



TANK TYPE	MOUNT	LOCATION	PMD DEVICE
Simple Pmd	Bosses	Girth	Vane

This is a 22-inch spherical pressure vessel constructed of 6AL-4V titanium. A vane type propellant management device (PMD) is provided to expel fuel under low or zero gravity conditions. Mounting is accomplished by three (3) tabs parallel with & adjacent to the mid-plane. An inlet & outlet port is provided.

ATK Part Number 80364-1

SIZE: 22.14-inch ID Sphere
SIZE: 562-mm

ISO 9001 & AS 9100 REGISTERED

APPLICABLE DOCUMENTS		TANK CHARACTERISTICS			
Acceptance Test Procedure	50-000395	Operating Pressure, psig	400	Total Volume, ci	5,580
Protoflight Test Procedure	50-000395	Proof Pressure, psig	600	Prop Volume, lbs	150
Fracture Analysis Plan	54-000124	Cryo Proof, psig	No	Max Design Wt, lbs	12.5
Protoflight Test Report	56-000149	Burst Pressure, psig	800	Minimum Wall, inch	0.029
Cleaning	CPP 3689	Actual Burst, psig	1022		

ACCEPTANCE TESTS
Examination of Product
Volumetric Capacity Test
Proof Pressure Test
Volumetric Capacity Test Post Proof
External Leakage Test
Vibration Tests
External Leakage Test
Outside Surface Quality Inspection
Weld Quality Inspection
Weld Quality Inspection
Weight Test
Examination of Product
Pressurant Tube Weld Quality Inspection
Cleanliness Test
Final Tank Assembly Inspection

- Notes:**
- 1: Tooling owned by ATK
 - 2: This tank similar to 80313 & 80360
 - 3: The PMD design is proprietary to GE/ASD
 - 4: Fracture Critical

TANK CHARACTERISTICS (Metrics)			
Operating Pressure, bar	27.58	Total Volume, l	91.44
Proof Pressure, bar	41.37	Prop Volume, Kg	68.04
Cryo Proof, bar	No	Max Design Wt, Kg	5.67
Burst Pressure, bar	55.16	Minimum Wall, MM	0.737
Actual Burst, bar	70.46		

FORGINGS P/N	SUPPLIER	Die No
80-313061-1 (2)		

TUBE TYPE AND SIZE		SIZE
TITANIUM		
80-304009-1, Inlet, 2		.250 OD x .016 wall
80-304009-3, Outlet		.250 OD x .016 Wall
		6.35 x .406 mm

QUALIFICATION TESTS
Qual by similarity on 80360-1.

