TXL-KMS-045 / 28 October 2026 · One-year manufacturer warranty

Stretch and Recovery Tester

Evaluates how far knitted and woven fabrics stretch under defined loads, their permanent set and how well they return to their original length after the load is removed. Used in product development and quality control of fabrics containing elastic yarn. The multi-station design tests several specimens at the same time; available as 3- and 6-station models, wall type or mobile (wheeled).



Model technical data

1	Multi-station design: several specimens at once; 3- and 6-station models.
2	Installation: wall mounted or wheeled mobile unit.
3	Separate timing for each station (multi-function timers).
4	For knitted and woven fabrics; evaluation of stretch, permanent set and recovery.
5	Weight sets are chosen according to the method and request and priced separately (example set: 3 × 3 lb, 3 × 5 lb, 3 × 10 lb).
6	Test loads, durations and attachment accessories are selected according to the method applied.

Physical specifications and utilities

Electrical supply	Manual / passive base apparatus; no mains supply assumed.
Power / connected load	Approx. 0 W connected load for preliminary planning.
Overall instrument dimensions	Approx. 600 × 150 × 1500 mm (W × D × H).
Instrument weight	Approx. 10–25 kg net.
Gross / shipping weight	Approx. 21–41.2 kg gross; estimated packing allowance.
Lab requirements	Level, stable working surface; specimen conditioning follows the selected method.

Dimension order and approximate values are stated in each row. Packaging data are separate from instrument dimensions and net mass. Approx. rows are preliminary engineering estimates based on comparable equipment and function/capacity; they are not verified manufacturing measurements or standard requirements. Installation and shipment are finalised against the approved drawing and nameplate. Estimate scope: base apparatus; separately ordered test-weight sets, external computer and auxiliary plant excluded.

Specifications, dimensions, and power requirements are approximate and subject to change without prior notice for continuous design improvements.

Product technical specifications and images may vary according to manufacturing conditions and applicable standards.

Test and configuration

Measured output / function	Extension and recovery (%)
Parameters selected for the method	Preload, gauge length, loading/dwell and recovery time
Verification points	Length, load and duration

Control and recording specification

Method-specific software and recording requirements follow. Delivered software modules are defined by the order scope.

• Method code and edition, specimen ID, operator and selected test parameters are linked to the record.

• The calculation and endpoint are defined by the selected method edition; instrument signals and operator assessments are kept distinct.

• Raw measurements, units, valid/invalid test flags and the reported result remain traceable.

• Calculations are checked against known inputs and an independent calculation; sensor channels are checked against calibration values.

Related test methods

ASTM D2594 · ASTM D3107

Listed methods are application references. Suitability is established by assessing hardware, method edition and calibration together.

Test parameters for the reviewed method

The values below were reviewed in selected clauses of the stated source edition. They are not a declaration of equivalence to a later edition or independent instrument verification.

ASTM D2594-04 / 6.3-6.4, 7.3.6, 10.3.9

1	Knitted-fabric stretch/growth arrangement: total tensions 2.27 or 4.54 kgf with ±1% tolerance; initial benchmark spacing 125 ± 3 mm. Record recovery readings at 60 ± 5 s and 1 h ±5 min after unloading separately.

ASTM D3107-03 / 6.1-6.4

1	Woven-stretch arrangement: total load including clamp and pin 1.8 kg or 1.35 kg with ±1% tolerance. Use an approximately 6 mm pin, extension-locking mechanism and timer with 10 s increments or better.