

SERVO-CONTROLLED BENDING AND COMPRESSION MACHINE



The dual-station machine (250–500/15 kN) is the flagship piece of laboratory equipment for characterizing hydraulic binders.

Designed to meet the strict requirements of the NF EN 196-1 standard, it allows for the performance of flexural strength tests on 4x4x16 cm prisms, followed by compression tests on the resulting half-prisms, all on a single frame.

WHY CHOOSE THIS HIGH-PERFORMANCE SERVO-CONTROLLED MACHINE?

- **Dual Workstation:** Equipped with two separate test chambers, it combines a 15 kN actuator for high-precision bending and a 250 kN actuator for compression, optimizing space in your laboratory.
- **Closed-Loop Control:** The microprocessor-controlled hydraulic unit ensures a perfectly linear and constant load ramp. This automatic control eliminates operator-related variations in results.
- **Metrological Accuracy:** Class 1 certified, this machine offers a measurement uncertainty of less than [value] across the entire operating range, ensuring the validity of your cement compliance certificates. $\pm 1\%$
- **Smart Touchscreen Interface:** The control panel manages the entire cycle: rapid approach, standardized loading, fracture detection, and automatic piston return. Results (MPa and kN) are calculated and displayed instantly.
- **Safe Design:** Polycarbonate safety doors with safety sensors to stop the test if the doors are opened, protecting the user from flying debris.

APPLICATIONS

- Determination of the mechanical properties of mortars (EN 196-1).
- Testing of bonding mortars, renderings, and joints.
- Research and development on new low-carbon binders.

CTRMAT – The Precision of the Lab, the Strength of the Field

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TECHNICAL SPECIFICATIONS

REF. CTE161/1 - RANGE 250/15 KN

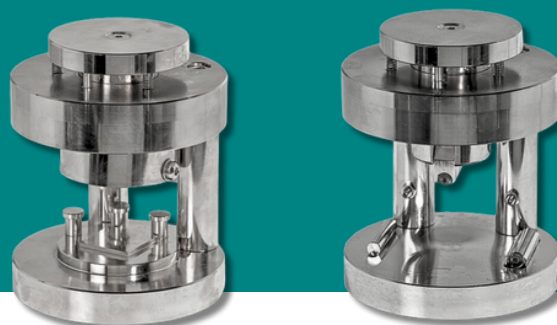
REF. CTE162 - RANGE 500/15 KN

- High-rigidity 2-column frame
- Maximum vertical distance between platen: 185 mm
- Horizontal distance between columns: 175 mm
- Platen diameter: 153 mm
- Piston stroke: approximately 45 mm
- Two pressure sensors ensuring Class 1 accuracy starting at 10% of full scale for both ranges.
- Supplied complete with lower compression platen and coupling piece for easy attachment of compression devices.
- Computerized digital data acquisition system with color LCD touchscreen (320x240 pixels)
- Speed control system with load ramp-up in kN/s via a servo valve, ensuring smooth and consistent force application.
- Safety doors
- Power supply: 230 V, single-phase, 50 Hz, 750 W.
- Dimensions: approximately 660 x 370 x 930 mm.
- Weight: 310–340 kg.

ACCESSORIES : 400X400X160 MM

REF. CT0170 - COMPRESSION DEVICE

REF. CT0172/1 - FLEXURAL DEVICE



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