



TANK TYPE Complex PMD Hydrazine	MOUNT Bosses	LOCATION Girth	PMD DEVICE Vane (4), Channel(2) Trap & Screen
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This tank is a spherical pressure vessel constructed of 6AL-4V titanium. Fuel (Hydrazine) expulsion is provided by a complex vane, channel & trap type propellant management device (PMD) fabricated to provide expulsion capability under low or zero gravity conditions.

ATK Part Number 80373-1

SIZE: 34-inch ID Sphere
SIZE: 863-mm

ISO 9001 & AS 9100 REGISTERED

APPLICABLE DOCUMENTS	
Qualification Test Procedure	50-000432
Acceptance Test Procedure	50-000438
Protoflight Test Procedure	50-000434
Bubble Point Test Procedure	50-000439
Installation / Vibration Bracket	50-000434
Cleaning	CPP 3728

TANK CHARACTERISTICS			
Operating Pressure, psig	300	Total Volume, ci	20,580
Proof Pressure, psig	375	Prop Volume, ci	20,579
Cryo Proof, psig	500	Max Design Wt, lbs	30.5
Burst Pressure, psig	450	Minimum Wall, inch	0.029

ACCEPTANCE TESTS
Examination of Product
Tank Assembly Bubblepoint Test
Pre-Proof Volumetric Capacity
Proof Pressure Test
Post-Proof Volumetric Capacity
Cryogenic Proof Pressure and Post Cryo Dimensional
Post-Cryo Dimensional Vibration Test
Vibration Test
Dry Random - Protoflight
Wet Sine Acceptance
Wet Random
External Leakage
Bubble Point Test
Radiographic & Dye Penetrant
Fianl Examination of Product
Cleanliness
Prepare for Delivery

Notes:

- 1: Tooling owned by ATK.
- 2: Acceptance Sine is wet & dry
- 3: INTELSAT 80373-3, ATP 50-000434
- 4: Fracture Critical

TANK CHARACTERISTICS (Metrics)			
Operating Pressure, Bar	20.68	Total Volume, l	337.25
Proof Pressure, Bar	25.85	Prop Volume, l	337.23
Cryo Proof, Bar	34.47	Max Design Wt, Kg	13.83
Burst Pressure, Bar	31.03	Minimum Wall, Kg	0.737

FORGINGS		
FORGINGS P/N	SUPPLIER	Die
80-373061-1 (2)		

TUBE TYPE AND SIZE	
TITANIUM	SIZE
80-373020-7, Inlet	.375 OD x .025 Wall
80-373040-5, Outlet	.500 OD x .025 Wall

TUBE TYPE AND SIZE (Metrics)	
80-373020-7, Inlet	9.52 x .635 mm
80-373040-5, Outlet	12.7 x .635 mm

