Loop Tensile Fixture for Elastic Fabrics

Built to ASTM D4964 — Standard Test Method for Tension and Elongation of Elastic Fabrics (Constant-Rate-of-Extension Type Tensile Testing Machine)



OVERVIEW

Loop tensile fixture for tension and elongation testing of elastic fabrics. The specimen is formed into a continuous loop and placed over two smooth, rounded bars instead of clamped jaws, so the fabric stretches uniformly without jaw damage while the machine cycles it to a specified load or elongation.

KEY FEATURES

- Smooth, rounded loop bars support the specimen without clamping damage
- Free-rotating bar option equalizes tension around the loop
- Upper and lower bars aligned for uniform specimen extension
- Suited to repeated cycling between load or elongation limits
- Lightweight construction for low-force load cells

TECHNICAL SPECIFICATIONS

Test method	Tension and elongation of elastic fabrics
Test type / loading	Cyclic tension of a loop specimen (CRE)
Specimens	Continuous-loop fabric specimens, per ASTM D4964
Load capacity	500 N standard; higher capacities on request
Fixture material	Steel or aluminum body, corrosion-resistant finish
Contact surfaces	Polished rounded bars
Machine connection	Clevis pin or threaded adapter, to suit customer frame
Compatible frames	Electromechanical universal test machines

APPLICATIONS

- Elastic wovens and knits
- Narrow elastics and waistbands
- Compression garments and hosiery
- Activewear and swimwear fabrics

ABOUT THE STANDARD

ASTM D4964 measures the tension and elongation behavior of elastic fabrics, made with natural or synthetic elastomeric yarns, on a constant-rate-of-extension tensile machine. Loop specimens are cycled between specified limits, and force at given elongations or elongation at a given force is recorded. It is used to characterize stretch and recovery of elastic wovens and knits.

Ordering & customization: Specify specimen width, bar diameter preference, required capacity and test machine connection when ordering.

Specifications are typical and may vary by configuration; confirm at time of quote. Users should refer to the current edition of the standard for test procedures. Part ref. UGC-D4964-TF