

Product Code

UTM-0109	Multiplex Machine with Servo Motor and BC100 TFT Graphics Data Acquisition and Control System BC100, 100 kN
UTM-0115	Compression Platens, used to perform Uniaxial and Unconfined Compression Tests
UTS-0870	CBR Penetration piston, used to perform CBR Tests
UTAS-0057	Breaking Head Stability Mould, cast iron, for 4" (101,6 mm) Marshall Samples
UTAS-0058	Breaking Head Stability Mould, cast iron, for 6" (152,4 mm) Marshall Samples
UTGM-0010	Load Cell, 5 kN capacity



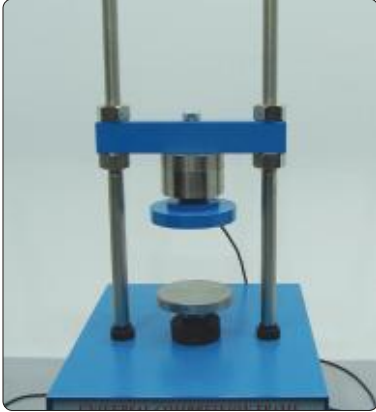
Multiplex Machine is used to make Uniaxial, CBR and Marshall Tests. 100 kN capacity Multiplex Machine is equipped with a servo motor and TFT graphics data acquisition and control system BC100 and capable of doing test with the displacement speed range of 0,00001 mm/min to 51 mm/min suitable for CBR, Marshall, Triaxial and Uniaxial Tests and similar tests with appropriate accessories. The machine is also capable of perform load controlled tests. UTM-0109 Multiplex Machine is composed by a robust and compact two column frame with adjustable upper cross beam.

Multiplex Machine is supplied complete with

- Load Cell, 100 kN
- Displacement Transducer, 25x0,001 mm

Test Speed	0,00001– 51 mm/min
Capacity	100 kN
Dimensions	710x555x1910 mm
Vertical Daylight	610 mm
Horizontal Daylight	370 mm
Weight (approx.)	235 kg
Power	1000 W

Test accessories should be ordered separately according to the test:

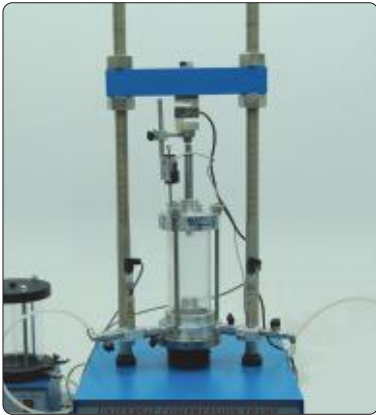


Uniaxial

To Perform Uniaxial Tests

UTM-0115

Compression Platens, used to perform uniaxial and unconfined compression tests. Supplied complete with ball seating assembly.

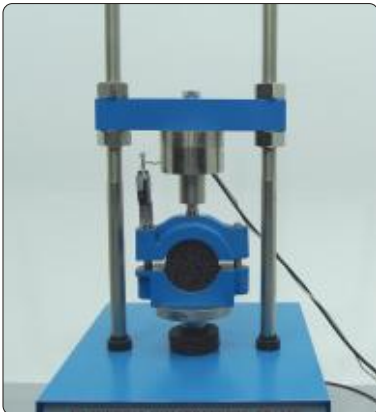


Triaxial

To Perform Triaxial Tests

Product Code	Description	UU	UU-CU CD
UTGM-0010	Load Cell 5 kN	1	1
UTGM-0062	Linear Potentiometric Displacement Transducer, 25 mm	1	1
UTS-0400 UTS-0401	Triaxial Cell**	1	1
UTS-0405	Block with One Connection Line for Triaxial Test Cells	1	-
UTS-0406	Block with 3 Connection Lines for Triaxial Test Cells	-	1
UTGM-0110	Pressure Transducer	1	3
UTS-0408	Oil and Water Constant Pressure System	1	2
UTS-0415	Automatic Volume Change Unit	-	1
UTG-0320	Static Unilogger 4 Channels	-	1
UTS-0416	Software to Perform UU Triaxial Tests	1	1
UTS-0417	Software to Perform CU-CD Triaxial Tests	-	1
UTS-1330 and UTGP-1140	De-Airing Water Tank, 7 L. and Hose	1	1

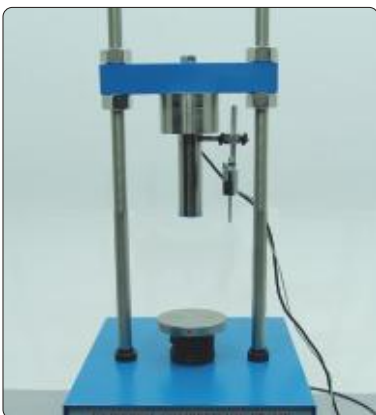
* Choose the suitable cell for the specimen size (UTS-0400: 38-50 mm dia. samples / UTS-0401: 70-100 mm dia. samples).
For cell accessories, sample preparation accessories and Optional apparatus for de-airing water please see Triaxial Test Systems.



Marshall

To Perform Marshall Tests

UTAS-0057	Breaking Head Stability Mould, cast iron, for 4" (101,6 mm) Marshall Samples
UTAS-0058	Breaking Head Stability Mould, cast iron, for 6" (152,4 mm) Marshall Samples
	Adaptor for Breaking Head



CBR

To Perform CBR Tests

UTS-0870	CBR Penetration piston, used to perform CBR tests
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BC 100 TFT Graphic Display Data Acquisition and Control Unit

BC100 TFT Graphic Display Data Acquisition and Control Unit is designed to control the machine and processing of data from load-cells, pressure transducers or displacement transducers which are fitted to the machine.

All the operations of BC100 are controlled from the front panel consisting of a 800x480 pixel 65535 color resistive touch screen display and function keys. 4 analogue channels (it would be simultaneous or not depending on the application at the factory) are provided for load-cells, pressure transducers or displacement transducers.

BC100 has easy to use menu options. It displays all menu option listings simultaneously, allowing the operator to access the required option in a seamless manner to activate the option or enter a numeric value to set the test parameters. The BC100 digital graphic display is able to draw real-time "Load vs. Time", "Load vs. Displacement" or "Stress vs. Time" graphics.

BC100 unit offers many addition unique features. You can save more than 10000 test results in its internal memory. BC100 unit has support for various off-the-shelf USB printers, supporting both inkjet and laser printers. Thanks to its built-in internet protocol suite, every aspect of BC100 device can be controlled remotely from anywhere around the world.

- Calibration Range Class 1 from 2% of the full capacity
- Maximum piston travel 80 mm
- Distance between columns 260 mm

Main Features

- Can make test with displacement or load control
- Displacement control from 0.00001 mm/minute to 50,8 mm/minute
- Pace rate control from 0.01 kN/s to 2 kN/s (respect to stiffness)

When the machine used for CBR Test

- Calculates corrected CBR value at 2.5 and 5 mm the digital unit saves the load value at user defined displacement values such 0.625, 1.25, 1.875, 2.5, 3.75, 5, 7.5, 10, 12.5 mm
- The load corresponds to the displacements corrected respect to the linear region of the data has also saved
- The % CBR at 2.5 mm and % CBR at 5 mm is also automatically calculated and saved

When the machine used for Marshall Test

- Automatically calculates flow and stability values.

When the machine used for Triaxial Test

- It shows stress value corrected respect to the displacement sensor.

When the machine used for Load Control Type Tests different type of specimens

- The stress is shown.
- Real time display of test graph.
- CPU card with 32-bit ARM RISC architecture
- Permanent storage capacity up to 10000 test results
- 4 analog channels (it would be simultaneous or not depending on the application at the factory) for one analog channel for high capacity load cell, one analog channel for displacement transducer, one analog channel for low capacity load cell and one analog channel for pressure transducer for oil-water constant pressure unit



CBR



Marshall



Triaxial



Triaxial

- Programmable digital gain adjustment for load-cell, pressure transducers, strain-gauge based sensors, potentiometric sensors, voltage and current transmitters
- 1/256000 points resolution per channel
- 10 data per second sample rate for each channel
- Ethernet connecting for computer interface
- 800x480 resolution 65535 color TFT-LCD industrial touchscreen
- 4 main function keys
- Multi-language support
- 3 different unit system selection; kN, Ton and Lb
- Real-time clock and date
- Test result visualization and memory management interface
- Remote connection through ethernet
- USB flash disc for importing test results and for firmware (ask for compatible models)
- USB printer support for inkjet and laser printers (ask for compatible models)
- Camera support for real-time video recording during test (ask for compatible models)
- Free of charge PC software for the test control and advanced report generation

All UTEST softwares including Marshall, CBR, Triaxial (UU,CU,CD), Uniaxial etc. can be used with multiplex machines.