Product Code

UTCM-3722.SLP 250 kN (56.200 lbf) Semi-Automatic (Motorized) Cement Compression Testing Machine
UTCM-3742. SLP 15/250 kN (56.200/3370 lbf) Semi-Automatic (Motorized) Cement Flexure Compression Testing Machine
UTCM-4200E Flexure Jig Assembly to test 40,1x40x160 mm prisms, EN
UTCM-4200A Flexure Jig Assembly to test 40x40x160 mm prisms, ASTM
UTCM-4210E Compression Jig Assembly to test portions of 40.1x40x160 mm prisms, EN
UTCM-4210A Compression Jig Assembly to test 50 mm (2") cubes
UTCM-4210B Compression Jig Assembly BS, to test 70,7 mm cubes
UTCM-3724 Transparent Front-Rear Safety Doors for UTCM-3722
UTCM-3744 Transparent Front-Rear Safety Doors for UTCM-3742

Models for 220-240V 50-60 Hz, 1	UTCM-3722.SLP	UTCM-3742.SLP
ph. Models for 110-120V 60 Hz, 1	UTCM-3722.SLP-N	UTCM-3742.SLP-N

Standards

EN 196-1, 459-2, 1015-11, 13454-2, 13892-2; ASTM C109, C348, C349; BS 4550-3.4

The UTEST Semi-Automatic (Motorized) range of single testing chamber and double testing chamber compression and flexure testing machines have been designed for reliable and consistent testing of mortar samples.

These compression and flexure testers are the results of continuous applications
and research studies to upgrade the machines with the latest technologies and conform with current standards EN 196-1, 459-2, 1015-11, 13454-2; ASTM C 109,
C348, C349 and BS 3892-1, 4551-1 in terms of its technical properties taking into
account client requirements by using suitable accessories. These testers also meet the requirements of CE norms for safety and health of the operator.

The UTEST Semi-Automatic cement compression and flexure testing machines allow operators who have minimal experience to perform the tests.

The UTEST Semi-Automatic cement compression and flexure testing machines consist of a very rigid two column single or double chamber frame and UTC-4820SLP hydraulic powerpack with LPI Battery Operated Digital Readout Unit.

The machines are supplied with factory calibration certificate for the load cells measurements.

Main Features

Compression and flexure jigs, distance pieces, and also removable transparent front-rear safety doors (should be factory installed) should be ordered separately.
Multi- point calibration (ASTM) starting from with the 1 % of the 250 kN and 15 kN capacity

•2 channels for load-cell or pressure transducer with two different calibration table (LPI Battery Operated Digital Readout Unit (UTC-4920LP)
•Multi-point calibration
•Real time numeric display of load and load pressure
•Peak hold property
•RS232 Serial port for PC or thermal or dot matrix printer
•Free of charge Utest software for compression/flexture testing machines (USOFT-4820.SLP) for compression, flexture, splitting tensile strength tests of construction materials such as concrete, cement, brick/masonary units

UTCM-3742.SLP

UTCM-3722.MLP

Power Pack


UTC - 4820

The UTC-4820 Motorized (Semi-Automatic) Power Pack, controlled by a pressure rate control valve, is designed to supply the required oil to the load frames for loading. The power pack can load different frames with required pace rates. A rapid approach pump is supplied as standard. The power pack is equipped with a safety valve (maximum pressure valve) to avoid machine overloading.
The dual stage pump is formed by two groups, one is low pressure gear pump and second high pressure radial piston pump.
On the dual stage pump, high delivery low pressure gear pump is used for rapid approach, while low delivery high pressure durable variable output pump is used for test execution. Rapid approach property of the machine shortens the time interval from the piston starts moving until the upper platen touches to the specimen and helps to save a great amount of time in case of numerous specimens are going to be tested.
The motor which drives the dual pump is an AC motor and 0.55 kW
A distribution block is used to control the oil flow direction supplied by the dual stage pump and those are are fitted to solenoid valve, safety valve (maximum pressure valve), low pressure gear pump and high pressure radial piston pump
The tank (20 L capacity) includes enough oil to fill the mechanism which pushes the ram during the test. The level and oil temperature can be seen on the indicator fitted to the tank. Hydraulic motor oil
number 46, must be used in the tank.

Safety Features

- Maximum pressure valves to avoid machine overloading
- Piston travel limit switch
- Removable transparent front-rear safety doors (Should be factory installed and ordered separately)

Utest Software for Semi-Automatic Cement Compression/Flexure Tests (USOFT-3722

USOFT-3722.SLP Test Software is improved for semi-automatic cement compression and flexural testing machineswith LPI Battery Operated Digital Readout Unit durring the test to collect and record data and to prepare the report containing the results obtained. Before the test, a PC which the Utest software is installed is connected to RS232 port of LPI reading unit, the data obtained in the test can be monitored and recorded in real time. The advanced functions for data base management provide an easy navigation of all saved data. Test report including the test results and user defined test information (names and the Company details, test type, specimen type, user info and other knowledge required) can be print out.

Technical Specifications

Model	UTCM-3722.SLP	UTCM-3742.SLP
Test Type	Compression	Flexure Compression
Capacity	250 kN (56.200 lbf)	15 kN (3370 lbf)250 kN (56.200 lbf)
Class 1 Measuring Range	1 % for 250 kN	1 % for 15 kN 1 % for 50 kN
The Roughness Value for Texture of Loading Platens	≤ 3.2 µm	≤ 3.2 µm≤ 3.2 µm
Lower Platen Dimensions	Ø165 mm (6,5”)	Ø165 mm (6,5”)Ø165 mm (6,5”)
Upper Platen Dimensions	Ø165 mm (6,5”)	Ø165 mm (6,5”)Ø165 mm (6,5”)
Maximum Vertical Clearance Between Platens	237 mm (9,3”)	237 mm (9,3”)237 mm (9,3”)
Piston Diameter	Ø160 mm (6,3”)	Ø160 mm (6,3”)Ø160 mm (6,3”)
Maximum Piston Movement with Limit Switch	20 mm (1,18”)	20 mm (1,18”)20 mm (1,18”)
Horizontal Clearance	300 mm (11,8”)	274 mm (10,8”)266 mm (10,47”)
Power	550 W	550 W
Oil Capacity	20 L (0,7 ft3)	20 L (0,7 ft3)
Rapid Approach Rate	50 mm/min 2 inc/min	80 mm/min50 mm/min 3,15 inn/min2 inc /min
Dimensions (WxLxH)	760x500x1650 mm (30”x19,7”x62,2”)	980x500x1650 mm (37,4”x19,7”x62,2”)
Weight	255 kg (562 lbs)	350 kg (772 lbs)

The Maximum horizontal clearance for placing the sample is limited by the border of the platens. Sample must be placed such that its ends will not overlap the ends of platens and it must be centered perfectly. The suitable vertical clearance for the specimen can be adjusted using the distance pieces.