

TANK TYPE Complex PMD	MOUNT Bosses	LOCATION Polar	PMD DEVICE Vane, Trap & Sponge
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This tank is a 23-inch x 40-inch long cylindrical pressure vessel constructed from light-weight 6Al-4V titanium. Mounting is accomplished on polar bosses. A vane, trap & sponge type propellant management device (PMD) is provided to expel the fuel under low or zero gravity conditions.

Part Number 80310-6
Part Number 80310-7
SIZE: 23-inch ID x 40-inch Long
SIZE: 584-MM ID x 1016-MM Long

ISO 9001 & AS 9100 REGISTERED

APPLICABLE DOCUMENTS	
Bubble Point Test Procedure	50-000278
Acceptance Test Procedure	50-000279
Qualification Test Procedure	50-000280
Re-Qualification Test Procedure	50-000337
Materials & Processes List	54-000060
Vibration Fixture Evaluation	56-000118
Qualification Test Report	56-000121
Cleaning Procedure, Tank	CPP 3611
Cleaning Procedure, PMD	CPP 3546

TANK CHARACTERISTICS			
Operating Pressure, psig	255	Total Volume, ci	13,743
Proof Pressure, psig	400	Prop Volume, lbs	682
Cryo Proof, psig	NA	Max Design Wt, lbs	33.95
Burst Pressure, psig	520	Minimum Wall, inch	0.027

QUALIFICATION TESTS
Inspection
Proof Pressure
Pressure Cycling
Radiographic Inspection
Sustained Acceleration
Sine Vibration
Random Vibration
Bubble Point Test
Radiographic Inspection
Burst Pressure
External Leakage
Visual Inspection
Cleanliness and Visual Inspection
Preparation for Ddate Review

TANK CHARACTERISTICS (Metrics)			
Operating Pressure, bar	17.58	Total Volume, l	228.96
Proof Pressure, bar	27.58	Prop Volume, l	N/A
Cryo Proof, bar	N/A	Max Design Wt, kg	15.40
Burst Pressure, bar	35.85	Minimum Wall, MM	0.686

Notes:

- 1: Tooling belongs to Northrop Grumman
- 2: 30 percent of tooling was sold to LMSC
- 3: QTR for -3 Tank is 56-000121
- 4: QTR for -1 Tank is 56-000102
- 5: Fracture Critical
- 6: This tank was designed by LMMS

FORGINGS		
FORGINGS P/N	SUPPLIER	Die No
80-310061-1 (2)		
RING FORGING		RING SIZE, (Rough Machined)
80-310063-1, Cylinder	24.19 +.5 OD x 23.09 -.5 ID x 19.87 +.18 Lg	

TUBE TYPE AND SIZE	
TITANIUM	SIZE
80-310001-5, Outlet	.377 OD x .016 Wall
80-310002-3, Inlet	.252 OD x .016 Wall

