

<b>TANK TYPE</b> Diaphragm	<b>MOUNT</b> Flange	<b>LOCATION</b> Girth
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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.

**Part Number 80370-1**

**SIZE: 40.2" ID x 31.8" LONG**  
**SIZE: 1021 mm ID x 808 mm LONG**  
**Oblate Spheroid**

**ISO 9001 & AS 9100 REGISTERED**

APPLICABLE DOCUMENTS		TANK CHARACTERISTICS		ACCEPTANCE TESTS	
Qualification Test Procedure	50-000209	Operating Pressure, psig	338	Total Volume, ci	28,144
Burst Test Procedure	50-000327	Proof Pressure, psig, Note 6	507	Prop Volume, ci	Variable
Acceptance Test Procedure	50-000425	Cryo Proof, psig	NA	Max Design Wt, lbs	76.1
Burst Test Report	56-000120	Burst Pressure, psig	676	Minimum Wall, inch	0.050
Cleaning	CPP 3727				
<b>DIAPHRAGM INFORMATION</b>		<b>TANK CHARACTERISTICS (Metrics)</b>			
Diaphragm P/N	80-263007-1	Operating Pressure, Bar	23.30	Total Volume, l	461.20
Diaphragm Mold P/N	T-1868	Proof Pressure, Bar, Note 6	34.96	Prop Volume, l	Variable
Diaphragm Gross Wt	7.6 (3.44 Kg)	Cryo Proof, Bar	NA	Max Design Wt, Kg	34.52
Diaphragm Matl Type	AF-E-332	Burst Pressure, Bar	46.61	Minimum Wall, MM	1.270
Material Specification, Rubber	MT3-73				
Diaphragm Processing, Note 2	90-000094				
N-Ray Procedure	1002				
		<b>FORGINGS</b>			
		<b>FORGINGS P/N</b>	<b>SUPPLIER</b>	<b>Die No</b>	
		80-260061-1 (2)			
		<b>RING FORGING</b>	<b>RING SIZE, (Rough Machined)</b>		
		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		
		<b>TUBE TYPE AND SIZE</b>			
		<b>TRANSITION</b>	<b>SIZE</b>		
		80-263001-1, (2)	.250 OD x .016 wall 6.35 x .406 mm		

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  
 Exclusion Cycle Test  
 Internal (Diaphragm) Leakage Test  
 Proof Pressure Test  
 Examination of Product  
 Cleanliness Test

**QUALIFICATION TESTS**

Qual performed on tank 80263-1.

**Notes:**

- 1: Tooling owned by Northrop Grumman
- 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

