

TANK TYPE Diaphragm	MOUNT Pedestal	LOCATION Apex
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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.

Part Number 80498-1

SIZE: 12.88 inch ID
SIZE: 327- mm
Oblate Spheroid

ISO 9001 & AS 9100 REGISTERED

APPLICABLE DOCUMENTS		TANK CHARACTERISTICS		ACCEPTANCE TESTS	
Acceptance Test Procedure	see 80342-1	Operating Pressure, psig	525	Total Volume, ci	920
Qualification Test Procedure	see 80342-1	Proof Pressure, psig	795	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	1,065	Minimum Wall, inch	0.021
Fracture Analysis Plan	see 80342-1	Actual Burst, psig	1,450		
Cleaning	see 80342-1				
				ACCEPTANCE TESTS	
				By similarity PN 80342-1	
				QUALIFICATION TESTS	
				By similarity PN 80342-1	
				Preliminary Examination of Product	
				Volumetric Capacity Test	
				Proof Pressure Test	
				Volumetric Expansion and Permanent Set Test	
				Internal Leakage	
				External Leakage	
				Random Vibration	
				Internal Leakage	
				External Leakage	
				Outside Surface Quality Inspection	
				Weld Quality Inspection	
				Vacuum Integrity	
				Volumetric Capacity Test	
				Proof Pressure Test	
				Internal Leakage	
				External Leakage	
				Random Vibration	
				Internal Leakage	
				External Leakage	
				Cycle Life	
				Outside Surface Quality Inspection	
				Weight Test	
				Examination or Product	
				Burst Pressure Test	

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	36.20	Total Volume, l	15.08
Proof Pressure, Bar	54.81	Prop Volume, l	14.45
Cryo Proof, Bar	NA	Max Design Wt, Kg	2.72
Burst Pressure, Bar	73.43	Minimum Wall, MM	0.533
Actual Burst, Bar	99.97		

FORGINGS		
FORGINGS P/N	SUPPLIER	Die
80-342061-1, Press	ARCTURUS	3535
80-216061-1, Prop	ARCTURUS	2971
RING FORGING		RING SIZE, (Rough Machined)
80-216003-11, Retainer	13.13 +.09 OD x 11.81 -.09 ID x 1.38 +.09 Lg	

- Notes:**
- 1: Tooling is owned by Northrop Grumman
 - 2: Proprietary Document
 - 3: This tank is similar to 80342
 - 4: Tube protectors are SK 1127 & SK 1128
 5. Qualified Propellant Load: 31.4 lb

PROGRAM INFORMATION	
Program	PRISMA
Customer	Swedish Space Corp.
Customer P/N	N/A
Original Job No	0629
Customer Installed Device	No
Customer Controlled Design	No

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

