

ACCESSORIES FOR FLEXURE | COMPRESSION MACHINES

E172-01 FLEXURE DEVICE for 40.1x40x160 mm mortar specimens. EN 1015-11, EN 196-1, EN 13892-2, ISO 679 (for dual range machines only)



E172-01

E172-02 FLEXURE DEVICE for 40x40x160 mm mortar specimens. ASTM C348 (for dual range machines only)

E170 COMPRESSION DEVICE for portions of prism 40.1x40x160 mm broken in flexure. EN 196-1, EN 13892-2, ISO 679, ASTM C349



E170



E170-01

E170-01 COMPRESSION DEVICE for portions of 40.1x40x160mm prism broken in flexure. DIN 1164

E170-01G0 COMPRESSION DEVICE for portions of 20x20x100 mm prism broken in flexure. GOST 26798.1



E170-01G0



E171

E171 COMPRESSION DEVICE for cubes 50 mm and 2" side. ASTM C109, C1194

E171-01 COMPRESSION DEVICE for cubes 70.7 mm side. BS 4550



E171-01

Note: For more details, other models of flexure and compression devices with accessories, see p. 392

E161-05 DISTANCE PIECE, 50 mm high

E161-06 DISTANCE PIECE, 25 mm high

Note: compression and flexure devices do not require any distance piece.
For 100 mm cubes 1 x E161-05 + 1 x E161-06 are needed.

C127N GRAPHIC PRINTER on thermo-paper on board

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

E161-12 SAFETY GUARDS, polycarbonate made, to CE Safety Directive, complete with hinges and lock

C121-51 STOP SWITCH on safety guards. See p. 292

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.

E161-11 BENCH, to hold the compression frame, 450 mm high.



E161-11

C115-01 TWO WAY HYDRAULIC VALVE, to activate a second frame. Technical details: see p. 293



C115-01

C106-10 FLEXURAL DEVICE FOR CONCRETE BEAMS 100x100x400 mm and 150x150x600 mm



C106-10

H009-01 PERSONAL COMPUTER, LCD 22" monitor, keyboard, mouse, cables. The supply of the PC includes the installation of UTM2 software

ACCESSORIES FOR DISPLACEMENT READING OPTION

C104-10N FIRMWARE AND SOFTWARE to allow displacement control and measurement during a compression test. For Servo-Plus machines only.

C109-14N FIRMWARE AND SOFTWARE to allow displacement control and measurement during a flexural test. For Servo-Plus machines only.

S336-14 LINEAR DISPLACEMENT TRANSDUCER, 50 mm travel, to measure the piston stroke. Other models at p 503

S337-51 CALIBRATION PROCESS for the displacement transducer.

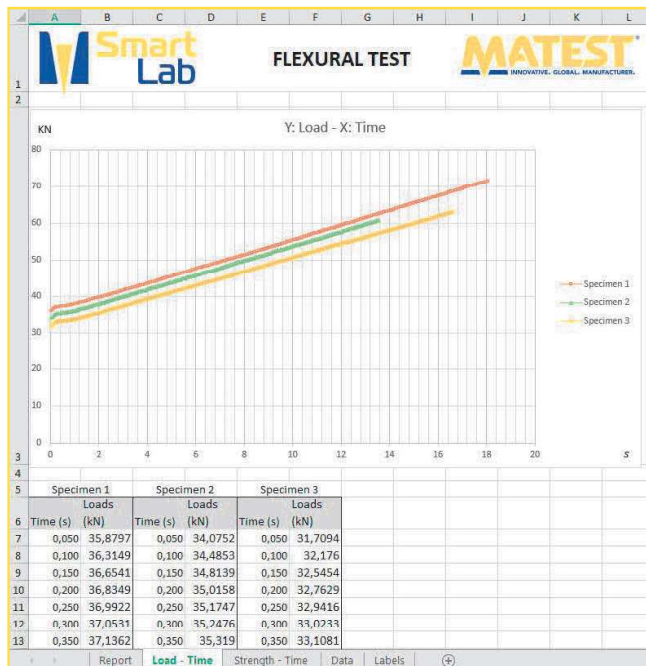
C104-31 MAGNETIC HOLDER for the displacement transducer.

C104-04 CONSOLE HOUSING THE SERVO-PLUS PROGRESS

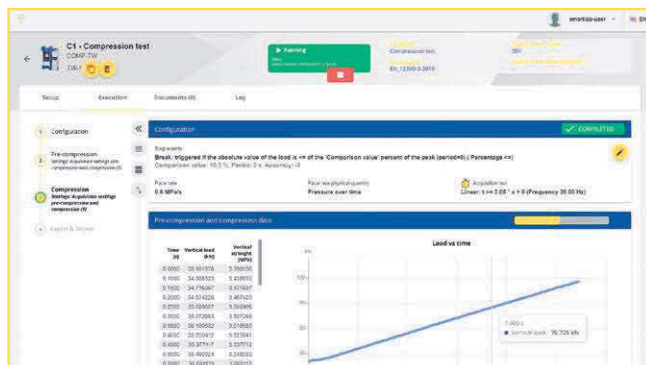
The pump assembly "lined" with sound proofing material for noise reduction and the digital system are encased to enhance the design and look of the machine. Technical details: see p. 215



C104-04



Excel report of a flexural test performed with SmartLab



Ongoing compression test on SmartLab

C099N INVERTER DEVICE applicable only on Servo-Plus Progress machines. C104-04 is required. Technical details: see p. 215



C099N

SSW-LINK

FIRMWARE UPGRADE

To enable SmartLab software (pack of 3).

Only for touch screen models. Further details at page 20

Note: UTM2 software is available for Digitec/Autotec machines. See p. 21

COMPRESSION AND FLEXURAL TESTING MACHINE HIGH PERFORMANCE WITH DUAL TESTING CHAMBER AND TWO INDEPENDENT MEASURING RANGES 300 kN AND 15 kN WITH LOAD CELLS

STANDARDS: EN 196-1, EN 13286-41, EN 933-5, EN 1015-11, EN 13892-2 | ISO 679 | ASTM C109, C348, C349, C1194 | DIN 1164
BS 4550 | GOST 26798-1 | EN ISO 13503-2 | API RP 19C

This testing machine of high performance, advanced solutions and top quality components is equipped with two load chambers with two independent measuring ranges. It is suitable to perform:

- Flexural tests on cement prisms 40.1x40x160 mm (with the range 0 - 15 kN)
- Compression tests on portions of prism 40.1x40x160 mm broken in flexure, cubes side 40, 50, 70, 100 mm 2", cores with max. height of 180 mm (with the range 0 - 300 kN) by using the suitable compression devices described in next pages (accessories E170 - E172-02)

The applied load is measured by two strain gage load cells (15kN and 300 kN) at high accuracy.

This solution eliminates the weights of the piston and lower compression platen, packing set frictions etc., granting very high accuracy (max. error within $\pm 0,5\%$). The load chamber 0 - 15 kN permits very accurate tests on specimens having low strength (both in compression and in flexure).

Equipped with an electric microswitch to stop the piston after the specimen breakage, in order to avoid damages to the compression or flexure device.


itTECH
**CYBER
PLUS
PROGRESS**

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

Cyber-Plus Progress control unit 7" touch-screen display, up to 8 channels for pressure, load, displacement and other transducers, 2 USB and 1 ethernet ports.

MAIN FEATURES FOR ALL MODELS

- Max. vertical daylight between platens: 189 mm
- Horizontal daylight between columns: 210 mm
- Platens diameter: 165 mm
- Ram travel: 35 mm approx.
- Accuracy: Class 1 starting from 10% of the scale for both the ranges.
- Safety guards to CE Directive, polycarbonate made, with hinges.
- Supplied complete with lower compression platens and coupling pieces to easily fix the compression devices (see accessories).
- Dimensions of the frame: 1300x400xh1500 mm approx.
- Power supply: 230V 1ph 50Hz 750W
- Weight: 400 kg

 **Note:** range 0-15 kN can be increased on request up to 25 kN.



E183N + C127N with compression devices

COMPRESSION / FLEXURAL

LOAD MEASURING SYSTEM

MODEL	Dual range kN	Cyber-Plus Progress mod. C109M (p. 215)	Servo-Plus Progress mod. C104N (p. 215)
E181N	300/15	▼	
E183N	300/15		▼

ACCESSORIES FOR DUAL CHAMBER MACHINES

- E172-01** FLEXURE DEVICE for 40.1x40x160 mm mortar specimens. EN 1015-11, EN 196-1, EN 13892-2, ISO 679



E172-01

- E172-02** FLEXURE DEVICE for 40x40x160 mm mortar specimens. ASTM C348.

- E170** COMPRESSION DEVICE for portions of prism 40.1x 40x160 mm broken in flexure. EN 196-1, EN 13892-2, ISO 679, ASTM C349.



E170

- E171** COMPRESSION DEVICE for cubes 50 mm and 2" side. ASTM C109, C1194.



E171

- E171-01** COMPRESSION DEVICE for cubes 70.7 mm side. BS 4550.



E171-01

- Note:** For more details, other models of flexure and compression devices with accessories, see p. 392

- E161-05** DISTANCE PIECE, 50 mm high

- E161-06** DISTANCE PIECE, 25 mm high

- Note:** compression and flexure devices do not require any distance piece.
For 100 mm cubes 1 x E161-05 + 1 x E161-06 are needed.

- C127N** GRAPHIC PRINTER on thermo-paper on board.

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

- E183-10** SAFETY GUARDS complete with stop switch.

- 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 machine.

- H009-01** PERSONAL COMPUTER, LCD 22" monitor, keyboard,
H009-01EN mouse, cables. The supply of the PC includes the installation of UTM2 software, available in italian or english.

ACCESSORIES FOR DISPLACEMENT READING OPTION

- C104-10N** FIRMWARE AND SOFTWARE to allow displacement control and measurement during a compression test. For Servo-Plus machines only.

- C109-14N** FIRMWARE AND SOFTWARE to allow displacement control and measurement during a flexural test. For Servo-Plus machines only.

- 2 x S336-14** LINEAR DISPLACEMENT TRANSDUCER, 50 mm travel, to measure the piston stroke.
Other models at p 503

- 2 x S337-51** CALIBRATION PROCESS for the displacement transducers.

- C104-31SP1** SCREWED HOLDER for the displacement transducers.

- C099N** INVERTER DEVICE granting a lot of improvements. Applicable only on Servo-Plus Progress machines. Technical details: see p. 215



C099N

SSW-LINK

FIRMWARE UPGRADE

To enable SmartLab software (pack of 3).

Only for touch screen models. Further details at page 20

- Note:** UTM2 software is available for Digitec/Autotec machines.
See p. 21

COMPRESSION DEVICES

To be positioned between the compression platens of the machine; they fit perfectly without removing anything and without adding any distance piece.

Dimensions: 153x153x185 mm

MODELS

E170 COMPRESSION DEVICE FOR PORTIONS OF 40.1x40x160 MM PRISM BROKEN IN FLEXURE

STANDARDS: EN 196-1 | ASTM C349 | ISO 679 | EN 13892-2

The compression platens have hardness 60 HRC and upper platen is seat ball assembled. The centering plug is distant 10 mm from the compression platen, as requested by the EN 196-1 Specification.
Cadmium plated for rust protection.

Weight: 12 kg approx.



E170

ACCESSORY FOR MOD. E170

E170-11 CENTERING PLUG STANDARD: EN 1015-11

Fixed on the E170 device in replacement of the standard centering plug, it modifies the distance from the compression platen to 16 mm, as requested by EN 1015-11 Specification.

E170-01 COMPRESSION DEVICE FOR PORTIONS OF 40.1x40x160 MM PRISM BROKEN IN FLEXURE

STANDARD: DIN 1164

Identical to mod. E170 but with compression platens having 40x62.5 mm size, as requested by DIN Standards.

Weight: 12 kg approx.



E170-01

E170-01G0 COMPRESSION DEVICE FOR PORTIONS OF 20x20x100 MM PRISM BROKEN IN FLEXURE

STANDARD: GOST 26798-1

Identical to mod. E170 but with compression platens as requested by Russian Standard.



E172-01G0

E170-01G0

E171 COMPRESSION DEVICE FOR CUBE 50 MM AND 2" SIDE

STANDARD: ASTM C109, C1194

Platens diameter: 72 mm and upper platen is seat ball assembled. This device can be used also to test cores max. 50 mm height.

Weight: 12 kg approx.



E171

E171-01 COMPRESSION DEVICE FOR CUBE 70.7 MM SIDE

STANDARD: BS 4550

It can be used also to test cores max. 70 mm height

Dimensions: 150x130x185

Weight: 9 kg approx.



E171-01

E172-01 FLEXURE DEVICE FOR 40.1x40x160 MM PRISMS

STANDARDS: EN 196-1 | EN 1015-11 | DIN 1164 | ISO 679
EN 13892-2

Upper bearer is seat ball assembled.

The distance between lower bearers is 100 mm and one of them has a spherical seat. Cadmium plated for rust protection.

Weight: 11 kg approx.



E172-01

E172-01G0 FLEXURE DEVICE FOR 20x20x100 MM PRISMS

STANDARD: GOST 26798.1

Identical to mod. E172-01 but with bearers as requested by Russian Standard.

E172-02 FLEXURE DEVICE FOR 40x40x160 MM PRISMS

STANDARD: ASTM C348

Identical to mod. E172-01 but lower bearers have distance of 119 mm as requested by ASTM Standard.

Weight: 11 kg approx.