



<b>TANK TYPE</b> Diaphragm	<b>MOUNT</b> Flange	<b>LOCATION</b> Girth
This is a 40-inch oblate spheroid pressure vessel constructed of 6Al-4V titanium. Positive fuel expulsion is provided by fully reversible ethylene-propylene terpolymer (AF-E-332) rubber diaphragm retained (welded in) at the mid-plane. Mounting is accomplished on a continuous flange parallel with and adjacent to the mid-plane.		
<b>ISO 9001 &amp; AS 9100 REGISTERED</b>		

**ATK Part Number 80263-1**

**SIZE: 40-inch Oblate Spheroid**  
**SIZE: 1016-mm**

APPLICABLE DOCUMENTS	
Acceptance Test Procedure	50-000205
QTP Supplemental	50-000209
QTP Supplemental	50-000224
Burst Test Procedure	50-000327
Qualification Test Report	56-000075
Qual Test Report, Supplemental	56-000082
Burst Test Report	56-000120
Cleaning	CPP 3511

TANK CHARACTERISTICS			
Operating Pressure, psig	338	Total Volume, ci	28,144
Proof Pressure, psig	525	Prop Volume, ci	Various
Cryo Proof, psig	NA	Max Design Wt, lbs	76.0
Burst Pressure, psig	676	Minimum Wall, inch	0.050

ACCEPTANCE TESTS
Preliminary Examination of Product
Pre-proof Volume Determination
Proof Pressure
Post-Proof Volume Determination
Internal Leakage
External Leakage
Final Examination of Product
Weight Determination
Cleanliness Verification
Post Test Inspection

DIAPHRAGM INFORMATION	
Diaphragm P/N	80-263007-1
Diaphragm Mold P/N	T-1868
Diaphragm Gross Wt	7.6 (3.44 Kg)
Diaphragm Matl Type	AF-E-332
Material Spec, Rubber	MT3-73
Diaphragm Processing, Note 2	90-000094
N-Ray Inspection Procedure	1002

TANK CHARACTERISTICS (Metrics)			
Operating Pressure, Bar	23.30	Total Volume, l	461.2
Proof Pressure, Bar	36.20	Prop Volume, l	Various
Cryo Proof, Bar	NA	Max Design Wt, Kg	34.5
Burst Pressure, Bar	46.61	Minimum Wall, MM	1.270

QUALIFICATION TESTS
Preliminary Examination of Product
Pre-Proof Volumetric Capacity Test
Proof Pressure test
Post-Proof Volumetric Capacity Test
Internal Leakage Test
External Leakage Test
Penetrant Inspection
Radiographic Inspection
Weight Test
Final Examination of Product
Cleanliness Test
Acceleration Test
Internal Leakage Test
Negative Pressure Test
External Leakage Test
Diaphragm Integrity Test
Internal Leakage Test
Pressure Cycle Test
Blow Down Pressure Test
Expulsion Test
Internal Leakage Test
Proof Pressure test
Final Examination of Product
Weight Test
Cleanliness Test

FORGINGS		
FORGINGS P/N	SUPPLIER	Die No
80-260061-1 (2)		
RING FORGING		
	RING SIZE, (Rough Machined)	
80-263065-1, Retainer	40.46 +.09 OD x 39.12 -.09 ID x 1.68 +.09 Lg	
80-263063-1, Cylinder	42.57 +.09 OD x 39.56 -.09 ID x 3.81 +.25 Lg	

**Notes:**

- 1: Tooling owned by TRW
- 2: Proprietary Document
- 3: Launch vehicle is Shuttle/IUS
- 4: The only difference between the dash 1 and the dash 101 is that the dash 101 does not get leak tests
- 5: Tracking Data Relay Satellite System
- 6: Fracture Critical

TUBE TYPE AND SIZE		
TRANSITION	SIZE	
80-263001-1, (2)	.250 OD x .016 wall	
80-263001-3	.375 OD x .035 Wall	

