

Marshall/Indirect tensile digital compression tester



- 50 kN capacity
- High precision strain gauge load cell and displacement transducer included
- Touchscreen graphic display 240x128 pixel, icons driven showing figures and diagrams
- High resolution: 132000 points
- Large storing capacity on USB pen drive of test data downloadable to PC
- Ethernet port for connection to PC
- Language selection
- Software package available for data processing and print including data-base (not included).
- For Marshall and Indirect tensile tests

Standards EN 12697-34 | ASTM D1559 | ASTM D5581 | AASHTO T245 | EN 12697-12 | EN 12697-23 | ASTM D6927

A bench mounted compression frame with motor and worm gear housed within the base unit producing a platen speed of 50.8 mm/min. A limit switch is provided for the bottom limit of travel. The machine is fit with a precision strain gauge load cell and displacement transducer, both connected to the Digimax data acquisition and processing system (which is part of the system) featuring a large display and standard software covering either the Marshall or the Indirect tensile test.

The machine can be completed with a PC software (see accessories) suitable for running CBR, Marshall, Indirect Tensile and universal load/displacement tests. Data are presented numerically and graphically in real-time:

- Saving and management of tests through single files;
- Single and multiple test result management and printout: Data export to MS Excel®;

- Language selection: English, French, Spanish and Italian plus any other custom language;
- Connection to Controls machine with high speed Ethernet connection.

Technical specifications

- Max. capacity: 50 kN
- Strain gauge load cell 50 kN cap.
- Displacement transducer 25 mm travel
- Data acquisition and processing: by Digimax readout unit featuring
 - large graphic touch screen display 240 X 128 pixel,
 - effective resolution 16 bit ,
 - effective sampling rate 40 Hz ,
- LAN-Ethernet communication port,
- Data storage on USB pen drive (included)
- Platen speed: 50.8 mm/min
- Power rating: 736 W
- Overall dimensions (hxlxd): 1028x392x560 mm
- Weight approx.: 85 kg

Ordering information

76-B3802

Marshall compression testing machine with digital control panel and readout unit, motorized ram, two-column structure and adjustable crossbeam, load cell 50 kN cap., external displacement transducer 25 mm travel, compression device and connector load cell/crossbeam. 230 V, 50 Hz, 1 Ph

76-B3803

Same as above but 220 V, 60 Hz, 1 Ph

76-B3804

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

Widening

The EN 12697-12 Determination of water sensitivity of bituminous specimens, and EN 12697-23 Determination of the indirect tensile strength of bituminous specimens, require a typical Marshall tester fit with the Indirect tensile test accessories (see 76-B0078/B and 76-B0078/C devices), capable of producing a test graph. EN 12697-34 Marshall test, correspond to the ASTM/AASHTO standards but, as the above, a test graph is required.

AASHTO T283-03 Resistance of compacted asphalt mixtures to moisture-induced damage can also be performed with the Marshall tester fit with the accessories 76-B0078/B or 76-B0078/C devices.

The 76-B3802, B3803 and B3804 testers fully satisfy this requirement as they are fit with the 76-P60R02 Digimax data acquisition and processing system which can be connected to a PC and printer to produce a test graph and test certificate.

For the determinations of the EN 12697-12, EN 12697-23 and AASHTO T283 standards, as specified, the machine has to be used with the accessories 76-B0078/B, 76-B0078/C Tensile splitting devices (see accessories) while, for the EN 12697-34 and all ASTM/AASHTO standards, the machine has to be used with the 76-B0033 or 76-B0033/C stability moulds.

Accessories

For Marshall test, ASTM/AASHTO and EN 12697-34

76-B0033

Stability mould for 4" dia. (101.6 mm) specimens

76-B0033/C

Stability mould for 6" dia. (152.4 mm) specimens to ASTM D5581

For indirect tensile test, EN 12697-12, EN 12697-23, AASHTOT283

76-B0078/B

Tensile splitting device for compacted bituminous samples 100 mm (4") diameter

76-B0078/C

Tensile splitting device for compacted bituminous samples up to 160 mm (6") diameter complete with loading strips for 150 mm dia. samples

76-B0078/C1

Pair of loading strips for 100 mm dia. samples for use with 76-B0078/C device.

76-B0078/C2

Pair of loading strips for 160 mm dia. samples for use with 76-B0078/C device.

PC software

82-SW/CMU

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



Marshall tester 76-B3802 with tensile splitting device 76-B0078/B



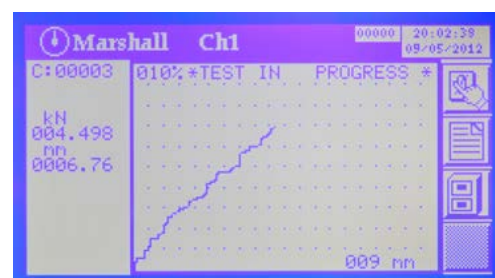
Stability moulds 4" (76-B0033) and 6" (76-B0033/C)



Tensile splitting device (Lottman breaking head) 76-B0078/C with strips 76-B0078/C1 and C2



Digimax data acquisition and processing unit (included with Marshall tester 76-B3802)



Marshall test in progress on display

