

smART Cough Droplet Simulating Environment Virus Filter Tester (VF-2021TS)



- By Patent 'no. 10-2128994', bacterial spray nozzle and bacterial aerosol supply device using the same
- Design considering safety of user from viruses and particles
- Design a system to apply with the standards of <Standards and Test Methods for Quasi-Drugs> announced by the Ministry of Food and Drug Safety and <ASTM F2101-14>

Classification		Specification
Virus generation controller	Pressure control range	0~2 bar
	Supply flow	0~23.4 ml/min
Sneezing droplet generation simulation system	Simulation method	Cylinder and piston
	Cylinder volume	≥ 3 L
	Administration time	min 0.5 s
	Piston driving device	Thrust ≥ 550N, loss rate ≤ 0.1mm
	Discharge air cleaner	HEPA filter (efficiency of 99.97%)

Classification		Specification
Virus collected part	Type	6-stage Andersen type Inertial Cascade Impactor
	Collected particle size range	0.85~10 μm
	Working flow	28.3 L/min [1 CFM]
	Longitudinal detachment method	Linear Motion Guide & Pneumatic cylinder
Virus transfer test chamber	Chamber size and material	Ø 80mm, Length 600mm, Quartz
	Clean air supply part	HEPA filter (efficiency of 99.97%)

Mask Inhalation and Exhalation Resistance Evaluation Tester (MBR-2031)



Classification	Specification
Test head	Sheffield head
Test flow	• Inhalation: 30 and 95 L/min (2 test modes) • Exhalation: 160 L/min
Flow control	Flow control By mode (inhalation and exhalation), + 5% of set flow rate
Related regulations	Ministry of Employment and Labor 'Safety certification notice' annex 4 dust mask performance criteria, MFDS's Guideline for permission review of 'medical respiratory protective equipment', and EN 149

CO₂ Concentration Evaluation Tester Inside the Face (MCD-2032)



Classification	Specification
Auxiliary lung device	• Auxiliary lung device : piston & cylinder • Auxiliary lung volume : within 5% of the volume of the breathing simulator • The volume of the CO₂ analyzer duct from the synthetic lung should be within 2,000 ml
Related regulations	Ministry of Employment and Labor 'Safety certification notice' annex 4 dust mask performance criteria, EN 149