



TANK TYPE	MOUNT	LOCATION
Pressurant	Pedestal	Apex

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		TANK CHARACTERISTICS			
Qual Test Procedure	50-000604	Operating Pressure, psig	415	Total Volume, ci	1,904
Acceptance Test Procedure	50-000603	Proof Pressure, psig	529	Prop Volume, ci	1,375
Fracture Analysis plan	54-000205	Cryo Proof, psig	NA	Max Design Wt, lbs	4.76
Qualification Test Report	56-000203	Burst Pressure, psig	600	Minimum Wall, inch	0.019
Cleaning	CPP 3940	Actual Burst Pressure	1,048		

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

- 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		

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

FORGINGS		
FORGINGS P/N	SUPPLIER	Die No
80-225061-1, (2)		
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

