Tensile Grips for Fiberglass Pipe and Tube

Built to ASTM D2105 — Standard Test Method for Longitudinal Tensile Properties of "Fiberglass" (Glass-Fiber-Reinforced Thermosetting-Resin) Pipe and Tube



OVERVIEW

Tensile grips for testing full sections of glass-fiber-reinforced thermosetting-resin pipe and tube in the longitudinal direction. The pipe ends are gripped around their circumference, typically with internal plugs to prevent crushing, so axial load is introduced evenly and failure occurs in the gage section.

KEY FEATURES

- Circumferential grip faces distribute load around the pipe wall
- Internal support plugs prevent crushing of the pipe ends
- Self-aligning design keeps load on the pipe axis
- Grip sets sized to your pipe or tube diameter
- Supplied with adapters to suit your load frame (clevis or threaded)

TECHNICAL SPECIFICATIONS

Test method	Longitudinal tensile properties of pipe and tube
Test type / loading	Axial tension
Specimens	Full-section pipe or tube per ASTM D2105
Load capacity	Sized to pipe diameter and wall; e.g. 100 kN, higher on request
Fixture material	Hardened alloy steel
Gripping surfaces	Serrated circumferential jaws with internal support plugs
Machine connection	Clevis pin or threaded adapter, to suit customer frame
Compatible frames	Electromechanical and servo-hydraulic universal test machines

APPLICATIONS

- Fiberglass (GRP/FRP) pipe
- Composite tube and shafts
- Piping system design data
- Pipe production QC

ABOUT THE STANDARD

ASTM D2105 determines the longitudinal tensile properties of fiberglass (glass-fiber-reinforced thermosetting-resin) pipe and tube, including tensile strength and modulus, using full pipe sections. Load is applied along the pipe axis through end grips. The data are used for design, product comparison and quality control of reinforced plastic piping.

Ordering & customization: Specify pipe outside diameter, wall thickness, expected failure load 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-D2105-TG