



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.

ATK 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	TANK CHARACTERISTICS	ACCEPTANCE TESTS
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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

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

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

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

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

TUBE TYPE AND SIZE	
TRANSITION	SIZE
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

