

<b>TANK TYPE</b>	<b>MOUNT</b>	<b>LOCATION</b>	<b>PMD DEVICE</b>
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,

**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)

