



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 with & adjacent to the sphere mid-plane.

ATK Part Number 80439-1

SIZE: 22.14-inch ID Sphere
SIZE: 562.3-mm

ISO 9001 & AS 9100 REGISTERED

APPLICABLE DOCUMENTS	TANK CHARACTERISTICS	ACCEPTANCE TESTS
Acceptance Test Procedure 50-000570 Cleaning CPP 3903	Operating Pressure, psig 387 Total Volume, ci 5,555 Proof Pressure, psig 484 Prop Volume, ci 4,410 Cryo Proof, psig NA Max Design Wt, lbs 16.0 Burst Pressure, psig 580 Minimum Wall, inch 0.027	Preliminary Examination of Product Pre-Proof Volume Determination Proof Pressure Post-Proof Volume Determination Radiographic Inspection Penetrant Inspection Internal Leakage External Leakage Determination of Weight and Final Inspection Cleanliness Verification Final Examination
DIAPHRAGM INFORMATION	TANK CHARACTERISTICS (Metrics)	QUALIFICATION TESTS
Diaphragm P/N 80-259007-1 Diaphragm Mold P/N T-1261 Diaphragm Gross Wt 2.47 (1.12 Kg) Diaphragm Matl Type AF-E-332 Diaphragm, Material Note 2 90-000075 Diaphragm Processin: Note 2 90-000087 N-Ray Inspection Procedure 1002	Operating Pressure, Bar 26.68 Total Volume, l 91.03 Proof Pressure, Bar 33.37 Prop Volume, l 72.27 Cryo Proof, Bar NA Max Design Wt, Kg 7.26 Burst Pressure, Bar 39.99 Minimum Wall, MM 0.686	Qual by similarity on 80362-1.

Notes:

- 1: Tooling owned by ATK
- 2: Proprietary Document
- 3: This tank similar to 80362-1
- 4: Fracture Critical

FORGINGS P/N	SUPPLIER	Die No
80-346061-1 (2)		
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 (6.35 x 94.99 MM) 1st 2.14" is .028 Wall (54.35 x .71 MM) Last 1.6" has .016 Wall (40.64 x .406 MM)

