

<b>TANK TYPE</b>	<b>MOUNT</b>	<b>LOCATION</b>
COPV	POLAR BOSSES	CENTERLINE AXIS

The Pressurant 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 commercially pure titanium liner has a nominal .020" membrane thickness. Mounting is provided by polar bosses located on the tank centerline axis.

**Part Number 80586-1**

**SIZE: 16.50" DIA x 17.78" LONG**

**SIZE: 419.1 mm DIA x 451.6 mm DIA LONG**

**ISO 9001 & AS 9100 REGISTERED**

**APPLICABLE DOCUMENTS**

Acceptance Test Procedure	50-000890
Prototype Test Procedure	50-000891
Cleaning	CPP 4112

**TANK CHARACTERISTICS**

Operating Pressure, psig	4,500	Total Volume, in <sup>3</sup>	2,441
Proof Pressure, psig	5,625	Max Design Wt, lbs	17.6
Cryo Proof, psig		Minimum Wall, inch	0.020
Burst Pressure, psig		Qual Tank Mass, lbs	
Actual Burst, psig			

**ACCEPTANCE TESTS**

- Examination of Product, Preliminary
- Autofrettage
- Volumetric Measurement @ Ambient
- Proof Pressure Test @ Ambient
- Volumetric Measurement @ Ambient
- Volumetric Capacity @ MEOP
- Boroscope Inspection
- External Leak Test
- Weld Quality Inspection
- Examination of Product, Final
- Final Clean

**TANK CHARACTERISTICS (Metrics)**

Operating Pressure, bar	310.3	Total Volume, l	40.0
Proof Pressure, bar	387.9	Max Design Wt, kg	8.0
Cryo Proof, bar		Minimum Wall, mm	0.508
Burst Pressure, bar		Qual Tank Mass, kg	
Actual Burst, bar			

**QUALIFICATION TESTS**


**HEMISPHERE FORGINGS**

HEMI P/N	QTY
80-436061-1	2

**TUBE TYPE AND SIZE**

TI 3AL-2.5V	QTY	SIZE
80-586006-1	1	.376-.394" OD x .047-.050" WALL x 4.10" LONG

