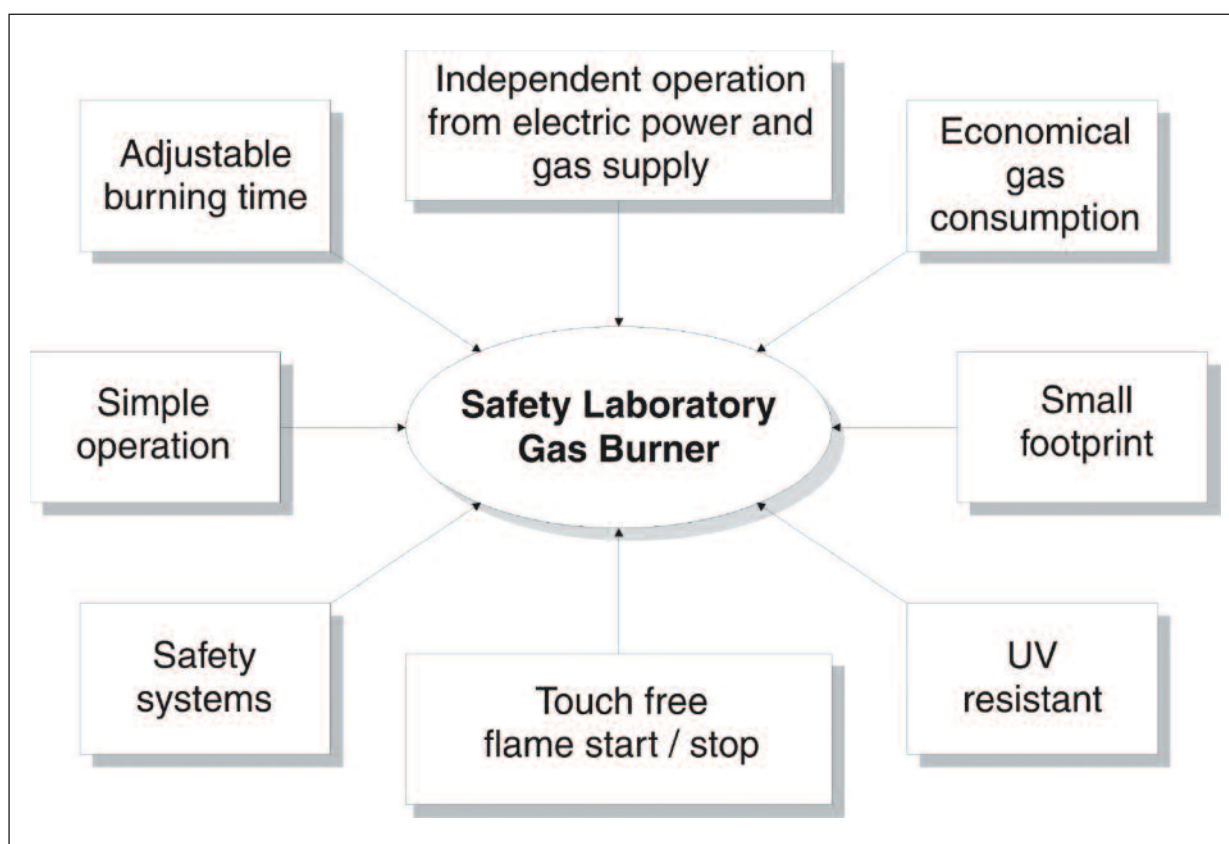


Flame Sterilisation with Safety Laboratory Gas Burners

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Media flame sterilisation is a frequent application for many laboratories in the life science fields of cell biology, virology, neurology, and oncology, among others. These are generally state-of-the-art labs with sophisticated instrumentation. And yet you'd be surprised how many still use the traditional — and highly dangerous — Bunsen burner. Bunsen burners operate on highly flammable gas or alcohol, and are often left burning because restarting can be bothersome or impractical. Safety laboratory gas burners are a wise alternative. When they arrived on the market in the late 1980s they were large and simplistic, while today's instruments offer state-of-the-art design, convenience, and safety.



A continuously burning flame would disturb this airflow while causing heat damage to the cabinet structure. Safety burners, however, offer precisely timed burns that keep stress to the cabinet and its filters to a minimum. Gas burners used in the tight confines of a safety cabinet need to have a small footprint. They also need to have a housing built from UV-resistant materials since most safety cabinets are sterilised by ultraviolet lamps. Housings made of stainless steel and glass work exceptionally well. They are capable of withstanding extreme lab conditions as well as the sterilising detergents often used in conjunction with UV rays.

Methods for fueling these burners vary. It is no longer necessary to use a costly, central gas supply for all the burners in the lab. Today's safety gas burners are very efficient and can be run off small propane/butane gas cartridges located within —or next to— the cabinet. These burners do, however, require electricity, and since safety cabinets rarely have a sufficient number of 100 - 240 V outlets, battery-powered burners are available, often with rechargeable batteries.

And then there is the issue of safety — a major concern when operating a product that uses flammable gas. The touch-free flame ignition feature built into most new burners not only ensures sterility of the work environment, it enhances worker safety. Most safety burners are also equipped with systems that constantly analyse for potential hazards and automatically initiate safety measures, such as an interruption in gas supply. Some units even offer passive safety systems such as a residual heat display.

Safety Cabinet Applications

Safety laboratory gas burners are ideal for use in biological safety cabinets. Such cabinets are carefully designed to prevent contamination of biological samples by drawing air flow in from the front of the cabinet and expelling it either outside the building or back into the room once it has been made safe through filtration.

Cost Savings

Some labs may feel a traditional, low-cost Bunsen burner may seem more than adequate for their particular applications. However, lab managers need to consider the long-term value of safety. Not only do these safety laboratory burners save money on gas, they increase productivity while lowering the likelihood of a very costly accident.

Safe Handling of Sensitive Liquids in the Laboratory

The new **Vacuubrand** BVC (Biochem-VacuuCenter) liquid aspiration systems offer an optimal, flexible solution both for filtration and for safe, sensitive and efficient aspiration of supernatants. The BVC units are convenient for cell culture work and many other applications in the laboratory.

Six versions of the BVC units are available; three use a polypropylene vacuum bottle, and three include a glass bottle for exceptional durability with corrosive disinfectants like chlorine bleach. All accept a wide range of accessories. The two 'BVC basic' models (PP and glass) are designed for use with existing vacuum supplies. They include a mechanical regulator to provide sufficient suction without evaporation of the collected fluid. Two 'BVC control' models add a chemical-resistant vacuum pump, an adjustable pressure switch and a touch panel for easy control. The powerful, chemical-resistant diaphragm pump allows parallel work by two users, or simultaneous aspiration and filtration operations. The suction power is precisely adjustable via a touch panel, and the whisper-quiet pump responds automatically to demand without need for continuous pumping or foot-pedal control.

The two 'BVC professional' models add a contactless liquid level sensor which shuts off the vacuum pump to prevent overfilling of the bottles, while preserving enough volume to draw disinfectant through the suction tubing and peripheral attachments. All collection bottles are designed to minimise aerosol and foam formation and may be autoclaved along with the hydrophobic filter that protects the pump and laboratory from biological aerosols.

BVC units combine high functionality, reliability and economy. Every detail of the new equipment is intended to ensure safety and convenience for those working with sensitive or hazardous liquids in the laboratory.

