



Basic Melt Flow System (Indexer)

Model MFR200



The MFR200 melt flow indexer offers a more automated procedure than the MFR100, vastly improving results accuracy for "Method A" testing requirements.

The test procedure is simple to conduct. Molten polymer is extruded through a closely controlled orifice (die) from the apparatus using preset conditions of temperature and pressure produced by a dead weight system. The extruded polymer is cut off automatically and weighed. Using the time interval to extrude the polymer, its flow rate over 10 minutes can be determined. Test results are given as the Melt Flow Index (MFI). A density at melt temperature test can also be conducted.

The MFR series of Melt Flow Indexers are supplied with a replaceable hardened steel cylinder liner which can be swapped out if a replacement is needed or for Hastelloy (optional) if testing corrosive materials is a requirement. A tungsten carbide test die and hardened steel piston along with 2.16 kg test load and tooling ancillaries compliment the apparatus to get you testing straight out the box.

The apparatus features a rotary "Auto Cut Device" feature for consistent cutting accuracy of the extrudate, eliminating the need for manual cutting.

For simplicity, the apparatus is fitted with an intuitive, 4" color touch screen panel and microprocessor interface so test parameters can be easily set. Features include temperature set point value (SV), actual temperature value (AV), number of cuts, cut time, auto MFI calculation and "ECO" mode. Weigh the cut samples and enter the weights as a mean or individual cuts and let the microprocessor calculate the MFI value.

The integrated temperature controller and PT100 Platinum Resistance Thermocouple accurately control the barrel temperature to 0.1° C with a resolution of 0.01° C. Dual zone heating gives accurate temperature deviation along the length of the barrel to international test standards.



Automatic cut-off device for extruded polymer



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FEATURES

- Temperature SV input
- Temperature AV display
- Number of cuts
- Time between cuts
- Mean or individual weight entry
- Auto MFI calculation
- Density@ melt temperature test and auto calculation

SPECIFICATIONS

- Dedicated microprocessor control
- Dual zone heating
- Temperature accuracy +/- 0.1° C
- Temperature range ambient to 500° C
- Temperature resolution +/- 0.01° C
- ECO mode
- Auto cut off device fitted with replaceable blades
- Intuitive 4" colour touch screen panel
- Tungsten carbide test die, hardened steel piston @ 0.325 kg

OPTIONS

- Pneumatic weight loader 150 psi (11 bar) max
- Full range of test weights available from 1 kg to 21.6 kg Hastelloy cylinder, liner and die for corrosive materials

- 2.16 kg test weight supplied as standard
- Simple replaceable cylinder liner design
- Filling and cleaning tools included as standard
- Product user manual
- Traceable calibration certificate
- CE declaration certificate
- 1-year return to base warranty
- Available in 220-240V 50 hz and 110-120V 60 hz, 10amp
- Conforms to Method A of International Test Standard ASTM D1238 & ISO1133 amongst others

WEIGHTS& DIMENSIONS

SP0500 – BASE INSTRUMENT	
Net Weight	35 kg
Width	57 cm
Depth	58 cm
Height	70 cm

RAW MATERIAL EVALUATION

All documentation is supplied, including a User Manual and a fully traceable calibration certificate. Optional weights, up to and including 21.6kg, can be supplied to cover all testing parameters to International Test standards. For heavier weights, the optional pneumatic weight loader can be fitted to the apparatus for ease in loading the piston. The weight loader can also be used to hold a cleaning tool so cleaning can be done more simply. The improved die release feature makes removing the test die a simple task.

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 give an indication of the flow characteristics and has become a widely used reference for the quality control of polymers.

Model MFR200 is available in either 220-240v 50 hz or 110v 60 hz.

