

Glass Blowing Torch (Blast Burner) with 3 Nozzles

Operating Manual

Laboratory Equipment

Intended use

Bench-top blast burner for heating, shaping, sealing and repairing laboratory glass and for lampworking, using fuel gas with air and/or oxygen.

Intended users

Trained laboratory glassblowers, laboratory staff, and supervised students or artisans familiar with gas torch safety.

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 in a well-ventilated area, away from flammable materials, solvents and gas cylinders not in use.
- Check all hose connections for leaks with soapy water before each use. Never use a flame to check for leaks.
- Wear didymium or other suitable glassblowing safety glasses, and natural-fiber clothing; tie back long hair.
- Use correct regulators on gas and oxygen cylinders and secure cylinders upright.
- Never allow oil or grease to contact oxygen fittings.
- Keep a fire extinguisher within reach and never leave a lit torch unattended.
- Work on a heat-resistant surface and treat all worked glass as hot until it has cooled.
- Close all valves at the cylinders or supply when work is finished.

2. Package contents

- Blast burner torch on heavy metal base with ball joint
- Interchangeable nozzles x 3
- Rubber hose, 2 m

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

3. Specifications

Type	Bench-top universal blast burner
Gas controls	3 independent stop cocks: air, fuel gas, oxygen
Fuel gas	Natural gas, propane or butane
Nozzles	3 interchangeable: small, medium, large
Base	Heavy metal base with ball joint for flame-angle adjustment
Hose	2 m flexible rubber hose

4. Unpacking and setup

- 1 Place the torch on a stable, heat-resistant bench with clear space around it.
- 2 Fit the nozzle required for your work.
- 3 Connect the fuel gas supply using the hose provided and suitable fittings and clamps.
- 4 Connect air and/or oxygen supplies to the matching inlets using suitable hoses and regulators.
- 5 Make sure all torch stop cocks are closed.
- 6 Open supply valves and check all connections for leaks with soapy water.
- 7 Adjust the ball joint to set the flame direction.

5. Operation

Lighting the torch

- 1 Make sure safety glasses are on and the area is clear.
- 2 Open the fuel gas stop cock slightly.
- 3 Light the gas at the nozzle with a striker or long lighter.
- 4 Gradually add air to obtain a stable flame.
- 5 Add oxygen slowly if a hotter flame is needed.
- 6 Adjust gas, air and oxygen to get the flame size and type required.

Working glass

- 1 Warm the glass gradually at the edge of the flame before bringing it into the hottest zone.
- 2 Rotate the glass evenly to heat uniformly.
- 3 Shape, join or seal as required.
- 4 Anneal or cool the work gradually per your glass type to reduce stress.
- 5 Place hot glass on a heat-resistant surface to cool.

Shutting down

- 1 Close the oxygen stop cock first.
- 2 Close the air stop cock.
- 3 Close the fuel gas stop cock to extinguish the flame.
- 4 Close the supply valves at the cylinders or gas line.
- 5 Allow the torch to cool before touching the nozzle or changing it.

6. Cleaning and disinfection

- Allow the torch to cool fully before cleaning.
- Wipe the base and body with a dry or slightly damp cloth.
- Clear blocked nozzle openings carefully with a suitable soft wire or by tapping; do not enlarge the holes.
- Keep oxygen fittings free of oil and grease.

7. Maintenance and storage

- Inspect the rubber hose for cracks, hardening or damage before each use and replace if needed.
- Check stop cocks for smooth operation and leaks regularly.
- Store nozzles together in a clean container.
- Store the torch in a dry place with all gas supplies disconnected.

8. Troubleshooting

Problem	Likely cause	What to do
Flame will not light	Gas supply closed or air flow too high	Open the gas supply and reduce air before lighting.
Flame blows out	Too much air or oxygen	Reduce air or oxygen and readjust.
Flame lifts off the nozzle	Gas or air pressure too high	Reduce flow at the stop cocks or regulator.
Smell of gas	Leak at a hose or fitting	Shut off all gas, ventilate the area, and check connections with soapy water.
Popping or flashback	Blocked nozzle or low gas flow	Shut down, let cool, clean the nozzle and check supply pressure.
Flame uneven	Partly blocked nozzle	Cool and clean the nozzle.

9. Disposal

- Disconnect from all gas supplies before disposal.
- Recycle metal parts in accordance with local regulations; dispose of the rubber hose as general waste.

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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