

DAVENPORT™

MFI-10

Polymer Testing System

Description

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 setup may be saved and password protected. Those doing several different tests may save up to 10 setups 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™ 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 compliant packages. The MFI10 categorically outclasses competition for accuracy, repeatability, and reproducibility of results.

Features

- Calculates MFI, MFR, MVR, and Melt Density/Viscosity
- Simple set-up, operation and maintenance
- Standard tests saved and recalled by name
- ISO 1133 and ASTM methods A and B
- 10 user definable test methods
- Melt density calculations and display embedded
- Last test reload option - even when switched off
- Sequential instructions displayed on LCD
- Repeatable and reproducible results
- Heavy-duty, robust construction

Specifications

Temperature range	40°C to 400°C
Temperature controller	All systems ±0.1°C accuracy
Warm up time	20 minutes (23°C to 190°C)
Mounting	All systems are bench mounted
Electrical Supply	230V ±10% ac 50 - 60 Hz - Fuses 5 A (T) or 115V ±10% ac 50 - 60 Hz - Fuses 10 A (T) Max power required: 1KW
International standards	ISO1133, ASTM D 1238 (procedure A & B) (procedure B requires Flow Rate Timer)
Standard Loads	Calibrated loads are to total value stamped on weight with correct piston: 0.325g, 1Kg, 1.05Kg, 1.2Kg, 2.16Kg, 3.8Kg, 5Kg, 10Kg, 12.5Kg (2 loads), 20Kg (3loads), 21.6Kg (3 separate 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 Barrel plug gauges	2.0904/2.1006 mm with UKAS certificate Go/No Go gauge with extended handle. 9.543/9.558 mm and 225 mm long supplied with UKAS certificate
Pistons Weight	Standard 93 g ±1 g for loads <10 Kg (supplied with machine) 32 Kg (unpacked)



SPECIFICATION
SS-RH-7010
April 2001

INTERNET
www.ametek.com
www.chatillon.com
www.lloyd-instruments.co.uk

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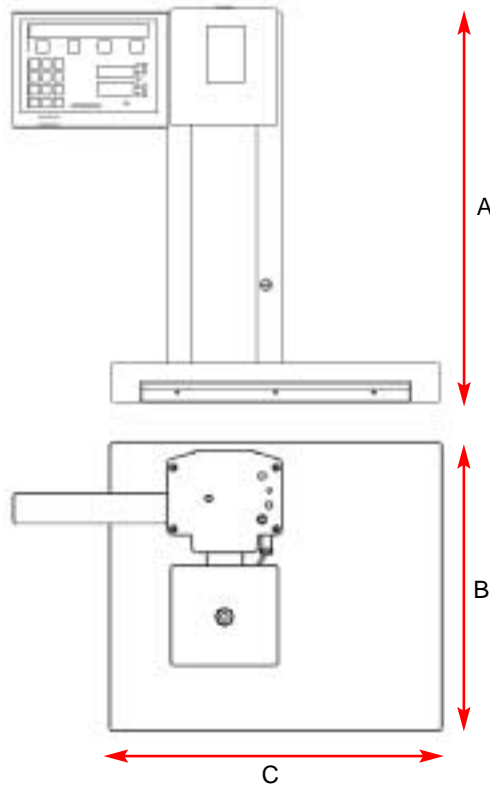
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Ordering Information

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

Product Dimensions



	mm	in
A	597	23.5
B	404	16
C	643	25

Standard Accessories

■ = Included with product

Item	Part No.
Tool Kit: Included as standard	01/2816
2.096 mm Die	338/10
Cut off knife	338/33
Standard piston	338/45
Circular spirit level	338/100
Charging tool	338/52
Die ejector tool	338/54
Barrel cleaning tool	338/55
Die broach	338/101
10 boxes of 45 cleaning patches	338/132
71 mm Piston support sleeves	338/293
81 mm Piston support sleeves	338/294
Die tweezers	92/0404
Thermometer Sleeve	730/62
Filling Funnel	730/79
Thermometers	
123 - 127°C Thermometer	MFI/THER 125 338/104/1
148 - 152°C Thermometer	MFI/THER 150 338/104/2
188 - 192°C Thermometer	MFI/THER 190 338/104/3
198 - 202°C Thermometer	MFI/THER 200 338/104/4
208 - 212°C Thermometer	MFI/THER 210 338/104/15
218 - 222°C Thermometer	MFI/THER 220 338/104/12
228 - 232°C Thermometer	MFI/THER 230 338/104/5
233 - 237°C Thermometer	MFI/THER 235 338/104/6
248 - 252°C Thermometer	MFI/THER 250 338/104/11
263 - 267°C Thermometer	MFI/THER 265 338/104/7
273 - 277°C Thermometer	MFI/THER 275 338/104/8
295 - 299°C Thermometer	MFI/THER 297 338/104/14
298 - 302°C Thermometer	MFI/THER 300 338/104/14
308 - 312°C Thermometer	MFI/THER 310 338/104/14
313 - 317°C Thermometer	MFI/THER 315 338/104/14
323 - 327°C Thermometer	MFI/THER 325 338/104/14
348 - 352°C Thermometer	MFI/THER 350 338/104/14
373 - 377°C Thermometer	MFI/THER 375 338/104/14
398 - 402°C Thermometer	MFI/THER 400 338/104/14
Weights	
1000g Test weight	MFI/WT 1000 338/226
1050g Test weight	MFI/WT 1050 338/259
1200g Test weight	MFI/WT 1200 338/13
2160g Test weight	MFI/WT 2160 338/14
325g Test weight	MFI/WT 325 338/12
3800g Test weight	MFI/WT 3800 338/15
5000g Test weight	MFI/WT 5000 338/16
Top weight for 10 Kg	MFI/WT A 338/16
Top weight for 12.5 Kg	MFI/WT B 338/16
Top weight for 20 Kg	MFI/WT C 338/16
Top weight for 21.6 Kg	MFI/WT D 338/16
Auto cut off device	MFI-10/ACD 01/2742
Auto flow rate timer	MFI-10/AFRT 01/2701
Auto weight loader 230V	MFI-10/AW230 01/2738
Auto weight loader 115V	MFI-10/AW115 01/2752
NEXYGEN™ Software for MFI-10	40/0682

AMETEK

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