



TANK TYPE	MOUNT	LOCATION	PMD DEVICE
Simple Pmd	Lugs	Girth	Vane, Note 5

This is a 19-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 and adjacent to the mid-plane. An inlet and outlet port is provided.

ATK Part Number 80296-1

SIZE: 19.03-inch ID Sphere
SIZE: 483-mm

ISO 9001 & AS 9100 REGISTERED

APPLICABLE DOCUMENTS	TANK CHARACTERISTICS	ACCEPTANCE TESTS
Acceptance Test Procedure 50-000248	Operating Pressure, psig 425	Preliminary Examination of Product
Qualification Test Procedure 50-000249	Proof Pressure, psig 632	Hydrostatic Proof Pressure
Qualification Test Report 56-000089	Cryo Proof, psig 750	Cryogenic Proof Pressure
Fracture Control Plan 54-000047	Burst Pressure, psig, Note 3 820	Post Proof Volume
Cleaning CPP 3582	Actual Burst, psig 909	External Leakage
	Total Volume, ci 3.575	Surface Quality Inspection
	Prop Volume, lbs N/A	Weld Quality Inspection
	Design Wt, lbs,-3 8.2	Weight Determination
	Design Wt, lbs,-1 8.0	Examination of Product
	Minimum Wall, inch	Cleanliness Test
		Final Examination of Product

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: Use of Forging Die Controlled by GE/ASD
- 5: Simple Vanes
- 6: Fracture Critical

TANK CHARACTERISTICS (Metrics)

Operating Pressure, bar 43.57	Total Volume, l N/A
Proof Pressure, bar 51.71	Prop Volume, l variable
Cryo Proof, bar No	Max Design Wt, kg 3.63
Burst Pressure, bar 62.67	Minimum Wall, MM 0.000

FORGINGS

FORGINGS P/N	SUPPLIER	Die No.
2306579 9 (2), Note 4		

QUALIFICATION TESTS

- Acceptance tests
- Negative Pressure Test
- Pressure Cycle Life Test
- External Leakage Test
- Slosh Test
- Cleanliness Verification
- Acceleration Test
- Vibration Test
- Radiographic Inspection
- External Leakage Test
- Terminal Expulsion Efficiency
- Burst Test

TUBE TYPE AND SIZE

TRANSITION	SIZE
80-296001-1, Outlet	.250 OD x .028 Wall x 4.0 Lg
TITANIUM	
80-296003-1, Inlet	.250 OD x .035 Wall X 2.2 Lg

