

COMPRESSION TESTING MACHINES 3000 kN AND 5000 kN CAPACITY TESTED FOR HIGH STABILITY

THIS OVERSIZED ISOSTATIC HIGH STABILITY STIFFNESS FRAME FOR CENTRAL AND RESEARCH LABORATORIES TO TEST HIGH STRENGTH SPECIMENS, EXPLOSIVE SAMPLES, ROCK AND CERAMIC

STANDARDS: EN 12390-4 | BS 1881:115 | DIN 51220 | NF P18-411

HIGH-END MODELS

3000/5000 kN CAPACITY

MAIN FEATURES FOR ALL MODELS

- Compression platens Ø 316x60 mm
- Hydraulic pressure: 360 bar max.
- Max. vertical daylight: 411 mm
- Horizontal daylight between columns: 321 - 345 mm
- Max. ram travel: 100 mm
- High stiffness and heavy weight 4 columns frame: 0.3 mm at max. load (german-style).
- Safety guards to CE Directive ■ Class "1"
- Frame size 3000 kN: 725x710x1570 mm
- Frame size 5000 kN: 750x750x1700 mm
- Power supply: 230V 1ph 50Hz 750W
- Weight frame 3000 kN: 2500 kg / 5000 kN: 4000 kg



CYBER-PLUS OR SERVO-PLUS EVOLUTION
DIGITAL TOUCH SCREEN DISPLAY



Cyber and Servo-Plus models have robust and reliable electronic controller, 5.7" touch screen color display, 2 USB ports, 1 SD port, 8 channels for pressure transducers (force measurement) or displacement transducers (Elastic Modulus and Poisson ratio measurement).

INVERTER



For a further improvement of energy efficiency and silent operation, (optional device code C099N). Technical details, p. 223

BARCODE

Scanner for specimen file/identification, (optional device code C099-01). Details, p. 223



C088-01N

C087N

COMPRESSION 3000/5000 kN High Stability		LOAD MEASURING SYSTEM		
MODEL	Code	Motorized	Cyber-Plus Evolution mod. C109N (p. 224)	Servo-Plus Evolution mod. C104N (p. 224)
3000 kN	C087N	▼	▼	
3000 kN	C087-01N	▼		▼
5000 kN	C088N	▼	▼	
5000 kN	C088-01N	▼		▼

* Servo-Plus model feature fully automatic power pack - electrovalve operated test start (no manual lever).

ACCESSORIES FOR 3000 kN and 5000 kN MACHINES

C087-11 DISTANCE PIECE, 50 mm high

C087-12 DISTANCE PIECE, 25 mm high

C087-15 DISTANCE PIECE, 100 mm high

 **Note:**

Vertical daylight of the compression platens is 411 mm.

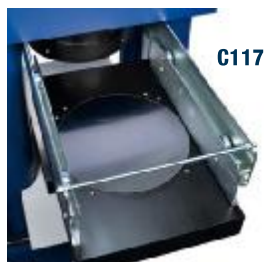
The operator will have to buy the needed distance pieces to reduce the daylight between the compression platens to get the correct daylight of the specimen under test plus approx. 10 to 15 mm



C112-11

C112-11 UPPER+LOWER LARGE COMPRESSION PLATENS 320x510x55 mm to test **also** blocks. It is necessary to have also the sliding rail carriage mod. C117

C117 SLIDING RAIL CARRIAGE, for an easy removal of the large block upper platen



C117

C127N GRAPHIC PRINTER on thermo-paper on board

C127-11 THERMO-PAPER roll for printer (pack of 10 rolls)

C104-10N SERVO-STRAIN
Servocontrolled Software, system of:
- Load or Strength
- Displacement
- Strain
This system can be used only with Servo-Plus machines.
Technical details p. 282

C125N ELASTIC MODULUS determination of the secant compression on concrete. Automatic system with pace rate control also when releasing the load, applicable only to high stability frames with Servo-Plus Evolution.
EN 12390-13, 13412, 13286-43, UNI 6556, ASTM C469, ISO 6784, DIN 1048, BS 1888:121
Technical details: see p. 284

C115-01 TWO WAY HYDRAULIC VALVE, connected to the motorized pumping unit of the machine to activate a second frame.
Technical details: see p. 318



C115-01

C097-01 DUAL LOW CAPACITY DIGITAL RANGE, complete with **appropriate pressure transducer**. Recommended range 0-250kN.
Technical details: see p. 313



C097-01

C097-05 CLASS 1, starting from 1% of the full range. With a special calibration procedure it is possible to grant Class 1 practically on the full range of the compression machine.

C097-08 OFFICIAL ACCREDIA (Equivalent UKAS, ENAC, DAKKS, SAS, COFRAC etc.) HARDNESS CERTIFICATE of upper and lower compression platens. Minimum hardness: 55 HRC. See p. 313

C100
SPLITTING TENSILE test device for cylinders. EN 12390-6 | ASTM C496
Technical details and other models: see p. 314



C100

C106
FLEXURAL TEST DEVICE for concrete beams.
EN 12390-5 | ASTM C78, C293 | AASHTO T97
Technical details: see p. 315



C106

E170
COMPRESSION DEVICE to test cement specimens 40.1x40 mm EN 196 | ASTM C349
Technical details and other models: see p. 315



E170

C099N  **NEW**

INVERTER DEVICE
Applicable only on Cyber-Plus and Servo-Plus Evolution machines.
Technical details: see p. 223



C099N

SOFTWARE for DIGITEC / AUTOTEC or CYBER / SERVO PLUS models

C109-10N	SOFTWARE for compression tests
C123N	SOFTWARE Servonet for remote control through PC
C109-11N	SOFTWARE for flexural tests
C109-12N	SOFTWARE for splitting tensile

Technical detail: see p. 18

SERVO-STRAIN

SOFTWARE-FIRMWARE for the automatic servo-controlled management of the testing machine to measure:

- LOAD OR STRENGTH
- DISPLACEMENT
- STRAIN

The **servo-strain** software/firmware can be applied **ONLY** to Matest **servo-plus evolution** testing machines.

The system is connected to displacement or strain transducers allowing to automatically perform the following tests:

- Deflection on fiber reinforced concrete beams (ASTM C1018, C1609 | EN 11039-03, 14487-1, 14488-3, 14651-05) see p. 305
- Punching of sprayed concrete plate with measurement of the absorbed energy (EN 10834, 14488-3, 14488-05) see p. 306
- Deformation and ductility on building materials, **with C104-10N**
- Lightweight Aggregates for concrete, mortar and grout (EN 13055-1 method 1) by using the suitable device mod. A081-01 described at p. 45
- Deflection on fiber reinforced concrete beams (ASTM C1018, C1609 | EN 11039-03, 14487-1, 14488-3, 14651-05) see p. 305
- Punching of sprayed concrete plate with measurement of the absorbed energy (EN 10834, 14488-3, 14488-05) see p. 306
- Research tests

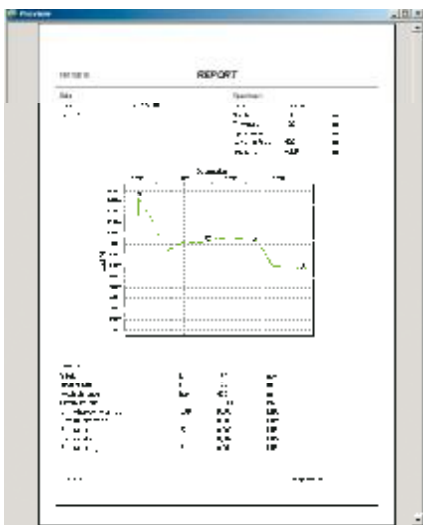
The applied load is automatically controlled by the **servo-plus evolution** machine.

The displacement of the piston or the strain/deformation of the sample are controlled by the **servo-strain** software, through a linear strain gage transducer (accessory), calculating values such as deflection, energy absorption, ductility.

TECHNICAL FEATURES

Same to **servo-plus evolution** model C104N (p. 224), and in addition:

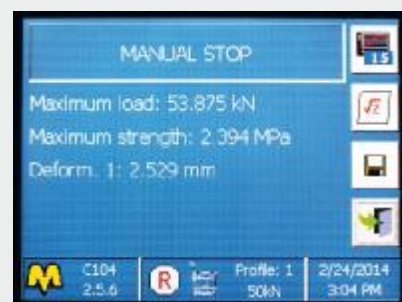
- Real time Graphical/Numerical display of all test data (load, strain, displacement, energy absorption, deflection, ductility etc.)
- Printing of test results and certificate on the onboard printer, or on a laser printer (accessories) directly connected to the machine via USB port.
- Personalized management of the archive exportable through pendrive.
- Possibility to connect up to 3 test frames
- Eight analog channels to connect load cells or pressure transducers with strain gage technology, linear displacement/deformation transducers and with strain gage technology.



C104-10N Test report



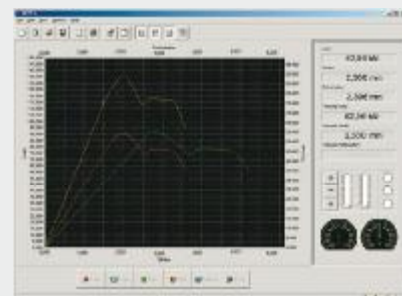
C104-10N
Set up of customized compression test



C104-10N
Example of test result



C109-15N Calculation set up



C104-10N Test graph