



TANK TYPE Diaphragm	MOUNT Lugs (2)	LOCATION Girth
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This is a 19-inch propellant tank is a spherical pressure vessel constructed of 6AL-4V Titanium. Positive propellant expulsion is provided by a reversing AF-E-332 rubber diaphragm retained at the sphere mid-plane. Mounting is accomplished by lugs parallel with and adjacent to the mid-plane. Connection is made to the propellant and pressurant compartments through tube stubs.

ATK Part Number 80486-1
SIZE: 19.06 -inch ID Sphere
SIZE: 484 -mm ID Sphere

ISO 9001 & AS 9100 REGISTERED

APPLICABLE DOCUMENTS	TANK CHARACTERISTICS	ACCEPTANCE TESTS
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Acceptance Test Procedure	50-000671
Cleaning	CPP 3995

Operating Pressure, psig	377	Total Volume, ci	3,631
Proof Pressure, psig	498	Prop Volume, ci	2,748
Cryo Proof, psig	No	Max Design Wt, lbs	13.3
Design Burst Pressure, psig	754	Minimum Wall, inch	0.023
Actual Burst Pressure, psig			

Preliminary Examination of Product
Pre-Proof Volume Determination
Proof Pressure Test
Post-Proof Volume Determination
Pressure Differential & Expulsion Efficiency
Penetrant Inspection*
Radiographic Inspection*
Internal Leakage Test
External Leakage Test
Determination of Weight & Final Inspection
Cleanliness Verification
Final Visual Examination

DIAPHRAGM INFORMATION

Diaphragm P/N	80-274007-1
Diaphragm Mold P/N	T-1981
Diaphragm Gross Wt	1.71
Diaphragm Matl Type	AF-E-332
Diaphragm, Material	90-000075
Diaphragm Processing	90-000079
N-Ray Inspection Procedure	1002

TANK CHARACTERISTICS (Metrics)

Operating Pressure, Bar	25.99	Total Volume, l	59.50
Proof Pressure, Bar	34.34	Prop Volume, l	45.03
Cryo Proof, Bar	No	Max Design Wt, Kg	6.01
Burst Pressure, Bar	51.99	Minimum Wall, MM	0.584
Actual Burst, Bar			

FORGINGS

FORGINGS P/N	SUPPLIER	Die
80-182061-1 (2)		

QUALIFICATION TESTS

Qual was performed on 80274-1.

Notes:

1: Tube protector is SK 1476-1

Ring Size, (Rough Machined)

Ring Forging	SIZE
80-274065-1, Retainer	19.03 + .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

VACUUM RATED

YES

TUBE TYPE AND SIZE

TITANIUM	SIZE
80-486015-3	.250 OD x .020 Wall

TUBE TYPE AND SIZE (Metrics)

TITANIUM	SIZE
80-486015-3	6.35 x .5 MM Wall



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23-Jun-04