AUTOMATIC COMPRESSION TESTING MACHINE WITH FLEXURAL FRAME

AUTOMATIC COMPRESSION TESTING MACHINE WITH FLEXURAL FRAME 2000/200 KN

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AUTOMATIC COMPRESSION TESTING MACHINE WITH FLEXURAL FRAME

PRODUCT MODEL

TMC-3236 | Compression Testing Machine with Flexural Frame 2000/200 kN, EN Standards

TMC-5236 | Compression Testing Machine with Flexural Frame 2000/200 kN, ASTM Standards

STANDARDS

ASTM C78 | ASTM C39 | AASHTO T22 | EN 1338, 1339, 1340, 12390-5, 12390-6; BS 1881; ASTM C78, C293, C496

DESCRIPTION

2000 kN Capacity Compression Frame:

Testmak 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 . Suitable for CE security norms and ASTM C39, EN 12390-3, 12390-4, BS 1881, AASHTO 22 to standards.

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. Traceable certificate of surface hardness available on request. 110 V, 50 Hz models are available. The only difference is the input voltage.

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200 kN capacity Flexural Frame:

200 kN capacity flexure frame have been designed for reliable and consist ent testing of flexural test on standard concrete beams, concrete or natural stone kerbs, concrete paving fl ags, and natural stone slabs and tensile splitting test of concrete paving blocks. The flexure testing frame is the result of con tinuous 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.

Automatic Control Unit

The automatic hyraulic power pack is have control valve. Automatic hyraulic power pack is can do control the two frames with this control valve. Tests can be performed by either on TMC304 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 start ing from 2% of the full capacity. Flextural test assemblies should be ordered seperately.

Automatic digital compression machines supplied complete with following;

FOR ASTM MODEL

- Heavy Duty ASTM Welded Frame
- Ø 165x15 mm Distance piece 1 pcs.
- Ø 165x30 mm Distance piece 1 pcs.
- Ø 165x50 mm Distance piece 1 pcs
- Ø 165x90 mm Distance piece 1 pcs,
- Upper&Lower Platen Ø165 mm (with ball seating assembly)
- Piston Ø250 mm
- Automatic Hydraulic Power Pack

FOR EN MODEL

- Heavy Duty EN Welded Frame
- Ø 205x30 mm Distance piece 1 pcs.
- Ø 205x50 mm Distance piece 1 pcs

AUTOMATIC COMPRESSION TESTING MACHINE WITH FLEXURAL FRAME

• Ø 205x90 mm Distance piece 1 pcs,
• Upper&Lower Platen Ø300 mm (with ball seating assembly)
• Piston Ø250 mm
• Automatic Hydraulic Power Pack

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.

• Flexural Test: concrete beams, concrete or natural stone kerbs, concrete paving fl ags, and natural stone slabs and tensile splitting test of concrete paving blocks.

TECHNICAL SPECIFICATIONS

Product Code	TMC-3236	TMC-5236
Standards	EN	ASTM
Capacity	2000 kN	2000 kN
Frame Type	Four Column Frame	Four Column
Upper Platens Dim.	Ø 300 mm	Ø 165 mm
Lower Platens Dim.	Ø 300 mm	Ø 165 mm
Max. Vertical Clearance	340 mm	370 mm
Max. Horizontal Clearance	360 mm	360 mm
Piston Diameter	250 mm	250 mm
Max. Piston Movement	50 mm	50 mm
Max. Working Pressure	410 Bar	410 Bar
Oil Capacity	18 Liters	18 Liters
Power	750 W	750 W
Dimensions Compression Frame	1020x560x1400 mm	1000×950×1130 mm
Dimensions Flexural Frame	1000×950×1130 mm	1000×950×1130 mm
Weight Total	1235 kg	1035 kg

AUTOMATIC COMPRESSION TESTING MACHINE WITH FLEXURAL FRAME

UPPER & LOWER PLATENS

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) 310x410x90 mm, Lower Platen 310x410x90 mm

TMC-3215-01 | Upper Platen (with ball seating assembly) 310x500x38 mm, Lower Platen 310x500x38 mm

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
Desctription	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	Cylinders: 100x200 mm, 150x300 mm, 160x320 mm Cubes 100,150,200 mm	Blocks up to 310x500 mm
Used with Frames	TMC-3200, TMC-3201, TMC-3204, TMC-3206, TMC-3208, TMC-3209	TMC-3200, TMC-3201, TMC-3203, TMC-3204, , TMC-3205, TMC-3206, , TMC-3207, TMC-3208, TMC-3209	TMC-3203, TMC-3205, TMC-3207, TMC-3209	TMC-3202, TMC-3203, TMC-3204, TMC-3205, TMC-3206, TMC-3207, TMC-3208, TMC-3209
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

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DISTANCE PIECES

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
TMC-3217-01 | Distance Pieces, Ø 205x30 mm
TMC-3217-02 | Distance Pieces, Ø 205x50 mm
TMC-3217-03 | Distance Pieces, Ø 205x90 mm

Distance pieces are used to reduce the amount of vertical clearance between the upper platen and the lower platen. 600 to 3000 kN machines are supplied with 205 mm and 165 mm dia distance piece.

Model	Dimensions	Weight (approx.)
TMC-3216-01	165x165x15 mm	2,5 kg
TMC-3216-02	165x165x30mm	5 kg
TMC-3216-03	165x165x50 mm	8 kg
TMC-3216-04	165x165x90 mm	14 kg
TMC-3217-01	205x290x30 mm	8 kg
TMC-3217-02	205x290x50 mm	13 kg
TMC-3217-03	205x290x90 mm	22 kg

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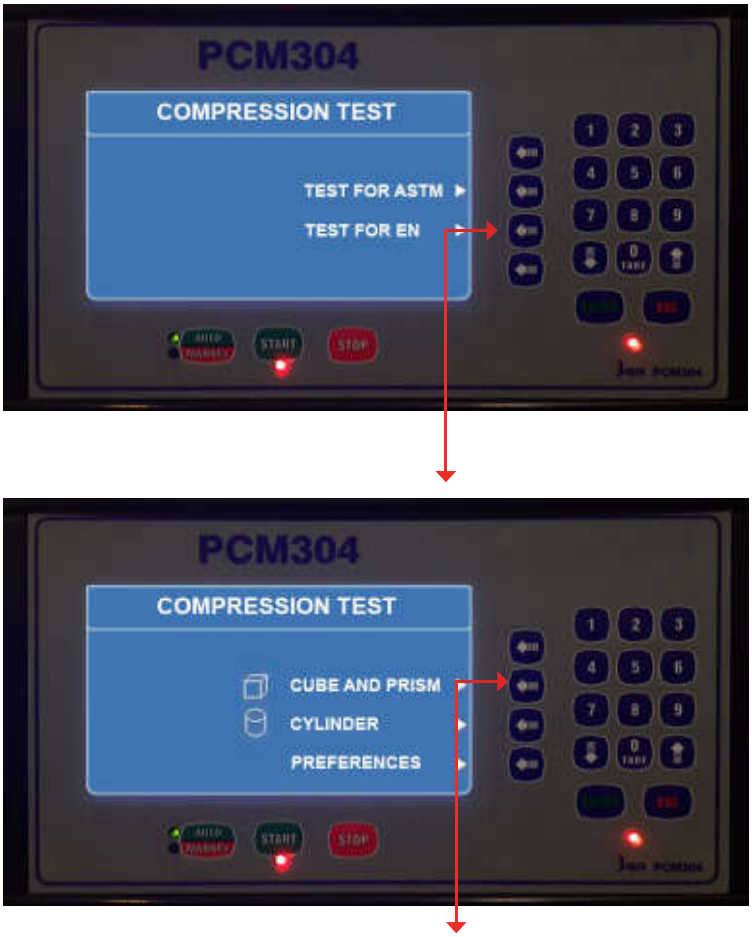
LCD DATA ACQUISITION CONTROL SYSTEM

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.

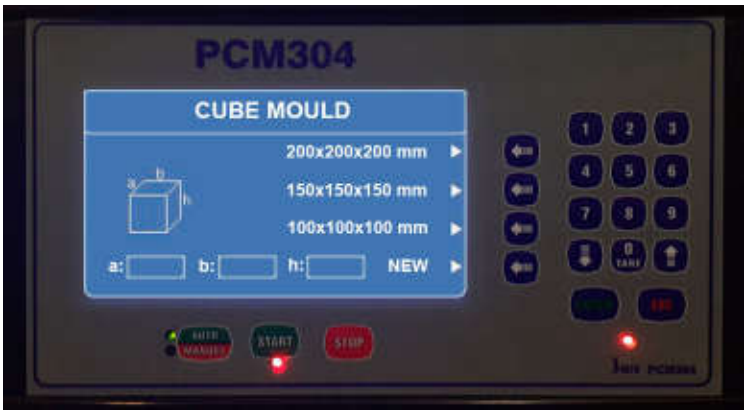
LCD Data Acquisition Control System has different units are available (kN / kgf / lbf). Can do Automatic Load Rate upon Sample Type. Total load and also per area are given. and has real time graph indication. Stops Automatically, when Test is completed. Test results can be send printer to with software 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.

TEST IN ACCORDANCE TO EN 12390-4 STANDARDS



AUTOMATIC COMPRESSION TESTING MACHINE WITH FLEXURAL FRAME

Choose the sample size or specify the custom dimensions of your sample. (Size should be in millimeters).



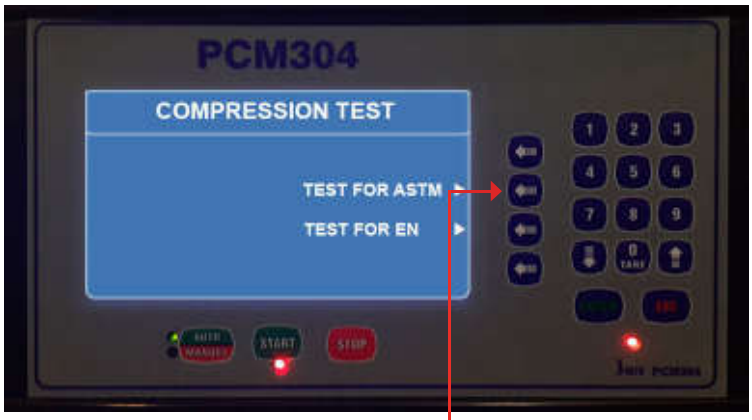
Choose the mode from the main screen by selecting either AUTOMATIC or MANUAL.

Press “Start” to begin the test.

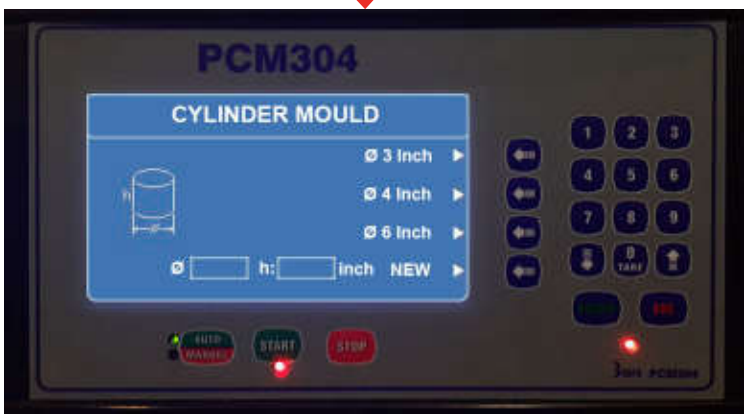
Press “Print” to print the test result graphic.

AUTOMATIC COMPRESSION TESTING MACHINE WITH FLEXURAL FRAME

TEST IN ACCORDANCE TO ASTM C39 STANDARDS



Choose the sample size or specify the custom dimensions of your sample. (Size should be in millimeters).



Choose the mode from the main screen by selecting either AUTOMATIC or MANUAL.

Press “Start” to begin the test.

Press “Print” to print the test result graphic.

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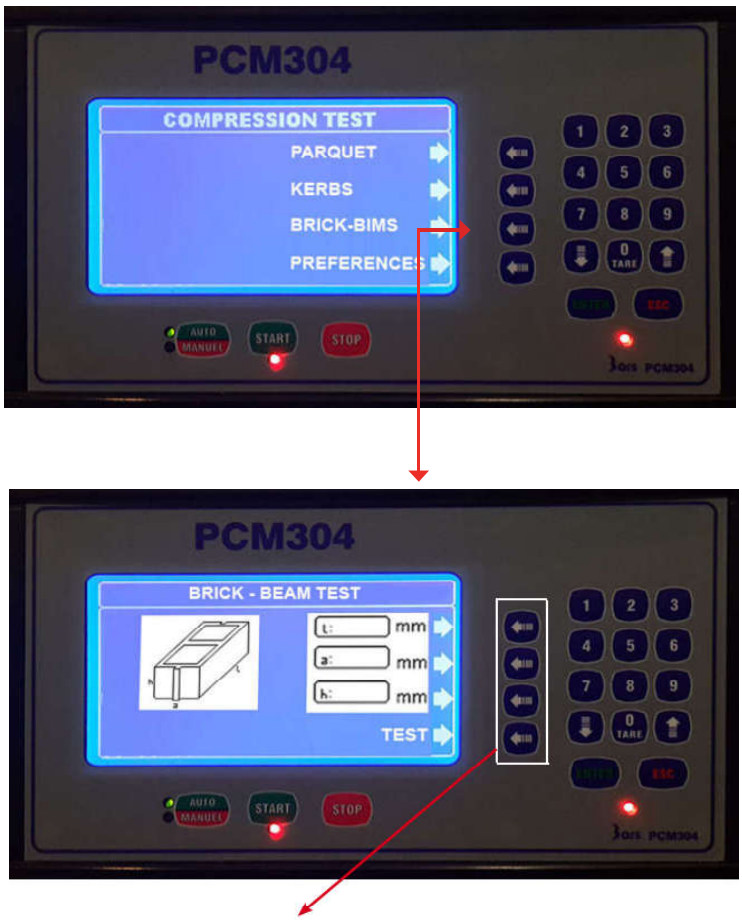
TEST FOR CONCRETE BLOCKS



Can do test with enter LxWxH values.

1- Can enter L value with push arrow. And can save this value with choose press arrow button.

2- Can enter W value with push arrow. And can save this value with choose press arrow button.

3- Can enter H value with push arrow. And can save this value with choose press arrow button.

4- You can start for test after enter LxWxH values. And You can push TEST.

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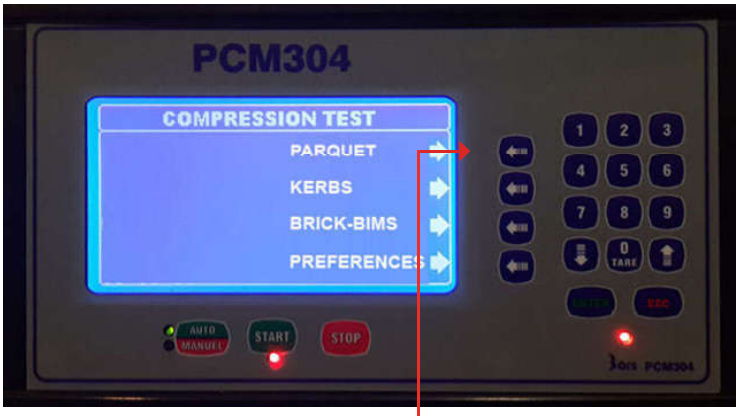
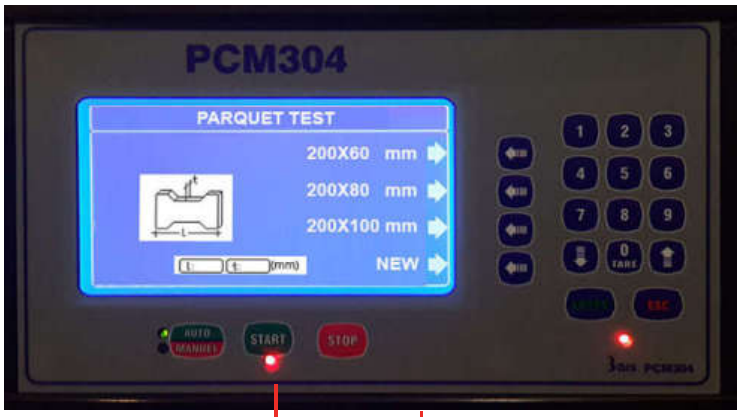
PARQUET TEST



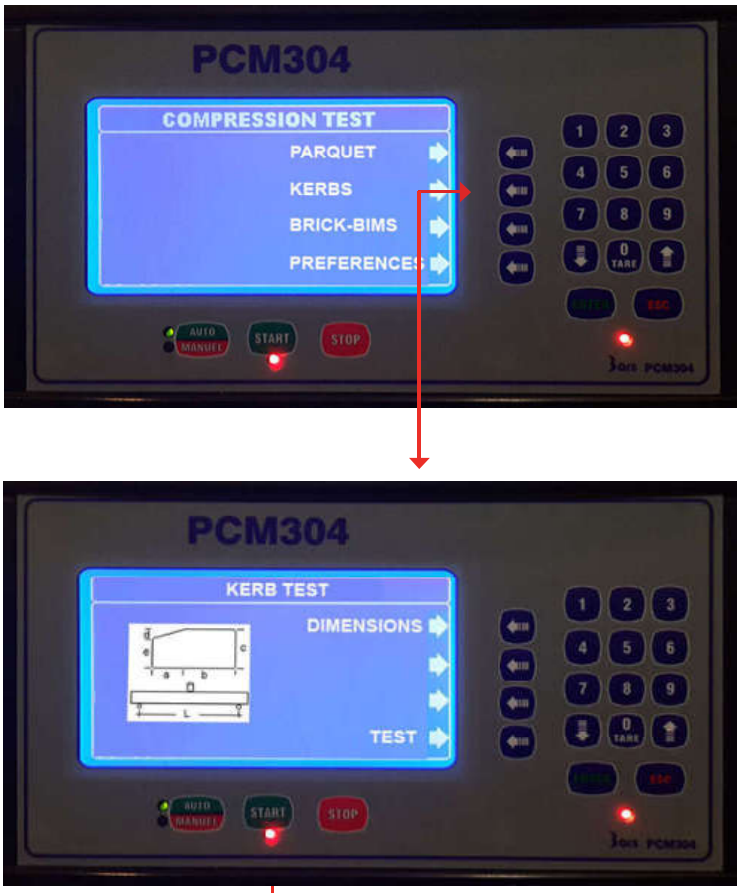


Choose the sample size or specify the custom dimensions of your sample. (Size should be in millimeters).

Choose the mode from the main screen by selecting either AUTOMATIC or MANUAL.
Press “Start” to begin the test.

AUTOMATIC COMPRESSION TESTING MACHINE WITH FLEXURAL FRAME

PARQUET TEST



Choose the sample size or specify the custom dimensions of your sample. (Size should be in millimeters).

Choose the mode from the main screen by selecting either AUTOMATIC or MANUAL.

Press “Start” to begin the test.

NOTE

Flexural Strength Test on concrete kerb units according to EN 1340. Additional flexure frames and flexure apparatus are required for this test in addition to distance pieces.

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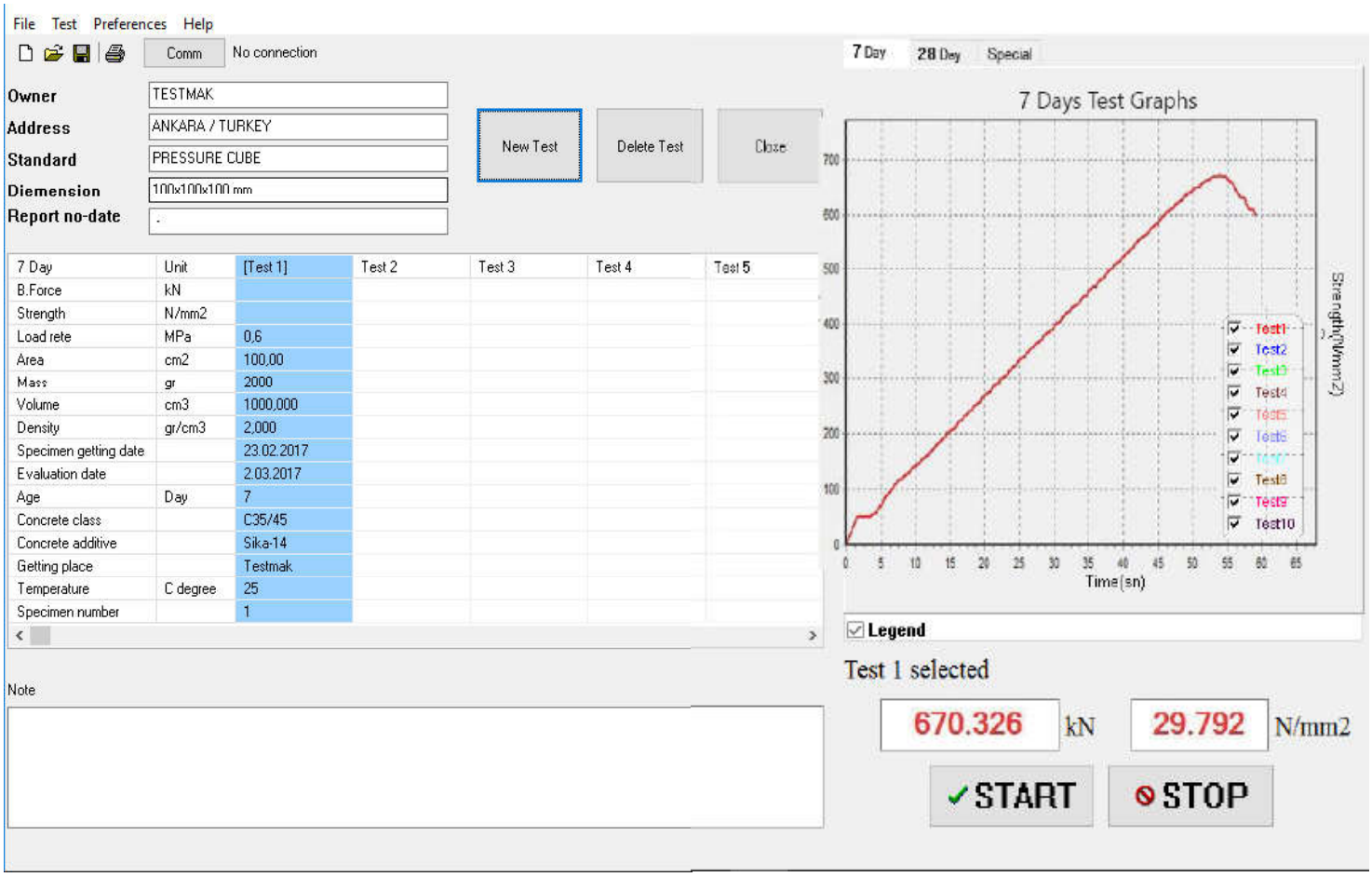
SOFTWARE

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.



7 Day	Unit	[Test 1]	Test 2	Test 3	Test 4	Test 5
B.Force	kN					
Strength	N/mm2					
Load rete	MPa	0,6				
Area	cm2	100,00				
Mass	gr	2000				
Volume	cm3	1000,000				
Density	gr/cm3	2,000				
Specimen getting date		23.02.2017				
Evaluation date		2.03.2017				
Age	Day	7				
Concrete class		C35/45				
Concrete additive		Sika-14				
Getting place		Testmak				
Temperature	C degree	25				
Specimen number		1				