

TANK TYPE	MOUNT	LOCATION
COPV	POLAR	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 80603-1

SIZE: 16.3" DIA x 29.3" LONG
SIZE: 414.0 mm DIA x 744.2 mm LONG

ISO 9001 & AS 9100 REGISTERED

APPLICABLE DOCUMENTS

Acceptance Test Procedure	50-000931
QBS Report	56-000341
Qual Test Report	
Protoflight Test Procedure	
Stress and Dynamics Report	
FMECA	
Cleaning	CPP 4111

TANK CHARACTERISTICS

Operating Pressure, psig	4,800	Total Volume, in ³	4,885
Proof Pressure, psig	6,000	Max Design Wt, lbs	28.0
Cryo Proof, psig	N/A	Minimum Wall, inch	0.020
Burst Pressure, psig		Qual Tank Mass, lbs	
Actual Burst, psig			

ACCEPTANCE TESTS

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

TANK CHARACTERISTICS (Metrics)

Operating Pressure, bar	331	Total Volume, l	80
Proof Pressure, bar	414	Max Design Wt, kg	12.7
Cryo Proof, bar	N/A	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

ROLLED AND SEAM WELDED CYLINDER

P/N	QTY	SIZE
80-436100-1	1	15.870" OD x .020" THICK x 18" LONG

TUBE TYPE AND SIZE

TI 3AL-2.5V	QTY	SIZE
80-400002	1	.375" OD x .0500 WALL x 2.70 LONG

