

TANK TYPE	MOUNT	LOCATION
Propellant Composite	Bosses	Polar

The HS 601 Hp filament wound Xenon tank is a pressure vessel constructed of a conical liner with end domes, polar mounting bosses, & overwrapped with an epoxy resin impregnated fiber. The liner has a nominal 0.032" membrane thickness. Mounting is provided by polar bosses located on the tank centerline axis.

Part Number 80386-101

SIZE: 13.24-inch Dia x 29.625-inch long
SIZE: 336.3-mm Dia x 752.4-mm long

ISO 9001 & AS 9100 REGISTERED

APPLICABLE DOCUMENTS		TANK CHARACTERISTICS		QUALIFICATION TESTS (Q1)	
Weld Qualification	50-000470	Operating Pressure, psig	2,500	Total Volume, ci	1,960
Acceptance Test Procedure	50-000474	Proof Pressure, psig	3,125	Prop Volume, lb	116
Qualification Test (Q1) Procedure	50-000475	Cryo Proof, psig	N/A	Minimum Wall, inch	0.029
Leak Before Burst Test Procedure	50-000477	Burst Pressure, psig	3,750	Max Design Wt, lbs	14.0
Qualification Test (Q2) Procedure	50-000478	Actual Burst, psig note 2	5,370	Qual Actual Wt, lbs	13.36
Qualification Test Report	56-000163	TANK CHARACTERISTICS (Metrics)			
Cleaning	CPP 3811	Operating Pressure, Bar	172.37	Total Volume, l	32.12
Notes:		Proof Pressure, Bar	215.46	Prop Volume, kg	52.62
1. Tooling belongs to Northrop Grumman		Cryo Proof, Bar	N/A	Minimum Wall, MM	0.737
2. Actual Burst Pressure of Q1		Burst Pressure, Bar	258.55	Max Design Wt, kg	6.35
3. Tube protector is SK 1380		Actual Burst, Bar	370.24	Qual Actual Wt, kg	6.06
4. This is a leak-before-burst design per MIL-STD-1522A		TANK MATERIAL			
5. Shell leakage (<1x10 ⁻⁸ std cc/src He @MEOP)		Titanium Liner			
6. Test Operating Temperature (33°F to 122°F)		Pancake Forging (Arcturus Die #473)			
7. Stress Analysis Report, SAR-96-002		Titanium Barstock (8-1/8" Dia)			
8. Fracture Critical		Formed Blind Dome			
9. Pressure environment: The tank shall be designed for ambient pressures of 15 psi to 10 ⁻¹² Torr		TUBE TYPE AND SIZE			
		3AL-2.5V Titanium		SIZE	
		80-374040-15		.375 OD x .020 Wall	
		TUBE SIZE (Metrics)			
		80-374040-15		9.525 OD x .508 MM Wall	
		ACCEPTANCE TESTS			
		Preliminary Examination of Product			
		Volume, Proof, Volume			
		Tank Capacity			
		External Leakage			
		Weight Measurement			
		Final Examination of Product			
		Clean Verification			
		VACUUM RATED			
		note 9			



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