



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. Oxidizer feed is provided by an outlet tube on the same plane as the mounting lugs. This tank differs from 80461-1 because it does not have a side port.

**ATK Part Number 80461-2**

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

**ISO 9001 & AS 9100 REGISTERED**

APPLICABLE DOCUMENTS	TANK CHARACTERISTICS	ACCEPTANCE TESTS																								
<table border="1"> <tr> <td>Acceptance Test Procedure</td> <td>50-000647</td> </tr> <tr> <td>QBS Report</td> <td>56-000213</td> </tr> <tr> <td>Cleaning</td> <td>No CPP</td> </tr> <tr> <td>Fracture Analysis Plan</td> <td>54-000140 (for 80379)</td> </tr> </table>	Acceptance Test Procedure	50-000647	QBS Report	56-000213	Cleaning	No CPP	Fracture Analysis Plan	54-000140 (for 80379)	<table border="1"> <tr> <td>Operating Pressure, psig</td> <td>319</td> <td>Total Volume, ci</td> <td>3,631</td> </tr> <tr> <td>Proof Pressure, psig</td> <td>498</td> <td>Prop Volume, ci</td> <td>3,631</td> </tr> <tr> <td>Cryo Proof, psig</td> <td>No</td> <td>Max Design Wt, lbs</td> <td>13.25</td> </tr> <tr> <td>Burst Pressure, psig</td> <td>754</td> <td>Minimum Wall, inch</td> <td>0.023</td> </tr> </table>	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	<ul style="list-style-type: none"> <li>Preliminary Examination of Product</li> <li>Pre-Proof Volume Determination</li> <li>Proof Pressure Test</li> <li>Post-Proof Volume Determination</li> <li>External Leakage Test</li> <li>Penetrant Inspection*</li> <li>Radiographic Inspection*</li> <li>Determination of Weight &amp; Final Inspection</li> <li>Cleanliness Verification</li> <li>Final Visual Examination</li> </ul>
Acceptance Test Procedure	50-000647																									
QBS Report	56-000213																									
Cleaning	No CPP																									
Fracture Analysis Plan	54-000140 (for 80379)																									
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																							

**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
80-461001-1 (2)	.250" OD x .020" Wall (6.35 mm x .5 mm Wall)

