

PMMA Plastic Burette, Individually Calibrated

User Manual

Laboratory Equipment

Intended use

Transparent acrylic burette for measuring and dispensing liquids during titration in teaching and laboratory work with dilute aqueous acids and bases.

Intended users

Laboratory personnel, teachers and students under supervision in chemistry and teaching laboratories.

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

- Use only with dilute aqueous acids and bases within the listed limits (pH 1-14, up to 5% acids, up to 30% bases).
- Do not use with hydrofluoric acid, ammonium hydroxide, organic solvents or alcohol. These can damage the acrylic body.
- Wear safety glasses, gloves and a lab coat when handling chemicals.
- Fill the burette below eye level using a funnel to avoid splashes.
- Mount the burette securely in a burette clamp on a stable stand before filling.
- Students should use the burette only under teacher or supervisor guidance.

2. Package contents

- Burette with TPX stopcock and PTFE plug

Check contents on receipt. Report missing or damaged items to sales@scimedstore.com within 48 hours of delivery.

3. Specifications

Capacity	Varies by variant: 25 ml, 50 ml or 100 ml
Graduation	0.1 ml (as listed)
Body material	PMMA (acrylic), transparent
Stopcock	TPX stopcock with self-lubricating PTFE plug, leak-proof
Calibration	Individually calibrated
Chemical resistance	pH 1-14; up to 5% wt/wt acids; up to 30% bases
Not resistant to	Hydrofluoric acid, ammonium hydroxide, organic solvents and alcohol

4. Unpacking and setup

- 1 Inspect the burette body, tip and stopcock for cracks or damage.
- 2 Rinse the burette with distilled water, then with a small amount of the titrant, and drain.
- 3 Clamp the burette vertically on a stand with the stopcock closed.
- 4 Using a small funnel, fill the burette with titrant slightly above the zero mark. Remove the funnel.
- 5 Open the stopcock briefly to fill the tip and remove air bubbles.
- 6 Drain to the zero mark or record the starting reading.

5. Operation

Titration

- 1 Place the receiving flask with the sample under the burette tip.
- 2 Read the starting volume at eye level at the bottom of the meniscus.
- 3 Open the stopcock to add titrant while swirling the flask.
- 4 Slow to dropwise addition as the endpoint approaches.

- 5 Close the stopcock at the endpoint and read the final volume at eye level.
- 6 Calculate the volume delivered as final reading minus starting reading.
- 7 Refill and repeat for replicate titrations as required by your method.

6. Cleaning and disinfection

- Empty and rinse the burette with water immediately after use.
- Clean only with mild soap or detergent solution, then rinse well with distilled water.
- Do not use acid cleaning solutions, organic solvents, alcohol or wire-handled brushes.
- To clean the stopcock, remove the PTFE plug by squeezing and slipping off the retaining O-ring. Rinse, dry and refit.
- Allow to air dry, stored upside down or with the stopcock open.

7. Maintenance and storage

- Store clean and dry, away from direct sunlight, heat and solvents.
- Protect the graduated scale from scratches.
- Check the stopcock for leaks before each use; refit the PTFE plug and O-ring if needed.
- Do not heat or dry in an oven.

8. Troubleshooting

Problem	Likely cause	What to do
Stopcock leaks	Plug or O-ring not seated	Remove and refit the PTFE plug and retaining O-ring.
Air bubble in the tip	Tip not filled before reading	Open the stopcock fully for a moment to flush the bubble, then re-zero.
Drops cling to the inside wall	Residue on the wall	Clean with mild detergent solution and rinse well.
Body becomes cloudy or crazed	Exposure to solvent, alcohol or incompatible chemical	Stop using the burette; replace it. Use only listed compatible solutions.
Readings inconsistent	Parallax or reading the wrong part of the meniscus	Read at eye level at the bottom of the meniscus.

9. Disposal

- Rinse out all chemical residues before disposal.
- Dispose of chemical waste per your laboratory's procedures and local regulations.
- Dispose of the burette as plastic laboratory waste in accordance with local regulations.

10. 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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