

## OSC 997FU002 Mooney Viscometer

Designed in accordance with ASTM D1646, ISO289 and JIS K6300 standards for measuring the Mooney viscosity, Stress relaxation and pre-vulcanization properties of raw and compound rubber.



### <Features>

#### 1. Test Capabilities

##### - Mooney Viscometer Test

A measurement used to test the viscosity of raw rubber or compounded rubber.

##### - Pre-vulcanization Test

A measurement used to test the time to the incipient vulcanization and cure rate of compounded rubber during the early stage of vulcanization in lower temperature situation.

##### - Stress Relaxation Test

A measurement of Mooney stress decay related to time at a sudden stop of rotation after a Mooney test. By applying the Power law model ( $M = Kt^a$ ) to analyze the data of Mooney stress relaxation such as the rate of stress relaxation, area under the stress relaxation curve...etc., we could predict the relative trends of compound processing reactions such as mill process, extrusion or die swell...etc.

#### 2. Improved torque measuring system

Including torque transducer and related mechanism, have completely eliminated extra resistance force caused from mechanical rotation to ensure the torque reading is the real Mooney viscosity of test rubber, especially the starting Mooney value.

#### 3. Quick temperature heat-up and stabilization capabilities

minimize the time of die temperature recovery within  $35 \pm 2$  seconds.

#### 4. Data collection, processing and storage are all carried out automatically by professional software.

#### 5. Easy operation and calibration

- En-lengthened rotor helps user to put the rotor into the correct position in the center hole of rotation shaft.
- Pneumatic rotor push-out function simplifies the operation of taking the rotor out from the lower die and minimizes the operation time.
- Auxiliary calibration software helps the user to calibrate the torque reading.

### <Specifications>

Model	OSC 997FU 002
Temperature	Computer assistance control, Usable range from room to 200
Temperature accuracy	$\pm 0.3$
Rotors	Large and small sizes
Air pressure	$4.5 \sim 5.0 \text{ kg/cm}^2$
Electrical	100VAC $\pm 10\%$ , 50/60 $\pm 3$ Hz, 10 amp single phase
Approx. Dimensions of machinery DxWxH	Main: 85 x 62 x 135cm Subsidiary(data processing devices with a wooden desk): 65 x 80 x 80cm
Approx. Weight	Main machinery: 230 kg, Subsidiary machinery: 50 kg

### <Components>

#### 1. One set of test machine

Including components of Upper & lower die structure, torque measurement system, rotor driving system, die temperature sensors, air combination unit...etc.

#### 2. One set of subsidiary machinery

Including data processing devices such as Temperature controllers, Computer, 17"Monitor, Color-Jet printer, Keyboard, Mouse, Signal processing circuit. The computer includes P4 CPU, 52X CD-ROM, 40GB HDD, 1.44MB Floppy disk, 256MB DDR, Windows XP operation software and professional interface card.

#### 3. Two pieces of standard weights for calibration.

### <Accessories>

1. One pcs of nozzle pliers
2. One pcs of Cooper brush
3. One pcs of Cooper bar
4. 200 sheets of A4 paper
5. 5 pcs of spare fuse