



# Altitude Test Chamber

## TCA Series





## Features :

- Designed to simulate altitude conditions up to 100,000 feet.
- Provides simultaneous temperature/altitude testing from site altitude to 65,000 feet.
- Heated inspection window to ensure that the test room is clearly visible.
- The humidity test can only be performed at the altitude of the site.



## Specifications

Models		TCA300-70H-3K	TCA600-70H-3K	TCA950-70H-3K
Internal Volumes(L)		300	600	950
Dimensions	Inner Dimensions (mm)	W	650	800
		D	600	850
		H	800	900
	Outer Dimensions (mm)	W	1250	1350
		D	2100	2300
		H	2300	2400
Temperature	Temperature range	-40°C to 180 °C and -70°C to 180 °C		
	Temperture fluctuation	±1°C		
	Temperature uniformity	< 1000 Litres: ≤1.5°C. 1000 to 2000 Litres: ≤2.0°C. > 2000 Litres: ≤2.5°C.		
	Ramp rate	3/5/10/15/20 °C/Min		
Pressure	Altitude	Atmospheric to 10 mbar		





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Material	Internal Material	Internal test chamber is manufactured with Stainless steel material
	External Material	Exterior material shall be made of min 2mm thick CRCS with powder coated panels/door with impressive precision & aesthetics
	Thermal Insulation	Internal test chamber and outer body is isolated using mineral wool ensuring no air pockets and zero conduction and heat losses
	Fan	Single-moulded light weight high cfm coaxial fan for uniform air-circulation.
	Refrigeration Compressor	Danfoss, Frascold and Bitzer
	Refrigerant	R-404a and R-23
	Cooling mode	Air-Cooled / Water Cooled
	Evaporator	Evaporator heat exchanger coils are made with oxidize free materials with full collared bullet expanded for highly efficient heat transfer and higher efficiency.
	Heater	Inconel material sheathed/ bare nichrome air heaters to achieve the set temperature.
	Humidifier	Humidity generator shall be equipped with water level float, over temperature protection thermostat, Inconel immersion heater for vapor generation. Water level automatically controlled through a water-in solenoid valve
Working Temperature		25-30 °C and 10-90% RH
Power Supply		Power requirement: 415VAC +/- 5%, 3 Phase 50/60 Hz, 4 wire + E.
Controller		7" Red Lion (HMI) & Siemens (PLC)