



<b>TANK TYPE</b> Pressurant	<b>MOUNT</b> Bosses	<b>LOCATION</b> Polar
The tank is a spherical pressure vessel constructed of 6Al-4V titanium. The port is a .250 diameter titanium to 304 stainless steel transition tube. Mounting is provided by polar bosses located on the tank center axis.		
<b>ISO 9001 &amp; AS 9100 REGISTERED</b>		

**ATK Part Number 80383-1**

**SIZE: 16.4-inch ID Sphere**  
**SIZE: 416-MM**

APPLICABLE DOCUMENTS		TANK CHARACTERISTICS			
Qualification Test Procedure	50-000300	Operating Pressure, psig	3,600	Total Volume, ci	2,200
Acceptance Test Procedure	50-000457	Proof Pressure, psig	5,400	Prop Volume, ci	NA
Qualification Test Report	56-000113	Cryo Proof, psig	8,740	Max Design Wt, lbs	35.0
Cleaning	CPP 3746	Burst Pressure, psig	7,200	Minimum Wall, inch	0.197

ACCEPTANCE TESTS
Preliminary Examination of Product
Pre-Proof Volumetric Capacity Test
Proof Pressure Test
Post-Proof Volumetric Capacity Test
Cryogenic Proof Pressure
Radiographic & Dye Penetrant Inspection
External Leakage
Final Examination of Product
Cleanliness

- Notes:**
- 1: Tooling belongs to LMSC
  - 2: This tank is similar to P/N 80314-1
  - 3: Tube protector is SK 969
  - 4: Proprietary Document
  - 5: Fracture Critical

TANK CHARACTERISTICS (Metrics)			
Operating Pressure, Bar	248.21	Total Volume, l	36.05
Proof Pressure, Bar	372.31	Prop Volume, l	NA
Cryo Proof, Bar	602.59	Max Design Wt, Kg	15.88
Burst Pressure, Bar	496.41	Minimum Wall, MM	5.004

QUALIFICATION TESTS
Acceptance Tests
Operating Life
Random Vibration
Burst
Post-Test Analysis

FORGINGS		
<b>FORGINGS P/N</b>	<b>SUPPLIER</b>	<b>Die</b>
80011-63 (2)		

TUBE TYPE AND SIZE	
<b>TRANSITION</b>	<b>SIZE</b>
80-383001-1	.250 OD x .049 Wall x 4.6 Lg

TUBE TYPE AND SIZE (Metrics)	
<b>TRANSITION</b>	<b>SIZE</b>
80-383001-1	6.35 x 1.24 x 116.84 MM

**SKETCH NOT TO SCALE**

