

### Technical Specification for Steel Tank Container

<b>Tank Specification:</b>	GCST-ST-SPEC-130001	
<b>Tank Type:</b>	20' ISO full frame collar tank, Type UN Portable Tank T11 insulated, steam heated, top side rails fitted	
<b>Quantity:</b>	20	
<b>Frame Dimensions:</b>	20' x 8' x 8'6"	
<b>Capacity:</b>	25,000 Litres +/- 2%	
<b>M.G.W.:</b>	36,000 kg	
<b>Tare (est.):</b>	3,700 kgs	
<b>Max Payload:</b>	32,300 kgs	
<b>Working Pressure:</b>	4 Bar	
<b>Test Pressure:</b>	6 Bar	
<b>Max. Allowable Vacuum</b>	0.41 Bar	
<b>Design Temp:</b>	-40°C to +130°C	
<b>Vessel Material:</b>	316L Stainless Steel (C<0.03%) Shell: Cold Rolled 2B finish Dished ends: Hot rolled and polished internally to 1.2 Micron CLA	
<b>Shell Thickness:</b>	Calculated thickness: 4.18mm min. Corrosion allowance: 0.2mm Manufacturing thickness: 4.4 mm Min.	
<b>Ends Thickness:</b>	Calculated thickness: 4.3 mm Minimum after forming Corrosion allowance: 0.2mm Manufacturing thickness: 4.5mm Minimum after forming	
<b>Frame Material:</b>	GB/T 1591-94-Q345D	
<b>Frame to Shell:</b>	304 stainless steel	
<b>Corner castings:</b>	ISO 1161 - 8 off	
<b>Vessel Design Code:</b>	ASME VIII Div 1	
<b>Radiography:</b>	Shell:	ASME Spot
	Dished ends:	ASME Full
<b>Inspection Agency:</b>	LR or BV	

<b>Cargo carried:</b>	See dangerous cargo lists for UN Portable T11 tank
<b>Design Approvals:</b>	IMDG T11, CFR 49, ADR/RID, CSC, TC, TIR, ISO, UIC, US/UK DOT
<b>Fittings and Accessories:</b>	Valve fittings from Item 1 to Item 6 supplier to be agreed.
<b>1. Manway Assembly</b>	1 x 500mm - 8-point fastening manlid, low profile with TIR provision, no dipstick guide fitted Gasket: PTFE encapsulated EPDM inner
<b>2. Relief Valve Assembly</b>	1 x 2 ½" BSP pressure relief valve without flameproof gauze Set pressure: 4.4 bar Gasket: PTFE Weld-in pad fitted tangentially inside the centre spill box
<b>3. Relief Valve Provision</b>	One off, provision only.
<b>4. Airline Connection</b>	1 x 1.5" BSP ball valve complete with blanking cap and chain. Gasket: PTFE Weld-in pad fitted tangentially inside the rear spill box
<b>5. Top Discharge Provision</b>	DN80 weld-in pad with bolted blank flange. Gasket: PTFE
<b>6. Bottom Outlet Assembly</b>	45° 3" foot valve and 3" clamped butterfly valve terminating with 3" BSP spigot and blank cap. Gasket: PTFE An emergency closure cable is connected to the footvalve handle
<b>7. Spill Boxes</b>	2 top spill boxes provided, containing as follows:- Centre box contains Manway and PR valve Rear box contains Airline valve and top discharge provision Drainage pipes fitted to each side of each top box
<b>8. Outlet housing</b>	The outlet valve is contained within a protective housing.
<b>9. Walkway</b>	'F' Type walkway, 475 wide aluminium 'Q' grating fitted as follows:- 1 full length walkways fitted with two transverse sections, one adjacent to the centre spill box, one across rear of tank
<b>10. Handrail</b>	Not fitted, no provision
<b>11. Steam Heating</b>	8 longitudinal runs of heating coils, giving a total effective heating area of 10.00 M2 will be fitted The working pressure is 4 bar and the testing pressure is 6bar Inlet and outlet connections are ¾" BSP Dust caps and chain will be fitted.
<b>12. Insulation</b>	Tank insulated with 50 mm mineral wool with a density of 55kg/M3 where possible. Aluminium foil will be fitted between insulation and tank shell External cladding: white GRP

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| <b>13. Thermometer</b>    | 1 off, Dual scale thermometer, -40° C to 160° C, fitted on rear end to lower left side |
| <b>14. Ladder</b>         | Aluminium; anti-slip rungs, right-hand rear of tank                                    |
| <b>15. Earthing Plate</b> | 1 off, welded to bottom frame rear end of tank   |