

<b>TANK TYPE</b> Diaphragm	<b>MOUNT</b> Lugs (2)	<b>LOCATION</b> 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.

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

**ISO 9001 & AS 9100 REGISTERED**

<b>APPLICABLE DOCUMENTS</b>		<b>TANK CHARACTERISTICS</b>		<b>ACCEPTANCE TESTS</b>
Acceptance Test Procedure	50-000671	Operating Pressure, psig	377	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
Cleaning	CPP 3995	Proof Pressure, psig	498	
QBS	56-000237	Cryo Proof, psig	No	
		Design Burst Pressure, psig	754	
		Actual Burst Pressure, psig	800	
		Total Volume, ci	3,641	
<b>DIAPHRAGM INFORMATION</b>		<b>TANK CHARACTERISTICS (Metrics)</b>		
Diaphragm P/N	80-274007-1	Operating Pressure, Bar	25.99	<b>QUALIFICATION TESTS</b> Qual was performed on 80274-1. Preliminary Examination of Product Pre-Proof Volume Determination Proof Pressure Volume Determination Internal (Diaphragm) Leakage External Leakage Expulsion Efficiency Vibration Internal (Diaphragm) Leakage External Leakage Acceleration Weld Inspection Internal (Diaphragm) Leakage External Leakage Operating Cycle life Internal (Diaphragm) Leakage External Leakage Expulsion Efficiency, Pressure Differential and Flow Rate Burst Test
Diaphragm Mold P/N	T-1981	Proof Pressure, Bar	34.34	
Diaphragm Gross Wt	1.71	Cryo Proof, Bar	No	
Diaphragm Matl Type	AF-E-332	Burst Pressure, Bar	51.99	
Diaphragm, Material	90-000075	Actual Burst, Bar	55.1572	
Diaphragm Processing	90-000079	Total Volume, l	59.67	
N-Ray Inspection Procedure	1002	Prop Volume, l	45.00	
		Max Design Wt, Kg	6.01	
		Minimum Wall, MM	0.584	

Notes:  
1: Tube protector is SK 1476-1

<b>FORGINGS P/N</b>	<b>SUPPLIER</b>	<b>Die</b>
80-182061-1 (2)	ARCTURUS	2696

<b>PROGRAM INFORMATION</b>	
Program	Multi Mission Platform
Customer	Fibraforte
Customer P/N	N/A
Original Job No	0625
Customer Installed Device	No
Customer Controlled Design	No

<b>Ring Size, (Rough Machined)</b>		
<b>Ring Forging</b>		<b>SIZE</b>
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	

<b>TUBE TYPE AND SIZE</b>	
<b>TITANIUM</b>	<b>SIZE</b>
80-486015-3	.250 OD x .020 Wall

<b>TUBE TYPE AND SIZE (Metrics)</b>	
<b>TITANIUM</b>	<b>SIZE</b>
80-486015-3	6.35 x .5 MM Wall

**VACUUM RATED**  
YES

