

TANK TYPE Simple Pmd	MOUNT Bosses	LOCATION Polar	PMD DEVICE Vane
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This is a 28-inch x 48-inch cylindrical pressure vessel with (ellipsoidal heads) and is constructed of 6AL-4V titanium. Fuel expulsion is provided by a vane type propellant management device (PMD) fabricated to provide expulsion capability during low or zero gravity conditions.

Part Number 80356-1

SIZE: 28-inch ID x 48.5-inch Long
SIZE: 711 x 1232 mm

ISO 9001 & AS 9100 REGISTERED

APPLICABLE DOCUMENTS	
Acceptance Test Procedure	50-000365
Qualification Test Procedure	50-000366
Bubble Point Test Procedure	50-000367
PMD Performance Analysis	54-000105
Fracture Analysis Plan	54-000099
Qualification Test Report	56-000138
Performance Analysis, Tank	217
Cleaning	CPP 3693

TANK CHARACTERISTICS			
Operating Pressure, psig	325	Total Volume, ci	26,750
Proof Pressure, psig	439	Prop Volume, ci	26,700
Cryo Proof, psig	No	Max Design Wt, lbs	60.0
Burst Pressure, psig	488	Minimum Wall, inch	0.037

ACCEPTANCE TESTS
Preliminary Inspection of Product
Radiographic & Penetrant Inspection
Volumetric Capacity Test
Proof Pressure Test
Post Proof Volumetric Capacity Test
External Leakage
Radiographic & Penetrant Inspection
Weight Measurement
Final Examination of Product
Cleanliness Test
Preparation for Delivery

TANK CHARACTERISTICS (Metrics)			
Operating Pressure, bar	22.41	Total Volume, l	445.66
Proof Pressure, bar	30.27	Prop Volume, l	444.83
Cryo Proof, bar	No	Max Design Wt, kg	27.22
Burst Pressure, bar	33.65	Minimum Wall, MM	0.940

Notes:

- 1: Tooling owned by Customer/Govt
- 2: PMD design is proprietary to TRW
- 3: Tube protector is SK 1224
- 4: Fracture Critical



FORGINGS	
FORGINGS P/N	SUPPLIER
80-343061-1 (2)	Die
RING FGG	RING SIZE, (Rough Machined)
80-356063-1, Cyl	28.87 +/- .03 OD x 27.87 +.03 -.09 ID x 29.81 +.12 -.06 Lg

QUALIFICATION TESTS
Preliminary Examination of Product
Volumetric Capacity
Proof Pressure
Post Proof Volumetric Capacity
External Leakage
Final Inspection of Product
Flow Rate and Pressure Drop
Cycle Pressurization
Static Acceleration Test
Natural Frequency Test
External Leakage
Final Inspection of Product
Burst Pressure Test

TUBE TYPE AND SIZE	
TRANSITION	SIZE
80-356001-1 (2)	.250 OD x .016 Wall (6.35 X .406)

