



TANK TYPE	MOUNT	LOCATION
Spinner	Bosses	Off Axis

This tank is a 13-inch Conosphere (Hemisphere & Cone) constructed of 6AL-4V titanium. Mounting is by off-axis bosses.

ATK Part Number 80321-1

SIZE: 13.65-inch ID Conosphere
SIZE: 347-MM ID Conosphere

ISO 9001 & AS 9100 REGISTERED

APPLICABLE DOCUMENTS	TANK CHARACTERISTICS	ACCEPTANCE TESTS
Acceptance Test Procedure 50-000301	Operating Pressure, psig 435	Preliminary Examination of Product
Qualification Test Procedure 50-000302	Proof Pressure, psig 655	Pre-Proof Volume
Protoflight Test Report 56-000117	Cryo Proof, psig No	Post Proof Volume
Cleaning CPP 3600	Burst Pressure, psig 870	Radiographic Inspection
	Total Volume, ci 1.391	Penetrant Inspection
	Prop Volume, ci NA	External Leakage
	Max Design Wt, lbs 3.64	Vibration
	Minimum Wall, inch 0.019	External Leakage
		Thermal Cycling
		Final Examination of Product
		Cleanliness Verification

Notes:

- 1: Tooling owned by ATK
- 2: This is a re-design of P/N 80210-1
- 3: Thermal cycle is included in acceptance test
- 4: Resonance search before & after vibration
- 5: Space Astrometry Mission

TANK CHARACTERISTICS (Metrics)

Operating Pressure, bar	29.99	Total Volume, l	22.79
Proof Pressure, bar	45.16	Prop Volume, l	
Cryo Proof, bar	NO	Max Design Wt, kg	1.65
Burst Pressure, bar	59.98	Minimum Wall, MM	0.483

FORGINGS

FORGINGS P/N	SUPPLIER	Die
80-210061-1, Hemi		
80-210063-1, Cone		

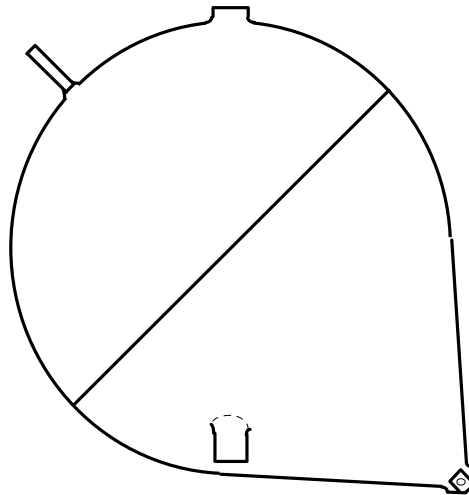
QUALIFICATION TESTS

- Preliminary Examination of Product
- Internal Vacuum
- Pre-Proof Volume
- Proof Pressure
- Post-Proof Volume
- Radiographic Inspection
- Penetrant Inspection
- External Leakage
- Vibration
- External Leakage
- Temperature Extremes
- Thermal Cycling
- Weight & Center of Mass Determination
- Final Examination of Product
- Cleanliness Verification

TUBE TYPE AND SIZE

TITANIUM	SIZE
80-321030-3, Inlet	.282 OD x .015 Wall
80-321090-3, Outlet	.282 OD x .015 Wall

Inlet



Outlet

