

## KASON-MFI400A Automatic Melt Flow Rate Tester



Note: The picture is for reference only

### I 、 Application

The instrument meets the GB/T 3682-2018 Technical requirements for Thermoplastic melt flow rate test method, it's crucial to the production technology and quality control of medical and health protection materials such as medical masks, surgical gowns, protective clothing, and polypropylene resins for melt-blown and spunbond non-woven fabric.

Its main parameters meet the requirements of ISO1133-2005 ASTM1238 standard and can be used for the determination of melt flow rate of polyethylene, polypropylene, polystyrene, ABS, polyamide, fiber resin, acrylate, polyformaldehyde, fluorine plastics, polycarbonate and other materials.

### II 、 Main technical parameters and accuracy

#### 1、 Standard part parameters :

- (1) Barrel parameter: Inner hole:  $\Phi 9.550\text{mm} \pm 0.007\text{mm}$
- (2) Piston parameter: Piston head  $\Phi 9.474\text{mm} \pm 0.007\text{mm}$
- (3) Piston head length:  $H=6.35\text{mm} \pm 0.1\text{mm}$
- (4) Internal diameter of die:  $\Phi 2.095\text{mm} \pm 0.005\text{mm}$
- (5) Die length(Flow channel length) :  $8.00\text{mm} \pm 0.025\text{mm}$

## 2、Temperature control parameters:

- (1) Temperature control range: 80°C~400°C;
- (2) Temperature control accuracy:  $\pm 0.2^{\circ}\text{C}$
- (3) Display resolution:  $0.1^{\circ}\text{C}$ ;
- (4) Max power consumption:  $\leq 1.5\text{Kw}$
- (5) Temperature recovery time: 4min (GB)/6min(ASTM)

## 3、Position detection:

- (1) Upper and lower position ring distance: 30mm , ( Can be measured by displacement measuring device 20mm, 10mm,5mm, 3mm, 2mm, 1mm)
- (2) Control accuracy:  $\pm 0.1\text{mm}$

4、Equipment weight: 167kg

Packed weight: 182kg

5、Equipment dimension:(L\*W\*H)750\*560\*1130mm

Packed dimension :

660\*560\*1300mm

6、Power supply: AC 220V 1.5Kw

7、Index range: (0.1-100) g / 10min

## III、System composition:

The system structure design adopts the "E" word frame streamline design to ensure the structural strength. The overall appearance design is beautiful and generous; Strong sense of technology. The weight loading mechanism brand precision ball screw to complete the mobile loading and transmission of weights. The selection of weights is controlled by a program-controlled synchronous motor, which drives the bidirectional threaded screw pair to select the weights of the required mass according to the standard requirements; the overall loading process does not require manual operation, all programs are automatically loaded, which saves the time and effort of manual loading, making the test simpler, the operation more convenient, the data more accurate, and the performance more stable. The heating unit adopts spiral heating wire for overall heating, and is controlled by thyristor pulse regulation. The overall temperature of the barrel is uniform, with high temperature control accuracy. The furnace body can be moved out as a whole, which is more convenient to the cleaning of the remaining materials and the furnace after the experiment. High-tech measurement and control system, the software interface is simple and intuitive, you can set the test mode, and related operating parameters, real-time display of relevant parameters and calculation results.

## IV、Accuracy level: Level 1

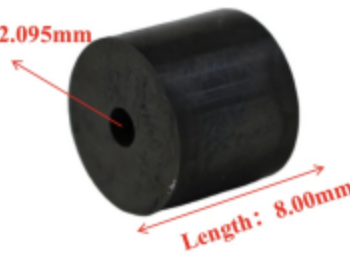
## V、Main functions and features

- 1、The instrument adopts micro-processing control and integrated, digital measurement and control technology.
- 2、The instrument adopts large size touch screen control, the method is novel and easy to operate, color crystal display, visual effect is better, the same screen display more information.

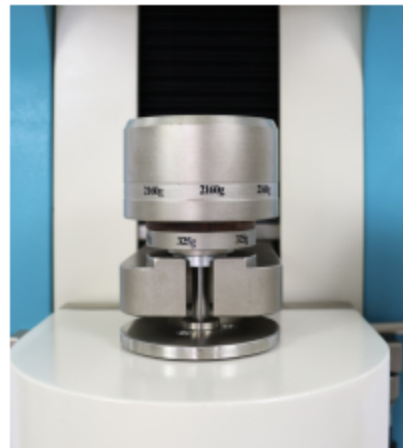
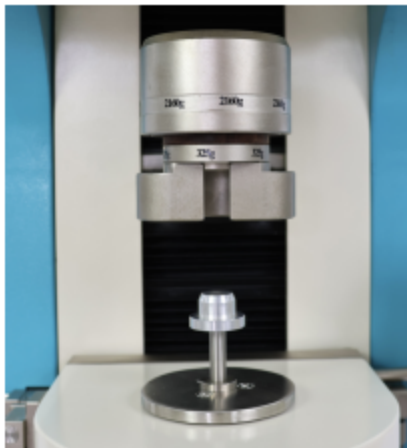


- 3、 Voice prompt operation volume is adjustable,easy to understand.
- 4、 Equipped with high precision temperature control system, high measurement and control accuracy.
- 5、 With cutting knife automatic positioning function, automatic cutting, can cut hard plastics.
- 6、 Manual button cutting or automatic cutting.
- 7、 Equipped with tungsten carbide die, high hardness, high temperature resistance, corrosion resistance, wear resistance.

Internal diameter: 2.095mm



- 8、 Micro-processing system automatically select load loading, automatic loading.



- 9、 Use movable high-precision photoelectric encoder displacement measurement device (Method B) ; Use MVR to measure materials with relatively large index.



- 10、 When the index is very large, use a fast die outlet plugging device. (Optional)
- 11、 With USB data output function, it can be copied to a USB disk for storage, and copied to a computer via USB for data backup and data analysis.
- 12、 Data processing printing.



- 13、 The rechargeable electric auxiliary cleaning device saves the time of cleaning the barrel. (Optional)



- 14、 It has the function of calculating the test result, keeping the decimal, rounding the result, the calculation result is more accurate.
- 15、 Any step in the test can be skipped manually or run automatically; easy to test.
- 16、 In addition to the function of method A, the equipment can also do 30mm, 20mm,

10mm,5mm, 3mm, 2mm, 1mm B method test of displacement.  
 17、 The furnace body can be moved 90°to facilitate cylinder cleaning.



## VI、 Main configuration

1、 Host machine	1	
2、 Weights:	8	(Total 21.6Kg, place in the host)
A: 0.325 Kg	1	(Including pressure rod)
B: 0.875 Kg	1	
C: 0.960 Kg	1	
D: 1.200 Kg	1	
E: 1.640 Kg	1	
F: 2.500Kg	1	
G: 5.000Kg	1	
H: 9.100Kg	1	
3、 Gradienter	1	
4、 Die	1	
5、 Piston	1	
6、 Displacement measuring device	1set	( On the host)
7、 Stainless steel square plate	1	
8、 Reflector	1	
9、 Funnel	1	
10、 Electric auxiliary cleaning device		1set
11、 Cleaning tool	5	
12、 Pressure rod	1	
13、 Micro-controller software	1set	

# FOCUS IN MATERIAL TEST

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