



TANK TYPE	MOUNT	LOCATION
Diaphragm	Flange	Girth

This is a 40-inch oblate spheroid pressure vessel constructed of 6Al-4V titanium. Positive fuel expulsion is provided by fully reversible ethylene-propylene terpolymer (AF-E-332) rubber diaphragm retained (welded in) at the mid-plane. Mounting is accomplished on a continuous flange parallel with and adjacent to the mid-plane.

ATK Part Number 80370-1

SIZE: 40-inch Oblate Spheroid
SIZE: 1016-mm

ISO 9001 & AS 9100 REGISTERED

APPLICABLE DOCUMENTS	
Qualification Test Procedure	50-000209
Burst Test Procedure	50-000327
Acceptance Test Procedure	50-000425
Burst Test Report	56-000120
Cleaning	CPP 3727

TANK CHARACTERISTICS			
Operating Pressure, psig	338	Total Volume, ci	28,144
Proof Pressure, psig, Note 6	525	Prop Volume, ci	Variable
Cryo Proof, psig	NA	Max Design Wt, lbs	76.0
Burst Pressure, psig	676	Minimum Wall, inch	0.050

ACCEPTANCE TESTS
Preliminary Inspection of Product
Acceleration Test
Internal (Diaphragm) Leakage Test
Negative Pressure Test
External Leakage Test
Diaphragm Integrity Test
Internal (Diaphragm) Leakage Test
Pressure Cycle Test
Blow Down Pressure Test
Explosion Cycle Test
Internal (Diaphragm) Leakage Test
Proof Pressure Test
Examination of Product
Cleanliness Test

DIAPHRAGM INFORMATION	
Diaphragm P/N	80-263007-1
Diaphragm Mold P/N	T-1868
Diaphragm Gross Wt	7.6 (3.44 Kg)
Diaphragm Matl Type	AF-E-332
Material Specification, Rubber	MT3-73
Diaphragm Processing, Note 2	90-000094
N-Ray Procedure	1002

TANK CHARACTERISTICS (Metrics)			
Operating Pressure, Bar	23.30	Total Volume, l	461.20
Proof Pressure, Bar, Note 6	36.20	Prop Volume, l	Variable
Cryo Proof, Bar	NA	Max Design Wt, Kg	34.47
Burst Pressure, Bar	46.61	Minimum Wall, MM	1.270

FORGINGS		
FORGINGS P/N	SUPPLIER	Die No
80-260061-1 (2)		
RING FORGING		
RING SIZE, (Rough Machined)		
80-263065-1, Retainer	40.46 +.09 OD x 39.12 -.09 ID x 1.68 +.09 Lg	
80-263063-1, Cylinder	42.57 +.09 OD x 39.56 -.09 ID x 3.81 +.25 Lg	

QUALIFICATION TESTS
Qual performed on tank 80263-1.

- Notes:**
- 1: Tooling owned by TRW
 - 2: Proprietary Document
 - 3: This diaphragm is fully reversible
 - 4: This tank is similar to P/N 80263-1
 - 5: Tropical Rainfall Measuring Mission (TRMM)
 - 6: Proof Test Fixture: T-1885
 - 7: Tube protector is SK 808
 - 8: Fracture Critical

TUBE TYPE AND SIZE	
TRANSITION	SIZE
80-263001-1, (2)	.250 OD x .016 wall 6.35 x .406 mm

