

Digital automatic universal tester for displacement controlled tests

as CBR, Marshall, indirect tensile, unconfined compression and many others



MULTISPEED

- Closed loop digital speed control.
- CBR and MARSHALL test speed can be selected by default.
- Other testing speeds (Custom) between 0.2 and 51 mm/min, can be easily set.
- Selection of maximum platen displacement;
- The automatic stop of the machine avoids machine and specimen overloading, thus assuring operator safety.
- Rapid approach function, to reduce the testing time.
- Rapid platen return to speed up the platen base return at the end of the test.
- Speed calibration function by firmware. The test speed is originally factory calibrated using a polynomial interpolation. A test point is provided to verify the speed with a standard tachometer.
- Emergency stop button as required by the CE prescriptions.

Standards EN 12697-34 | ASTM D1883 | ASTM D1559 | ASTM D5581 | AASHTO T245 | EN 12697-12 | EN 12697-23 | ASTM D4123 | NF P98-251-1/4 | BS 598:107 | BS 1377:4 | NF P94-078 | AASHTO T193 | EN 13286-47 | ASTM D6927 | DIN 1996 | UNI CNR 10009 | CNR 30 | CNR 34

The new MULTISPEED tester is the ideal solution for Road testing laboratory. The 50 kN capacity and the fully variable test speed of 0.2 to 51 mm/min make it possible to perform not only the CBR and Marshall tests, but many other applications as for instance Indirect Tensile test, Quick Triaxial tests, Unconfined and Uniaxial soil testing and, in general, all test to be performed under displacement control. The machine can be equipped with analogical or digital load/displacement measurement systems as well as with the specific accessories, to suit either the field or central laboratory requirement.

The MULTISPEED tester feature a rigid two column structure with upper cross beam which can be set at various height. The load jack, DC motor

and controls are housed in a specially designed base cabinet. When fit in the digital mode, test data are acquired and processed by the Digimax Touch Data acquisition and relevant PC software. See accessories.

One of the main features of the new MULTISPEED is the control of test speed which is first easily set and then shown on the display. Furthermore, the test stroke can be set at the beginning of the test with automatic stop, avoiding to overload the machine and the specimen, thus assuring the operator safety. This important feature also permit to perform the speed calibration of the machine by micrometric manual adjustment by the operator. The display also show the travel direction of lower platen. The front panel is also fitted with an emergency button and two operating led: machine switched on and travel direction.

Technical specifications

- Max. capacity: 50 kN
- Test speed range, infinitely variable: 0.2 to 51 mm/min
- Power: DC motor 750 W
- Horizontal clearance (distance between columns): 270 mm
- Max. vertical daylight (without accessories): 730 mm
- Platen travel: 100 mm
- Overall dimensions (lxwxh): 392 x 495 x 1213
- Net weight approx.: 65 kg
- Alphanumeric display 2x16 characters

Ordering information

34-V1072

MULTISPEED, digital compression tester, 50 kN cap., testing speed steplessly adjustable from 0.2 to 51 mm min. 230 V, 50-60 Hz, 1 ph

34-V1074

Same as above but 110 V, 60 Hz. 1 Ph

Accessories

Accessories for performing tests in analogue mode

CBR Accessories to EN 13286-47, ASTM D1883, AASHTO T193, BS 1377:4, NF P94-078, UNI CNR 10009 standards

34-T0103/3

Adjustable penetration piston complete with dial holder and dial gauge 30 x 0.01 mm div.

82-T1009

Load ring 50 kN cap., fitted with dial gauge 0.001 mm div.

OR, AS ALTERNATIVE:

34-T0103/3C

Adjustable penetration piston complete with dial holder and dial gauge 10 x 0.01 mm div.

82-T1009/C

Load ring 50 kN cap., fitted with dial gauge 0.01 mm div.

Marshall accessories EN 12697-34*, ASTM D1559, ASTM D5581, ASTM 6927-06, AASHTO T245, BS 598-107, NF P98-0251-2, DIN 1996, CNR 30

Note: The EN Standard specifies that Marshall Testers must be used in digital mode with a recording unit.*

82-T1009/F

Load ring, 50 kN capacity, with stembrake

82-T1007/F

Load ring, 30 kN capacity, with stembrake (as alternative to 82-T1009/F)

34-T0104/10

Compression device.

76-B0034

Flow meter.

76-B0033

Stability mould.

Accessories for performing tests in digital mode.

CBR: EN 13286-47, ASTM D1883, AASHTO T193

34-V0107/CBR

Test set for performing CBR tests in digital mode, including:

- 82-P0375 Load cell, 50 kN capacity
- 82-P0375/C Adapter to fit load cell (two pieces)
- 82-P0322 Displacement transducer, 25 mm travel
- 34-T0104/81 Adjustable transducer holder
- 34-T0103/1 Adjustable CBR penetration piston

82-P60R02

DIGIMAX TS Data acquisition system, featuring: Large size touchscreen display, Very easy to use menus with intuitive selections, self-explanatory icons, optimized test procedures, PC connection via LAN port allowing faster communication, better stability and longer cable lengths compared to an RS232 serial connection, Advanced calibration menus with linearization functions, firmware-driven procedures, secure file storage, Unlimited data storage on USB pen drives

82-SW/CMU

PC software for CBR, Marshall, Indirect tensile and universal tests. Optional.

Marshall: EN 12697-34, ASTM D1559, ASTM D6927

34-V0107/MAR

Test set for performing Marshall tests in digital mode, including:

- 82-P0375 Load cell, 50 kN capacity
- 82-P0375/C Adapter to fit load cell (two pieces)
- 82-P0322 Displacement transducer, 25 mm travel
- 34-T0104/81 Adjustable transducer holder
- 34-T0104/13 Compression device extension
- 34-T0104/10, Compression device
- 76-B0033 Marshall stability mould 4"

82-P60R02

DIGIMAX TS Data acquisition system. See specifications above.

82-SW/CMU

PC software for CBR, Marshall, Indirect tensile and universal tests. Optional.

Accessories for performing both CBR and Marshall tests in the digital mode

34-V0107/CM

Test set for performing CBR and Marshall tests in digital mode, including:

- 82-P0375 Load cell, 50 kN capacity
- 82-P0375/C Adapter to fit load cell (two pieces)
- 82-P0322 Displacement transducer, 25 mm travel
- 34-T0104/81 Adjustable transducer holder
- 34-T0103/1 Adjustable CBR penetration piston
- 34-T0104/13 Compression device extension
- 34-T0104/10 Compression device
- 76-B0033 Marshall stability mould 4"

82-P60R02*

DIGIMAX TS Data acquisition system. See specifications above.

82-SW/CMU

PC software for CBR, Marshall, Indirect tensile and universal tests. Optional.

Accessories to perform Indirect tensile tests on bituminous mixtures to Standards EN 12697-12, EN 12697-23, ASTM D4123, CNR 34

82-P0375

Load cell, 50kN capacity

82-P0375/C

Adapter to fit load cell (two pieces)

82-P0322

Displacement transducer, 25mm travel

34-T0104/81

Adjustable transducer holder

34-T0104/13

Compression device extension

34-T0104/10

Compression device

76-B0078/B

Tensile splitting device or, alternatively, 76-B0078/C

82-P60R02*

DIGIMAX TS Data acquisition system. See specification above.

82-SW/CMU

PC software for CBR, Marshall, Indirect tensile and universal tests. Optional.

Accessories to perform Unconfined compression on soil specimens to EN 12697-12, EN 12697-23, ASTM D4123, CNR 3 standards

82-P0375

Load cell, 50kN capacity

82-P0375/C

Adapter to fit load cell (two pieces)

82-P0322

Displacement transducer, 25mm travel

34-T0104/81

Adjustable transducer holder

34-T0104/13

Compression device extension

34-T0104/10

Compression device

76-B0078/B

Tensile splitting device or, alternatively, 76-B0078/C

82-P60R02*

DIGIMAX TS Data acquisition system. See specifications above

82-SW/CMU

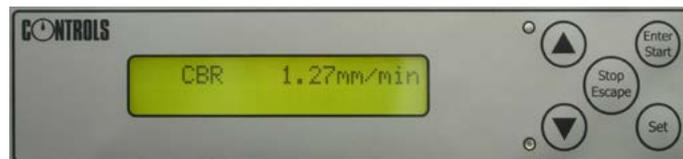
PC software for CBR, Marshall, Indirect tensile and universal tests.



Universal compression tester Multispeed 34-V1072 with Marshall accessories in the analogical mode



Multispeed 34-V1072 fitted in the digital mode to perform the Marshall test, complete with the Digimax TS unit



Multispeed 34-V1072 Examples of displays



Detail of the accessories to perform the CBR test in the digital mode



Detail of the accessories to perform the Marshall test in the digital mode



Detail of the accessories to perform the indirect tensile test in the digital mode



Detail of the accessories to perform the Unconfined test on soil in the digital mode

