DYCOMETAL
Testing Technology

CLIMATIC TEST CHAMBER
FOR CARBONATION TESTS

CCK-25/180

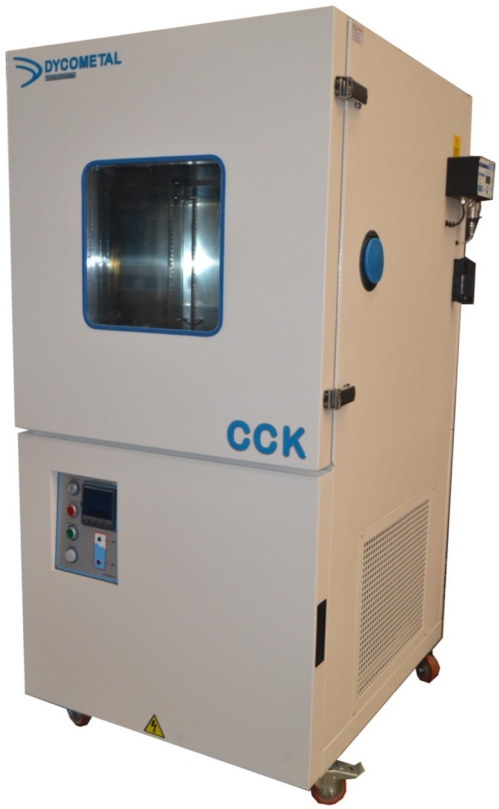
GENERAL:

The carbonation is the pH loss when the atmospheric CO2 reacts with the humidity of the concrete samples, generating an acid atmosphere. This process happens all days, and affects to the reinforced concrete and induces the corrosion of the steel. The structures could suffer a serious damage.

Carbonation tests will be done in modified chambers with CO2 detector/ analyzer with the possibility to detect the CO2 concentration in different range of temperature and humidity. It's recommended manufacture the chamber with an robust stainless steel alloy because the gas of the reaction are corrosive, for example **AISI 316**.

CCK-25/180 carbonation chamber, has been manufactured for R&D. the chamber covers a very high temperature range in order to do a very high number of tests: carbonation, freezing, thermal, climatic, etc.

The CO2 analyzer installed can detect from 0 to 20% of CO2, this range is higher than the standard percentage, so it is easy to study different conditions of carbonation.



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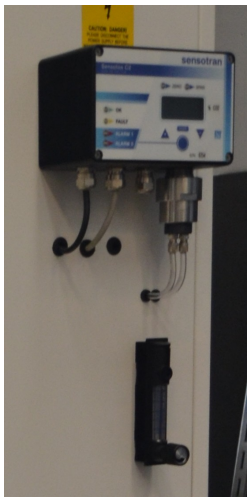
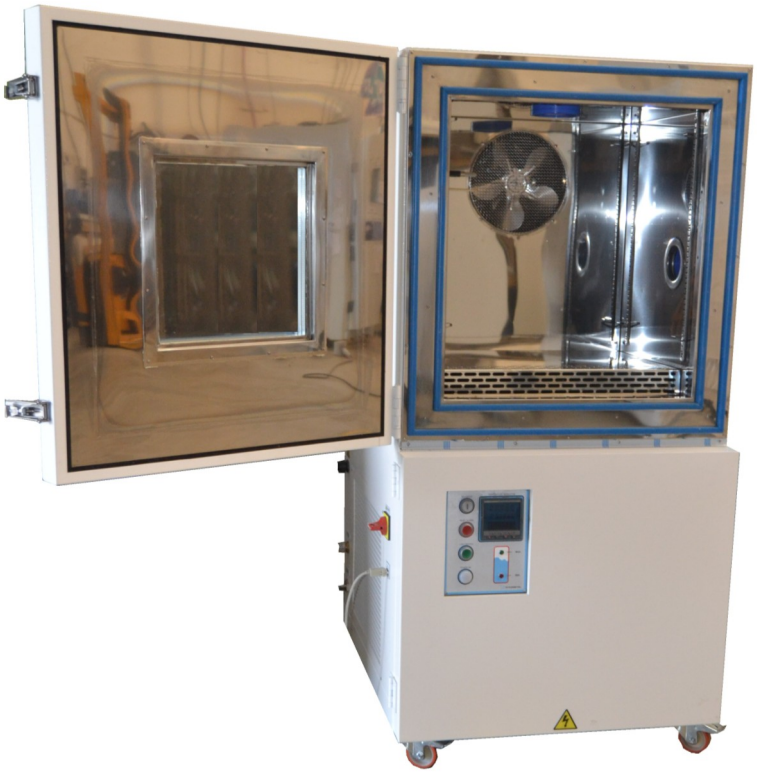
TECHNICAL FEATURES:

- Volume: 180 liters
- Internal dimensions: 600 x 600 x 500 mm (Height x Width x Depth).
- External dimensions: 1720 x 820 x 900 mm (Height x Width x Depth).
- Temperature range: from –25°C to +150°C.
- Humidity range: from 10% to 98% RH.
- Temperature change rate: 2°C/min (heating & cooling) acc. with IEC 60068-3-5.
- Interior finished: **Stainless Steel AISI 316**.
- Observation window: 400 x 300 mm.
- **Carbonation Kit** with CO2 analyzer (**0 to 20%**).
- 2 shelves.
- 1 access port: 80 mm ø.
- Control by Eurotherm microprocessor with 3 loops and remote control software.
- Casters.
- Air cooled system.





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