

Vernier Caliper, 6 in / 150 mm

User Manual

Measuring Instrument

Intended use

Manual vernier caliper for measuring outside dimensions, inside dimensions, depth and steps of parts and samples in laboratories, workshops and teaching.

Intended users

Laboratory staff, technicians, engineers, students and instructors.

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

- The jaw tips are pointed and sharp; handle with care and store closed.
- Do not use the caliper on moving or rotating parts.
- Do not use the jaws as a scribe, wrench or hammer.
- Do not drop the caliper; impact can bend the beam and affect accuracy.
- Keep the caliper away from magnetic fields, heat sources and corrosive chemicals.
- Supervise students when the caliper is used in teaching labs.

2. Specifications

Measuring range	0-150 mm / 0-6 in
Resolution	0.02 mm (metric); 1/128 in (imperial)
Accuracy	±0.03 mm typical
Measurements	Outside, inside, depth and step
Material	Hardened stainless steel, satin chrome finish
Features	Sliding jaw lock screw; dual metric/inch scale

3. Unpacking and setup

- 1 Wipe the beam, jaws and depth rod with a clean, dry cloth.
- 2 Close the jaws fully and check that the main and vernier scale zero lines align.
- 3 If the zero does not align, clean the jaw faces and check again; record any zero error to correct readings.

4. Operation

Outside measurement

- 1 Loosen the lock screw.
- 2 Open the jaws wider than the part.
- 3 Place the part deep between the main (lower) jaws.
- 4 Close the jaws gently until they touch the part squarely, without forcing.
- 5 Tighten the lock screw if needed and remove the caliper.
- 6 Read the measurement (see Reading the scale).

Inside, depth and step measurement

- 1 Inside: insert the upper jaws into the bore and open them until they touch the walls; rock slightly to find the largest reading.
- 2 Depth: rest the end of the beam on the top surface and slide the depth rod down until it touches the bottom.
- 3 Step: place the step faces of the beam and slider against the two surfaces of the step.

- 4 Keep the caliper square to the surfaces being measured.
- 5 Lock the slider and read the scale.

Reading the scale

- 1 Read the main scale value just to the left of the vernier zero line.
- 2 Find the vernier line that aligns exactly with any main scale line.
- 3 Add the vernier value to the main scale value.
- 4 Apply any zero error recorded during setup.
- 5 Record the result with its unit.

5. Cleaning and disinfection

- Wipe the caliper clean after each use to remove dust, chips and fingerprints.
- Use a cloth lightly moistened with a mild solvent for oily residue, then dry.
- Do not use abrasive cleaners.

6. Maintenance and storage

- Apply a thin film of light oil to the beam periodically.
- Store in its case or a drawer with the jaws slightly open to avoid stress on the faces.
- Store in a dry place to prevent corrosion.
- Check accuracy periodically against a gauge block or reference standard.

7. Troubleshooting

Problem	Likely cause	What to do
Zero lines do not align when closed	Dirt on jaw faces or worn jaws	Clean jaw faces; if error remains, record it as zero error or have the caliper serviced.
Slider moves unevenly or sticks	Dirt on the beam	Clean the beam and apply a thin film of light oil.
Slider too loose	Lock or gib screw loose	Tighten the lock screw; adjust the gib screw carefully if fitted.
Readings vary between measurements	Caliper not square or excessive force	Keep the jaws square to the part and use light, even pressure.

8. Disposal

- Recycle as metal scrap 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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