



RESOTECH –CTM

MAKE-RESOTECH

MODEL NO.RESOTECH-CTM



Compression Machine Frame

Upper Platens for Compression

Distance Pieces for Compression

Readout Unit for Compression

LS Automatic Compression Machine

LS Semi-Automatic Compression Machine

HS Four Column Compression Machine

HS Welded Frame Compression Machine

HSB Block Compression Machine

HS Semi-Automatic Compression Machine

Automatic Flexural Testing Machine

COMPRESSION MACHINE FRAMES

Product Code

- CTM-3190 | 600 kN Capacity Frame
- CTM-3191 | 1500 kN Capacity Frame
- CTM-3192 | 2000 kN Capacity Frame, EN
- CTM-3193 | 2000 kN Capacity Frame, ASTM
- CTM-3194 | 3000 kN Capacity Frame, EN
- CTM-3195 | 3000 kN Capacity Frame, ASTM
- CTM-3196 | 2000 kN Capacity Four Column Frame, EN
- CTM-3197 | 3000 kN Capacity Four Column Frame, EN

Standards

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



CTM-3190



CTM-3193



CTM-3192



CTM-3194

Description

The load frame provides the stability needed for accurate and repeatable test results over the years of operation.

The load frame assembly consists of the following:

- Load Frame
- Upper Platen with Ball Seating Assembly
- Lower Platen
- Distance Pieces
- Loading Cylinder Assembly & Limit Switch for safety
- Front and Rear Protective Doors for safety

LOW CAPACITY FRAMES

Product Code	CTM-3190
Capacity	600 kN
Frame Type	Well
Maximum Vertical Clearance (E)	3000 mm
Horizontal Clearance (B)	290 mm
Upper Platens With Ball Seating Assembly Dimensions (C)	Ø 165 mm
Lower Platens Dimensions (D)	Ø 165 mm
Piston Diameter	165 mm
Piston Stroke	500 mm
Dimensions (wxlxh)	290x500x1650 mm
Weight	3000 kg

CTM-3190 Supplied complete with;

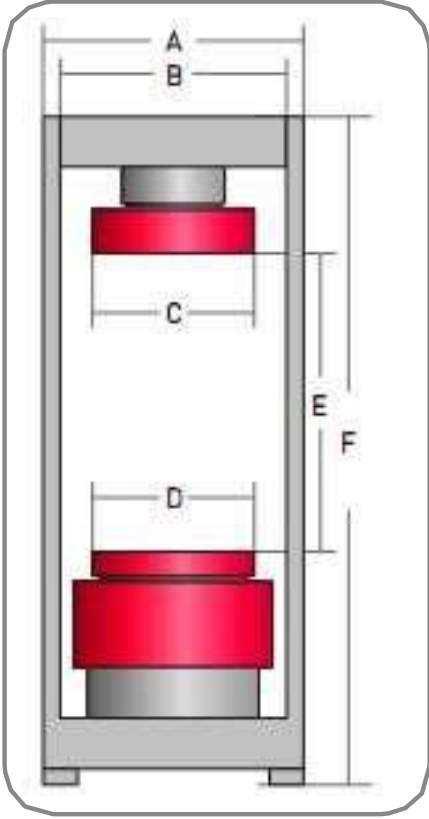
- 1 pcs 90x165 mm dia. distance pieces
- 1 pcs 50x165 mm dia. distance pieces
- 1 pcs 30x165 mm dia. distance pieces

HIGH CAPACITY ASTM FRAMES

Product Code	CTM-3193
Capacity	2000 kN
Frame Type	Well
Maximum Vertical Clearance (E)	3000 mm
Horizontal Clearance (B)	300 mm

HIGH CAPACITY EN FRAMES

Product Code	CTM-3192	CTM-3194
Capacity	2000 kN	3000 kN
Frame Type	Welded Steel	Welded Steel
Maximum Vertical Clearance (E)	340 mm	340 mm
Horizontal Clearance (B)	360 mm	425 mm
Upper Platens With Ball Seating Assembly Dimensions (C)	Ø 300 mm	Ø 300 mm
Lower Platens Dimensions (D)	Ø 300 mm	Ø 300 mm
Piston Diameter	250 mm	300 mm
Piston Stroke	50 mm	50 mm
Dimensions (wxlxh)	440x500x980 mm	500x550x1100 mm
Weight	720 kg	970 kg



UPPER AND LOWER PLATENS

Product Code

CTM-3211-01 | Upper Platen (with ball seating assembly)
CTM-3212-01 | Upper Platen (with ball seating assembly)
CTM-3213-01 | Upper Platen (with ball seating assembly)
CTM-3214-01 | Upper Platen (with ball seating assembly)
CTM-3215-01 | Upper Platen (with ball seating assembly)

Description

The platens enable the testing of a wide variety of samples. Surface hardness 55HRC, flatness tolerance 0.01 mm/m. The lower platens have a central hole for proper centering of 100 mm diameter samples.



CTM-3211-01



CTM-3212-01

CTM-3192 Supplied complete with;

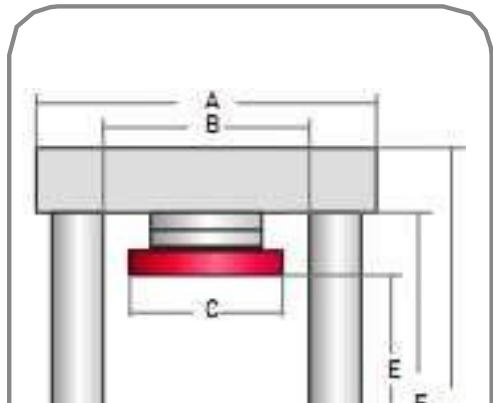
- 1 pcs 90x205 mm dia. distance pieces
- 1 pcs 50x205 mm dia. distance pieces
- 1 pcs 30x205 mm dia. distance pieces

CTM-3194 Supplied complete with;

- 1 pcs 90x205 mm dia. distance pieces
- 1 pcs 50x205 mm dia. distance pieces
- 1 pcs 30x205 mm dia. distance pieces

HIGH CAPACITY EN FOUR COLUMN FRAMES

Product Code	CTM-3196	CTM-3197
Capacity	2000 kN	3000 kN
Frame Type	Four Column	Four Column
Maximum Vertical Clearance (E)	340 mm	340 mm
Horizontal Clearance (B)	385 mm	445 mm
Upper Platens With Ball Seating Assembly Dimensions (C)	Ø 165 mm	Ø 165 mm
Lower Platens Dimensions (D)	Ø 165 mm	Ø 165 mm
Piston Diameter	165 mm	165 mm
Piston Stroke	50 mm	50 mm
Dimensions (wxlxh)	440x500x980 mm	500x550x1100 mm
Weight	720 kg	970 kg



Product Code

CTM-3211-01 | Upper Platen (with ball seating assembly) Ø 165 mm
CTM-3212-01 | Upper Platen (with ball seating assembly) Ø 165 mm
CTM-3213-01 | Upper Platen (with ball seating assembly) Ø 165 mm
CTM-3214-01 | Upper Platen (with ball seating assembly) Ø 165 mm
CTM-3215-01 | Upper Platen (with ball seating assembly) Ø 165 mm

Sample
4" , 6" dia. cylinders
100 mm cubes

CTM-3211-01 CTM-3212-01 CTM-3213-01 CTM-3214-01 CTM-3215-01

DISTANCE PIECES

Product Code

- CTM-3217-01 | Distance Pieces, Ø 205x30 mm
- CTM-3217-02 | Distance Pieces, Ø 205x50 mm
- CTM-3217-03 | Distance Pieces, Ø 205x90 mm
- CTM-3216-01 | Distance Pieces, Ø 165x15 mm
- CTM-3216-02 | Distance Pieces, Ø 165x15 mm
- CTM-3216-03 | Distance Pieces, Ø 165x50 mm
- CTM-3216-04 | Distance Pieces, Ø 165x90 mm

Standards

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



Description

Distance pieces are used to reduce the amount of vertical clearance between the upper platen and the lower platen. 2000 kN , 3000 kN machines are supplied with 205 mm and 165 mm dia distance piece.

P.Code	Dimensions	Weight
--------	------------	--------

READOUT UNIT



Description

Hardware

CTM304 LCD Graphic Display are controlled from the front panel consisting of a 240x120 pixel High resolution 65.000 points effective resolution LCD display and function keys. One analog channel for load cell and one analog channel for displacement transducer exists.

Firmware

CTM 304 LCD Graphic Display are controlled with function keys on the front panel. Two analog channel for load cell and two digital channels for displacement transducer exists. Simultaneous display of load-specific load, actual load rate and load/time graph; RS232 connection to PC; Multi coefficient calibration.

Data Acquisition & PC Software

Compression Machines Test Software is developed for both EN 12390-3, 12390-4 , BS 1881 and ASTM C39 Compression Tests. This Software includes control of machine, acquisition of load and displacement data, saving them and reports. The Compression Test Software accepts specimen diameter and height as an input parameter. It automatically calculates correction factor coming from the standarts respect to specimen size. Graphical outputs and reports can be saved as a MS Excel worksheet

LS AUTOMATIC COMPRESSION

Product Code

- CTM-5220 | 600 kN Automatic Compression Machine
- CTM-5220/110 | 600 kN Automatic Compression Machine
- CTM-5221 | 1500 kN LS Automatic Compression Machine
- CTM-5221/110 | 1500 kN LS Automatic Compression Machine

Standards

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



COMPRESSION TESTING MACHINE

INTRODUCTION

Compression test machines use static, dynamic, and Compression tests to evaluate the sturdiness of raw materials. Compression tests help to determine a test sample's life expectancy under actual service loads in real-world applications.

LOADING FRAME

The base has a hydraulic cylinder at its center and two main screws at both ends. The middle cross head is mounted on the base. The middle cross head can be moved up or down through chain transmission and geared motor to adjust the initial tensile/compression. The hydraulic cylinder is seated in which piston is placed on the piston, rests an assembly of upper, lower cross head and teflon guide. This assembly ensures smooth axial force with minimum friction.

CONTROL PANEL

Hydraulic circuit it consists of hydraulic power pack which has a directly driven radial plunger pump which gives high pressure. A pressure compensated needle type flow control valve is obtained with help of valves. Optionally this can be used for load holding.

LOADING RATE / STRAINING RATE CONTROL

This is superfine controlling system which controls loading rate / straining rate as per commands from electronic controller.

LS AUTOMATIC COMPRESSION TESTING MACHINES

- 1- Spacer Discs;
 - Diameter 165 mm x Height 90 mm spacer disc 1 piece
 - Diameter 165 mm x Height 50 mm spacer disc 1 piece
 - Diameter 165 mm x Height 30 mm spacer disc 2 piece
- 2- Upper Platen;
- 3- Lower Platen;
 - Lower Platen Diameter 165 mm
- 4- Piston;
 - Piston Diameter 160 mm (For 600 kN Capacity Models)
 - Piston Diameter 200 mm (For 1500 kN Capacity Models)
- 5- Automatic Hydraulic Power Pack ;
 - Automatic Hydraulic Power Pack, 410 bar (For All Models)

Safety Features

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

LCD Data Acquisition Control System

The Data Acquisition Control provides real-time graphical indication. Automatically determines the load rate in accordance with the international standards upon sample type. With the STOP and START buttons, the test will automatically stop or start.

LCD Data Acquisition Control System has different units are available (kN / kgf / lbf). Can do Automatic Load Rate upon Sample Type. Total load and also per area are given. and has real time graph indication. Stops Automatically, when Test is completed. Test results can be send printer to with software or from the thermal printer. Can do calibration easily from 5 points. Manual Control is available. Computer and printer are not included in the price.

Software

The tests and calibration can be done and monitored with a computer by connecting it to the machine. LCD Control unit can connecting with RS232 or USB port to the machine. Using the state-of-the-art software provided by RESOTECH with the machine will help performing and managing the tests in a very easy and fast way. By performing the tests via computer, the results can be saved and recalled when required. Reports can be generated automatically by the software and sent to printer.



LS SEMI-AUTOMATIC COMPRESSION TESTING MACHINES

- CTM-5218 | 600 kN Semi-Automatic Compression Testing Machine
- CTM-5218/110 | 600 kN Semi-Automatic Compression Testing Machine
- CTM-5219 | 1500 kN LS Semi-Automatic Compression Testing Machine
- CTM-5219/110 | 1500 kN LS Semi-Automatic Compression Testing Machine

Standards

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

Description

The RESOTECH Low Strength Semi-Automatic Compression Testing Machines have been manufactured for consistent and reliable results on concrete cylinder specimens. These machines are produced in capacities of 600 kN and 1500 kN. Suitable for CE security norms BS 1881, ASTM C39, AASHTO 22 to standards. The machines are controlled by the "CTM 304" software. Tests can be performed by either on CTM 304 Unit or on a computer. Can be done tests on computer with using CTM 304 software. Graphical reporting, graphical output. Low Capacity Automatic Compression Testing Machines are supplied in Class 1 starting from 50 kN. Flatness tolerance 0.02 mm. Traceable certificate of calibration on request.

Testable Specimens

- Concrete Cubes: 100 mm, 150 mm, 200 mm and other custom cube and prism size can be tested with this machine.
- Concrete Cylinder: 100x200 mm, 150x300 mm and other custom diameters cylinder samples or any other custom diameters cylinder samples can be tested with this machine.

Can be done the following tests with this machine.

- 1- Compression strength tests.
- 2- Flexural and splitting tests by using proper accessories.
- 3- Mortar (Cement) compression tests by using proper accessories.
- 4- Core testing.

LS Semi-Automatic Compression Testing Machine

Product Code	CTM-5220	CTM-5221
Capacity	600 kN	1500 kN
Frame Type	Heavy Duty Welded Frame (TMC-3190)	Heavy Duty Welded Frame (TMC-3191)

HS FOUR COLUMN AUTOMATIC COMPRESSION TESTING MACHINES

Product Code

CTM-3224 | 2000 kN Automatic Four Column Compression Testing Machine EN, 220-240 V 50-60 Hz
CTM-3228 | 3000 kN Automatic Four Column Compression Testing Machine EN, 220-240 V 50-60 Hz

Standards

ASTM C39 | EN 12390-3, 12390-4 | BS 1881 | GOCT 10180-2012

HS Four Column Automatic Compression Testing Machines are classification of concrete samples, performed according to characteristic and compressive strength specifications of concrete samples. These characteristic and compressive strength specifications are determined with the done tests results with concrete compression machine.

First, Compression Testing Machines should be carried calibration according to the relevant standards in order to make reliable measurements. Compression machine should be within calibration values class 1 for enables a more reliable test results. Can find follow the RESOTECH compression machine models and technical specifications for the sample specification.

RESOTECH HSF Automatic Compression Testing Machines have been manufactured for consistent testing of concrete cube and cylinder specimens. These machines are produced to between capacity range of 2000 to 3000 kN . Suitable for CE security norms and and ASTM C39, EN 12390-3, 12390-4, BS 1881 to standards.

The HS Four Column Automatic Compression Testing Machines can controlled by the “CTM304” digital readout unit or with computer software. Test results, reporting and graphical print can be done with CTM304 software from computer. RESOTECH compression machine heavy duty welded and four column frame are produced two model as.



The suitable vertical clearance for specimen can be adjusted with distance pieces. RESOTECH all model compression machines calibration values are within class 1 starting from 50 kN. Surface hardness 55HRC, flatness tolerance 0.02 mm.

Can be done the following tests with this machines;

- 1- Compression strength tests.
- 2- Flexural and splitting tests by using proper accessories.

HS FOUR COLUMN AUTOMATI

- Piston;
- Diameter 250 mm Lower Platen (For 2000 kN)
 - Diameter 300 mm Lower Platen (For 3000 kN)
- 5- Automatic Hydraulic Power Pack ;
- Automatic Hydraulic Power Pack, 410 bar (For 2000 kN)
- Testable Specimens
- Concrete Cubes: 100 mm, 150 mm, 200 mm, 250 mm, 300 mm, 400 mm, 500 mm, 600 mm, 700 mm, 800 mm, 900 mm, 1000 mm, 1200 mm, 1500 mm, 2000 mm, 2500 mm, 3000 mm, 4000 mm, 5000 mm, 6000 mm, 7000 mm, 8000 mm, 9000 mm, 10000 mm, 12000 mm, 15000 mm, 20000 mm, 25000 mm, 30000 mm, 40000 mm, 50000 mm, 60000 mm, 70000 mm, 80000 mm, 90000 mm, 100000 mm, 120000 mm, 150000 mm, 200000 mm, 250000 mm, 300000 mm, 400000 mm, 500000 mm, 600000 mm, 700000 mm, 800000 mm, 900000 mm, 1000000 mm, 1200000 mm, 1500000 mm, 2000000 mm, 2500000 mm, 3000000 mm, 4000000 mm, 5000000 mm, 6000000 mm, 7000000 mm, 8000000 mm, 9000000 mm, 10000000 mm, 12000000 mm, 15000000 mm, 20000000 mm, 25000000 mm, 30000000 mm, 40000000 mm, 50000000 mm, 60000000 mm, 70000000 mm, 80000000 mm, 90000000 mm, 100000000 mm, 120000000 mm, 150000000 mm, 200000000 mm, 250000000 mm, 300000000 mm, 400000000 mm, 500000000 mm, 600000000 mm, 700000000 mm, 800000000 mm, 900000000 mm, 1000000000 mm, 1200000000 mm, 1500000000 mm, 2000000000 mm, 2500000000 mm, 3000000000 mm, 4000000000 mm, 5000000000 mm, 6000000000 mm, 7000000000 mm, 8000000000 mm, 9000000000 mm, 10000000000 mm, 12000000000 mm, 15000000000 mm, 20000000000 mm, 25000000000 mm, 30000000000 mm, 40000000000 mm, 50000000000 mm, 60000000000 mm, 70000000000 mm, 80000000000 mm, 90000000000 mm, 100000000000 mm, 120000000000 mm, 150000000000 mm, 200000000000 mm, 250000000000 mm, 300000000000 mm, 400000000000 mm, 500000000000 mm, 600000000000 mm, 700000000000 mm, 800000000000 mm, 900000000000 mm, 1000000000000 mm, 1200000000000 mm, 1500000000000 mm, 2000000000000 mm, 2500000000000 mm, 3000000000000 mm, 4000000000000 mm, 5000000000000 mm, 6000000000000 mm, 7000000000000 mm, 8000000000000 mm, 9000000000000 mm, 10000000000000 mm, 12000000000000 mm, 15000000000000 mm, 20000000000000 mm, 25000000000000 mm, 30000000000000 mm, 40000000000000 mm, 50000000000000 mm, 60000000000000 mm, 70000000000000 mm, 80000000000000 mm, 90000000000000 mm, 100000000000000 mm, 120000000000000 mm, 150000000000000 mm, 200000000000000 mm, 250000000000000 mm, 300000000000000 mm, 400000000000000 mm, 500000000000000 mm, 600000000000000 mm, 700000000000000 mm, 800000000000000 mm, 900000000000000 mm, 1000000000000000 mm, 1200000000000000 mm, 1500000000000000 mm, 2000000000000000 mm, 2500000000000000 mm, 3000000000000000 mm, 4000000000000000 mm, 5000000000000000 mm, 6000000000000000 mm, 7000000000000000 mm, 8000000000000000 mm, 9000000000000000 mm, 10000000000000000 mm, 12000000000000000 mm, 15000000000000000 mm, 20000000000000000 mm, 25000000000000000 mm, 30000000000000000 mm, 40000000000000000 mm, 50000000000000000 mm, 60000000000000000 mm, 70000000000000000 mm, 80000000000000000 mm, 90000000000000000 mm, 100000000000000000 mm, 120000000000000000 mm, 150000000000000000 mm, 200000000000000000 mm, 250000000000000000 mm, 300000000000000000 mm, 400000000000000000 mm, 500000000000000000 mm, 600000000000000000 mm, 700000000000000000 mm, 800000000000000000 mm, 900000000000000000 mm, 1000000000000000000 mm, 1200000000000000000 mm, 1500000000000000000 mm, 2000000000000000000 mm, 2500000000000000000 mm, 3000000000000000000 mm, 4000000000000000000 mm, 5000000000000000000 mm, 6000000000000000000 mm, 7000000000000000000 mm, 8000000000000000000 mm, 9000000000000000000 mm, 10000000000000000000 mm, 12000000000000000000 mm, 15000000000000000000 mm, 20000000000000000000 mm, 25000000000000000000 mm, 30000000000000000000 mm, 40000000000000000000 mm, 50000000000000000000 mm, 60000000000000000000 mm, 70000000000000000000 mm, 80000000000000000000 mm, 90000000000000000000 mm, 100000000000000000000 mm, 120000000000000000000 mm, 150000000000000000000 mm, 200000000000000000000 mm, 250000000000000000000 mm, 300000000000000000000 mm, 400000000000000000000 mm, 500000000000000000000 mm, 600000000000000000000 mm, 700000000000000000000 mm, 800000000000000000000 mm, 900000000000000000000 mm, 1000000000000000000000 mm, 1200000000000000000000 mm, 1500000000000000000000 mm, 2000000000000000000000 mm, 2500000000000000000000 mm, 3000000000000000000000 mm, 4000000000000000000000 mm, 5000000000000000000000 mm, 6000000000000000000000 mm, 7000000000000000000000 mm, 8000000000000000000000 mm, 9000000000000000000000 mm, 10000000000000000000000 mm, 12000000000000000000000 mm, 15000000000000000000000 mm, 20000000000000000000000 mm, 25000000000000000000000 mm, 30000000000000000000000 mm, 40000000000000000000000 mm, 50000000000000000000000 mm, 60000000000000000000000 mm, 70000000000000000000000 mm, 80000000000000000000000 mm, 90000000000000000000000 mm, 100000000000000000000000 mm, 120000000000000000000000 mm, 150000000000000000000000 mm, 200000000000000000000000 mm, 250000000000000000000000 mm, 300000000000000000000000 mm, 400000000000000000000000 mm, 500000000000000000000000 mm, 600000000000000000000000 mm, 700000000000000000000000 mm, 800000000000000000000000 mm, 900000000000000000000000 mm, 1000000000000000000000000 mm, 1200000000000000000000000 mm, 1500000000000000000000000 mm, 2000000000000000000000000 mm, 2500000000000000000000000 mm, 3000000000000000000000000 mm, 4000000000000000000000000 mm, 5000000000000000000000000 mm, 6000000000000000000000000 mm, 7000000000000000000000000 mm, 8000000000000000000000000 mm, 9000000000000000000000000 mm, 10000000000000000000000000 mm, 12000000000000000000000000 mm, 15000000000000000000000000 mm, 20000000000000000000000000 mm, 25000000000000000000000000 mm, 30000000000000000000000000 mm, 40000000000000000000000000 mm, 50000000000000000000000000 mm, 60000000000000000000000000 mm, 70000000000000000000000000 mm, 80000000000000000000000000 mm, 90000000000000000000000000 mm, 100000000000000000000000000 mm, 120000000000000000000000000 mm, 150000000000000000000000000 mm, 200000000000000000000000000 mm, 250000000000000000000000000 mm, 300000000000000000000000000 mm, 400000000000000000000000000 mm, 500000000000000000000000000 mm, 600000000000000000000000000 mm, 700000000000000000000000000 mm, 800000000000000000000000000 mm, 900000000000000000000000000 mm, 1000000000000000000000000000 mm, 1200000000000000000000000000 mm, 1500000000000000000000000000 mm, 2000000000000000000000000000 mm, 2500000000000000000000000000 mm, 3000000000000000000000000000 mm, 4000000000000000000000000000 mm, 5000000000000000000000000000 mm, 6000000000000000000000000000 mm, 7000000000000000000000000000 mm, 8000000000000000000000000000 mm, 9000000000000000000000000000 mm, 10000000000000000000000000000 mm, 12000000000000000000000000000 mm, 15000000000000000000000000000 mm, 20000000000000000000000000000 mm, 25000000000000000000000000000 mm, 30000000000000000000000000000 mm, 40000000000000000000000000000 mm, 50000000000000000000000000000 mm, 60000000000000000000000000000 mm, 70000000000000000000000000000 mm, 80000000000000000000000000000 mm, 90000000000000000000000000000 mm, 100000000000000000000000000000 mm, 120000000000000000000000000000 mm, 150000000000000000000000000000 mm, 200000000000000000000000000000 mm, 250000000000000000000000000000 mm, 300000000000000000000000000000 mm, 400000000000000000000000000000 mm, 500000000000000000000000000000 mm, 600000000000000000000000000000 mm, 700000000000000000000000000000 mm, 800000000000000000000000000000 mm, 900000000000000000000000000000 mm, 1000000000000000000000000000000 mm, 1200000000000000000000000000000 mm, 1500000000000000000000000000000 mm, 2000000000000000000000000000000 mm, 2500000000000000000000000000000 mm, 3000000000000000000000000000000 mm, 4000000000000000000000000000000 mm, 5000000000000000000000000000000 mm, 6000000000000000000000000000000 mm, 7000000000000000000000000000000 mm, 8000000000000000000000000000000 mm, 9000000000000000000000000000000 mm, 10000000000000000000000000000000 mm, 12000000000000000000000000000000 mm, 15000000000000000000000000000000 mm, 20000000000000000000000000000000 mm, 25000000000000000000000000000000 mm, 30000000000000000000000000000000 mm, 40000000000000000000000000000000 mm, 50000000000000000000000000000000 mm, 60000000000000000000000000000000 mm, 70000000000000000000000000000000 mm, 80000000000000000000000000000000 mm, 90000000000000000000000000000000 mm, 100000000000000000000000000000000 mm, 120000000000000000000000000000000 mm, 150000000000000000000000000000000 mm, 200000000000000000000000000000000 mm, 250000000000000000000000000000000 mm, 300000000000000000000000000000000 mm, 400000000000000000000000000000000 mm, 500000000000000000000000000000000 mm, 600000000000000000000000000000000 mm, 700000000000000000000000000000000 mm, 800000000000000000000000000000000 mm, 900000000000000000000000000000000 mm, 1000000000000000000000000000000000 mm, 1200000000000000000000000000000000 mm, 1500000000000000000000000000000000 mm, 2000000000000000000000000000000000 mm, 2500000000000000000000000000000000 mm, 3000000000000000000000000000000000 mm, 4000000000000000000000000000000000 mm, 5000000000000000000000000000000000 mm, 6000000000000000000000000000000000 mm, 7000000000000000000000000000000000 mm, 8000000000000000000000000000000000 mm, 9000000000000000000000000000000000 mm, 10000000000000000000000000000000000 mm, 12000000000000000000000000000000000 mm, 15000000000000000000000000000000000 mm, 20000000000000000000000000000000000 mm, 25000000000000000000000000000000000 mm, 30000000000000000000000000000000000 mm, 40000000000000000000000000000000000 mm, 50000000000000000000000000000000000 mm, 60000000000000000000000000000000000 mm, 70000000000000000000000000000000000 mm, 80000000000000000000000000000000000 mm, 90000000000000000000000000000000000 mm, 100000000000000000000000000000000000 mm, 120000000000000000000000000000000000 mm, 150000000000000000000000000000000000 mm, 200000000000000000000000000000000000 mm, 250000000000000000000000000000000000 mm, 300000000000000000000000000000000000 mm, 400000000000000000000000000000000000 mm, 500000000000000000000000000000000000 mm, 600000000000000000000000000000000000 mm, 700000000000000000000000000000000000 mm, 800000000000000000000000000000000000 mm, 900000000000000000000000000000000000 mm, 1000000000000000000000000000000000000 mm, 1200000000000000000000000000000000000 mm, 1500000000000000000000000000000000000 mm, 2000000000000000000000000000000000000 mm, 2500000000000000000000000000000000000 mm, 3000000000000000000000000000000000000 mm, 4000000000000000000000000000000000000 mm, 5000000000000000000000000000000000000 mm, 6000000000000000000000000000000000000 mm, 7000000000000000000000000000000000000 mm, 8000000000000000000000000000000000000 mm, 9000000000000000000000000000000000000 mm, 10000000000000000000000000000000000000 mm, 12000000000000000000000000000000000000 mm, 15000000000000000000000000000000000000 mm, 20000000000000000000000000000000000000 mm, 25000000000000000000000000000000000000 mm, 30000000000000000000000000000000000000 mm, 40000000000000000000000000000000000000 mm, 50000000000000000000000000000000000000 mm, 60000000000000000000000000000000000000 mm, 70000000000000000000000000000000000000 mm, 80000000000000000000000000000000000000 mm, 90000000000000000000000000000000000000 mm, 100000000000000000000000000000000000000 mm, 120000000000000000000000000000000000000 mm, 150000000000000000000000000000000000000 mm, 200000000000000000000000000000000000000 mm, 250000000000000000000000000000000000000 mm, 300000000000000000000000000000000000000 mm, 400000000000000000000000000000000000000 mm, 500000000000000000000000000000000000000 mm, 600000000000000000000000000000000000000 mm, 700000000000000000000000000000000000000 mm, 800000000000000000000000000000000000000 mm, 900000000000000000000000000000000000000 mm, 1000000000000000000000000000000000000000 mm, 1200000000000000000000000000000000000000 mm, 1500000000000000000000000000000000000000 mm, 2000000000000000000000000000000000000000 mm, 2500000000000000000000000000000000000000 mm, 3000000000000000000000000000000000000000 mm, 4000000000000000000000000000000000000000 mm, 5000000000000000000000000000000000000000 mm, 6000000000000000000000000000000000000000 mm, 7000000000000000000000000000000000000000 mm, 8000000000000000000000000000000000000000 mm, 9000000000000000000000000000000000000000 mm, 100 mm, 12000000000000000000000000000000000000000 mm, 15000000000000000000000000000000000000000 mm, 200000

HS WELDED FRAME AUTOMATIC COMPRESSION TEST MACHINES

Product Code

- CTM-3222 | 2000 kN Capacity Automatic Compression Testing Machine EN Standards - 220-240 V 50-60 Hz
- CTM-5222 | 2000 kN Capacity Automatic Compression Testing Machine ASTM Standards - 220-240 V 50-60 Hz
- CTM-5222/110 | 2000 kN Capacity Automatic Compression Testing Machine ASTM Standards - 110 V 60 Hz
- CTM-3226 | 3000 kN Capacity Automatic Compression Testing Machine EN Standards - 220-240 V 50-60 Hz
- CTM-5226 | 3000 kN Capacity Automatic Compression Testing Machine ASTM Standards - 220-240 V 50-60 Hz
- CTM-5226/110 | 3000 kN Capacity Automatic Compression Testing Machine ASTM Standards - 110 V 60 Hz

Standards

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

Description

The RESOTECH HS Automatic Compression Testing Machines Compressivestrength or compression strength is the capacity of a material or structure to withstand loads tending to reduce size, as opposed to tensile strength, which withstands loads tending to elongate. Compressive strength is usu- aly measured on a compression testing machine; These systems range from to ones with over 2000 kN to 3000 kN capacity. Measurements of compressive strength are affected by the specific test method and condi- tions of measurement. Compressive strengths are usually reported in rela- tionship to a specific international standard. The Testmak HS series Automatic Compression Testing Machines are de- sign to test the compression strength of concrete cube and cylinder speci- mens of different sizes. The rigid design provides stability and strength for a better using experience. Automatic compression machines with an LCD control unit that displays the data graphically of each test with the ability to save and recall the results of the tested specimens.

Automatic mode or manual mode in which the user gets the ability to adjust the load rate and period manually are available. Suitable for CE security norms and compression machines are supplied in Class 1 starting from 50 kN. The upper seating adjusts itself to apply homogeneous loading on the sample. Upper and lower platens in accordance with international specific



3- Lower Platen;
Lower Platen Diameter 165 (For ASTM Standards)

HS WELDED FRAME AUTOMATIC

LCD Data Acquisition Control System
The Data Acquisition Control provides real-time ically determines the load rate in accordance w upon sample type. With the STOP and START cally stop or start.
LCD Data Acquisition Control System has differer / lbf). Can do Automatic Load Rate upon Sample area are given. and has real time graph indicati Test is completed. Test results can be send pr the thermal printer. Can do calibration easily fro available. Computer and printer are not included Software
The tests and calibration can be done and moni necting it to the machine. LCD Control unit can o port to the machine. Using the state-of-the-art sof with the machine will help performing and man and fast way. By performing the tests via comp and recalled when required. Reports can be ge software and sent to printer.

Product Code	CTM-3
Standards	EN
Capacity	2000
Frame Type	Welded Frame (
Sample	100,150,1 cylinders - 10 mm cu

HSB AUTOMATIC BLOCK COMPRESSION TEST MACHINES

Product Code

CTM-5232 | 2000 kN Automatic Block Compression Testing Machine, 220-240 V 50-60 Hz
CTM-5232/110 | 2000 kN Automatic Block Compression Testing Machine, 110 V 60 Hz
CTM-5234 | 3000 kN Automatic Block Compression Testing Machine, 220-240 V 50-60 Hz - 220-240 V 50-60 Hz
CTM-5234/110 | 3000 kN Automatic Block Compression Testing Machine, 110 V 60 Hz

Standards

ASTM E447 | EN 772-1 | BS 6073 | UNE 83304 | BS 1610 | NF P18-411 |
UNI 6686 Part 1 and 2 | ASTM C39 | AASHTO T22

Description

The RESOTECH HSB series Automatic Block Compression Testing Machines are to test block specimens maximum 500x300 mm, cubes up to 300 mm side and cylinders up to diameter 160x320 mm. Exceeding of the ASTM E447, ASTM C39 standard provisions (starts with the 10% of the machine capacity), the CTM-5232 and CTM-5234 are supplied in Class 1 starting from 50 kN. This exceptional performance enables the machines to be used for a considerable number of applications including:

HSB Automatic Block Compression Testing Machines supplied complete with following accessories;

- 1- Spacer Discs;
 - Diameter 165 mm x Height 90 mm spacer disc 1 piece
 - Diameter 165 mm x Height 50 mm spacer disc 1 piece
 - Diameter 165 mm x Height 30 mm spacer disc 2 piece
- 2- Upper Platen;
 - Upper Platen 310x500x38 mm (with ball seating assembly)
- 3- Lower Platen;
 - Lower Platen 310x500x38 mm
- 4- Piston;
 - Piston Diameter 250 mm (For 2000 kN Capacity Models)
 - Piston Diameter 300 mm (For 3000 kN Capacity Models)
- 5- Automatic Hydraulic Power Pack ;

Software

The tests and calibration can be done and monitored with a computer by connecting it to the machine. LCD Control unit can connecting with RS232 or USB port to the machine. Using the state-of-the-art software provided by RESOTECH with the machine will help performing and managing the tests in a very easy and fast way. By performing the tests via computer, the results can be saved and recalled when required. Reports can be generated automatically by the software and sent to printer.

Product Code	CTM-5232	CTM-5234
Capacity	2000 kN	3000 kN

HS SEMI - AUTOMATIC COMPRESSION TEST MACHINES

Product Code

CTM-3229 | 2000 kN Semi-Automatic Compression Testing Machine, 220-240 V 50-60 Hz
CTM-5229 | 2000 kN Semi-Automatic Compression Testing Machine, 110 V 60 Hz
CTM-5229/110 | 2000 kN Semi-Automatic Compression Testing Machine, 110 V 60 Hz
CTM-3230 | 3000 kN Semi-Automatic Compression Testing Machine, 220-240 V 50-60 Hz
CTM-5230 | 3000 kN Semi-Automatic Compression Testing Machine, 110 V 60 Hz
CTM-5230/110 | 3000 kN Semi-Automatic Compression Testing Machine, 110 V 60 Hz

Standards

ASTM C39 | AASHTO T22 | ISO EN 7500 | EN 12506

Description

The RESOTECH HS series Semi-Automatic Compression Testing Machines are to test block specimens. These machines are produced to comply with the requirements of standards 1881, ASTM C39, AASHTO 22 to standards. They are used for testing concrete surface hardness 55HRC, flatness tolerance 0.1 mm/m. These machines consist of a heavy duty welded frame. The following tests can be done with this machine:
1- Compression strength tests.
2- Flexural and splitting tests by using proper fixtures.
3- Mortar (Cement) compression tests by using proper fixtures.
4- Core testing.



HS SEMI - AUTOMATIC COMPRESSION TEST MACHINES

Testable Specimens

- Concrete Cubes: 100 mm, 150 mm, 200 mm concrete cube sample or any other custom cube and prism size can be tested with this machine.
- Concrete Cylinder: 100x200 mm, 150x300 mm, 160x320 mm concrete cylinder samples or any other custom diameters cylinder can be tested with this machine.

HSW Semi-Automatic Compression Testing Machines supplied complete with following accessories;

1- Spacer Discs;

For ASTM Standards;

- Diameter 165 mm x Height 90 mm spacer disc 1 piece
- Diameter 165 mm x Height 50 mm spacer disc 1 piece
- Diameter 165 mm x Height 30 mm spacer disc 2 piece

For EN Standards;

- Diameter 205 mm x Height 90 mm spacer disc 1 piece
- Diameter 205 mm x Height 50 mm spacer disc 1 piece
- Diameter 205 mm x Height 30 mm spacer disc 1 piece

2- Upper Platen;

- Diameter 165 mm (with ball seating assembly) (For ASTM Standards)
- Diameter 300 mm (with ball seating assembly) (For EN Standards)

3- Lower Platen;

- Diameter 165 mm Lower Platen (For ASTM Standards)
- Diameter 300 mm Lower Platen (For EN Standards)

4- Piston;

- Diameter 250 mm Lower Platen (For 2000 kN Capacity Models)
- Diameter 300 mm Lower Platen (For 3000 kN Capacity Models)

5- Semi-Automatic Hydraulic Power Pack ;

- Semi-Automatic Hydraulic Power Pack, 410 bar (For All Models)

Safety Features

- Maximum pressure valves to avoid machine overloading
- Piston travel limit switch

AUTOMATIC FLEXURAL TESTING

Product Code

- CTM-5240 | 200 kN Automatic Flexural Test
- CTM-5240 /110 | 200 kN Automatic Flexural Test
- CTM-5242 | 300 kN Automatic Flexural Test
- CTM-5242 /110 | 300 kN Automatic Flexural Test
- CTM-5244 | 600 kN Automatic Flexural Test
- CTM-5244 /110 | 600 kN Automatic Flexural Test

Standards

TS EN 1390-5 | ASTM C78, 293 | AASHTO T97

Description

The Automatic Flexural Testing Machines are ran consistent testing of flexural test on standard concrete splitting test of concrete paving blocks. These flexural technologies to conform to the latest standards European technical properties taking into account client requirements. Tests can be performed by either on CTM300 Universal software, such as reporting, graphical output, etc. Press the START button on the control unit. The machine automatically starts the rapid approach to failure. Automatically saves the test parameters. The RESOTECH range of Flexural Machines have been developed separately.

Product Code	CTM-3229	CTM-3230	CTM-5229	CTM-5230
Standards	EN	EN	ASTM	ASTM
Capacity	2000 kN	3000 kN	2000 kN	3000 kN
Frame Type	Welded Frame (TMC-3192)	Welded Frame (TMC-3194)	Welded Frame (TMC-3193)	Welded Frame (TMC-3195)
Sample	100,150,160 mm cylinders - 100, 150, 200 mm cubes	100,150,160 mm cylinders - 100, 150, 200 mm cubes	4" , 6" dia. cylinders 100 mm cubes	4" , 6" dia. cylinders 100 mm cubes
Upper Platens Dim.	Ø 300 mm	Ø 300 mm	Ø 165 mm	Ø 165 mm
Lower Platens Dim.	Ø 300 mm	Ø 300 mm	Ø 165 mm	Ø 165 mm
Max. Vertical Clearance	240 mm	240 mm	270 mm	270 mm

LOAD MEASUREMENT SYSTEM

The oil pressure in the main cylinder is also transferred to an electronic pressure transducer which gives proportionate signal to electronic unit. Both the motors for hydraulic operation and cross head motion are controlled by buttons on electronic control system and they have interlocked to prevent simultaneous working of motors. The electrical panel is housed in control

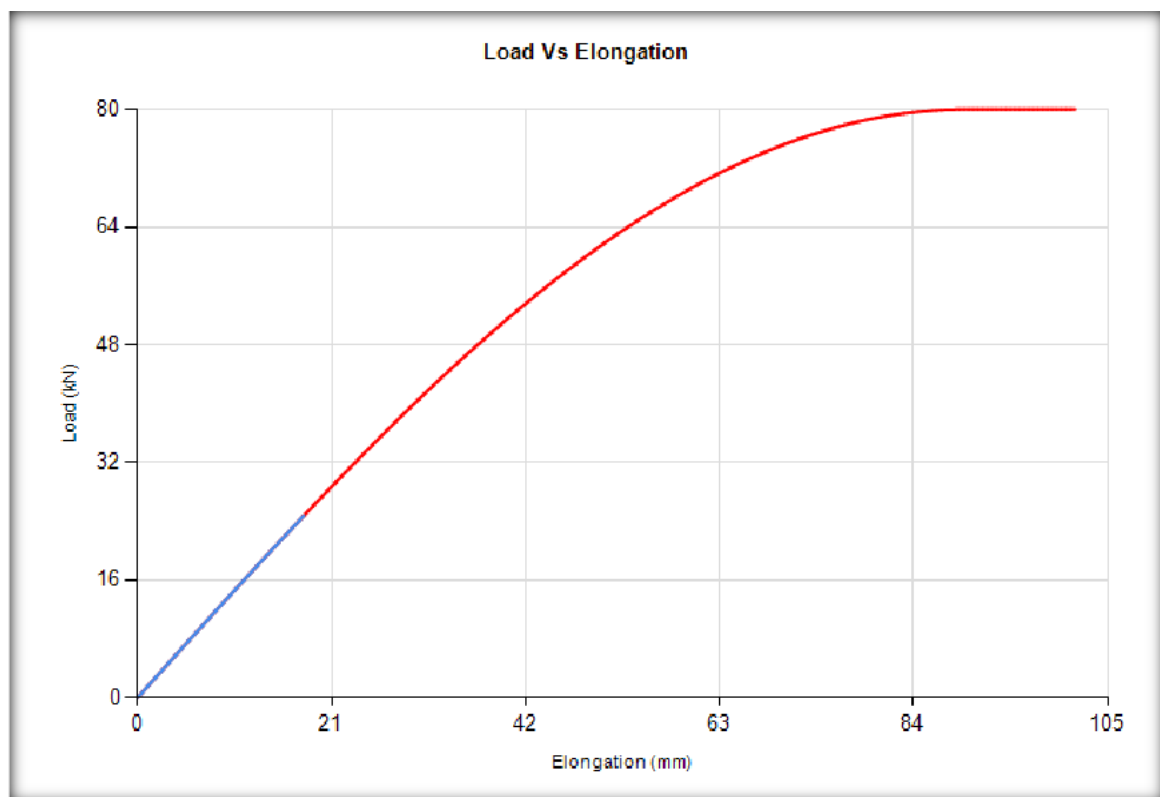
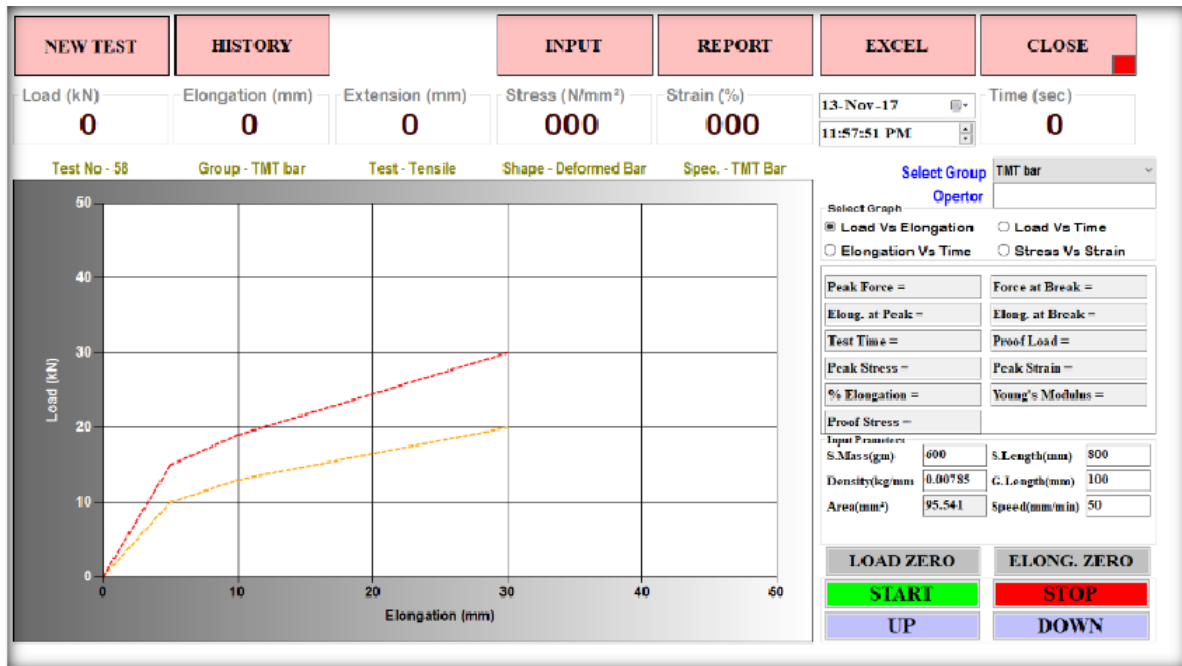
panel. Displacement measurement is carried out by means of a rack and pinion on rotary encoder. Encoder signal is fed to electronic system to get displacement.

OPERATION

Tension test is conducted by gripping the test specimen in the upper and middle cross head. Compression, Bending, Transverse, Shear and Hardness tests are conducted between the middle and lower cross head by using appropriate fixtures. The rapid adjustment of middle crosshead facilitates easy fixing of Compression specimens of different lengths.

Hydraulic controls are through hand operated valve, ergonomically placed for ease of control. Optionally valves can be controlled from electronic control system. Adequate safeties for over load and over travel are incorporated and emergency switch is provided.






SOFTWARE TEST SCREEN

NEW TEST		HISTORY		INPUT		REPORT		EXCEL		CLOSE	
Load (kN)	Elongation (mm)	Extension (mm)	Stress (N/mm ²)	Strain (%)	13-Nov-17	Time (sec)					
0	0	0	000	000	11:57:51 PM	0					
Test No - 58	Group - TMT bar	Test - Tensile	Shape - Deformed Bar	Spec. - TMT Bar	Select Group		TMT bar				
					Operator						
<div style="text-align: center;"></div>					Select Graph						
					<input checked="" type="radio"/> Load Vs Elongation		<input type="radio"/> Load Vs Time				
					<input type="radio"/> Elongation Vs Time		<input type="radio"/> Stress Vs Strain				
					Peak Force =		Force at Break =				
					Elong. at Peak =		Elong. at Break =				
					Test Time =		Proof Load =				
					Peak Stress =		Peak Strain =				
					% Elongation =		Young's Modulus =				
					Proof Stress =						
					Input Parameters						
S.Mass(gm)	600	S.Length(mm)	800								
Density(kg/mm)	0.00785	G.Length(mm)	100								
Area(mm ²)	95.541	Speed(mm/min)	50								
LOAD ZERO		ELONG. ZERO									
START		STOP									
UP		DOWN									

NEW TEST

New Test - Old Test data and graph get cleared and ready for new test.
User has to select the group in which he want to do testing.
When user select a group all settings get loaded.

NEW TEST	HISTORY	INPUT	REPORT	EXCEL	CLOSE
Load (kN) 0	Elongation (mm) 0	Extension (mm) 0	Stress (N/mm ²) 000	Strain (%) 000	13-Nov-17 11:57:51 PM Time (sec) 0
Test No - 58	Group - TMT bar	Test - Tensile	Shape - Deformed Bar	Spec. - TMT Bar	Select Group TMT bar
					Select Graph <input checked="" type="radio"/> Load Vs Elongation <input type="radio"/> Load Vs Time <input type="radio"/> Elongation Vs Time <input type="radio"/> Stress Vs Strain
					Peak Force = Elong. at Peak = Test Time = Peak Stress = % Elongation = Proof Stress =
Input Parameters					
S.Mass(gm)	600	S.Length(mm)	800		
Density(kg/mm)	0.00785	G.Length(mm)	100		
Area(mm ²)	95.541	Speed(mm/min)	50		
LOAD ZERO			ELONG. ZERO		
START			STOP		

HISTORY

Here user can see all previous test and take print out from here.

GROUP

TEST DATE FROM

TEST DATE TO

TMT bar

13-Nov-17

14-Nov-17

SELECT RANGE CLICK

Load Vs Elor

		Sl. No.	Test No	Operator	Test Date	Peak Force	Force at Break	Elong. at Peak	Elong. at Break	Test Time	Proof Load
▶	✖	1	57		13-Nov-17 6:45:14 PM	24.721	24.056	18	17.5	7.1	0
	✖	2	56		13-Nov-17 6:39:48 PM	80	80	90	91.5	37.1	76.5
	✖	3	55		13-Nov-17 6:06:48 PM	80	80	90	162.5	66.1	76.5
	✖	4	54		13-Nov-17 5:58:41 PM	79.562	79.486	84	83.5	33.8	76.5
	✖	5	53		13-Nov-17 5:51:25 PM	80	80	90	110	44.7	76.5
	✖	6	52		13-Nov-17 5:46:20 PM	80	80	90	96	38.9	0
	✖	7	51		13-Nov-17 5:13:27 PM	65.129	64.721	54.5	54	0	0
	✖	8	50		13-Nov-17 4:42:27 PM	80	80	90	126.5	51.3	0
	✖	9	49		13-Nov-17 4:38:39 PM	80	80	90	159	138.1	0
	✖	10	48		13-Nov-17 4:29:50 PM	80	80	90	120.5	48.9	0
	✖	11	47		13-Nov-17 3:30:50 PM	80	80	90	195	0	0
	✖	12	46		13-Nov-17 2:52:45 PM	80	80	90	100.5	0	0
	✖	13	45		13-Nov-17 2:49:15 PM	80	80	90	99	0	0
	✖	14	44		13-Nov-17 2:46:06 PM	80	80	90	98	0	0
	✖	15	43		13-Nov-17 1:27:22 PM	11.212	8.09	7.6	8.2	0	0
	✖	16	42		13-Nov-17 1:17:35 PM	11.421	5.041	8.7	9.3	0	0
	✖	17	41		13-Nov-17 1:07:40 PM	9.929	9.114	5.8	5.9	0	0
	✖	18	40		13-Nov-17 12:57:01 PM	6.578	3.248	6	6.4	0	0

<

PRINT

INPUT

INPUT

All input settings are set here. Test Unit, Result Unit, Break Checking, Set Load, and Set Disp., whether to use extensometer or not, if proof load required set percentage for proof load, Test Direction and all other input parameters like test type, specimen shape etc. Graph

Inputs		Test Unit : kN		Select Control Type	
Group :	TMT bar	ADD GROUP	Result Unit : N/mm ²	<input checked="" type="checkbox"/> Check Break	Break Percent 50
TEST NAME :	Tensile			<input type="checkbox"/> Load Control	
SPECIMEN :	TMT Bar			<input type="checkbox"/> Disp Control	
SPC SHAPE :	Deformed Bar			<input type="checkbox"/> Auto Home	<input type="checkbox"/> Manual Entry Of Final Length
Report No.	300			<input checked="" type="checkbox"/> Use Extensometer	P.Load % 0.2
Ref. Std.	rod			TEST DIR	DOWN
Docket No.	bss			QUALITY	Graph ENTER
Test Sample	Rod			Select Graph	
Material	Iron			<input checked="" type="checkbox"/> Load Vs Elongation	

REPORT

After each testing the report will be auto generated and saved into specified folder. User can generate a report directly from the testing window and from history. range settings also

COMPANY NAME

Address

Contact number

COMPONENT CERTIFICATION
LAB

TEST REPORT

Test Report No.: 300

Test Date: 14-Dec-17
12:03:02 AM

TEST
PARAMETERS

1. Reference Standard :

2. Docket No. :

3. Test Speed (mm/min) :

4. Test Sample :

5. Material :

6. Title of Test :

7. Sample ID No. :

8. Area (mm²) :

ROD

Bss

50

SAMPLE ROD

MILD STEEL

TENSILE

J5216

Load Vs Elongation

Load (N)

80

64

48

32

16

0

16

32

48

64

80

0

16

32

48

64

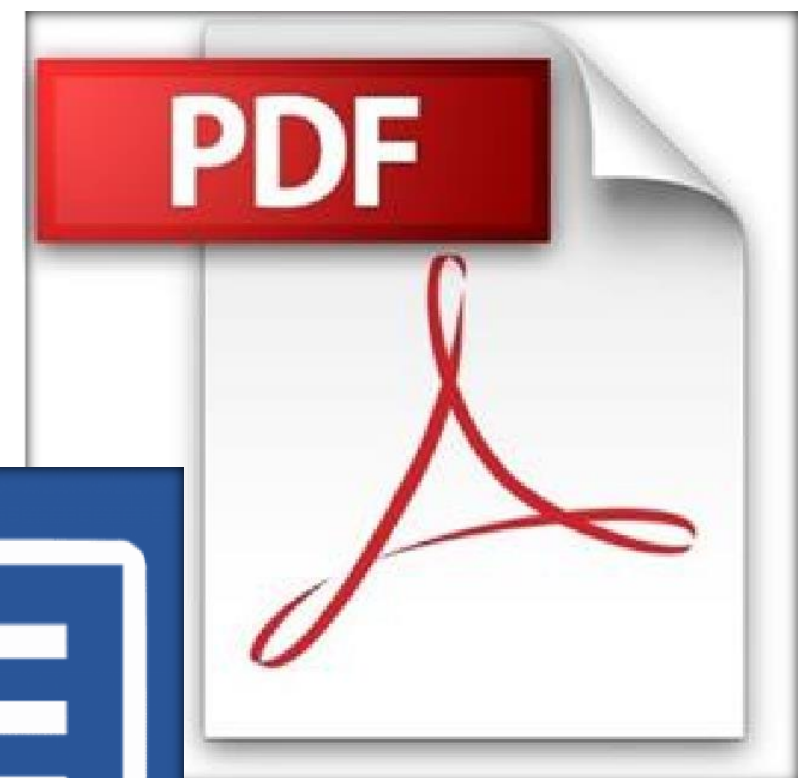
80

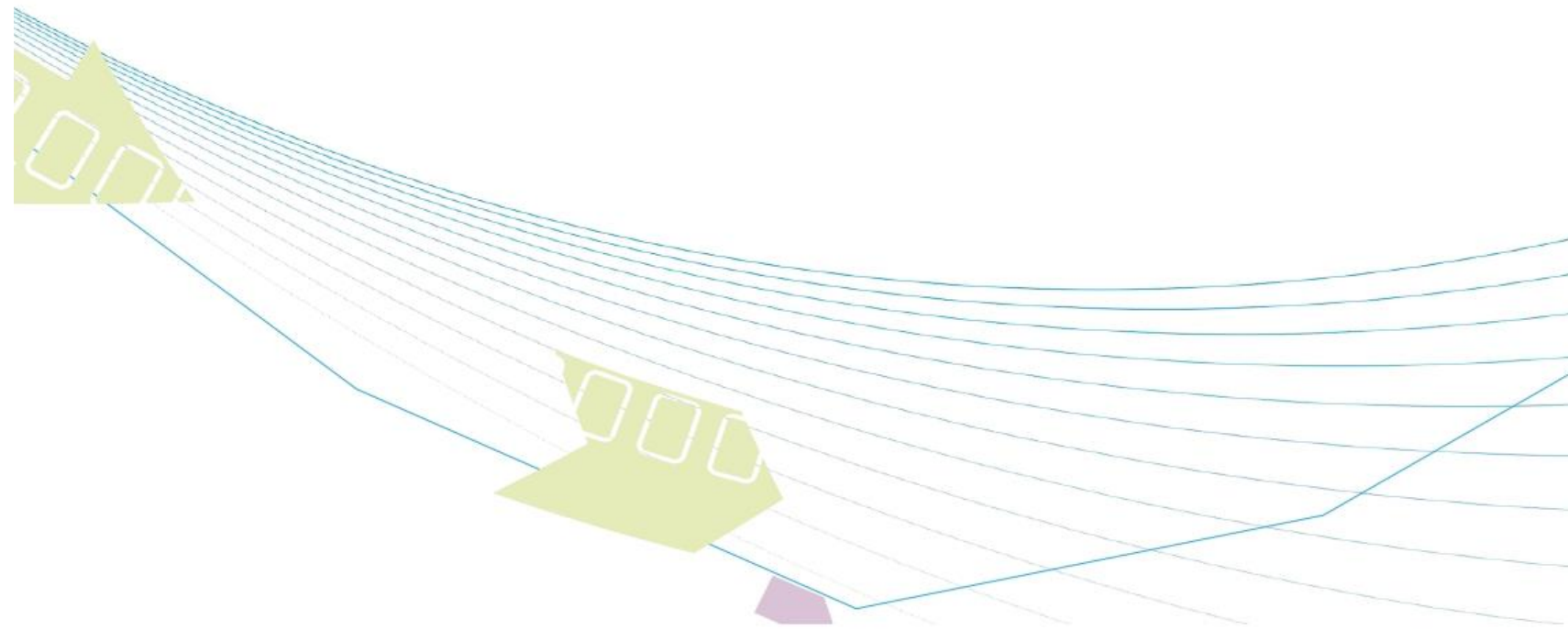
FORMATE

User save raw test data into excel file using this option.

TEST REPORT FORMAT

EXCEL ,PDF, WORD.





OUR NETWORK ALL OVER INDIA



*at
your service
anytime
anywhere*



RESONANCE AUTOMATION AND MACHINES



Regd. Office Address: - Plot No. 1131 Hari Enclave Kirari Suleman Nagar New Delhi-110086

Plant Address: - H1/936 RICCO Industrial Area Chopanki bhiwadi Rajasthan - 301019





आरोग्यम् सुख सम्पदा



Indian Institute of
Chemical Biology

a unit of C.S.I.R.





Napino Auto & Electronics Ltd.

Cutwell Abrasives Pvt Ltd
ISO 9001 - Certified Superior in Performance



Continental
The Future in Motion

Genus
energizing lives

talbro
Automotive Components

SOMIC ZF
SOMIC ZF Components Pvt. Ltd.

RICO
RICO AUTO INDUSTRIES LIMITED



JBM Group
Our milestones are touchstones



senior
Flexonics

Napino

