

ASTM D6797 Puncture Fixture

CRE Ball Burst Fixture for Fabric Bursting Strength

Built to ASTM D6797 — Standard Test Method for Bursting Strength of Fabrics Constant-Rate-of-Extension (CRE) Ball Burst Test



OVERVIEW

Ball burst fixture for measuring fabric bursting strength on a constant-rate-of-extension tensile machine per ASTM D6797. A ring clamp holds the fabric taut and a polished steel ball is driven through it, stretching the fabric multiaxially until it ruptures. Peak force is recorded as bursting strength.

KEY FEATURES

- Polished hardened steel ball for consistent fabric contact
- Ring clamp holds fabric uniformly without slippage
- Mounts directly on a standard CRE tensile machine
- Quick-release clamp for fast specimen changeover
- Rigid construction keeps the ball centered on the clamp ring

TECHNICAL SPECIFICATIONS

Test method	CRE ball burst
Test type / loading	Ball pushed through clamped fabric, constant rate
Specimens	Fabric specimens larger than clamp ring, per ASTM D6797
Load capacity	5 kN standard; higher capacities on request
Fixture material	Hardened steel ball; steel clamp ring and frame
Contact surfaces	Polished steel ball; clamping rings to hold fabric
Machine connection	Clevis pin or threaded adapter, to suit customer frame
Compatible frames	Electromechanical universal test machines

APPLICATIONS

- Knitted and stretch fabrics
- Nonwoven and woven textiles
- Apparel and medical textile QC
- Textile specification testing

ABOUT THE STANDARD

ASTM D6797 determines the bursting strength of fabrics using a constant-rate-of-extension (CRE) tensile machine fitted with a ball burst attachment. It applies to knitted, nonwoven, and woven fabrics, particularly those with high stretch. The ball pushes the clamped fabric until it ruptures, giving a measure of resistance to multidirectional stress.

Ordering & customization: Specify fabric type, expected burst force, required capacity and test machine connection.

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.
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