



<b>TANK TYPE</b> Pressurant	<b>MOUNT</b> Bosses	<b>LOCATION</b> Polar
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The specimen is made from two (2) machined 6Al-4V titanium hemispheres girth welded at the center plane. Mounting of the specimen is provided by two polar bosses with tapped holes. A .250 inch O.D. by .035 inch wall 304L CRES transition tube is butt welded to the boss for the pressurant inlet connection.

**ATK Part Number 80326-1**  
**SIZE: 7.66-inch ID Sphere**  
**SIZE: 194.5 mm**

**ISO 9001 & AS 9100 REGISTERED**

APPLICABLE DOCUMENTS	
Forging Qualification Procedure	50-000308
Acceptance Test Procedure	50-000317
Qualification Test Procedure	50-000318
Weld Qualification Report	55-000064
Forging Qualification Report	55-000065
Qualification Test Report	Note 2
Cleaning	CPP 3649

TANK CHARACTERISTICS			
Operating Pressure, psig	3,600	Total Volume, ci	235
Proof Pressure, psig	5,400	Prop Volume, ci	NA
Cryo Proof, psig	8,000	Max Design Wt, lbs	3.38
Burst Pressure, psig	7,200	Minimum Wall, inch	0.092

ACCEPTANCE TEST
Preliminary Examination of Product
Pre-Proof Volume
Proof Test
Cryogenic Proof Test
Post-Proof Volume
External Leak Test
Final Examination of Product

**Notes:**  
1: Tooling belongs to Martin/JPL  
2: In lieu of a qual test report a data package was provided to Martin Marietta  
3: This tank is a re-design of P/N 80024-1  
4: Tube Protector SK-988  
5: Fracture Critical

TANK CHARACTERISTICS (Metrics)			
Operating Pressure, bar	248.21	Total Volume, l	3.851
Proof Pressure, bar	372.31	Prop Volume, l	NA
Cryo Proof, bar	551.57	Max Design Wt, Kg	1.533
Burst Pressure, bar	496.41	Minimum Wall, MM	2.337

QUALIFICATION TEST
Preliminary Inspection of Product
Pre-Proof Volume
Proof Pressure Test
Cryogenic Proof Pressure
Post-Proof Volume
External Volume
Pressure Cycle Life
Burst Test
Final Inspection of Product
Cleanliness

FORGINGS		
FORGINGS P/N	SUPPLIER	Die
80-326061-1 (2)		

TUBE TYPE AND SIZE	
TRANSITION	SIZE
80-326001-1	.250 OD x .035 Wall (6.35 x .889 MM)

