



TANK TYPE	MOUNT	LOCATION
Pressurant	Tabs	Girth

This is a spherical pressure vessel constructed of 6AL-4V titanium. Mounting is accomplished on four (4) lateral tabs parallel with & adjacent to the sphere mid-plane.

**ATK Part Number 80333-1**  
**SIZE: 23.16-inch OD Sphere**  
**SIZE: 588-MM OD Sphere**

## ISO 9001 & AS 9100 REGISTERED

APPLICABLE DOCUMENTS	
Acceptance Test Procedure	50-000321
Qualification Test Procedure	50-000322
Reliability Analysis Report	54-000079
FMECA Summary	54-000080
Configuration Item Data List	54-000083
Qualification Test Report	56-000133
Fracture Control Plan	54-000078
Cleaning	CPP 3645

TANK CHARACTERISTICS			
Operating Pressure, psig	4.060	Total Volume, ci	6.450
Proof Pressure, psig, Note 3	4.872	Prop Volume, ci	NA
Cryo Proof, psig	6.876	Max Design Wt, lbs	76.00
Burst Pressure, psig	6.090	Minimum Wall, inch	0.240

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

TANK CHARACTERISTICS (Metrics)			
Operating Pressure, bar	279.92	Total Volume, l	105.70
Proof Pressure, bar	335.91	Prop Volume, l	
Cryo Proof, bar	NO	Max Design Wt, kg	34.47
Burst Pressure, bar	419.88	Minimum Wall, MM	6.096

- Notes:**
- 1: Tooling belongs to ATK
  - 2: Metric Anchor Nut supplied by Customer
  - 3: Fracture mechanics proof pressure
  - 4: Tubing supplied by customer

FORGINGS P/N	SUPPLIER	Die
80-323061-1 (2)		
RING FORGING		RING SIZE, (Rough Machined)
80-323065-1, Tab		23.87 +.13 ODx22.25 +/- .06 IDx4.0 +.25 Lg

QUALIFICATION TESTS
Acceptance Tests
Proof Pressure Cycles
External Leakage
Pre-Proof Volume
Proof Pressure
Post-Proof Volume
Radiographic and Penetrant
External Leakage
Vibration
Radiographic and Penetrant
External Leakage
Proof Pressure Cycles
Pressure Cycles
Radiographic and Penetrant
External Leakage
Burst Test

TUBE TYPE AND SIZE	
TITANIUM	SIZE
80-333040-5 (2)	.250 OD x .026 Wall
<b>Note 4</b>	

