

**Automatic CBR Test  
Machine**



**SOIL**

## Automatic CBR Test Machine



### PRODUCT MODEL

S4600/ACM	Automatic Cbr Test Machine 50 kN, Computerized - 220-240 V 50-60 Hz
S4600/ACM-110	Automatic Cbr Test Machine 50 kN, Computerized - 110 V 60 Hz

### STANDARDS

Standards	ASTM D1883   BS 1377:4
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### INFORMATION

Manufacturer	TESTMAK INS.LAB.MAK.SAN.VE TİC. PAZ. İTH. İHR. LTD. STİ
Country of Origin	TURKEY
Product Name	Automatic CBR Test Machine

## Automatic CBR Test Machine

### DESCRIPTION

Automatic CBR Test Machine is designed for performing laboratory evaluation of the CBR value of highway sub-bases and sub-grade, and determination of the strength of cohesive materials which have maximum particle sizes less than 19 mm.

The Machine is composed of a robust and compact two column frame with adjustable upper crossbeam driven by an electromechanical ram with a maximum capacity of 50 kN and a data acquisition and processing system.

The Machine is designed to load the penetration piston into the soil sample at a constant rate to measure the applied load and piston penetration at predetermined intervals. The ram speed can be set between 0.5 mm/min to 5 mm/min by using the TCM digital readout unit. This main feature allows the user to perform tests complying to BS, EN, ASTM or AASHTO standards with the same machine. Rapid adjustment of the platen is also provided by up and down buttons which are located on the front panel of the machine.

**The Automatic Cbr Test Machine is supplied complete with;**

- S4600/01 Cbr Load Frame
- S4600/02 Penetration Piston
- G345/S50 Load Cell, 50 Kn
- G340/02 Linear Potentiometric Displacement Transducer, 25x0.001 mm
- S4600/03 TCM Readout Unit Featuring , PC Software and Cable

Cbr moulds are should be ordered separately.

### **TCM304 LCD Graphic Display Data Acquisition and Control Unit**

TCM304 LCD Graphic Display Data Acquisition and Control Unit is produced to control the machine and processing of data from load-cells, pressure transducers or displacement transducers which are fitted to the machine.

TCM304 LCD Graphic Display are controlled from the front panel consisting of a 240x120 pixel LCD display and function keys. One analog channel for load cell and one analog channel for displacement transducer exists.

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TCM304 has easy to use menu options. It displays all menu option listings simultaneously, allowing the operator to access the required option in a seamless manner to activate the option or enter a numeric value to set the test parameters.

The TCM 304 digital graphic display is able to draw real-time "Load vs. Time", "Load vs. Displacement" or "Stress vs. Time" graphics. TCM304 can save 256 test results in its internal memory. At the end of the test cycle, the results can be stored in the large memory or downloaded to a PC in TCM304 software format. Dedicated software package is available for further online data processing data base management and certificate printing.

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### 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.
- 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 USB 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.

### Data Acquisition & PC Software

CBR Test Software is developed for both EN 13286-47, BS 1377:4, ASTM D1883, AASHTO T193, NF P94-078 and UNI CNR 10009 standards CBR Tests. The Cbr Software includes control of machine, acquisition of load and displacement data, saving them and reports. The Software accepts specimen diameter and height as an input parameter. It automatically calculates correction factor coming from the standarts respect to specimen size. The stability value is calculated regarding to this factor. The software continuously updates load and displacement until the end of test. When the test is completed, the sharpest slope of the graph is calculated. The point that this line crosses displacement axis is commented as an offset. This offset is subtracted from the displacement value at peak point and called as flow. Graphical outputs and reports can be saved as a MS Excel worksheet.

### TECHNICAL SPECIFICATIONS

Capacity	50 kN
Platen Speed	0.625 to 5 mm/min
Dimensions	400x560x1100 mm
Weight (approx.)	95 kg
Power	370 W



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**MATERIAL TEST EQUIPMENTS**

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