



TANK/FUEL TYPE	MOUNT	LOCATION	PMD DEVICE
Simple PMD, NTO	Pad	Cylinder	Vane

This tank is a 21" x 65" long titanium tank and is constructed from titanium 6AL-4V with a nominal membrane thickness of 0.029"-0.032". Mounting is provided by 1 welded sidemount & 4 strut supports located on the tank inlet & outlet bosses. The tank contains an internal PMD, constructed from titanium sheet & titanium woven screen. The PMD serves to maintain separation of liquid propellant (NTO) & gaseous pressurant., & to provide predictable gas liquid propellant expulsion from the tank under low or zero gravity conditions. The propellant & pressurant ports are 3/8-inch

ATK Part Number 80390-1

SIZE: 21.25-inch ID x 65.03-inch Long
SIZE: 540 x 1651.7-mm

ISO 9001 & AS 9100 REGISTERED

APPLICABLE DOCUMENTS	TANK CHARACTERISTICS	ACCEPTANCE TESTS
Qualification Test Procedure 50-000488	Operating Pressure, psig 300 Total Volume, ci 19,984	Examination of Product
Acceptance Test Procedure 50-000490	Proof Pressure, psig 375 Prop Volume, ci	Bubble Point Test
Bubble Point Test Procedure 50-000492	Cryo Proof, psig NA Max Design Wt, lbs 33.50	Volume & Proof Test
Fracture Mechanics Plan 54-000148	Burst Pressure, psig 450 Minimum Wall, inch 0.017	Pressure Drop Test
Fracture 251-1 & 251-A		Vibration Test
Cleaning CPP 3820		Bubble Point Test
		External Leakage
		Radiographic & Penetrant Inspection
		Examination of Product
		Cleanliness Verification
		Data Review & Ship

Notes:

- 1: Tooling belongs to ATK.
- 2: Fracture Critical

TANK CHARACTERISTICS (Metrics)

Operating Pressure, Bar 20.68	Total Volume, l 327.48
Proof Pressure, Bar 25.85	Prop Volume, l
Cryo Proof, Bar NA	Max Design Wt, Kg 15.20
Burst Pressure, Bar 31.03	Minimum Wall, MM 0.432

FORGINGS

FORGINGS P/N	SUPPLIER	Die No
80-390061-1		
RING FORGING		
80-390063-, Center Section		
-1 (Inlet) 21.87+.12,-.03 ODx20.93+.03,-.09 IDx22+.25		
-3 (Outlet) = 22.38+.12,-.03 OD x 20.93+.03,-.09 ID x 22+.25 Long		
-5= 22.38+.12,-.03 OD x 20.93+.03,-.09 ID x 25.75+.25 Long		

