

Tinius Olsen

MP1200 Melt Indexer

Building on the popularity and success of its MP600 melt indexer, Tinius Olsen introduces the next evolution of its melt indexer series, the MP1200. The MP1200 is available in two forms, one with a manual system for applying weights, and one with a motorized weight lowering device. The MP1200 integrates many new features into its design that significantly enhance performance, such as:

- Three zone band heater
- Touch screen control
- Efficient, tapered weight design
- Die release
- USB connectivity
- Powerful data analysis and control software

The MP1200 uses a three zone band heater, instead of the more common two zone band heater, which increases the temperature stability of the machine. Using three platinum RTD temperature sensors, the temperature of the furnace can be maintained to within an unprecedented 0.1 degree centigrade and allows for a maximum temperature variation of 0.1 degree centigrade along the barrel.

Another new feature that has been introduced in the MP1200 is the use of a touch screen display. This menu driven series of touch screens has a similar look and feel to Tinius Olsen's powerful Horizon data analysis and control software, and a simple sequence of screens quickly sets up the machine ready for testing. Once tests have been setup, they can be stored in the MP1200's memory for



Fig 1. Semi-automatic MP1200 configured for Procedure B tests.

rapid recall.

The MP1200 also keeps a running average of the results of the last 25 runs, but should more sophisticated SPC be required, the MP1200 can be linked via a USB cable to a PC running Horizon software. Horizon will control and collect resultant data from the MP1200 and perform sophisticated SPC analyses, producing reports and control charts as required.

Other innovations that have been

included on the MP1200 include a die release system that allows for simple die removal for easy cleaning; a tapered weight design for safer loading and unloading during a test; optional extrudate cutters, featuring either a manual cutter or an electric cutter; and a built-in mirror that allows the operator to see the extrude leaving the die to make for easier manual cutting.



Fig 2. MP1200 configured for Procedure A tests.

Specifications

SYSTEM

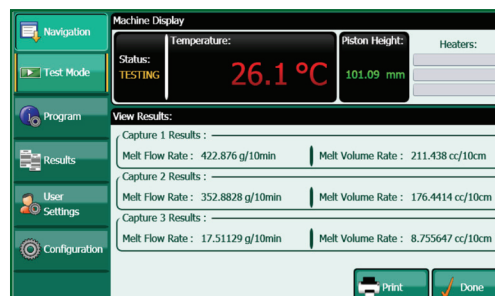
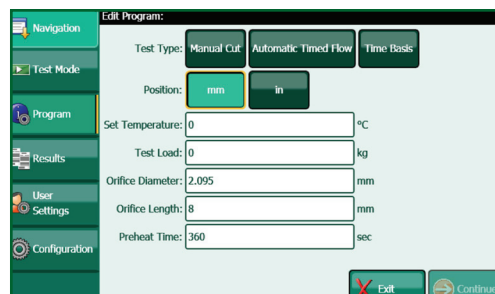
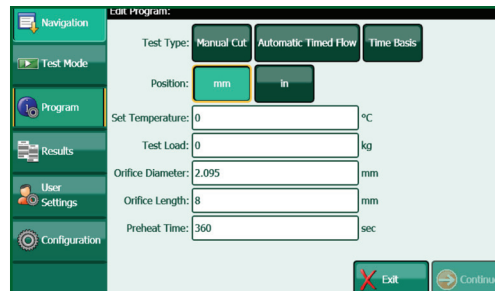
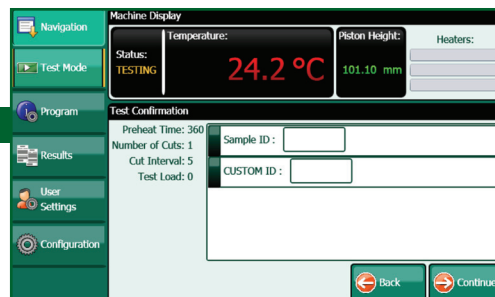
Conformance	ASTM D1238 and D3364, ISO 1133-1 and 2, BS 2782, DIN53735, JIS K7210
Operating Temperature	450°C maximum
Temperature Control	+/- 0.1°C
Spatial Temperature	+/- 0.1°C
Temperature Controller	Three zone PID
Temperature Sensors	Platinum RTDs (3)
Timer Accuracy	0.001 second
Display	7.1" LCD touchscreen, 800x480 resolution
Data Entry	Touch screen display
Communications Port	USB
Weights	Stainless steel, +/- 0.5% tolerance
PPDT-1200 Actuating Switch	
Transducer Accuracy	+/-0.025 mm (+/- 0.001 in)
MWLD-1200 Motorized Weight Support	
Transducer Accuracy	+/- 0.1 mm (+/- 0.01 in)
Physical	
Overall Dimensions	458 mm (18 in) wide x 394 mm (15.5 in) deep x 521 mm (20.5 in) high for basic unit or 762 mm (30 in) for motorized unit (to top of weight cage, platform lowered)
Net Weight	21 kg (46 lb) for basic unit or 32 kg (71 lb) for motorized unit, not including weights or options
Gross Weight	32 kg (70 lb) for basic unit or 43 kg (95 lb) for motorized unit, not including weights or options
Electrical	115 or 230 VAC +/- 10% specify, 50/60 Hz. Single phase, 400/800 VA
CE Mark	Conforms to all applicable European CE directives



Fig 4. New design of tapered weights, for safer loading and unloading.



Fig 3. Close-up showing die release knob and inset, looking in mirror at the die.



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