

Standard

ASTMD1238 D3364 · ISO 1133 · GB- T3682

Description

Melt Flow Index Tester can test thermoplastic melt mass flow rate (MFR) and melt volume flow rate (MVR), also known as MI or MFI. The Flow Indexer can perform ISO/ ASTM standards test methods, equip with touch panel that guide user to precisely and smoothly proceed with test. The melt flow tester also has analysis function and flash drive save function.

Optional accessories can be selected according to different materials properties for melt flow testing, such as high flow material block mechanism or MVR volume test mechanism to proceed with various tests.



Specification

Model	QC-652B	QC-652C	QC-652D	QC-652E
Temperature	50~300℃	50~400℃	50~300℃	50~400℃
Suitable Material	General	General	Corrosion	Corrosion
Test Temperature, T	Maximum allowable deviation from required test temperature			
	At (10±1) mm above the top surface of the standard die		From (10±1) mm to (70±1) mm above the top surface of the standard die	
	125 ≤ T< 250		±0.2℃	
	250 ≤ T< 300		±0.5℃	
	300 ≤ T		±1℃	
Precise Temp. Calibration	Three temperature points(180,250,300C) and measurement points(10,30,50,70mm)			
Counter Resolution	0.01s			
Piston push rod weight	100g			
Automatic cut	Interval time 1-300 seconds can be set			
Heat Protection	Standard thermal insulation shield			
Heater size	9.55±0.01mm			
Hole mold	2.095±0.005mm			
Counter weight	Standard stainless steel weights(optional) , weights can also be customized.			
Accessories	Cleaning brush 、 measuring cups 、 funnel and Die calibration plug gauge			
Weight	40Kg(machine weight)			
Dimension	47x38x48cm (47x38x60 with MVR part)			
Optional Items	1. Material block mechanism for high MI value. 2. MVR mechanism (for B method) (the machine has built-in A and B method mode, the above items can be installed by user.) 3. Corrosion-resistant heated barrel is optional.			
Power	220 V Single phase 50 Hz/60Hz, B: 8A / C: 10A / D: 8A / E: 10A			

Accessories



Optional accessories



Weights

The commonly standard weights include specifications of 1100g, 2060g, 3700g, 4900g, 9900g, 12400g, 19900g, 21500g, which can also be customized.



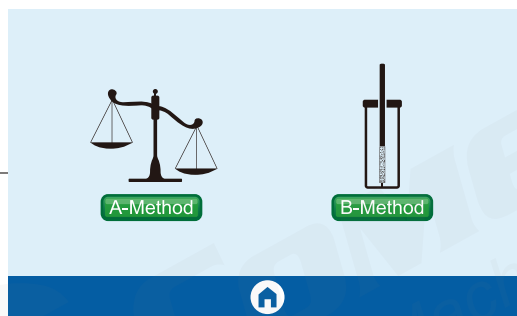
MVR

MVR is used for volume measurement(B method), equipped with calibration parameter memory function.

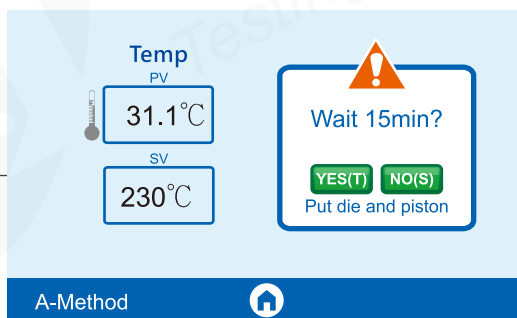


Material block mechanism

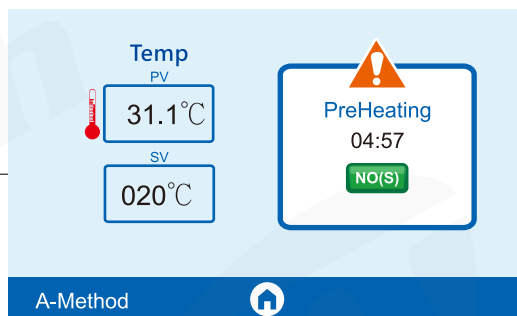
Used for high MI value plastics, prevent plastic flow during preheating.



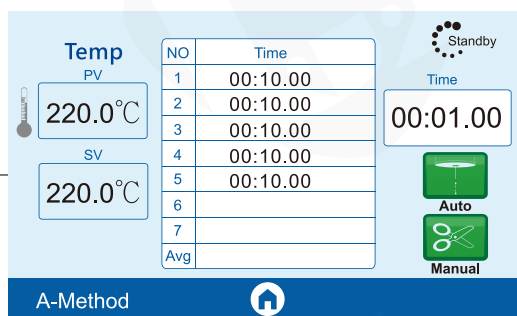
A-Method MFR(Melt Flow Rate)
B-Method MVR(Melt Volume Rate)
※ Material block mechanism and MVR mechanism(for B method).



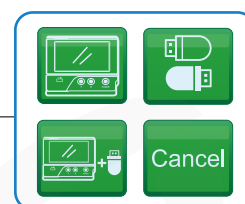
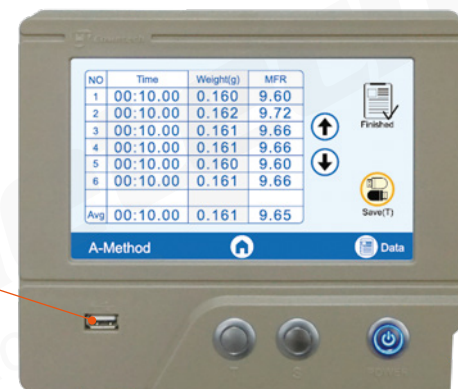
According to the standard definition, after the temperature reaches the set value, the machine will automatically countdown and stand for 15 minutes, and the machine will beep to signal the end of the countdown.



According to the standard ASTM/ISO definition, there is a preheating period of 7/5 minutes after the material is loaded. Once the loading is complete, the user can click to start the countdown. When the countdown ends, the machine will beep to signal the end.



Choose Auto cutting or manual cutting



After entering the cutting weight, the test result can be automatically calculated, and the data can be stored in the controller or output to a USB.

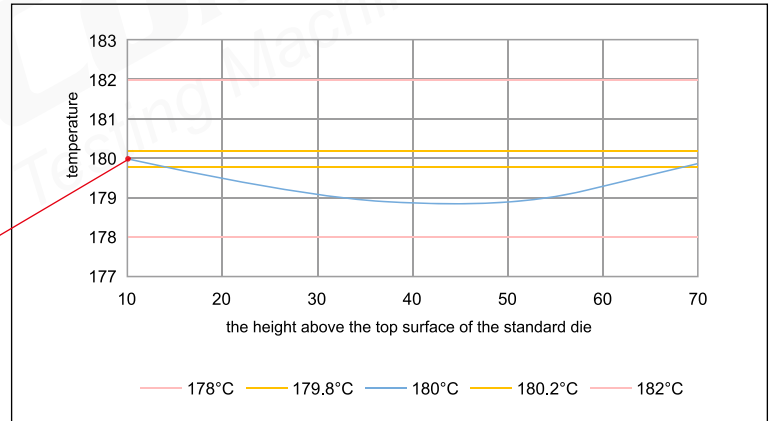
Temperature accuracy

Full-range temperature calibration- better temperature control than standard definition

Three temperature point(180°C,250°C,320°C), Four measurement point
(at 10,30,50,70mm above the top surface of the standard die)

Before leaving the factory, the machines will go through meticulous calibration by quality control personnel to ensure that they meet the specified temperature deviation range. While adjusting the parameters, the temperature deviation will also be corrected to approach perfection.

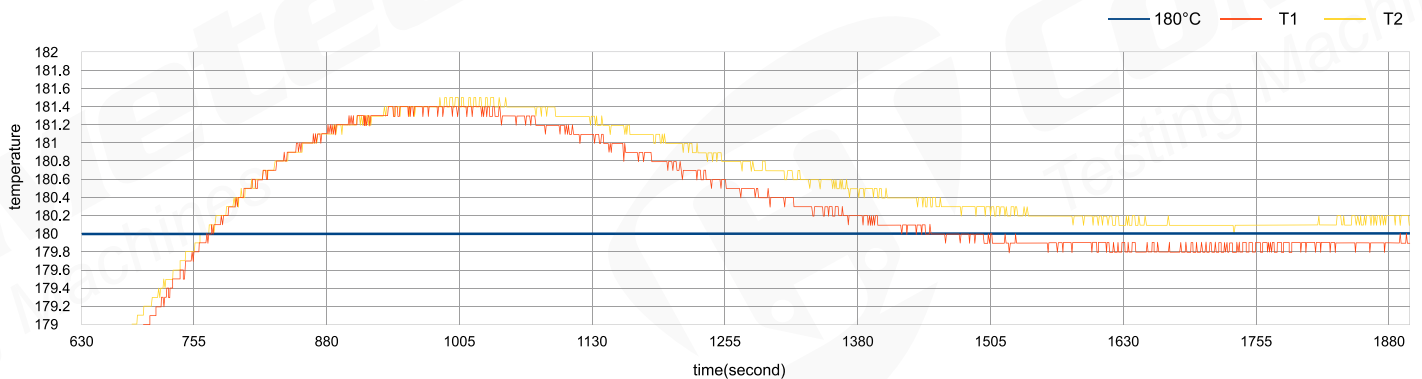
When the blue line is the temperature target 180°C, the actual measured value of each point, the temperature performance is better than the international standard.



Heating speed and the temperature accuracy

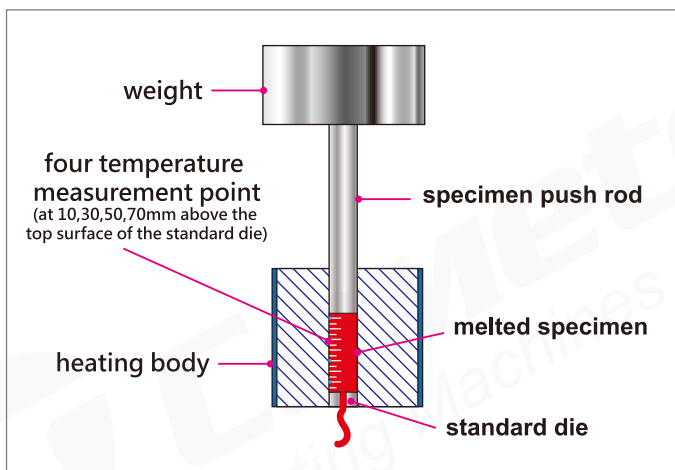
PID calculation technology, it greatly shorten the heating time and have the high accurate temperature control.

Equipment use the temperature controller which is developed and designed by ourselves. The machine is equipped with firmware writing and PID calculation technology, which realizes shortening the waiting time for heating and stable constant temperature control.



- Target temperature:180°C
- T1(Red):temperature sensor above 10±1mm of the standard die
- T2(Yellow):temperature sensor above 70±1mm of the standard die

<Tips> A method(MFR) v.s.. B method(MVR)



- A method(MFR)
aka weight method, flowing weight(g)/10min
- B method(MVR)
aka volume(cm³)/10 min

The fluidity is good, and MI is larger. It means the lower the viscosity of the plastic, the shorter the long molecular chains

Mechanism feature

Set the auto cutting mode

Change to the auto cutting, users only need to wait for the machine to complete the test after loading materials, eliminating the inconvenience of manual cutting and recording cutting time, and greatly improving the accuracy of data.



The pull bar design can take out the die conveniently and quickly

The easy-to-take-out design of the die allows the user to clean the machine in a short time and shorten the waiting time.



The internal material of heating body

The internal material of heating body is made of high-hardness steel and the bright surface processing, which greatly increases the cleaning efficiency and reduce material residue and avoid problems such as reheating become carbonization.

*Cometech reserves ultimate modification right of product specification.



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