

## Melt flow indexer - loadcell system

### Test Type

Melt Index

Melt Flow Rate,

Melt Volume Rate

### Standards

ASTM D1238,

ISO 1133



- + Conforms to ISO 1133, ASTM D1238
- + Weightless force application range: 0.325-45kg
- + Capable to perform MFR & MVR in accordance with procedure A, B, C, D
- + 7.1" LCD touchscreen display
- + Three-zone band heater
- + Sturdy base with four leveling feet and two rigid columns are the strengths in support of longevity
- + Optional automatic cleaning function
- + Adjustable display mount for optimal viewing angle and capable of right & left hand operations
- + Large mirror with ergonomic viewing angle
- + Built-in, automatic material purge functionality
- + Automatic cut off and pneumatic die release, standard

# Model MP1500

The latest addition to the Tinius Olsen polymer testing line is the MP1500 Melt Flow Indexer. The tester features the latest in melt flow measurement technology where load is applied by a loadcell via a drive system with a PID control feedback, there are no dead weights. This robust design incorporates quality materials and components and ensures that our reputation for superior system performance, ease of use, and longevity is maintained. The MP1500 becomes a complete powerful test system with the addition of Tinius Olsen's Horizon Data Analysis software.

## Interface

This unit features a color touch-screen LCD display. Operators can configure the options available for the machine and program user settings (language, units, alarms, etc). Individual test protocols can be set and stored for rapid recall when needed and can be used to control the machine by itself or in conjunction with Tinius Olsen's Horizon software.



## TO order numbers

02002400	MP1500 Melt Indexer
02002410	MP1500 Melt Indexer w/Clean

## Specifications

Test loads	kg	0.325 to 45
Mounting		Table mounting
Test zones		One
Number of columns		Two
Column	Material	Steel
	Finish	Chrome plated
	Color	Natural
Base	Material	Aluminium
	Finish	Pre-primed, top powder coat paint
	Color	Black Sand # JN301QF

## Specifications

Crosshead	Material	Aluminium
	Finish	Pre-primed, top powder coat paint
	Color	Black Sand # JN301QF
Feet	Material	Aluminium
	Finish	Electroless Nickel
	Color	Natural
Height	mm	1080
	in	42.5
	Width	mm 511
Depth	mm	20
	mm	511
	in	20

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# Specifications

Weight (Standalone)	kg 52
	lbf 115
Weight (with Clean)	kg 55
	lbf 121
Force protection system	Yes, digital
Displacement protection system	Yes, mechanical and user programmable
Ball screw type	High precision low backlash
Ball screw cover/ protection	Yes
Crosshead drive system	DC servo motor
Pneumatic air distribution	4mm OD hose with pushfit coupling, rated to 100psi maximum (7 bar)
Noise at full crosshead speed	18db (around 2m radius)

## Controller Specifications

Max. data processing rate	168MHz
Data acquisition rate at PC	50Hz
External PC connection	USB
User interface connectivity	Mounted touchscreen, Horizon and USB drive for data transfer

## Force Measurement

Force measuring device type	45kg / 440N / 99lbf
Max. purge force	40kg
Resolution	1 part in 8388608
Accuracy	±0.05% of applied force
Range	0.2 to 100%
Calibration standard	ISO 7500-1 & 1133; ASTM E4 & D1238
Internal sampling rate	1000Hz

# Specifications

Standards	
ASTM	D1238, E4
ISO	1133, 7500-1
Temperature	
Range	up to 400°C
Accuracy	±0.1°C
Position Control	
Test speed	mm/min 0.0001-1,500
	in/min 0.000004-60
Construction Exhaust fan	µm 0.1
	in 0.000004
Accuracy	±0.05% of indicated speed

## Pneumatic Requirements

Operating air supply	Operates at 4-5 bar (max. 7 bar)
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## Power Requirements

Supply voltage options	115/230V
Frequency	50/60Hz
Power	500W ±10%

## Atmospheric Requirements

Operating temperature	5 to 40°C (41 to 104°F)
Operating humidity	10 to 90% non-condensing wet bulb method
Storage temperature	-10 to 45°C (14 to 115°F)
Storage humidity	10-90% non-condensing wet bulb method