



TANK/FUEL TYPE	MOUNT	LOCATION	PMD DEVICE
Liq.Gas Tank	Lugs	Girth	NONE

This tank is a spherical pressure vessel constructed of 6Al-4V Titanium. Mounting is accomplished by lugs parallel with & adjacent to the mid-plane. Propellant feed is provided by an outlet tube on the same plane as the mounting lugs. This tank has a side port.

ATK Part Number 80461-1

SIZE: 19.06 -inch ID Sphere
SIZE: 484 -MM ID Sphere

ISO 9001 & AS 9100 REGISTERED

APPLICABLE DOCUMENTS	
Acceptance Test Procedure	50-000616
QBS Report	56-000213
Cleaning	No CPP
Fracture Analysis Plan	54-000140 (for 80379)

TANK CHARACTERISTICS			
Operating Pressure, psig	319	Total Volume, ci	3,631
Proof Pressure, psig	498	Prop Volume, ci	3,631
Cryo Proof, psig	No	Max Design Wt, lbs	13.25
Burst Pressure, psig	754	Minimum Wall, inch	0.023

ACCEPTANCE TESTS
Preliminary Examination of Product
Pre-Proof Volume Determination
Proof Pressure Test
Post-Proof Volume Determination
External Leakage Test
Penetrant Inspection*
Radiographic Inspection*
Determination of Weight & Final Inspection
Final Visual Examination

Notes:

- 1: Tooling owned by ATK.
- 2: Tank is similar to 80379 except no vortex suppressor
- 4: Tube protector is SK 1356
- 7: Fracture Critical

TANK CHARACTERISTICS (Metrics)			
Operating Pressure, Bar	21.99	Total Volume, l	59.50
Proof Pressure, Bar	34.34	Prop Volume, l	59.50
Cryo Proof, Bar	No	Max Design Wt, Kg	6.01
Burst Pressure, Bar	51.99	Minimum Wall, MM	0.584

FORGINGS		
FORGINGS P/N	SUPPLIER	Die
80-182061-1 (2)	ARCTURUS	2696
RING FORGING		RING SIZE, (Rough Machined)
80-274065-1, Retainer	19.06 +.12 OD x 17.55 -.12 ID x 1.5 +.12 Lg	
80-274063-1, Lug	21.25 +.06 OD x 19.31 -.06 ID x .85 +.06 Lg	

TUBE TYPE AND SIZE	
TITANIUM	SIZE
80-461001-3 (2)	.250" OD x .020" Wall (6.35 mm x .5 mm Wall)

