

# COMPRESSION TESTING MACHINES



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COMPRESSION MACHINE FRAMES

Product Code

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

Standards

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



TMC-3190



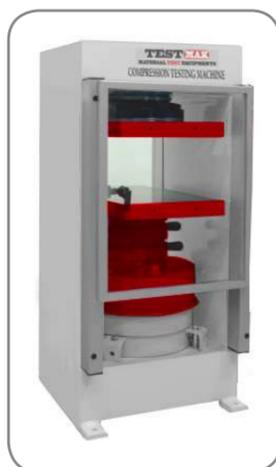
TMC-3193



TMC-3192



TMC-3194



TMC-3195



TMC-3196

Description

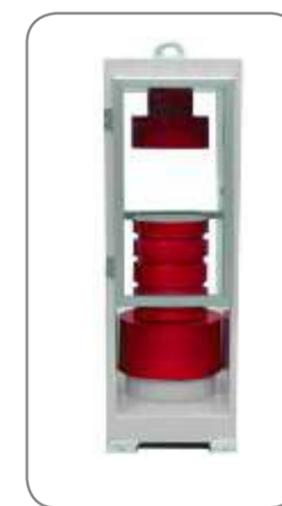
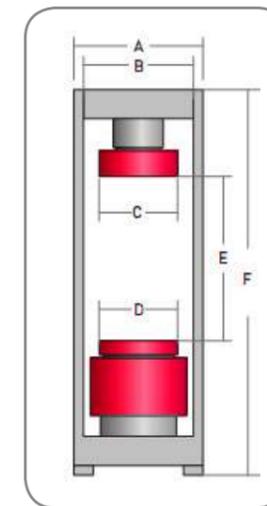
The load frame provides the stability needed for accurate and repeatable test results over the years of operation.

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	TMC-3190	TMC-3191
Capacity	600 kN	1500 kN
Frame Type	Welded Steel	Welded Steel
Maximum Vertical Clearance ( E )	340 mm	370 mm
Horizontal Clearance ( B )	230 mm	320 mm
Upper Platens With Ball Seating Assembly Dimensions ( C )	Ø 165 mm	Ø216mm
Lower Platens Dimensions ( D )	Ø 165 mm	Ø216mm
Piston Diameter	160 mm	250 mm
Piston Stroke	50 mm	50 mm
Dimensions (w×l×h)	290x500x950 mm	390x500x980 mm
Weight	340 kg	550 kg



TMC-3190 Supplied complete with;

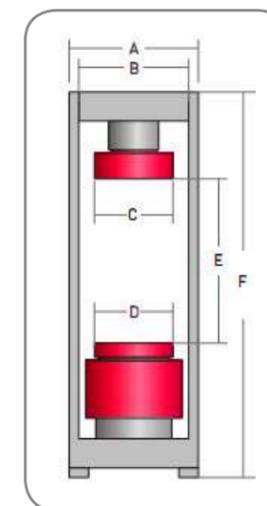
- 1 pcs 90x165 mm dia. distance pieces
- 1 pcs 50x165 mm dia. distance pieces
- 1 pcs 30x165 mm dia. distance pieces

TMC-3191 Supplied complete with;

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

HIGH CAPACITY ASTM FRAMES

Product Code	TMC-3193	TMC-3195
Capacity	2000 kN	3000 kN
Frame Type	Welded Steel	Welded Steel
Maximum Vertical Clearance ( E )	370 mm	370 mm
Horizontal Clearance ( B )	360 mm	425 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	250 mm	300 mm
Piston Stroke	50 mm	50 mm
Dimensions (w×l×h)	440x500x980 mm	500x550x1100 mm
Weight	700 kg	950 kg



TMC-3193 Supplied complete with;

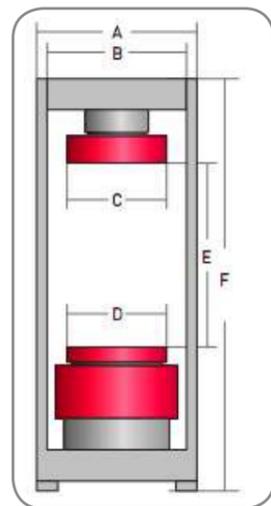
- 1 pcs 90x165 mm dia. distance pieces
- 1 pcs 50x165 mm dia. distance pieces
- 2 pcs 30x165 mm dia. distance pieces

TMC-3195 Supplied complete with;

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

HIGH CAPACITY EN FRAMES

Product Code	TMC-3192	TMC-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 (w $\times$ l $\times$ h)	440x500x980 mm	500x550x1100 mm
Weight	720 kg	970 kg



TMC-3192 Supplied complete with;

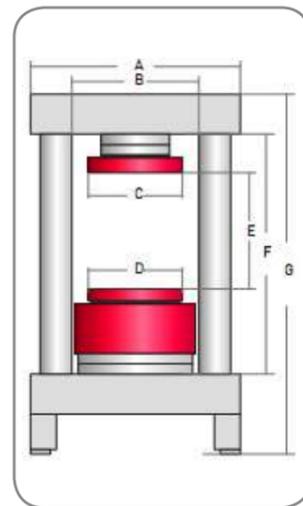
- 1 pcs 90x205 mm dia. distance pieces
- 1 pcs 50x205 mm dia. distance pieces
- 1 pcs 30x205 mm dia. distance pieces

TMC-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	TMC-3196	TMC-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 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 (w $\times$ l $\times$ h)	610x640x1150 mm	710x650x1200 mm
Weight	900 kg	1350 kg



TMC-3196 Supplied complete with;

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

TMC-3197 Supplied complete with;

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

UPPER AND LOWER PLATENS

Product Code

- TMC-3211-01 | Upper Platen (with ball seating assembly) Ø 165 mm, Lower Platen Ø 165 mm
- TMC-3212-01 | Upper Platen (with ball seating assembly) Ø 216 mm, Lower Platen Ø 216 mm
- TMC-3213-01 | Upper Platen (with ball seating assembly) Ø 300 mm, Lower Platen Ø 300 mm
- TMC-3214-01 | Upper Platen (with ball seating assembly) 310x500x38 mm, Lower Platen 310x500x38 mm
- TMC-3215-01 | Upper Platen (with ball seating assembly) 310x410x90 mm, Lower Platen 310x410x90 mm

Description

The platens enable the testing of a wide variety of cylinder, cube blocks or similar samples. Produced from high quality steel, which is then hardened. Surface hardness 55HRC, flatness tolerance 0.02 mm. Traceable certificate of surface hardness available on request. Have centering rings on the lower platens for proper centering of 100 mm and 150 mm cube, 100 mm and 150 mm cylinder samples.



TMC-3211-01



TMC-3212-01



TMC-3213-01



TMC-3214-01

Product Code	TMC-3211-01	TMC-3212-01	TMC-3213-01	TMC-3214-01
Description	Upper Platen (with ball seating assembly) Ø 165 mm, Lower Platen Ø 165 mm	Upper Platen (with ball seating assembly) Ø 216 mm, Lower Platen Ø 216 mm	Upper Platen (with ball seating assembly) Ø 300 mm, Lower Platen Ø 300 mm	Upper Platen (with ball seating assembly) 310x500x38 mm, Lower Platen 310x500x38 mm
Sample	4", 6" dia. cylinders 100 mm cubes	6" dia. cylinders 100, 150 mm cubes	100, 150, 160 mm cylinders - 100, 150, 200 mm cubes	Blocks up to 310x500 mm
Used with Frames	TMC-3190, TMC-3191, TMC-3192, TMC-3193, TMC-3194, TMC-3195, TMC-3196, TMC-3197	TMC-3191, TMC-3192, TMC-3193, TMC-3194, TMC-3195, TMC-3196, TMC-3197	TMC-3192, TMC-3194, TMC-3196, TMC-3197	TMC-3191, TMC-3192, TMC-3193, TMC-3194, TMC-3195, TMC-3196, TMC-3197
Standards	ASTM C39	ASTM C39 and EN 12390-4	EN 12390-4	EN 772-1
Hardness	≥ 55 HRC	≥ 55 HRC	≥ 53 HRC	≥ 600 HV
Dimensions	170x170x145 mm	220x220x145 mm	310x310x175 mm	320x510x175 mm
Weight	21 kg	38 kg	78 kg	135 kg

DISTANCE PIECES

Product Code

- TMC-3217-01 | Distance Pieces, Ø 205x30 mm
- TMC-3217-02 | Distance Pieces, Ø 205x50 mm
- TMC-3217-03 | Distance Pieces, Ø 205x90 mm
- TMC-3216-01 | Distance Pieces, Ø 165x15 mm
- TMC-3216-02 | Distance Pieces, Ø 165x30 mm
- TMC-3216-03 | Distance Pieces, Ø 165x50 mm
- TMC-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
TCM-3217-1	Ø 205x h 30 mm	9 kg
TCM-3217-2	Ø 205x h 50 mm	14 kg
TCM-3217-3	Ø 205x h 90 mm	21 kg

P.Code	Dimensions	Weight
TCM-3216-1	Ø 165x h 15 mm	2,5 kg
TCM-3216-2	Ø 165x h 30 mm	5 kg
TCM-3216-3	Ø 165x h 50 mm	8 kg
TCM-3216-4	Ø 165x h 90 mm	14 kg

READOUT UNIT



Description

Hardware

TCM304 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

TCM 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 standards respect to specimen size. Graphical outputs and reports can be saved as a MS Excel worksheet

MAIN FEATURES

- Automatically calculates flow and stability values
- 240\*120 pixel blue-white graphic LCD display.
- High resolution 65.000 points.
- Backlight function.
- Capability of contrast calibration by light.
- 21 key touch membrane keyboard.
- Two analogical and two digital channels, use for load cell or pressure transducer etc.
- Standalone full automatic testing capacity.
- Can make manual tests if requested.
- A sample type and dimension can be entered respect to the standards,
- Load-Time, Tensile-Time, Test Results and Sample reports observable and printable.
- One RS232 serial port for connecting either PC or printer for data transmission.
- Comes with Connection cable and software.
- Large permanent memory up to 256 test results.
- Language select, English – Turkish.

LS AUTOMATIC COMPRESSION TESTING MACHINES

Product Code

- TMC-5220 | 600 kN Automatic Compression Testing Machine, 220-240 V 50-60 Hz
- TMC-5220/110 | 600 kN Automatic Compression Testing Machine, 110 V 60 Hz
- TMC-5221 | 1500 kN LS Automatic Compression Testing Machine, 220-240 V 50-60 Hz
- TMC-5221/110 | 1500 kN LS Automatic Compression Testing Machine - 110 V 60 Hz

Standards

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



Description

The Testmak LS series Low Strength Automatic Compression Testing Machines have been manufactured for consistent testing of concrete cube and cylinder specimens. These machines are produced to capacity range of 600 kN and 1500 kN. Suitable for CE security norms and EN 12390-3, 12390-4, BS 1881, ASTM C39, AASHTO 22 to standards. These compression test machines are controlled by the "TCM 304" software with computer. Tests can be performed by either on TCM 304 Unit or on a computer with using free software. Can be done tests on computer with using TCM 304 software and such as reporting, graphical output. Low Capacity Automatic Compression Testing Machines are supplied in Class 1 starting from 50 kN. Surface hardness 55HRC, flatness tolerance 0.02 mm. Traceable certificate of surface hardness available on request.

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.

Can be done the following tests with this machines;

- 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 Automatic Compression Testing Machines supplied complete with following accessories;

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;
  - 4- Piston;
  - 5- Automatic Hydraulic Power Pack ;
- 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 TESTMAK 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	TMC-5220	TMC-5221
Capacity	600 kN	1500 kN
Frame Type	Heavy Duty Welded Frame( TMC-3190)	Heavy Duty Welded Frame ( TMC-3191)
Sample	4" , 6" dia. cylinders 100 mm cubes	6" dia. cylinders 100, 150 mm cubes
Upper Platens Dim.	Ø 165 mm	Ø 165 mm
Lower Platens Dim.	Ø 165 mm	Ø 165 mm
Max. Vertical Clearance	340 mm	370 mm
Max. Horizontal Clearance	230 mm	320 mm
Piston Diameter	160 mm	200 mm
Max. Piston Movement	50 mm	50 mm
Max. Working Pressure	315 Bar	355 Bar
Oil Capacity	18 Liters	18 Liters
Power	1100 W	1100 W
Dimensions	650x500x1250 mm	750x540x1300 mm
Weight	510 kg	700 kg

LS SEMI-AUTOMATIC COMPRESSION TESTING MACHINES

Product Code

- TMC-5218 | 600 kN Semi-Automatic Compression Testing Machine, 220-240 V 50-60 Hz
- TMC-5218/110 | 600 kN Semi-Automatic Compression Testing Machine, 110 V 60 Hz
- TMC-5219 | 1500 kN LS Semi-Automatic Compression Testing Machine, 220-240 V 50-60 Hz
- TMC-5219/110 | 1500 kN LS Semi-Automatic Compression Testing Machine - 110 V 60 Hz

Standards

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

Description

The Testmak LS series Low Strength Semi-Automatic Compression Testing Machines have been manufactured for consistent testing of concrete cube and cylinder specimens. These machines are produced to capacity range of 600 kN and 1500 kN. Suitable for CE security norms and EN 12390-3, 12390- 4, BS 1881, ASTM C39, AASHTO 22 to standards. These compression test machines are controlled by the "TCM 304" software with computer. Tests can be performed by either on TCM 304 Unit or on a computer with using free software. Can be done tests on computer with using TCM 304 software and such as reporting, graphical output. Low Capacity Automatic Compression Testing Machines are supplied in Class 1 starting from 50 kN. Surface hardness 55HRC, flatness tolerance 0.02 mm. Traceable certificate of surface hardness available on request.

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.

Can be done the following tests with this machines;

- 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 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;
- 3- Lower Platen;
- 4- Piston;
- 5- Semi-Automatic Hydraulic Power Pack ;

Safety Features

- Maximum pressure valves to avoid machine overloading
- Piston travel limit switch
- Front and rear transparent durable plexiglas guards



Product Code	TMC-5218	TMC-5219
Standards	ASTM C39	ASTM C39
Capacity	600 kN	1500 kN
Sample	4" , 6" dia. cylinders 100 mm cubes	6" dia. cylinders 100, 150 mm cubes
Upper Platens Dim.	Ø 165 mm	Ø 165 mm
Lower Platens Dim.	Ø 165 mm	Ø 165 mm
Max. Vertical Clearance	340 mm	370 mm
Max. Horizontal Clearance	230 mm	320 mm
Piston Diameter	160 mm	200 mm
Max. Piston Movement	50 mm	50 mm
Max. Working Pressure	315 Bar	355 Bar
Oil Capacity	18 Liters	18 Liters
Power	750 W	750 W
Dimensions	650x500x1250 mm	750x540x1300 mm
Weight	490 kg	680 kg

HS FOUR COLUMN AUTOMATIC COMPRESSION TESTING MACHINES

Product Code

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

TMC-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 to 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 Testmak concrete compression machine models and technical specifications for the sample specification.

Testmak 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 "TCM304" digital readout unit or with computer software. Test results, reporting and graphical print can be done with TCM304 software from computer. Testmak 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. Testmak 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.
- 3- Mortar (Cement) compression tests by using proper accessories.
- 4- Core testing.

HSF 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)

HS FOUR COLUMN AUTOMATIC COMPRESSION TESTING MACHINES

4- Piston;

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

5- Automatic Hydraulic Power Pack ;

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

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.

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 TESTMAK 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	TMC-3224	TMC-3228	TMC-5224	TMC-5228
Standards	EN	EN	ASTM	ASTM
Capacity	2000 kN	3000 kN	2000 kN	3000 kN
Sample	100x200,150x300,160x320 mm cylinders 100, 150, 200 mm cubes	100x200,150x300,160x320 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	340 mm	340 mm	370 mm	370 mm
Max. Horizontal Clearance	360 mm	425 mm	360 mm	425 mm
Piston Diameter	250 mm	300 mm	250 mm	300 mm
Max. Piston Movement	50 mm	50 mm	50 mm	50 mm
Max. Working Pressure	410 Bar	410 Bar	410 Bar	410 Bar
Oil Capacity	18 Liters	18 Liters	18 Liters	18 Liters
Power	1100 W	1100 W	1100 W	1100 W
Dimensions	850x550x1400 mm	980x680x1500 mm	850x550x1400 mm	980x680x1500 mm
Weight	870 kg	1100 kg	850 kg	1050 kg

HS WELDED FRAME AUTOMATIC COMPRESSION TEST MACHINES

Product Code

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

TMC-3226 | 3000 kN Capacity Automatic Compression Testing Machine EN Standards - 220-240 V 50-60 Hz  
 TMC-5226 | 3000 kN Capacity Automatic Compression Testing Machine ASTM Standards - 220-240 V 50-60 Hz  
 TMC-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 TESTMAK HS Automatic Compression Testing Machines Compressive strength 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 usually 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 conditions of measurement. Compressive strengths are usually reported in relationship to a specific international standard.

The Testmak HS series Automatic Compression Testing Machines are design to test the compression strength of concrete cube and cylinder specimens 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 specifications. Surface hardness 55HRC, flatness tolerance 0.02 mm. Traceable certificate of surface hardness available on request.

HS 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;
- Upper Platen Diameter 165 mm (with ball seating assembly) (For ASTM Standards)
- Upper Platen Diameter 300 mm (with ball seating assembly) (For EN Standards)



- 3- Lower Platen;
- Lower Platen Diameter 165 mm (For ASTM Standards)
- Lower Platen Diameter 300 mm (For EN Standards)
- 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 ;
- Automatic Hydraulic Power Pack, 410 bar (For All Models)
- 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.
- 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

HS WELDED FRAME AUTOMATIC COMPRESSION TEST MACHINES

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 TESTMAK 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	TMC-3222	TMC-3226	TMC-5222	TMC-5226
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	340 mm	340 mm	370 mm	370 mm
Max. Horizontal Clearance	360 mm	425 mm	360 mm	425 mm
Piston Diameter	250 mm	300 mm	250 mm	300 mm
Max. Piston Movement	50 mm	50 mm	50 mm	50 mm
Max. Working Pressure	410 Bar	410 Bar	410 Bar	410 Bar
Oil Capacity	18 Liters	18 Liters	18 Liters	18 Liters
Power	1100 W	1100 W	1100 W	1100 W
Dimensions	750x500x1400 mm	925x550x1500 mm	750x500x1400 mm	925x550x1500 mm
Weight	800 kg	1070 kg	780 kg	1030 kg

HSB AUTOMATIC BLOCK COMPRESSION TEST MACHINES

Product Code

- TMC-5232 | 2000 kN Automatic Block Compression Testing Machine, 220-240 V 50-60 Hz
- TMC-5232/110 | 2000 kN Automatic Block Compression Testing Machine, 110 V 60 Hz
- TMC-5234 | 3000 kN Automatic Block Compression Testing Machine, 220-240 V 50-60 Hz - 220-240 V 50-60 Hz
- TMC-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 Testmak 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 TCM-5232 and TCM-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 ;
    - Automatic Hydraulic Power Pack, 410 bar (For All Models)
- Testable Specimens
- Concrete Block: Maximum 500x300 mm.
  - 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.

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 TESTMAK 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	TMC-5232	TMC-5234
Capacity	2000 kN	3000 kN
Sample	Concrete Block	Concrete Block
Upper Platens Dim.	310x500x38 mm	310x500x38 mm
Lower Platens Dim.	310x500x38 mm	310x500x38 mm
Max. Vertical Clearance	370 mm	370 mm
Max. Horizontal Clearance	360 mm	425 mm
Piston Diameter	250 mm	300 mm
Max. Piston Movement	50 mm	50 mm
Max. Working Pressure	410 Bar	410 Bar
Oil Capacity	18 Liters	18 Liters
Power	1100 W	1100 W
Dimensions	850x550x1400 mm	925x550x1500 mm
Weight	880 kg	1100 kg

HS SEMI - AUTOMATIC COMPRESSION TEST MACHINES

Product Code

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

Standards

ASTM C39 | AASHTO T22 | ISO EN 7500 | EN 12390-4



Description

The Testmak HS series Semi-Automatic Compression Testing Machines have been manufactured for consistent testing of concrete cube and cylinder specimens. These machines are produced to capacity range of 2000 kN to 3000 kN. Suitable for CE security norms and EN 12390-3, 12390-4, BS 1881, ASTM C39, AASHTO 22 to standards. TESTMAK Semi-Automatic Compression Testing Machines are supplied in Class 1 starting from 10%. Surface hardness 55HRC, flatness tolerance 0.02 mm. Traceable certificate of surface hardness available on request. The Semi-Automatic compression machines consist of a heavy duty welded frame. The suitable vertical clearance for specimen can be adjusted with distance pieces .

Can be done the following tests with this machines;

- 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.

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

Product Code	TMC-3229	TMC-3230	TMC-5229	TMC-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	340 mm	340 mm	370 mm	370 mm
Max. Horizontal Clearance	360 mm	425 mm	360 mm	425 mm
Piston Diameter	250 mm	300 mm	250 mm	300 mm
Max. Piston Movement	50 mm	50 mm	50 mm	50 mm
Max. Working Pressure	410 Bar	410 Bar	410 Bar	410 Bar
Oil Capacity	18 Liters	18 Liters	18 Liters	18 Liters
Power	750 W	750 W	750 W	750 W
Dimensions	740x500x1350 mm	805x540x1400 mm	740x500x1350 mm	805x540x1400 mm
Weight	790 kg	1060 kg	770 kg	1040 kg

AUTOMATIC FLEXURAL TESTING MACHINE

Product Code

- TMC-5240 | 200 kN Automatic Flexural Testing Machine, 220-240 V 50-60 Hz
- TMC-5240 /110 | 200 kN Automatic Flexural Testing Machine, 110 V 60 Hz
- TMC-5242 | 300 kN Automatic Flexural Testing Machine, 220-240 V 50-60 Hz
- TMC-5242 /110 | 300 kN Automatic Flexural Testing Machine, 110 V 60 Hz
- TMC-5244 | 600 kN Automatic Flexural Testing Machine, 220-240 V 50-60 Hz
- TMC-5244 /110 | 600 kN Automatic Flexural Testing Machine, 110 V 60 Hz

Standards

TS EN 1390-5 | ASTM C78, 293 | AASHTO T97 | BS1881:118

Description

The Automatic Flexural Testing Machines are range of 200 kN, 300 kN and 600 kN capacity flexure testing machines have been designed for reliable and consistent testing of flexural test on standard concrete beams, concrete or natural stone kerbs, concrete paving flags, and natural stone slabs and tensile splitting test of concrete paving blocks. These flexure testing machines are the result of continuous research to upgrade the testing machines with latest technologies to conform to the latest standards EN 12390-5, EN 12390-6, EN 1338, EN 1340, BS 1881, ASTM C78, C293 and C496 in terms of its technical properties taking into account client requirements. These also meet the requirements of CE norms for health and safety of the operator.

Tests can be performed by either on TMC300 Unit or on a computer with using free software. The advantages of performing tests on computer with using software, such as reporting, graphical output, etc. Setting test parameters, including pace rate only required when the specimen type is changed. Pressing the START button on the control unit.

The machine automatically starts the rapid approach; switches the test speed after 1% of the load capacity of the machine and stops once the specimen failure. Automatically saves the test parameters and test results.

The Testmak range of Flexural Machines have the accuracy of Class 1 starting from 2% of the full capacity. Flexural test assemblies should be ordered separately.



Product Code	TMC-5240	TMC-5242	TMC-5244
Standards	EN	EN	EN
Capacity	200 kN	300 kN	600 kN
Class 1 Range	4-200 kN	6-300 kN	12-600 kN
Ram Travel	100 mm	120 mm	350 mm
Max. Vertical Clearance	425 mm	425 mm	930 mm
Max. Horizontal Clearance	650 mm	640 mm	640 mm
Max. Clearance Between Lower Rollers	900 mm	900 mm	2000 mm
Piston Diameter	160 mm	160 mm	200 mm
Max. Piston Movement	75 mm	75 mm	75 mm
Max. Working Pressure	315 Bar	315 Bar	315 Bar
Oil Capacity	18 Liters	18 Liters	18 Liters
Power	1100 W	1100 W	1100 W
Dimensions	1450x950x1200 mm	1450x950x1200 mm	1550x2000x2700 mm
Weight	325 kg	630 kg	2650 kg