

<b>TANK TYPE</b> Diaphragm	<b>MOUNT</b> Lugs	<b>LOCATION</b> Girth
-------------------------------	----------------------	--------------------------

This is a 22-inch spherical pressure vessel constructed of 6Al-4V titanium. 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 by four (4) lugs parallel and adjacent to the sphere mid-plane.

**Part Number 80388-1**

**SIZE: 22.14-inch ID Sphere**  
**SIZE: 562.3-mm**

**ISO 9001 & AS 9100 REGISTERED**

APPLICABLE DOCUMENTS		TANK CHARACTERISTICS	
Acceptance Test Procedure	50-000479	Operating Pressure, psig	350
Cleaning	CPP 3813	Proof Pressure, psig	525
<b>DIAPHRAGM INFORMATION</b>		Cryo Proof, psig	NA
Diaphragm P/N	80-259007-1	Burst Pressure, psig	700
Diaphragm Mold Tool No	T-1261	Actual Burst, psig	935
Diaphragm Gross Wt	2.47 (1.12 Kg)	<b>TANK CHARACTERISTICS (Metrics)</b>	
Diaphragm Material Type	AF-E-332	Operating Pressure, Bar	24.13
Diaphragm, Material	Note 2 90-000075	Proof Pressure, Bar	36.20
Diaphragm Processin	Note 2 90-000087	Cryo Proof, Bar	NA
N-Ray Inspection Procedure	1002	Burst Pressure, Bar	48.26
		Actual Burst, Bar	64.46

QUALIFICATION TESTS
N/A

ACCEPTANCE TESTS
Examination of Product
Pre-Proof Volume Determination
Proof Pressure Test
Post-Proof Volume Determination
Internal (Diaphragm) Leakage Test
External Leakage Test
Penetrant Inspection
Radiographic Inspection
Weight Determination
Final Examination of Product
Cleanliness Verification

**Notes:**

- 1: Tooling owned by Northrop Grumman
- 2: Proprietary Document
- 3: This tank similar to 80259-1
- 4: Tube protector is SK 1307
- 5: Fracture Critical

VACUUM RATED
YES

FORGINGS		
FORGINGS P/N	SUPPLIER	Die No
80-346061-1 (1)		
80-203061-1 (1)		

RING SIZE, (Rough Machined)	
80-203009-11, Retainer	24.4 +.06 OD x 21 -.06 ID x 1.28 +.06 Lg
80-298063-1, Lug	25.81 +.09 OD x 22.38 -.09 ID x .71 +.06 Lg

TUBE TYPE AND SIZE	
TRANSITION	SIZE
80-259001-5	.247 OD x .010 Wall
80-259001-3	.475 OD x .020 Wall

TUBE SIZE (mm)	
80-259001-5	6.274 x .254 mm
80-259001-3	12.06 x 0.508 mm

