

CATALOGUE FOR HLTS CHAMBER (HIGH LOW TEMP THERMAL SHOCK
CHAMBER MODEL HAMCO 49 SERIES
UPPER CHAMBER HIGH TEMP +150°C - LOWER CHAMBER LOW TEMP -70°C/
-40°C/-20°C

CONSTRUCTION GMP MODEL	Double walled , gap between walls filled with PUF Insulation. Inner Body made of SS 304 Mirror Finished, Outside SS 304 Matt Finished. Double door : Inner full Viewing door and outer door insulated with lock and key arrangement. 50mm Validation Port with silicon rubber seal to insert sensor for validation purpose. 3" Thick CFC Free Puff Insulation. Stainless steel Trays. Adjustable Tray Height adjustment. Unit Mounted on castor wheels with front lock arrangement. Stainless steel Rod Trays. Adjustable Tray Height adjustment.
LIGHTING	Fluorescent Light are provided , which automatically On when we open the door.
CHAMBER PRINCIPLE	Air circulation by Circulation Motor & Fan will continuously sucks the air from the chamber and Passes it through Air heater, Evaporator and through it back to chamber and same air will be recirculated to achieve desired Temperature stability inside chamber. Our design reduces the power consumption by 50% .
ICH GUIDELINES	Fully Suitable to carry out Stability Studies For Conditions Such As : Upper Chamber :- • -20°C • -40°C • -10°C Lower Chamber :- • 1

	Interior Illumination for working Area.
DQ,IQ,OQ,PQ	To Help the customers to meet current regulatory requirements for the equipment , Hamco can provide DQ,IQ,OQ,PQ Protocols. This Protocol ensures that the system is properly installed, Operating as per our recommendations , Adequately documented and controlled according to regulatory requirements. Calibration certificate & Test certificate of critical components along with Operation , Maintenance Manual, Wiring diagram , chamber diagram, sensor position diagram provided. Operation Training of the instruments along with software installation and software Training is part of our Operation Qualification.
VALIDATION & CALIBRATION	Calibration of chamber is provided with Traceability against standard used. --N.A.--Hamco will give one cycle 24 hours Validation report offsite . (Validation is putting temp & RH sensors at different position in the chamber confirming Uniformity at different places in the chamber.)
TEMPERATURE SENSOR	• A Grade RTD (PT 100 Sensor) . Temperature resolution 0.1°C .
DISPLAY	HMI Display is 7" Color Touch Screen Display of Delta Make with display shows • set & Process Value of Temp • Active Alarm List

	• Data Storage of 10,000 Readings. If we set data interval of 30 Mins , it can save approx. one year data. • Controls Temp using PID Loops. • Ethernet Communication Port for PC Connectivity.
BIOMETRIC DOOR ACCESS	--N.A.-- • Thumb print door access system to Open the door.
SAFETY	<u>Temperature Safety :-</u> • When Temperature deviates higher side than their prescribed limits , the Heater will be cut off by Thermostate. Once it reach within the range , the heating system reset automatically. <u>Human Safety :-</u> • In case of door open Basket shuttle will be disabled. • Everytime during basket shuttle , it will Horn the buzzer • All the component has individual MCB for Overload and trip protection. • The system has provided with proper earthing. • Emergency which will shut off all the output on running.
ALARM GENERATION	Audio & Visual Alarms are generated for : • Temperature Deviation.

ORDERING INFORMATION :-**MODEL : -70°C TO +200°C**

MODEL NO		CAPACITY			DIMENTION IN CMS			WT IN KG		POWER	
STANDARD	GMP	C U F T	LIT RES	INNER CHAMBER SIZE IN CM(HOT& COLD)	BASK ET SIZE IN CM	OVER ALL SIZE WITHOUT CYLINDER	SH EL VE S	UNIT	WOOD EN CASE	VAC Hz	WATTS
HAMCO49S-3(-70)	HAMCO49G-3(-70)	3</									