

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 80529-1

SIZE: 21.491" DIA x 65.031" LONG
SIZE: 545.9 mm DIA x 1652 mm LONG

ISO 9001 & AS 9100 REGISTERED

APPLICABLE DOCUMENTS	TANK CHARACTERISTICS	ACCEPTANCE TESTS
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Acceptance Test Procedure	50-000735
Fracture Mechanics Plan	
Cleaning	CPP 3820

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

Examination of Product
Volume Determination & Proof Test
Vibration Test
External Leakage Test
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
- 4: Oxider tank based on 80405-1

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

PROGRAM INFORMATION

Program	GPS III
Customer	Lockheed Martin
Customer P/N	
Original Job No.	
Customer Installed Device	No
Customer Controlled Design	No

FORGINGS P/N	SUPPLIER	Die No
80-390061-1		
RING FORGING		
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	

Ti 3.0AL-2.5V	QTY	SIZE
80-390040-5	2	.375" OD x .0250" WALL x 3.12" LONG

