EN COMPRESSION TESTING FRAMES WITH FOUR COLUMN FOR MASONARY UNITS CUBES AND CYLINDERS

Product Code

UTC-6729.FPR	2000 kN Automatic Four Column Testing Machines for Masonary Units, Cubes and Cylinders, EN
UTC-6739.FPR	3000 kN Automatic Four Column Testing Machines for Masonary Units, Cubes and Cylinders, EN
UTC-6749.FPR	4000 kN Automatic Four Column Testing Machines for Masonary Units, Cubes and Cylinders, EN
UTC-6759.FPR	5000 kN Automatic Four Column Testing Machines for Masonary Units, Cubes and Cylinders, EN
UTC-0210	High Precision Pressure Transducer and Electronic
UTC-4684	Pedestal for 2000kN and 3000 kN Compression Testing Frames with Four Column
UTC-4686	Pedestal for 4000kN and 5000 kN Compression Testing Frames with Four Column

Standards

EN 12390-4, EN 772-1

UTC-6729.FPR, UTC-6739.FPR, UTC-6749.FPR and UTC-6759.FPR models Automatic Compression Testing Machines are manufactured for compression testing of masonary units, cubes and cylinders acc. to EN standards .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.

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-6749 with UTC-4682

Main Features

• Pace Rate control between 1 kN to 25 kN

• Accuracy Class 1 starting from with the 5% of the machine capacity, (Special calibration option Class 1 starting from 1% of the full range with UTC-0210)

• Supplied with factory calibration certificate for force transfer stability and the self-alignment of the upper loading platen conforming to EN 12390-4

• 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

• Hydrolic pump with dual stage for rapid approach

• Welded steel walled frame a single acting piston

• Piston return at the end of test automatically

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 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.

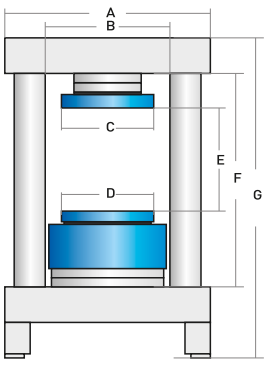
Optional Additional Frame

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-6729.FPR	UTC-6739.FPR	UTC-6749.FPR	UTC-6759.FPR
Capacity		2000 kN	3000 kN	4000 kN	5000 kN
Frame Type		Four Column	Four Column	Four Column	Four Column
Lower Bearing Block, Dimensions (D)		310x510x50 mm	310x510x50 mm	310x510x50 mm	310x510x50 mm
Upper Bearing Block, (With Spherically Seating Assembly) Dimensions (C)		310x510x50 mm	310x510x50 mm	310x510x50 mm	310x510x50 mm
Surface Hardness of Bearing Blocks		55 HRC	55 HRC	55 HRC	55 HRC
Flatness Tolerance		0,03mm	0,03mm	0,03mm	0,03mm
Piston Diameter		250 mm	310 mm	360 mm	400 mm
Piston Stroke		50 mm	50 mm	100 mm	100 mm
Maximum Vertical Clearance Between Bearing Blocks (E)		350 mm	350 mm	520 mm	520 mm
Sizes of Specimens	For Cylinder (up to)	Ø160x320 mm	Ø160x320 mm	Ø250x500 mm (**)	Ø250x500 mm (**)
	For Cubes (up to)	300 mm (**)	300 mm (**)	300 mm (**)	300 mm (**)
	For Masonary Units (up to)	300x500 mm (**)	300x500 mm (**)	300x500 mm (**)	300x500 mm (**)
Power		750 W	750 W	750 W	750 W
Oil Capacity		20 L	20 L	20 L	20 L
Maximum Working Pressure		410 Bar	410 Bar	315 Bar	350 Bar
Dimensions (wxlxh) (Axd*xF)		960x560x1100 mm	1050x690x1150 mm	1145x825x1540 mm	1235x640x1555 mm
Weight		1110 kg	1625 kg	2640 kg	3345 kg
Pedestal (Optional)		UTC-4684	UTC-4684	UTC-4684	UTC-4684

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

The machines for masonary units,cubes and cylindrs are supplied complete with;

- 100 mm, 50 mm, 30 mm height x Ø205 mm distance pieces (two pcs. each for UTC-6749 and UTC-6759)
- UTC-4626E - Fixture for centering specimens, compatible with 310x510x50 mm lower loading platen, for 100 mm and 150mm cubes and Ø100 mm and Ø150 mm cylinders (for UTC-6729 and UTC-6739)
- UTC-4627E - Fixture for centering specimens, compatible with 310x510x50 mm lower loading platen, for 150mm and 250mm cubes, Ø150mm and Ø250mm cylinders for UTC-6749 and UTC-6759
- Lifting Device for Lower Loading Platen (UTC-4629)
- 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 for UTC-6729.FPR and UTC-6739.FPR