

Versatile Walk-In Test Chambers, Custom Built to Meet Your Specific Requirements



Chart WI-Series Chamber

Features:

- Rapid thermal change rate (up to 20°C per minute)
- Pre-engineered conditioning systems and prefabricated panels can be assembled to meet virtually any test or size requirement
- Advanced insulation for thermal efficiency, sound deadening, and reduced floor space
- Standard Watlow model F4 temperature controller provides accurate and simple control
- Cam lock panels provide complete customization for any size chamber

Technical Features:

- Closed loop evaporation coil and redundant safety valves for nitrogen free workspace
- Custom built modular panels provide efficient shipping and installation
- Available Vacuum Jacketed LN₂ control system provides efficient frost free LN₂ use along with reduced profile transition lag-time
- Optional software for chamber operation and data logging from a PC



Vacuum Jacketed LN₂ Controls

System Specifications

Temperature Range	+90°C to -50°C (Extended range optional)
Cooling	Available vacuum insulated liquid nitrogen system including proportional control valve and redundant safety with a closed loop evaporation coil for cooling
Heaters	Open element nichrome type for low thermal mass & quick response
Doors	Custom sized to open 160° for easy access
Door Interlocks	Inhibit thermal systems when any door is ajar
Windows (optional)	Custom sized multi-pane viewing on doors (heated windows available)
Access ports	Two 6" ports with hinged phenolic cover & foam port plugs (additional ports available)
Control	Watlow F4 along with other controllers available upon customer request
Channels	Temp: Plenum Temp, Product Temp
Software Programs (optional)	Software package allows operating the chamber and logging data from a PC
Temperature Safety Controller	High/low control independently protects product and equipment against thermal runaway due to primary controller failure
Interior Workspace Dimensions	200 to 2000 ft3 (custom sizes available)
Maximum Payload	700 lb/ft2 distributed load rating
Chamber Liner	Constructed of 20 gauge, series 304 stainless steel for maximum corrosion resistance
Chamber Exterior	.042" thick patterned aluminum painted white minimizing scratches, scuff marks and various color choices available
Chamber Insulation Thickness	5 inch standard, up to 8 inches optional
Power Requirements	460 VAC, 3 Phase
Main Power Disconnect Switch	Rated at 50,000 AIC at 480 VAC, with lock-out capability
Plenum	Heating elements and liquid nitrogen cooling coil are properly baffled and do not protrude into the chamber's working volume
Air Blower Motor	Heavy duty ball bearing type motor located outside the thermally conditioned space (motor horsepower rating based on application)
Compressed Air	3/8" supply, 80 psig, 5 SCFM 5.5 barg, 0.1 m3/min
Exhaust	Exhaust port size is based on chamber size and configuration
LN2 Connection	1/2" Female Chart Dissimilar Metal Bayonet

*All specifications subject to change without notice