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

NORTHROP GRUMMAN

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.

ISO 9001 & AS 9100 REGISTERED

Part Number 80304-1

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

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 Northrop Grumman
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 Criticsl

TANK CHARACTERISTICS (Metrics)

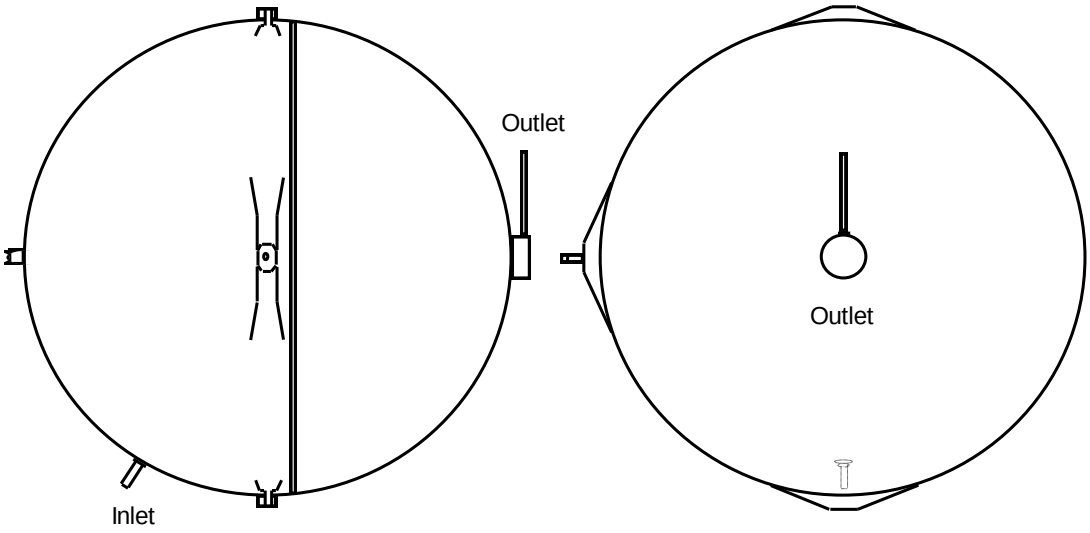
Operating Pressure, bar	27.58	Total Volume, l	59.56
Proof Pressure, bar	41.37	Prop Volume, l	39.13
Cryo Proof, bar	N/A	Max Design Wt, kg	3.52
Burst Pressure, bar	55.16	Minimum Wall, MM	0.660

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
TITANIUM	
80-304009-1, Inlet, Note 7	.250 OD x .016 Wall x 2.64 Lg



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