



TANK TYPE	MOUNT	LOCATION
Pressurant	Bosses	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.

ATK Part Number 80314-1

SIZE: 16.4-inch ID Sphere
SIZE: 416.5-MM ID Sphere

ISO 9001 & AS 9100 REGISTERED

APPLICABLE DOCUMENTS

Acceptance Test Procedure	50-000299
Qualification Test Procedure	50-000300
Qualification Test Report	56-000113
Fracture Analysis Plan	54-000068
Cleaning	CPP 3636

TANK CHARACTERISTICS

Operating Pressure, psig	3,600	Total Volume, ci	2,200
Proof Pressure, psig	5,400	Prop Volume, ci	NA
Cryo Proof, psig	8,740	Max Design Wt, lbs	35.0
Burst Pressure, psig	7,200	Minimum Wall, inch	0.197

ACCEPTANCE TESTS

Preliminary Examination of Product
Pre-Proof Volume
Proof Pressure
Post-Proof Volume
Cryogenic Proof Pressure
Radiographic and Penetrant Inspection
External Leakage
Final Examination of Product
Cleanliness Verification

Notes:

- 1: Tooling belongs to LMSC
- 2: Proprietary Document
- 3: Fracture Critical

TANK CHARACTERISTICS (Metrics)

Operating Pressure, Bar	248.21	Total Volume, l	36.05
Proof Pressure, Bar	372.31	Prop Volume, Kg	
Cryo Proof, Bar	No	Max Design Wt, Kg	15.88
Burst Pressure, Bar	496.41	Minimum Wall, MM	5.004

QUALIFICATION TESTS

Acceptance Tes
Operating Life
Random Vibration
Burst
Post Test Analysis

FORGINGS

FORGINGS P/N	SUPPLIER	Die No
80011-63 (2)		

TUBE TYPE AND SIZE

TRANSITION	SIZE
80-314040-5	.250 OD x .028 Wall

SKETCH NOT TO SCALE

