

ABLATION NEEDLE STIFFNESS & TOUGHNESS TESTER



Ablation Needle Stiffness & Toughness Tester – ToronMed™ ANSTT06 is engineered to evaluate the stiffness and toughness of ablation needles with high accuracy and repeatability. Featuring dual testing modes and intelligent data analysis, this tester ensures ablation needles meet strict performance requirements for safety, durability, and clinical reliability.

Standard Configuration

- Main instrument unit
- 7-inch touchscreen interface
- Micro printer
- Test fixture for ablation needles

Why Choose Ablation Needle Stiffness & Toughness Tester – ToronMed™ ANSTT06?

The Ablation Needle Stiffness & Toughness Tester – ToronMed™ ANSTT06 provides precise, safe, and automated testing for evaluating ablation needle durability and reliability. With its dual-mode testing, intelligent data handling, advanced drive system, and extensive safety features, it is an indispensable instrument for medical device manufacturers, inspection authorities, and R&D laboratories. By ensuring needles meet strict performance requirements, the Ablation Needle Stiffness & Toughness Tester supports both product quality and patient safety.

APPLICATIONS

- **Medical Device Quality Assurance:** Primary function is to evaluate the stiffness and toughness of ablation needles, ensuring they meet strict performance requirements for safety, durability, and clinical reliability.

- **Compliance and Validation Testing:** Essential instrument for medical device manufacturers and inspection authorities to conduct accurate, repeatable compliance testing and validation under various loading conditions.
- **Research and Development (R&D):** Used in R&D laboratories for comparative studies, material science research, and optimizing the structural integrity of new or modified needle designs.
- **Performance Evaluation:** Determines needle resistance and deflection values by applying a controlled load to a secured needle, crucial for understanding clinical performance.

FEATURES

- **Dual Test Modes**
Supports both stiffness and toughness testing for comprehensive evaluation.
- **High-Precision Measurement**
Imported load cell from the USA delivers accuracy and stability across the full test range.
- **Advanced Drive System**
Equipped with a high-end motor and ball screw drive, offering stepless speed adjustment.
- **Flexible Needle Compatibility**
For needle diameters ≥ 1.4 mm: standard disturbance value of 30 mm
For needle diameters < 1.4 mm: deflection range adjustable from 0–50 mm
- **Professional Tooling**
Suitable for a wide range of ablation needles with dedicated fixtures.
- **7-Inch Color Touchscreen**
Displays real-time curves and test results with intelligent data processing.
- **Large Data Capacity**
Stores more than 100,000 test records, with integrated micro printer for immediate reporting.
- **Statistical Analysis**
Provides maximum, minimum, and average values across multiple test runs.

- **Safety Protections**
Includes overload protection, limit switches, automatic return, and power-off memory for safe, stable operation.
- **Data Security (Optional)**
Four-level password protection and GMP-compliant software with user management, authority control, and audit tracking.

THEORY & METHOD

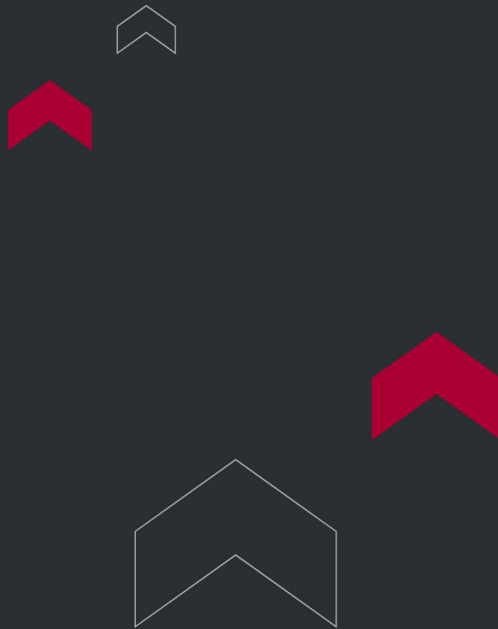
Test Principle

The Ablation Needle Stiffness & Toughness Tester secures a needle in a specialized fixture and applies a controlled load. The system measures deflection and resistance values to determine needle stiffness and toughness under various loading conditions. Automatic data capture and analysis ensure accurate, repeatable results for research, production, and compliance testing.

TECHNICAL SPECIFICATIONS

Specification	Value
Test Items	Stiffness, Toughness
Test Range	0-50 N
Accuracy	0.5% FS
Resolution	0.001 N
Testing Speed	0.05-600 mm/min

Specification	Value
Dimensions	460 × 400 × 770 mm
Net Weight	33.5 kg
Voltage	AC 220V 50Hz (110V is also available)



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