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TANK TYPE	MOUNT	LOCATION
COPV	BOSS	POLAR

This composite overwrapped pressure vessel (COPV) is Ø16.6" in diameter and 26.1" long. The tank construction is CP titanium liner overwrapped with T1000 carbon fiber. Tank mounting is provided by polar bosses located on the tank centerline axis. This tank is a derivative of 80446.

ATK Part Number 80525-1

SIZE: 16.6" DIA X 26.1" LONG

SIZE: 422 mm DIA X 663 mm LONG

**ISO 9001 & AS 9100 REGISTERED**

**APPLICABLE DOCUMENTS**

Acceptance Test Procedure	50-000725
Qual Test Procedure (80446)	50-000588
Qualification Test Report (80446)	56-000189
Stress Report	54-000202
Cleaning	CPP 3913

**TANK CHARACTERISTICS**

Operating Pressure, psig	4,500	Total Volume, in <sup>3</sup>	4,105
Proof Pressure, psig	5,625	Max Design Wt, lbs	23.50
Cryo Proof, psig	N/A	Minimum Wall, inch	0.020
Burst Pressure, psig	6,750		
Actual Burst, psig	7,919		

**ACCEPTANCE TESTS**

Examination of Product, Preliminary  
 Volume Determination & Proof  
 MEOP Pressure Test  
 External Leakage  
 Examination of Product, Final  
 Cleanliness Review  
 Data Review

**Notes:**

1. COPV with transition tubes
2. Based on 80492 and 80446.
3. Reference AIAA 96-2751

**TANK CHARACTERISTICS (Metrics)**

Operating Pressure, bar	310.26	Total Volume, l	67
Proof Pressure, bar	387.82	Max Design Wt, kg	10.66
Cryo Proof, bar	N/A	Minimum Wall, MM	0.508
Burst Pressure, bar	465.39		
Actual Burst, bar	545.99		

**QUALIFICATION TESTS**

Examination of Product, Preliminary  
 Volume Determination and Proof  
 MEOP Pressure Test  
 Proof Pressure Cycle Life Test  
 MEOP Pressure Cycle Life Test  
 External Leakage Test  
 Examination of Product, Final  
 Burst Pressure & Rupture Test

**PROGRAM INFORMATION**

Program	IRNS-SS
Customer	ISRO - Indian Space Research Org
Customer P/N	
Original Job No. (4)	
Customer Installed Device	
Customer Controlled Design	

**HEMISPHERE FORGINGS**

HEMI P/N	QTY
80-436061-1	2

**ROLLED AND SEAM WELDED CYLINDER**

P/N	QTY	SIZE
80-374100-1	1	15.42 in ID X 15.0 in LONG

**TUBE TYPE AND SIZE**

Transition Ti to SS	Inches	SIZE
80-496002-1		0.250 O.D. x 0.035 Wall x 4.25 long
	mm	
80-496002-1		6.35 O.D. x 0.889 Wall x 107.95
1 port only		

