

DILATOR ANTI- DEFORMATION & STRENGTH TESTER



Dilator Anti-deformation & Strength Tester – ToronMed™ DADST01 is engineered to evaluate the deflection, toughness, and structural strength of disposable sterile vaginal dilators. With its high-precision load cell and advanced displacement measurement system, this tester ensures accurate, repeatable results for manufacturers, research institutes, and quality control laboratories in the medical device field.

Standard Configuration

- Main instrument unit
- Touchscreen interface
- Micro printer
- Specialized dilator test fixture

Why Choose Dilator Anti-deformation & Strength Tester – ToronMed™ DADST01?

The Dilator Anti-deformation & Strength Tester – ToronMed™ DADST01 offers a robust and precise platform for evaluating vaginal dilator performance. With its advanced motor drive, high-precision sensors, intelligent safety protections, and GMP-ready data security, it is trusted by medical device manufacturers, clinical research centers, and regulatory testing labs. This tester helps ensure that disposable dilators maintain strength, resilience, and safety standards for reliable clinical use.

APPLICATIONS

- **Disposable Dilator Quality Control:** Engineered specifically to evaluate the deflection, toughness, and structural strength of disposable sterile vaginal dilators, ensuring safety and integrity for clinical use.

- **Structural Strength Testing:** Supports comprehensive evaluation of a dilator's ability to withstand deformation and compression resistance when a controlled force is applied.
- **Extended Medical Device Testing:** The design is structurally adaptable for extended applications, including puncture resistance testing and pressure resistance testing for other medical devices with similar structural requirements.
- **Compliance and R&D:** Essential tool for manufacturers, quality control laboratories, and research institutes requiring accurate, repeatable results for product development and regulatory compliance.

FEATURES

- **Comprehensive Testing Capability**
Supports testing of dilator anti-deformation ability, compression resistance, and structural strength.
- **7-Inch Color Touchscreen**
Displays real-time test data and analysis curves with an intuitive interface.
- **High-Performance Motor Drive**
Ensures stable speed and smooth operation during testing.
- **High-Precision Load Cell**
Imported sensor provides $\pm 0.5\%$ FS accuracy for reliable measurement.
- **Displacement Sensor**
Accurately measures deflection values from 0.01 mm to 50 mm.
- **Automatic Calibration**
Simplifies operation and enhances measurement reliability.
- **Large Data Storage**
Capable of storing 100,000+ test records, with automatic memory recovery after power-off.
- **Built-in Micro Printer**
Enables on-site printing of test results and statistical analysis (maximum, minimum, and average values).
- **Safety Protection**
Over-range shutdown prevents sensor overload and fixture collision.

- Data Security (Optional)
GMP-compliant software with user management, audit trail, and multi-level authority controls.

THEORY & METHOD

Test Principle

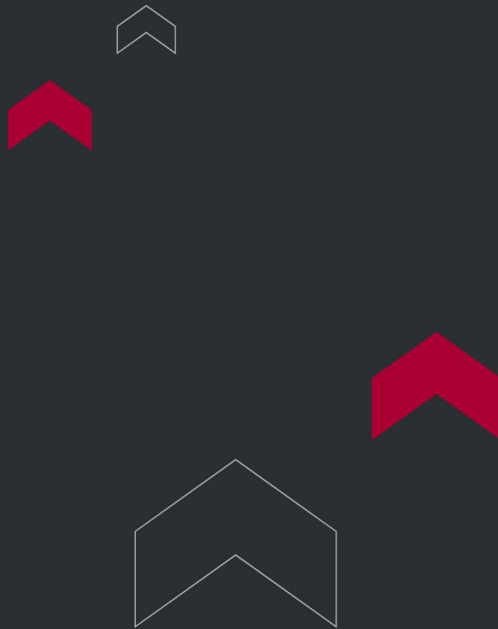
The Dilator Anti-deformation & Strength Tester clamps disposable dilators into custom fixtures and applies a controlled force. Using precision sensors, it records force and displacement changes, determining the dilator’s ability to withstand deformation and maintain structural integrity.

- Basic Applications
 - Disposable sterile vaginal dilators
- Extended Applications
 - Puncture resistance testing
 - Pressure resistance testing for medical devices with similar structural designs

TECHNICAL SPECIFICATIONS

Specification	Value
Test Range	0-500 N
Accuracy	±0.5% FS
Deflection Range	0.01-50 mm

Specification	Value
Deflection Error	±0.02 mm
Resolution	0.001 N
Stroke	300 mm
Test Speed	0-600 mm/min
Dimensions	400 × 460 × 770 mm
Net Weight	33.5 kg
Voltage	AC 220V 50Hz / AC 110V 60Hz



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