



TANK TYPE Complex PMD	MOUNT Tabs, 24	LOCATION Girth	PMD DEVICE Channel
---------------------------------	--------------------------	--------------------------	------------------------------

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.

ATK 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	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	
Acceptance Test Procedure	50-000333	Proof Pressure, psig	375		
Qualification Test Procedure	50-000334	Cryo Proof, psig	No		
Materials List	54-000088	Burst Pressure, psig	500		
Processes List	54-000089	Total Volume, ci	34.500		
PMD Gap Determination	54-000112	Prop Volume, lbs	1.710		
Qualification Test Report	56-000122	Max Design Wt, lbs	56.0		
Fracture Analysis Plan	54-000090	Minimum Wall, inch	0.034		
Cleaning Procedure, PMD	CPP 3546				
Cleaning Procedure, Tank	CPP 3665				
APPLICABLE DOCUMENTS		TANK CHARACTERISTICS (Metrics)			
		Operating Pressure, Bar	17.24	Total Volume, l	565.36
		Proof Pressure, Bar	25.85	Prop Volume, Kg	775.65
		Cryo Proof, Bar	No	Max Design Wt, Kg	25.40
		Burst Pressure, Bar	34.47	Minimum Wall, MM	0.864

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)		
Trap Body		SIZE
80-338063-5	10.87 +.12, -.06 OD x 7.75 +.12, -.06 ID x 4.00 +.12, -.06 Long	
Channel		
80-338063-3	40.25 +.12, -.06 OD x 37.68 +.12, -.06 ID x 1.31 +.12, -.06 Long	
Mounting		
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

