



TANK TYPE SIMPLE PMD	MOUNT Tabs, 32	LOCATION Girth	PMD DEVICE VANE, TRAP & SPONGE
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This tank assembly is a pressure vessel with hemispherical ends & 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 cylindrical section weld joint. The tank contains an internally mounted propellant management device (PMD), with perforated sheet & woven screen, fabricated to maintain separation of propellant & gaseous pressurant, & to provide predictable gas-free liquid propellant expulsion from the tank under low or zero gravity conditions.

ATK Part Number 80456-1

SIZE: 48.9" ID x 63.335" Long
SIZE: 1,242 x 1,608 mm

ISO 9001 & AS 9100 REGISTERED

APPLICABLE DOCUMENTS	
Acceptance Test Procedure	50-000632
Bubble Point Test Procedure	50-000631
Materials List	54-000218
Processes List	54-000209
Cleaning	CPP 3943

TANK CHARACTERISTICS			
Operating Pressure, psig	250	Total Volume, in ³	87,575
Proof Pressure, psig	313	Prop Volume, in ³	87,575
Cryo Proof, psig	N/A	Max Design Wt, lbs	99.20
Burst Pressure, psig	375	Minimum Wall, inch	0.031
Actual Burst, psig	N/A		

QUALIFICATION TESTS
Qual performed on 80411-1

ACCEPTANCE TESTS
Preliminary Inspection of Product
Pre-Proof Volumetric Capacity
Pressure Drop Test
Bubble Point Test
External Leakage Test
Radiographic Inspection
Dye Penetrant Inspection
Mass Determination
Cleanliness Che
Data Review

- Notes:
- 1: Tooling belongs to ATK.
 - 2: Tube protectors are SK 1488 & 1489
 - 3: Vibration Fixture T-4646
 - 4: Fracture Critical

TANK CHARACTERISTICS (Metrics)			
Operating Pressure, bar	17.24	Total Volume, l	1,435
Proof Pressure, bar	21.55	Prop Volume, l	1,435
Cryo Proof, bar	NO	Max Design Wt, kg	45.00
Burst Pressure, bar	25.85	Minimum Wall, MM	0.787
Actual Burst, bar	0.00		

VACUUM RATED
YES

HEMI P/N	SUPPLIER	Die No
80-363061 (2)		

RING FORGINGS			
P/N	QTY		Size
80-363063	1	49.57 +/- .06 x 48.31 +/- .06 x 3.19 +/- .09	
80-363065	1	49.75 +/- .09 x 48.40 +/- .09 x 16 +/- .06	

TUBE TYPE AND SIZE (in.)		SIZE
<u>Ti 3AL-2.5V</u>		
80-456090-5		0.375 O.D. x 0.020 Wall
80-456009-5		0.375 O.D. x 0.020 Wall

TUBE SIZE (mm)	
80-456090-5	9.525 x 0.508 mm
80-456009-5	9.525 x 0.508 mm

