



## Universal Testing Machine, automatic, 500 kN tension / 1000 kN compression

Code: [36-1415/01](#)

Product Group: [Industrial Universal Testing Machines](#)

The Automatic Universal Testing Machine has been designed to meet the need for reliable and consistent tensile testing of steel rebars up to 22 mm diameter and compression testing of concrete cube samples up to 150 mm and cylinders up to 160x320 mm.

This lightweight low cost and highly accurate machine is suitable for on-site testing and educational purposes. It features the complete automatic test cycle with a closed loop digital readout. Once the specimen parameters have been introduced, it is sufficient to press the START button to complete the test.

The test machine consists of three main parts: Frame, power pack and data acquisition & control system. On the measuring system, a pressure transducer is used for load measurements and a Linear Potentiometric Displacement Transducer is used for strain measurements. Each part has been designed to manufacture machines with a high degree of mechanical stability that complies to BS 1610, ASTM C-39, E4 AASHTO T-22, NF P18-411, DIN 51220 (with suitable platen set) standards.

### FRAME:

The load frame is a welded steel fabrication carrying the ball-seated upper platen or the universal grip assembly. Positively located on the loading ram which is protected from debris by a cover, the lower platen is marked for the centering of cube and cylinder specimens. The dimensions of the frame allow the tension tests on steel rebar up to 22 mm dia., and flat specimens up to 15mm thick and 50mm wide, compression tests on concrete cylinders up to 320 mm long x 160 mm diameter and cubes up to 150 mm. The machine is supplied complete with 5 pcs. 90 mm x Ø165, 2 pcs. 50 mm x Ø165 and 2 pcs. 30 mm x Ø165 distance pieces. To test samples shorter than 150 mm extra distance pieces should be ordered. The frame has a double acting piston with over travel protection to stop the motor when the maximum platen or grip travel is reached.

### SOFTWARE:

The Automatic Compression and Tensile Testing machine can be controlled (Start, Stop commands) by a computer with the software. This software provides data acquisition and management for compression, tensile and splitting tensile test throughout the test execution. The advanced functions for data base