

TANK TYPE Diaphragm	MOUNT Lugs	LOCATION Girth
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This is a 16.5-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 with and adjacent to the sphere mid-plane.

Part Number 80337-1

ISO 9001 & AS 9100 REGISTERED

SIZE: 16.5-inch ID Sphere
SIZE: 419-mm ID Sphere

APPLICABLE DOCUMENTS		TANK CHARACTERISTICS		ACCEPTANCE TESTS	
Acceptance Test Procedure	50-000328	Operating Pressure, psig	435	Total Volume, ci	2,300
Failure Modes & Effects Analysis	54-000092	Proof Pressure, psig	870	Prop Volume, ci	1,725
Cleaning	CPP 3655	Cryo Proof, psig	NA	Max Design Wt, lbs	14.00
		Burst Pressure, psig, Note 3	870	Minimum Wall, inch	0.043
DIAPHRAGM INFORMATION		TANK CHARACTERISTICS (Metrics)		ACCEPTANCE TESTS	
Diaphragm P/N	80-271007-1	Operating Pressure, Bar	29.99		Total Volume, l
Diaphragm Mold P/N	SK 666	Proof Pressure, Bar	59.98	Prop Volume, l	28.27
Diaphragm Gross Wt	0.88	Cryo Proof, Bar	NA	Max Design Wt, Kg	6.35
Diaphragm Matl Type	AF-E-332	Burst Pressure, Bar	59.98	Minimum Wall, MM	1.092
Diaphragm, Material	See Note 2				
Diaphragm Processing	See Note 2				
N-Ray Inspection	1002				

Notes:

- 1: Tooling belongs to NG, except for tube weld tools
- 2: Proprietary Document
- 3: System requirement. Actual burst pressure differs
- 4: This tank is similar to P/N 80319-1
- 5: Fracture Critical

FORGINGS P/N	SUPPLIER	Die
80011-63, Pressurant		
80-276061-1, Propellant		
RING FORGING	RING SIZE, (Rough Machined)	
80-214065-1, Retainer	16.75 +.06 OD x 15.5 -.06 ID x 1.4 +/- .06 Lg	
80-271060-3, Lug	19.37 +.06 OD x 17.19 -.06 ID x .87 Lg	

TUBE TYPE AND SIZE

TITANIUM	SIZE
80-337001-3, Outlet	.500 OD x .035 Wall
80-337002-1, Inlet	.250 OD x .035 Wall

QUALIFICATION TESTS
Qual by similarity on tank 80275-1 & 80303

