



TORONTECH

NEEDLE TUBING BREAKAGE RESISTANCE TESTER



Needle Tubing Breakage Resistance Tester | ISO 9626

Needle Tubing Breakage Resistance Tester – ToronMed™ MNTTT01 is designed to evaluate the toughness and durability of stainless-steel needle tubing used in intradermal, subcutaneous, intramuscular, and intravenous injection needles.

By simulating repeated bending forces, the tester provides accurate and repeatable results that help ensure medical needles meet international safety and quality requirements.

This tester is widely used in medical device manufacturing, quality assurance, and research laboratories.

Standards Compliance

The ToronMed™ MNTTT01 Needle Tubing Breakage Resistance Tester is designed in accordance with:

- ISO 9626 – Stainless steel needle tubing for the manufacture of medical devices

Standard Configuration

- Main instrument unit
- Touchscreen interface
- Span gauge (ISO 9626 compliant)
- Test fixture
- Micro printer

Why Choose Needle Tubing Breakage Resistance Tester – ToronMed™ MNTTT01?

The Needle Tubing Breakage Resistance Tester – ToronMed™ MNTTT01 delivers precision, compliance, and reliability for needle toughness evaluation. With its automated bending test cycles, versatile tubing compatibility, ISO compliance, and secure GMP-ready data handling, it is the preferred choice of medical device manufacturers, testing laboratories, and regulatory compliance centers. This tester ensures stainless-steel needles meet durability and safety requirements for reliable clinical use.

APPLICATIONS

- Basic Applications
 - Disposable sterile injection needles
 - Prefilled syringe needles
- Extended Applications
 - Infusion needles
 - Stainless-steel medical tubing for other devices

FEATURES

- 7-Inch Color Touchscreen
User-friendly display with intelligent data processing for real-time test monitoring.
- Automatic Calibration
Simplifies setup and improves measurement consistency.

- Versatile Testing
Compatible with regular wall, thin wall, extra-thin wall, and ultra-thin wall stainless-steel needle tubing.
- Large Data Capacity
Stores more than 50,000 test records, with automatic memory recovery after power interruption.
- GMP-Compliant Software (Optional)
Supports user management, authority levels, audit trails, and secure data logging.
- Efficient and Reliable
Automated test cycles with built-in micro printer and span gauge for ISO 9626 compliance.

THEORY & METHOD

Test Principle

The Needle Tubing Breakage Resistance Tester clamps one end of the stainless-steel tubing and applies controlled, bi-directional bending forces.

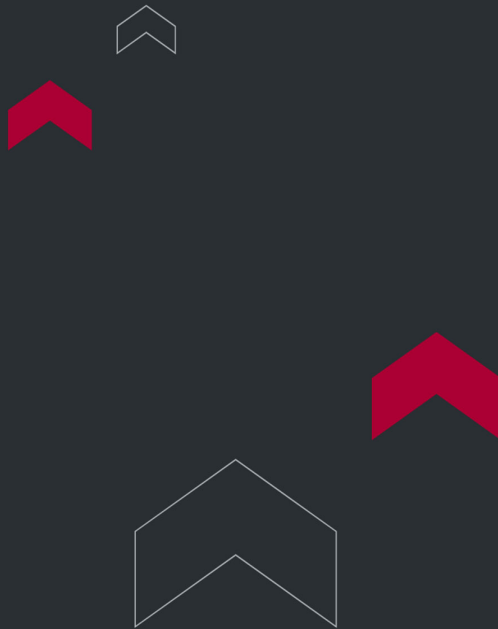
- Angles: 25° for regular wall, 20° for thin wall, and 15° for extra-thin and ultra-thin walls
- Frequency: 0.5 Hz
- Cycles: 20

The process simulates repeated clinical use to evaluate tubing breakage resistance and toughness.

TECHNICAL SPECIFICATIONS

Specification	Value
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Test Frequency	0.5 Hz $\pm$ 0.025 Hz
Bending Angles	15°, 20°, 25°
Number of Test Cycles	20 bi-directional bends
Needle Tube Specification	Regular, thin, extra-thin, ultra-thin walls
Nominal Needle Sizes	0.18-3.4 mm
Bending Distance Accuracy	$\pm$ 0.1 mm
Dimensions	340 × 230 × 320 mm
Net Weight	12 kg
Voltage	AC 220V 50Hz (110V is also available)



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