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TANK TYPE	MOUNT	LOCATION
Pressurant	Strap	Other

This tank is a 9-inch spherical pressure vessel constructed of 6Al-4V titanium. This vessel has an all welded construction exterior. This tank contains a port for pressurant outflow.

ATK Part Number 80345-1

SIZE: 9.44-inch ID Sphere

SIZE: 240-mm

ISO 9001 & AS 9100 REGISTERED

APPLICABLE DOCUMENTS

Qualification Test Procedure	50-000351
Acceptance Test Procedure	50-000352
Fracture Analysis Plan	54-000212
Qualification Test Report	56-000141
Cleaning	CPP 3669

Notes:

1: ATK owns majority of this tooling
2: Customer furnished vibration fixture, including straps
3: Tube protector is SK 1086
4: Fracture Critical
5: General Electric Astro Space

TANK CHARACTERISTICS

Operating Pressure, psig	4,500	Total Volume, ci	400
Proof Pressure, psig	6,700	Actual Volume	432.8
Cryo Proof, psig	9,900	Actual Mass	7.17
Design Burst Pressure, psig	8,985	Max Design Wt, lbs	7.40
Actual Burst Pressure, psig	10,460	Minimum Wall, inch	0.132

TANK CHARACTERISTICS (Metrics)

Operating Pressure, bar	310.26	Total Volume, l	27.58
Proof Pressure, bar	461.94	Prop Volume, l	29.84
Cryo Proof, bar	682.57	Max Design Wt, kg	3.36
Design Burst Pressure, bar	619.48	Minimum Wall, MM	3.353
Actual Burst Pressure, bar	721.18		

FORGINGS

FORGINGS P/N	SUPPLIER	Die
80082-63		

TUBE TYPE AND SIZE

TRANSITION	SIZE
80-345001-1	.250 OD x .035 Wall

TUBE TYPE AND SIZE (Metrics)

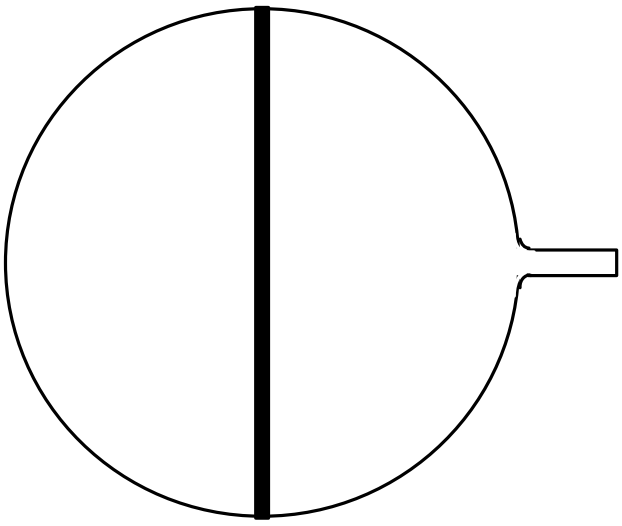
TRANSITION	SIZE
80-345001-1	6.35 x .889 mm

ACCEPTANCE TESTS

Preliminary Examination of Product
Volumetric Capacity Test
Proof Pressure Test
Volumetric Capacity Test
Cryogenic Proof Pressure Test
External Leakage Test
Random Vibration Test
External Leakage Test
Outside Surface Quality Inspection
Weld Quality Inspection
Weight Test
Final, Examination of Product
Cleanliness Verification

QUALIFICATION TESTS

Preliminary Examination of Product
Volumetric Capcity Test
Proof Pressure Test
Volumetric Capcity Test
Cryogenic Proof Pressure Test
External Leakage Test
Random Vibration Test
External Leakage Test
Outside Surface Quality Inspection
Weld Quality Inspection
Vacuum Integrity Test
External Leakage Test
Random Vibration Test
External Leakage Test
Cylce Life Test
External Leakage Test
Outside Surface Quality Inspection
Weld Quality Inspection
Final Examination of Product
Burst Pressure Test



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