TXL-UNI-008 / 28 October 2026 · One-year manufacturer warranty

Box Compression Tester (BCT, 10 / 20 / 50 kN)

Tester for compression resistance and constant-load stacking of corrugated boxes, shipping containers and filled transport packages. TL-BCT-10 (benchtop, 500 × 500 mm platens), TL-BCT-20 (floor-standing, 800 × 1000 mm) and TL-BCT-50 (floor-standing, 1200 × 1200 mm); front guard, 7-inch touchscreen HMI, PC software via Ethernet / Modbus TCP and A4 PDF, Excel and CSV reports.



Model technical data

1	Models and capacity: TL-BCT-10 10 kN; TL-BCT-20 20 kN; TL-BCT-50 50 kN.
2	Platen size: TL-BCT-10 500 × 500 mm; TL-BCT-20 800 × 1000 mm; TL-BCT-50 1200 × 1200 mm.
3	Installation: TL-BCT-10 benchtop; TL-BCT-20 and TL-BCT-50 floor-standing.
4	Front guard: single door on TL-BCT-10 and TL-BCT-20; double door on TL-BCT-50.
5	Test modes: compression (force-displacement monitoring) and constant-load stacking, standard on all three models (force-time monitoring).
6	Control: 7-inch touchscreen HMI on the side console; emergency stop below the display.
7	PC connection: Windows 10/11 64-bit, Ethernet / Modbus TCP; A4 PDF, Excel and CSV reports with specimen details, test conditions, results and curves.
8	Standard delivery: tester, upper and lower platens, front guard and 7-inch HMI console.

Physical specifications and utilities

Electrical supply	Approx. 220–240 V AC, 50/60 Hz, single phase (10/20 kN); single or three phase for 50 kN, build-dependent.
Power / connected load	Approx. 750–3000 W connected load for preliminary planning.
Overall instrument dimensions	Approx. TL-BCT-10 900 × 700 × 1300 mm; TL-BCT-20 1500 × 1300 × 2100 mm; TL-BCT-50 1900 × 1600 × 2300 mm (W × D × H).
Instrument weight	Approx. TL-BCT-10 250–400 kg; TL-BCT-20 600–900 kg; TL-BCT-50 1000–1500 kg net.
Gross / shipping weight	Approx. 350–1900 kg gross; preliminary estimate by model and packing.
Interfaces	PC connection: Ethernet / Modbus TCP; Windows 10/11 64-bit; 7-inch touchscreen HMI.
Lab requirements	Sturdy bench for TL-BCT-10; level, load-bearing floor and forklift/lifting access for TL-BCT-20/50; PC separate.

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	Maximum compression force (kN), displacement (mm); force-time for stacking
Parameters selected for the method	Test mode, speed, preload, end criterion and stacking load/duration
Verification points	Force, displacement and platen parallelism verification

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.

• Force-displacement is recorded for compression and force-time for stacking; maximum force and the corresponding displacement are reported per specimen.

• 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 D642 · TAPPI T 804 · ISO 12048

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