



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 80382-1**

**SIZE: 40-inch Oblate Spheroid  
SIZE: 1016-MM**

**ISO 9001 & AS 9100 REGISTERED**

APPLICABLE DOCUMENTS	
Acceptance Test Procedure	50-000456
Cleaning	CPP 3745

  

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, Note 2	90-000075
Diaphragm Processing, Note 2	90-000087
N-Ray Procedure	1002

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

ACCEPTANCE TESTS
Examination of Product
Pre-Proof Volumetric Capacity Test
Proof Pressure Test
Post-Proof Volumetric Capacity Test
Internal Leak Test
External Leak Test
Radiographic Inspection
Dye Penetrant Inspection
Final Examination of Product
Cleanliness
Data Review

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

**Notes:**

- 1: Tooling owned by TRW
- 2: Proprietary Document
- 3: This diaphragm is fully reversible
- 4: Burst report is 56-000120
- 5: This tank is a redesign of P/N 80263-1
- 6: Fracture Critical

FORGINGS P/N	SUPPLIER	Die No
80-260061-1 (2)		

  

RING FORGING	RING SIZE, (Rough Machined)
80-263065-1, Retainer	40.46 +.09 ODx39.12 -.09 IDx1.68 +.09 Lg
80-263063-1, Cylinder	42.57 +.09 ODx39.56 -.09 IDx3.81 +.25 Lg

QUALIFICATION TESTS
Qual by similarity on 80263-1.

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

TUBE TYPE AND SIZE (Metrics)	
TRANSITION	SIZE
80-263001-1, (2)	6.35 x .406 MM

