

TANK TYPE Complex PMD	MOUNT Bosses	LOCATION Polar	PMD DEVICE Vane, Trap Screen, Sponge
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This is a 35-inch spherical pressure vessel constructed of 6AL-4V titanium. Fuel expulsion is provided by a complex propellant management device (PMD) fabricated to provide expulsion capability with low or zero gravity conditions. Mounting is by polar bosses.

Part Number 80350-1

SIZE: 35-inch ID Sphere

SIZE: 889-mm

ISO 9001 & AS 9100 REGISTERED

APPLICABLE DOCUMENTS	
Bubble Point Test Procedure	50-000364
Acceptance Test Procedure	50-000374
Qualification Test Procedure	50-000375
Fracture Toughness Test	50-000377
Processes List	54-000100
PMD Performance Analysis Rpt	54-000101
Applicable Documents List	54-000103
Materials List	54-000104
Age Process Elimination	54-000119
Pre-Assy Clean, Sponge Assy	54-000146
Weld Qualification Report	55-000072
Forging Qual Report, JN 8804	55-000069
Weld Qualification Report	55-000072
Materials Properties Test, JN 8804	55-000073
EB Weld Repair	55-000074
Fracture Analysis Plan	54-000097
QTR, Manifold, Perforated Sheet	56-000136
Qualification Test Report	56-000137
Protoflight Test Report	56-000139
Cleaning	CPP 3677

TANK CHARACTERISTICS			
Operating Pressure, psig	260	Total Volume, ci	22,450
Proof Pressure, psig	325	Prop Volume, ci	22,450
Cryo Proof, psig	No	Max Design Wt, lbs	28.9
Burst Pressure, psig	390	Minimum Wall, inch	0.023

TANK CHARACTERISTICS (Metrics)			
Operating Pressure, Bar	17.93	Total Volume, l	367.89
Proof Pressure, Bar	22.41	Prop Volume, l	367.89
Cryo Proof, Bar	No	Max Design Wt, Kg	13.11
Burst Pressure, Bar	26.89	Minimum Wall, MM	0.584

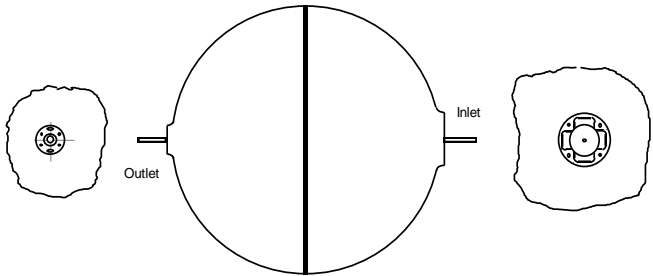
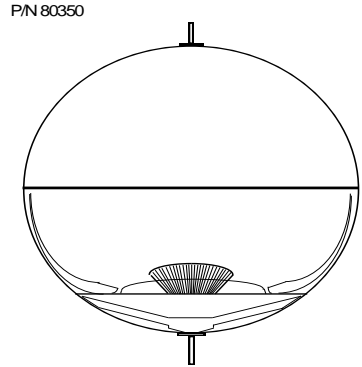
FORGINGS		
FGGS P/N	SUPPLIER	Die
80-350061-1 (2)	ARCTURUS	3540

TUBE TYPE AND SIZE	
TITANIUM	SIZE
80-350020-5, Inlet	.250 OD x .018 Wall
80-350150-5, Outlet	.375 OD x .018 Wall

TUBE TYPE AND SIZE (Metrics)	
TITANIUM	SIZE
80-350020-5, Inlet	6.35 OD x .457 Wall
80-350150-5, Outlet	9.52 OD x .457 Wall

- Notes:**
- 1: Tooling owned by Northrop Grumman
 - 2: Acceptance Sine is dry
 - 3: Fracture Critical

PROGRAM INFORMATION	
Program	HS-601
Customer	
Customer P/N	4946407
Original Job No	8804
Customer Installed Device	No
Customer Controlled Design	Yes, PMD



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