UNIVERSAL TESTING MACHINE (Hydraulic)

Code : U001



Tensile Testing:

- Used to test the tensile strength of steel rebar.
- The grippers of the machine is hydraulically operated by 2 independent auxiliary cylinders controlled by separated hydraulic valves. Those grippers are designed to firmly hold the steel rebar and avoid any slipping that might happen during the test on the rebar.
- The upper mobile crosshead part of the machine is driven up/down by hydraulic piston. It is used to adjust the distance between upper and lower grippers to suite the length of the steel rebar.
- Designed with different capacities (upon user's request) such as: 300 kN (30 tons) / 600 kN (60 tons) / 1000 kN (100 tons) / 2000 kN (200 tons)
- Capable of testing specimen with diameters ranging from 8 mm to 42 mm depending on the capacity.
- Provides easier and faster reporting with the printing facility for the results and graphs.
- The height is only 200 - 210 cm (depending on the model/capacity).

Compression Testing:

- Used to test the compression strength of concrete cubes/cylinders of different sizes.
- Equipped with an TFT unit that displays the data graphically of each test with the ability to save and recall the results of the tested materials.
- The Data Acquisition Control provides a real-time graphical view for the sample.
- Automatically determines the load rate upon sample type and in accordance with the international standards.
- With the AUTO-STOP functionality, the machine will automatically stop upon finishing the test.
- Upon user requirements, the machine can be either work in fully automatic mode or manual mode at which the user gets the ability to adjust the load rate and period manually.
- The upper seating adjusts itself to apply homogeneous loading on the sample.
- For faster experience while testing, the daylight distance between the upper and lower platens can be adjusted using the hydraulic piston in accordance with the sample height; this will give the machine the ability to test all varieties of samples with a very wide range of sizes.

STANDARDS

ASTM A370 • EN ISO 6892 • EN ISO 7500-1

TECHNICAL SPECIFICATIONS

Tensile Testing:

- Fully Automatic - PC Controlled
- Hydraulically operated grippers by 2 independent auxiliary cylinders controlled by separated hydraulic valves
- Upper mobile crosshead driven up/down by a separated motor adjusting the distance between upper and lower grips with electronic distance meter

- Available models:
    - 200 kN (20 tons)
    - 600 kN (60 tons)
    - 1000 kN (100 tons)
    - 2000 kN (200 tons)
- Height: 210 cm only.
- Print of Stress/Strain Diagram and Test Results.

Compression Testing:

- Fully Automatic.
- Graphical - TFT Data Acquisition Control System.
- Automatic Load Rate upon Sample Type.
- Stops Automatically, when Test is completed.
- Real time graph indication.
- Total Load and also Per Area are given.
- Test results can be transferred to computer
- Different units are available.
- Calibration done easily on multiple points
- Manual Control is available.
- Rigid Frame.
- Upper and Lower Platens in accordance with international Specifications.
- Upper Seating for Homogeneous Loading.

- 220 - 240 V / 50 - 60 Hz (110 V / 60 Hz is also available)

ORDERING INFORMATION

Item Name	Item Code
UTM, HYDRAULIC - 200 kN	U001A020U
UTM, HYDRAULIC - 600 kN	U001A060U
UTM, HYDRAULIC - 1000 kN	U001A100U
UTM, HYDRAULIC - 2000 kN	U001A200U
UTM, HYDRAULIC - 3000 kN	U001A300U
ROUND SPECIMENS GRIPPERS SET for U001	U001P001H
FLAT SPECIMENS GRIPPERS SET for U001	U001P002H
BENDING APPARATUS for U001	U001P003H
SHEAR APPARATUS for U001	U001P004H
GRIPPERS PISTON for U 001	U001P005H
HYDRAULIC CONTROLLING UNIT for U001	U001P006H
SPECIAL GRIPPER (08-16-VAN-TT)	U001P007H
SPECIAL GRIPPER (16-24-VAN-TT)	U001P008H
SPECIAL HYDRAULIC CONTROLLING UNIT (1 Piston)	U001P009H
ELECTRONIC CONTROLLING UNIT for U001	U001P010H
SPARE LOADCELL for U001 - 300 kN	U001P011H
SPARE LOADCELL for U001 - 600 kN	U001P012H
EXTERNAL HYDRAULIC HOSES SET (6 pcs)	U001P013H
SPARE RELAY CARD for U001	U001P014H
GRIPPER BACK PLATE for U001 (1 set)	U001P015H
ELECTRONIC BOARD (PCB) for U001	U001P016H
SPARE DISPLAY PANEL (7") for U001	U001P017H
HYDRAULIC FILTER for U001	U001P018H

SPARE HAND-HELD COMMANDER for U001	U001P019H
PROTECTIVE SHEET-METAL SAFETY ENCLOSURE (for U001 / 600 kN model)	U001P020H
SPARE PISTON for U001A060U (600 kN UTM)	U001P021H
ROUND/FLAT SPECIMENS GRIPPERS SET for U001	U001P022H
UTM, HYDRAULIC (with Servo Motor) - 600 kN	U001V060U
UTM, HYDRAULIC (with Servo Motor) - 1000 kN	U001V100U
UTM, HYDRAULIC (with Servo Motor) - 2000 kN	U001V200U
UTM, HYDRAULIC (with Servo Motor) - 3000 kN	U001V300U

OTHER PHOTOS







