

MEDICAL DEVICE FLOW RATE TESTER



Medical Device Flow Rate Tester | ISO 7864

Medical Device Flow Rate Tester – ToronMed™ MDFRT05 is designed to measure the flow rate, pressure resistance, and sealing reliability of medical devices such as syringe needles, infusion needles, and catheters.

By applying controlled water pressure and maintaining it for a defined period, the tester ensures accurate, repeatable evaluation of device performance in compliance with international standards.

Standards Compliance

The ToronMed™ MDFRT05 Medical Device Flow Rate Tester is designed to comply with major international standards, including:

- ISO 7864 (Sterile hypodermic needles – Requirements and test methods)
- Related ISO/EN standards for infusion and catheter performance testing

Standard Configuration

- Main instrument unit
- 7-inch touchscreen interface
- Liquid reservoir
- Integrated micro printer

Why Choose Medical Device Flow Rate Tester – ToronMed™ MDFRT05

The Medical Device Flow Rate Tester – ToronMed™ MDFRT05 combines precision, automation, and robust safety systems to support testing in both R&D and quality control environments. Trusted by medical device manufacturers, testing labs, and regulatory compliance facilities, it ensures accurate flow rate measurement, secure sealing validation, and compliance with

international testing standards.

With its advanced hydraulic control, high-capacity data storage, and user-friendly operation, the Medical Device Flow Rate Tester is an essential solution for safeguarding patient safety and ensuring reliable device performance.

APPLICATIONS

- Syringe Needles – Patency and flow rate testing
- Infusion Needles – Patency and flow rate testing
- Catheters – Flow rate testing and pressure sealing evaluation

FEATURES

- 7-Inch HD Color Touchscreen
Real-time display of test data and curves for precise monitoring and analysis.
- Hydraulic Environment with Stabilization
Integrated liquid reservoir and buffer tank provide stable pressure conditions for reliable results.
- Versatile Testing with Luer Connectors
Compatible with a wide variety of medical devices including needles and catheters.
- Built-In Safety Protections
Overvoltage protection and power-off memory safeguard operations and test integrity.
- High-Resolution Pressure Monitoring
Detects pressure changes every 0.1s and maintains set pressure automatically to minimize fluctuations.
- Electronic Flow Control
Advanced flow controller delivers precise regulation for consistent results.

- Large Data Storage Capacity
Stores up to 100,000 test records, with automated results judgment and direct printing.
- Connectivity & Reporting
RS232 interface for PC data transfer and external reporting.

THEORY & METHOD

Test Principle

The Medical Device Flow Rate Tester applies water pressure to the test specimen, such as a syringe needle or catheter, while continuously monitoring flow characteristics and sealing performance. By maintaining stable hydraulic conditions, the tester measures flow rate, resistance, and leakage to determine whether the device meets required safety and performance standards.

TECHNICAL SPECIFICATIONS

Specification	Value
Test Range	0-600 kPa
Test Accuracy	0.1% FS
Liquid Reservoir	Acrylic
Connector	Luer connector
No. of Load Cell	1
Instrument Dimensions	310 × 370 × 150 mm

Specification	Value
Reservoir Dimensions	220 × 220 × 250 mm
Voltage	AC 220V 50Hz / AC 110V 60Hz
Net Weight	30 kg



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