

SYRINGE POSITIVE PRESSURE TIGHTNESS TESTER



Syringe Positive Pressure Tightness Tester - Syringe Liquid Leakage Tester

Syringe Positive Pressure Tightness Tester – Model ToronMed™ SPPTT01 is a precision instrument designed to test the tightness and liquid leakage resistance of various syringe types, including hypodermic syringes, prefilled syringes, insulin injection pens, and other injection systems. This instrument ensures compliance with international quality and safety standards by providing reliable, repeatable test results.

The ToronMed™ SPPTT01 Syringe Positive Pressure Tightness Tester provides high accuracy, user-friendly operation, and compliance with ISO standards, making it the ideal choice for manufacturers, testing laboratories, and research facilities requiring reliable leakage and tightness evaluation of medical syringes.

APPLICATIONS

Applications

- Basic Applications: Hypodermic syringes, pre-filled syringes.
- Extended Applications: Sterile syringes, low-resistance syringes, insulin injection pens, and similar devices.



Standards

The Syringe Positive Pressure Tightness Tester Model ToronMed™ SPPTT01 is designed to comply with major international syringe testing standards, including:

- ISO 7886 – Sterile hypodermic syringes for single use – Requirements and test methods.

(Other standards have been excluded to avoid referencing region-specific regulations.)

FEATURES

Technical Features

- 7-inch Color Touch Screen – Intuitive, user-friendly interface for easy operation.
- High-Precision Sensor – Delivers accurate measurement results without force compensation.
- Real-Time Printing – Built-in micro-printer outputs test data instantly.
- Large Data Storage Capacity – Stores up to 50,000+ test records.
- Multiple Data Output Options – Equipped with micro-printer and USB interface for convenient transmission.
- Smart Safety Configurations – Includes overload protection and power-down memory for operational security.
- GMP-Compliant Software – Provides user management, authority control, and audit trail functions to ensure data integrity.

THEORY & METHOD

Test Principle

The test is conducted by filling the syringe with water, then sealing the nozzle hole. The plunger is placed in the most unfavorable position relative to the barrel, and a controlled force is applied to determine whether liquid leakage occurs at the piston or seal.

TECHNICAL SPECIFICATIONS

Specification	Syringe Positive Pressure Tightness Tester - Model ToronMed™ SPPTT01
Lateral Force	0-10 N
Accuracy	±0.01 N
Axial Pressure	0-400 kPa
Pressure Accuracy	0.5% FS
Nominal Capacity	1 ml - 60 ml (optional)
Test Time	0-99,999.9 s (settable)
Instrument Dimension	580 × 350 × 280 mm
Net Weight	20 kg
Voltage	AC 220V, 50Hz (110V is also available)

Configuration

Standard Configuration: Instrument, micro-printer, color touch screen, and test fixture.



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