



Melt Flow System - 6MBA Manual Basic

Model 46-02-01-0001



The 6MBA is the basic model offered within the Ray-Ran Range of Melt Flow Indexers. The manually operated test procedure is very simple to undertake. Molten Polymer is extruded through a closely controlled orifice (die) from the apparatus using pre set conditions of temperature and pressure produced by a dead weight system. The extruded polymer is cut off manually and is then weighed. Using the time interval to extrude the polymer its flow rate over 10 minutes can easily be determined, thus giving the Melt Flow Index (MFI) or Melt Mass Flow Rate (MFR) in g/10 min. By conducting a simple Density Test at test temperature on the same material using the same pre set conditions and a known piston travel distance the Melt Volume Rate (MVR) can also be determined.

The 6MBA Melt Flow System is supplied as standard with a replaceable hardened steel cylinder liner, standard test die and piston along with 2.16 kg test load and cleaning ancillaries. The temperature controller used is a 16th DIN type and displays the current temperature and set point and is accurate to 0.1°C. A PT100 Platinum Resistance Thermometer is used to accurately control the temperature of the barrel. The maximum allowable temperature variation along the length of the cylinder liner is in accordance with ISO1133 International Test Standard. An integrated timer is also fitted to accurately time the extrusion of the material in seconds to enable you to calculate the Melt Mass Flow Rate (MFR). All documentation is supplied including a product user manual and a fully traceable calibration certificate.

Optional weights can be supplied to cover all testing parameters to International Test standards and for the heavier weights the optional weight loader can be fitted to the apparatus for ease in loading the piston. The weight loader can also be used as a hold back feature for materials which have a high flow rate.

Please be aware that this machine has no computer connectivity or file capture software functionality.

Although the MFR value is not a fundamental property of the polymer, it does however, give an indication of the flow characteristics of the polymer and it has become one of the most widely used references for the quality control of polymers. The machine is available in either 220-240v 50hz or 110v 60hz.

SPECIFICATIONS

- Digital temperature controller
- Easy set point operation
- Temperature accurate to +/- 0.1 °C, range 0 to 400°C and resolution +/- 0.01 °C
- Digital timer with large easy-to-read display
- Count range - 1 second to 99999 hours 59 seconds
- Test die, piston and 2.16kg test weight supplied as standard
- Filling and cleaning tools included as standard
- Electrical characteristics: 110v@60hz and 220v@50hz
- Fuse rating: 10 amp
- Net weight 35kg, width 57cm, depth 58cm, height 70cm

OPTIONAL ACCESSORIES

- Weight loader
- Full range of test weights available from 1Kg to 21.5Kg
- Hastalloy cylinder, liner and die for corrosive materials

COMPLIES WITH STANDARD(S)

- ISO 1133
- BS 2782: Part 7: Method 720A
- ASTM D1238 method A only

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