HCH-20-- ENVIRONMENTAL TEST CHAMBER

Temperature range*	0°C to 70°c
Temperature /%RH uniformity	± 1°C / 3%
Temperatur control at sensor	± 0.2°C
Control resolution	± 0.1°C
Humidity range	20 to 90% RH * as limited by operable dew point conditions
Humidity control at sensor	±1%
Cooling/Heating type	Thermoelectric/Peltier driven-for heating/Cooling
Chamber Volume in Cu. Ft	21.4 cu.ft
External Dimension-LXWXH	28″×31″×81″ (refer to drawing)
Internal Dimension-LXWXH	24″ x 27″ x 60″ (refer to drawing)- height includes plenum which is 5″H.
Shelf dimension	23.5” x 24.5”
Cabinet specs	Stainless interior and exterior construction
Lights	LED light
Electrical requirement	115V/60hz/1ph, Unit plugs into standard wall outlet.
Shelf quantity, type	3 per chamber/ additional shelves available, wire shelf- PVC coated with 4 installation clips. Shelf capacity- 100 lbs distributed load.
Weight specs	Chamber weight- 210lbs Shipping weight- 254 lbs

*Specifications are based on 20°C ambient and standard voltage. Specifications are subject to change without notice.

Chamber features:

This is a one door environmental /stability chamber capable of performing in wide temperature range (0°c to 70°c) with precise temperature control over the entire range with humidity range of 20% to 90% RH as limited by operable dew point. Humidity is achieved via ultrasonic humidification. Chamber is used in wide variety of industries for various applications.

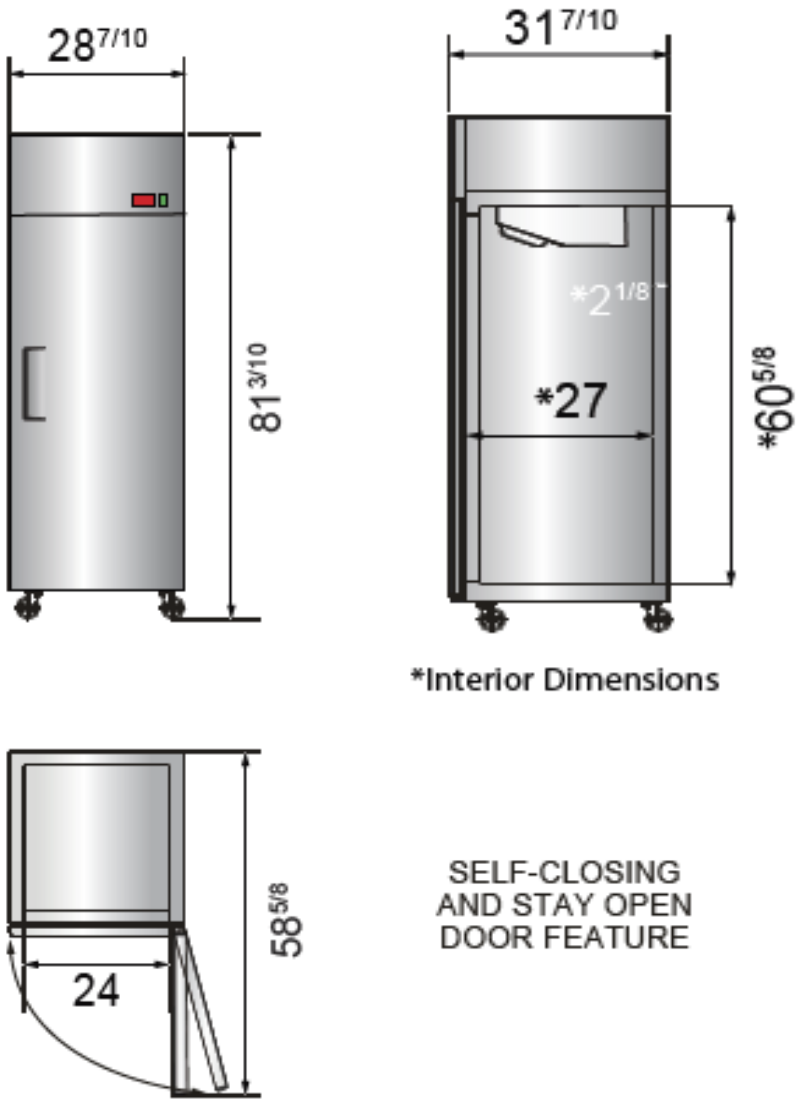
Chamber has 2” thick CFC free insulation providing good thermal gradient. Door locks are standard in doors. Chambers comes with 2” access port with insulation plug. Chamber also includes pre-installed casters capable of supporting 150-200lbs per caster. Chamber uses thermoelectric assembly for heating and cooling. This type of cooling/heating system completely eliminates need for conventional refrigeration system and failures due to mechanical components such as compressors thereby drastically increasing the life expectancy of each chamber. Maintenance cost is also lowered by the thermoelectric/Peltier driven heating/cooling system. The chamber is quiet in operation. Back wall plenum on chambers ensures uniform distribution of conditioned air. Chamber temperature and %RH setpoints are tightly controlled using PID controller, calibrated 3 wire RTD sensor and RH sensor.

Standard Temperature control features:

- LED display of SV and PV
- Simplifies Controller Management with Easy-to-Operate Graphic User Interface
- Programmable alarms
- High/Low deviation at controller

Standard Humidity control features:

- Displays PV/SV. LED display.
- Standard PID Controller
- High/Low deviation alarms at controller

Humidity system:
Humidity control is optional. Humidity range is achieved via additive ultrasonic humidification, a controller with factory calibrated %RH sensor. Humidifier is installed typically in the rear of the chamber and can be easily serviced or replaced. RO/DI system is recommended but not required as long as the water quality specification is met. Tap water should be fine. The humidifier comes with a 15' ¼" polytube, shut off valve and quick disconnect fittings as well as a fitting to connect to water faucet.
Water quality specification:
Water conductivity greater then 0.1 µS, TDS of < 10 ppm and works in operating pressure range from 10psi to 80 psi.

Technical drawings