



- Precise Measurement
- Fully Automated
- User Certifiable
- Operator Safe



# MFI Melt Flow Indexer

## **ACCURATE INSTRUMENT • REPEATABLE MEASUREMENT**

The Hanatek MFI is used to accurately measure the melt characteristics of thermoplastic polymers.

Understanding melt flow is a key indicator for producers, processors and converters of plastic materials as it dictates the temperatures and pressures required to manufacture consistent quality products.

### PRECISE MEASUREMENT

#### **Tri-Zone Barrel Heating and Control**

Stable and accurate temperature is maintained across the entire barrel length ensuring exact compliance to all international standards.

#### **Temperature Monitor and Control**

The included barrel temperature monitor ensures that every test is made to exact temperature specifications. Deviations in measurement can be quickly identified and fine tuning of the barrel can be actioned.

WHY IS THIS IMPORTANT? Almost 80% of MFI in current use have temperature variations of up to 20°C across the barrel\*, leading to inaccurate test results and potential raw material failures.





#### **Accurate Results**

The piston travel sensor accurately reports the flow rate of the polymer throughout the test.

\*Source Hanatek calibration survey 2010



## **Test Types**

- MFI/MFR
- Melt volume rate
- Melt density
- Shear stress/rate
- Melt viscosity
- Spread values

## REPEATABLE MEASUREMENT • EASY TO USE

#### **FULLY AUTOMATED**

#### **Automatic Testing**

With automatic weight control and displacement sensor every test is fully motorised; no user intervention is required to start tests or monitor conditioning times.

#### **Automatic Calculation**

Touch screen control with preloaded test routines for MFI / MFR / MVR / melt density / shear rate / stress / melt



viscosity / spread values. Automatic calculation of results for every polymer eliminating operator associated errors.

#### **USER CERTIFIABLE**

#### **UKAS Certified Calibration Kit**

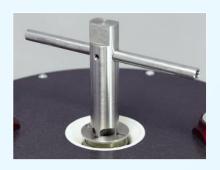
The Hanatek MFI can be annually serviced by the user whilst maintaining full UKAS/ISO 17025 certification, eliminating the cost of an onsite calibration service or return to manufacturer calibration.



#### **User Changeable Barrel Core**

This feature eliminates the high cost and inconvenience of an offsite repair due to barrel damage.

A replacement barrel can be fitted to the Hanatek MFI at any time to ensure the instrument fully complies to international standards.



#### **OPERATOR SAFE**



#### **Automatic Cleaning Cycle**

An automated cleaning process minimises the risk of contact with hot apparatus whilst completely eliminating the risk of RSI injury.



## MFI SPECIFICATION

**Standards** ISO 1133, ASTM D1238 (Part A, B

& C), BS 2782

 $40 - 400^{\circ}C$ Range

Resolution 0.1°C **Accuracy** 0.2°C

120V/230V; 50Hz/60Hz **Power** 

Weight 14kg

**Dimensions** (H)500mm x (W)350mm x (D)242mm

Packed weight 15.5kg

Packed dimensions (H)530mm x (W)430mm x (D)430mm

Commodity code 9026 1029

## TEMPERATURE PROBE SPEC

3 x PT 100 Sensors Measurement

Range  $0 - 500^{\circ}C$ **Accuracy** 0.1°C

Calibration UKAS / ISO 17025

## INCLUDED ACCESSORIES

- Temperature probe
- Die
- Piston
- Barrel core
- Die cleaning tool
- Die retainer
- Cleaning probe
- Filling funnel
- 2.16kg weight
- Cleaning patches
- Heat resistant gloves

## OPTIONAL ACCESSORIES

- Test weights, range: 5 21.6kg
- Results printer



#### **UKAS** Certified re-calibration kit

- Barrel core
- Barrel changing tool
- Die (2.095mm diameter)
- Temperature calibration probe
- Calibration activation code
- Piston



## ORDER CODES

MFI 240V: HAN-A4050MFI

MFI 115V: HAN-A4050MFI/115V





Cert ficate no: FS 695372 ISO 9001:2015

Calibrated Accessories and Calibration Kits supplied by Rhopoint Metrology Limited (Calibration Laboratory No. 0720) and traceable to UKAS





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