



TANK TYPE	MOUNT	LOCATION
COPV	BOSS	POLAR

This composite overwrapped pressure vessel (COPV) Helium tank is 16.6" (422 mm) in diameter and 26.1" (663 mm) in length. The tank is constructed of a CP Titanium center cylinder welded to two CP Titanium end domes and overwrapped with T1000 carbon fiber. Mounting is provided by two polar bosses located on the tank centerline axis.

ATK Part Number 80459-1
SIZE:16.6" DIA X 26.1" LONG
SIZE: 422 mm DIA X 663 mm

ISO 9001 & AS 9100 REGISTERED

APPLICABLE DOCUMENTS	TANK CHARACTERISTICS	QUALIFICATION TESTS
Acceptance Test Procedure 50-000612	Operating Pressure, psig 4,500 Total Volume, in ³ 4,105	Qual was performed on 80446-1
Qual Test Procedure see 80446-1	Proof Pressure, psig 5,625 Prop Mass, lbm N/A	ACCEPTANCE Test Examination of Product Volume Determination and Proof & MEOP Pressure Test External Leakage Examination of Product Cleanliness Verification Data Review
Qualification Test Report see 80446-1	Cryo Proof, psig N/A Max Design Wt, lbs 22.40	
Stress Report see 80446-1	Burst Pressure, psig 6,750 Minimum Wall, inch 0.032	
Cleaning 3955	Actual Burst, psig 7,919	
Notes: 1: This tank is a derivative of 80446-1.	TANK CHARACTERISTICS (Metrics) Operating Pressure, bar 310.26 Total Volume, l 67 Proof Pressure, bar 387.82 Prop Volume, kg N/A Cryo Proof, bar N/A Max Design Wt, kg 10.16 Burst Pressure, bar 465.39 Minimum Wall, MM 0.813 Actual Burst, bar 545.99	VACUUM RATED YES

FORGINGS			
HEMI P/N	QTY	SUPPLIER	Die No
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 (in.)	
Ti 3AL-2.5V	SIZE
80-400002-1	0.375 O.D. x 0.05 Wall
Note: 1 port only	

TUBE SIZE (mm)	
80-400002-1	9.525 x 1.27 mm
Note: 1 port only	



