

<u>TANK</u> PMD	<u>MOUNT</u> Tabs	<u>LOCATION</u> Girth	<u>PMD DEVICE</u> Simple Vane
<p>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.</p>			

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	Qual of tank shell was performed on 80375-1	
Qualification Test Procedure	see 80375-1	Proof Pressure, psig	630		
Protoflight Test Procedure	50-000618	Cryo Proof, psig	NA	PROTOFLIGHT TESTS Preliminary Inspection of Product Pre-Proof Volumetric Capacity Pressure Drop Test Internal Vacut 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	
Bubble Point Test Procedure	50-000623	Burst Pressure, psig	840		
Fracture Analysis Plan	54-000214				
Stress Fracture	240 & 240A				
Cleaning	CPP 3968				
		TANK CHARACTERISTICS (Metrics)			
		Operating Pressure, Bar	28.96	Total Volume, l	161.41
		Proof Pressure, Bar	43.44	Prop Volume, Kg	114.8
		Cryo Proof, Bar	NA	Max Design Wt, Kg	9.98
		Burst Pressure, Bar	57.92	Minimum Wall, MM	0.838
		FORGINGS			
		Forgings P/N	SUPPLIER	Die	
		80-375061-1, (2)	ARCTURUS	3684	
		Ring Size (Rough Machined)			
		Roll Ring Forging			
		80-375063-1, Tab	Note 2		
		TUBE TYPE AND SIZE			
		TITANIUM	SIZE		
		80-462005-5 (2)	.250 OD x .035 Wall		
		TUBE SIZE (mm)			
		80-462005-5 (2)	6.35 x .889 mm		
		VACUUM RATED			
		YES			

Notes:

- 1: Tooling owned by Northrop Grumman
- 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

PROGRAM INFORMATION

Program	N-FIRE
Customer	Spectrum Astro
Customer P/N	1195 EW-P44103-000
Original Job No.	0302
Customer Installed Device	No
Customer Controlled Design	No



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