



SURGICAL SUTURE DIAMETER TESTER (SEMI-AUTO)

USP 861, YY 1116-2020, YY 0167-2020

Surgical Suture Diameter Tester (Semi-Auto) – Model ToronMed™ SSDT01 is designed to determine the diameter of absorbable and non-absorbable surgical sutures used for suturing and ligating human tissues. Built in accordance with USP 861 and other applicable international standards, this instrument ensures high-precision measurement and compliance with global medical device requirements.

Engineered for manufacturers, research laboratories, and quality control facilities, the Surgical Suture Diameter Tester – Model ToronMed™ SSDT01 delivers accurate, repeatable, and automated testing to validate suture quality and consistency.

Standards

The Surgical Suture Diameter Tester (Semi-Auto) – Model ToronMed™ SSDT01 is designed in compliance with:

- USP 861 (United States Pharmacopeia) – Specifies methods for determining the diameter of absorbable and non-absorbable sutures.
- YY 1116-2020 (Absorbable Surgical Sutures) – Chinese standard defining test methods for absorbable suture performance.
- YY 0167-2020 (Non-Absorbable Surgical Sutures) – Chinese standard outlining test methods for non-absorbable sutures.

Torontech is a trusted global provider of advanced medical device testing solutions. With the Surgical Suture Diameter Tester (Semi-Auto) – Model ToronMed™ SSDT01, manufacturers and laboratories gain a precise, automated, and standards-compliant solution to ensure sutures meet the highest levels of safety, reliability, and quality control.

APPLICATIONS

The Surgical Suture Diameter Tester (Semi-Auto) – Model ToronMed™ SSDT01 is ideal for:

- Suture manufacturers performing R&D and production quality control.
- Independent testing laboratories providing third-party verification.
- Regulatory compliance testing according to USP and international standards.
- Hospitals and research institutions validating new suture materials.

Surgical Suture Diameter Tester

FEATURES

- Compliance
 - Fully conforms to USP 861 and international suture testing standards.
 - Supports testing at multiple points ($\frac{1}{4}$, $\frac{1}{2}$, and $\frac{3}{4}$ positions of the suture).
 - For multifilament sutures larger than metric size 2, samples can be rotated 90° and re-measured without removal.
- Stability
 - Uses a grating displacement sensor for ultra-high accuracy (up to 1/10,000th), ensuring stable measurements.
- Convenience
 - Manual loading with automatic electric tensioning.
 - No need for weights—innovative high-precision force sensors automatically set tension.
 - Quick test and stop shortcut buttons for efficient operation.
- Intelligent Operation
 - 7-inch HD touch screen for real-time data display.
 - Automatic recording of diameter data, averaging of results, and report generation.
 - Built-in micro printer for instant test result output.
 - RS232 interface for easy PC connectivity and data transfer.
 - Large data storage capacity (up to 100,000 test records).
- Safety & Data Security
 - Equipped with over-travel protection, overload protection, and power failure memory.

- Optional four-level user security and GMP-compliant software with audit trails for regulatory environments.

TECHNICAL SPECIFICATIONS

Specification	Surgical Suture Diameter Tester (Semi-Auto) - Model ToronMed™ SSDT01
Test Item	Suture diameter
Nominal Specification	12-0 to 10 (All Classes I, II, III medical sutures)
Test Range	0-6 mm (Deviation $\leq \pm 1\%$)
Resolution	0.001 mm
Presser Foot Diameter	12.7 ± 0.02 mm
Anvil Diameter	50 mm
Flatness (Presser to Anvil)	$\leq \pm 0.005$ mm
Parallelism	$\leq 1\%$
Tensioning Force Range	0-5000 g (Accuracy ± 0.1 g)
Presser Foot Load	≤ 60 g, $210 \text{ g} \pm 3 \text{ g}$ (with weights)
Test Data	Multi-point measurement ($\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$) and averages
Voltage	AC 220V 50Hz / 120V 60Hz
Dimensions	600 × 340 × 270 mm
Net Weight	40 kg
Standard Configuration	Instrument, micro printer, touch screen, test fixture.



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