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CATHETER FRICTION TESTER

Catheter Friction Tester – Model ToronMed™ CFT02 is designed to measure the surface friction, sliding properties, and reciprocating friction force of catheters such as urinary catheters, drainage tubes, tracheal intubation, balloon catheters, and guide wires.

By simulating clinical use conditions, this instrument ensures catheter products meet the highest standards of performance, safety, and patient comfort in accordance with applicable international standards.

APPLICATIONS

The Catheter Friction Tester – Model ToronMed™ CFT02 is widely applied for:

- Evaluating sliding performance of non-intravascular catheters.
- Supporting R&D, production quality control, and compliance testing for catheter manufacturers.
- Providing verification and certification testing for independent labs.

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FEATURES

The Catheter Friction Tester – Model ToronMed™ CFT02 provides comprehensive functionality for catheter evaluation:

- Reciprocating Friction Testing – Captures friction data during both forward and return movements.
- Multi-Mode Friction Testing – Static friction, dynamic friction, static coefficient of friction, and dynamic coefficient of friction can all be tested in a single run.
- Adjustable Test Parameters – Number of friction cycles and applied force can be freely set to meet diverse testing requirements.
- Temperature-Controlled Testing – Equipped with a water-circulated temperature control system to simulate body-like conditions.
- Human Tissue Simulation – Silicone pads and surgical diaphragms replicate standard hardness levels close to biological tissue.
- High-Precision Measurement – Advanced sensors and ball screw guide system ensure smooth operation and 0.5% FS accuracy.
- Wide Speed Range – Test speeds from ultra-slow to high-speed (up to 3000 mm/min) to accommodate varied conditions.
- Displacement Accuracy – Advanced displacement control with 0.1 mm precision.
- Portable Control Box – Auxiliary operations made easy with a dedicated handheld unit.

Safety Features

- Over-travel and overload protection for safe operation.
- Automatic position reset and power failure memory to maintain test reliability.
- Emergency stop system using UL-certified Schneider components.
- Real-time system monitoring for maximum operational safety.

Professional Software

- User-friendly interface with intuitive navigation.
- Built-in test file standard library aligned with international testing methods.
- Comprehensive data analysis and reporting functions.
- Historical data backup and multi-level authority management for laboratory efficiency.
- Flexible test customization with features such as constant elongation stress, elastic modulus, yield strength, bending tests, and interval-based testing.
- Connectivity via serial communication port for data transfer and integration.
- Lifetime free software upgrades for long-term value.

Torontech is a trusted global provider of advanced medical device testing solutions. With the Catheter Friction Tester – Model ToronMed™ CFT02, laboratories and manufacturers gain a precise, repeatable, and internationally compliant testing solution that ensures catheter products meet the highest levels of quality and safety.

TECHNICAL SPECIFICATIONS

Specification	Catheter Friction Tester – Model ToronMed™ CFT02
Load Cell Capacity	10N (standard); optional 5N, 30N, 50N
Resolution	1/300,000 FS
Testing Accuracy	0.5% FS
Testing Speed	0.05–500 mm/min (adjustable)
Speed Accuracy	±1%

Specification	Catheter Friction Tester – Model ToronMed™ CFT02
Maximum Stroke	600 mm
Number of Friction Cycles	1–999
Number of Specimens	1
Test Distance of Catheter	>150 mm
Clamping	Automatic
Voltage	AC 220V 50Hz / 120V 60Hz
Dimensions	900 × 480 × 1580 mm
Net Weight	100 kg
Standard Configuration	Instrument, Catheter Clip, Professional Software, Communication Cable, Water-Circulated Temperature Control Device, Auto Clamping Device.
Optional Configuration	Non-standard fixtures, printer.

TORONTECH.com

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