EN 12390-4 AUTOMATIC COMPRESSION TESTING MACHINES FOR CUBES AND CYLINDERS

Product Code

UTC-5727.FPR 2000 kN EN 12390-4 Automatic Compression Testing Machines for Cubes and Cylinders
UTC-5737.FPR 3000 kN EN 12390-4 Automatic Compression Testing Machines for Cubes and Cylinders
UTC-0210 High Precision Pressure Transducer
UTC-4682 Pedestal for 2000 kN and 3000 kN Compression Testing Frames with Welded Wall

Models for 220-240V 50-60 Hz, 1 ph.	UTC-5727.FPR	UTC- 5737.FPR
Models for 110-120V 60 Hz, 1 ph.	UTC-5727.FPR-N	UTC-5737.FPR-N

Standards

EN 12390-4, EN 12390-3

UTC-5727.FPR and UTC-5737.FPR models Automatic Compression Testing Machines are manufactured for compression testing of cubes and cylinders acc. to EN 12390-4. These machines also meet the requirements of CE norms with respect to the health and safety of the operator. 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 fixtures or/and concentric centering lines of lower loading 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.
UTC-4682 Pedestal that is made of steel to facilitate the user's placement of specimens in the frame for compression test should be ordered separately.

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
• The front safety doors have an automatic safety device to stop the machine if the door is opened during a test.

UTC-5727.FPR or UTC-4682

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
• Multi-Point calibration function for the channels
• Optionally supplied-integrated thermal printer (If requested, must be specified in the order)
• Real time numeric display of load and load pressure with test graph.

AUTOMATIC COMPRESSION TESTING MACHINES - EN

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 for Automatic Compression/Flexure Testing Machines” for details of the properties.

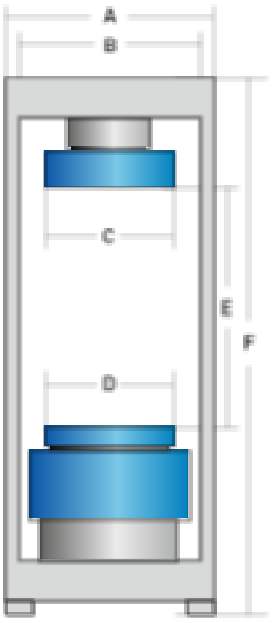
UTEST Software

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 pages of UTEST Software for Automatic Compression / Flexure Testing Machines

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-5727.FPR	UTC-5737.FPR
Capacity	2000 kN	3000 kN
Frame Type	Welded Steel	Welded Steel
Bearing Platens Dimensions (D)	Ø 300 mm	Ø 300 m
Upper Bearing Block, (With Spherically Seating Assembly) Dimensions (C)	Ø 300 mm	Ø 300 mm
Surface Hardness of Bearing Blocks	53 HRC	53 HRC
Flatness Tolerance	0,03mm	0,03mm
Piston Diameter	250mm	300mm
Piston Stroke	50 mm	50 mm
Maximum Vertical Clearance Between Bearing Blocks (E)	350 mm (13,4”)	350 mm (13,4”)
Horizontal Clearance (B)	360 mm	415 mm
Sizes for Cubes (up to)	200 mm (**)	200 mm (**)
Sizes for Cylinders (up to)	Ø160x320 mm	Ø160x320 mm
Power	550 W	550 W
Oil Capacity	20 L	20 L
Maximum Working Pressure	410 Bar	410 Bar
Dimensions (wxlxh) (Axd*xF) (d*) depth	820x455x1145 mm	875x500x1205 mm
Weight	835 kg	1075 kg
Pedestal (UTC-4682)	UTC-4682	UTC-4682



The Machines for cubes and cylinders are supplied complete with;

- 100 mm, 50 mm, 30 mm height x Ø205 mm distance pieces
- Fixture for Centering Specimens, compatible with Ø300 mm lower loading platen for 100 mm and 150 mm cubes, Ø100 mm and Ø150 mm cylinders (UTC-4622E)
- Removable transparent front and rear safety doors

Appropriate distance piece/s for the cylinder and cube specimens with the height of lower than 150 mm should be ordered separately.