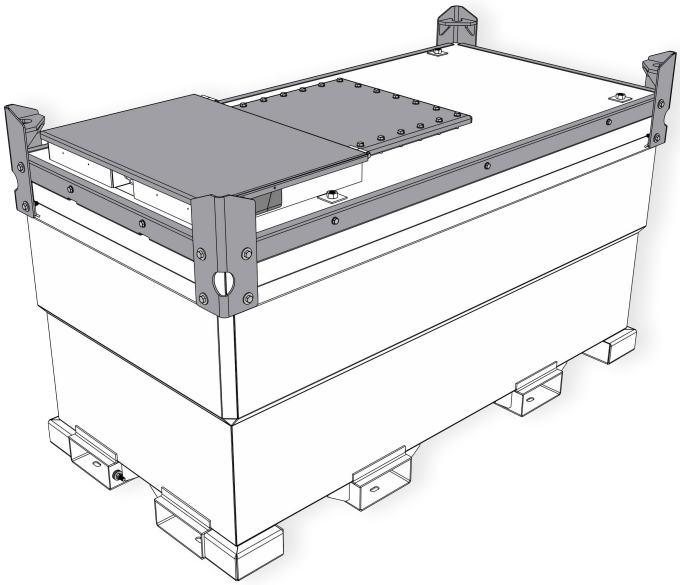
TRANSCUBE GLOBAL

Product Manual - WM001

WESTERN GLOBAL®

Response ready fuel solutions



Aboveground tanks for flammable and combustible liquids

MODELS: 05TCG, 10TCG, 20TCG AND 30TCG

NUMBER ONE IN FUEL STORAGE

From a farm to a rock concert, our customers have one thing in common. They need a cost efficient, environmentally secure and safe source of fuel that's reliable and ready to go.

Contents

Revision

Rev.	Change Description	Prep'd	App'd	Date
4	Legacy	PR		
5	Updated contents to current models and standards	PR	ST/DR	July 2024

Introduction

Please read the contents of this manual before use.

- View a complete list of topics in the table of contents. Click on a topic to navigate to that section.
- This document supports high resolution printing

Legends

THIS INFORMATION IS CRITICAL FOR SAFE OPERATION

IMPORTANT INFORMATION

- Ensure all operators are fully conversant with the procedures for lifting, loading, positioning, filling, maintaining and use of the tank.
- By understanding and following the information and procedures in this manual, your tank will give you many years of safe use.
- Certain information in this manual may be governed by law and is subject to change without prior notice. Great care has been taken to ensure that the information is correct at the time of publication.
- However, the owner's / user's sole responsibility is to ensure that they and the tank fully comply with all local legal requirements. Western Global cannot and will not accept any liability for any inaccuracy or incorrectly stated legal requirements
- Western Global reserves the right to alter product specifications without prior notice or obligation

Description

UN IBC 31A/Y – (IBC) Intermediate Bulk Containers

The TCG range of UN IBC 31A/Y tanks has been designed to enable the safe storage and transportation of Class 3 Flammable & Combustible fluids.

- The TCG conforms to UN/ADR, CDG Regs (UK), US DOT, and Transport Canada which allows the transportation of the unit containing fuel by rail/highway/road. There is no need to drain/empty the tank before transporting.
- Meets UL 142 and CAN/ULC-S601-14 standard of safety for storage of Class 3 flammable and combustible liquids.
- The TCG can be used as an auxiliary fuel tank, feeding generators etc., and for refuelling other equipment via a dedicated fuel pump.
- All pipework and pump systems are stored beneath a secure, lockable cabinet lid.
- To aid both transporting and handling, the TCG is fitted with forklift pockets and crane sling lifting points.
- Internal baffles ensure safe control of fuel movement when the unit is being lifted or transported.
- Containment (Bund) has a capacity exceeding 110% of the main tank's capacity.
- The design enables maintenance of the containment area without speciality equipment.
- The TCG has a comprehensive range of connection points to enable the attachment of various fittings and equipment.
- The TCG can supply fuel to multiple feed lines.

Western Global Tanks are design approved under various Global / International / National / Regional standards of safety[1]

[1] Speak to your local / regional Western Global office for applicable standards.

Sign-off form

- The equipment user should follow the general Safety Standards.
- Anyone who will be using and/or maintaining the tank must read and clearly understand ALL Safety, Usage and Maintenance information in this manual
- Periodic reviews of **SAFETY** and **OPERATION** should be standard practice for all your equipment
- A sign-off sheet is provided for your records, showing all personnel working with the equipment

I have read and understand the information in the Operator's Manual and have been instructed in the operation of the equipment		
Date	**Employee Name**	**Employer Signature**

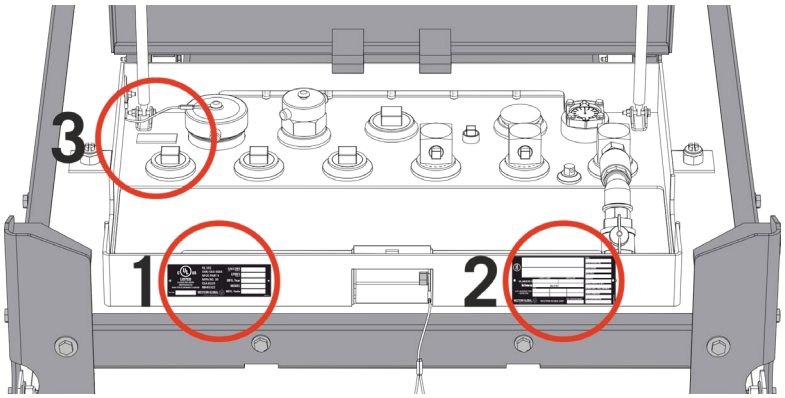
Figure 1 - Sign off Table

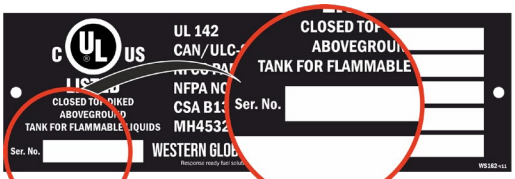
Identification marks

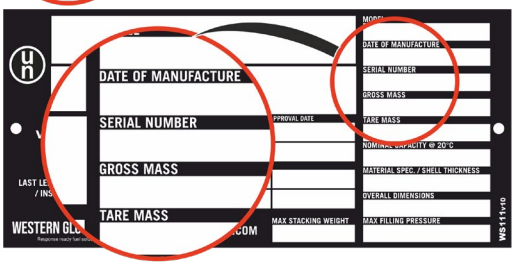
Each tank is supplied with a 3 unique identification number.

1. UL/ULC Serial Number (Found on the external of the access frame)
2. ** UN IBC Serial Number (Found on the external of the access frame)
3. Manufacturing Serial Number (Found in the internal access area)

NOTE **** PLEASE QUOTE THE UN IBC SERIAL NUMBER IN ALL SALE SUPPORT QUIRES**







Record your numbers here:	
1 - UL/ULC Serial Number	
2 - UN IBC Serial Number	
3 - Manufacturing Serial Number	
Optional customer plant number	

Figure 2 - I.D. Marks

Safety

IMPORTANT

BEFORE USING THIS EQUIPMENT AND TO AVOID PERSONAL INJURY, CAREFULLY READ AND UNDERSTAND THESE INSTRUCTIONS.

OBTAIN AND ENSURE ALL OPERATORS HAVE READ AND UNDERSTOOD THE SAFETY DATA SHEET FOR THE PRODUCT BEING STORED

- If there is anything you do not understand, contact your supplier for advice
- The tank must be operated by authorised personnel only
- This tank must not be moved, filled, maintained, or operated by persons who are under the influence of alcohol or drugs, tired or unwell
- You MUST perform a risk assessment before using this equipment to ensure your safety and the safety of others
- Wear the correct Personal Protective Equipment for the task you are performing
- Do not wear loose jewellery or clothing that may get in the way or become trapped in the mechanism
- Inspect the tank before use, if there is any doubt about its condition, DO NOT USE IT
- Do not smoke – No naked flames near the tank
- Please follow all necessary regulations and codes as applicable in your region/country of use.

Figure 3 – Recommended Safety Equipment

NOTE

PLEASE CONSULT WITH THE LOCAL AUTHORITY FOR SPECIFIC REQUIREMENTS. THE ABOVE IS GENERAL GUIDANCE AND MAY NOT ACCOUNT FOR ALL CIRCUMSTANCES AND IS NOT A SUBSTITUTE FOR A USER RISK ASSESSMENT

Limitations of use

- The TCG is designed for the safe storage of CLASS 3, Packing Group II and Packing Group III Flammable & Combustible fluids, on-site or in transit as approved under UN TDG regulations
- Each unit should be filled up to a maximum of 95% of its stated Brimful capacity to allow for expansion of the tanks contents

Safe practice

The storage, transportation and dispensing of Flammable & Combustible fluids are governed by law and the user/operator has sole responsibility to ensure that any such rules and regulations are abided by.

Earthing point

Common to all TCG models

The unit is fitted with an earthing connection point. This can be found on the bottom frame of the unit. See image below

- Used to protect against the build-up of electrostatic charge, this should be connected to a suitable earthing point, by a qualified electrician, when in use

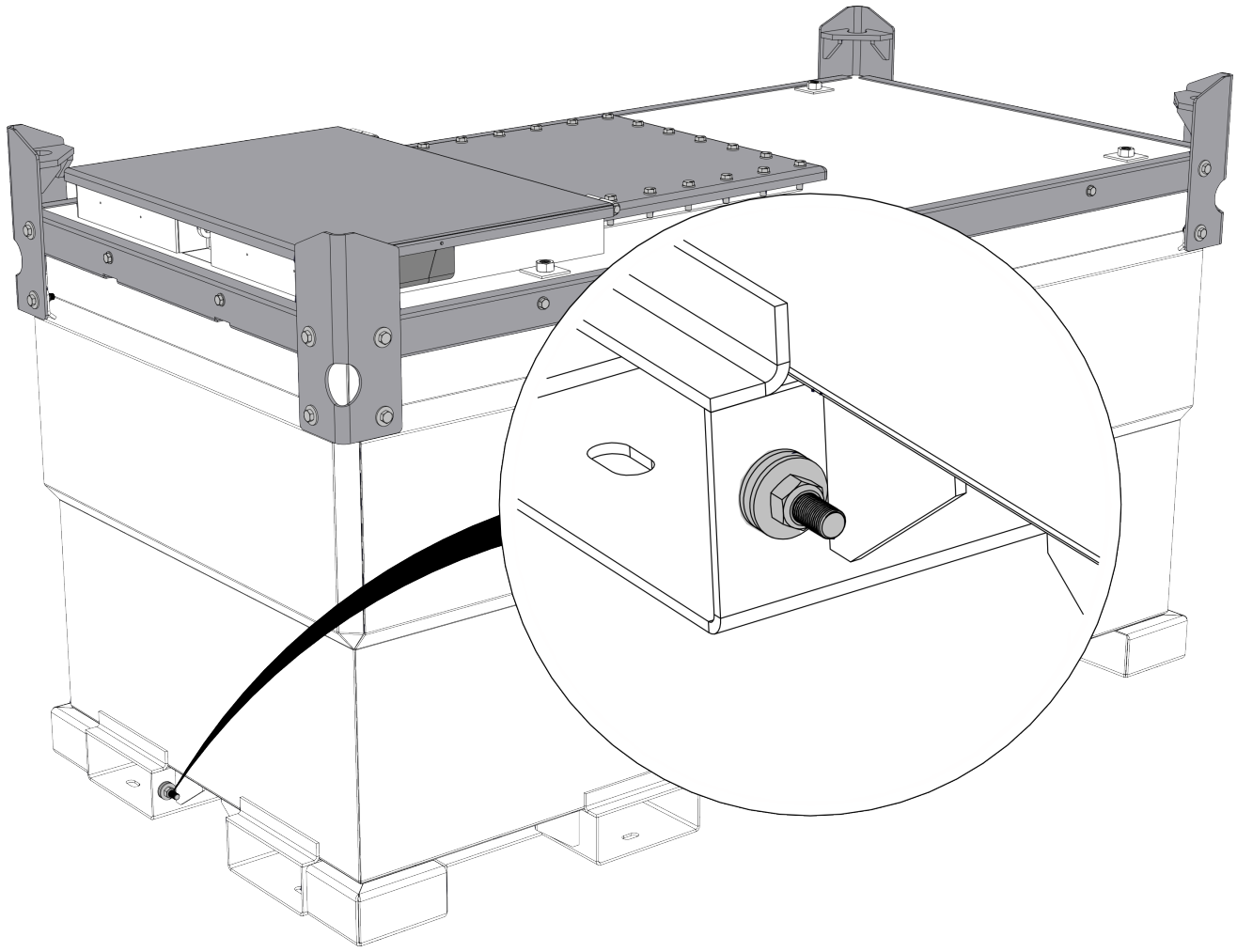


Figure 4 - Earth Point

Venting

Each unit has 2 common vents installed in the Cabinet Area of the tank.

IMPORTANT

DO NOT OPERATE THE UNIT IF THESE VENTS ARE DAMAGED OR MISSING

- 2” Pressure Vacuum Vent – Prevents a vacuum being formed in the tank during dispensing operations, and relieves excess pressure due to temperature change or improper filling
- ¼” Rollover Vent – Allows free flow air into and out of the tank at all times, this low-volume vent will fully close if the tank is accidentally inverted or turned on its side
- For static installation follow local regional, state, and national Fire Safety Codes and other governing Installation Codes for the Normal and Emergency Venting equipment and appurtenances.

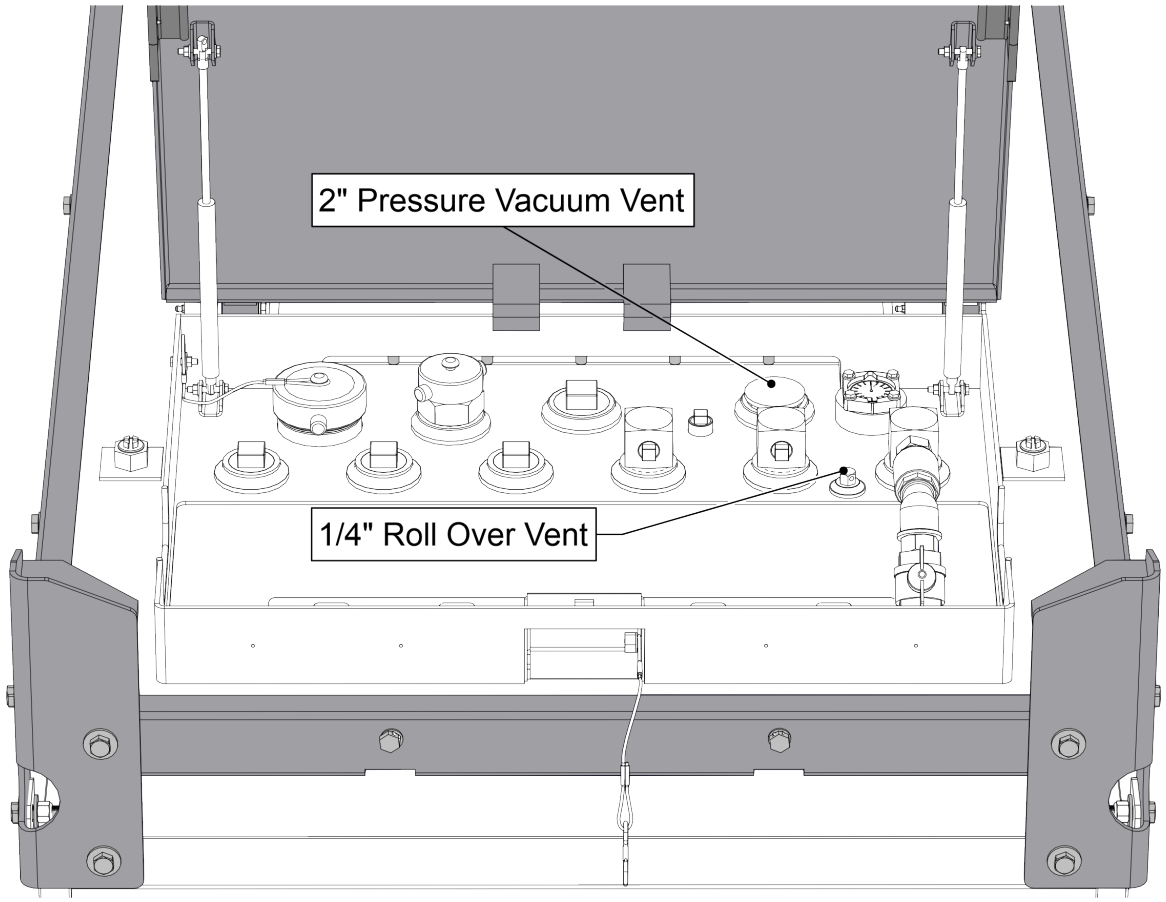


Figure 5 – Venting

Specification

Capacities / Weights / Dimensions

Model	Capacity					
	Litres		US Gallon		Imp. Gallon	
	Nominal	Safe Fill	Nominal	Safe Fill	Nominal	Safe Fill
05TCG	499	474	132	125	110	104
10TCG	949	902	251	238	209	198
20TCG	2091	1986	552	525	460	437
30TCG	2980	2831	787	748	656	623

Model	Weight			
	TARE KG	GROSS KG	TARE Lbs	GROSS Lbs
05TCG	415	889	915	1960
10TCG	540	1442	1190	3179
20TCG	823	2809	1814	6193
30TCG	1100	3931	2425	8666

Model	Dimension					
	Metric (mm)			Imperial (Inch)		
	L	W	H	L	W	H
05TCG	1150	1150	855	45	45	34
10TCG	1155	1155	1324	45	45	52
20TCG	2280	1150	1320	90	45	52
30TCG	2288	1550	1323	90	61	52

Figure 6 - Capacities and Dimensions

UN Reference Numbers

Current UN Reference number

UN Certificate of Packaging reference number TCG(G)

05TCG	31A/Y/** **/B/844/160021/1726/1014
10TCG	31A/Y/** **/B/844/160019/3106/1726
20TCG	31A/Y/** **/B/844/160022/6000/3333
30TCG	31A/Y/** **/B/844/160020/8347/4710

** ** = MM YY of manufacture.

Legacy UN Reference numbers

Legacy UN IBC Certificate of Packaging reference numbers for older **North American tanks.**

IMPORTANT - FOR REFERENCE ONLY	
Transport Canada - UN IBC Certificate of Packaging reference number	
05TCG	31A/Y/** **/CAN / WEC 4-627 / 1661 / 923
10TCG	31A/Y/** **/CAN / WEC 4-627 / 2725 / 1514
20TCG	31A/Y/** **/CAN / WEC 4-627 / 5070 / 2817
30TCG	31A/Y/** **/CAN / WEC 4-627 / 7097 / 3943

** ** = MM YY of manufacture

Legacy UN IBC Certificate of Packaging reference numbers for older **European tanks.**

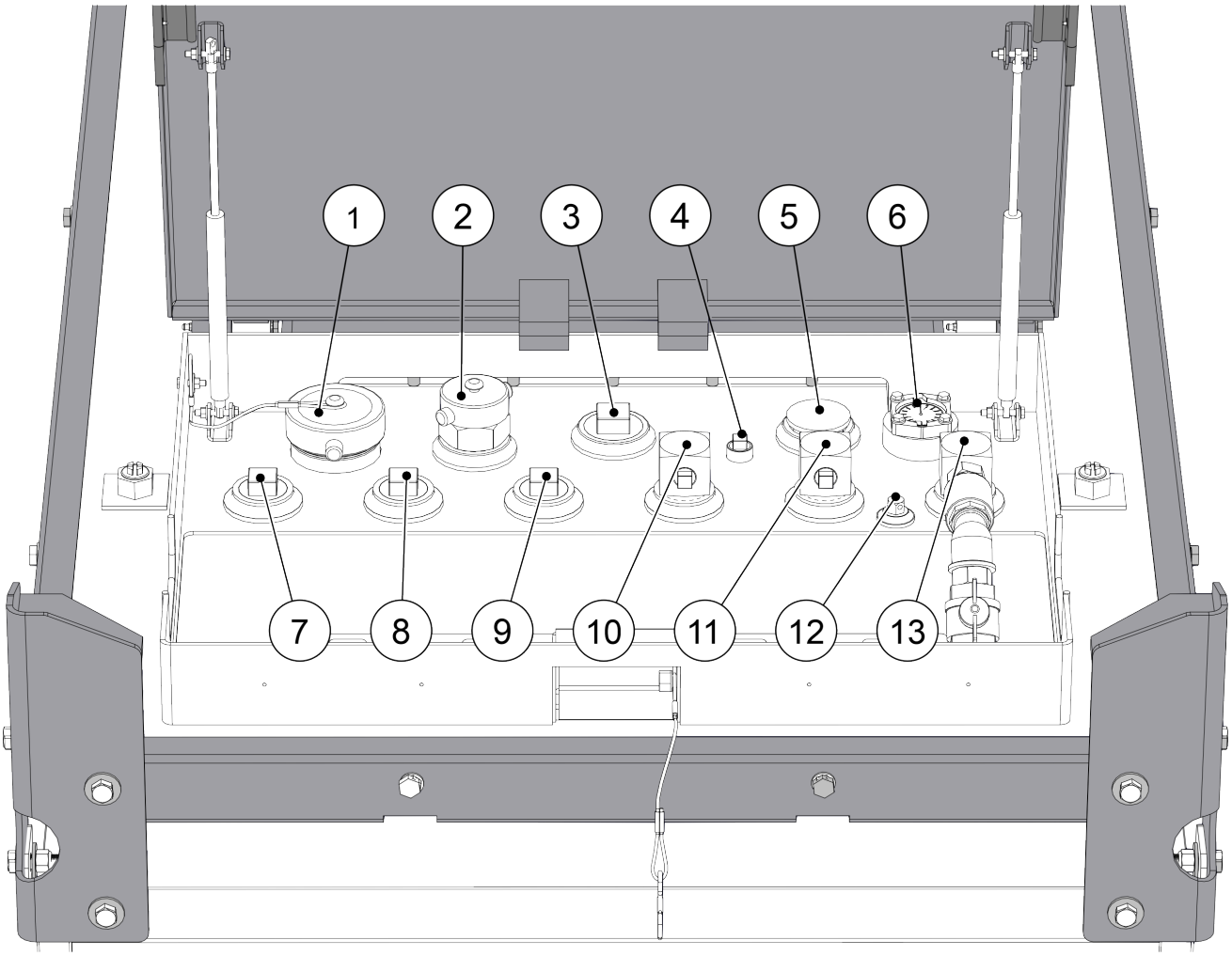
IMPORTANT - FOR REFERENCE ONLY	
UN Certificate of Packaging reference number	
05TCG	31A/Y/** **/GB/WESTERN - 6176/2146/972
10TCG	31A/Y/** **/GB/WESTERN - 5250/2840/1578
20TCG	31A/Y/** **/GB/WESTERN - 5249/5866/3259
30TCG	31A/Y/** **/GB/WESTERN - 5248/8264/4591

** ** = MM YY of manufacture

Figure 7 - UN IBC Marks

Cabinet Overview

Standard EU Unit

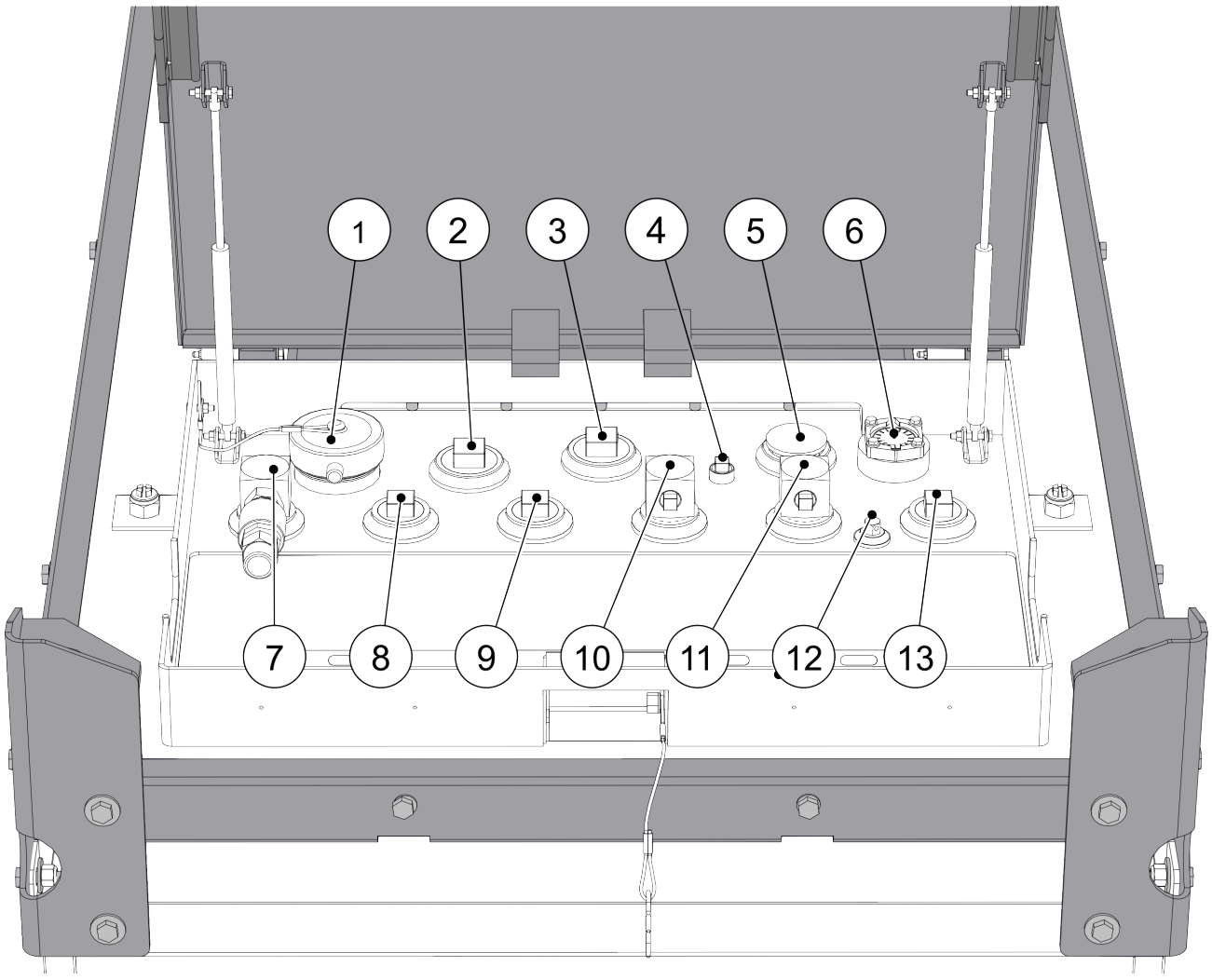


1. 3” NPS Fill Point/Vent*
2. 2” BSPP Fill Point
3. 2" NPT Port - Auxiliary (shown plugged)
4. ½” BSPP Port - Auxiliary (shown plugged)
5. 2” NPS Pressure / Vacuum Vent
6. Fuel Level Gauge
7. 1 ½” NPT Port - Auxiliary (shown plugged)
8. 1 ½” NPT Port - Auxiliary (shown plugged)
9. 1 ½” NPT Port - Auxiliary (shown plugged)
10. 1 ½” NPT Block with ½” Internal Feed
11. 1 ½” NPT Block for ½” Return
12. ¼” NPT Roll Over Vent
13. 1 ½” NPT Block with 1” Pump Feed

*When filling via the 2" Fill point (2), this port (1) is used as a vent, hence the cap should be removed.

Figure 8 - EU Components

Standard NA Unit



1. 3” NPS Fill Point/Vent*
2. 2” NPS Port - Auxiliary (shown plugged)
3. 2" NPT Port - Auxiliary (shown plugged)
4. ½” BSPP Port - Auxiliary (shown plugged)
5. 2” NPS Pressure / Vacuum Vent
6. Fuel Level Gauge
7. 1 ½” NPT Block with 1” Pump Feed
8. 1 ½” NPT Port - Auxiliary (shown plugged)
9. 1 ½” NPT Port - Auxiliary (shown plugged)
10. 1 ½” NPT Block with ½” Internal Feed
11. 1 ½” NPT Block for ½” Return
12. ¼” NPT Roll Over Vent
13. 1 ½” NPT Port - Auxiliary (shown plugged)

*If additional fill points are installed this port (1) is used as a vent, hence the cap should be removed.

Figure 9 - NA Components

Centre of gravity

05TCG Centre of Gravity[2]

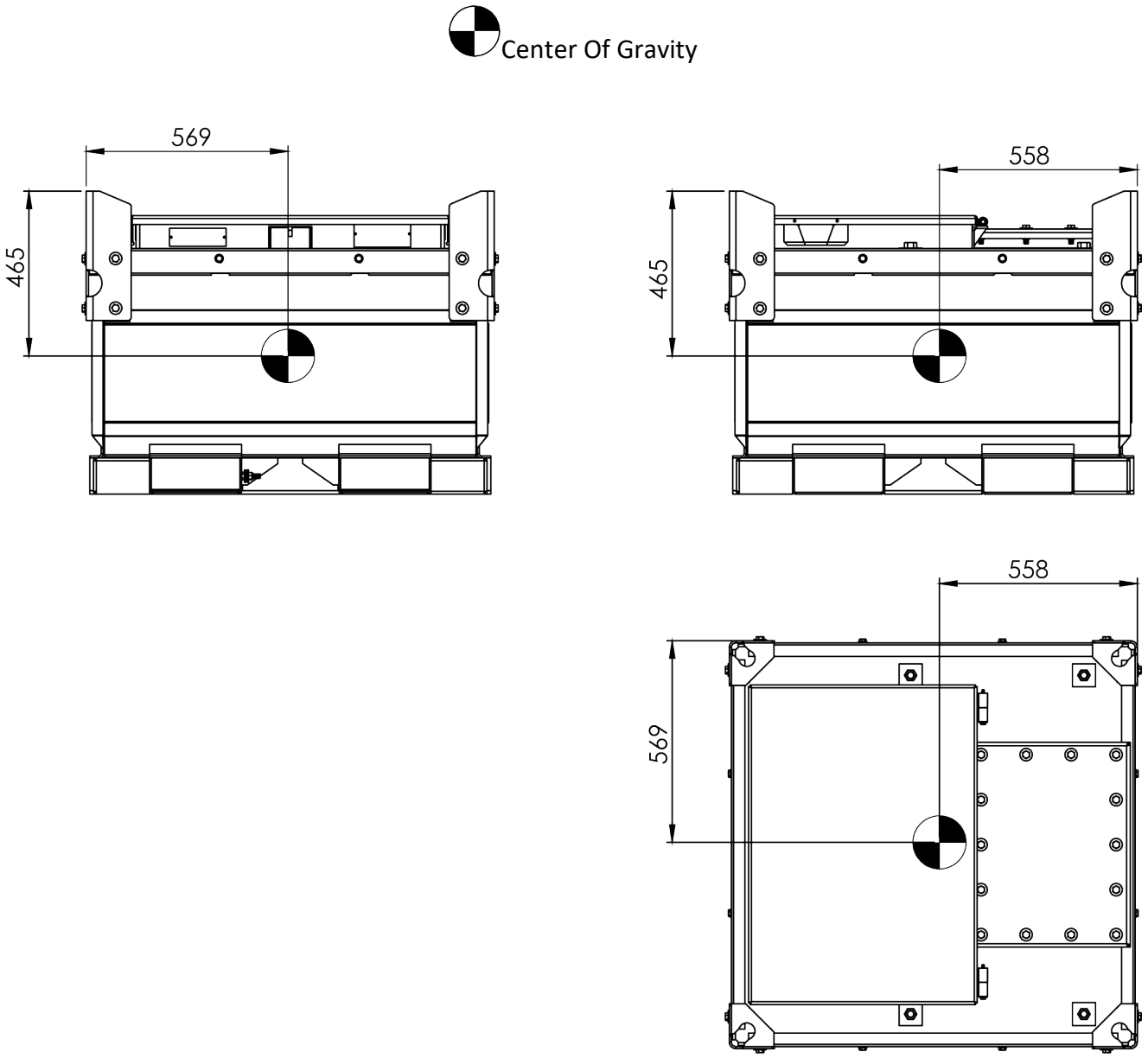


Figure 10 - CoG 05TCG

[2] Based on empty tank.

10TCG Centre of Gravity[3]

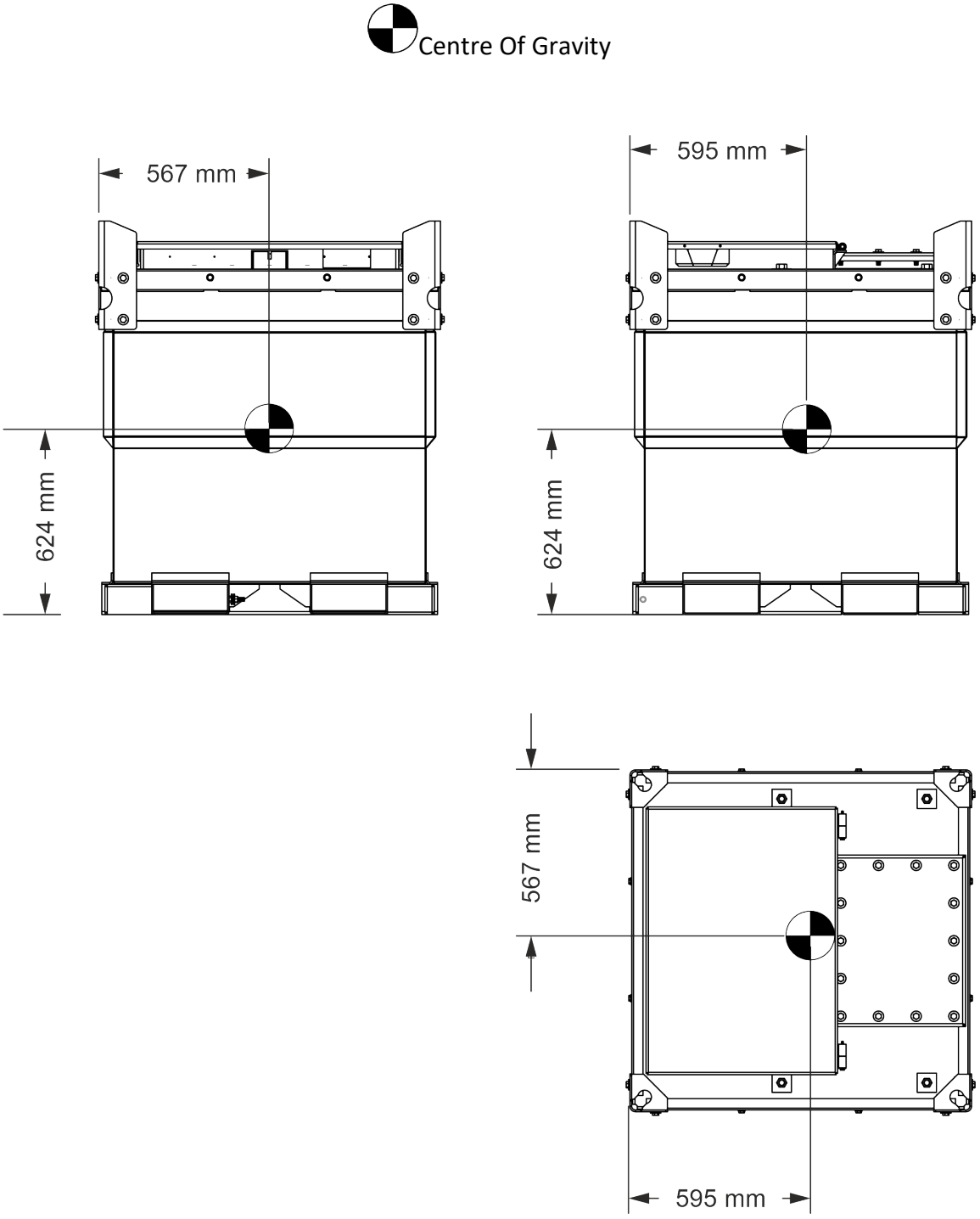


Figure 11 - CoG 10TCG

[3] Based on empty tank.

20TCG Centre of Gravity[4]

Centre Of Gravity

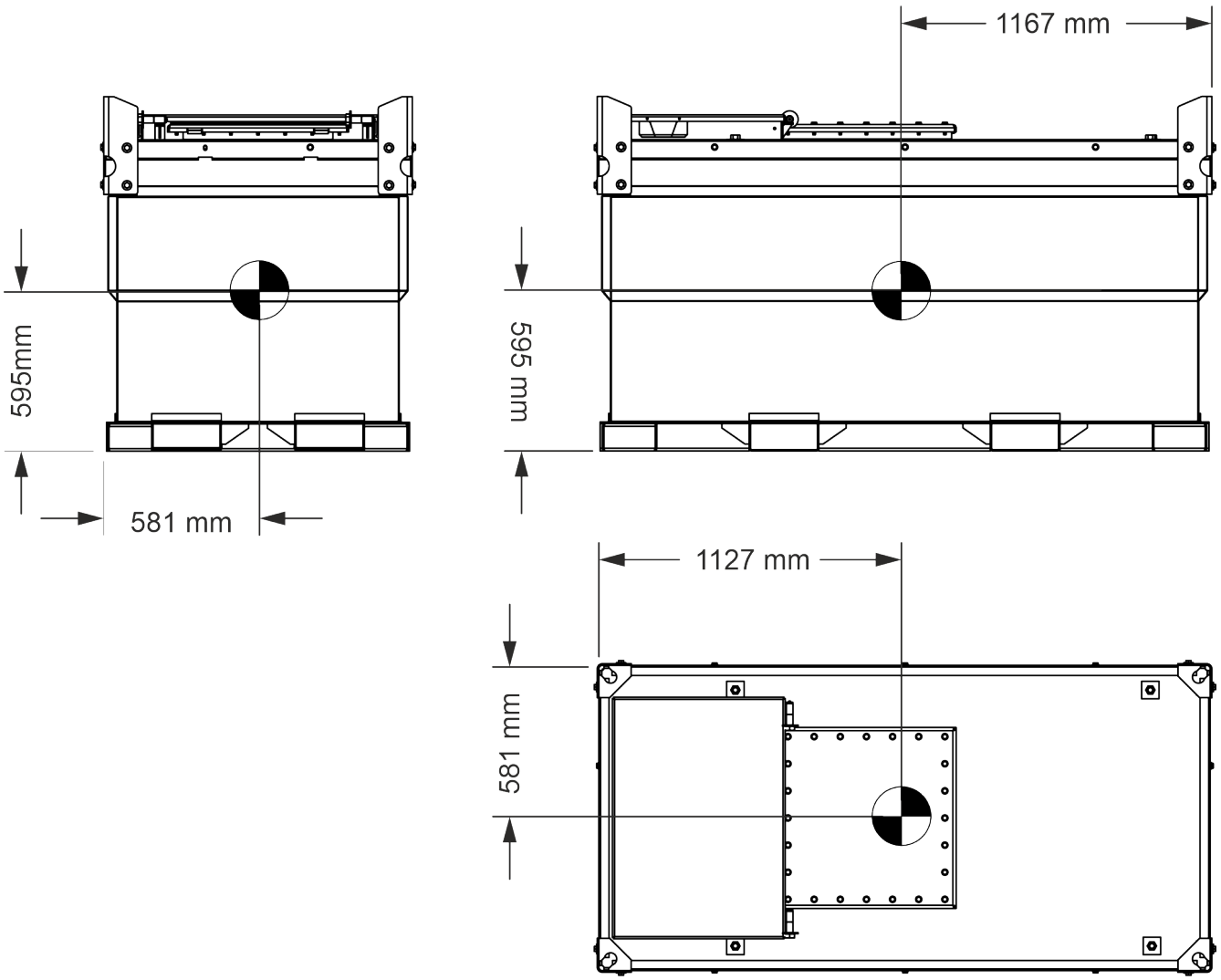


Figure 12 - CoG 20TCG

[4] Based on empty tank.

30TCG Centre of Gravity[5]

Centre Of Gravity

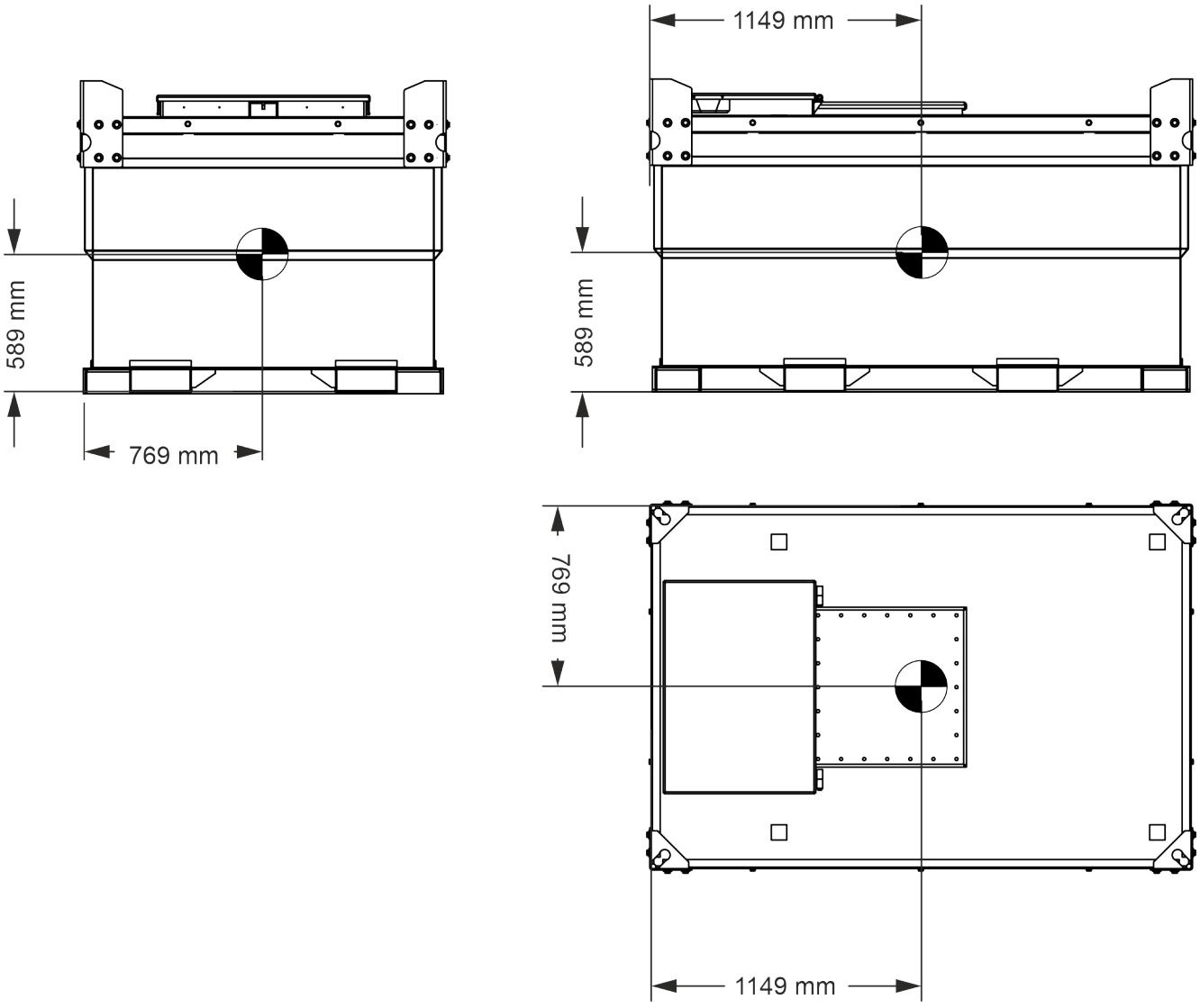


Figure 13 - CoG 30TCG

[5] Based on empty tank.

Strapping charts

05TCG

Depth (mm)	Depth (in)	Fuel Level (Litre)	Fuel Level (US Gallon)	Fuel Level (Imp Gallon)
571.5	22.5	499	131.8	109.8
535	**21.1**	**474**	**125.2**	**104.3**
500	19.7	430	113.6	94.6
450	17.7	394	104.1	86.7
400	15.7	357	94.3	78.5
350	13.8	318	84	70
300	11.8	278	73.4	61.2
250	9.8	236	62.3	51.9
200	7.9	192	50.7	42.2
150	5.9	146	38.6	32.1
100	3.9	99	26.2	21.8
50	2	50	13.2	11
0	0	0	0	0

Figure 14 - Strapping 05TCG

1. Highlighted on the strapping chart is the maximum safe fill level @ 95% of the nominal volume. DO NOT FILL ABOVE THIS LEVEL
2. The dip chart volume is taken from the lowest point in the tank.
3. When programming a level monitoring system, the difference in floor height at the port location (where the instrument is mounted) should be subtracted from the fill height for each volume increment line to equate to the corresponding fill height at the instrument location.

10TCG

Depth (mm)	Depth (in)	Fuel Level (Litre)	Fuel Level (US Gallon)	Fuel Level (Imp Gallon)
1041	41	949	250.7	208.8
1000	39.4	910	240.4	200.2
970	**38.2**	**902**	**238.3**	**198.4**
950	37.4	875	231.2	192.5
900	35.4	840	221.9	184.8
850	33.5	802	211.9	176.4
800	31.5	764	201.8	168.1
750	29.5	723	191	159
700	27.6	682	180.2	150
650	25.6	639	168.8	140.6
600	23.6	594	156.9	130.7
550	21.7	548	144.8	120.5
500	19.7	500	132.1	110
450	17.7	452	119.4	99.4
400	15.7	402	106.2	88.4
350	13.8	352	93	77.4
300	11.8	301	79.5	66.2
250	9.8	251	66.3	55.2
200	7.9	201	53.1	44.2
150	5.9	151	39.9	33.2
100	3.9	100	26.4	22
50	2	50	13.2	11
0	0	0	0	0

Figure 15 - Strapping 10TCG

1. Highlighted on the strapping chart is the maximum safe fill level @ 95% of the nominal volume. DO NOT FILL ABOVE THIS LEVEL
2. The dip chart volume is taken from the lowest point in the tank.
3. When programming a level monitoring system, the difference in floor height at the port location (where the instrument is mounted) should be subtracted from the fill height for each volume increment line to equate to the corresponding fill height at the instrument location.

20TCG

Depth (mm)	Depth (in)	Fuel Level (Litre)	Fuel Level (US Gallon)	Fuel Level (Imp Gallon)
1041	41	2091	552.4	460
1000	39.4	2065	545.5	454.2
982	**38.7**	**1986**	**524.6**	**436.9**
950	37.4	1973	521.2	434
900	35.4	1880	496.6	413.5
850	33.5	1785	471.5	392.6
800	31.5	1688	445.9	371.3
750	29.5	1590	420	349.8
700	27.6	1491	393.9	328
650	25.6	1390	367.2	305.8
600	23.6	1288	340.3	283.3
550	21.7	1184	312.8	260.4
500	19.7	1080	285.3	237.6
450	17.7	972	256.8	213.8
400	15.7	864	228.2	190.1
350	13.8	756	199.7	166.3
300	11.8	648	171.2	142.5
250	9.8	540	142.7	118.8
200	7.9	432	114.1	95
150	5.9	324	85.6	71.3
100	3.9	216	57.1	47.5
50	2	108	28.5	23.8
0	0	0	0	0

Figure 16 - Strapping 20TCG

1. Highlighted on the strapping chart is the maximum safe fill level @ 95% of the nominal volume. DO NOT FILL ABOVE THIS LEVEL
2. The dip chart volume is taken from the lowest point in the tank.
3. When programming a level monitoring system, the difference in floor height at the port location (where the instrument is mounted) should be subtracted from the fill height for each volume increment line to equate to the corresponding fill height at the instrument location.

30TCG

Depth (mm)	Depth (in)	Fuel Level (Litre)	Fuel Level (US Gallon)	Fuel Level (Imp Gallon)
1050	41.3	2980	787.2	655.5
1000	39.4	2857	754.7	628.5
990	**39**	**2831**	**747.9**	**622.7**
950	37.4	2730	721.2	600.5
900	35.4	2600	686.8	571.9
850	33.5	2469	652.2	543.1
800	31.5	2335	616.8	513.6
750	29.5	2200	581.2	483.9
700	27.6	2062	544.7	453.6
650	25.6	1923	508	423
600	23.6	1781	470.5	391.8
550	21.7	1637	432.4	360.1
500	19.7	1490	393.6	327.8
450	17.7	1341	354.3	295
400	15.7	1192	314.9	262.2
350	13.8	1043	275.5	229.4
300	11.8	894	236.2	196.7
250	9.8	745	196.8	163.9
200	7.9	596	157.4	131.1
150	5.9	447	118.1	98.3
100	3.9	298	78.7	65.6
50	2	149	39.4	32.8
0	0	0	0	0

Figure 17 - Strapping 30TCG

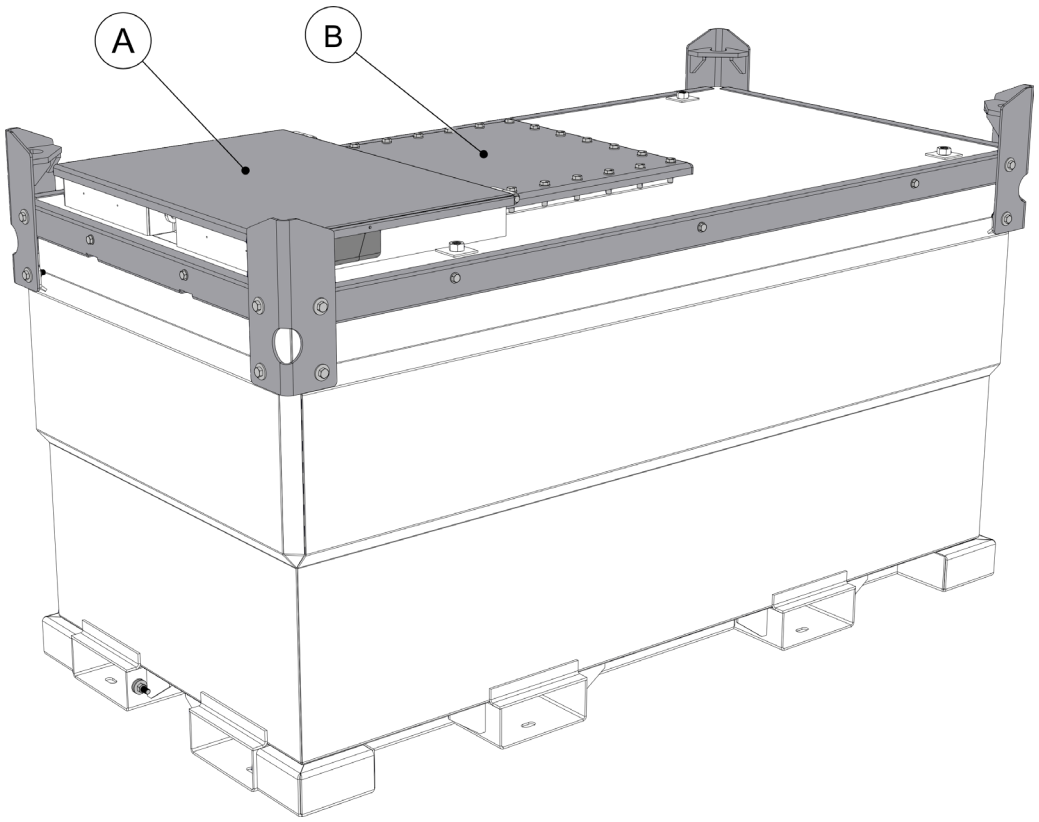
1. Highlighted on the strapping chart is the maximum safe fill level @ 95% of the nominal volume. DO NOT FILL ABOVE THIS LEVEL
2. The dip chart volume is taken from the lowest point in the tank.
3. When programming a level monitoring system, the difference in floor height at the port location (where the instrument is mounted) should be subtracted from the fill height for each volume increment line to equate to the corresponding fill height at the instrument location.

Operating Instruction

Access and security

Access to the Equipment Cabinet (A)

- The cabinet hatch lid is constructed of heavy-duty steel, care should be taken when opening or closing
- The lid has gas struts fitted to aid lifting and will hold the lid open when required.
- The cabinet hatch lid should be kept closed when the TCG is not being used, to protect the fittings and containment area from weather conditions.



A. Access to Equipment Cabinet
B. Access to Inner Tank

Figure 18 – Access

Access to the Inner Tank (B)

For maintenance, inspection and cleaning, access can be made through the installed access lid on top of the tank.

ACCESS TO THE INNER TANK MUST ONLY BE CARRIED OUT BY TRAINED PERSONNEL AFTER A FULL RISK ASSESSMENT HAS BEEN CARRIED OUT.

Security

The TCG is fitted with a range of connections to enable the supply of Flammable & Combustible fluids. All the connections are housed beneath the cabinet lid, which can be locked using a suitable security padlock, see below for position.

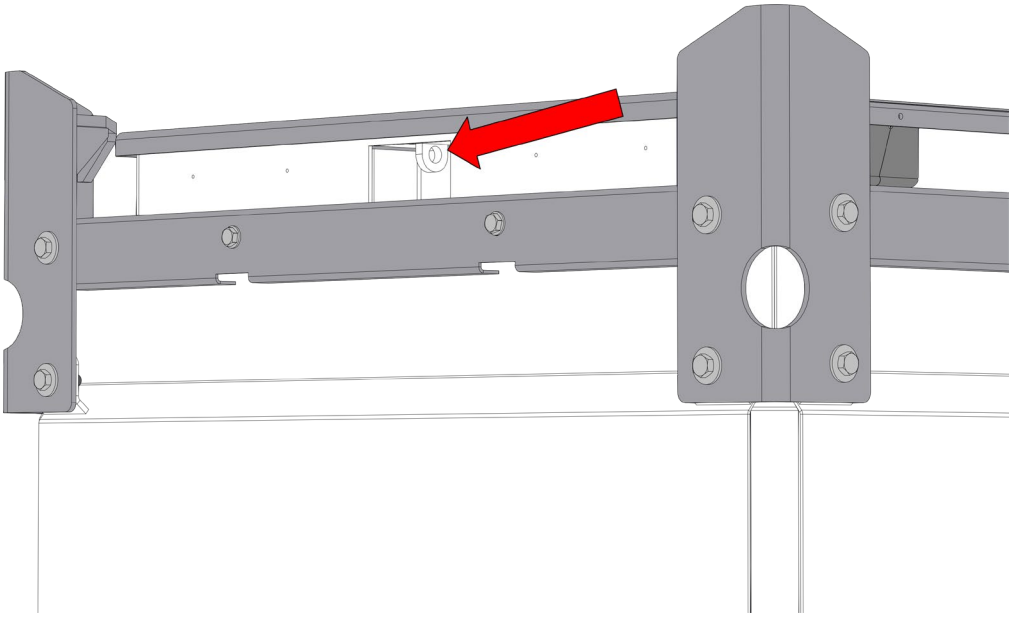


Figure 19 – Security

Transporting

- When transporting ALL ports, valves and vents must be closed
- Ensure the pump is turned off
- Close and lock the hatch lid
- The TCG must be secured firmly to its means of transport
- Use tie-down points shown below

IMPORTANT **ALWAYS USE 4 TIE DOWN POINTS WHEN IN TRANSPORT.**

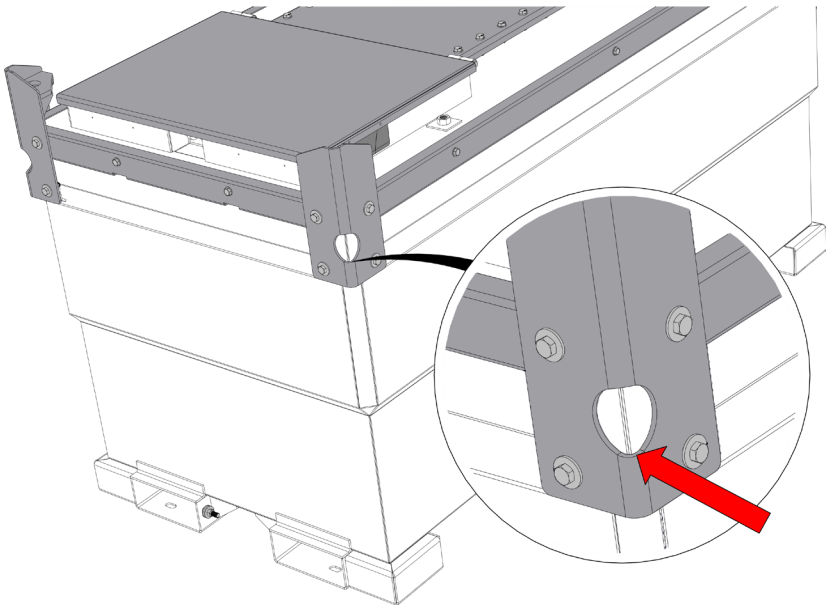


Figure 20 - Transport (Tie Down)

Each TCG incorporates baffles, which are situated in the inner tank. The baffle plates are designed to restrain and regulate the flow of fluid and remove the risk of damage to the tank during transport.

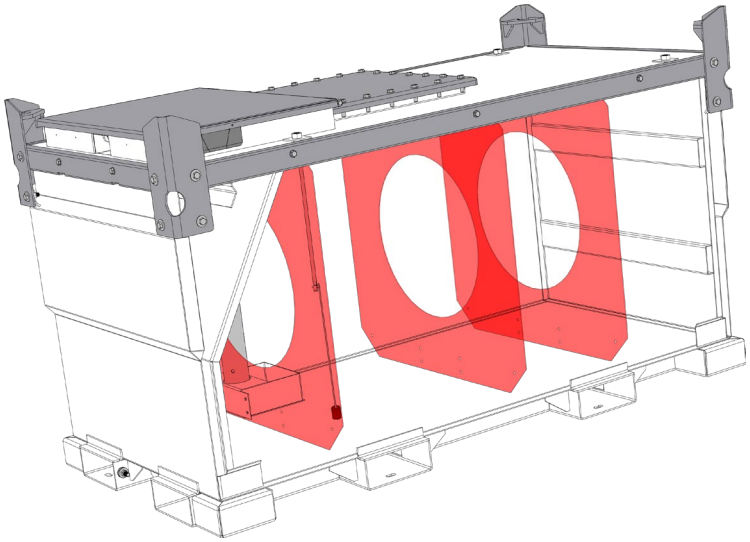
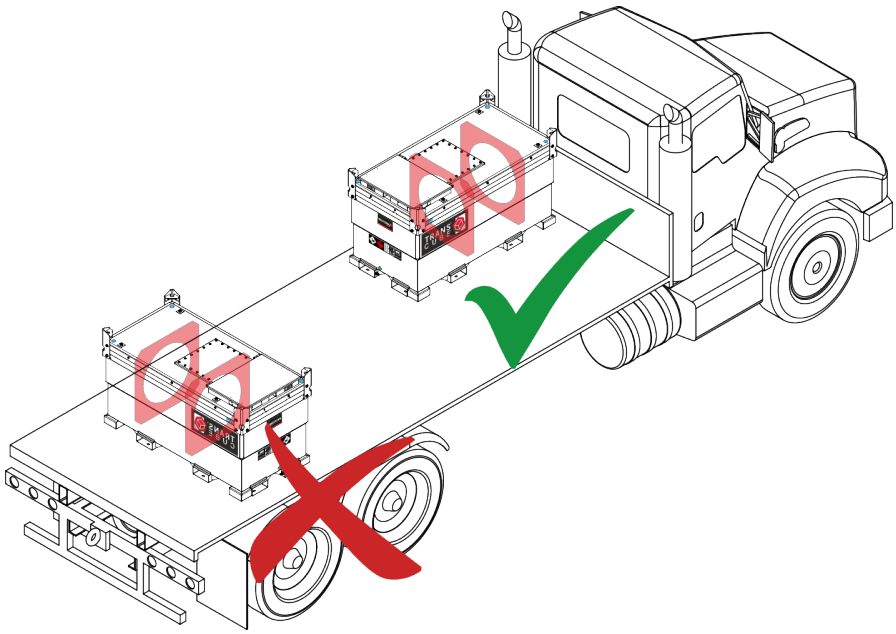


Figure 21 - Transport (Baffles)

The baffle plates run the width of the unit and are only effective if the tank is loaded correctly onto the trailer, truck etc.

NOTE

WHEN THE TANK IS EMPTY IT CAN BE TRANSPORTED IN EITHER ORIENTATION



IMPORTANT

WHEN TRANSPORTING ALL PORTS, VALVES, VENTS, AND OPENINGS MUST BE CLOSED

ALWAYS LOAD THE TANK AS SHOWN ABOVE WITH THE CABINET RUNNING IN THE DIRECTION OF TRAVEL.

Figure 22 - Transporting Position

Stacking

- The TCG is designed with the structural strength to allow stacking 2 high when full and 3 high when empty.
- Always mate the corner brackets together to stabilise the stack.
- Use only a hoist or forklift with the required lift capacity to raise, lower or stack the tanks.

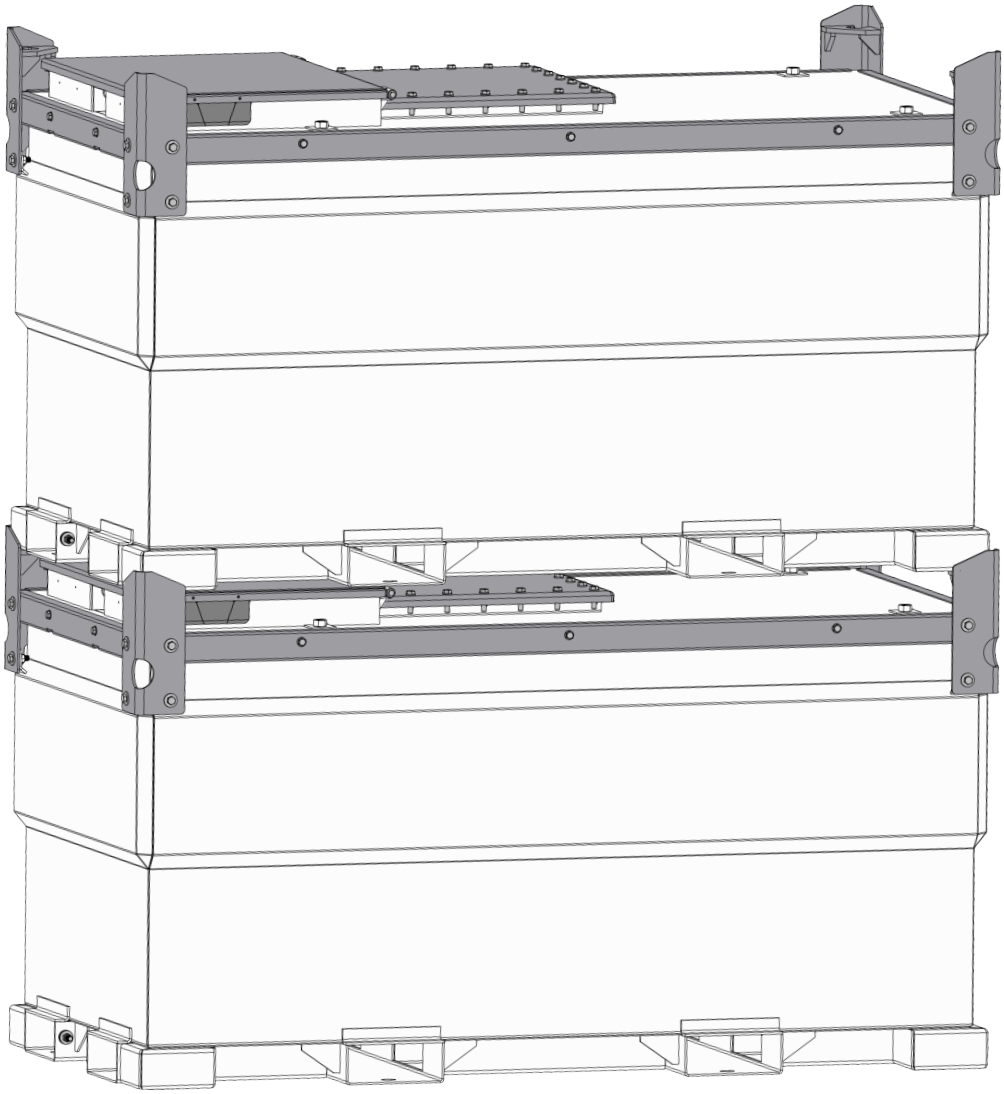


Figure 23 - Stacking

IMPORTANT

STACKING 2 HIGH WHEN FULL, 3 HIGH WHEN EMPTY ONLY!

USERS MUST TAKE APPROPRIATE MEASURES IN EXTREME WEATHER CONDITIONS TO ENSURE THAT TANKS ARE SECURE

Lifting and Handling

IMPORTANT

ALWAYS PREPARE A LIFTING PLAN/RISK ASSESSMENT.

LIFTING OF TANKS SHOULD ONLY BE UNDERTAKEN BY A COMPETENTLY TRAINED PERSON

By Forklift / Tele-handler

- Each TCG is fitted with forklift pockets which are designed to allow the TCG to be raised by a forklift/telehandler. The TCG can be lifted from all 4 sides. This must be considered in your risk assessment
- The total gross weight of the TCG mustn't be more than half (50%) of the forklift's maximum SWL. Ensure that the forklift's forks are set to the correct width for the TCG's fork pockets

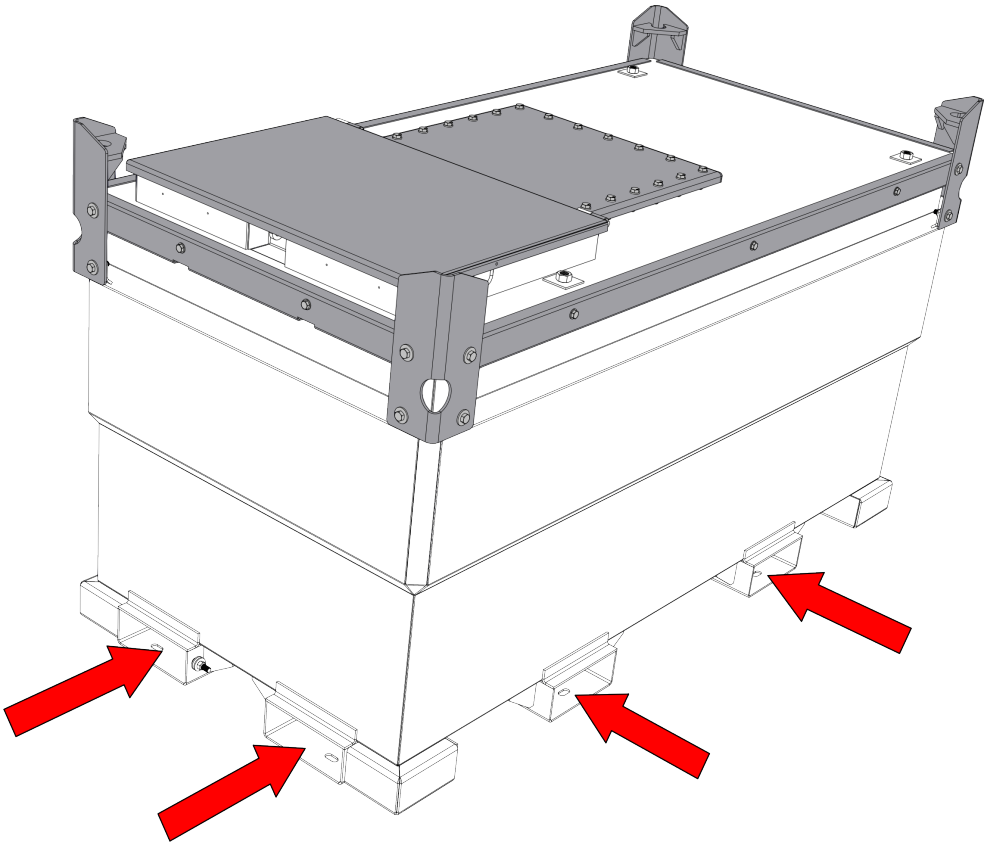


Figure 24 - Fork Pockets

By Crane

- Lifting of tanks should only be undertaken by a competently trained person
- You will require a lifting device (crane) and suitable four-leg chain slings fitted with hooks and safety catches
- Always check and obtain official confirmation from the chain sling supplier that it is both suitable in SWL and chain length
- With the chain slings correctly attached to the lifting equipment, attach each hook to the lifting points. Once attached, ensure the catches fitted to all hooks are closed
- Attach tag lines to the base of the unit to control rotation
- Lift the chains until taut and check that the hooks are correctly positioned with the catch closed and that the chains are not twisted. If a fault is found, lower the chain, and reattach it correctly
- Lift the unit until just off the ground and check that it is balanced and stable. Once you are satisfied that everything is correctly and safely set up, you can continue with the lift.
- ALL lifting points must be used during a lift
- The lifting points MUST be inspected for condition and safe use
- DO NOT lift from the base, with polyester slings

IMPORTANT

DO NOT LIFT FROM THE BASE, WITH POLYESTER SLINGS

THE TCG MUST ONLY BE LIFTED VIA THE DEDICATED CRANE LIFTING POINTS FOUND IN EACH CORNER, ALWAYS USE ALL 4 POINTS

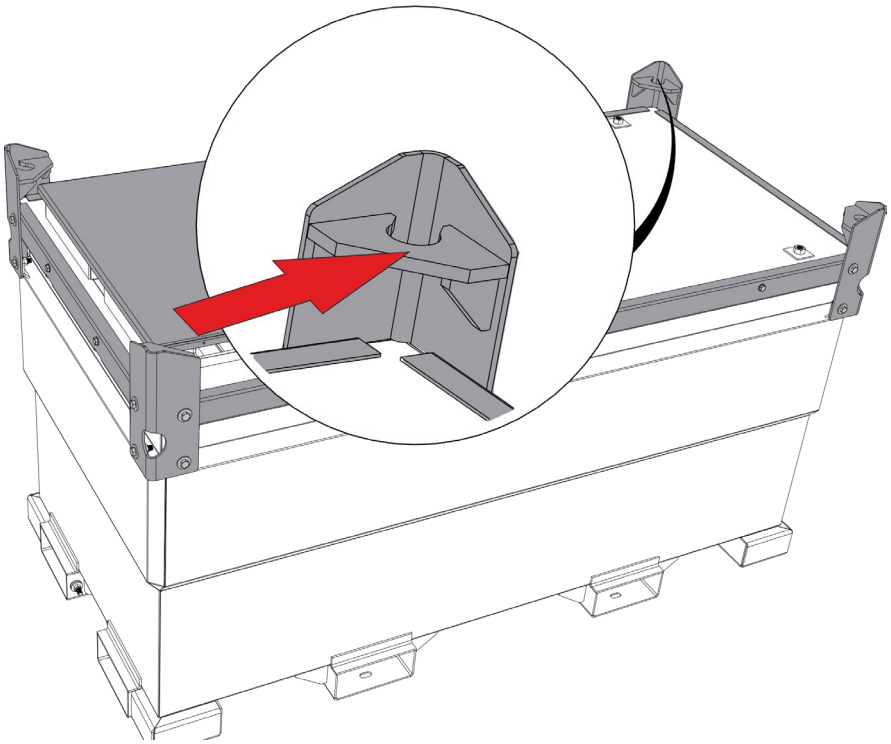


Figure 25 - Corner lifting points

IMPORTANT

DO NOT ALLOW ANYONE UNDER THE RAISED LOAD AT ANY TIME OR FOR ANY REASON

- Use suitable tag lines to help control the movement of the unit and always keep constant communication with the crane operator
- Move slowly and smoothly to ensure full control of the unit's whereabouts
- Lower the unit to its required resting place using great care

IMPORTANT

THE MINIMUM SLING ANGLE MUST NOT BE LESS THAN 60°

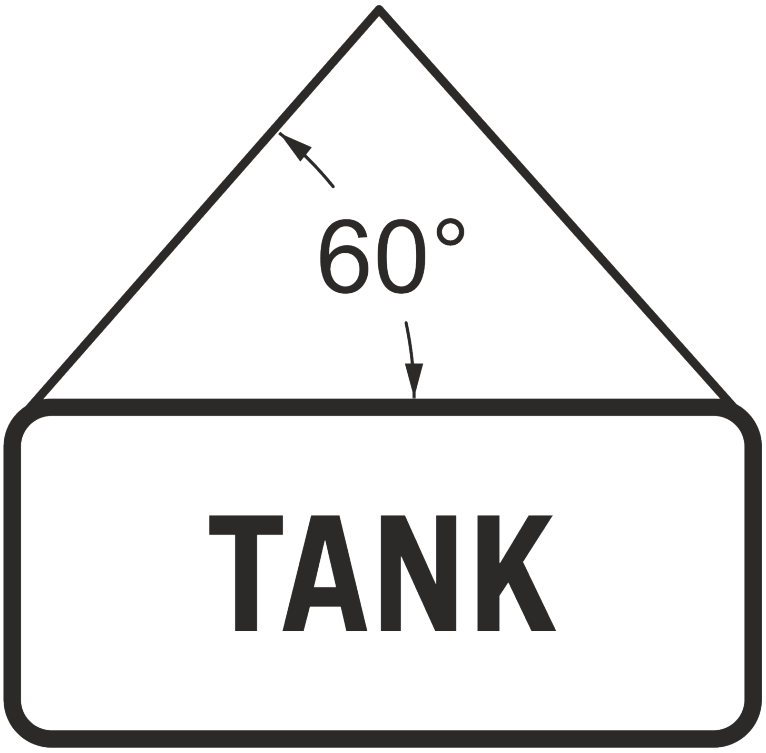


Figure 26 - Lifting angle

Positioning

Where the TCG is to be permanently positioned for use (long or short-term) certain aspects must be considered

- You should make sure that both supplying vehicle and receiving vehicle have safe and easy access to the TCG
- The position should be selected where the unit will be protected from accidental impact
- Consideration should be given to the location of overhead services such as telecommunications, power cables and overhanging obstructions. Be aware of the location of underground services, such as drains, and manhole covers
- You must also consider the ground surface and make sure it can support the weight of the TCG, its contents when full and any stored equipment such as pumps, without the risk of subsidence. It should be positioned on smooth and level ground with access available to the rear and sides
- Allow for access that may be required by the emergency services should it become necessary

Filling

IMPORTANT

DO NOT FILL THE TANK WHEN DISPENSING IS IN OPERATION

- Only fill the TCG to 95% of its nominal capacity
- Filling should only be performed by a suitably trained person and only following a full risk assessment
- The TCG must be positioned on a firm level surface, whether static, truck or trailer mounted
- Where truck or trailer mounted, ensure that the parking brake is set to ON and the wheels are chocked
- Before filling, ensure that you have a suitable spill containment kit and that you are wearing all required PPE
- Nozzle Fill - Unscrew and remove the 3” filler cap and place the filling nozzle in the 3” port.
- Hard Couple fill (EU Only) - Unscrew and remove the 2” filler cap and connect the 2” delivery hose. Remove the 3” cap to allow venting

IMPORTANT

DO NOT LEAVE THE NOZZLE UNATTENDED DURING THE FILLING PROCESS

- Observe the fuel level gauge for an indication of tank capacity, then once filled, replace all filler caps, and clean up any spills

Dispensing fuel

There are two options available for dispensing/supplying fuel. Either manually via a fuel pump and nozzle or by direct coupling to the equipment such as a generator.

- By Fuel Pump - For information about any pump system fitted to this TCG, please refer to the documents supplied with the pump.
- Direct Coupling - enables continuous fuel feed to equipment such as generators where fuel is required continuously.

Maintenance and service schedule

V = Visual inspection P = Physical Check L = Lubricate R = Replace							
Item	**Daily**	**Weekly**	**Monthly**	**6 monthly**	**Yearly**	**Other**	**Reference / Comments**
General							
Housekeeping		**V**		**P**			Check site and tank. Remove debris etc.
Firefighting media (If fitted)		**V**		**P**			V = Check in place and unused P = Test pressure and function
Doors			**V**		**L**		V = Visual inspection L = Greases hinges
Signage			**V/R**				Check damage and wear
Tank							
Ball valves		P					P = Check operation
Vents, fittings, and pipelines		**V**		**P**			V = Visual checks for leaks and damage P = physical check, bolt tightness, paint deterioration
Interstitial space (Containment)		**P**					Check for water or product
Tank earthing				**V**	**P**		V = Visual check OK P = Test continuity
Level gauges		**V**			**P**		V = Visual checks for leaks and damage P = Remove and check operation

Figure 27 - Recommended maintenance

Statutory inspection and maintenance

To retain the UN IBC approval[6], it is required that the owner of the TCG carries out regular inspections and ensures that a record of each inspection is kept. Where fault is found, the unit MUST be removed from service until the fault is rectified and the unit is retested successfully.

Every 2 ½ years

- External inspection
- Function of all service equipment
- Leak test.

Every 5 years

- Internal inspection
- External inspection
- Function of all service equipment
- Leak test.

NOTE THE 2 ½ AND 5-YEAR INSPECTION MUST BE CARRIED OUT BY A COMPETENT PERSON

Record Keeping

A report of each inspection and test shall be kept by the owner of the IBC at least until the next inspection or test. The report shall include the results of the inspection and test and shall identify the party performing the inspection and test.

Each test date MUST be permanently marked on the UN IBC Plate (WS111) it has 5 allocated sections for this date, if all of these sections are filled you can order a WS333 from Western Global, this will give you 12 additional sections for the test date.

Owner			**Date of manufacture**		
Model					
Serial Number			**Plant Number**		
Capacity					
Date	**2.5 or 5 Year Inspection**	**Pass or fail**	**Comments**	**Inspectors Name**	**Signature**

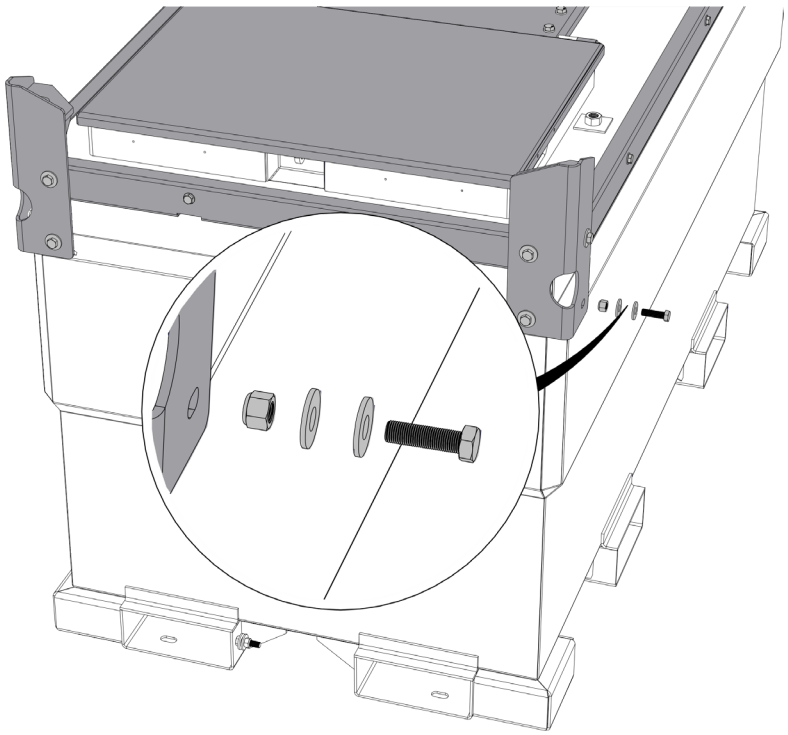
Figure 28 - Sample inspection record

[6] For the United States - Periodic Testing is to be carried out by DOT certified person or approved facility under 49CFR
For Canada – Transport Canada approved and Registered testing facility with valid certification under CAN/CGSB43.146-2022.

Inner tank removal

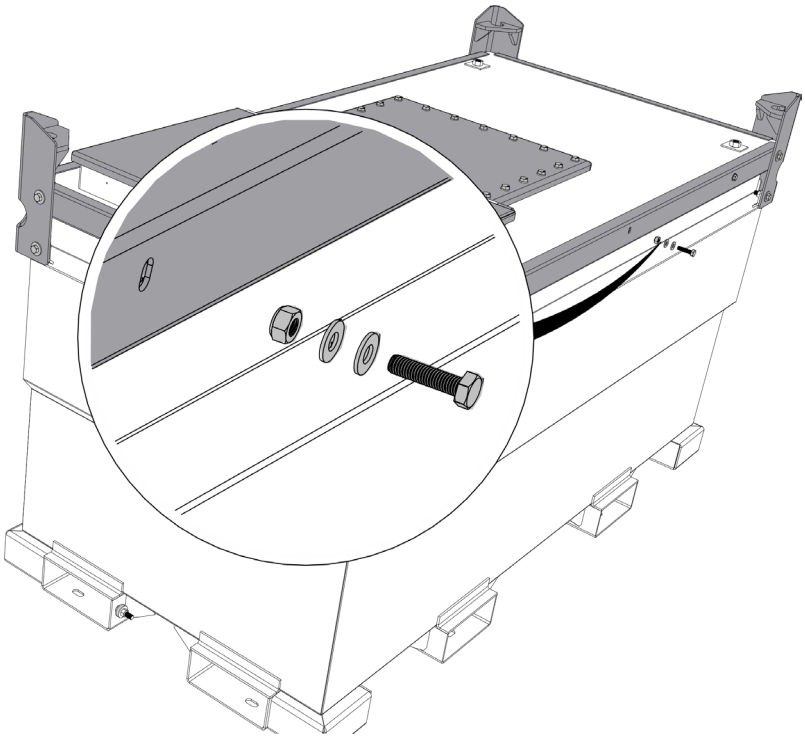
For periodic inspection, you may be required to remove the inner tank from the containment. Follow local Health and Safety rules when carrying out this operation.

The following instructions are common for each size unit.



Remove the fixings holding the corners in position, repeat this for each corner.

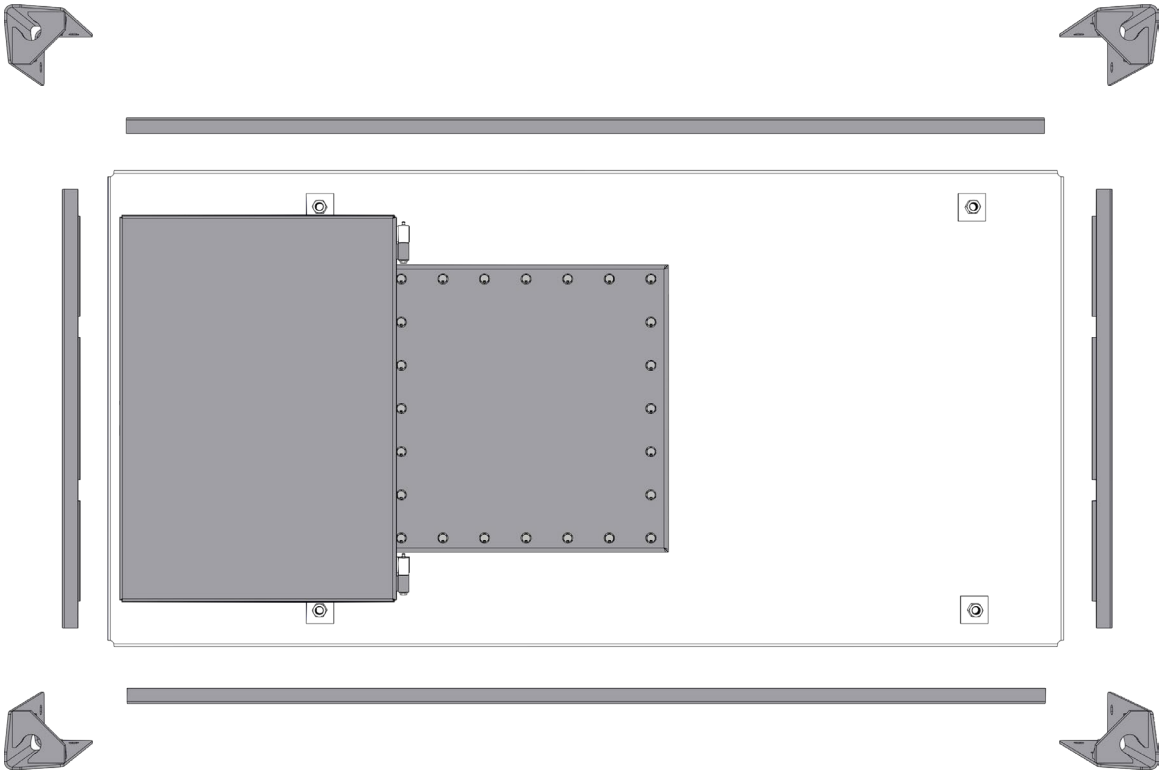
Store all components securely



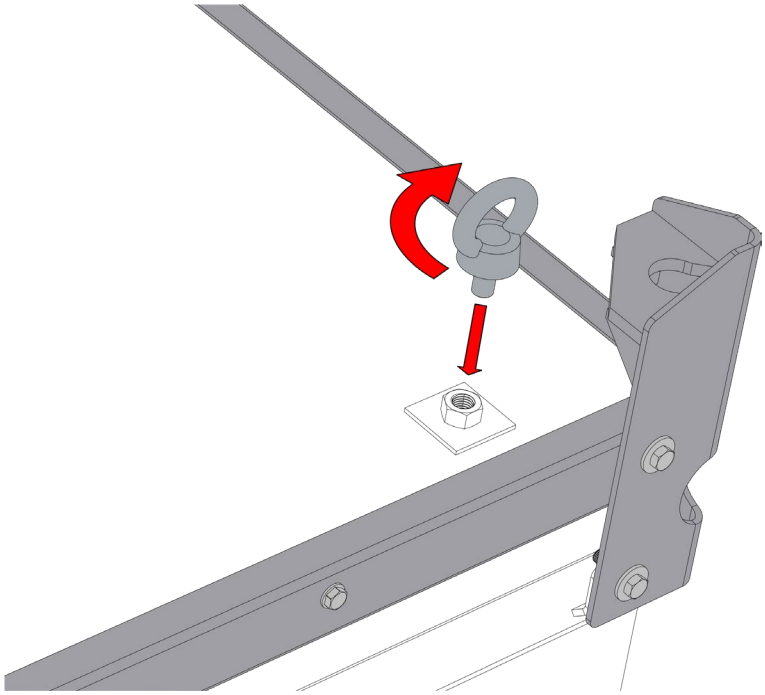
Remove the fixings holding the side and end rail in place

Store all components securely

Figure 29 - Inner tank removal 1

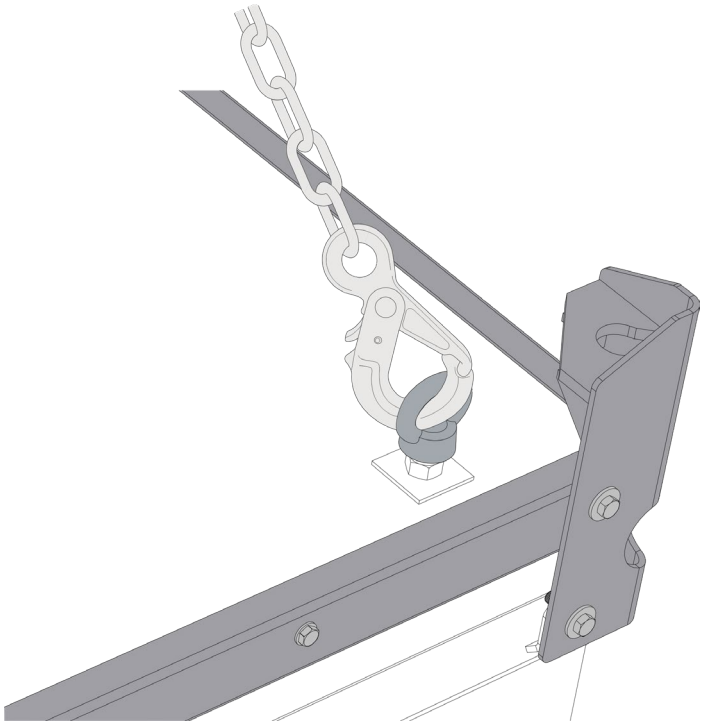


Store all componets securely



Insert 4 x M22 lifting eyes in to the welded lifting nut each corner of the inner tank

Figure 30 - Inner tank removal 2



Using a 4-leg lifting chain attached to each corner carefully remove the inner tank,

To re-install the inner tank into the containment, follow steps 1 – 4 in reverse. Always ensure the bolts are torqued.

Figure 31 - Inner tank removal 3

USE THE SAME PROCEDURES WHEN LIFTING AS STATED IN THE LIFTING AND HANDLING SECTION

IMPORTANT

ALWAYS REMOVE ALL OF THE TANKS CONTENTS BEFORE LIFTING THE INNER TANK

.

Torque settings

If the tank is required to be dismantled and re-assembled the tank nuts and bolts used are required to be torqued, torque settings are shown in the table below.

Metric Torque Specifications

Typical Maximum Tightening Torque **Nm** *(lb-ft)*

Size	**Property Class**	
	Grade 8.8	Grade 10.9
M8	**30** (21)	**40** (30)
M10	**55** (42)	**75** (60)
M12	**100** (74)	**135** (106)

Figure 32 - Torque settings

Torque figures indicated above are valid for lightly oiled threads. Therefore, do not grease or oil bolts or cap screws unless otherwise specified.

Torque values for bolts and cap screws are identified by their head markings (property class).

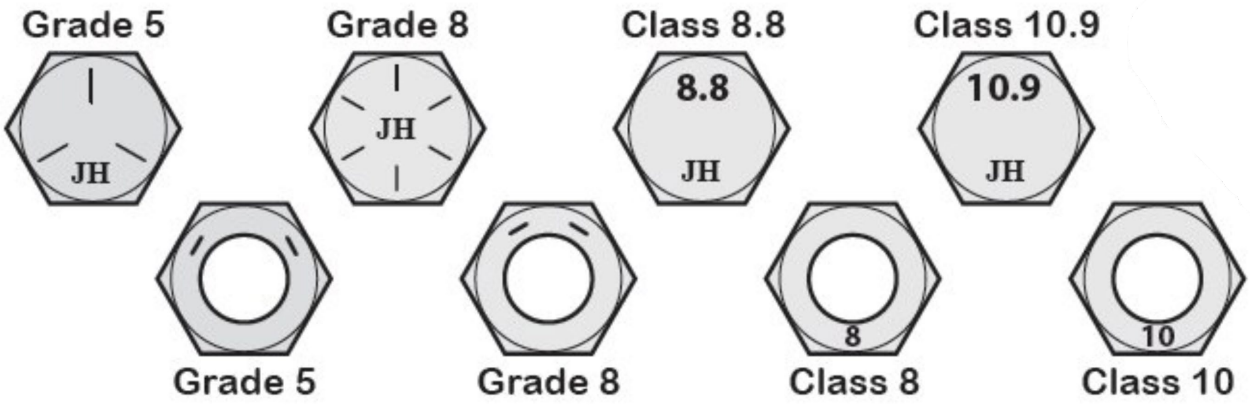


Figure 33 - Fixing Grades

Environmental responsibility

Correct and considerate management of Flammable & Combustible fluids, their storage and transfer are the responsibility of everyone who operates or maintains this equipment. All necessary precautions should be made to prevent spills and subsequent pollution of the environment.

Have in place a clear action plan to deal with the accidental spill, no matter how small or large. Ensure that you have a Flammable & Combustible fluids spill containment kit available and that you understand its correct use.

Spills

Should a spill occur when emptying the containment, or when filling or transferring fuel, clear the spill as quickly as possible using absorbent material. Ideally, you should use a dedicated spill kit which will contain all the necessary items to retain and remove such a spill.

- DO NOT hose the area down or use any detergents
- DO NOT allow the fuel to enter drains or watercourses
- Spills must be reported to your Local Authority
- All material used to retain and remove a spill should be bagged and collected by a registered carrier

Containment

The TCG containment area safeguards against any spill exiting the unit and polluting the immediate area. The containment is designed to retain up to 110% of the unit's primary tank maximum storage capability.

- Check regularly for liquid in the containment
- Remove any water
- Take immediate remedial action if product or water is found

IMPORTANT

WASTE MAY ONLY BE COLLECTED BY A REGISTERED CARRIER

Disposal

When maintaining, servicing, or disposing of the TCG or consumable components, do not dispose of contaminated parts within general refuse.

Refer to local authority regulations for their correct disposal.

Troubleshooting

The Transcube is a simple and reliable system.

Below we have listed common problems, causes and solutions that you may encounter.

If a problem is difficult to solve, even after having read through this trouble-shooting section, please call your local Western Global distributor or dealer.

Before you call, please have the tank Identification Marks ready (Serial and Tank numbers)

PROBLEM	CAUSE	SOLUTION
The pump will not run	No Power	Connect power wires to the correct power source
	Pump Off	Turn pump on
Fuel in containment	Loose-fitting	Tighten fitting
	Leaking Coupler	Replace coupler
	Overfilling	Watch the fuel gauge when filling. Do not fill past 95% of the nominal capacity
Water in containment	The lid was left open to the weather	Keep lid closed Immediately remove water from the containment and dispose of per local environmental codes.

Figure 34 - Basic troubleshooting

Warranty

At Western Global, we are committed to quality and reliability. We know that, as a customer, you need peace-of-mind when working with our products. Our tanks and equipment are durable and built to last.

For the latest **Warranty Information** visit our website:

https://western-global.com/en/

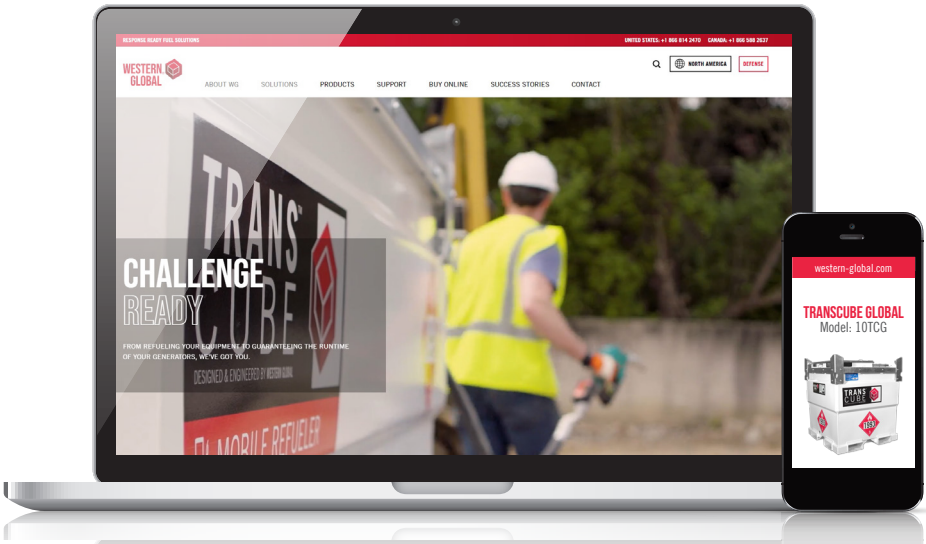
for North America Support

https://western-global.com/us/support/warranty/

for UK and Rest Of The World Support

https://western-global.com/en/support/warranty/

NEED MORE INFORMATION?



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