Prefilled Glass Syringe Test Fixture

Built to ISO 11040-4 — Prefilled syringes — Part 4: Glass barrels for injectables and sterilized subassembled syringes ready for filling



OVERVIEW

Vertical test fixture for glass prefilled syringes. The barrel sits in an interchangeable PTFE insert and is held by a lever clamp, while a guided ram on the crosshead applies axial force for functional tests such as break-loose and gliding force; a clear chamber collects expelled liquid.

KEY FEATURES

- Guided ram keeps force exactly on the syringe axis
- Interchangeable PTFE inserts fit a range of barrel sizes
- Lever clamp secures the syringe quickly and repeatably
- Clear collection chamber contains expelled liquid
- Supplied with adapters to suit your load frame (clevis or threaded)

TECHNICAL SPECIFICATIONS

Test method	Syringe functional tests, per ISO 11040-4 annexes
Test type / loading	Axial compression via guided ram
Specimens	Glass syringe barrels and subassembled syringes
Load capacity	500 N standard; other capacities on request
Fixture material	Stainless steel body, PTFE barrel inserts
Contact surfaces	Guided steel ram, PTFE-lined barrel seat
Machine connection	Clevis pin or threaded adapter, to suit customer frame
Compatible frames	Electromechanical universal test machines, low-force frames

APPLICATIONS

- Prefilled glass syringes, 0.5 to 10 mL
- Pharmaceutical fill-finish QC
- Combination product development
- Syringe component incoming inspection

ABOUT THE STANDARD

ISO 11040-4 specifies requirements for glass barrels for injectables and sterilized subassembled syringes ready for filling, covering dimensions, materials and performance. Functional test methods in its annexes include mechanical tests on the barrel, flange, Luer cone or staked needle, and the forces needed to start and sustain plunger movement.

Ordering & customization: Specify syringe sizes and formats, tests to be performed, load 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-ISO11040-4-PF