

**Description:**

Used for testing all kinds of plastic, resin in the state of viscous flow through a certain temperature and load, every 10 min module and melt flow rate through the standard port MFR value, it is suitable for high temperature of polycarbonate, aromatic sulfone, fluorine plastic, nylon and other engineering plastics, can also be applied to polyethylene (PE), polystyrene (PS), polypropylene (PP), ABS resin, polyformaldehyde (POM), polycarbonate (PC) resin with lower melting temperature, such as plastic test, widely used in plastic production, plastic products, such as petroleum and chemical industry and related colleges and universities, scientific research units, and the commodity inspection department.

Standard:

GB/T3682-2000 《Determination of melt flow rate and melt volume flow rate of thermoplastics》

ISO 1133: 1997 《Determination of melt flow rate and melt volume flow rate of thermoplastics》

ASTM D1238 《Standard Test Method for Determination of flow rate of Thermoplastic Melt by extruded plasticizer》

Test Methods:MFR+MVR Methods

Display mode: 7-inch touch screen controller

Product Character:

- 1.English LCD Touched Screen.□
- 2.Hand and Automatic cutting material.
- 3.Double temperature control system, temperature control precision is more accurate, higher heating efficiency
- 4.Double imported sensors, more accurate temperature gradient from top to bottom, can be used independently, and improve the service life.
5. Cylinder for imports hartz alloying nitriding treatment, opening mould for carbon tungsten steel material, material reality.
- 6.Insulation barrels of sus304 stainless steel material for the whole, long-term high temperature does not rust.
- 7.Automatic calculation results, and print.
- 8.Have USB connector,can connect computer.

Specification

Model	LR-A001-B
Loading Barrel parameters	Inner hole $\Phi 9.550\pm 0.025\text{mm}$
Cylinder diameter	$\Phi 2.095\pm 0.005\text{mm}$
Outlet length	$8.000\pm 0.025\text{mm}$
Temperature range	Room Temperature~450°C
Temperature fluctuation	$\pm 0.2\text{ }^\circ\text{C}$
Temperature uniformity	$\pm 1\text{ }^\circ\text{C}$
Temperature display resolution	0.1°C
Display resolution	0.1°C
Time display resolution	0.1s
Displacement accuracy	0.001mm
Volume timing accuracy	0.001s
Testing scope of mass method	0.1-150g/10min
Range of test results by volumetric method	50-5000cm ³ /10min
Weight parameters are as follows:	

Weight accuracy	±0.5%
Basic configuration	A 0.325kg
	B 1.2kg
	C 2.16kg
	D 3.8kg
	E 5kg
	F 10kg
	G 12.5kg
	H 21.6kg
Position detection	
Loop distance from up and down	30mm
Control precision	± 0.1mm
Test flow control	
Times of cutting the material	0~10 times
Material cutting interval	0~999s(set reference Table 2)
Control flow reaches the set temperature without volatility	
Barrel temperature time	15 min.
Material be installed	1 min.
Material sample temperature recovery time	4 min.
When binder set	1min
Output mode	Micro-automatic print output
Cut material methods	Hand and Automatic Cut
Test load	Eight sets of weights
Power	AC220V ± 10% 50/60HZ

Accessories List

No	Name	Qty	Remark
1	Weight	1 set	0.325 kg、0.875 kg、1.835 kg、2.5 kg、2.915 kg、3.475 kg、4.615kg、5.0k g
2	Weight tray	1pcs	Within level 1 load
3	Charging hopper	1pcs	
4	Mouth mold cleaning rod	1pcs	
5	Charging bar	1pcs	
6	Cylinder cleaning rod	1pcs	
7	piston rod	1pcs	
8	mouth mold	1pcs	
9	gauze	2roll	
10	Print paper	2 roll	

Standard test force (8 level)

1 level: 0.325 kg= (piston rod+weight tray+heat insulation cover+No 1 weight)

$$=3.187\text{N}$$

2 level: 1.200 kg=(0.325+No2 0.875 weight)=11.77 N

3 level: 2.160 kg=(0.325+No3 1.835 Weight)=21.18 N

4 Level: 3.800 kg=(0.325+No4 3.475Weight)=37.26 N

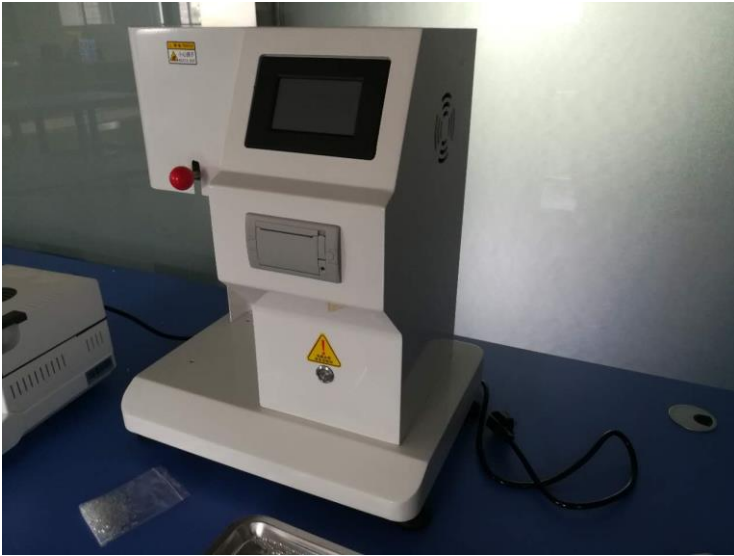
5 Level: 5.000 kg=(0.325+No.5 4.675Weight)=49.03 N

6 Level: 10.000 kg=(0.325+No.5 4.675weight+No.6 5.000Weight)=98.07 N

7 Level: 12.000 kg=(0.325+No.5 4.675weight+No.6 5.000+No.7 2.500weight)=122.58 N

8 level: 21.600 kg=(0.325+No.2 0.875weight+No3. 1.835+No.4

$$3.475+\text{No.5 } 4.675+\text{No.6 } 5.000+\text{No.7 } 2.500+\text{No.8 } 2.915\text{weight})=211.82 \text{ N}$$



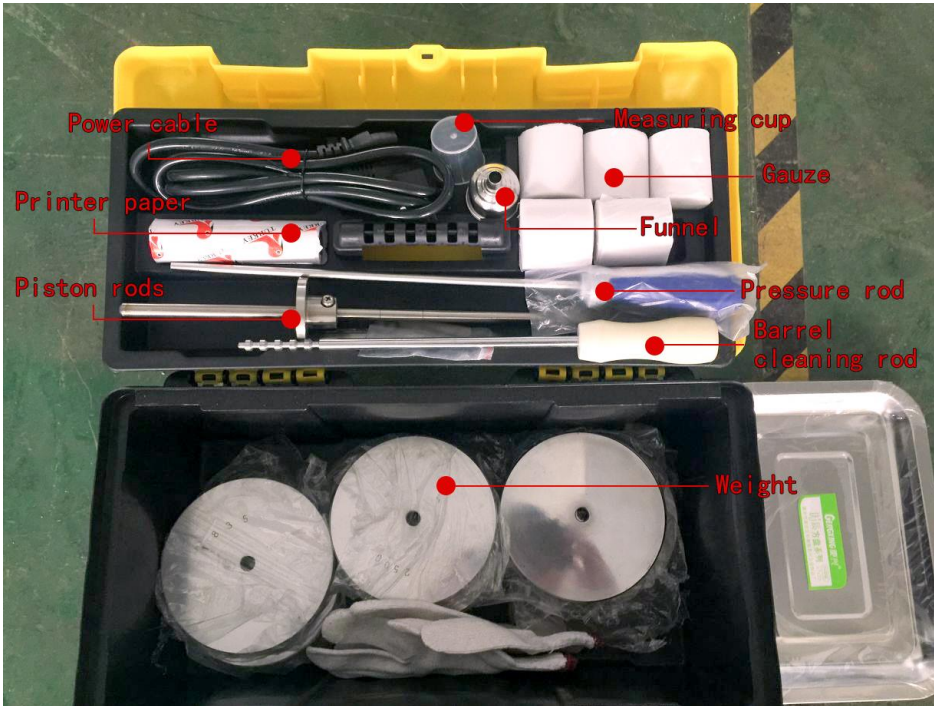


Chart 1

Melt flow rate (g/10min)	Sample quality in charging barrel (g)	Extrudate cutting-off interval time (s)
0.1-0.5	3-5	240
>0.5-1	4-6	120
>1-3.5	4-6	60
>3.5-10	6-8	30
>10	6-8	5-15

1. If this experiment value is less than 0.1 g / 10 min or greater than 100 g / 10 min, suggest you melt flow rate
2. When the material density is greater than 1.0 g / 10 min, may need to increase the sample size.
3. With more than 25 g / 10 min. Measuring MFR of material, in order to obtain enough reproducibility, may need to cut the time interval of less than 0.1 s for automatic control and measurement, or use method B.

Chart 2

Material	Test temperature θ , °C	Standard load m_{nom} , kg
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PS	200	5.00
PE	190	2.16
PE	190	0.325
PE	190	21.60
PE	190	5.00
PP	230	2.16
ABS	230	10.00
PS-1	200	5.00
E/VAC	150	2.16
E/VAC	190	2.16
E/VAC	125	0.325
SAN	220	10.00
ASA、 ACS、 AEC	220	10.00
PC	300	1.2
PMMA	230	3.8
PB	190	2.16
PB	190	10.00
POM	190	2.16
MABS	220	10.00

