

**Simple Pmd                      Bosses                      Polar                      Vane, Note 6**

This tank is a 22-inch x 32-inch long annealed cylindrical pressure vessel constructed from light-weight 6Al-4V titanium. Mounting is accomplished on polar bosses. A vane type propellant management device (PMD) is provided to expel the fuel under low or zero gravity conditions.

**Part Number 80420-1**  
**SIZE: 22.14-inch ID x 32-inch Long**  
**SIZE: 562.ID x 813-MM**

**ISO 9001 & AS 9100 REGISTERED**

**APPLICABLE DOCUMENTS**

Acceptance Test Procedure	50-000548
Cleaning	CPP 3882

**Notes:**

- 1: Tooling owned by Northrop Grumman
- 2: This tank is similar to 80281-1
- 3: This tank is annealed
- 4: The PMD is PSI proprietary
- 5: Simple Vanes (Four Vanes)
- 6: Fracture Critical

**TANK CHARACTERISTICS**

Operating Pressure, psig	318	Total Volume, ci	9.210
Proof Pressure, psig	477	Prop Volume, ci	
Cryo Proof, psig	NO	Max Design Wt, lbs	17.8
Burst Pressure, psig	636	Minimum Wall, inch	0.029

**ACCEPTANCE TESTS**

- Preliminary Inspection of Product
- Volumetric Capacity Measurement
- Proof Pressure Test
- Volumetric Capacity Measurement
- Vibration Test
- PMD Bubble Point Test
- External Leak Test
- Weld Quality Inspection
- Mass Measurement
- Final Inspection of Product
- Cleanliness and Dry

**TANK CHARACTERISTICS (Metrics)**

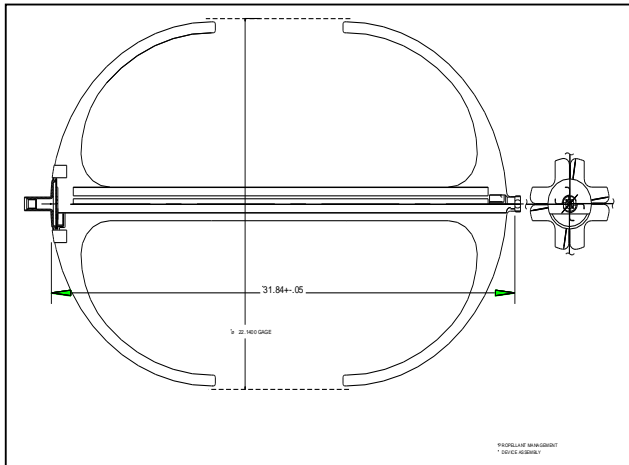
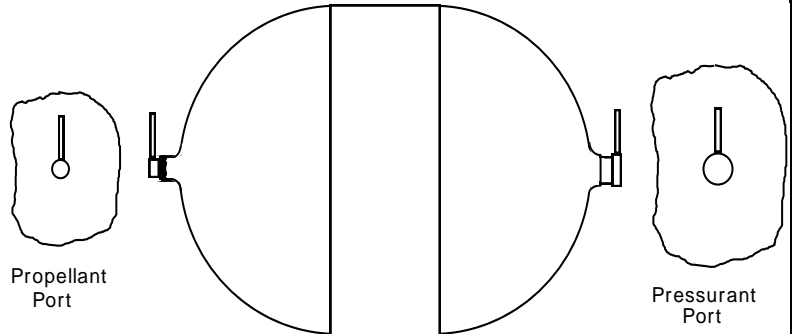
Operating Pressure, bar	21.92	Total Volume, l	150.93
Proof Pressure, bar	32.89	Prop Volume, l	
Cryo Proof, bar	NO	Max Design Wt, kg	8.07
Burst Pressure, bar	43.85	Minimum Wall, MM	0.737

**FORGINGS**

<u>FORGINGS P/N</u>	<u>SUPPLIER</u>	<u>Die No</u>
80-212061-1 (2)		
<b><u>RING FORGING</u></b>	<b><u>RING SIZE, (Rough Machined)</u></b>	
80-212063-1, Cylinder	22.75 +.09 OD x 21.87 -.09 ID x 8.75 +.25 Lg	

**TUBE TYPE AND SIZE**

<u>TRANSITION</u>	<u>SIZE</u>
80-309001-1 (2)	.250 OD x .020 Wall (6.35 x .508 MM)



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