



TANK TYPE	MOUNT	LOCATION	PMD DEVICE
Simple Pmd	Lugs	Girth	Vane, Note 8

This is a 19-inch spherical pressure vessel constructed of light-weight 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.

**ATK Part Number 80304-1**

**SIZE: 19.03-inch ID Sphere**  
**SIZE: 483-MM**

**ISO 9001 & AS 9100 REGISTERED**

APPLICABLE DOCUMENTS	
Acceptance Test Procedure	50-000254
Fracture Control Plan	54-000047
Cleaning	CPP 3546
Cleaning	CPP 3590

TANK CHARACTERISTICS			
Operating Pressure, psig	400	Total Volume, ci	3,575
Proof Pressure, psig	600	Prop Volume, lbs	2,349
Cryo Proof, psig	750	Design Wt, lbs,-3	7.75
Burst Pressure, psig, Note 3	800	Minimum Wall, inch	0.026

ACCEPTANCE TESTS
Preliminary Examination of Product
Pre-Proof Volume
Hydrostatic Proof Pressure
Cryogenic Proof Pressure
Post-Proof Volume
External Leakage
Surface Quality Inspection
Weld Quality Inspection
Weight Determination
Examination of Product
Cleanliness Test
Final Tank Assembly Inspection

**Notes:**

- 1: Tooling belongs to ATK
- 2: -1 is left hand, -2 is right hand. -3 can be left or right
- 3: When normalized
- 4: Tube has a .035 Wall where it enters the tank
- 5: Simple Vanes (Four Vanes)
- 6: Fracture Critical

**TANK CHARACTERISTICS (Metrics)**

Operating Pressure, bar	27.58	Total Volume, l	59.56
Proof Pressure, bar	41.37	Prop Volume, l	39.13
Cryo Proof, bar	N/A	Max Design Wt, kg	3.52
Burst Pressure, bar	55.16	Minimum Wall, MM	0.660

**FORGINGS**

FORGINGS P/N	SUPPLIER	Die
2306579 9 (2)		

**TUBE TYPE AND SIZE**

TRANSITION	SIZE
80-296001-1, Outlet	.250 OD x .028 Wall x 4.0 Lg
<b>TITANIUM</b>	
80-304009-1, Inlet, Note 7	.250 OD x .016 Wall x 2.64 Lg

