



TANK PMD	MOUNT Tabs	LOCATION Girth Weld	PMD DEVICE Complex
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The Tank Assembly is a hemispherical pressure vessel with a cylindrical section of all welded construction. It is mounted by 32 circumferential tabs with nut plates located on one of the hemispheres near the girth weld joint. The tank contains an internally-mounted propellant management device (PMD), with perforated sheet and woven screen, fabricated to maintain separation of liquid propellant and gaseous pressurant, and to provide predictable gas-free liquid propellant expulsion from the tank under low or zero gravity conditions. The PMD has been designed to allow horizontal handling with low fill fractions. The PMD has also been modified by the addition of a slosh control device to allow multiple erection and de-erection cycles.

ATK Part Number 80441-1

SIZE: 48.9-inch ID x 57.8-inch Long
SIZE: 1242mm x 1468mm

ISO 9001 & AS 9100 REGISTERED

APPLICABLE DOCUMENTS	TANK CHARACTERISTICS	ACCEPTANCE TESTS																												
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<p>Notes:</p> <ol style="list-style-type: none"> 1: Tooling owned by ATK 2: Tank shell is similar to P/N 80366-1 & 80403 3: PMD design is by PMD Technology 4: Tube protectors are SK 1353 & SK 1354 5: Vibration Fixture: T-4646. 	<p style="text-align: center;">TANK CHARACTERISTICS (Metrics)</p> <table border="1" style="width: 100%;"> <tr> <td>Operating Pressure, Bar</td><td>17.24</td><td>Total Volume, l</td><td>1,275.01</td></tr> <tr> <td>Proof Pressure, Bar</td><td>22.06</td><td>Prop Volume, l</td><td>1,268.87</td></tr> <tr> <td>Cryo Proof, Bar</td><td>NA</td><td>Max Design Wt, Kg</td><td>41.28</td></tr> <tr> <td>Burst Pressure, Bar</td><td>25.85</td><td>Minimum Wall, MM</td><td>0.787</td></tr> </table>	Operating Pressure, Bar	17.24	Total Volume, l	1,275.01	Proof Pressure, Bar	22.06	Prop Volume, l	1,268.87	Cryo Proof, Bar	NA	Max Design Wt, Kg	41.28	Burst Pressure, Bar	25.85	Minimum Wall, MM	0.787													
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