

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

ISO 9001 & AS 9100 REGISTERED

Part Number 80390-1

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

APPLICABLE DOCUMENTS

Qualification Test Procedure	50-000488
Acceptance Test Procedure	50-000490
Bubble Point Test Procedure	50-000492
Fracture Mechanics Plan	54-000148
Fracture	251-1 & 251-A
Cleaning	CPP 3820

TANK CHARACTERISTICS

Operating Pressure, psig	300	Total Volume, ci	19,984
Proof Pressure, psig	375	Prop Volume, ci	
Cryo Proof, psig	NA	Max Design Wt, lbs	33.50
Burst Pressure, psig	450	Minimum Wall, inch	0.017

ACCEPTANCE TESTS

Examination of Product
Bubble Point Test
Volume & Proof Test
Pressure Drop Test
Vibration Test
Bubble Point Test
External Leakage
Radiographic & Penetrant Inspection
Examination of Product
Cleanliness Verification
Data Review & Ship

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

Notes:

- 1: Tooling belongs to Northrop Grumman
- 2: Fracture Critical

FORGINGS

FORGINGS P/N	SUPPLIER	Die No
80-390061-1		
RING FORGING		
RING SIZE, Rough Machined		
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		

