



TANK TYPE	MOUNT	LOCATION	PMD DEVICE
Propellant	Polar	Apex	None

The Brasilsat Propellant Tank is a 29 inch inside diameter, polar boss mounted spherical pressure vessel constructed of 6Al-4V Titanium. The tank has three interface ports, all constructed of 3Al-2.5V Titanium tubing. The pressurant port is 1/4 inch OD,

ATK Part Number 80381-1

SIZE: 29-inch ID Sphere
SIZE: 736-MM

ISO 9001 & AS 9100 REGISTERED

APPLICABLE DOCUMENTS

Qualification Test Procedure	50-000493
Acceptance Test Procedure	50-000494
Cleaning	CPP 3823

TANK CHARACTERISTICS

Operating Pressure, psig	270	Total Volume, ci	12,770
Proof Pressure, psig	315	Prop Volume, ci	
Cryo Proof, psig	441	Max Design Wt, lbs	12.0
Burst Pressure, psig		Minimum Wall, inch	

ACCEPTANCE TESTS

Examination of Product (Preliminary)
 Pre-Proof Volume Determination
 Proof Pressure Test
 Post-Proof Volume Determination
 Cryogenic Proof Pressure Test
 External Leakage Test
 Radiographic and Penetrant Inspection
 Examination of Product (Final) & Weight determination
 Cleanliness Verification

Notes:

- 1: Tooling belongs to
- 2: Tubing material (3AL-2.5V)
Furnished by HAC & is per SCGMS 10031
- 3: Tube protectors are SK 1429 & SK 1430
- 4: Fracture Critical

TANK CHARACTERISTICS (Metrics)

Operating Pressure, psig	18.62	Total Volume, l	209.27
Proof Pressure, psig	21.72	Prop Volume, l	
Cryo Proof, psig	30.41	Max Design Wt, Kg	5.44
Burst Pressure, psig		Minimum Wall, MM	

FORGINGS

Forging P/N	SUPPLIER	Die No
80-381061-1		

TUBE TYPE AND SIZE

TITANIUM	SIZE
80-381003-1, Inlet	250 OD x .020 Wall x 4.12 Long (6.35 x .5 x 104.6 MM)
80-381003-3, Outlet	.375 OD x .020 Wall x 3.75 Long (9.52 x .5 x 95.2 MM)

