



TANK PMD	MOUNT Tabs	LOCATION Girth	PMD DEVICE Simple Vane
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This tank assembly is a pressure vessel with hemispherical ends & a cylindrical section of all welded construction. The cylindrical section is an extension of the tank ends. The tank is mounted using 3 equally spaced circumferential tabs with threaded holes located on 1 of the hemispheres near the girth weld joint. The tank contains an internally-mounted propellant management device, with four vanes & perforated sheet fabricated to maintain separation of liquid propellant & gaseous pressurant & to provide predictable gas-free liquid propellant expulsion from the tank under low or zero gravity conditions.

ATK Part Number 80462-1

SIZE: 24.6-inch ID x 29-inch Long
SIZE: 625 x 736-MM

ISO 9001 & AS 9100 REGISTERED

APPLICABLE DOCUMENTS		TANK CHARACTERISTICS		QUALIFICATION TESTS					
Acceptance Test Procedure	N/A	Operating Pressure, psig	420	Total Volume, ci	9,850				
Qualification Test Procedure	see 80375-1	Proof Pressure, psig	630	Prop Volume, lbs	253				
Protoflight Test Procedure	50-000618	Cryo Proof, psig	NA	Max Design Wt, lbs	22.0				
Bubble Point Test Procedure	50-000623	Burst Pressure, psig	840	Minimum Wall, inch	0.033				
Fracture Analysis Plan	54-000214	TANK CHARACTERISTICS (Metrics)							
Stress Fracture	240 & 240A	Operating Pressure, Bar	28.96	Total Volume, l	161.41				
Cleaning	CPP 3968	Proof Pressure, Bar	43.44	Prop Volume, Kg	114.8				
Notes: 1: Tooling owned by ATK 2: 26.50+ .13, -.00 OD x 24.62+ .00, -.13 ID x 2.25+ .13, -.00 Long 3: The PMD is a PMD Technology Design 4: Tube protectors are SK 1345 & SK 1346 5: Weld Qual Ring is SK 1335 6: Tank is derivative of 80375-1		Cryo Proof, Bar	NA	Max Design Wt, Kg	9.98				
		Burst Pressure, Bar	57.92	Minimum Wall, MM	0.838				
		FORGINGS				QUALIFICATION TESTS Qual of tank shell was performed on 80375-1			
		Ring Size (Rough Machined)							
TUBE TYPE AND SIZE									
TUBE SIZE (mm)									
		Forgings P/N		SUPPLIER		Die		PROTOFLIGHT TESTS Preliminary Inspection of Product Pre-Proof Volumetric Capacity Pressure Drop Test Internal Vacu Bubble Point Test External Leakage Test Dry Random Vibration Test and Visual Inspection Wet Static Load Test Bubble Point Test External Leakage Test Radiographic Inspection Dye Penetrant Inspection Mass Determination, Cleanliness Check & Visual Inspection Data Review	
		80-375061-1, (2)							
		Roll Ring Forging							
		80-375063-1, Tab				Note 2			
		TITANIUM		SIZE					
		80-462005-5 (2)		.250 OD x .035 Wall					
		VACUUM RATED		YES					



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