

## DATA SHEET

# MULTISPEED Automatic Universal Tester with Touch Screen Digital Speed Control and Data Acquisition



34-V1172 Multispeed tester

## General description

### Introduction:

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 strength**, **IDEAL-CT**, **Semi-Circular bend**, **Leutner shear test**, quick undrained triaxial and unconfined/uniaxial soil tests.

### Description:

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.

## Main features

- Stand-alone automatic digital load frame
- Closed-loop speed control
- Automatic execution of CBR, Marshall, Indirect Tensile, IDEAL-CT, SCB Semi-Circular bend, Leutner shear test
- Four channel onboard data acquisition
- Integrated transducer calibration facility
- Infinitely variable speed from 0.05 to 51 mm/min
- Large touch screen display for viewing real-time graph and test data
- Rapid approach and return functions ensure test time saving
- CE emergency stop button

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- Supplied with load cell and displacement transducer

### Standards

- ASTM D1559
- ASTM D5581
- AASHTO T245
- EN 12697-12
- EN 12697-23
- EN 12697-34
- AASHTO T193
- NF P98-251-1/4
- ASTM D6927
- BS 1377:4
- BS 598:107
- EN 13286-47
- UNI 10009
- NF P94-078
- ASTM D8044
- AASHTO TP124
- DIN 1996
- CNR 30
- CNR 34
- ASTM D8225
- EN 12697-48

### 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

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34-V1172 Multispeed tester equipped with CBR digital testing accessories



34-V1172 Multispeed tester equipped with Marshall digital testing accessories

## Products

### 34-V1172

MULTISPEED automatic compression testing machine with digital control and readout unit, motorized ram, two-column structure and adjustable crossbeam. 220-240V/50-60Hz/1Ph

### 34-V1174

MULTISPEED automatic compression testing machine with digital control and readout unit, motorized ram, two-column structure and adjustable crossbeam. 110V/50-60Hz/1Ph