



TANK TYPE	MOUNT	LOCATION
Diaphragm	Lugs	Girth

This is a 22-inch spherical pressure vessel constructed of 6Al-4V titanium. Positive fuel expulsion is provided by a reversible ethylene-propylene terpolymer (AF-E-332) rubber diaphragm retained (welded in) at the sphere mid-plane. Mounting is accomplished by four (4) lugs parallel and adjacent to the sphere mid-plane.

ATK Part Number 80453-1
SIZE: 22.14-inch ID Sphere
SIZE: 562.3-mm

ISO 9001 & AS 9100 REGISTERED

APPLICABLE DOCUMENTS **TANK CHARACTERISTICS** **QUALIFICATION TESTS**

Acceptance Test Procedure	50-000610
Fracture Analysis Plan	54-000210
Cleaning	CPP 3961

Operating Pressure, psig	350	Total Volume, ci	5.555
Proof Pressure, psig	525	Prop Volume, ci	4.410
Cryo Proof, psig	NA	Max Design Wt, lbs	15.5
Burst Pressure, psig	700	Minimum Wall, inch	0.027
Actual Burst, psig	860		

N/A

DIAPHRAGM INFORMATION

Diaphragm P/N	80-259007-1
Diaphragm Mold Tool No	T-1261
Diaphragm Gross Wt	2.47 (1.12 Kg)
Diaphragm Material Type	AF-E-332
Diaphragm, Material	Note 2 90-000075
Diaphragm Processir	Note 2 90-000087
N-Ray Inspection Procedure	1002

TANK CHARACTERISTICS (Metrics)

Operating Pressure, Bar	24.13	Total Volume, l	91.03
Proof Pressure, Bar	36.20	Prop Volume, l	72.27
Cryo Proof, psig	NA	Max Design Wt, Kg	7.03
Burst Pressure, psig	48.26	Minimum Wall, MM	0.686
Actual Burst, Bar	59.29		

ACCEPTANCE TESTS

- Examination of Product
- Pre-Proof Volume Determination
- Proof Pressure Test
- Post-Proof Volume Determination
- Internal (Diaphragm) Leakage Test
- External Leakage Test
- Penetrant Inspection
- Radiographic Inspection
- Weight Determination
- Final Examination of Product
- Cleanliness Verification

Notes:

- 1: Tooling owned by ATK
- 2: Proprietary Document
- 3: This tank similar to 80388-1
- 4: Tube protector is SK 1307
- 5: Fracture Critical

FORGINGS

FORGINGS P/N	SUPPLIER	Die No
80-346061-1 (1)		
80-203061-1 (1)		

VACUUM RATED

YES

RING SIZE, (Rough Machined)

RING FORGING	RING SIZE, (Rough Machined)
80-203009-11, Retainer	24.4 +.06 OD x 21 -.06 ID x 1.28 +.06 Lg
80-298063-1, Lug	25.81 +.09 OD x 22.38 -.09 ID x .71 +.06 Lg

TUBE TYPE AND SIZE

TRANSITION	SIZE
80-385001-1 (2)	.250" OD x 3.74" Long

TUBE SIZE

80-385001-1 (2)	9.525 x .889mm
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