TORONTECH

CATHETER FLEXIBILITY TESTER

High-Precision System for Testing Catheter Compliance, Flexibility, and Mechanical Properties

ToronMed™ CCT02 Catheter Flexibility and Compliance Tester is designed to evaluate the mechanical performance of interventional catheters and guidewires. It accurately simulates catheter advancement within a vessel and captures key performance data including flexibility, stiffness, and force-displacement curves under controlled conditions.

Ideal for R&D, quality assurance, and regulatory validation, this tester supports a wide range of catheter types and provides precise measurements for materials used in vascular access devices, guidewires, and minimally invasive systems.

APPLICATIONS

Safety and Data Integrity

- Built-in overload and limit protection, emergency stop button
- Sensor safety with automatic shutdown on overrange
- Four-level password protection with user role control
- Fully compliant with GMP computerized system requirements, including audit trails

Applications

Device Type	Test Objective
Interventional Catheters	Flexibility, compliance, and mechanical response

Device Type	Test Objective
Thrombectomy Catheters	Displacement resistance and force profiling
Guidewires	Axial stiffness and mechanical durability
Vascular Access Devices	Advancement simulation and mechanical testing

Standards & Compliance

The ToronMed™ CCT02 supports testing practices aligned with global regulatory and technical standards, including:

- ISO 10555 – Intravascular catheters – Sterile and single-use catheters
- ISO 11070 – Catheter introducers, dilators, and guidewires
- ASTM F2394 – Guidewire mechanical property evaluation
- ASTM F2908 – Stiffness and flexibility of guidewires
- ISO 178:2001 – Flexural properties of plastics (applicable to catheter materials)

Standard Configuration

- Instrument with touchscreen controller
- Horizontal traction module
- Pneumatic catheter clamping system
- Micro printer and RS232 communication port

Note: Air supply not included; customer must provide compressed air to Ø6 mm PU inlet.

FEATURES

- 7-inch touchscreen interface with programmable test parameters and intuitive controls
- Real-time force vs. displacement data acquisition with automated reporting
- Dual-system control for independent force and displacement parameter setting
- High-precision ball screw drive and guide mechanism for smooth operation
- 0.5% FS force sensor accuracy with resolution up to 0.01 N
- Supports catheter diameters up to 3.3 mm (customization available)
- Advanced displacement control with 0.1 mm accuracy
- Pneumatic clamping system designed for fast, secure catheter mounting
- Stores up to 100,000 test records, supports audit trails and data export
- Includes RS232 interface and micro printer for traceable output

TECHNICAL SPECIFICATIONS

Parameter	Value
Model	ToronMed™ CCT02
Force Range	0–50 N (optional up to 100 N)
Force Resolution	0.01 N
Vertical Stroke	0–300 mm
Horizontal Stroke	0–700 mm
Test Speed	0–10 mm/s
Catheter Diameter	0–3.3 mm (customizable)

Parameter	Value
Span Adjustment Range	25–75 mm
Clamping Method	Pneumatic
Air Supply Requirement	0.5–0.7 MPa (user-supplied)
Air Inlet Port	Ø6 mm PU tubing
Dimensions	1265 mm (L) × 400 mm (W) × 770 mm (H)
Voltage	AC 220V 50Hz / AC 110V 60Hz
Net Weight	37 kg

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