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## Semi-Automatic Cement Compression & Flexure Testing Machines (Motorized) ZI 1039

Standards: EN 196-1, 459-2, 1015-11, 13454-2;  
ASTM C109, C348, C349; BS 3892-1, 4551-1

### Specification:

Semi Automatic Cement Compression & Flexural Testing Machines (Motorized) having single and double testing chamber are designed for reliable and consistent testing of mortar samples. These compression and flexure testers are the results of continuous applications and research studies to upgrade the machines with the latest technologies and conform with current standards. These testers also meet the requirements of CE norms for safety and health of the operator.

Semi-Automatic cement compression and flexure testing machines allow operators who have minimal experience to perform the tests.

Semi-Automatic cement compression and flexure testing machines consist of a very rigid two column single or double chamber frame, hydraulic powerpack and data acquisition system LPI.

Compression and flexure jigs, distance pieces, and also removable transparent front-rear safety doors (should be factory installed) should be ordered separately.

### Power Pack

The Motorized (Semi-Automatic) Power Pack, controlled by a pressure rate control valve, is



designed to supply the required oil to the load frames for loading. The power pack can load different frames with required pace rates. A rapid approach pump is supplied as standard. The power pack is equipped with a safety valve (maximum pressure valve) to avoid machine overloading.

### **Dual Stage Pump**

Low pressure gear pump

High pressure durable variable output pump

On the dual stage pump, high delivery low pressure gear pump is used for rapid approach, while low delivery high pressure durable variable output pump is used for test execution. Rapid approach property of the machine shortens the time interval from the piston starts moving until the upper platen touches to the specimen and helps to save a great amount of time in case of numerous specimens are going to be tested.

### **Motor**

Dual pump is driven by an AC motor

220 V (110 V), 50-60 Hz single phase and 0.55 kW

### **Distribution Block**

A distribution block is used to control the oil flow direction supplied by the dual stage pump which has the safety valve and pressure relief valve mounted upon it.

Safety valve (maximum pressure valve)

Pressure relief valve

### **Oil Tank**

The tank (20 L capacity) 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. Hydraulic motor oil number 46, must be used in the tank.

### **LPI**

LPI Battery Operated Digital Readout Unit has

been designed to use with load cells or pressure transducers on different material test applications.

Real time numeric display of load and load rate

1 channel with two different calibration table (can be used for 2 sensors)

Peak hold property • Multi-point calibration • Serial port for PC or printer

Can operate with 2 x AA batteries • Easy preload zeroing • 7 keys keyboard

### **Safety Features**

Maximum pressure valves to avoid machine overloading

Piston travel limit switch