



TANK PMD	MOUNT	LOCATION	PMD DEVICE Complex
The propellant tank is a pressure vessel with spherical domes and center section constructed of 6AL-4V Titanium. Propellant in-flow and out-flow are provided by an internal PMD assembly retained at the outlet region of the tank. Mounting is accomplished by 2 polar boss shear / flex plates and 1 center section trunion / bearing. Connection is made to the propellant and pressurant compartments through welded 6AL/4V titanium tubes.			

**ATK Part Number 80527-1**

**SIZE: 29.5 in ID x 43.7 in long**  
**SIZE: 749 mm ID x 1110 mm long**

**ISO 9001 & AS 9100 REGISTERED**

APPLICABLE DOCUMENTS		TANK CHARACTERISTICS		QUALIFICATION TESTS		
Acceptance Test Procedure	50-000723	Operating Pressure, psig	315	Total Volume, ci	22,850	Pre-Proof Volume Proof Pressure Post-Proof Volume PMD Bubble Point Test External Leakage Proof Pressure Cycling MEOP Pressure Cycling System Priming Test Expulsion Efficiency PMD Bubble Point Test External Leakage Penetrant Inspection Radiographic Inspection Vibration PMD Bubble Point Test External Leakage Pre-Proof Volume Proof Pressure Post-Proof Volume Expulsion Efficiency External Leakage PMD Bubble Point Test Penetrant Inspection Radiographic Inspection Mass Measurement Burst Test
Qualification Test Procedure	50-000724	Proof Pressure, psig	472.5	Prop Volume, ci	15,835	
Bubble Point Test Procedure	50-000728	Cryo Proof, psig	NA	Max Design Wt, lb:	62.0	
		Burst Pressure, psig	630	Minimum Wall, incl	0.031	
		Actual Burst, psig	750			
		TANK CHARACTERISTICS (Metrics)				
		Operating Pressure, Bar	21.72	Total Volume, l	374.45	
		Proof Pressure, Bar	32.58	Prop Volume, l	259.49	
		Cryo Proof, Bar	NA	Max Design Wt, Kg	28.12	
		Burst Pressure, Bar	43.44	Minimum Wall, MV	0.787	
		Actual Burst, Bar	51.71			
		HEMI FORGINGS				
		<b>Forgings P/N</b>				
		80-381061-1				
		RING FORGINGS (Roughed Machined)				
		80-527063-1, C/S 31.88 Min OD x 29.0 Max ID x 15.72 Min Lg				
		80-527065-1, Chann@B.26+/- .12 OD x 24.63+/- .12 ID x 2.62+/- .06 Lg				
		TUBE TYPE AND SIZE				
		<b>Ti Tubes</b>		<b>SIZE</b>		
		80-527001-1 (2)		.375 OD X .020 Wall		
		80-527001-1 (2)		9.525 x .889 mm		



**ACCEPTANCE TESTS**

Examinatin of Product Weight Determination Pre-Proof Volume Determination Proof Pressure Test Post-Proof Volume Determination Expulsion Efficiency PMD Bubble Point Test External Leakage Test Penetrant Inspection Radiographic Inspection Final Examination of Product Cleanliness Verification
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**VACUUM RATED**

YES
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