



TANK TYPE	MOUNT	LOCATION
Diaphragm	Pedestal	Apex

This is a 13-inch pressure vessel constructed of 6Al-4V titanium. The tank shell consists of a elliptical pressurant head and a hemispherical head. Positive fuel expulsion is provided by a reversible ethylene-propylene terpolymer (AF-E-332) rubber diaphragm retained (welded in) at the sphere mid-plane. Mounting is accomplished on a pedestal mount located on the apex of the propellant hemisphere.

ATK Part Number 80498-1

SIZE: 12.88 inch ID

SIZE: 327- mm

ISO 9001 & AS 9100 REGISTERED

APPLICABLE DOCUMENTS		TANK CHARACTERISTICS			
Acceptance Test Procedure	see 80342-1	Operating Pressure, psig	480	Total Volume, ci	920
Qualification Test Procedure	see 80342-1	Proof Pressure, psig	720	Prop Volume, ci	882
Burst Test Report	see 80342-1	Cryo Proof, psig	NA	Max Design Wt, lbs	6.0
Qualification Test Report	see 80342-1	Burst Pressure, psig	945	Minimum Wall, inch	0.021
Fracture Analysis Plan	see 80342-1	Actual Burst, psig	1,450		
Cleaning	see 80342-1				

ACCEPTANCE TESTS
By similarity ATK PN 80342-1

QUALIFICATION TESTS
By similarity ATK PN 80342-1

DIAPHRAGM INFORMATION	
Diaphragm P/N	80-216007-1
Diaphragm Mold Tool No	T-1262
Diaphragm Gross Wt	1.0
Diaphragm Material Type	AF-E-332
Diaphragm, Material Note 2	90-000075
Diaphragm Processing Note 2	90-000087
N-Ray Inspection	1002

TANK CHARACTERISTICS (Metrics)			
Operating Pressure, Bar	33.09	Total Volume, l	15.08
Proof Pressure, Bar	49.64	Prop Volume, l	14.45
Cryo Proof, Bar	NA	Max Design Wt, Kg	2.72
Burst Pressure, Bar	65.15	Minimum Wall, MM	0.533
Actual Burst, Bar	99.97		

- Notes:**
- 1: Tooling is owned by ATK
 - 2: Proprietary Document
 - 3: This tank is similar to 80342
 - 4: Tube protectors are SK 1127 & SK 1128

FORGINGS		
FORGINGS P/N	SUPPLIER	Die
80-342061-1, Press		
80-216061-1, Prop		
RING FORGING		
RING SIZE (Rough Machined)		
80-216003-11, Retainer	13.13 +.09 OD x 11.81 -.09 ID x 1.38 +.09 Lg	

TUBE TYPE AND SIZE		
TRANSITION	SIZE	
80-342001-1, Inlet	.375 OD x .025 Wall	
80-342002-1, Outlet	.500 OD x .025 Wall	

TUBE TYPE AND SIZE (Metrics)		
TRANSITION	SIZE	
80-342001-1, Inlet	9.25 OD x .635 Wall	
80-342002-1, Outlet	12.7 OD x .635 Wall	



80342-1

