



GUIDEWIRE PUSH FORCE TESTER

Guidewire Push Force Tester | ASTM F2394-2007

Guidewire Push Force Tester – Model ToronMed™ GPFT01 is a high-precision testing system developed to evaluate the tracking force, push efficiency, torsional strength, and retraction performance of intravascular medical devices such as balloon catheters, guidewires, and stent delivery systems.

By simulating the physiological conditions of human blood vessels, the tester provides realistic and reliable performance data. It supports a wide range of test combinations and offers detailed data analysis, making it ideal for routine quality control, R&D, and regulatory compliance testing.

Standards

The Guidewire Push Force Tester – Model ToronMed™ GPFT01 is designed in compliance with:

- ASTM F2394-2007 – Standard guide for measuring the push force, torque, and trackability of balloon catheters and guidewires.
- Relevant International Standards – Define performance evaluation methods for intravascular medical devices including guidewires, catheters, and stent delivery systems.

By adhering to these standards, the ToronMed™ GPFT01 ensures accurate, repeatable, and globally recognized testing, making it a trusted solution for both R&D and compliance verification.

The Guidewire Push Force Tester – Model ToronMed™ GPFT01 delivers a comprehensive, high-precision testing platform for manufacturers, laboratories, and regulators committed to ensuring the safety, efficiency, and performance of intravascular medical devices.

APPLICATIONS

The Guidewire Push Force Tester – Model ToronMed™ GPFT01 is ideal for:

- Medical device manufacturers developing guidewires, balloon catheters, and stent delivery systems.
- Research laboratories conducting R&D on intravascular device performance.
- Regulatory testing facilities verifying compliance with ASTM and international standards.
- Quality control departments performing batch verification and production monitoring.

FEATURES

- High-Sensitivity Sensors – Micro-range torque and force sensors capable of detecting even the smallest force variations.
- Angle Testing – Equipped with a high-precision angle sensor for accurate rotation measurement.
- Stable Motion Control – Panasonic servo motor with reduction system ensures efficient, stable operation.
- Roller Clamping System – Enables precise push and retract force testing.
- Error Minimization – Encoder resistance correction function reduces test error.
- Temperature Control – High-precision water bath system regulates vessel model temperature with ± 0.5 °C accuracy.
- Multi-Sensor Integration – Movable slider allows switching between torque and angle sensors.
- Comprehensive Data Management – Stores historical data, enables multi-level user authority, and supports advanced reporting.
- GMP-Ready Software (Optional) – Includes audit trail, data traceability, and electronic signature functions.
- Optional Imaging – Camera graphic recording system for visual tracking of guidewire or catheter movement inside vessel models.
- Automatic Reporting – Real-time curve analysis, maximum/minimum/average value display, and micro-printer output.
- Free Lifetime Software Upgrades for future-proof testing.

TECHNICAL SPECIFICATIONS

Specification	Guidewire Push Force Tester - Model ToronMed™ GPFT01
Test Items	Push force, torsional strength, retractive force
Push Force Range	0-30 N
Push Force Accuracy	0.003 N
Resolution of Push Force	0.001 N
Torque Range	0-0.5 N·m
Torque Resolution	0.01 mN·m
Angle Sensor	4000 lines
Angle Accuracy	±0.09°
Push Speed	0-1000 mm/min
Speed Accuracy	±1%
Water Bath Control Range	Room Temp +5 °C to 50 °C
Temperature Accuracy	±0.5 °C
Dimensions	2727 × 925 × 1320 mm
Standard Configuration	Instrument, computer, printer, force sensor, angle sensor, torque sensor, roller clamping device, water bath temperature control system, automatic control system.
Optional Configuration	Camera graphic recognition system, blood vessel model.



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