



TANK TYPE Diaphragm	MOUNT Flange	LOCATION 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.

ATK Part Number 80376-1

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

ISO 9001 & AS 9100 REGISTERED

APPLICABLE DOCUMENTS		TANK CHARACTERISTICS		ACCEPTANCE TESTS	
Acceptance Test Procedure	50-000441	Operating Pressure, psig	338	Total Volume, ci	28,144
Fracture Analysis Plan	54-000133	Proof Pressure, psig	525	Prop Volume, ci	Variable
Cleaning	CPP 3733	Cryo Proof, psig	NA	Max Design Wt, lbs	76.0
		Burst Pressure, psig	676	Minimum Wall, inch	0.050
DIAPHRAGM INFORMATION		TANK CHARACTERISTICS (Metrics)		ACCEPTANCE TESTS	
Diaphragm P/N	80-263007-1	Operating Pressure, Bar	23.30	Total Volume, l	461.20
Diaphragm Mold Tool Number	T-1868	Proof Pressure, Bar	36.20	Prop Volume, l	Variable
Diaphragm Gross Weight	7.6 (193 Kg)	Cryo Proof, Bar	NA	Max Design Wt, Kg	34.47
Diaphragm Material 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				
		FORGINGS		ACCEPTANCE TESTS	
		FORGINGS P/N	SUPPLIER	Die	
		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		
		TUBE TYPE AND SIZE		ACCEPTANCE TESTS	
		TITANIUM		SIZE	
		80-376002-3, Pressurant Extension	.375 OD x .035 Wall x 7.31		
			(9.52 x .889 x 185.67 MM)		
		80-376002-5, Pressurant Interface	.250 OD x .016 Wall x 2.9		
			(6.35 x .406 x 73.66 MM)		
		80-376004-3, Propellant Extension	.375 OD x .035 Wall x 4.81		
			(9.52 x .889 x 122.17 MM)		
		80-376002-5, Propellant Interface	.250 OD x .016 Wall x 2.9		
			(6.35 x .406 x 73.66 MM)		

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 similar to P/N 80263-1
- 6: Proof Test Fixture: T-1885
- 7: Tube protector is SK 808
- 8: Tubing material is 3AL-2.5V per AMS 4943
- 9: Fracture Critical

QUALIFICATION TESTS

Qual performed on tank 80263-1.



