

# MELT FLOW TESTERS

MF50 Model



The ability of melted materials to flow under pressure at set temperatures has a fundamental importance in polymer science and technology. The MF50 is especially used by 24/7 laboratories testing several different materials, from fast flowing master batches up to highly viscous rubbery or filled materials, where quick and safe operations have big impact on productivity. It allows multi-weight testing procedures.

## STANDARD FEATURES

- On-board Touch-Screen interface for method setting and visualization of results
- High-Precision Encoder to measure MVR, up to 50 data points acquisition for a single test
- Lifter for automatic and accurate test mass application
- Integrated mass selector with automatic selection of the weights
- Load Cell for compacting and purging with a controlled force
- Quick-release slide system for the die removal
- Guided piston design for its accurate positioning into the barrel
- Integrated support for accessories and consumables
- Abrasion resistant barrel

## OPTIONS

- Die plugging device to prevent material flowing during pre-heating
- Go/No-Go gauges for die tolerance check
- Nitrogen blanket device for hygroscopic materials testing
- Manual or motorized extrudate cutting device

- Integrated device for automatic barrel cleaning
- Automatic mechanical piston holding device for high-flow samples
- Software for storage and analysis of results with graphical capabilities

## USEFUL SPECIFICATIONS

Ranging from simple manual testers to semi-automated testing systems performing multiple weight tests, Instron's Melt Flow Testers are specifically designed for easy and accurate measuring of Melt Flow Rate (MFR) and Melt Volume Rate (MVR) according to ISO 1133-1/2 and ASTM D1238 international standards.

Type of Test		Single and Multi-Weight
Test Temperature Range	°C °F	30 to 400 (Optional 500) 86 to 752 (Optional 932)
Temperature Accuracy and Stability		ISO 1133-2 (Exceeds ISO 1133-1), ASTM D1238
Barrel Material		Nitrided Steel with Superior Wear Resistance (Option: Nickel Alloy for Chemical Resistance)
Load Cell Compacting and Purging Force	N	up to 750
Weight-Lifter Positioning	mm	N/C controlled, resolution 0.026
User Interface		6.5" colour touch screen (Option: CEAST VisualMELT Software on External PC)
Basic Machine Dimensions (w × d × h)	mm in	840 × 645 × 1550 32 × 25 × 61
Basic Machine Weight	kg lbs	150 132
Electrical Supply	V Hz	115 or 230 50/60
Power Consumption		Max. 1000 W (Including Options)
Available Test Masses	kg lbs	From 0.325 (piston) to 21.6 From 0.716 (piston) to 47.6
Included with the Machine		Hardened steel piston, one tungsten carbide die, spoon for sample loading, die and barrel cleaning tools, cleaning cream and cotton strips, CE certificate, conformity certificates for piston, die and barrel.

## PROTECT YOUR INVESTMENT

Preventative maintenance and accredited verification of your Melt Flow Testers help avoid potential risk exposure from inaccurate test results that can affect the quality of your product to market, extend the life of your investment, minimize the cost of ownership and downtime.

Performance verification, maintenance, adjustment to manufacturing specifications and NVLAP accredited verifications in compliance with ISO and ASTM standards are among Instron Professional Services helping to ensure that testing systems are operating at peak performance.

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