

<b>TANK TYPE</b>	<b>MOUNT</b>	<b>LOCATION</b>
COPV PRESSURANT	Polar - threaded boss/slip end	POLAR

The small GEO Gas Tank is a composite overwrapped pressure Vessel (COPV) with a liner constructed of a center cylinder welded to end domes and overwrapped with T1000 carbon fiber. The CP-70 titanium liner has a nominal .020" membrane thickness. Mounting is provided by polar bosses located on the tank centerline axis.

**Part Number 80548-1**

**SIZE:17.12" DIA x 21.75" LONG**  
**Size: 434.8 mm Dia x 552.5 mm Long**

**ISO 9001 & AS 9100 REGISTERED**

**APPLICABLE DOCUMENTS**

Acceptance Test Procedure	50-000755
Qual Test Procedure-QBS	56-000259
Qualification Test Report-QBS	56-000189
Stress and Dynamics Report	
FMECA	
Cleaning	

**TANK CHARACTERISTICS**

Operating Pressure, psig	4,496	Total Volume, in <sup>3</sup>	3,137
Proof Pressure, psig	5,621	Max Design Wt, lbs	20.24
Cryo Proof, psig	N/A	Minimum Wall, inch	0.017
Burst Pressure, psig	6,751	Qual Tank Mass	N/A
Actual Burst, psig	7,919	<i>on P/N 80446</i>	

**Acceptance Tests**

- Examination of Product, Preliminary
- Volumetric Measurement @ Ambient
- Proof Pressure Test
- Volumetric Capacity @ Ambient
- Volumetric Capacity @ MEOP
- Non-Destructive Examination
- External Leakage Test
- Random Vibration
- External Leakage Test
- Weld Quality Inspection
- Examination of Product, Final
- Cleanliness Verification

**TANK CHARACTERISTICS (Metrics)**

Operating Pressure, bar	310	Total Volume, l	51
Proof Pressure, bar	388	Max Design Wt, kg	9.18
Cryo Proof, bar	N/A	Minimum Wall, MM	0.432
Burst Pressure, bar	465	Qual Tank Mass	N/A
Actual Burst, bar	546	<i>on P/N 80446</i>	

**HEMISPHERE FORGINGS**

HEMI P/N	QTY
80-436061-1	2

**80446-1 Qualification Tests**

- Examination of Product, Preliminary
- Proof Pressure Cycle Life Test
- MEOP Pressure Cycle Life Test
- External Leakage Test
- Vibration Test
- Shock Test
- External Leakage Test
- Random Vibration Test
- External Leakage Test
- Weld Quality Inspection
- Examination of Product, Final
- Burst Test

**ROLLED AND SEAM WELDED CYLINDER**

P/N	QTY	SIZE

