

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, YY 0469, YY0969.

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

ASTM F2100, ASTM F2101, YY 0469, YY 0969





Main parameter	Parameter range
A sampling flow	According to the specific requirement of TEST REPORT provided for each machine
B sampling flow	According to the specific requirement of TEST REPORT provided for each machine
Spray flow	According to the specific requirement of TEST REPORT provided for each machine
Peristatic pump flow	According to the specific requirement of TEST REPORT provided for each machine
Front pressure of flowmeter A	(-20 ~ 0) kPa
Front pressure of flowmeter B	(-20 ~ 0) kPa
Front pressure of spray flow	(0 ~ 300) kPa
Pressuring of aerosol	(-90 ~ -120) Pa
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 \geq 99.99%
Median mass diameter of aerosol generator	Mean particle diameter (3.0 ± 0.3) μm , geometric standard deviation \leq 1.5
Two-way 6-stage Anderson sampler to capture particle size	Level I > 7 μm , 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 \pm 500) cfu
Ventilation flow of pressuring cabinet	\geq 5 m ³ /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 \pm 10%, 50 Hz
Noise	< 65 dB (A)
Weight	About 150 Kg
Power consumption	< 1500 W