

## Product Code

UTC-4031	600 kN Automatic Compression Testing Machine, 220-240 V 50-60 Hz
UTC-4031/110	600 kN Automatic Compression Testing Machine, 110 V 60 Hz
UTC-4131	1500 kN Automatic Compression Testing Machine, 220-240 V 50-60 Hz
UTC-4131/110	1500 kN Automatic Compression Testing Machine, 110 V 60 Hz
UTC-0210	High Precision Pressure Transducer and Electronic

## Standards

ASTM C39; AASHTO T22; ISO EN 7500

The UTEST Automatic range of 600 kN and 1500 kN capacity compression testing machines have been designed for reliable and consistent testing of a wide range of specimens. These compression testers are manufactured as a result of continuous research studies to upgrade the machines with the latest technologies to conform to the current standards ASTM C39; AASHTO T22; ISO EN 7500 in terms of its technical properties taking into account the client requirements. These machines also meet the requirements of CE norms with respect to the health and safety of the operator. Their user-friendly design enables an inexperienced operator to perform the tests.

Once the machine has been switched on and the specimen is positioned required operations are:

- Setting the test parameters (pace rate needs to be adjusted only 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 the test results.

Exceeding of the ASTM C-39 standard provisions (starts with the 10% of the machine capacity), the UTC-4031 and UTC-4131 are supplied in Class 1 starting from 50 kN. This unique performance enables the machines to be used for a considerable number of applications including:

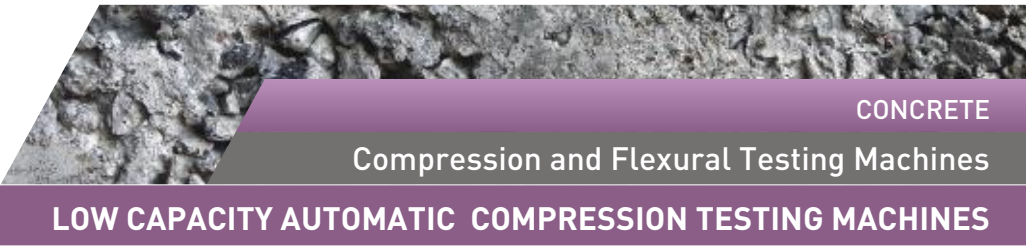
- Early age compression strength tests
- Flexural tests by using proper accessories
- Mortar (Cement) compression tests by using proper accessories
- Core with low diameter compression tests



UTC - 4131



UTC - 4031



The compression machines consist of a heavy duty welded frame, automatic hydraulic power pack with data acquisition and control system BC 100.

UTC-4031 (600 kN) Testing Machine is supplied complete with;

- Ø 165x90 mm, Ø 165x50 mm, Ø 165x30 mm and Ø 165x15 mm distance pieces
- UTC-4511 Upper Platen (with ball seating assembly) Ø165 mm, Lower Platen Ø165 mm.

UTC-4510 upper and lower platen sets can also be used with UTC-4031 testing machine.

UTC-4131 (1500 kN) Testing Machine is supplied complete with;

- Ø 165x90 mm, Ø 165x50 mm, 2 pcs. Ø 165x30 mm and Ø 165x15 mm distance pieces
- UTC-4512 Upper Platen (with ball seating assembly) Ø216 mm, Lower Platen Ø216 mm.

UTC-4510, UTC-4511 and UTC-4515 upper and lower platen sets can also be used with UTC-4131 testing machine.

### Safety Features

- Maximum pressure valves to avoid machine overloading
- Piston travel limit switch
- Emergency stop button
- Front and rear transparent durable plexiglass guards
- Software controlled maximum load value

Model	UTC-4031	UTC-4131
Capacity	600 kN	1500 kN
Standard	ASTM C39; AASHTO T22	ASTM C39; AASHTO T22
The roughness value for texture of loading and auxiliary platens	≤ 3.2µm	≤ 3.2µm
Lower platens dimensions	Ø165 mm	Ø216 mm
Upper platens dimensions	Ø165 mm	Ø216 mm
Maximum vertical clearance between platens	340 mm	370 mm
Piston diameter	150 mm	230 mm
Maximum piston movement	50 mm	50 mm
Horizontal clearance	230 mm	320 mm
Power	750 W	750 W
Oil capacity	20 L	20 L
Maximum working pressure	335 Bar	355 Bar
Dimensions (w×l×h)	660x500x900 mm	750x500x930 mm
Weight	420 kg	625 kg

Maximum horizontal clearance for placing sample is limited with the border of the platens. Sample must be placed such that its ends will not overflow from the ends of platens and it must be centred perfectly.

The suitable vertical clearance for specimen can be adjusted with distance pieces ( see next page ).

110V, 50 Hz models are available upon request. The only difference is the input voltage.

### Product Code

UTC-4630	Distance Pieces, Ø 165x15 mm
UTC-4631	Distance Pieces, Ø 165x30 mm
UTC-4633	Distance Pieces, Ø 165x50 mm
UTC-4634	Distance Pieces, Ø 165x90 mm
UTC-4636	Distance Pieces, Ø 205x30 mm
UTC-4638	Distance Pieces, Ø 205x50 mm
UTC-4639	Distance Pieces, Ø 205x90 mm

### Standards

EN 12390-3, 12390-4; BS 1881; ASTM C39

Distance pieces are used to reduce the amount of vertical clearance between the upper platen and the lower platen. 2000 kN , 3000 kN and 4000 kN machines are supplied with 205 mm dia. distance pieces and 600 kN and 1500 kN machines are supplied with 165 mm dia. distance pieces to lower the minimum distance between upper and lower platens down to required height.

Big size distance pieces are equipped with handles.



Loading Cylinder Assembly and Limit Switch



Distance Pieces

Distance Pieces

	Dimensions	Weight (approx.)
UTC-4630	165x165x15 mm	2,5 kg
UTC-4631	165x285x30 mm	5 kg
UTC-4633	165x285x50 mm	8 kg
UTC-4634	165x285x90 mm	14 kg
UTC-4636	205x290x30 mm	8 kg
UTC-4638	205x290x50 mm	13 kg
UTC-4639	205x290x90 mm	22 kg



Loading Cylinder Assembly

### LOADING CYLINDER ASSEMBLY

All frames have a single acting up stroking ram. The diameter of the piston is designed to work with the load capacity.

The maximum ram movement is 50 mm. The pressure transducer is used for load measurements. There is a low friction coaxial PTFE seal between the cylinder and the piston fitted to the cylinder.