

SCITEQ

MFI – 450 Series



We help you perform even better

About MFI



Function

The SCITEQ MFI-450 is used to determine the melt mass-flow rate (MFR) and melt volume-flow rate (MVR) of a wide range of thermoplastic raw materials (granulate) by extruding it in a molten state through a calibrated die using a reference weight.

It offers easy operation with color touch screen control for fully automatic testing.

Standards

The user-friendly MFI combines high accuracy and precision essential for quality control and R&D.

Complies with following standards:

- BS 2782 Part 7: Method 720A
- ISO 1133 and ASTM 1238 Methods A and B



Features

Touch screen with simple set-up of test and operation and a very intuitive software. Results calculated and test data can be transferred via USB to your PC to view data and generate test reports. Software is included (on USB stick). Included is auto cut off and full weight range and tool kit and semi automatic weight loading.



Construction

The MFI-450 series is a heavy-duty, robust rigid constructed table model. With the displacement transducer, which is standard, MVR testing can also be performed. The semi automatic weight loading device is standard improving usability and ensuring weight is loaded evenly. It has audible prompts at the correct time and Supplied with fully equipped weight kit up to 21,6 kg and full accessory kits.

Complete weight set box

consisting of one of each weights:

600 g

875 g

960 g

1.000 g

1.200 g

1.640 g

2.500 g (two)

5.000 g (two)

(Total weight up to 21,6 kg
incl. 325 g for components)



Accessories:

- 2.095 mm die
- standard piston
- charging tool
- die ejector tool
- barrel cleaning tool
- die broach
- cleaning patches
- filling funnel
- piston support sleeves
- die tweezers
- hexagonal key
- die retaining plate



Technical Specification MFI

SCITEQ

MFI model 450 C1	Description
Temperature range	120°C to 450°C (248°F to 842°F)
Temperature accuracy:	±0.2°C
Timing accuracy:	0.01s
Displacement error:	±0.1mm (MVR)
Heating rate:	≥12°C/min
Warm up time:	approx. 16 minutes (190°C)
Electrical supply:	Single phase 230V ±10% AC 50-60Hz. 6 Amps
Maximum power required:	0,65kW
International standards:	BS 2782 Part 7: Method 720A, ISO 1133 and ASTM D1238 Methods A and B
Corrosion resistant barrel and pistons:	tungsten carbide for testing of corrosive materials such as PVC and abrasive glass filled materials
Temperature measurement:	PT 100 sensor
Die:	tungsten carbide 2.095±0.005mm
Piston length:	193mm full length (effective length 175mm)
Piston head length:	6.35±0.10mm
Piston rod diameter:	9.475±0.015mm
Cylinder diameter:	9.550±0.025mm
Dimensions:	550x435x880mm (length x width x height)
Net weight:	62kg



Equipment for MFI



Laboratory Balance Weight

The technical laboratory balance weights supplied by SCITEQ are balance weights of the highest technical weighing requirements.

#8010100: up to 420 gr, 0,001 g (readout 10 mg)

#8010101: up to 220 gr, 0,0001 g (readout 1 mg)





Installation & training

SCITEQ offers onsite installation of new SCITEQ equipment and onsite or remote training of the operating personnel that are going to use the equipment.



SCITEQ Care Service

You will find the level of service suitable for your test setup with SCITEQ Care. SCITEQ service engineers will visit you annually to perform the best service and calibration. With SCITEQ Basic, More or All Care package you gain access to a long list of advantages, discounts and free support from SCITEQ skilled technician. [Learn more about SCITEQ Care](#)



Support online & on-site

SCITEQ offers online and on-site support on all SCITEQ products, for fast and effective problem solving, training, setup, etc. If you have an unforeseen challenge or you need advise asap, you can contact service@sciteq.com or call us for urgent support.