Wellcome Technology Co., Limited
Email:ivylin@hkmedqc.com
web:http://www.hkmedqc.com
19H Maxgrand plaza,No.3 Tai Yau Street, San Po Kong,Kowloon,hk

NIMM-VTS-1 Respiratory Ventilator Tester



The NIMM-VTS-1 ventilator tester is suitable for the calibration and performance testing of invasive ventilators, non-invasive ventilators, emergency and transport ventilators, anesthesia machines, cardiopulmonary resuscitation equipment, and high-flow respiratory humidification treatment devices, etc. It integrates gas flow, pressure, oxygen concentration, anesthesia gas measurement, and respiratory simulation functions, and is multi-functional in one unit with modular expandability. Lord

The software interface of the machine features modules for invasive, non-invasive, cardiopulmonary, anesthesia machine, high-flow, static parameters, etc. It supports Chinese-English switching, Ethernet/remote control, real-time data transmission and Chinese information input. It can meet the requirements of JJF 1234-2018 "Respirator Calibration Specification", JJF 1998-2022 "Emergency and Transport Respirator Calibration Specification", JJF 1997-2022 "Non-invasive Respirator Calibration Specification", JJF 1748-2019 "Cardiopulmonary Resuscitation Calibration Specification", JJF 2149-2024 "Anesthesia Machine Calibration Specification", and JJF 2209-2025 "High-flow Respiratory Humidification Treatment Instrument Calibration Specification", etc. for the calibration host.

Technical Features

Expandable Main Unit: Supports calibration of invasive ventilators, non-invasive ventilators, emergency & transport ventilators, anesthesia machines (expansion module), cardiopulmonary resuscitation equipment (expansion module), and high-flow respiratory humidification therapy devices (expansion module).

Multi-Parameter Measurement: Measures gas flow, tidal volume, pressure, respiratory rate, oxygen concentration and other parameters.

Broad Gas Compatibility: Suitable for measurement of air, oxygen and air-oxygen mixed gas.

Multiple Environmental Compensation Modes: Built-in compensation modes including ambient temperature-pressure (ATP), standard temperature-pressure (STP), and body temperature-pressure-saturated (BTPS). Additional expandable compensation modes: ATPD, ATPS, AP21, AP25, STPD0, STPD20, STPD21, STPH, BTPSA, BTPD-A, 0/1013, 20/981, 15/1013, 25/991, 20/1013, 23/1013, NTPD, NTPS.

Intelligent Measurement Software: Touch-screen human-machine interaction with user-friendly interface. Parameters, flow waveforms and pressure waveforms are displayed on the same screen for real-time airflow observation and intuitive operation. Supports Chinese text input, adapted to domestic on-site operation habits.

Customizable Expansion: Equipped with remote control interface and real-time data transmission. Software can be customized and expanded according to customer requirements.

Technical Specification

Parameter	**Specification**
Flow	Range: (-300 ~ 300) L/min; Maximum permissible error: ±3 %
Tidal Volume	Range: (0 ~ 60000) mL; Maximum permissible error: ±3 % or ±10 mL, whichever is greater
Respiratory Rate	Range: (0 ~ 80) breaths/min; Maximum permissible error: ±3 % or ±0.3 breaths/min, whichever is greater
Pressure	Range: ±16 kPa; Maximum permissible error: ±0.1 kPa
Oxygen Concentration	Range: (21 ~ 100) %; Maximum permissible error: ±2 % (vol)
Standard Gas Resistance	Inner diameter 4 mm, length 40 mm, outlet angle 45°
Precision Test Lung	Integrated pediatric-adult lung designPediatric lung volume: (0 ~ 300) mLAdult lung volume: (0 ~ 1000) mLLung compliance: (50, 100, 200, 500) mL/kPaAirway resistance: (0.5, 2, 5) kPa/(L·s^{-1})

Product Configuration

1 host machine, 1 set of dedicated PD charger, 1 set of dedicated packaging box, 1 standard air resistance device, 1 set of precision analog lung, 1 set of national metrology institute certificate