ASTM AUTOMATIC COMPRESSION TESTING MACHINES FOR BLOCKS AND CYLINDERS

Product Code

UTC-4725.FPR	2000 kN (450000 lbf) Automatic Compression Testing Machines for Blocks and Cylinders ASTM
UTC-4735.FPR	3000 kN (670000 lbf) Automatic Compression Testing Machines for Blocks and Cylinders ASTM
UTC-4528	Upper Bearing Platens Replacement Equipment for UTC-4725 and UTC-4735
UTC-0210	High Precision Pressure Transducer and Electronic
UTC-4682	Pedestal for 2000 kN (450000 lbf) and 3000 kN (670000 lbf) Compression Testing Frames with Welded Wall

Models for 220-240V 50-60 Hz, 1 ph.	
UTC-4725.FPR	UTC-4735.FPR

Models for 110-120V 60 Hz, 1 ph.	
UTC-4725.FPR-N	UTC-4735.FPR-N

Standards

ASTM C39, C140, C1314

UTC-4725.FPR and UTC-4735.FPR models Automatic Compression Testing Machines have been designed for testing both blocks and cylinders specimens with the same frame according to ASTM standards. These machines also meet the requirements of CE norms with respect to the health and safety of the operator.

The frames of the machines have a rectangular and a circular bearing platen set (each consists of a lower and a shperically-seated upper platen). Depending on the type of specimen to be tested, the bearing platens set can be easily switched with otherset with help of UTC-4525 by users.

The machines allow inexperienced operators to perform the test. Once the machine has been switched on and the specimen is positioned and centered by the help of concentric centering lines of lower bearing platen. The only required operations are;

- Setting test parameters, including pace rate (only required when the specimen type is changed).
- Pressing the START button on the control unit.
- The machine automatically starts the rapid approach, when the specimen touches the upper platen the rapid approach is ended and starts loading at the pace rate that selected by user and stops once the specimen fails.
- Automatically saves the test parameters and test results.

The Machines consist of a welded steel frame (see table) and UTC-4830FPR automatic hydraulic power pack with U-Touch PRO Control Unit.

Safety Features

- Maximum pressure valves to avoid machine overloading
- Limit switch for piston stroke
- Emergency stop button
- Removable transparent front and rear safety doors
- Software controlled maximum load value

UTC - 4725.FPR for UTC-4682 Pedestal

UTC-4628
Upper Bearing Platens Replacement Equipment

Main Features

- Pace Rate control between 1 kN to 25 kN
- Accuracy Class A acc. to E74 starting from with the 5% of the machine capacity (Special calibration option Class A starting from 1% of the full range with UTC-0210)
- Supplied with factory calibration certificate for load measurement
- Tests automatically with closed loop control
- The tests can be performed by controlling the machine either on U-Touch PRO control unit (UTC-4930.FPR) or on a computer with using free UTEST Software (USOFT-4830.FPR) which is provided free of charge with the machines.
- Load measurment with a pressure transducer
- Hydraulic pump with dual stage for rapid approach
- Welded steel walled frame with a single acting piston
- Piston return at the end of test automatically

ASTM & AASHTO - AUTOMATIC COMPRESSION TESTING MACHINES

U-Touch PRO Control Unit

U-Touch PRO Control Unit UTC-4930.FPR is designed to perform automatically compression, flexure and splitting tensile strength tests of construction materials such as concrete, cement mortar, masonary units/blocks by controlling the Utest automatic compression / flexure testing machines.

All the operations of U-Touch PRO are controlled from the front panel touch screen display.

U-Touch PRO Control Unit has easy to use menu options. It displays all menu option listings simultaneously, allowing the operator to access the required option in a seemless manner to activate the option or enter a numeric value to set the test parameters. Digital graphic display is able to draw real-time "Load vs. Time", or "Stress vs. Time" graphics

PLEASE see the pages of "U-Touch PRO Control Unit UTC-4930.FPR" for details of the properties

UTEST Software

UTEST software USOFT-4830.FPR provides to perform automatically compression, flexure and splitting tensile strength tests of construction materials such as concrete, cement mortar, masonary units/blocks by controlling the Utest automatic compression / flexure testing machines

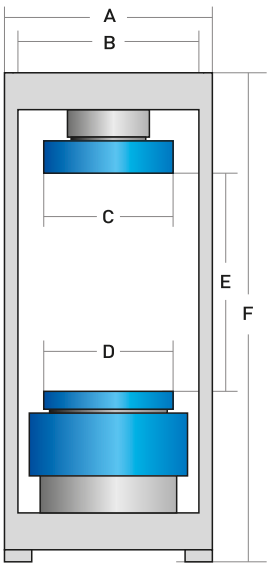
The advantages of performing tests on computer with using UTEST Software, such as reporting, graphical output, etc. can be seen in detail at the USOFT-4930.FPR (The UTEST Software for Automatic Compression / Flexure Testing Machines with UTC-4830FPR Hydrolic Power Pack) pages.

Optional Additional Frame

For compression and especially flexural testing, additionally second testing frame should be ordered separately.

In this case, the machines provide load control of two seperate testing frames with closed-loop P.I.D control with automatic test procedure by using selecting test channel And additional selector valve.

Models	UTC-4725.FPR	UTC-4735.FPR
Capacity	2000 kN (450000 lbf)	3000 kN (670000 lbf)
Frame Type	Welded Frame	Welded Frame
Lower Bearing Platen Dimensions (D)	(Block) 310x410x90mm (Circular) Ø165 mm (6.5")	(Block) 310x410x90mm (Circular) Ø165 mm (6.5")
Upper Bearing Block, (With Spherically Seating Assembly) Dimensions (C)	(Block) 310x410x90mm (Circular) Ø165 mm (6.5")	(Block) 310x410x90mm (Circular) Ø165 mm (6.5")
Surface Hardness of Bearing Blocks	(Block) 60 HRC (Circular) 55 HRC	(Block) 60 HRC (Circular) 55 HRC
Flatness Tolerance	(Block) 0,025 mm / 150 mm (Circular) 0,02 mm / 150 mm	(Block) 0,025 mm / 150 mm (Circular) 0,02 mm / 150 mm
Maximum Vertical Clearance Between Platens (E)	(Block) 250 mm (9,84") (Circular) 380 mm (15")	(Block) 250 mm (9,84") (Circular) 380 mm (15")
Piston Diameter	250 mm (9,84")	310 mm (12,2")
Piston Stroke	50 mm (1,97")	50 mm (1,97")
Horizontal Clearance (B)	360 mm (14,17")	415 mm (16,34")
Dimensions (wxlxh) (Axd*xF)	790x453x1144 mm (31,1x17,83"x45,04")	845x497x1204mm 33,27"x19,57"x47,4")
Weight	993 kg (2190 lb)	1215 kg (2680 lb)
Pedestal (Optional)	UTC-4682	UTC-4682



(d*) Depth (**) Limited by capacity of the frame

The ASTM machines for blocks and cylinders are supplied complete with;

- 310x410x90 mm (12.2"x16.1"x3.54") lower and upper (spherically seated) bearing platens (comes with mounted to the frame)
- Ø165 mm (6.5") lowerand upper (spherically seated) bearing blocks
- Upper Bearing Platens Replacement Equipment (UTC-4528)
- Lifting Device for Lower Bearing Platen (UTC-4629)
- Ø100 mm (3,93"), 50 mm (1,97"), 2 pcs. 30 mm (1,2"), 15 mm (0,59") height x Ø165 mm (Ø6,5") distance pieces
- Removable transparent front and rear safety doors