

TRENCOR TANK CONTAINERS

50 x 25,000 L - 20' TANK CONTAINER

with MANNINGS Electrical Heating System

MODEL NUMBER: 25 FSTD

QUOTATION NUMBER: 02035C OCI

PREPARED FOR

TANKSPAN LEASING LTD

PROPOSED BY:

TRENCOR TANK CONTAINERS

MANAGER: Tankspan Leasing Ltd
50 Churchill Square
West Malling
Kent, ME19 4YU
England.

1. Technical Characteristics

1.1 Design & Testing

Tank – in accordance with: IMDG, CFR 49, RID/ADR and ASME VIII, Div 1
US DOT , RID/ADR &
IMDG Equivalent Thickness (mm): 6 mm

Frame – in accordance with: ISO Standard 1496/3

1.2 ISO Type

1CC / 22T6

1.3 UN Portable tank instruction

T11

1.4 Nominal Capacity (-0,75 +0,75% Tolerance)

SI	US	
25 000	6604	US gal

1.5 Frame Dimensions and Weight

Max Gross Weight	36 000	kg	79366	lb.
Tare Weight (± 3% Tolerance) Estimated	3880	kg	8554	lb
Length	6058	mm	20	ft
Width	2438	mm	8	ft
Height	2591	mm	8 ft 6	in

1.6 Tank Dimensions

Internal Diameter	2370	mm	93,31	in
Seam to Seam	5007	mm	197,13	in
Shell Minimum Thickness	4,403	mm	0,1733	in
Shell Order Thickness	4,5	mm	0,1772	in
Head Minimum Thickness				
Knuckle	5,244	mm	0,2065	in
Crown	4,403	mm	0,1733	in
Corrosion Allowance	0	mm	0.0	in
Dished Ends	Torispherical			

1.7 Pressure & Temperature Rating

Tank Design Temperature	130	°C	266	°F
Maximum Allowable Working Pressure	4,0	bar	58,0	psi
Test Pressure	6,0	bar	87,0	psi
Vacuum Pressure	0,4	bar	5,8	psi
Steam Heating				
Maximum Allowable Working Pressure	7,0	bar	101,5	psi
Test Pressure	10,5	bar	152,25	psi

1.8 Material of Construction

Framework	EN 10210-1 S355 J2H (Hollow section) 50D or Equivalent (Tested to -40°C)
Corner Castings	ISO Standard 1161
Shell	DIN 17441 W1.4401 Low Carbon C ≤ 0.03% Cold Rolled 2B (ASTM A 240-93B, 316)
Heads (Columbus Material)	DIN 17441 W1.4401 Low Carbon C ≤ 0.03% Cold Rolled, Ra ≤ 1.6 (ASTM A 240-93B, 316)
Vacuum Stiffening Rings	ASTM A240 Gr. 304

2. Finish

Internal Welds Finish

Longitudinal Not ground, smooth low bead scotch brite polished
 Circumferential Bottom ± 400 mm ground flush and polished (Ra ≤ 1.6) Circ weld roots to be scotch brite polished.
 Repairs Ground flush and polished (Ra ≤ 1.6)

3. Tank Fitting and Accessories

3.1 Manhole

Supplier Swift (Part No. STM 7006-01)
 Dimensions 500 mm ID
 Material 316 L
 Description 8 point fixing
 Gasket PTFE braided (Non leaking type)

3.2 Safety Relief Valve

Supplier Fort Vale (Part No. G10/16300)
 Quantity One
 Description 2_” BSP MK III Super Maxi
 Specifications +4,4 pressure only (+63,8 psi)
 Gasket Solid PTFE
 Flanged Adaptor Yes
 Gauze Ring Yes
 Weld In Flange Yes

3.3 Air Inlet Valve

Supplier Gestra (Part No. 15 VV 10B66 T12201)
 Quantity One
 Description 1_” BSP Ball valve with stainless steel cap
 Gasket PTFE
 Weld In Flange Yes

3.4 Top Discharge Provision

Quantity One
 Dimensions DN 80 (3”)
 Specification Blank flange (4 x M16 on 160 mm PCD)
 Gasket Klinger SIL C-4430 and PTFE
 Remarks Provision is made for the future fitting of a clamped 3” butterfly valve and 3” syphon tube
 Guide for Syphon tube Yes
 Weld In Flange Yes

3.5 Thermometer

Supplier WIKA
 Quantity One
 Description Surface type, 100 mm dial diameter
 Dual scale -20°C to 150°C, -4°F to 302°F
 Type Gas in metal / Contact type
 Position Rear end (8 o'clock)

3.6 Bottom Discharge

Supplier Fort Vale
 Dimensions DN 80 (3”) opening diameter
 Specification Internal valve - 30° foot valve (Part No. 830/3200)
 Gasket Klinger SIL C-4430 / PTFE Envelope
 External valve – Left Hand operated
 clamped butterfly valve (Part No. 368/7000B)
 Gasket Solid PTFE
 3” BSP threaded connector closed by a stainless steel cap with retaining chain
 Weld in Flange Yes
 Remarks A remote control is connected to the internal valve handle with fusible link provision

3.7 Spillbox (s)

Quantity Two, manhole with safety relief and accessories
Position: On centre line around Manhole and Off centre around Top Discharge
Dimensions 950 mm x 750 mm and 550 mm x 400 mm
Material ASTM A240 316L, 2 mm
Drain Pipes External
Material Reinforced plastic 25mm NB

3.8 Steam Heating

Heating area 6,64 m₂ (effective)
No. of runs 8
Inlet diameter _ inch BSP male threaded
Outlet diameter _ inch BSP male threaded
Drain valve Yes, _ inch BSP Ball Valve
End cap material PVC

3.9 Electrical Heating

One Mannings harness electrical heating system to the following specification will be fitted:
Control unit with cargo Thermostat 0-150 deg C (with stop at 120 deg C) Rating 380 – 440 V
3 phase 50/60 Hz. supply and rated at 15kW (nom.) at 415 V
The control box will be fitted at the top Right corner on the Left hand side frame.

3.10 Tank Treatment

Pickling
Internal Yes
External Welds & Heat marks
Passivation
Internal Yes
External Spillboxes only
Anti-stress lacquer Whole exterior of tank including skirts

3.11 Insulation and Cladding

Material Mineral Wool Polyisocyanurate
Shell 30 mm (min 55kg/m₂) 20 mm (min 32kg/m₂)
Ends varies (min 55kg/m₂)
Cladding 0,8mm thick pre painted white (RAL^{***}) aluminium (Grade 5251 H44) or equivalent

3.12 Walkway

Layout "T" Type
Width / thick 475 mm / 3.0 mm
Material Aluminium Grade 5042-0

3.13 Ladder

One ladder 300 mm (32 x 32 mm section) wide is provided on the right hand side of the rear frame. The ladder rungs are made from stainless steel and have an anti-slip surface. One handhold is provided adjacent to the ladder. One handhold cut out is provided in the corner protection at the top of the ladder.

3.14 Corner Protection

8 off per tank located at the top and bottom frame corners.

3.15 Earthing Connection

One stainless steel lug 50 x 30 x 3 mm, with 15 mm hole, located at rear of tank frame.

3.16 Document Holder

1-off PVC document holder 90 mm diameter 300 mm long.
Colour: Opaque
Drain hole diameter 6mm

4. Tests and Approvals

- 4.1 These tank containers are constructed according to an approved design.
- 4.2 Each production unit is subject to testing and non-destructive examination as required by ASME VIII Division 1, UIC and Suppliers own quality requirements. The independent Inspection Authority, Bureau Veritas, inspects each unit.
- 4.3 The tank container has been approved for a stacking load of 86400kg per corner post.
- 4.4 The tank container fulfils the performance specification of the following International Organizations regulations and recommendations and is supplied with their Approvals / Registrations.

US-DOT	IMDG – (via US DOT)
TIR (Customs)	CSC
RID / ADR	Transport Canada
AAR 600	UIC (IC 70)

- 4.5 Radiography (UW51 and UW52)
 - Shell Spot
 - Dished Ends 100%

5. Documentation

The following documentation will be provided:

- 5.1 Details and GA drawings with indication of the serial number
- 5.2 Technical data sheet
- 5.3 Cleanliness Certificate issued by an Independent Party (one copy in plastic pouch in document holder)
- 5.4 Initial Inspection Certificate
- 5.5 BV technical note / approvals
- 5.6 User's Manual in English

Files must be prepared as specified hereafter:

- 1 x paper file
- 1 x CD ROM

6. Products (RID / ADR)

Approved for products in classes 3; 6.1; 8 & 9 as applicable.