



INFUSION SET FLOW RATE TESTER

Precision Testing System for Evaluating the Flow Rate of Infusion and Donor Sets

ToronMed™ IFRT03 Infusion Set Flow Rate Tester is engineered for precise measurement of the flow rate of sodium chloride solution and other medical fluids through infusion sets, under simulated gravity-fed conditions. Designed for healthcare product manufacturers and laboratories, this tester ensures accurate and repeatable testing of infusion and donor sets to meet regulatory and performance standards.

Using a hydrostatic pressure column, temperature-controlled water tank, and puncture-type testing interface, the system replicates realistic infusion environments and supports easy measurement setup.

APPLICATIONS

Test Principle

This tester simulates sodium chloride solution delivery through gravity-fed infusion sets under a 1-meter water column. Test conditions vary based on dropper calibration:

- For 20 drops/mL: ≥ 1000 mL must be delivered within 10 minutes
- For 60 drops/mL: ≥ 1000 mL must be delivered within 40 minutes

This method supports regulatory compliance for flow rate requirements of clinical infusion systems.

Applications

Application Type	Description
Infusion Sets	Flow performance testing under hydrostatic pressure
Donor Sets	Validation of flow consistency and delivery rate

Standards Compliance

The ToronMed™ IFRT03 supports testing methods based on the following international standards:

- ISO 8536-4 – Infusion equipment for medical use – Infusion sets
- EN 1618 – Flow characteristics for non-intravascular catheters

Standard Configuration

- Infusion set tester with hydrostatic pressure column
- Constant-temperature water tank
- Height adjustment mechanism
- PU tubing and puncture plug outlet
- Balance station for manual volume collection

FEATURES

- Maintains a liquid head of 1000 ± 10 mm using a hydrostatic pressure test setup
- Puncture plug interface at the bottom of the water column simulates real-world infusion scenes
- Adjustable flow rate settings to meet test specifications across multiple set types
- Built-in constant-temperature water tank maintains test fluid at 23 °C (settable)
- Vertical lift system allows adjustable pressure head height for custom testing conditions
- Integrated timer for accurate, time-based measurements
- Includes balance station for easy placement of measuring cylinders or lab balances

TECHNICAL SPECIFICATIONS

Specification	Value
Model	ToronMed™ IFRT03
Flow Rate	Adjustable
Pressure Head	1000 ± 10 mm
Temperature Control	23 °C (adjustable via constant temperature tank)
Timer	Included
Dimensions (Test Device)	280 mm (L) × 420 mm (W) × 1660 mm (H)
Dimensions (Water Tank)	420 mm (L) × 380 mm (W) × 755 mm (H)
Included Components	PU tubing, adjustable lift, balance station



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