

TANK TYPE DIAPHRAGM	MOUNT Polar Bosses	LOCATION POLAR
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The tanks a 17 inch diameter, boss mounted, spherical diaphragm tank whose shell and diaphragms materials of construction are 6AL-4V Titanium and AF-E-332 respectively.

Part Number 80572-1

SIZE: 17.00" OD x 19.970" boss-to-boss
SIZE: 431.8 mm OD x 507.24 mm boss-to-boss

ISO 9001 & AS 9100 REGISTERED

APPLICABLE DOCUMENTS

Acceptance Test Procedure	50-000839
Qual Test Procedure	50-000842
Qualification Test Report	56-000330
Stress and Dynamics Report	
FMECA	
Cleaning	CPP 4097

TANK CHARACTERISTICS

Operating Pressure, psig	600 psig @ 122°F	Total Volume, in ³	1838 in ³
Proof Pressure, psig	900 psig @ 122°F	Max Design Mass, lb _m	16.25 lb _m
Cryo Proof, psig	N/A	Qual Tank Mass, lb _m	15.70 lb _m
Burst Pressure, psig	N/A	Minimum Wall, inch	0.048 in
Actual Burst, psig	N/A		

ACCEPTANCE TESTS

- Preliminary Examination of Product
- Volumetric Capacity Measurement, Pre-Proof
- Hydrostatic Proof Test
- Volumetric Capacity Measurement, Post-Proof
- Pressure Drop, Flow Test, & Expulsion Efficiency
- External Leakage
- Internal Leakage
- Electrical Bonding
- Non-Destructive Evaluation
- Final Examination of Product
- Cleanliness Verification

TANK CHARACTERISTICS (Metrics)

Operating Pressure, bar	41.37 bar @ 50°C	Total Volume, l	30.12
Proof Pressure, bar	62.05 bar @ 50°C	Max Design Wt, kg	7.32 kg
Cryo Proof, bar	N/A	Qual Tank Mass, kg	7.12 kg
Burst Pressure, bar	N/A	Minimum Wall, mm	1.219 mm
Actual Burst, bar	N/A		

QUALIFICATION TESTS

- Cyclic Pressurization Life
- Cyclic Expulsion Life
- Cyclic Vacuum Life
- External Leakage
- Internal Leakage
- Vibration Testing
- External Leakage
- Internal Leakage
- Expulsion Efficiency & Flow Rate
- Diaphragm Depletion Pressure
- Expulsion Efficiency & Flow Rate
- Internal Leakage
- Collapse Pressure Test
- External Leakage
- Non-Destructive Evaluation
- Final Visual and Dimensional Inspection
- Burst Pressure

HEMISPHERE FORGINGS

HEMI P/N	QTY
80-552061-1	2

RING FORGINGS

P/N	QTY	SIZE

TUBE TYPE AND SIZE

6Al-4V Ti Bar	QTY	SIZE
80-572001-3	1	0.550" OD x 0.020" Wall x 5.10" LONG
Propellant Tube		13.97 OD mm x 0.508 mm Wall x 129.54 mm Long
80-572001-1	1	0.425" OD x 0.020" Wall x 5.10" LONG
Pressurant Tube		10.80 OD mm x 0.508 mm Wall x 129.54 mm Long

