

Tablet Hardness Tester, Pfizer Type

Operating Manual

Laboratory Equipment

Intended use

Handheld plier-type instrument for measuring the breaking force (hardness) of tablets, read directly from a dial, for quality control and formulation work.

Intended users

Trained pharmaceutical, laboratory and quality control personnel; students under supervision.

Read this manual completely before first use and keep it with the product. This document provides general operating, care and safety guidance. Where the product is supplied with manufacturer labeling or instructions, those take precedence. For questions, a replacement copy, or a digital copy of this manual, email sales@scimedstore.com.

1. Safety

Safety warnings and cautions

- Do not exceed the 20 kg safe testing force.
- Wear safety glasses; tablet fragments can fly when the tablet breaks.
- Keep fingers clear of the jaws when squeezing the handles.
- Do not test tablets larger than 25 mm in diameter.
- Handle potent or hazardous drug tablets with gloves and suitable containment per your facility's procedures.
- Do not use the tester if the dial, pointer or jaws are damaged.

2. Specifications

Type	Pfizer-type handheld plier hardness tester
Reading	Direct analog dial (no batteries required)
Accuracy	+/- 0.2 kg
Least count	0.2 kg
Safe testing force	20 kg maximum
Maximum tablet diameter	25 mm

3. Unpacking and setup

- 1 Inspect the tester for damage and check the jaws are clean.
- 2 Open the handles fully and check that the dial pointer returns to zero.
- 3 If the pointer does not read zero, use the zero adjustment if provided, or refer for calibration.
- 4 Prepare the tablets to be tested and a record sheet.

4. Operation

Testing a tablet

- 1 Reset the dial pointer to zero.
- 2 Place the tablet between the jaws in the orientation specified by your test method (usually diametrically).
- 3 Hold the tester steady and squeeze the handles slowly and evenly.
- 4 Continue until the tablet breaks.
- 5 Read the breaking force on the dial and record it.
- 6 Open the jaws, remove and discard the fragments, and reset the dial to zero.
- 7 Repeat for the number of tablets required by your test method and calculate the results.

5. Cleaning and disinfection

- Brush tablet powder off the jaws and body after each series of tests.

- Wipe with a soft cloth lightly dampened with water or a mild detergent, then dry.
- Do not immerse the tester or let liquids enter the dial.
- Do not autoclave unless labeled as autoclavable.

6. Maintenance and storage

- Store in a clean, dry place, away from dust and humidity.
- Do not store the tester with the handles squeezed.
- Check calibration periodically against reference weights or a calibrated tester, per your laboratory's quality procedures.
- Refer repairs and recalibration to qualified service personnel.

7. Troubleshooting

Problem	Likely cause	What to do
Pointer does not return to zero	Zero drift or dirt in mechanism	Clean the jaws; adjust zero if possible or send for calibration.
Readings vary widely between tablets	Uneven squeezing speed or tablet orientation	Squeeze slowly and evenly and keep tablet orientation consistent.
Tablet slips in the jaws	Jaws dirty or tablet shape	Clean the jaws and seat the tablet carefully.
Readings appear too high or too low	Instrument out of calibration	Verify against a reference and recalibrate.
Dial reaches maximum before tablet breaks	Tablet harder than the instrument range	Stop; do not exceed 20 kg. Use a tester with a higher range.

8. Disposal

- Dispose of tablet fragments as pharmaceutical waste per your facility's procedure.
- Dispose of the instrument as metal waste in accordance with local regulations.

9. Warranty and support

Products are covered by SciMed's standard warranty (12 months from purchase unless a different period is stated on your invoice). Warranty terms: scimedstore.com/pages/warranty.

Support, spare parts and additional copies of this manual: sales@scimedstore.com. Please include your order number and a photo of the product or issue.

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