

SYRINGE & INJECTION DEVICE TESTING EQUIPMENT



Syringe & Injection Device Testing | ISO 7886 Compliance Testing

Syringe testing equipment verifies that disposable syringes, prefilled syringes, and injection pens hold pressure, slide smoothly, and seal without leaking before they reach a patient. Torontech's range covers the core performance checks required under ISO 7886, the standard governing sterile hypodermic syringes for single use. Manufacturers, quality control labs, and regulatory test facilities use these instruments to confirm plunger seal integrity, glide force, and pressure tightness across syringe batches.

Each tester in the range targets one failure mode, so a lab can mix and match instruments to build a complete ISO 7886 testing line covering negative pressure (air) leakage, positive pressure (liquid) leakage, and sliding resistance.

Why Choose Torontech for Your Syringe & Injection Device Testing

Torontech supplies testing and measurement equipment to laboratories and manufacturers across North America and worldwide, backed by responsive technical support and calibration service. The Syringe & Injection Device Testing range is built for reliable, standards-driven results, so you can standardize on one supplier as your testing needs grow. Our team helps you match the right configuration to your samples, applicable standards, and throughput, then supports you through installation and beyond.

Request a Quote

Tell us which syringe or injection device you need to test and the standards your program follows, and we will recommend the right instrument from this range. [Contact the Torontech team](#) for pricing and lead times.

APPLICATIONS

Applications

Syringe and injection device testing supports manufacturers and labs across the medical device supply chain.

- Disposable Syringe Manufacturing: confirms piston seal integrity and sliding performance batch by batch before release.
- Prefilled Syringe and Pen Injector Development: validates pressure tightness and glide force for combination products and self-injection devices.
- Insulin Delivery Device QA: checks sliding resistance on low-volume, low-resistance syringes used in insulin pens.
- Regulatory and Contract Testing: provides independent ISO 7886 compliance data for 510(k) submissions and supplier audits.

TECHNICAL SPECIFICATIONS

Syringe & Injection Device Testing Range

The range covers three ISO 7886 test methods that together validate a syringe's seal integrity, glide performance, and pressure tightness.

- [Syringe Air Leakage Tester](#): ToronMed™ SALT01 applies negative pressure through the syringe nozzle to check for air leakage past the piston and seals, and confirms the piston stays attached to the plunger, covering disposable, prefilled, and non-intravascular catheter samples.
- [Syringe Sliding Resistance Tester](#): ToronMed-SSRT01 pushes the plunger at a controlled speed and records initial, mean, and maximum force as water is expelled, measuring the glide performance of syringes, cartridges, and insulin injection pens.
- [Syringe Positive Pressure Tightness Tester](#): ToronMed™ SPPTT01 fills the syringe with water, positions the plunger at its most unfavorable point, then applies controlled pressure to detect liquid leakage at the piston or seal.

How to Choose the Right Syringe Tester

- For piston seal verification under vacuum: choose the syringe air leakage tester to confirm negative pressure tightness.
- For glide force and usability data: choose the syringe sliding resistance tester to measure plunger push force across the full stroke.
- For liquid leakage under positive pressure: choose the syringe positive pressure tightness tester, especially for prefilled syringes and combination products.
- For a complete ISO 7886 test line: combine all three testers to cover air leakage, sliding resistance, and positive pressure tightness in one workflow.



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