

ARTIC-iCPV: infinite Composite Pressure Vessel for cryogenic storage



The advanced reinforced thermally insulated cryotank (ARTIC) is an infinite Composite Pressure Vessel (iCPV) that utilizes an all-composite, liner-less design with 304 stainless steel flanged and bolted interfaces. Mounting is provided by polar bosses located on the tanks centerline axis.

Part #: CFZ001008

Dimensions: (in/mm)

Length: 37.3/946.4

Diameter: 25.6/650.2

ISO 9001 & AS9100 REGISTERED

Tank Specifications		Metric	Qualification Tests
Operating Pressure:	500 psig	34.47 bar	Hydro Burst
Proof :	750 psig	51.71 bar	Thermal Cycle
Cryo Proof :	750 psig	51.71 bar	Cryo Pressure Cycle
Min Burst :	2,000 psig	137.9 bar	Cryo Burst
Actual Burst :	3,400 psig	234.42 bar	
Volume:	15622 in.^3	0.26 m^3	
Tank Weight:	58 lb.	26 kg	

Materials and Interfaces	Acceptance Tests
Shell: Cryogenic Composite Engineering Laminate	Preliminary Inspection
Resin: Alpha-X6004_0.3% x Omega_X6003_0.5%	Volume
Fiber: Toray T800-SC-2400 x Mafic CF0313SS	Capacity
Fwd Interface: 4.75" 12 Bolt Flange SS AISI 304	Weight Measurement
Aft Interface: 4.75" 12 Bolt Flange SS AISI 304	Hydro Proof

