



<b>TANK TYPE</b> Pressurant	<b>MOUNT</b> Pedestal	<b>LOCATION</b> Apex
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The Pressurant tank is a spherical pressure vessel constructed of 6AL-4V Titanium. Mounting is accomplished by a base mount welded to the Pressurant compartment. Connection is made to pressurant compartment through a tube stub.

**ATK Part Number 80448-1**

**SIZE: 15.38-inch ID Sphere**  
**SIZE: 390.6-mm**

**ISO 9001 & AS 9100 REGISTERED**

APPLICABLE DOCUMENTS	
Qual Test Procedure	50-000604
Acceptance Test Procedure	50-000603
Fracture Analysis plan	54-000205
Qualification Test Report	56-000203
Cleaning	CPP 3940

TANK CHARACTERISTICS			
Operating Pressure, psig	415	Total Volume, ci	1,904
Proof Pressure, psig	529	Prop Volume, ci	1,375
Cryo Proof, psig	NA	Max Design Wt, lbs	4.76
Burst Pressure, psig	600	Minimum Wall, inch	0.019
Actual Burst Pressure	1,048		

QUALIFICATION TESTS
Acceptance Test Verification
Random Vibration Tests
Proof Pressure Cycling Tests
MEOP Pressure Cycling Tests
External Leakage Tests
Radiographic Inspection
Dye Penetrant Inspection
Burst Pressure Test
Visual Inspection
Final Data Review

**Notes:**

- 1: Tooling owned by ATK
- 2: Proprietary Document
- 3: This tank is a redesign 80389-1.
- 4: Tube protector is SK 1553

TANK CHARACTERISTICS (Metrics)			
Operating Pressure, Bar	28.61	Total Volume, l	31.20
Proof Pressure, Bar	36.47	Prop Volume, l	22.53
Cryo Proof, Bar	NA	Max Design Wt, Kg	2.16
Burst Pressure, Bar	41.37	Minimum Wall, MM	0.483
Actual Burst, Bar	72.26		

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

FORGINGS		
FORGINGS P/N	SUPPLIER	Die No
80-225061-1, (2)	ARCTURUS	2105A
RING FORGING		RING SIZE, (Rough Machined)
80-225065-1, Base		9.5 +.09 OD x 7.12 -.09 ID x 2.2 +.09 Lg

TUBE TYPE AND SIZE (inch)	
TRANSITION	SIZE
80-448001-1	1.6 L x .028 Wall x .250 OD

TUBE TYPE AND SIZE (mm)	
80-448001-1	40.64 x .71 x 6.35 mm

