TENSILE CLIMATIC TEST CHAMBERS

CCK/CET/AFAe, SERIES

Dycometal has designed and developed thermal test chambers for any type of universal testing machine, for the climatic conditioning of samples during the tensile test.

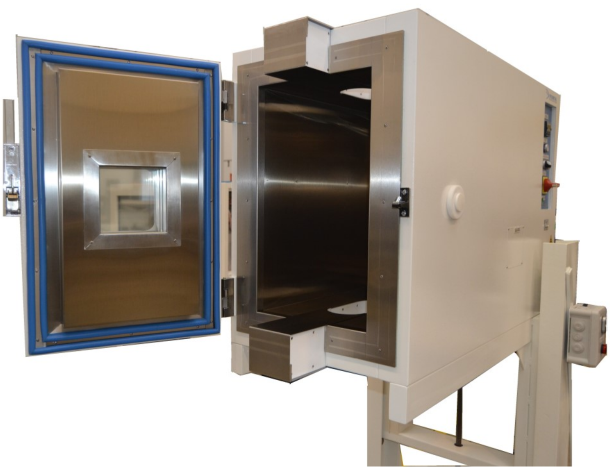
These chambers are designed to allow jaws to be inserted into the chamber during the test.

GENERAL FEATURES:

- Adaptable for any universal testing machine.
- Standard volumes between 25 and 1000 liters.
- Temperature ranges up to +from –100 °C to +350 °C.
- Great stability and uniformity.
- Custom designs.

CONSTRUCTION

- Built on a tube and sheet steel structure, painted according to RAL-9010.
- Interior constructed of stainless steel sheet without interior welds.
- Door made of quality stainless steel sheet and painted according to RAL -9010.
- Flexible high-temperature silicone gasket located on the interior weather stripping to guarantee tight closing of the door.
- Thermal insulation formed by fiberglass and semi-rigid basalt rock wool panels capable of supporting the correct operation of the oven at maximum working temperature without deterioration.
- Free of fluorochlorinated hydrocarbons, asbestos and lead and mercury oxide as stipulated by environmental regulations concerning the installation of thermal-acoustic insulators.



- Air circulation: forced draft through fan/s located on the side of the stove.
- 2 upper and lower wall ports for access to the jaws.
- Reinforced base of the chamber with M-8 threaded holes to fix mooring guides.
- Control panel located on the side in an ergonomic position.
- Heating by shielded electrical resistances with high heat dissipation power and made entirely of stainless steel.
- Independent safety thermostat for over-temperature with disconnection of resistances due to failure of the temperature regulator.

CONTROL

• Digital regulator display the reading of actual value and set value.

• Direct temperature reading in °C.

• Retention of the work values entered in case of power failure.

• Optimization of work values through PID parameters in heat.

• Type of reading probe: Pt-100 Ohm, DIN Class A.

• Alarm reset.

• General current disconnector .

OPTIONAL ELEMENTS

• Humidity control system through vaporization system with capacitive control sensor.

• Generating system for distances between columns where there is no space for cold.

• Chamber structure for fixing the chamber on the test bench.

• Observation window, made of several securit-type panes.

• Interior light for sample illumination.

• Additional wall passages, with several different diameters and in different materials.

• IR observation window for thermography inside the chamber.

• Upper and lower oblong wall ports of different diameters.

• Lateral access for carrying out extensometric measurements.

• Air dryer, to avoid frost on the samples.

• Internal cold extraction system to carry out temperature cycles.

• Microswitch on door to stop fans when opening the door.

• Electromagnetic door closure to prevent openings during the test.

• Cryogenic valve for liquid nitrogen injection.

• Sample protection system using additional Pt-100 probe and electronic thermostat.

DYCOMETAL
Testing Technology

OPTIONAL ELEMENTS

• Programmer. For carrying out temperature cycles, with RS-232 communications port and control software.

• Paperless graphic recorder. With color screen and USB port for data extraction and Ethernet communication port.

• Weekly scheduler. On/off scheduled for a day of the week.

MARKETS

- Resins, plastics, elastomers
- Construction materials.
- Composite materials.
- Textile industry.
- Metallurgical industry.
- Adhesives, etc.

MAIN FEATURES

MODELS (1)			.../40e	.../60e	.../73e	.../106e	.../145e	.../343e
Volumen		Liters	40	60	73	106	145	343
Internal dimensions	Height	mm	400	500	650	660	700	700
	Width	mm	250	300	250	400	270	700
	Depth	mm	400	400	450	400	270	700
External dimensions	Height	mm	600	800	930	950	900	1000
	Width	mm	430	600	530	690	420	1000
	Depth	mm	770	900	950	890	772	1200
Temperature test								
Minimum temperature (2)		°C	-125, -70, -40, -25, ROOM +10					
Maximum temperature (3)		°C	+150 +180 +250, +350					
Temperature stability (4)		°C	±0,1 °C to ±0,3°C					
Temperature uniformity (4)		°C	±0,5 °C to ±1,5°C					
Power								
Voltage		V	400V 3N~PE					

Notas:

(1) Models may vary depending on the selected temperature range. AFA: stoves, CET: thermal test chamber with mechanical cooling, CCK: climatic test chambers with climatic cooling. The referenced volumes are merely demonstrative. Other volumes available depending on the available space of the universal traction machine.

(2) The minimum temperature depends on the selected equipment model. Temperature ranges below −70 °C will require a cryogenic nitrogen injection system.

(3) The maximum temperature depends on the selected equipment model. Temperature ranges greater than +180 °C will only be applied to stoves or systems specially designed for this purpose..

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