



TANK SPECIFICATION

Tankspan

ES 5330 Issue 4 27 July 2000

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1.0 DESIGN SPECIFICATION

TANK TYPE : 20 ft ISO Beam tank container.

CAPACITY : 23,000 litre -1 +1.5%.

TARE : 3,450 kg nominal.

MAX GROSS : 34,000 kg.

PRODUCTS : Beer.

MAWP : 2 bar.

TEST PRESSURE : 3 bar.

DESIGN TEMP. : 20°C.

TYPE APPROVALS : CSC, UIC, TIR, AAR 600.

CLASSIFICATION SOCIETY : Lloyds Industrial Division or Bureau Veritas.

2.0 VESSEL

DESIGN CODE : ASME VIII Div 1 where applicable.

MATERIAL : DIN 1.4301 or equivalent max carbon content 0.05%.
Cold rolled 2B finish.

SURFACE POLISH : Internal welds ground smooth. Fillet welds on tank fittings ground smooth. Surface roughness better than 1 micron. External welds as welded.

INTERNAL FINISH : Chemically cleaned,washed and dried.



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3.0 FRAME.

TYPE : ISO 1496/3 (1CC).
MATERIAL : DIN 17119/DIN 59411 St 52.3
WALKWAY : One longitudinal walkway terminating forward of top box, one transverse section to rear of box.

4. 0 COMPONENTS

- 4.1) SAFETY RELIEF VALVE : 1 x 2p" Fort Vale Twinact pressure/vacuum valve set at 2.2 bar/ 1" Hg vacuum.
- 4.2) MANLID : Fort Vale 500mm six point manway with SWR gasket.
- 4.3) IN PLACE CLEANING LINE : 2" dia.stainless steel I.P.C line commences in rear boot in a 2" RJT male and cap to 2" stainless steel butterfly valve complete with male connections. Line runs up tank and enters shell at two points in 1" line to a 90mm dia. spray ball.
- 4.4) CO₂ LINE : 1.5" dia. stainless steel line will commence in rear boot in 1.5" RJT male and cap to 1.5" stainless steel butterfly valve complete with RJT male connection. Pressure gauge complete with BSP connection fitted adjacent to valve. Line then runs up tank entering the shell at front of tank.
- 4.5) INLET/OUTLET : 3" NB slipped outlet pipe flanged 3"BST 'D' complete with 3" butterfly valve and 3" RJT male connection.
- 4.6) REAR COMPT : Insulated stainless steel compartment complete with insulated hinged lid, housing IPC line, CO line and outlet. Provision for customs sealing.



- 4.7) TOP BOX : Insulated stainless steel box complete with hinged lid housing manway and relief valve.
- 4.8) DOCUMENT HOLDER : Plastic document holder fitted to rear end frame.
- 4.9) SAMPLE POINT : .5" Sample point assembly fitted in outlet box.

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- 4.9) HEATING / COOLING SYSTEM : 12 run cooling system comprising 6 runs at the top of the tank straddling the spillage boxes and 6 run on the base of the tank. The pipes to be a continuous run. The high points of the glycol cooling pipes are to be fitted with suitable air vents. The pipes are to be terminated at a convenient location to connect with the cooling unit with the minimum of pipework external to the insulation. All external glycol pipework to be suitably insulated.
- PRESSURES : Design Pressure 2 bar
Test Pressure 3 bar
- CONNECTIONS : Coolant inlet/outlet 1" BSP positioned at the high point of the glycol coils.
- COOLANT : 50/50% Propylene glycol and water mixture.
- REFRIGERATION EQUIPMENT : Klinge Corporation Model TCR -109 with 5kW heater, complete with glycol expansion tank and rear mounted control box with audio and visual alarms.
- DATA LOGGER : Independant data logger with printer and independant temperature probes (one for product temperature, tank mounted within a thermowell, and one for ambient).

5.0 INSULATION AND CLADDING

- 5.1) INSULATION BARREL & ENDS : 50 mm polyurethane.
- 5.2) CLADDING : White glass reinforced plastic over barrel and ends.
Polished stainless steel banding.

6.0 EXTERNAL CORROSION PROTECTION

SURFACE PREPARATION : Shotblast SA 2p to framework.

CARBON STEEL FRAMEWORK : One coat Hempel Hempadur Zinc 1536 Primers 150 microns DFT. One coat Hempel Hempatex 150 microns DFT. Colour to be advised.



CARBON STEEL FRAMEWORK UNDER CLADDING : One coat Hempadur LTC 4541 to 200 microns DFT

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ELECTROLYTIC PROTECTION: Suitable insulation between dissimilar metals of the frame and the components of the cooling system. Reefer unit to be earthed to tank frame.

7.0 MARKING

DATA PLATES : Consolidated data/customs plate.

STATUTORY DECALS : Supplied and fitted by UBH.

OWNERS LOGOS : Not applicable.