

TANK TYPE	MOUNT	LOCATION
Diaphragm	Bosses	Polar

This is a 9-inch spherical pressure vessel constructed of 6Al-4V titanium. Positive fuel expulsion is provided by a reversing EPT-10 rubber diaphragm retained (weld in) at the sphere mid-plane. Mounting is accomplished by polar bosses. See note 3 below.

ISO 9001 & AS 9100 REGISTERED

Part Number 80278-1

SIZE: 9.41-inch ID Sphere
SIZE: 239-MM

APPLICABLE DOCUMENTS		TANK CHARACTERISTICS			
Acceptance Test Procedure	50-000223	Operating Pressure, psig	100	Total Volume, ci	415
Qualification Test Procedure	50-000260	Proof Pressure, psig	600	Prop Volume, ci	285
Qualification Test Report	56-000092	Cryo Proof, psig	NA	Max Design Wt, lbs	3.25
Cleaning	CPP 9010	Burst Pressure, psig	800	Minimum Wall, inch	0.014

ACCEPTANCE TESTS
Preliminary Examination of Product
Pre-Proof Volume Determination
Proof Volume
Internal Volume
Internal Leakage
External Leakage
Expulsion Efficiency
Pressure Drop
Radiographic Inspection
Flourescent Penetrant Inspection
Weight Determination
Final Examination of Product
Cleanliness Verfication

DIAPHRAGM INFORMATION	
Diaphragm P/N	80-156005-7
Diaphragm Mold P/N	T-1020
Diaphragm Gross EPT-10	
Diaphragm Matl T: Note 2	Note 3
Diaphragm, Mater Note 2	90-000092
Diaphragm Processing	90-000093
N-Ray Inspection Procedure	1002

TANK CHARACTERISTICS (Metrics)			
Operating Pressure, bar	6.89	Total Volume, l	6.80
Proof Pressure, bar	41.37	Prop Volume, l	4.67
Cryo Proof, bar	NA	Max Design Wt, Kg	1.474
Burst Pressure, bar	55.16	Minimum Wall, MM	0.356

FORGINGS	
FORGINGS P/N	80082-63 (2)
RING FORGING	RING SIZE, (Rough Machined)
80-156002-11, Retainer	9.64 OD x 8.38 ID x 1.39 Lg

- Notes:**
- 1: Tooling purchased from RI
 - 2: Proprietary Document
 - 3: Qualified with EPT-10 diaphragm
Will quote AF-E-332
 - 4: Rockwell International (Downey)
 - 5: No burst test performed

QUALIFICATION TESTS
Preliminary Examination of Product
Pre-Proof Volume Determination
Proof Volume
Internal Volume
Internal Leakage
External Leakage
Life Cycle Test
Expulsion Efficiency
Pressure Drop
Post Life Cycle Expulsion Efficiency
Post Life Cycle Pressure Drop
Post Life Cycle Internal Leakage
Post Life Cycle External Leakage

