Container Lug

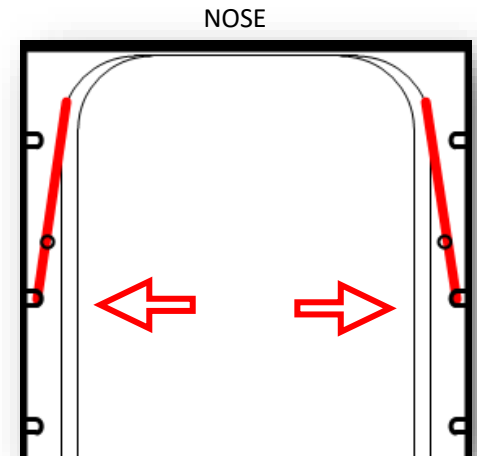
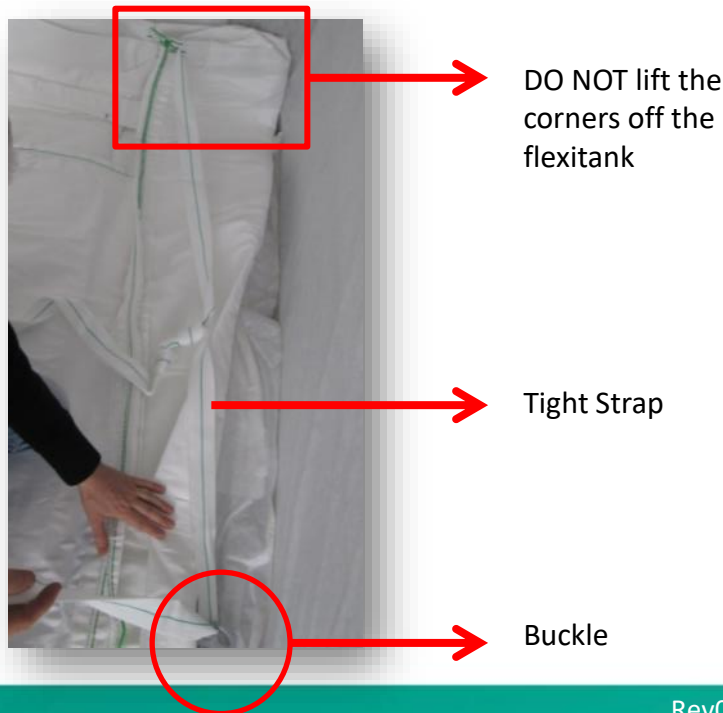


Buckle



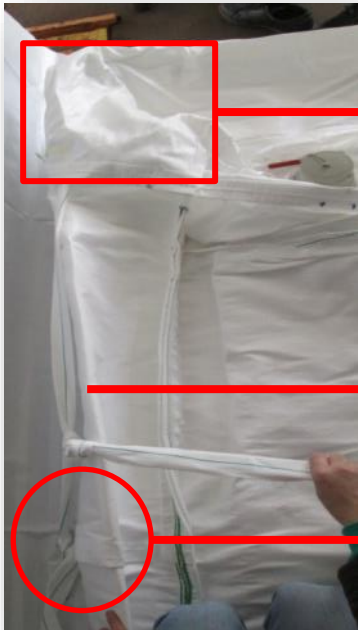
Front of the Container

- Tie the straps near the front wall as shown by the arrows.
- Ensure that the back of the flexitank is resting against the nose wall and that the straps are **tight** (but **do not lift** corners of the flexitank off the floor) and ensure the knots are secure.



Door Side of the Container

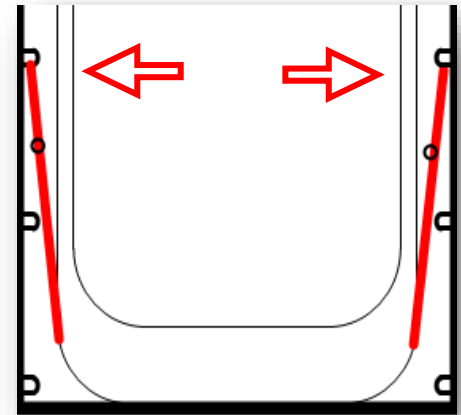
- Repeat the same lashing process at the door end.
- Ensure that the front of the flexitank is resting against the edge of the T-ray floor and that the straps are **tight** (but **do not lift** the corners of R-Flex off the floor). Ensure the knots are secure.



DO NOT lift the corners off the flexitank

Tight Strap

Buckle



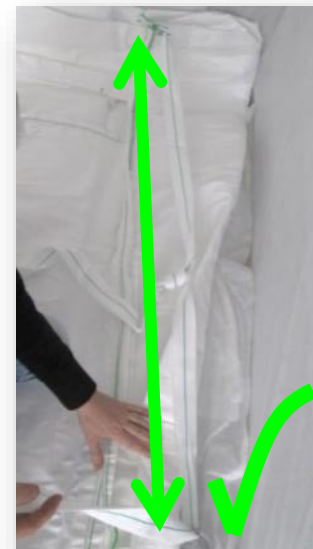
DOORS

Belt Tying

IMPORTANT:

Loose or improper tying will inactivate the harnessing system and may cause the R-Flex to shift/move towards the doors.

Also too tight/short belt tying may cause capacity loss and possible damages.



ENSURE THAT BELTS ARE TIED TAUT BUT NOT TOO TIGHT.

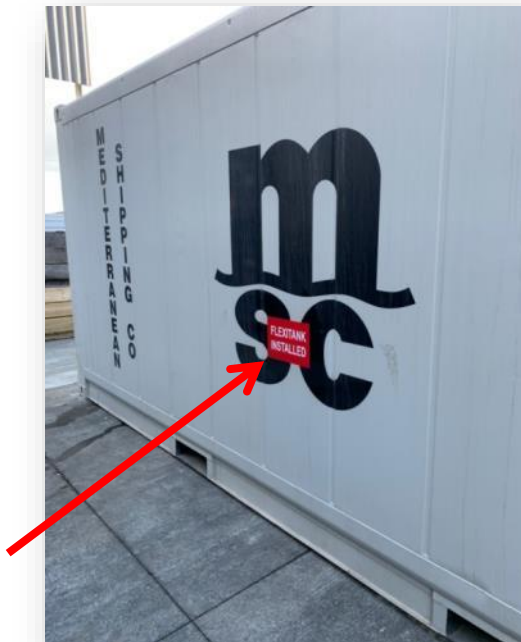
| Warning

IMPROPER FITTING MAY CAUSE CAPACITY PROBLEMS, INNER LAYERS MAY GET STUCK AND STRETCH. THIS MAY CAUSE SEVERE LEAKINGS. ONLY TRAINED AND LICENSED OPERATORS ARE ALLOWED TO FIT OUR FLEXITANKS.

IF FITTING OPERATION HAS BEEN PERFORMED AT ANOTHER LOCATION, PLEASE ENSURE THAT THE E-FLEX HAS NOT MOVED DURING LOCAL TRANSPORTATION.

Warning Labels

- Stick the warning labels on the side walls and the doors of the container.
- Clean the surface of the container prior to sticking the label for better adherence.



I FAQ

What happens if I don't tie the harnessing belts?

You may consider the harnessing belts of R-Flex like the seat belt of your car. If you don't buckle your seat belt and no accident happens during your travel, you arrive to the final destination safely. However in case of an accident, due to lack of seat belt, you may die or get severely injured.

Same principal is valid for R-Flex. If you don't tie the harnessing belts, nothing may happen until the final destination but in the event of an impact or accident, flexitank may shift towards the doors and cause a severe damage.

Also, when the container arrives to the final destination, flexitank may bulge out of the container at the time consignee opens the door. This might create hazard to the operators.

Ensure that harnessing belts are tied according to LiquA instructions.

I FAQ

Do I necessarily need to line every container with a protective material?

Yes...

We ask you to clean the container and inspect the sharp objects on the container surface very carefully. However, metal floor of the reefer containers may always have the possibility to contain sharp edges on the surface. Sharp edges as such may cause damage on the surface of the flexitank. We recommend lining the containers with corrugated plastic boards and pp woven material provided by LiquA.

IMPORTANT: Lining the container DOES NOT guarantee to protect R-Flex against sharp objects. Take necessary precautions before lining the container.

I FAQ

How important is it to position the R-Flex on the container floor correctly?

It is very important...

20ft containers have 32m³ free space in it and we use up to 24m³ of it. We ask you to position the flexitank 25cm from the inside of the closed container doors. If R-Flex is positioned wrongly towards the front wall, every 10cm will cause capacity loss of 1m³.

Also R-Flex stands on the floor as a two dimensional object. Layers open during the filling. Any mistake at the positioning of the R-Flex may cause inner layers to get trapped which may cause a rupture and leak.

Please follow this instruction very carefully.

I FAQ

If I shorten the belts, untie the knots or position the flexitank in a different location can I reduce the flexitank capacity?

No.

- DO NOT change position of R-Flex on the floor of the container.
- DO NOT untie the knots on the flexitank.
- DO NOT tie the harnessing belts to a different location other than shown on this manual.
- DO NOT change the foldings.
- DO NOT remove the guiding paper tapes on the R-Flex.

In the contrary, changing any of the above not only does not change the capacity but also creates a hazard which may end up with a leak. R-Flex is designed to be assembled as easy as possible. Our production team has already folded, knotted, taped and prearranged everything for an easy fitting. Do not change any of the above. Just unroll the R-Flex, position correctly and tie the belts to the proper lashing rings/lugs.

Changing any of the above DOES NOT reduce the capacity. Fill R-Flex within the tolerances mentioned at the label and datasheet.

Common Fitting Mistakes



DO NOT change the foldings



The belt tying must be 'taut but not tight'

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THANK YOU

LiquA Europe
Calle José Aguirre 40, Piso 3 Valencia España
CP: 46011
+34 91 1238506
LiquA Fabrika
Atabey Cd. No 28 Kat 1 Çekmeköy 34794 İstanbul
Türkiye
+90 216 312 8660

www.liquatrans.com

| info@liquatrans.com