



TANK TYPE Diaphragm	MOUNT Pedestal	LOCATION Apex
-------------------------------	--------------------------	-------------------------

This is a cylindrical 6Al-4V titanium pressure vessel with a pedestal mount & two ports (pressurant and propellant). The tank contains a fully reversible ethylene propylene terpolymer (AF-E-332) rubber diaphragm retained (welded in) near the mid-plane.

ATK Part Number 80392-1

SIZE: 16.5" ID x 19.99" Long
SIZE: 419 x 507.7-MM

ISO 9001 & AS 9100 REGISTERED

APPLICABLE DOCUMENTS	TANK CHARACTERISTICS	ACCEPTANCE TESTS
Qualification Test Procedure see Note 2	Operating Pressure, psig 320 Total Volume, ci 2,996	Preliminary Examination of Product
Acceptance Test Procedure 50-000471	Proof Pressure, psig 480 Prop Volume, lbs 83	Pre-Proof Volume Determination
Qualification Test Report see Note 2	Cryo Proof, psig NA Max Design Wt, lbs 12.4	Proof Pressure
Fracture Analysis Plan 54-000151	Burst Pressure, psig 640 Minimum Wall, inch 0.020	Post-Proof Volume Determination
Cleaning CPP 3810		Expulsion Efficiency
		Radiographic Inspection
		Penetrant Inspection
		Temperature Extremes Function Test
		Internal Leakage
		External Leakage
		Determination of Weight and Final Inspection
		Cleanliness Verification
		Final Examination

DIAPHRAGM INFORMATION

Diaphragm P/N	80-288007-1
Diaphragm Mold Tool No	T-2318
Diaphragm Gross Wt	1.42
Diaphragm Material Type	AF-E-332
Diaphragm Material Note 4	90-000075
Diaphragm Processing Note 4	90-000087
N-Ray Inspection Procedure	1002

TANK CHARACTERISTICS (Metrics)

Operating Pressure, Bar	22.06	Total Volume, l	49.10
Proof Pressure, Bar	33.09	Prop Volume, Kg	37.7
Cryo Proof, Bar	NA	Max Design Wt, Kg	5.63
Burst Pressure, Bar	44.13	Minimum Wall, MM	0.508

FORGINGS

FORGINGS P/N	SUPPLIER	Die No
80-288061-1, Propellant, Note 3		
80011-63, Pressurant		#
RING FORGING RING SIZE, (Rough Machined)		
80-214065-1, Retainer	16.75 +.06 OD x 15.5 -.06 ID x 1.4 +/- .06 Long	
80-288063-1, Cylinder	17 +.09 OD x 15.87 -.09 ID x 3.31 +.12 Long	
80-276065-1, Base	9.5 +.09 OD x 7.03 -.09 ID x 1.38 +.09 Long	

- Notes:**
- 1: Tooling owned by ATK
 - 2: This tank is similar to 80288-1 & 80308-1
 - 3: Alternate propellant forging is 80-276061-1
 - 4: Proprietary Document
 - 5: Tube protectors are SK 932 & SK 933
 - 6: Lockheed Martin Missiles & Space
 - 7: This tube is used on both sides of the tank
 - 8: Burst Pressure shown above is design burst
 - 9: Fracture Critical

TUBE TYPE AND SIZE

TRANSITION	SIZE
80-392001-1, Note 7	.250 OD x .035 Wall x 5.0 Long (6.35 x .088 x 127 mm)
TITANIUM	SIZE
80-392019-1, Extension	.310 OD x .035 Wall x 2.41 Long (7.874 x .88 x 61.2 mm)

QUALIFICATION TESTS

Qual by similarity on 80308-1.

