

<b>TANK TYPE</b> Diaphragm	<b>MOUNT</b> Pedestal	<b>LOCATION</b> Apex
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This is a cylindrical 6Al-4V titanium pressure vessel with a pedestal mount & two ports (pressurant and propellant). The tank contains a fully reversible ethylene propylene terpolymer (AF-E-332) rubber diaphragm retained (welded in) near the mid-plane.

**Part Number 80392-1**

**SIZE: 16.5" ID x 19.92" LONG**  
**SIZE: 419 mm ID x 508 mm LONG**

**ISO 9001 & AS 9100 REGISTERED**

<b>APPLICABLE DOCUMENTS</b>		<b>TANK CHARACTERISTICS</b>		<b>ACCEPTANCE TESTS</b>
Qualification Test Procedure	see Note 2	Operating Pressure, psig	320	Preliminary Examination of Product Pre-Proof Volume Determination Proof Pressure Post-Proof Volume Determination Expulsion Efficiency Radiographic Inspection Penetrant Inspection Temperature Extremes Function Test Internal Leakage External Leakage Determination of Weight and Final Inspection Cleanliness Verification Final Examination
Acceptance Test Procedure	50-000471	Proof Pressure, psig	480	
Qualification Test Report	see Note 2	Cryo Proof, psig	NA	
Fracture Analysis Plan	54-000151	Burst Pressure, psig	640	
Cleaning	CPP 3810	Total Volume, ci	2,996	
		Prop Volume, lbs	83	
		Max Design Wt, lbs	12.4	
		Minimum Wall, inch	0.020	
		Total Volume, l	49.10	
		Prop Volume, Kg	37.7	
<b>DIAPHRAGM INFORMATION</b>		<b>TANK CHARACTERISTICS (Metrics)</b>		
Diaphragm P/N	80-288007-1	Operating Pressure, Bar	22.06	
Diaphragm Mold Tool No	T-2318	Proof Pressure, Bar	33.09	
Diaphragm Gross Wt	1.42	Cryo Proof, Bar	NA	
Diaphragm Material Type	AF-E-332	Burst Pressure, Bar	44.13	
Diaphragm Material	Note 4 90-000075	Minimum Wall, MM	0.508	
Diaphragm Processing	Note 4 90-000087			
N-Ray Inspection Procedure	1002			
		<b>FORGINGS</b>		
		<b>FORGINGS P/N</b>	<b>SUPPLIER</b>	<b>Die No</b>
		80-288061-1, Propellant, Note 3		
		80011-63, Pressurant		#
		<b>RING FORGING</b>	<b>RING SIZE, (Rough Machined)</b>	
		80-214065-1, Retainer	16.75 +.06 OD x 15.5 -.06 ID x 1.4 +/- .06 Long	
		80-288063-1, Cylinder	17 +.09 OD x 15.87 -.09 ID x 3.31 +.12 Long	
		80-276065-1, Base	9.5 +.09 OD x 7.03 -.09 ID x 1.38 +.09 Long	
		<b>TUBE TYPE AND SIZE</b>		
		<b>TRANSITION</b>	<b>SIZE</b>	
		80-392001-1, Note 7	.250 OD x .035 Wall x 5.0 Long (6.35 x .088 x 127 mm)	
		<b>TITANIUM</b>	<b>SIZE</b>	
		80-392019-1, Extension	.310 OD x .035 Wall x 2.41 Long (7.874 x .88 x 61.2 mm)	

**Notes:**

- 1: Tooling owned by Northrop Grumman
- 2: This tank is similar to 80288-1 & 80308-1
- 3: Alternate propellant forging is 80-276061-1
- 4: Proprietary Document
- 5: Tube protectors are SK 932 & SK 933
- 6: Lockheed Martin Missiles & Space
- 7: This tube is used on both sides of the tank
- 8: Burst Pressure shown above is design burst
- 9: Fracture Critical

<b>QUALIFICATION TESTS</b>
Qual by similarity on 80308-1.

