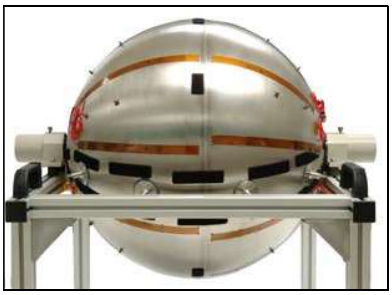
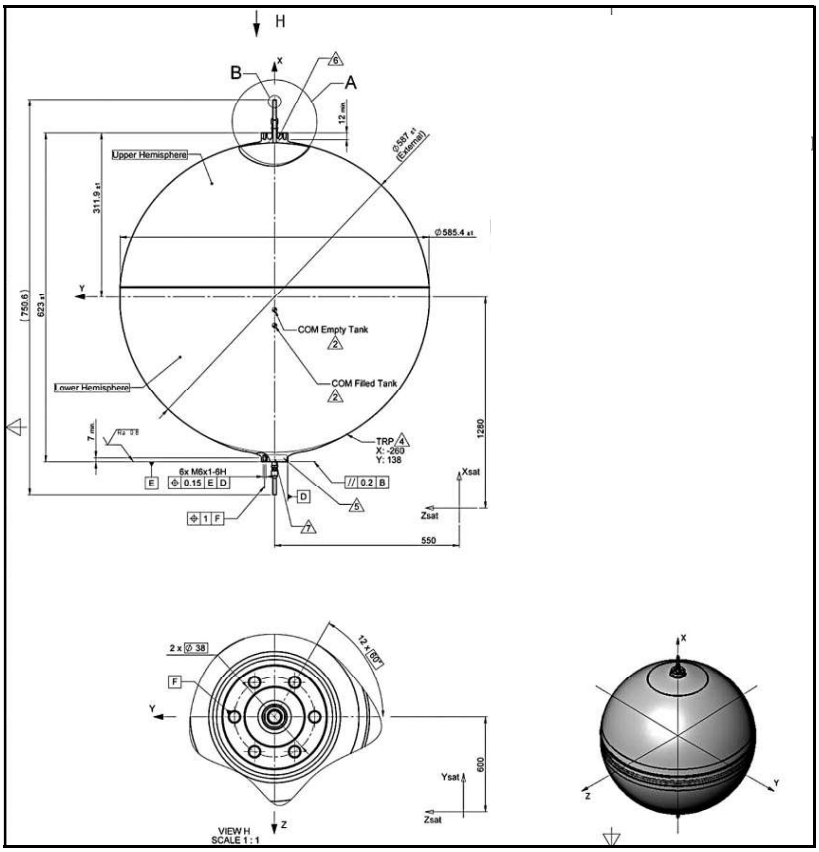
PEPT-590







PEPT-590

PEPT-590 Main Characteristics

Configuration	Spherical, 586 mm OD
Fluid Media Compatibility	Hydrazine, IPA, distilled water, GN_2, GHe
Pressurant	GN_2, GHe
Minimal Net Volume:	102.5 liter
Propellant Nominal Capacity	75 kg
Liquid Volumetric Expulsion	> 99.1 %
Pressure	
Operating	24.6 to 5.5 bar
Proof	36.9 bar
Burst	49.2 bar
Leakage	
Internal Leakage	$<5.6 \times 10^{-3}$ Scc/s (GHe)
External Leakage	$<1.0 \times 10^{-6}$ Scc/s (GHe) at 24.6 bar
Material	
Tank Material	Ti-6Al-4V
Diaphragm Material	EPN-40: EPDM type silica-free rubber
Ports	ø 1/4" tube weldable connections for both gas and hydrazine ports, made of Ti-6Al-4V
Weight	7.5 kg
Temperature	
Operating (Qualification)	4°C to 60°C
Non-Operating (Qualification)	-20°C to 60°C
Service Life	
Storage	7 years
Flight	15 years
Mounting	Polar mounting
Heritage	Designed and qualified for Galileo IOV, flight heritage with IXV, delivered for Exomars 2020, PRISMA