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CEMENT  
TEST EQUIPMENTS



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CEMENT SAMPLERS

EN 196-7 | ASTM C183 | AASHTO T127

Product Code

M2300      Packaged Cement Tube Sampler

DESCRIPTION

The Packaged Cement Tube Sampler is used for collect- ing cement samples from packages. The sampler is manu- factured from brass, has an outside diameter of 19 mm and length of 700 mm.

P. Code	Dimensions(mm)	Weight (kg)
M2300	19x19x700 mm	0.3 kg

CEMENT SAMPLERS

EN 196-7 | ASTM C183 | AASHTO T127

Product Code

M2320      Bulk Cement Sampler

DESCRIPTION

The Bulk Cement Sampler is used to collect cement sam- ples from bulk storage or bulk shipments. Sampler consists of 2 brass concentric tubes and each tube has 7 slots. The inner tube rotates to close the slots and take the sample.

P. Code	Dimensions(mm)	Weight (kg)
M2320	35x35x1500 mm	2.5 kg

CEMENT SAMPLERS

EN 196-7 | ASTM C183 | AASHTO T127



CEMENT SAMPLERS

EN 196-7 | ASTM C183 | AASHTO T127



LE CHATELIER FLASK

EN 196-6, 450-1, 15617-1 | ASTM C110, C128, C188; C989 | AASHTO T133

Product Code

M2605      Le Chatelier Flask, 250 ml



DESCRIPTION

The Le Chatelier Flask is used to determine the density of hydraulic cement, ground granulated blast-furnace slag and fly ash for concrete, filler aggregates and lime.The glass flask has a 250ml capacity. The neck is graduated from 0 to 1 ml and from 18 to 24 mL in 0.1-mL graduations.

P. Code	Dimensions(mm)	Weight (kg)
M2605	100x100x300 mm	0.1 kg

LE CHATELIER MOULD

EN 196-7 | ASTM C183 | AASHTO T127

Product Code

M2610/01    Le Chatelier Mould  
M2610        Le Chatelier Soundness Test Set



DESCRIPTION

The Le Chatelier Mould is used to determine the volume stability of cement. 30 mm in diameter, with 30 mm height and 150 mm in length from a special alloy material is pro- duced by combining the two branches.

**The Le Chatelier Soundness Test Set is supplied com- plete with;**

- Le Chatelier moulds 3 pcs.
- 50x50 mm glass plates 6 pcs.
- 300 gr Weights 1 pcs.
- 100 gr Weight, 3 pcs.
- Tamping Rod 17 mm dia. x 70 gr
- Steel Ruler
- Plastic Carrying Case

P. Code	Dimensions(mm)	Weight (kg)
M2610	350x300x100 mm	2.5 kg

LE CHATELIER WATER BATH

EN 196-3, 450-1, 459-2 | EN ISO 9597

Product Code

M2600 Le Chatelier Water Bath, 220-240 V 50-60 Hz



DESCRIPTION

The Le Chatelier Water Bath is used with Le Chatelier moulds for the determination of the soundness of cement paste fly ash for concrete and lime. Le Chatelier Water Bath in stainless steel, contains up to 12 moulds which are maintained at a height of approx 50 mm above water level. A device located beneath the lid prevents condensation from falling onto specimens. Two heating elements, 800 W and 200 W, guarantee that the water reaches boiling point within approx 30 minute. Supplied complete 12 Le Chatelier’s capacity removable rack, Le Chatelier mould ordered separately.

Dimensions(mm)	390x180x320 mm
Weight (kg)	10 kg
Power	1250 W

CEMENT AUTOCLAVE

ASTM C151, C490 | UNE 7207

Product Code

M2350 Cement Autoclave, 220-240 V 50-60 Hz



DESCRIPTION

Cement Autoclave consists of a high pressure boiler made from stainless steel, inside diameter 154x430 mm high, receiving a holding rack for 10 cement specimens. The heating system is achieved by electric resistances. The control panel encloses: “digital thermometer” to visualize the boiler temperature, pressure gauge scale 0 - 600 psi with built in pressure regulator and power switches. Supplied complete with safety valves, rack for holding the specimens.

Dimensions(mm)	450x475x1080 mm
Weight (kg)	75 kg
Power	3500 W

SHRINKAGE MOULD

ASTM C490

Product Code

- M2650 Two Gang Prism Shrinkage Mould 25x25x285 mm
- M2650/02 Steel Insert for End M2650, 12 pcs.
- M2650/03 Reference Rod 160 mm
- M2650/04 Reference Rod 305 mm with Convex Hemispherical End

DESCRIPTION

The Two Gang Shrinkage Mould is have been manufactured from steel and all internal surfaces are machined. Dimensions and specifications comply with the related standards. The moulds has the surface hardness of a minimum HV400.

LENGTH COMPARATORS

EN 1367–4, 12617–4, 12808-4 | ASTM C151, C157, C227, C311, C341, C342, C441, C452, C490, C531, C596, C806, C878, C1260 | BS 1881:5, 6073

Product Code

- M2590 Digital Length Comparator
- M2595 Length Comparator with Heidenhain Length Measuring Sensor 220-240 V 50-60 Hz

DESCRIPTION

Length Comparators are used to determine the length changes on different type of cement prisms. The set consists of a length measuring frame with measuring apparatus attached to it. There are 2 models available; M2590 is with 0.001 mm x 12.7 mm digital dial gauge and M2595 is with special 0.0001 mm x 30 mm transducer and readout unit.

SHRINKAGE MOULD

ASTM C490



Dimensions(mm)	70x320x35 mm
Weight (kg)	7 kg

LENGTH COMPARATORS

EN 1367–4, 12617–4, 12808-4 | ASTM C151, C157, C227, C311, C341, C342, C441, C452, C490, C531, C596, C806, C878, C1260 | BS 1881:5, 6073



P.Code	M2590	M2595
Dimensions	180x180x410 mm	250x250x650 mm
Weight	6 kg	8 kg



AUTOMATIC BLAINE TEST APPARATUS

ASTM C204 | AASHTO 153 | EN 196-6

Product Code

M2460	Automatic Blaine Test Apparatus, 220-240V 50/60 Hz
M2460/110	Automatic Blaine Test Apparatus, 110 V 60 Hz
M2460/2	Manometer U Shaped for Blaine Apparatus



DESCRIPTION

The Automatic Blaine Test Apparatus is microprocessor-controlled analyzer for measurement of the specific surface (Blaine value) of powders. This device operates with 1 or 2 measuring cells. After entry of test-specific sample data into the controller, the test is completely automatically carried out and evaluated. The device has an interface for a generally commercially available printer. Automatic Blaine Apparatus is supplied complete with;

- Fill oil
- Syringe with tube
- Tamper
- 10 pcs. dust filter (Ø13mm)
- 500 pcs. round filter paper (Ø 41mm)

P. Code	Dimensions(mm)	Weight (kg)
M2460	260x400x450 mm	11 kg

MANUAL BLAINE TEST APPARATUS

EN 196-6 | ASTM C204 | AASHTO T153

Product Code

M2470	Blaine Air Permeability Test Apparatus Set
M2470/01	Wood Test Stand
M2470/02	Manometer U Shaped for Blaine Apparatus
M2470/03	Manometer Liquid 250 ml
M2470/04	Cell with Perforated Disc and Plunger
M2470/05	Filter Paper 100 pcs
M2470/06	Plastic Funnel 40x65 mm
M2470/07	Reference Cement 5 g



DESCRIPTION

The M2470 Blaine Air Permeability Apparatus is used to determine the fineness of Portland cement, limes and similar powders expressed in terms of their specific surface. Reference Cement should be ordered separately. The M2470 Blaine Air Permeability Test Apparatus Set is supplied complete with;

- Wood Test Stand,
- Rubber Aspirator,
- A Glass Connection Parts,
- Cell with Perforated Disc and Plunger,
- U Manometer Tube,
- Manometer Liquid
- Plastic funnel
- Filter paper (100 pcs of pack)

P. Code	Dimensions(mm)	Weight (kg)
M2470	230x180x470 mm	6 kg

CALORIMETER

EN 196-8 | ASTM C186

Product Code

M2860	Calorimeter
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MUFFLE FURNACE

EN 196-2 | ASTM C25, C115

Product Code

E1370/03	Muffle Furnace 3 Liters , 220-240 V 50-60 Hz
E1370/05	Muffle Furnace 5 Liters , 220-240 V 50-60 Hz
E1370/07	Muffle Furnace 7 Liters , 220-240 V 50-60 Hz

P. Code	E1370/03	E1370/05	E1370/07
Max. Temperature	1150°C	1150°C	1600°C
Temperature Deviation at Set Point	± 2°C	± 2°C	± 2°C
Heat Up Time to Max. Temperature	50 min.	50 min.	75 min.
Internal Volume	3 L	5 L	7 L
Internal Dimensions (mm)	100x135x200 mm	140x180x200 mm	170x150x250 mm
External Dimensions (mm)	430x330x360 mm	660x550x590 mm	680x580x620 mm
Weight (approx.)	24	58	70
Power	2000 W	2000 W	4900 W

CALORIMETER

EN 196-8 | ASTM C186

DESCRIPTION

This apparatus used to measure the heat of hydration of cement by the semi-automatic Langavant method. Test calorimeter includes factory calibration certificate. Temperature recorder provides (4) input channels for recording and transmission of temperature values. Analysis software provides reporting and editing function for calculating the heat of hydration.

**M2860 Calorimeter includes:**

- Test calorimeter;
- Reference calorimeter;
- Mortar-sample container,
- Temperature recording device and analysis software.

Power for unit is supplied by USB from a PC or laptop. Does not include required PC.

MUFFLE FURNACE

EN 196-2 | ASTM C25, C115



DESCRIPTION

The Muffle Furnaces are used for determining various properties of construction materials, and they cover a temperature range from 1100°C to 1600°C, they are all front loading for easy operation and are of a double skin construction to maintain a cool outer case. Excellent temperature control is provided by a PID digital control system. A vertical counter balanced door keeps the hot insulation away from the operator which opens in an upward movement. The Furnace has a safety switch which isolates the power when the door is opened.

AUTOMATIC VICAT TEST APPARATUS

ASTM C187-C191 | EN 196-3 | AASHTO T129-T131 | BS 4550

Product Code

M2440/E	Automatic Vicat Apparatus (VICATRONX), Single Unit, EN, 220 V 50/60 Hz
M2440/A	Automatic Vicat Apparatus (VICATRONX), Single Unit, ASTM, 220 V 50/60 Hz
M2440/E-4U	Automatic Vicat Apparatus (VICATRONX), Four Unit, EN, 220 V 50/60 Hz
M2440/A-4U	Automatic Vicat Apparatus (VICATRONX), Four Unit, ASTM, 220 V 50/60 Hz
M2440/E-6U	Automatic Vicat Apparatus (VICATRONX), Six Unit, EN, 220 V 50/60 Hz
M2440/A-6U	Automatic Vicat Apparatus (VICATRONX), Six Unit, ASTM, 220 V 50/60 Hz

DESCRIPTION

The TESTMAK Automatic Vicat Test Apparatus (VICATRONX) is used for the determination of the setting time and consistency of cement by Vicat Method. The entire test is automatically gives precise and repeatable results. Results are recorded on a built-in printer. This can eliminate graph paper loading and reset requirements of the cylinder. Automatic Vicat apparatus Tallinn to use, easy menus in several languages has become easy.

Display:

Large, very bright and high-resolution LCD display, test data can be seen by the general functions simultaneously. Test charts can be displayed in real time, it is to replace the boot process with a pencil on paper. The clock and calendar device to program the test loop is also available.

Software:

Device, EN 196/3, AST C191 is programmed to automatically done the test to be performed according to AASHTO T131 standards. special menus available in the original software “free tests - free experiments” using improved more programs. This feature is very useful for advanced and flexible experiments on new charges and additives.

Timer 0 - 999 minutes. The software allows programming of the delay time before starting the experiment. This feature, when mortar approximate freezing time between known and to get a better measurement results to set the frequency of penetration short period of time is useful when prompted.

Probes:

Mobile penultimate weight of 300 g (1000 g to EN standards), and the penetration of the needle 1.13 mm (1 mm to ASTM standard) and the diameter can be programmed to free fall or guided fall.

possible total flexibility in timing. Penetration times over the course of freezing securing changes penetration, from 0.5 minutes to 999 minutes (constant interval between the two penetration) or automatically changed to 5 different phases at different intervals during the test. Two options described above may be combined. Penetration measuring accuracy of 0.1 mm with sensitive updates can be read by means of an encoder.

Automatic Vicat device also calculates the following displays and writes

- Operator tarafınca determined after the sample separation time
- Test start time
- When the remaining time for the next penetration
- Test the end of the rest period
- The number of penetration Made
- The number of penetration to do

Test results:

All the parameters and results in memory together with the complete test results may be more than 50.

During the test, even for a very short time, any electrical device stops automatically in case of interruption, the test is aborted and the data obtained so far maintained.

Assay device automatically writes a report at the end of each penetration value in this report shows the time and penetration number of graphics.

AUTOMATIC VICAT TEST APPARATUS

ASTM C187-C191 | EN 196-3 | AASHTO T129-T131 | BS 4550

AUTOMATIC VICAT TEST APPARATUS

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AUTOMATIC VICAT TEST APPARATUS

ASTM C187-C191 | EN 196-3 | AASHTO T129-T131 | BS 4550



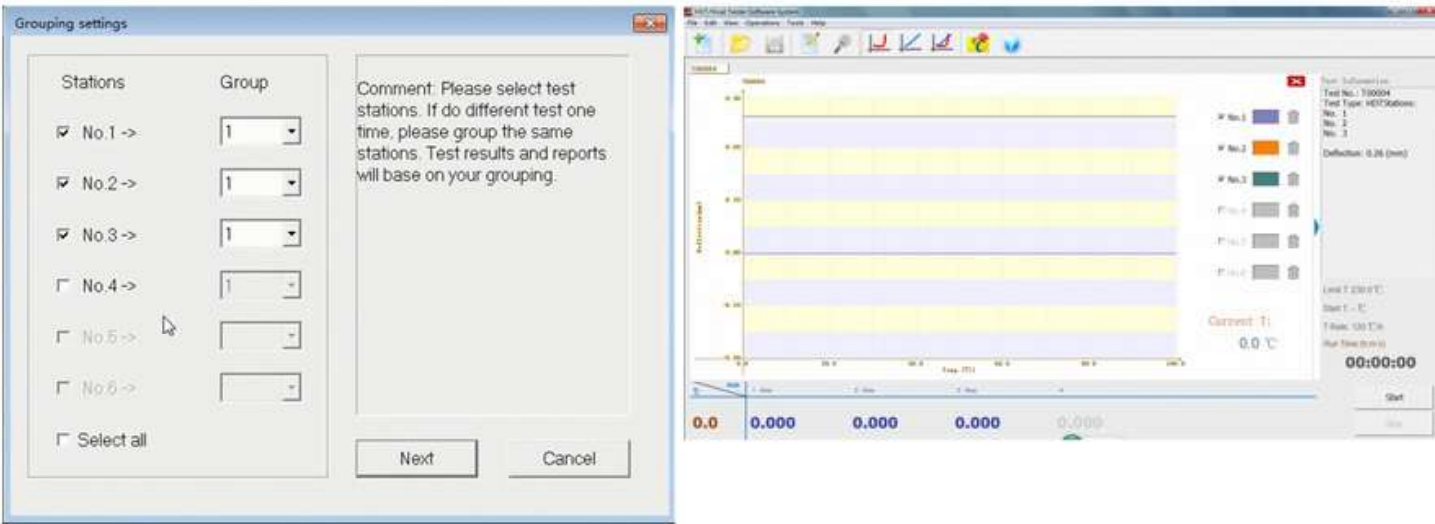
The standard format of a separate printer or a USB port in order to connect to the HP protocol is available.

Spare Parts

- M2440/E-01 1,13 mm dia. needle for initial setting time test to EN
- M2440/A-01 1 mm dia. needle for setting time test to ASTM/AASHTO
- M2440/E-02 Plastic mould to EN
- M2440/A-02 Plastic mould to ASTM/AASHTO
- M2440/03 Glass base plate
- M2440/04 Spare base plate for in-water testing kit

M2440/E is supplied complete with EN 196-3 accessories: initial setting time needle 1.13 mm dia., mould and PC software VICATRONXSOFT.

M2440/A is supplied complete with ASTM C191 accessories: initial setting time needle 1.00 mm dia., mould and PC software VICATRONXSOFT.

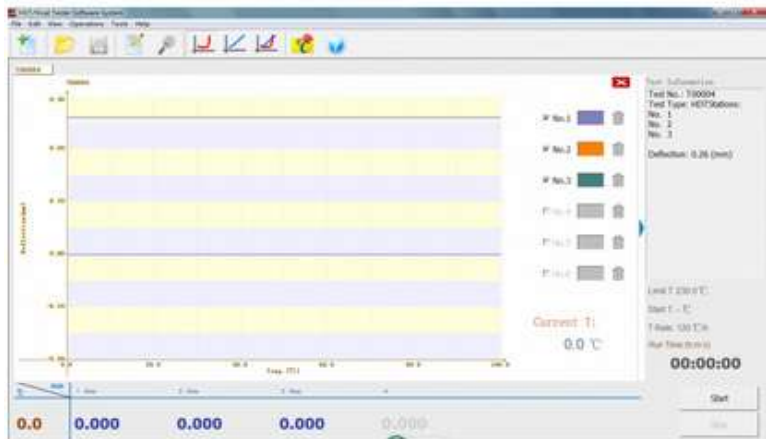
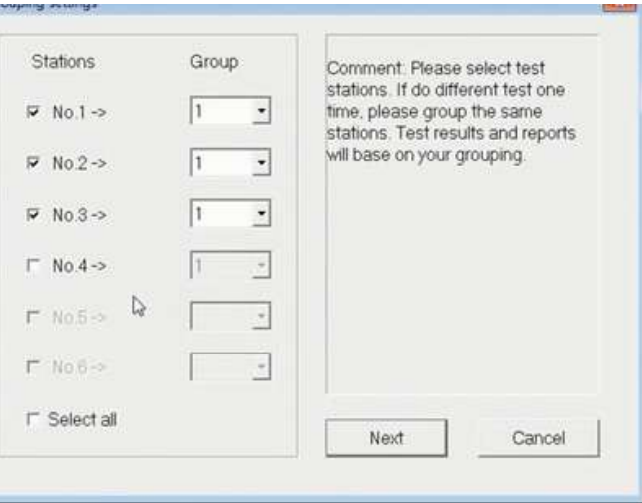
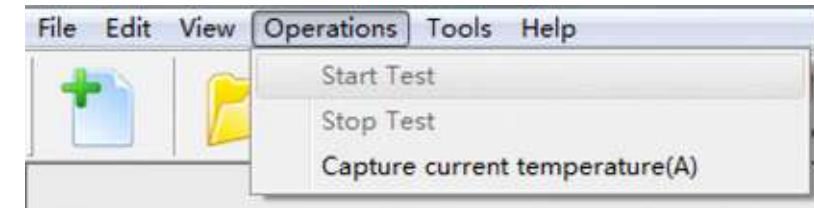




AUTOMATIC VICAT TEST APPARATUS

ASTM C187-C191 | EN 196-3 | AASHTO T129-T131 | BS 4550

P. Code	M2440/E-4U and M2440/A-4U
Temperature range	RT ~ 300 ° C
Heating rate	120 °C / h ((12 ± 1) C / 6min) 50 °C / h ((5 ± 0. 5) C / 6min)
Max. temperature error	± 0.5 °C
Deferification interval	-0.1 ~ 1.1mm
Max. Deferment error	0,01 mm
Sample support time	64mm, 100mm
Working position	3 (4 or 6 optional)
Heating medium	Methyl silicone oil or transformer oil
Cooling method	Below 150 C: water cooling or natural cooling Above 150C: natural cooling
Dimensions	810x470x780 mm
Power	AC220V, 50Hz, 2500 W



AUTOMATIC VICAT TEST APPARATUS

ASTM C187-C191 | EN 196-3 | AASHTO T129-T131 | BS 4550



MANUAL VICAT TEST APPARATUS

ASTM C187, C191 | AASHTO T131 | EN 196-3:2005 | EN 408-2

Product Code

M2450/E	Vicat Test Set, EN
M2450/A	Vicat Test Set, ASTM
M2450/01	Vicat Frame
M2450/02	Consistency Plunger 10 mm diameter
M2450/03	Supporting Glass Plate
M2450/E-04	Vicat Mould EN Base ID 80 mm, Top ID 70 mm, Height 40 mm
M2450/A-04	Vicat Mould ASTM Base ID 70 mm, Top ID 60 mm, Height 40 mm
M2450/E-05	Initial Vicat Needle, EN 1.13 mm diameter
M2450/A-05	Vicat Needle, ASTM 1 mm diameter
M2450/E-06	Final Vicat Needle, EN 1.13 mm diameter
M2450/E-07	Additiniol Weight, 700 gr, EN



DESCRIPTION

The Vicat Test Apparatus is used to determine the amount of water required to produce a cement paste of standard consistency and the setting time. The frame is supplied complete with a 300 g consistency plunger (dia. 10 mm). The measurement of the movement is given by an indicator which moves along a scale graduated in millimetres. The apparatus is supplied complete with glass plate and EN Needle and mould.

**The Vicat Test Set is supplied complete with;**

- Vicat Mould
- Initial and final Needles (for EN )
- Vicat Needle (for ASTM)
- Consistency Plunger
- Supporting Plate
- Glass Thermometer 110°C
- Transfer Dish (for EN)

P. Code	Dimensions(mm)	Weight (kg)
M2450/E	260x250x450 mm	4 kg
M2450/A	260x250x450 mm	4 kg

MANUAL VICAT TEST APPARATUS

ASTM C187, C191 | AASHTO T131 | EN 196-3:2005 | EN 408-2



CEMENT FLOW TABLE

ASTM C230 | EN 459-2, 1015-3

Product Code

- M2520/A Manual Cement Flow Table ASTM Standards
- M2525/A Motorized Cement Flow Table ASTM Standards, 220-240 V 50 Hz
- M2520/E Manual Cement Flow Table EN Standards
- M2525/E Motorized Cement Flow Table EN Standards, 220-240 V 50 Hz
- M2520/01 Tamper EN Ø 40x200 mm 250 gr
- M2520/02 Brass Mould EN - 100 mm base dia. x 70 mm top dia. x 60 mm height
- M2520/03 Tamper ASTM Hardwood 13x25x150 mm
- M2520/04 Brass Mould ASTM - 100 mm base dia. x 70 mm top dia. x 50 mm height

DESCRIPTION

The Cement Flow Tables are used for determining the consistency of mortar, lime and cement specimens. Cement Flow Table are produced in two models as manual and motorized.

The M2520/A and M2520/E manual models cement flow tables are included with a hand wheel. The M2525/A and M2525/E motor operated models cement flow tables are driven by a motor speed reducer coupling at the rate of one rev per second. The number of drops can preset on a counter and the machine stops automatically at the end of the cycle.

Cement Flow Tables consists of the following equipment;

- Bronze Flow Mould,
- Filling Hopper and Tamper.

	M2520/A & M2525/A	M2520/E & M2525/E
Table Dia.	254 mm	300 mm
Cone Top/Base Dia.	70 mm / 100 mm	70 mm / 100 mm
Cone Height	50 mm	60 mm
Drop Height	12.7 mm	10 mm

	M2520/A & M2520/E	M2525/A & M2525/E
Dimensions	270x270x280 mm	460x350x360 mm
Weight (kg)	14 kg	38 kg

CEMENT FLOW TABLE

ASTM C230 | EN 459-2, 1015-3



PLUNGER PENETROMETER

ASTM C230 | EN 459-2, 1015-3

Product Code

M2530 Pluger Penetration Apparatus



DESCRIPTION

The M2530 Plunger Penetrometer is used to determine the consistency of fresh mortar, lime and masonry cement. This apparatus consists in a base, a vertical support, a graduated rod with 25 mm dia plunger, a test cup dia. 80 mm x 70 mm deep and a 40 mm dia tamper. Drop height 100 mm. Overall weight of plunger assembly is 90 g.

P. Code	M2530
Dimensions	260x250x450 mm
Weight (kg)	5 kg

AIR ENTRAINMENT METER FOR MORTAR

ASTM C230 | EN 459-2, 1015-3

Product Code

M2410 Air Entrainment Meter for Mortar, 1 Liter



DESCRIPTION

The Testmak M2410 model Air Entrainment Meter for Mortar is used for determining the air content of cement paste, cement mortar and lime mortar. The air entrainment meter is manufactured from cast aluminum, the upper part and the lower test pot are held together with an air-tight seal which are easily adjusted by using the two spring clamps. The pressure gauge is installed in the head of the meter and the scale works in the 0-20 volumetric % range. The air is compressed with a hand pump installed in the system and the smart configuration of the test and correction buttons enables fast and simple testing.

P. Code	M2410
Dimensions	200x200x320 mm
Weight (kg)	3.5 kg

FLOW CONE APPARATUS

EN 445 | NF P18-358 | NF P18-507

Product Code

- M2580 Flow Cone Apparatus Test Set
- M2580/01 Stand for Flow Cone
- M2580/02 Flow Cone
- M2580/03 Nozzle Ø 8 mm
- M2580/04 Nozzle Ø 9 mm
- M2580/05 Nozzle Ø 10 mm
- M2580/06 Nozzle Ø 11 mm
- M2580/07 Nozzle Ø 13 mm
- M2580/08 Stainless Steel Sieve, Frame Dia: 150 mm, Opening: 1,5 mm
- M2580/09 Fitting Bush

DESCRIPTION

The TESTMAK Flow Cone Apparatus is used for determining the flow properties of grouts, mortars, muds and other fluid materials. Flow Cone Apparatus consists of a stainless steel cone with upper diameter of 150 mm height of 280 mm, 150 mm dia sieve with 1.5 mm opening for the upper cone, 5 interchangeable (8, 9, 10, 11 and 13 mm diameter) nozzles with fitting bush and a 1 liter capacity cup.

The M2580 Flow Cone Appratus Test Set is supplied complete with;

- Stand
- Flow Cone,
- Sieve 1,5 mm,
- Nozzle 8, 9, 10, 11 and 13 mm
- Cup 1 lt,
- Fitting Bush

P. Code	M2580
Dimensions	250x250x590 mm
Weight (kg)	12 kg

FLOW CONE APPARATUS

EN 445 | NF P18-358 | NF P18-507



MARSH FUNNEL VISCOSITY

ISO 2431

Product Code

- M2640 Marsh Funnel Viscosity Set



DESCRIPTION

The M2640 Marsh Funnel Viscosity Set is used for the determination of flow time by the use of flow cups of fluid materials such as paint, varnish. Manufactured from break resistant rugged plastic to avoid deformations on temperature changes so the volumetric accuracy is maintained. Accurate measurements are taken using the metal orifice. Supplied complete with 1 liter capacity plastic measuring cup.

Internal Diameter	5 mm
Top Diameter	150 mm
Nozzle Length	50 mm
Weight (kg)	0.6 kg

MUD BALANCE

ASTM D4380; API Recommended Practice 13B-1

Product Code

- M2510 Mud Balance



DESCRIPTION

The M2510 Mud Balance is provides an accurate and easy method for determining the mud density. The accuracy of the readings is not affected by the temperature of the drilling mud. The Mud Balance consists of a base and a graduated arm with an integral spirit level, counter weight, cup, lid, rider, knife-edge. Supplied with plastic carrying case.

Dimension	450x120x100 mm
Weight (kg)	1 kg



MANUEL MORTAR MIXER

ASTM C109, C305 | AASHTO T106, T162 | EN 196-1, 196-3:2005, 413-2, 459-2, 480-1

Product Code

- M2430 Manual Mortar Mixer, 220-240 V 50/60 Hz
- M2430/110 Manual Mortar Mixer, 110 V 60 Hz
- M2430/01 Spare Bowl for M2430
- M2430/02 Spare Beater for M2430



DESCRIPTION

The M2430 Manual Mortar Mixer is has been designed to mix mortars and cement pastes primarily to the requirements of standards. The mixing paddle revolves at a rate of 140 and 285 (r.p.m. clockwise) with a planetary motion of 62 and 125(r.p.m. clockwise) in low speed. The Mortar Mixer is supplied complete with;

- Bowl, 5 L (approx.)
- Beater

Dimensions	400x580x650 mm
Weight (approx)	56 kg
Power	400 W

AUTOMATIC MORTAR MIXER

ASTM C109, C305 | AASHTO T106, T162 | EN 196-1, 196-3:2005, 413-2, 459-2, 480-1

Product Code

- M2420 Automatic Mortar Mixer, 220-240 V 50/60 Hz
- M2420/110 Automatic Mortar Mixer, 110 V 60 Hz
- M2420/01 Spare Bowl for M2430
- M2420/02 Spare Beater for M2430



DESCRIPTION

The M2420 Automatic Mortar Mixer is has been designed to mix mortars and cement pastes primarily to the requirements of standards. The mixer capacity is 5 liters. The mixing paddle has a planetary motion and is driven by a motor with a microprocessor based speed and custom designed programs or manual mode. The mixing paddle revolves at a rate of 140 and 285 (r.p.m. clockwise) with a planetary motion of 62 and 125(r.p.m. clockwise) in low speed. Can be set motor speed, sand dispenser position and duration with mixer program. The Automatic Mortar Mixer is supplied complete with;

- Bowl, 5 L (approx.)
- Beater

Dimensions	400x580x650 mm
Weight (approx)	56 kg
Power	400 W

AUTOMATIC JOLTING TABLE

EN 196-1 | EN ISO 679 | NF P15-412 | BS 3892

Product Code

- M2400 Automatic Jolting Table, 220-240 V 50/60 Hz
- M2400/110 Automatic Jolting Table, 110 V 60 Hz



DESCRIPTION

The Automatic Jolting Table is used to compact cement mortar prisms 40x40x160 mm in the three gang mould, as requested by the above specifications. The apparatus, consists of a table holding the mould, seated on a rotating cam driven at 60 revolutions per minute. The jolting group is connected to the table by bayonet joints for quick checking of the weights. The drop height 15,0 mm is adjustable to keep it correct also after intensive uses. The apparatus is supplied with control panel including main switch, automatic digital drop counter, start/stop push buton.

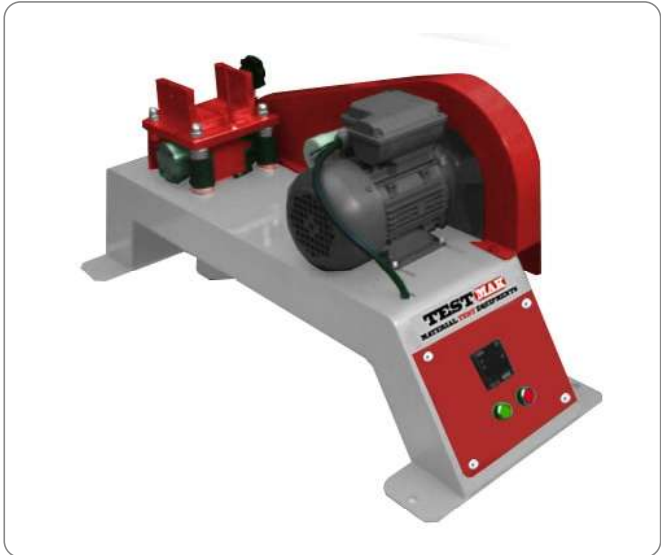
Dimensions	1000x380x420 mm
Weight (approx)	60 kg
Power	500 W

AUTOMATIC VIBRATING MACHINE

BS 4550

Product Code

- M2680 Vibrating Machine for 70.7 mm Cube Moulds, BS, 220-240 V 50 Hz
- M2680/110 Vibrating Machine for 70.7 mm Cube Moulds, BS, 110 V 60 Hz



DESCRIPTION

The M2680 Vibrating Machine is used for the preparation and compaction of 70.7 mm mortar cube specimens. The mould table is mounted on four springs attached to an eccentric shaft which allows each sample to be vibrated at 12000 cycles per minute. There is a timer on it to preset time and it stops automatically in every 120 seconds.

Dimensions	460x460x840 mm
Weight (approx)	100 kg
Power	1100 W

MORTAR CUBE AND PRISM MOULDS

EN 196-1 | ASTM C109 | BS 4550

Product Code

- M2480      Cube Mould 70.7 mm, Steel, BS
- M2490      Three Gang Cube Mould 50x50x50 mm, Steel, ASTM
- M2500      Three Gang Mould 40x40x160 mm, Steel, EN
- M2500/02    Feed Hopper 40x40x160 mm for M2500
- M2500/03    Short and Long Spreaders and Straight Edge for M2500

DESCRIPTION

Three Gang Mortar Prism Moulds are have been manufactured from steel and all internal surfaces are machined. Dimensions and specifications comply with the related standards. The moulds has the surface hardness of a minimum HV400.



MORTAR CUBE AND PRISM MOULDS

EN 196-1 | ASTM C109 | BS 4550



P. Code	Dimensions(mm)	Weight (kg)
M2480	100x125x90 mm	3.5 kg
M2490	110x230x60 mm	3 kg
M2500	190x300x70 mm	12 kg

CEMENT CURING CABINET

ASTM C109 | ASTM C511 | EN 196-8 | EN 196-1 | EN ISO 679

Product Code

M2850/750    Cement Curing Cabinet 750 Liter, 220-240V 50/60 Hz

DESCRIPTION

The Curing cabinet is used for curing cement specimens in laboratories, very practical and easy to use. The frame is made of strong polypropylene structure, which is chemical resistant and particularly suitable for cement applications. The front doors are fitted with transparent glass. The humidity is maintained from 95% to saturation by water nebulizer. The temperature is maintained to 20±1°C by a immersion heater and separated refrigerator unit. The four stainless steel racks of the internal frame can support the moulds with specimens and a large number of cement prisms. It can also be used to concrete cubes and other mortar specimens. Using a simple plastic pan is also possible to cure specimen in water. The unit has to be connected to a suitable air Air compressor, 200 l capacity. The Curing cabinet is supplied with air compressor and plastic pan for water curing of cement specimens.

The Curing cabinet has a water refrigerator placed in the lower part of the cabinet. This unit has been designed for provide cold water (temperature range: +2 to +25°C ). Comprising a refrigeration compressor, silent and CFC free, water reservoir with cooling coil, electronic thermo-regulator with digital display which shows the water/liquid output temperature. The water is moved internally by mains water pressure.

CEMENT CURING CABINET

ASTM C109 | ASTM C511 | EN 196-8 | EN 196-1 | EN ISO 679



Model	M2800/750
Volume	750 Liters
Temperature Range	20 ± 1°C
Temperature Precision	± 0,1 ° C
Temperature Uniformity	± 3°C
Humidity Range	20% to 95% Rh
Humidity Precision	± 0,1 Rh
Humidity Uniformity	± 3Rh
Internal Dimensions	1150x450x1450 mm
External Dimensions	1200x580x2100 mm
Weight	240 kg
Power	220-240 V 50/60 Hz 1700 W



COMPRESSION AND FLEXURAL TESTING

EN 196-1 | BS 3892 | ASTM C109 | NFP18-411 | DIN 1164 | UNE 80101 | EN ISO 679

Product Code

M2550/250	Automatic Cement Compression and Flexural Testing Machine 250/15 kN, 220-240 V 50/60 Hz
M2550/400	Automatic Cement Compression and Flexural Testing Machine 400/30 kN, 220-240 V 50/60 Hz
M2560	Automatic Cement Compression Testing Machine 250 kN, 220-240 V 50/60 Hz
M2550/AC5	Compression Jig Assembly to test 50 mm (2") mortar cubes, ASTM
M2550/EC4	Compression Jig Assembly to test portions of 40x40x160 mm mortar prisms, EN
M2550/BC7	Compression Jig Assembly BS, to test 70,7 mm mortar cubes
M2550/AF4	Flexure Jig Assembly to test 40x40x160 mm mortar prisms, ASTM
M2550/EF4	Flexure Jig Assembly to test 40x40x160 mm mortar prisms, EN

DESCRIPTION

The TESTMAK Automatic range of single testing chamber and double testing chamber compression and flexure testing machines have been designed for reliable and consistent testing of mortar samples. These compression and flexure testers are in suitable international standards ( EN 196-1, 459-2, 1015-11, 13454- 2; ASTM C 109, C348, C349 and BS 3892-1, 4551-1). Automatic cement compression and flexural machines are manufactured in terms of its technical properties taking into account client requirements by using suitable accessories. These machines also meet the requirements of CE norms for safety and health of the operator. Compression and flexure jigs should be ordered separately.

COMPRESSION AND FLEXURAL TESTING

EN 196-1 | BS 3892 | ASTM C109 | NFP18-411 | DIN 1164 | UNE 80101 | EN ISO 679



The TESTMAK automatic cement compression and flexure testing machines consist of very rigid two column single or double chamber frames, automatic hydraulic power pack with data acquisition and control system TCM.

The TESTMAK automatic cement compression and flexure testing machines allow less experienced operators to perform the tests. Once the machine has been switched on and the specimen is positioned and centered by the help of centering apparatus. The only required operations are;

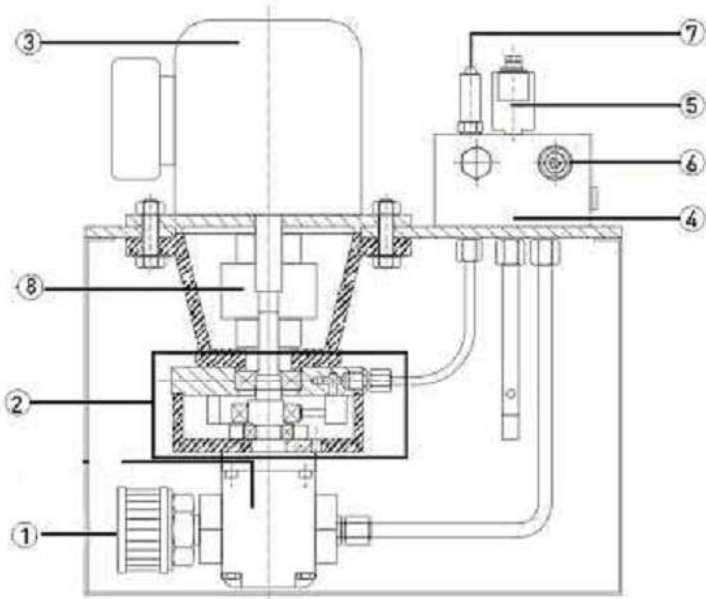
Choosing the compression or flexure test by using the changeover valve.

Pressing the START button on the control unit.

Automatically saves the test parameters and test results.

COMPRESSION AND FLEXURAL TESTING

EN 196-1 | BS 3892 | ASTM C109 | NFP18-411 | DIN 1164 | UNE 80101 | EN ISO 679



COMPRESSION AND FLEXURAL TESTING

EN 196-1 | BS 3892 | ASTM C109 | NFP18-411 | DIN 1164 | UNE 80101 | EN ISO 679

- 1- FILTER FOR POMP
- 2- HIGH PRESSURE RADIAL PISTON POMP
- 3- MOTOR
- 4- DISTRIBUTION BLOCK
- 5- SELONOID VALVE
- 6- SAFETY VALVE
- 7- TRANSDUSER
- 8- COUPLING COMPONENTS

Power Pack

M2550/05 Automatic Hydraulic Power Pack, dual stage, controlled by TCM is designed to supply the required oil to the load frames for loading. Very silent power pack can load the specimen between 50 N/sec to 2.4 kN/sec with an accuracy of  $\pm 5\%$ . A Rapid approach pump is supplied as standard. Safety valve (maximum pressure valve) is used to avoid machine overloading.

Motor

The motor which drives the dual pump is an AC motor, 380 V, 50-60 Hz, 3 phase, 1 hp and 1.1 kW and it is controlled by motor inverter. The variation in the oil flow is executed with the variation of the rotation speed of the motor.

Distribution Block

A distribution block is used to control the oil flow direction supplied by the dual stage pump, the following parts are fitted to the distribution block;

- Solenoid valve
- Safety valve (maximum pressure valve)
- Transducer
- High pressure radial piston pump

Oil Tank

The tank includes enough oil to fill the mechanism which pushes the ram during the test. The level and oil temperature can be seen on the indicator fitted to the tank. It has 18 L capacity. Hydraulic motor oil, number 46, must be used.



COMPRESSION AND FLEXURAL TESTING

EN 196-1 | BS 3892 | ASTM C109 | NFP18-411 | DIN 1164 | UNE 80101 | EN ISO 679

COMPRESSION AND FLEXURAL TESTING

EN 196-1 | BS 3892 | ASTM C109 | NFP18-411 | DIN 1164 | UNE 80101 | EN ISO 679

TCM LCD Graphic Display

The TCM LCD Graphic Display is controlled from the front panel, consisting of 240x120 pixels with a high resolution of 65,000 pixels effective resolution of the LCD display and function keys. Two analog channels for the load cell and two digital channels for there is a displacement sensor.

Firmware

The TCM LCD graphic display is controlled using the function keys on the front panel. Two analog channels for the load cell and two digital channels for there is a displacement sensor. Simultaneous load mapping of specific operating conditions, actual load speed and load / time schedule; USB connection to PC; Multi calibration coefficient.

Data collection and PC software

The testing software compression machine is designed for both ASTM, EN and BS STANDARTS compression testing. This software includes controlling the machine, collecting load data and moving, saving them and reports. The compression test of the software samples takes the diameter and height as the input parameter. It automatically calculates the correction factor, coming with respect for the sample size standards. Graphical results and reports can be saved as a MS Excel sheet.

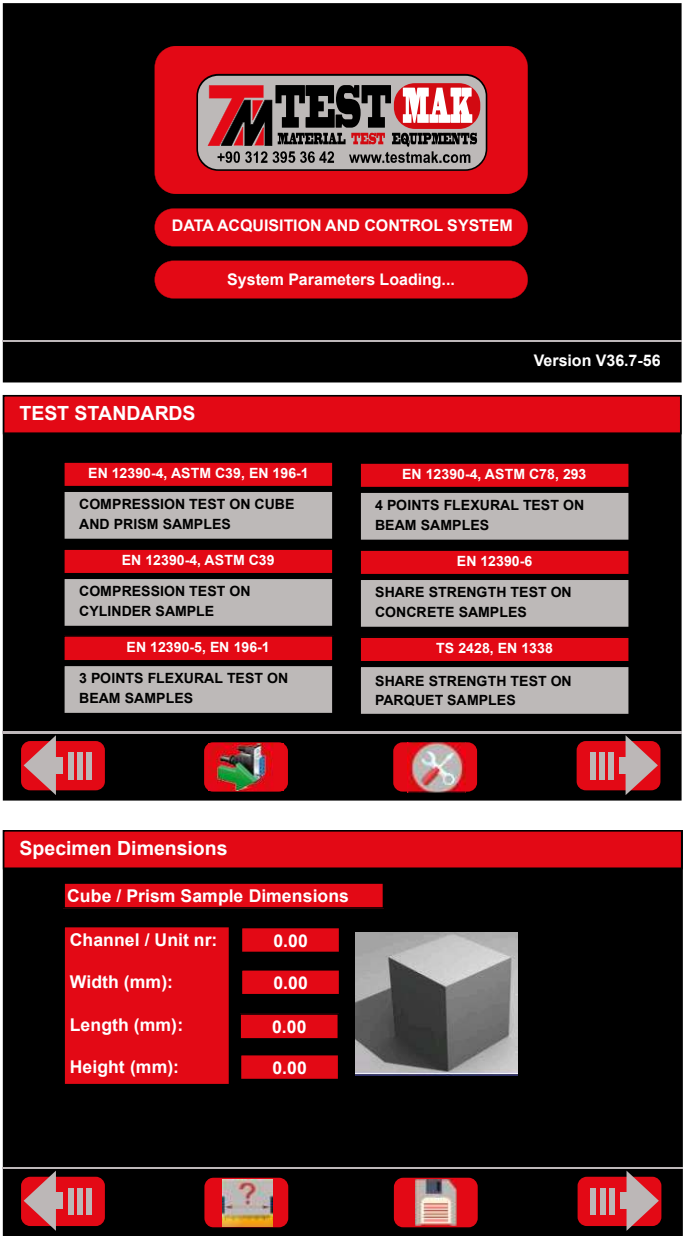
MAIN CHARACTERISTICS

- Automatic flow calculation and stability of values.
- 240x120 pixels blue-white graphic LCD.
- High resolution 65,000 dot.
- Backlight function.
- 21 touch keys membrane keyboard.
- Two analog and two digital channels, use for a dynamometer or pressure sensor, etc.
- Standalone fully automatic testing capability.
- You can do manual tests, if required.
- The type of sample and measurement can be entered respect for Standart.
- Load times, time stretches, test results and reports Examples of observed and printed.
- One USB port for connecting either a PC or a printer for data transmissions.
- Supplied with connection cable and software.
- Large permanent memory up to 256 test results.
- Language selection, English and Turkish.



COMPRESSION AND FLEXURAL TESTING

EN 196-1 | BS 3892 | ASTM C109 | NFP18-411 | DIN 1164 | UNE 80101 | EN ISO 679



Start the Test

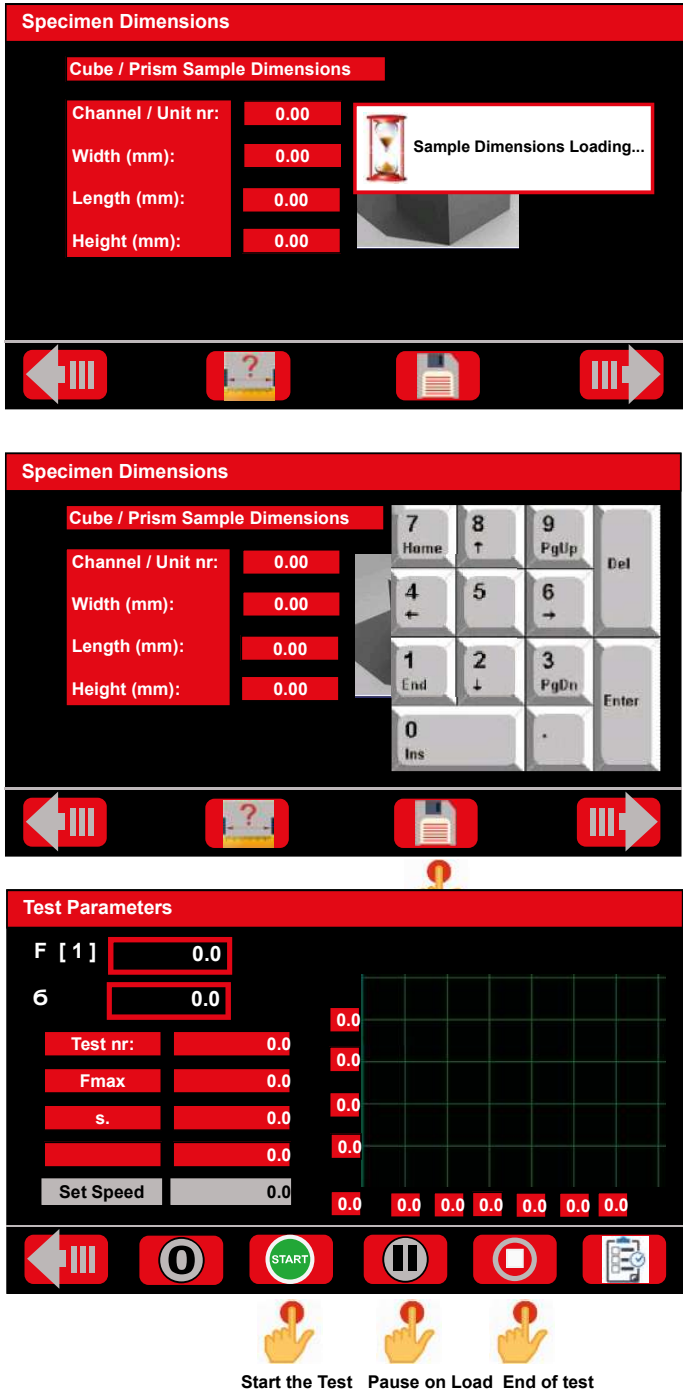
Press (START) to start the test. First, the device performs a bit of fast loading up to the boot value. When the boot value is reached, the speed is automatically set to the test speed level and kept constant at this level until the end of the test.

Pause on Load

If you want to stabilize the load at any load level during the test (PAUSE), press the hold button. In this case, the load is fixed at the load value level when the hold button is pressed and the device starts to wait. If this button is pressed again, the load will resume.

COMPRESSION AND FLEXURAL TESTING

EN 196-1 | BS 3892 | ASTM C109 | NFP18-411 | DIN 1164 | UNE 80101 | EN ISO 679



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COMPRESSION AND FLEXURAL TESTING

EN 196-1 | BS 3892 | ASTM C109 | NFP18-411 | DIN 1164 | UNE 80101 | EN ISO 679

Pause on Load

The device automatically terminates the test when the condition specified for the end of the test occurs.

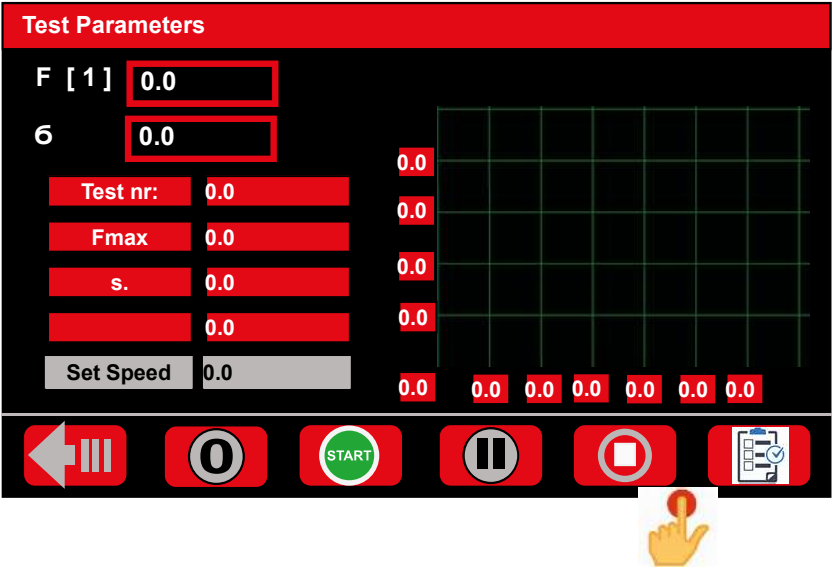
This condition is usually a decrease in the load as a result of the breakage of the test specimen, but sometimes the test can be completed when a certain load or deformation value is reached.

The user can also end the test at any time by pressing the STOP key at any time  (STOP). The unit automatically terminates the test to protect the machine and the sensors when the device detects that the specified loading capacity has been reached.

Test Results

The test results are saved as a table in the device memory. To access this table, press the test button on the test screen.

In this case, the test results are displayed.



Test Results

When the test results are displayed in a table, the test result is displayed on each page. Use the up / down arrow keys to scroll through the pages. This allows switching between 500 test results in the device memory.

Test Results				
		1	Search	
No	Sample	Fmax	6 (Mpa)	(s.)

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.



MODEL NO: M2550/250		
Test Type	Flexure	Compression
Capacity	15 kN	250 kN
Class 1 Measuring Range	0.5 to 15 kN	2.5 to 250 kN
Lower Platen Dimensions	165 mm	165 mm
Upper Platen Dimensions	165 mm	165 mm
Max. Vertical Clearance	263 mm	263 mm
Piston Diameter	80 mm	160 mm
Maximum Piston Movement	50 mm	50 mm
Horizontal Clearance	200 mm	300 mm
Power	1100 W	
Oil Capacity	18 Liter	
Maximum Working Pressure	30 Bar	125 Bar
Rapid Approach Rate	80 mm	50 mm
Dimensions	1100x500x1600 mm	
Weight	420 kg	

MODEL NO: M2550/400		
Test Type	Flexure	Compression
Capacity	30 kN	400 kN
Class 1 Measuring Range	0.5 to 30 kN	5 to 400 kN
Lower Platen Dimensions	165 mm	165 mm
Upper Platen Dimensions	165 mm	165 mm
Max. Vertical Clearance	263 mm	263 mm
Piston Diameter	80 mm	160 mm
Maximum Piston Movement	50 mm	50 mm
Horizontal Clearance	200 mm	300 mm
Power	1100 W	
Oil Capacity	18 Liter	
Maximum Working Pressure	30 Bar	125 Bar
Rapid Approach Rate	80 mm	50 mm
Dimensions	1200x580x1600 mm	
Weight	460 kg	

CEMENT COMPRESSION TESTING

EN 196-1 | BS 3892 | ASTM C109 | NFP18-411 | DIN 1164 | UNE 80101 | EN ISO 679

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CEMENT COMPRESSION TESTING

EN 196-1 | BS 3892 | ASTM C109 | NFP18-411 | DIN 1164 | UNE 80101 | EN ISO 679

Product Code

- M2560 Automatic Cement Compression Testing Machine 250 kN, 220-240 V 50/60 Hz
- M2550/AC5 Compression Jig Assembly to test 50 mm (2”) mortar cubes, ASTM
- M2550/EC4 Compression Jig Assembly to test portions of 40x40x160 mm mortar prisms, EN
- M2550/BC7 Compression Jig Assembly BS, to test 70,7 mm mortar cubes

DESCRIPTION

The TESTMAK Automatic range of single testing chamber compression testing machines have been designed for reliable and consistent testing of mortar samples. These compression testers are in suitable international standards ( EN 196-1, 459-2, 1015-11, 13454- 2; ASTM C 109, C348, C349 and BS 3892-1, 4551-1). Automatic cement compression machines are manufactured in terms of its technical properties taking into account client requirements by using suitable accessories. These machines also meet the requirements of CE norms for safety and health of the operator. Compression and flexure jigs should be ordered separately.

The TESTMAK automatic cement compression and flexure testing machines consist of very rigid two column single or double chamber frames, automatic hydraulic power pack with data acquisition and control system TCM.

The TESTMAK automatic cement compression and flexure testing machines allow less experienced operators to perform the tests. Once the machine has been switched on and the specimen is positioned and centered by the help of centering apparatus. The only required operations are;

Choosing the compression or flexure test by using the changeover valve.

Pressing the START button on the control unit.

Automatically saves the test parameters and test results.



Power Pack

M2560/05 Automatic Hydraulic Power Pack, dual stage, controlled by TCM is designed to supply the required oil to the load frames for loading. Very silent power pack can load the specimen between 50 N/sec to 2.4 kN/sec with an accuracy of ±5%. A Rapid approach pump is supplied as standard. Safety valve (maximum pressure valve) is used to avoid machine overloading.

Motor

The motor which drives the dual pump is an AC motor, 220 V, 50-60 Hz, 1 phase, 1 hp and 1.1 kW and it is controlled by motor inverter. The variation in the oil flow is executed with the variation of the rotation speed of the motor.

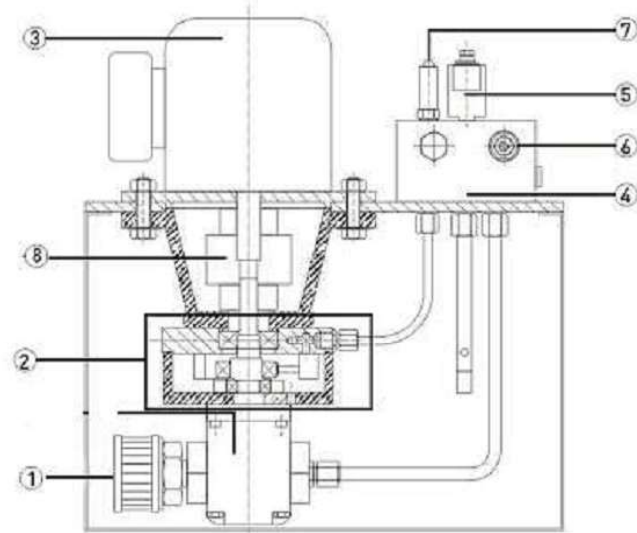
Distribution Block

A distribution block is used to control the oil flow direction supplied by the dual stage pump, the following parts are fitted to the distribution block;

- Solenoid valve
- Safety valve (maximum pressure valve)
- Transducer
- High pressure radial piston pump

Oil Tank

The tank includes enough oil to fill the mechanism which pushes the ram during the test. The level and oil temperature can be seen on the indicator fitted to the tank. It has 18 L capacity. Hydraulic motor oil, number 46, must be used.



- 1- FILTER FOR POMP
- 2- HIGH PRESSURE RADIAL PISTON POMP
- 3- MOTOR
- 4- DISTRIBUTION BLOCK
- 5- SELONOID VALVE
- 6- SAFETY VALVE
- 7- TRANSDUSER
- 8- COUPLING COMPONENTS

TCM LCD Graphic Display

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CEMENT COMPRESSION TESTING

EN 196-1 | BS 3892 | ASTM C109 | NFP18-411 | DIN 1164 | UNE 80101 | EN ISO 679

MAIN CHARACTERISTICS

- Automatic flow calculation and stability of values.
- 240x120 pixels blue-white graphic LCD.
- High resolution 65,000 dot.
- Backlight function.
- 21 touch keys membrane keyboard.
- Two analog and two digital channels, use for a dynamometer or pressure sensor, etc.
- Standalone fully automatic testing capability.
- You can do manual tests, if required.
- The type of sample and measurement can be entered respect for Standart.
- Load times, time stretches, test results and reports Examples of observed and printed.
- One USB port for connecting either a PC or a printer for data transmissions.
- Supplied with connection cable and software.
- Large permanent memory up to 256 test results.
- Language selection, English and Turkish.

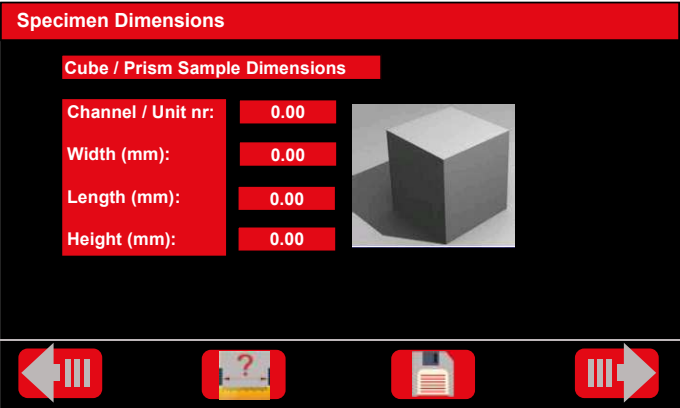
CEMENT COMPRESSION TESTING

EN 196-1 | BS 3892 | ASTM C109 | NFP18-411 | DIN 1164 | UNE 80101 | EN ISO 679



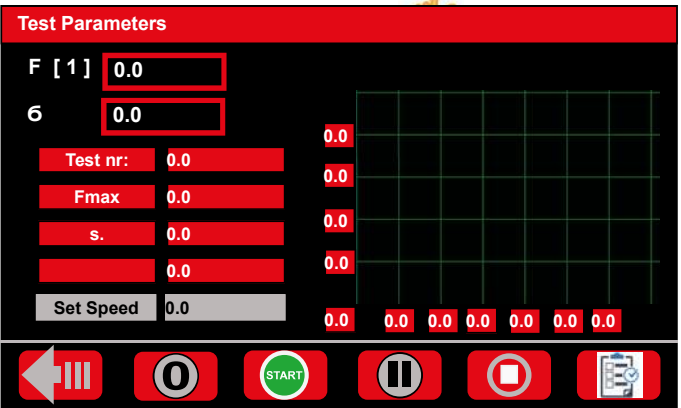
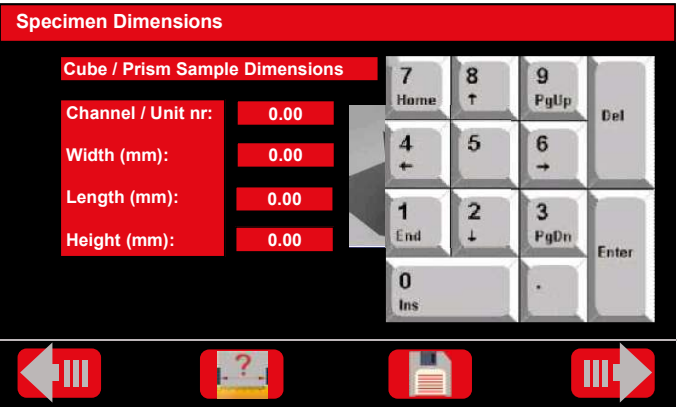
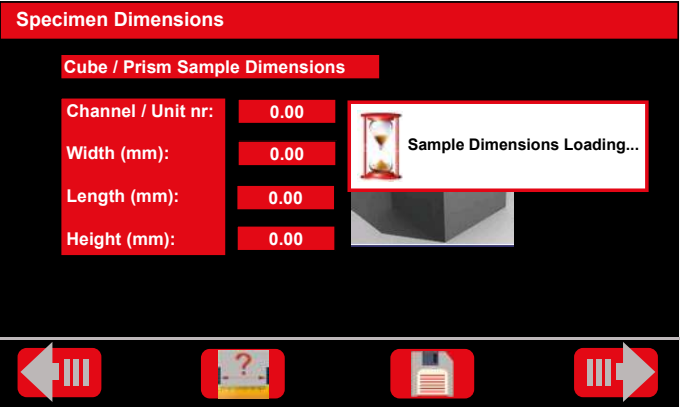
CEMENT COMPRESSION TESTING

EN 196-1 | BS 3892 | ASTM C109 | NFP18-411 | DIN 1164 | UNE 80101 | EN ISO 679



CEMENT COMPRESSION TESTING

EN 196-1 | BS 3892 | ASTM C109 | NFP18-411 | DIN 1164 | UNE 80101 | EN ISO 679



Start the Test    Pause on Load    End of test

Start the Test

Press (START) to start the test. First, the device performs a bit of fast loading up to the boot value. When the boot value is reached, the speed is automatically set to the test speed level and kept constant at this level until the end of the test.

Pause on Load

If you want to stabilize the load at any load level during the test (PAUSE), press the hold button. In this case, the load is fixed at the load value level when the hold button is pressed and the device starts to wait. If this button is pressed again, the load will resume.

MODEL NO: M2560	
Test Type	Compression
Capacity	250 kN
Class 1 Measuring Range	2.5 to 250 kN
Lower Platen Dimensions	165 mm
Upper Platen Dimensions	165 mm
Max. Vertical Clearance	263 mm
Piston Diameter	160 mm
Maximum Piston Movement	50 mm
Horizontal Clearance	300 mm
Power	1100 W
Oil Capacity	18 Liter
Maximum Working Pressure	125 Bar
Rapid Approach Rate	50 mm
Dimensions	830x500x1300 mm
Weight	320 kg



CEMENT COMPRESSION TESTING

EN 196-1 | BS 3892 | ASTM C109 | NFP18-411 | DIN 1164 | UNE 80101 | EN ISO 679

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CEMENT COMPRESSION TESTING

EN 196-1 | BS 3892 | ASTM C109 | NFP18-411 | DIN 1164 | UNE 80101 | EN ISO 679

Pause on Load

The device automatically terminates the test when the condition specified for the end of the test occurs.

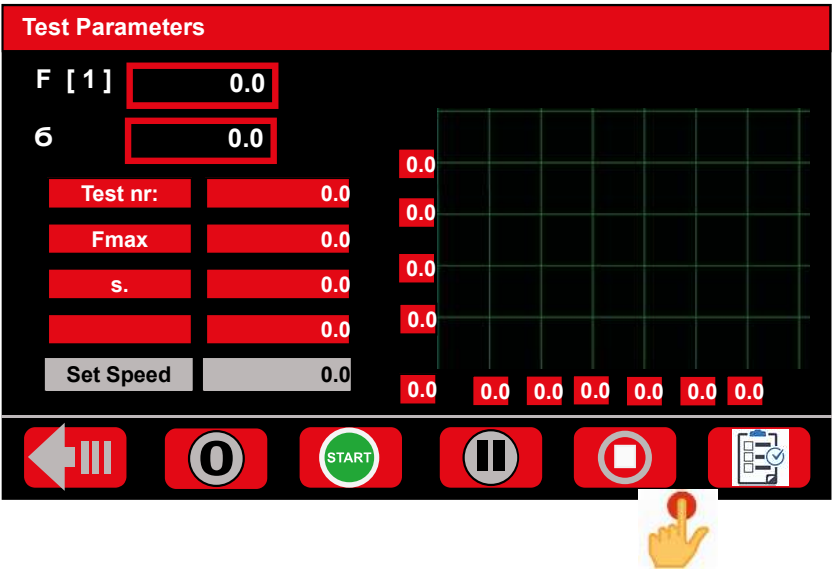
This condition is usually a decrease in the load as a result of the breakage of the test specimen, but sometimes the test can be completed when a certain load or deformation value is reached.

The user can also end the test at any time by pressing the STOP key at any time  (STOP). The unit automatically terminates the test to protect the machine and the sensors when the device detects that the specified loading capacity has been reached.

Test Results

The test results are saved as a table in the device memory. To access this table, press the test button on the test screen.

In this case, the test results are displayed.



Test Results

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Test Results				
		1	Search	
No	Sample	Fmax	σ (Mpa)	(s.)

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.

