

Melt Flow Indexer MFI-10

The Davenport MFI-10 melt flow indexer is used to determine the melt flow rate of a polymer by extruding it in a molten state through a calibrated die using a reference weight. The MFI-10 is an intelligent, modular system, which offers flexibility of testing and increased automation. The main base unit can be configured for either manual or fully automatic testing.

For those who use the same machine for a given test, a standard test set up may be saved and password protected. Those doing several different tests may save up to 10 set ups and recall them by name. Operators need not be experienced. The backlit LCD gives written instructions at each step with audible prompts at the correct time and results calculated and displayed at the end of the test.

Busy laboratories will save time and improve health and safety by automating the whole process with the addition of the optional displacement transducer and auto weight loading device.

NEXYGEN™ Analysis Software

NEXYGEN software for the MFI-10 is both easy to use and extremely flexible even for operators having little computer knowledge. The standard program comprises the analysis engine, test graph, results table and batch statistics, test setup editor, and the facility to incorporate results with other Microsoft Windows™ 95/98/2000/NT/XP compliant packages. The MFI-10 categorically outclasses competition for accuracy, repeatability, and reproducibility of results.

Features

- Calculates melt flow index (MFI), melt flow rate (MFR), melt volume rate (MVR), and melt density/viscosity
- Simple set-up, operation and maintenance
- Standard tests saved and recalled by name
- Complies with BS 2782 Part 7: Method 720A, ISO 1133 and ASTM D1238 Methods A and B
- 10 user definable test methods
- Melt density calculations
- Last test reload option, even when switched off
- Sequential instructions displayed on LCD
- Repeatable and reproducible results
- Heavy-duty, robust construction

Specification

Temperature Range:	40°C to 400°C
Temperature Controller:	All systems $\pm 0.1^\circ\text{C}$ accuracy
Warm Up Time:	10 minutes (23°C to 190°C)
Electrical Supply:	230V $\pm 10\%$ ac 50-60Hz Fuses 5A (T) 115V $\pm 10\%$ ac 50-60Hz Fuses 10A (T) Maximum power required: 1KW
International Standards:	BS 2782 Part 7: Method 720A, ISO 1133 and ASTM D1238 Methods A and B. (Method B requires Flow Rate Timer)
Standard Loads:	Calibrated loads are to total value stamped on weight with correct piston: 0.325 g, 1 kg, 1.05 kg, 1.2 kg, 2.16 kg, 3.8 kg, 5 kg, 10 kg, 12.5 kg (2 loads), 20 kg (3 loads), 21.6 kg (3 loads)
Corrosion Resistant Barrel and Pistons:	Tungsten Carbide for testing of corrosive materials such as PVC and abrasive glass filled materials.
Thermometers:	90° angle indicating and short range (4° x 0.1°C) mercury in glass
Dies:	Tungsten carbide 2.095 mm (standard supplied with machine) or 1.181 mm (optional)
Die Plug Gauge Go/No Go Gauges:	2.0904/2.1006 mm with UKAS certificate
Barrel Plug Gauges:	Go/No Go gauge with extended handle. 9.543/9.558 mm and 225 mm long supplied with UKAS certificate
Pistons (Supplied with Machine):	Standard 100 g for loads < 10 kg
Net Weight:	32 kg



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Standard Accessories

Ordering Information

Model	Part No	Description
MFI-10/115	01/2702	Melt Flow Indexer (115V)
MFI-10/115CR	01/2704	Corrosion Resistant Melt Flow Indexer (115V)
MFI-10/230	01/2601	Melt Flow Indexer (230V)
MFI-10/230CR	01/2703	Corrosion Resistant Melt Flow Indexer (230V)

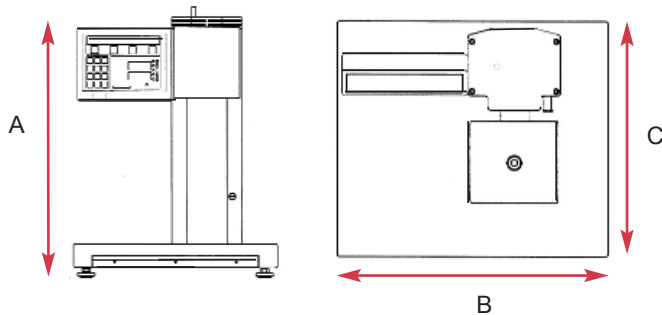
Standard Accessories supplied with the MFI-10

Item	Part No	Item	Part No
2.095 mm Die	338/10	71 mm Piston Support Sleeves	338/293
Cut Off Knife	338/33	81 mm Piston Support Sleeves	338/294
Standard Piston	338/45	Die Tweezers	92/0404
Circular Spirit Level	338/100	Thermometer Sleeve	730/62
Charging Tool	338/52	Hexagonal Key	338/50
Die Ejector Tool	338/54	Die Retaining Plate	737/8
Barrel Cleaning Tool	338/55	Ceramic Die Retaining Bush	737/7
Die Broach	338/101	2.16 kg Test Weight	338/14
Box of Cleaning Patches	338/132	188 - 192°C Thermometer	338/104/3
Filling Funnel	730/79		

Optional Accessories

Item	Part No	Item	Part No
Thermometers		Weights	
123 - 127°C Thermometer	MFI/THER 125 338/104/1	1000 g Test Weight	MFI/WT 1000 338/226
148 - 152°C Thermometer	MFI/THER 150 338/104/2	1050 g Test Weight	MFI/WT 1050 338/259
188 - 192°C Thermometer	MFI/THER 190 338/104/3	1200 g Test Weight	MFI/WT 1200 338/13
198 - 202°C Thermometer	MFI/THER 200 338/104/4	2160 g Test Weight	MFI/WT 2160 338/14
208 - 212°C Thermometer	MFI/THER 210 338/104/15	325 g Test Weight	MFI/WT 325 338/12
218 - 222°C Thermometer	MFI/THER 220 338/104/12	3800 g Test Weight	MFI/WT 3800 338/15
228 - 232°C Thermometer	MFI/THER 230 338/104/5	5000g Test Weight	FI/WT 5000 338/16
233 - 237°C Thermometer	MFI/THER 235 338/104/6	Top Weight for 10 kg	MFI/WT A 338/16
248 - 252°C Thermometer	MFI/THER 250 338/104/11	Top Weight for 12.5 kg	MFI/WT B 338/16
263 - 267°C Thermometer	MFI/THER 265 338/104/7	Top Weight for 20 kg	MFI/WT C 338/16
273 - 277°C Thermometer	MFI/THER 275 338/104/8	Top Weight for 21.6 kg	MFI/WT D 338/16
295 - 299°C Thermometer	MFI/THER 297 338/104/14		
298 - 302°C Thermometer	MFI/THER 300 338/104/14	Other Accessories	
308 - 312°C Thermometer	MFI/THER 310 338/104/14	Auto Cut Off Device	MFI-10/ACD 01/2742
313 - 317°C Thermometer	MFI/THER 315 338/104/14	Auto Flow Rate Timer	MFI-10/AFRT 01/2701
323 - 327°C Thermometer	MFI/THER 325 338/104/14	Auto Weight Loader 230V	MFI-10/AW230 01/2738
348 - 352°C Thermometer	MFI/THER 350 338/104/14	Auto Weight Loader 115V	MFI-10/AW115 01/2752
373 - 377°C Thermometer	MFI/THER 375 338/104/14	NEXYGEN™ Software for MFI-10	40/0734
398 - 402°C Thermometer	MFI/THER 400 338/104/14		

Product Dimensions



		mm	in
A	Height	575	22.6
B	Width	463	18.2
C	Depth	404	16.9

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