



## Лабораторное оборудование, сервисное обслуживание, обучение



### TF310 45 Degree Flammability Tester

45 Degree Flammability Tester, is to determine the fabric flammability (fabric burning test) under controlled conditions, complies with standards like 16 CFR Part 1610, ASTM D1230, ASTM F2100.

Automatic igniter is equipped to ensure the 45 degree fabric flammability tester safe and easy to operate. Stainless steel test cabinet with glass observation panel provided with automatic timing of flame spread in 0.1-second increments from ignition.

#### Specifications

- Time display and accuracy 0 ~ 999.9 s, 0.1 s
- Ignition time (1 ± 0.05) s
- Dimension of holder outside 205 \* 76 mm, interior 152 \* 38 mm
- Testing chamber size 368 \* 216 \* 356 mm
- Specimen size 150 \* 50 mm
- Flame height 16 mm (adjustable)
- Angle of sample placement 45°
- Distance from nozzle to specimen 8 mm (adjustable)
- Loading weight 30 g

#### Included Accessories

- 1 Brushing device
- 5 Sets of sample holder

#### Consumable Item

- 1 No. 50 sewing thread

#### Standards

16 CFR Part 1610, ASTM D1230, ASTM F2100



**Power** 220/110 V, 50/60 Hz, 120 W

**Weight** 36 Kg

**Dimensions** 490 \* 330 \* 550 mm (L x W x H)

**Packaging info.** 600 \* 470 \* 690 mm  
47 Kg

### TN139 Face Mask Synthetic Blood Penetration Tester

Synthetic blood penetration tester, is used for measuring the resistance of medical face masks and other coated materials to the penetration by a splash of synthetic blood at different pressures, it can conduct the tests of standards like ISO 22609, EN 14683, ASTM F1862, ASTM F2100.

A specimen of medical face mask is mounted on this synthetic penetration tester's sample clamping device, a fixed volume (~ 2ml) synthetic blood is splashed by this tester horizontally to hit the mask, at the distance of (300 ± 10) mm, then check whether penetration happens in the specimen.

This tester can provide different blood pressures with the control of precise valve to generate a 2ml volume of synthetic blood with the surface tension of 0.042 ± 0.002 N/m, it will give you reliable and repeatable test results.

#### Specifications

- Blood spraying distance: (300 ± 10) mm
- Nozzle inner diameter: 0.84 mm
- Nozzle length: 12.7 mm
- Spraying speed: 450 cm/s, 550 cm/s, 635 cm/s
- Spraying time: 0.80 s, 0.66 s, 0.57 s
- Watching time: 10 (adjustable)

#### Standards

ISO 22609, EN 14683, ASTM F1862, ASTM F2100



**Power** 220 V, 50 Hz, 50 W

**Weight** 35 Kg

**Dimensions** 650 \* 640 \* 500 mm (L x W x H)

**Packaging info.** 740 \* 660 \* 700 mm (L x W x H)  
69 Kg



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### TN140 Protective Clothing Synthetic Blood Penetration Tester

Synthetic Blood Penetration Tester is used to test specimens of protective clothing and candidate materials and constructions to be used in protective clothing. Tester is designed to comply with ASTM F1670, ASTM F903 (Method A\B\C).

The specimen is exposed to a liquid for a specified time and pressure sequence and observed for visible penetration of the liquid. If the liquid passes through the specimen, the material fails the test for resistance to penetration of the liquid.

Integrated with a intuitive interface, makes it very easy to set the testing parameters like testing time and pressure, the air pressure is controlled by a precise value to achieve reliable testing results.

#### Specifications

- Pressure range: (0.05 ~ 25) kPa
- Test area: 28.26 cm<sup>2</sup>
- Specimen size: 75 \* 75 mm

#### Standards

ASTM F1670, ASTM F903 (Method A\B\C)



Power	220 V, 50 Hz, 50 W
Weight	30 Kg
Dimensions	560 * 460 * 480 mm (L x W x H)
Packaging info.	720 * 620 * 730 mm (L x W x H) 57 Kg

### TN141 Medical Mask Differential Pressure Tester

Medical Mask Differential Pressure Tester is for determination of breathability of medical face masks (material), tester complies with EN 14683, ASTM F2100, YY 0469 standards.

The tester can measure the differential pressure required to draw air through a measured surface area at a constant air flow rate is used to measure the air exchange pressure of the medical face mask material.

Equipped with precise manometer, mass flow meter ensures the accuracy of measuring the differential pressure and airflow, and the needle value can help adjust the airflow rate precisely and fast...all these will contribute to getting the trustful testing results.

#### Specifications

- Flow meter range: (0 ~ 10) L/min
- Manometer range & accuracy: 0 ~ 1000 Pa, 1 Pa
- The internal diameter of the top and bottom holders in contact with specimen:  $\Phi$ 25 mm
- Test area: 4.9 cm<sup>2</sup>

#### Standards

EN 14683, ASTM F2100, YY 0469



Power	220 V, 50 Hz, 200 W
Weight	35 Kg
Dimensions	540 * 390 * 400 mm (L x W x H)
Packaging info.	690 * 570 * 520 mm (L x W x H) 44 Kg



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### TU001 Tensile Testing Machine

Tensile Testing Machine is used to determine the break, stretch, elongation tensile of products like medical masks, the earloop of medical masks, pp non-woven, meltblown fabric, medical protective clothing, surgical gowns, drapes, etc. Machine complies with EN 14126, EN 14325 5.5, EN ISO 13935-2, EN 14325 4.7, EN 14325 4.9, ISO 13934-1, ISO 9073-4.

Quality motor provides a stable force, ensuring the rate of extension is constant, and the clamping structure is designed for easy-and-fast changing fixtures for different tensile testing applications.

#### Specifications

- Test range: 1 - 980N (1% ~ 100% FS)
- Test accuracy:  $\pm 1\%$  (10%-90%)
- Resolution: 0.1 N
- Unit: kgf, lbf, N, KN
- Speed range: (10 ~ 500)  $\pm 2\%$  mm/min
- Max. stroke: 600 mm

#### Standards

EN 14126, EN 14325 5.5, EN ISO 13935-2, EN 14325 4.7, EN 14325 4.9, ISO 13934-1, ISO 9073-4



Power	220/110 V, 50/60 Hz, 500 W
Weight	60 Kg
Dimensions	520 * 580 * 1250 mm (L x W x H)
Packaging info.	570 * 620 * 1440 mm (L x W x H) 78 Kg

### TN145 Bacterial Filtration Efficiency Tester

Masks Bacterial Filtration Efficiency Tester is used to determine the bacterial filtration efficiency (BFE) of medical face masks, surgical face masks, to identify the protective performance from being exposed to bacterial airborne environments, tester can conduct the tests defined in EN14683, ASTM F2100, ASTM F2101, GB 19083, YY 0469.

The bacterial suspension is pumped to the nebulizer, the aerosol will be pushed into the aerosol chamber then delivered into two sets of (Anderson) sieve samplers, one with testing specimen, another without specimen in order to compare the different results.

Designed with two sets of Anderson sieve samplers it is possible to get the results with and without testing specimen at the same time, reduce the bias to the minimum, and the machine has a embed clear 3-level (disinfection liquid, purified water, airflow) cleaning system to ensure the safety after the tests.

#### Standards

EN14683, ASTM F2100, ASTM F2101, GB 19083, YY 0469





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Main parameter	Parameter range	Resolution ratio	Margin of error
A sampling flow	28.3 L/min	0.1 L/min	± 2.5%
B sampling flow	28.3 L/min	0.1 L/min	± 2.5%
Spray flow	(8 ~ 10) L/min	0.1 L/min	± 5.0%
Peristaltic pump flow	(0.006 ~ 3.0) ml/min	0.001 ml/min	± 2.5%
Front pressure of flowmeter A	(-20 ~ 0) kPa	0.01 kPa	± 2.5%
Front pressure of flowmeter B	(-20 ~ 0) kPa	0.01 kPa	± 2.5%
Front pressure of spray flow	(0 ~ 300) kPa	0.1 kPa	± 2.5%
Pressuring of aerosol	(-90 ~ -120) Pa	0.1 Pa	± 2.0%
Working temperature	(0 ~ 50) °C		
Pressuring of cabinet	(-50 ~ -200) Pa		
Data storage capacity	> 100000 set		
Characteristics of high-efficiency air filter	The filtration efficiency of particles above 0.3 μm ≥ 99.99%		
Median mass diameter of aerosol generator	Mean particle diameter (3.0 ± 0.3) μm, geometric standard deviation ≤ 1.5		
Two-way 6-stage Anderson sampler to capture particle size	Level I > 7μm, Level II (4.7 ~ 7) μm, Level III (3.3 ~ 4.7) μm, Level IV (2.1 ~ 3.3) μm, Level V (1.1 ~ 2.1) μm, Level VI(0.6 ~ 1.1) μm		
Aerosol chamber specifications	(Length 600 * Diameter 85 * Thickness 3) mm		
Total particles of positive quality control sampler	(2200 ± 500) cfu		
Ventilation flow of pressuring cabinet	≥ 5 m <sup>3</sup> /min		
Size of pressuring cabinet door	1000 * 730 mm (L x W)		
Host size	1180 * 650 * 1300 mm (L x W x H)		
Bracket size	1180 * 650 * 600 mm (L x W x H), Height adjustable within 100 mm		
Working power	AC 220 V ± 10%, 50 Hz		
Noise	< 65 dB (A)		
Weight	About 150 Kg		
Power consumption	< 1500 W		



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**TN148 Particle Filtration Efficiency (PFE) Tester**

Mask Particle Filtration Efficiency (PFE) Tester is used to test the particle filtration efficiency (oil or non-oil particle) of face masks, mask raw fabric (meltblown non-woven), results in percentage level, such N95 means 95% filtration level, this tester complies with GB 2626, GB 19083, GB/T 32610-2016, YY 0469.

By measuring the aerosol concentration difference between the two sides of specimen, then calculate the filtration efficiency of the tested material.

Tester comes with both the saline aerosol generator and oily aerosol generator, can test different types of masks with the same set of machines.



**Standards**

GB 2626, GB 19083, GB/T 32610-2016, YY 0469

**Power** 220/110 V, 50/60 Hz, 500 W

**Package info.**  
 Main tester: 760 \* 750 \* 1920 mm (L x W x H), 115 Kg  
 Saline aerosol generator: 570 \* 570 \* 910 mm (L x W x H), 59 Kg  
 Oily aerosol generator: 560 \* 540 \* 910 mm (L x W x H), 39 Kg

Main parameters	Parameters range	Resolution	Maximum errors allowable
Median diameter of salt aerosol particles (CMD)	0.075 μm	/	±0.02
Median diameter of oil aerosol particles (CMD)(optional)	(0.185) μm	/	±0.02
Test flow	(8 ~ 100) L/min	0.01 L/min	±2.5%
Pressure range	(0 ~ 2500) Pa	1 Pa	±2.0%
Concentration detection range	(0.001-100) μg/L	0.001 μg/L	
Accuracy	Range 0.01% ~ 100%, 1% of the reading value		1%
Detection repeatability	Range 0.01% ~ 100%, 5% of the reading value		1%
Working temperature	20 ± 5 °C		
Instrument noise	< 60 dB (A)		
Host size	(800 * 600 * 1200) mm (L x W x H)		
Host power consumption	<300W		