

Automatic universal displacement controlled tester with data acquisition suitable for CBR, Marshall, indirect tensile, unconfined compression and many others



MULTISPEED

- Stand-alone automatic digital load frame
- Closed-loop speed control
- Four channel on board data acquisition
- CBR and MARSHALL test speed can be selected by default
- Speed calibration function by firmware.
- Integrated transducer calibration facility
- Infinitely variable speed from 0.05 to 51 mm/min can be easily set by keyboard
- Selection of maximum platen displacement with automatic stop
- Rapid approach and return function, to reduce the testing time

*This is just one of more than **4.000 products manufactured** by **CONTROLS**, the global leader of Testing Equipment for the construction industry in three business areas:*

- Concrete and cements;
- Asphalt and bituminous mixtures;
- Soil and rocks.

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 automatic MULTISPEED 34-V1172 is a versatile stand-alone machine; an ideal solution for road testing laboratories and generally for any test that requires displacement/speed control. The 50kN capacity and fully variable speed of 0.05 to 51 mm/min make it possible to perform not only CBR and Marshall tests, but also many other applications such as indirect tensile, quick undrained triaxial and unconfined/uniaxial soil tests.

The MULTISPEED tester features a rigid two-column structure with an upper crossbeam which can be set at various heights. The load jack, DC motor and controls are housed in an ergonomic cabinet. Automatic control of the test speed/travel is ensured by the microprocessor. Prior to the test, the operator can impose travel limits for automatically ending the test. No external transducer is required for displacement measurement.

The firmware allows performance of transducer calibrations and setting of up to 10 test profiles, saving data onboard. A real-time test graph and transducer data are displayed on the touchscreen. The machine has built-in data acquisition with four channels dedicated to two strain gauge load cells and two potentiometric linear transducers; one of each can be used during the test. An important feature is provided by the processing unit that controls the speed in a closed-loop mode, avoiding speed calibrations and tension fluctuation effects. The user-interface is a large touchscreen graphic display supplied with a stylus pen. The front panel is fitted with an emergency button for prompt stopping of the machine. Test data can be stored on a USB pen drive or downloaded through a LAN communication port in Controls, txt or ASCII format. All the accessories have to be ordered separately.

Technical specifications

- Maximum capacity: 50 kN
- Infinitely variable test speed from 0.05 to 51 mm/min
- Power: DC motor 750 W
- Data download: using LAN port (ASCII, TXT or Controls format)
- USB port for USB memory stick data storage
- Resolution: 132000 divisions
- Sampling frequency: 50 Hz
- Horizontal clearance (distance between columns): 270 mm
- Maximum vertical clearance (without accessories): 730 mm
- Platen travel: 100mm
- Overall dimensions (l x w x h): 392x495x1213 mm
- Net weight approx.: 65 kg
- Touchscreen graphic display: 240 x 128 pixel
- Large memory data storage in USB pen drive

Ordering information

34-V1172

MULTISPEED automatic compression tester, 50 kN capacity, 4 channel built-in data acquisition and variable speed from 0.05 to 51 mm/min. 230V, 50-60Hz, 1 ph
34-V1174
 Same as above but 110 V, 60 Hz, 1 Ph

Accessories

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

34-V0107/CBR

Test set to perform the CBR test in the 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

All above items can be ordered individually.

82-SW/CMU

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

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

34-V0107/MAR

Test set to perform the Marshall test in the 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 Stability mould

All above items can be ordered individually.

82-SW/CMU

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

Accessories for performing 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 Stability mould 4"

82-SW/CMU

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

Accessories to perform Indirect tensile tests on bituminous mixtures according to 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 (4") or, alternatively, 76-B0078/C (6")

82-SW/CMU

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

Accessories to perform Unconfined compression on soil specimens according to ASTM D2166, BS 1377:7 and AASHTO T208

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-T0104/4

Platens for unconfined compression

If further test have to be performed, please refer to the web page universal tester accessories.



Universal compression tester MULTISPEED 34-V1172 equipped with Marshall digital testing accessories



Unconfined compression accessories assembled on Universal compression machine 70-V1172



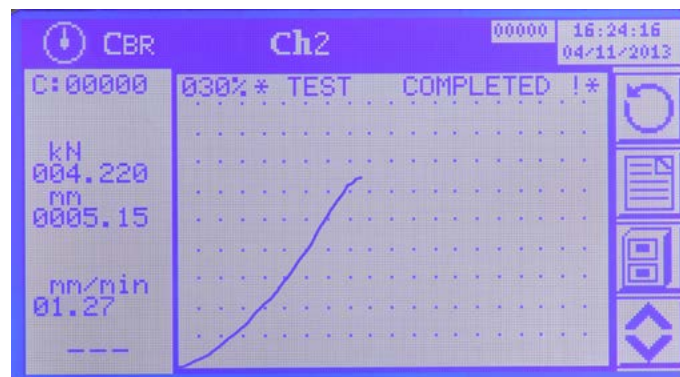
Detail of easy access lateral panel, peculiarity of 70-V1172



Compression machine 70-V1172 display showing main start menu



Marshall data display during test with 70-V1172 MULTISPEED universal tester



CBR test completed displayed on MULTISPEED tester 70-V1172

