

TANK & FUEL TYPE	MOUNT	LOCATION	PMD DEVICE
Simple PMD-NTO	Pad & Flex Plate	Cylinder & Ports	Vane



The new generation AX Oxidizer tank is identical to the qualified design except the titanium screen in the PMD has been replaced with perforated sheet. The PMD serves to maintain a volume of predictable NTO expulsion from the tank under low or zero gravity conditions. The tank is constructed from titanium 6Al-4V with a nominal membrane thickness of 0.016"-0.032". Mounting is provided by 1 welded sidemount & 4 strut supports located on the tank inlet and outlet bosses. The propellant & pressurant ports are 3/8" titanium tubes.

Part Number 80405-1

SIZE: 21.25" ID x 65.03" Long
SIZE: 540 x 1652-mm

ISO 9001 & AS 9100 REGISTERED

APPLICABLE DOCUMENTS	
Acceptance Test Procedure	50-000511
Fracture Mechanics Plan	54-000148
Cleaning	CPP 3820

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

ACCEPTANCE TESTS
Examination of Product
Volume & Proof Test
Vibration Test
External Leakage
Radiographic & Penetrant Inspection
Examination of Product
Cleanliness Verification
Data Review & Ship

Notes:

- 1: Tooling belongs to Northrop Grumman
- 2: This tank is Proton Launch Qualified
- 3: Fracture Critical

TANK CHARACTERISTICS (Metrics)			
Operating Pressure, Bar	20.68	Total Volume, l	327.48
Proof Pressure, Bar	25.85	Prop Volume, l	327.48
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		RING SIZE, Rough Machined
80-390063-1, Center Section	21.87 +.12, ODx20.93 IDx22 +.25, -.00 L	
80-390063-3, Center Section	22.38 +.12, OD x 20.93, -.09 ID x 22 +.25, -.00 L	

