

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

Part Number 80296-1

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

ISO 9001 & AS 9100 REGISTERED

APPLICABLE DOCUMENTS	TANK CHARACTERISTICS	ACCEPTANCE TESTS
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Acceptance Test Procedure	50-000248
Qualification Test Procedure	50-000249
Qualification Test Report	56-000089
Fracture Control Plan	54-000047
Cleaning	CPP 3582

Operating Pressure, psig	425	Total Volume, ci	3,575
Proof Pressure, psig	632	Prop Volume, lbs	N/A
Cryo Proof, psig	750	Design Wt, lbs,-3	8.2
Burst Pressure, psig, Note 3	820	Design Wt, lbs,-1	8.0
Actual Burst, psig	909	Minimum Wall, inch	

Preliminary Examination of Product
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 Examination of Product

Notes:

- 1: Tooling belongs to Northrop Grumman
- 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

