**Technical Specification for Steel Tank Container**

**Tank Type:** 20’ ISO full frame collar tank, Type UN Portable tank T11

Insulated, steam heated, top side rails fitted

**Tank No.:** NTTU 240011 - 9

**Manufacture Date:** 01-2012

**Specification No. :** NT24T11C Rev.0

**GA Drawing Ref:** 24000/NT001/01/0

**Frame Dimensions:** 20’ x 8’ x 8’ 6”

**Capacity:** 24,000 Litres +/- 2%

**M.G.W.:** 36,000 kg

**Tare (est.):** 3,650 kgs

**Max Payload:** 32,350 kgs

**Working Pressure:** 4 Bar

**Test Pressure:** 6 Bar

**Max. Allowable Vacuum** 0.41 Bar

**Design Temp:** - 40°C to +130°C

**Vessel Material:** SANS 50028-7 WNr 1.4402/14404(C<0.03%), 316L

Shell: Cold Rolled 2B finish.

Dished ends: Hot rolled and polished internally to 1.2 Micron CLA

Supplied by ALZ, TISCO, Columbus or Outokumpu

**Shell Thickness:** 4.4mm Nominal

**Ends Thickness:** 4.7mm Minimum after forming

**Corrosion Allowance** 0.2mm

**Frame Material:** GB/T 1591-94-Q345D

**Frame to Shell:** 304 stainless steel

**Corner castings:** ISO 1161 - 8 off

**Vessel Design Code:** ASME VIII Div 1

**Radiography:** Shell: ASME Spot

Dished ends: ASME Full

**Inspection Agency:** LR or BV

**Cargo carried:** See dangerous cargo lists for UN Portable T11 tank

**Design Approvals:** IMDG T11, CFR49, ADR/RID, CSC, TC, TIR, ISO, UIC, US/UK DOT

**Fittings and Accessories:** Valve fittings from Item 1 to Item 6 below, supplied by Fort Vale.

**1. Manway Assembly** 1 x 500 mm - 8-point fastening manlid, low profile with TIR provision Gasket: PTFE encapsulated EPDM inner

**2. Relief Valve Assembly** 1 x 2 ½” BSP pressure relief valve without flameproof gauze

Set pressure: 4.4 bar

Gasket: PTFE/CNAF

Weld-in pad fitted tangentially inside the centre spill box

**3. Relief Valve Provision** 1 x 2 ½” BSP pressure relief tank nozzle with bolted blank flange

**4. Airline connection** 1 x 1.5” BSP air inlet valve with 1 ½” BSP connection fitted with blanking cap and chain. Provision for future fitting of manometer.

Gasket: Encapsulated PTFE

Weld-in pad fitted tangentially inside the rear spill box

**5. Top Discharge Provision** DN80 weld-in pad with bolted blank flange.

Gasket: PTFE

**6. Bottom Outlet Assembly** DN80 45° stainless steel high-lift foot valve and clamped type butterfly valve fitted with 3” BSP stainless steel screwed outlet connection and captive blank cap.

Gasket: PTFE/CNAF

An emergency closure cable is connected to the footvalve handle

**7. Spill Boxes** 2 top spill boxes provided, containing as follows: -

Centre box contains Manway, PR valve and PR provision.

Rear box contains Air Inlet Connection and top Outlet provision

Drainage pipes fitted to each side of each top box

**8. Outlet Housing** The outlet valve is contained within a protective housing.

**9. Walkway** ‘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

**10. Handrail** A collapsible handrail will be fitted along the walkway

**11. Steam Heating** 6 longitudinal runs of heating coils, giving a total effective heating area of 8.00M2 will be fitted

The working pressure is 4 bar and the testing pressure is 6 bar Inlet and outlet connections are ¾” BSP

Dust caps and chain will be fitted

**12. Insulation** Tank insulated with 50mm mineral wool with a density of 55kg/M3 where possible. Aluminium foil will be fitted between insulation and tank shell

External cladding: white GRP

**13. Thermometer** 1 off, analogue thermometer; -40° C to 160° C, fitted on rear end to lower left side

**14. Ladder** Carbon steel; anti-slip rungs, right-hand rear of tank

**15. Earthing Plate** 1 off, welded to bottom frame rear end of tank

**16. Document Holder** 1 off, in tubular PVC

**17. Decal** Mandatory markings supplied and fitted

**18. Data Plate** 1 off SS consolidated data plate as per code

**19. Calibration Plate** No fitted

**20. Internal Finish** Longitudinal welds: as-welded

Circumferential welds: as-welded but with 300 mm ground flush and polished to a maximum of 1.2 micron CLA on bottom centre line.

Entire internal surface chemically cleaned and passivated after completion of

all welding and dressing.

**21. External Finish** Tank Shell: External surface of tank cleaned after completion of all welding

and testing.

Framework: All carbon steel frame parts will be shot blasted to Swedish

standard SA2½ followed by the application of:-

**22. Painting** First coat: Hempadur Zinc (15360) 30 micron min DFT

Intermediate: Hempatex Primer (15300) 40 micron min DFT

Final coat: Hempatex Hibuild (56430) 50 micron min DFT

TOTAL 120 micron min DFT

Colour Blue Black RAL 9005

**23. Stacking** Each container approved for 10 high stacking