



TANK TYPE	MOUNT	LOCATION
Diaphragm	Pedestal	Apex

This is a 13-inch spherical pressure vessel constructed of 6Al-4V titanium. Positive fuel expulsion is provided by a resersible ethylene propylene terpolymer (AF-E-332) rubber diaphragm retained (welded in) at the sphere mid-plane. Mounting is accomplished on a pedestal mount located on the apex of the propellant hemisphere.

**ATK Part Number 80216-1**

**SIZE: 12.88-inch ID Sphere**

**ISO 9001 & AS 9100 REGISTERED**

**APPLICABLE DOCUMENTS**

Acceptance Test Procedure	50-000190
Quality Test Procedure	50-000191
Quality Test Report	56-000071
Cleaning	CPP 3457

**TANK CHARACTERISTICS**

Operating Pressure, psig	<b>396</b>	Total Volume, ci	<b>1,080</b>
Proof Pressure, psig	<b>594</b>	Prop Volume, ci	<b>760</b>
Cryo Proof, psig	<b>NA</b>	Max Design Wt, lbs	<b>6.0</b>
Burst Pressure, psig	<b>792</b>	Minimum Wall, inch	<b>0.019</b>

**ACCEPTANCE ENVIRONMENTAL TESTS**

Random Vibration

**DIAPHRAGM INFORMATION**

Diaphragm P/N	80-216007-1
Diaphragm Mold P/N	T-1262
Diaphragm Gross Wt	1.0
Diaphragm Matl Type	AF-E-332
Diaphragm, Material	Note 2 90-000075
Diaphragm Processing	Note 2 90-000087
N-Ray Inspection Procedure	1002

**FORGINGS**

FORGINGS P/N	SUPPLIER	Die No
80-216061-1		
80-216063-1		
<b>RING FORGING</b>		<b>RING SIZE, (Rough Machined)</b>
80-216003-1, Retainer	13.13 +.09 OD x 11.81 -.09 ID x 1.38 +.09 Lg	

**TUBE TYPE AND SIZE**

TRANSITION	SIZE
80-216001-1 (2)	.250 OD x .020 Wall

**Notes:**

- 1: Tooling purchased from RI
- 2: Proprietary Documents
- 3: Very sketchy analysis was performed by RI, i.e. not rigorous
- 4: Global Positioning Satellite (GPS)
- 5: Rockwell International (Seal Beach)

**SKETCH NOT TO SCALE**

**PSI P/N 80216-1**

