

<b>TANK TYPE</b> Complex PMD	<b>MOUNT</b> Tabs, 24	<b>LOCATION</b> Girth	<b>PMD DEVICE</b> Channel
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This tank assembly is a hemispherical pressure vessel of all welded construction. It is mounted by 24 circumferential tabs with nut plates located on one of the hemispheres near the girth weld joint. The tank contains an internally-mounted propellant management device (PMD), 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.

**Part Number 80338-1**

**SIZE: 40.446-inch ID Sphere**  
**SIZE: 1027-MM**

**ISO 9001 & AS 9100 REGISTERED**

APPLICABLE DOCUMENTS		TANK CHARACTERISTICS		ACCEPTANCE TESTS	
Bubble Point Test Procedure	50-000332	Operating Pressure, psig	250	Total Volume, ci	34,500
Acceptance Test Procedure	50-000333	Proof Pressure, psig	375	Prop Volume, lbs	1,710
Qualification Test Procedure	50-000334	Cryo Proof, psig	No	Max Design Wt, lbs	56.0
Materials List	54-000088	Burst Pressure, psig	500	Minimum Wall, inch	0.034
Processes List	54-000089	<b>TANK CHARACTERISTICS (Metrics)</b>			
PMD Gap Determination	54-000112				
Qualification Test Report	56-000122	Operating Pressure, Bar	17.24	Total Volume, l	565.36
Fracture Analysis Plan	54-000090	Proof Pressure, Bar	25.85	Prop Volume, Kg	775.65
Cleaning Procedure, PMD	CPP 3546	Cryo Proof, Bar	No	Max Design Wt, Kg	25.40
Cleaning Procedure, Tank	CPP 3665	Burst Pressure, Bar	34.47	Minimum Wall, MM	0.864
		Inspection Mass Measurement Ambient Proof Pressure & Internal Volume Visual Inspection External Leakage Bubble Point Random Vibration Radiographic Inspection Penetrant Inspection Expulsion Test Bubble Point External Leakage Cleanliness & Visual Inspection Data Review			

**Notes:**

- 1: Tooling belongs to Customer/Govt
- 2: VTP for Channel Assy is 50-000361
- 3: VTP for Trap/Sponge Assy is 50-000362
- 4: Weld Qual Ring = SK-1029
- 5: Window Assy Weld Verification = SK-1030
- 6: Perforated Sheet SK-1033,SK-1035,SK-870
- 7: Tube protectors are SK 1037 & SK 1038
- 8: Geostationary Environment Satellite
- 9: Fracture Critical

**FORGINGS**

FORGINGS P/N	SUPPLIER	Die No
80-338061-1, (2)		
<b>Trap Body</b>		<b>SIZE</b>
80-338063-5	10.87 +.12, -.06 OD x 7.75 +.12, -.06 ID x 4.00 +.12, -.06 Long	
<b>Channel</b>		
80-338063-3	40.25 +.12, -.06 OD x 37.68 +.12, -.06 ID x 1.31 +.12, -.06 Long	
<b>Mounting</b>		
80-338063-1		ID x 3.87 +.12, -.06 Long

**TUBE TYPE AND SIZE**

TRANSITION	SIZE
80-338001-1, Inlet	.250 OD x .020 Wall
80-338002-1, Outlet	.375 OD x .020 Wall

**TUBE TYPE AND SIZE (Metrics)**

TRANSITION	SIZE
80-338001-1, Inlet	6.35 x .5 MM
80-338002-1, Outlet	9.52 x .5 MM

