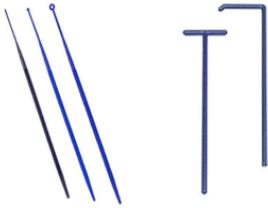


Bunsen Burner Alternatives

Sterile and Disposable Loops and Spreaders (\$100-\$200 for 1000 units)

For yeast or bacterial colony work



- Pros:** Pre-sterilized and designed for single use
- No risk of cross contamination and no need for flaming
- Surfaces are smooth with no rough edges and no burrs on loop heads
- Flexible enough for streaking, and rigid enough for subsurface inoculation
- Cons:** Creates waste

Bacti-cinerator (\$250-\$600)

For yeast or bacterial colony work

- Pros:** Sterilizes loops and needles by infrared heat
- Heat is contained in deep ceramic tube to protect laboratory personnel
- Completes sterilization in 5-7 seconds at 1500°F (815°C)
- Cons:** Types of items able to be sterilized are limited



Glass bead sterilizer (\$400-\$500)

For surgeries or work involving surgical equipment



- Pros:** Ideal for sterilizing surgical instruments with dry heat using glass beads at 233°C
- Can sterilize submerged portion of surgical instrument in 15 seconds
- Replacement glass beads can be purchased separately
- No gas line or open flame needed
- Cons:** Only sterilizes surgical instruments

Electric Bunsen burner (\$600-\$800)

For work involving test tubes, small flasks, beakers, crucibles, etc.

- Pros:** Ideal for non-contact heating of test tubes, crucibles, small flasks, beakers, etc.
- Vented housing keeps base cool enough to hold during operation
- Burner consumes only 400W of power
- No gas line or open flame needed
- Cons:** Items able to be heated are limited by size



FIREBOY Safety Bunsen burner (\$700-\$800 for unit; butane gas cartridges \$263 for 24 from Integra)



- Pros:** Automatically tries to reignite the flame if it accidentally extinguishes
- If it is unable to reignite, the safety burner will interrupt the gas supply
- Gas cartridge adapters - independent from gas distribution system
- Has foot switch for gas control
- Cons:** Gas cartridges create waste
- Open flame has higher risk of injuries

FLAMEBOY portable flame sterilizer

(\$500-\$650 for unit; butane gas cartridges \$263 for 24 from Integra) **For removing bubbles on agar plates**

- Pros:** Portable, handheld, battery-free Bunsen burner
- Immediate ignition independent of any power source or battery
- Various gas cartridge adapters for gas connections and cartridges
- Size and temperature of flame can easily be adjusted by an air and gas regulator
- Cons:** Handheld flame creates higher risk of injuries
- Gas cartridges create waste

