

TXL-IPL-004 / 27 October 2026 · One-year manufacturer warranty

Yarn Reel Winder (Automatic)

Skein preparation of standard length for count determination. Provides high-precision data flow in yarn production and R&D processes. Its ergonomic structure facilitates daily routine tests.



Model technical data

1	Winding capacity: 10 yarn specimens simultaneously.
2	Model circumferences: 1 m, 1 yard or 1.5 yards per turn; separate models.
3	Turn setting: 2-9999 turns.
4	Speed setting: 20%-100%, in 1% steps.
5	Colour display and physical keys; the screen is not touch-sensitive.
6	Synchronous 10-guide traverse; 6-arm reel and hinged locking arm.
7	Automatic homing at startup; deceleration and stop near the target count.
8	Supply: 220 V AC, 50 Hz; motor supply 24 V DC.
9	Standard set: 10-position creel, guides and tensioning assembly.

Physical specifications and utilities

Electrical supply	Supply: 220 V AC, 50 Hz; motor supply 24 V DC.
Power / connected load	Approx. 100–250 W connected load for preliminary planning.
Overall instrument dimensions	Approx. 650 × 550 × 550 mm (W × D × H).
Instrument weight	Approx. 30–50 kg net.
Gross / shipping weight	Approx. 43–72.5 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 product / one unit; external computer, bench 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	Linear density or yarn count (tex, den, Nm, Ne)
Parameters selected for the method	Skein length, mass and selected count system
Verification points	Reel circumference, turn count and balance

Control and recording specification

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

- The need for integrated software depends on the method and selected hardware; manual instruments use an external test record.
- Method code and edition, specimen ID, operator and selected test parameters are linked to the record.
- $\text{tex} = 1000 \times \text{mass(g)} / \text{length(m)}$; $\text{denier} = 9000 \times \text{mass(g)} / \text{length(m)}$.
- 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.
- The BS 2010 amendment recipe records nominal tex, the high-tex/low-twist exception and the reeling/skein tension used. The special lower tension is not an automatic general default; preserve the instrument’s physical-key, non-touchscreen configuration.
- The ISO 5688 preparation record identifies the 1 m reel, verified circumference, turn count and tension setting/verification. A preparation record is not a completed crimp result; preserve the physical-key, non-touchscreen control configuration.

Related test methods

ASTM D1907 · ASTM D2260 · BS 2010 · DIN 53830 · ISO 2060 · ISO 5688

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

Historical method references: BS 2010

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.

ISO 2060:1994 / 5.1 / Ek A

1	Recommended reel circumference: 1.000 m ± 2.5 mm.
2	Pretension with positive feed: 0.5 ± 0.1 cN/tex.

ASTM D1907-97 / 6.1

1	For the skein method, recommended reel perimeter 1.000 m or 1.500 yd with ±0.25% tolerance. Record turns, actual perimeter, tension and weighing condition together; use actual wound length for linear-density calculation.
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ASTM D2260-02 / 3.1.15, 4–6

1	This document provides yarn-count conversions, not reel mechanical accuracy. Tex is grams per 1000 m: tex = 1000·m(g)/L(m). Software retains measured mass, actual wound length, input/output numbering systems and rounding.
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BS 2010:1963 / Amendment 1910:1976 / Amendment slip 1: clause 6c inserted paragraph and 8(v) only

1	Amd.1910:1976, clauses 6c/8(v) only: high-tex, low-twist yarns that extend excessively at normal skein gauge tension use a lower 0.2 g/wrap/tex unit; equivalent load stated as (10 ± 1 g) × nominal/approximate tex. This is a special skein-tension condition, not machine weight or a universal yarn-feed setting. Report reeling tension; the base standard’s other apparatus requirements remain unreviewed.
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ISO 5688:2024 / 6.1; auxiliary preparation only; printed p.2

1	ISO 5688:2024 clause 6.1 — preparation reel: circumference 1000 ± 2.5 mm; selected winding tension maintained within ±10%. Requires traversing to prevent overlap, turn counting and a reducible circumference for skein removal. These are method acceptance requirements, not verified instrument tolerances.
2	ISO 5688 skein preparation applies only to the 1 m circumference model; 1 yard and 1.5 yard variants do not meet the 1000 ± 2.5 mm requirement by substitution. Verify circumference, tension accuracy and skein-release mechanism on the delivered configuration. This reel alone does not measure crimp or perform thermal development.