

TANK TYPE Simple Pmd	MOUNT Lugs	LOCATION Girth	PMD DEVICE Channel
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This tank is a 27-inch x 48-inch long cylindrical pressure vessel constructed from 6Al-4V titanium. Mounting is accomplished on three (3) lugs located on the cylinder section. A channel type propellant management device (PMD) is provided to expel the fuel under low or zero gravity conditions.

P/N 80317-105

SIZE: 27.68-inch ID x 48-inch Long
SIZE: 703-mm ID x 1219-mm Long

ISO 9001 & AS 9100 REGISTERED

APPLICABLE DOCUMENTS

Bubble Point Test Procedure	50-000305
Acceptance Test Procedure	50-000316
Qualification Test Procedure	50-000325
Design & Performance Analysis Rpt	54-000069
Weight Analysis Report	54-000070
Forging Qualification Report	55-000057
Qualification Test Report	56-000109
Cleaning	CPP 3546
Cleaning	CPP 3613

TANK CHARACTERISTICS

Operating Pressure, psig	350	Total Volume, ci	23,400
Proof Pressure, psig	535	Qual Prop Load, lbm	800
Cryo Proof, psig	980	Max Design Wt, lbm	60.0
Burst Pressure, psig	737	Minimum Wall, inch	0.037

ACCEPTANCE TESTS

- Preliminary Examination
- Pressure Drop
- PMD Bubble Point
- Pre-Proof Capacity
- Proof Pressure
- Post Proof Capacity
- Cryogenic Proof
- Post-Proof Pressure Drop
- Post-Proof PMD Bubble Point
- Vacuum Leakage
- External Leakage
- Radiographic Inspection
- Penetrant Inspection
- External Preparation
- Final Examination
- Cleanliness Verification

TANK CHARACTERISTICS (Metrics)

Operating Pressure, bar	24.13	Total Volume, l	383.46
Proof Pressure, bar	36.89	Qual Prop Load, kg	362.87
Cryo Proof, bar	NA	Max Design Wt, Kg	27.22
Burst Pressure, bar	50.81	Minimum Wall, mm	0.94

FORGINGS

<u>FORGINGS P/N</u>	<u>SUPPLIER</u>	<u>Die</u>
80-228061-1 (2)		
<u>RING FGG</u>	<u>RING SIZE, (Rough Machined)</u>	
80-317063-1, Cyl		Note 2
80-314010-5, Lug		Obtain from Forging

Notes:

- 1: Tooling belongs to Customer
- 2: 28.88+ .50, -.00 ODx27.37+ .00, -.50 IDx20.37+ .25, -.00
- 3: Fracture Critical

TUBE TYPE AND SIZE

<u>TRANSITION</u>	<u>SIZE</u>
80-317001-1, Inlet, 2	.250 OD x .028 Wall
80-317002-1, Outlet	.375 OD x .035 Wall

QUALIFICATION TESTS

- Acceptance Tests
- Acoustic Test
- Modal Survey
- Pyrotechnic Shock
- Vacuum Leakage
- External Leakage
- Cleanliness Verification
- Radiographic Inspection
- Penetrant Inspection
- Pressure Cycles
- Pressure Drop
- PMD Bubble Point
- Vacuum Leakage
- External Leakage
- Radiographic Inspection
- Penetrant Inspection
- Final Examination
- Burst Test

