

BPC® Air

An incubator with cooling and heating in one



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BPC Air

BPC Air is an innovative air incubator that offers both cooling and heating functionalities. Specifically designed to complement BPC's respirometer systems, including BPC® Blue, AMPTS® III, and Gas Endeavour® III, BPC Air offers a tailored energy-efficient incubation solution.

BPC Air

Capable of accommodating up to 18 bottles of various sizes (0.5, 1, and 2 litres) simultaneously, BPC Air's temperature range of 10°C to 60°C is perfectly suited for microbial incubation at the average indoor temperature (approximately 22-25°C). Its low energy consumption sets it apart, resulting in an exceptionally low carbon footprint compared to other commercial air incubators and traditional thermostatic and cooling water baths available in the market.

Furthermore, leveraging its low energy consumption, BPC Air can be easily paired with a regular UPS to mitigate the risk of unexpected power outages, ensuring the desired incubation temperature is maintained, even during the relocation of the incubator.

Designed for convenience, BPC Air boasts a floor-standing design and is equipped with wheels, enabling effortless mobility and the flexibility to position it within any laboratory floor space.

Seamless integration with BPC Instruments' respirometer systems

Designed with compatibility in mind, the BPC Air seamlessly integrates with BPC Instruments' latest respirometer systems. This creates a unified testing platform for microbial respiration batch test assays, which excels in both appearance and functionality. With everything conveniently within reach, BPC Air eliminates the need for a dedicated workbench. Set up is a breeze, with space to accommodate the complete respirometer system and even a computer or tablet. Clear number markings on the unit makes it easy to identify which channels are which.

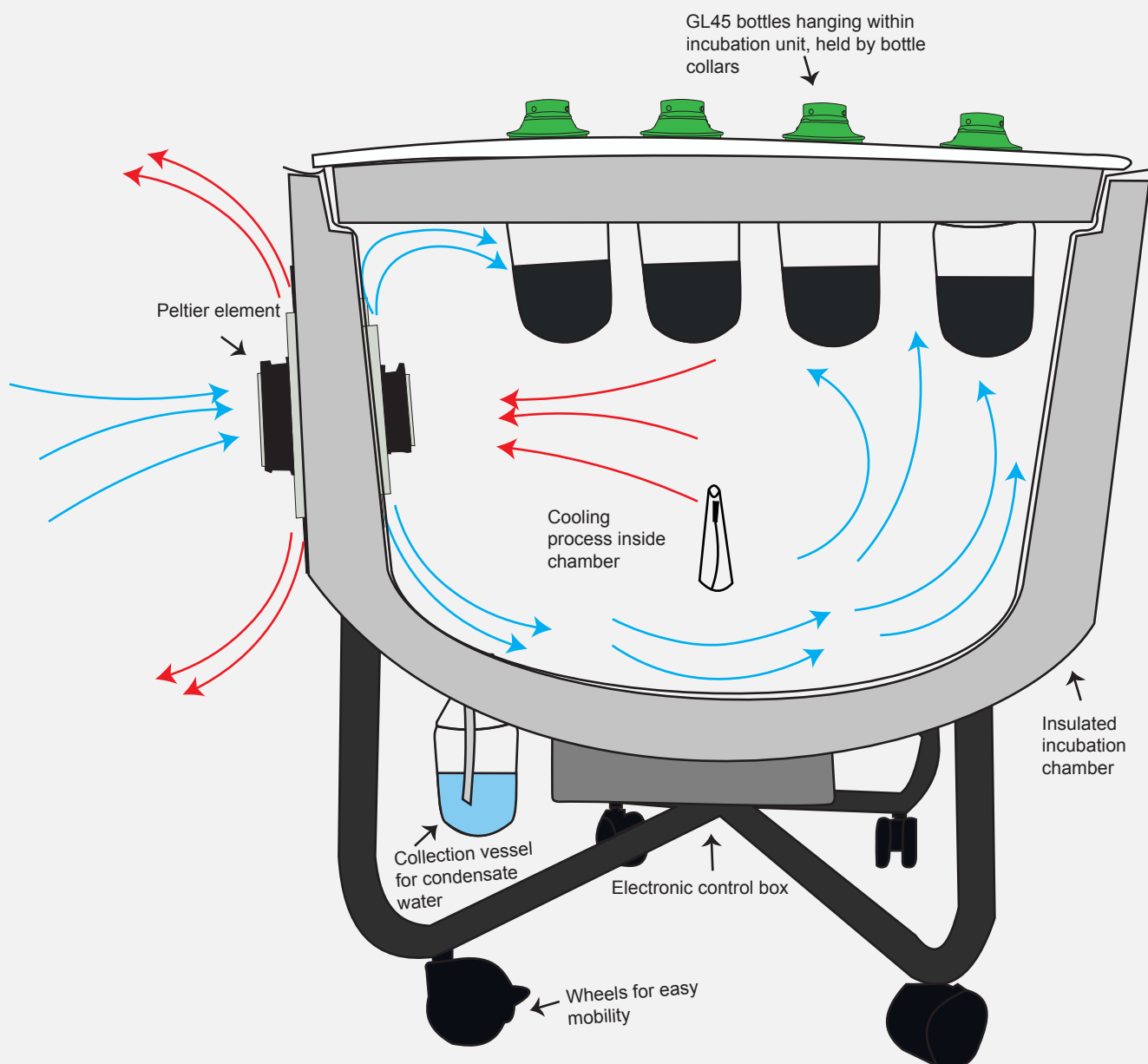




BPC Air
BPC INSTRUMENT

Technical illustration

Working principle of BPC Air





Designed for convenience

Why choose BPC Air?

For those seeking an incubator that offers both cooling and heating capabilities, next to no maintenance, low energy consumption, flexibility in positioning and ease of use, BPC Air is the perfect solution. When combined with BPC Instruments' respirometer systems, it becomes an ideal experimental platform that can be easily moved and placed anywhere within the lab space. BPC Air's user-friendly design ensures a seamless setup and operation experience.

- **Seamless Integration:** BPC Air integrates smoothly with BPC® Blue, AMPTS® III, Gas Endeavour® III and BPC® Core.
- **All-in-One Functionality:** Enjoy both cooling and heating functionalities in a single device, eliminating the need for extra accessories.
- **Floor Standing Design:** Equipped with wheels, BPC Air offers convenient placement and mobility.
- **Easy Operation:** No need to refill water or use other heating media, making operation simple and hassle-free.

Versatile, mobile, adapted to your needs



Simplified operation with no water refills required

BPC Air utilizes air as a heating and cooling medium, eliminating the need for external substances. There is no requirement to regularly refill water or resort to costly, messy alternative media. This feature enables immediate start-up and allows for extended periods of operation without constant supervision.

Versatile cooling and heating capability

Utilizing a peltier element, BPC Air offers both cooling and heating functionalities. This means experiments can be conducted both above and below ambient temperature, expanding possibilities beyond those of a traditional thermostatics water bath. Furthermore, with its unique incubation chamber design and construction, BPC Air achieves high energy efficiency, low energy consumption, and a reduced carbon footprint.



Floor-standing mobility

Designed to stand securely on the floor, the BPC Air, when paired with BPC Instruments' respirometer systems, creates an ideal testing platform for microbial respiration batch test assays. Requiring only a single power outlet and approximately 1.5 m² rectangular floor space, it can fit into most available laboratory areas. With integrated wheels to ensure easy mobility, BPC Air can be conveniently relocated when necessary. As a floor-standing unit, it also frees up valuable counter space in a lab, for an optimal working environment.



For both aerobic and anaerobic experiments

Adaptable to various experimental requirements, the BPC Air can be easily configured to conduct both aerobic and anaerobic microbial respiration experiments. In its aerobic setup, oxygen consumption is measured using BPC Instruments' *in-situ* gas absorption units combined with oxygen-filled gas bags. Conversely, in the anaerobic configuration, gas production is measured with or without the inclusion of an *ex-situ* gas removal unit, conveniently inserted inside the incubation chamber.



BPC Air configurations*

The BPC Air incubation unit can be easily configured with our other systems to conduct both aerobic and anaerobic microbial respiration experiments. In its standard setup (18 and 9 Standard), aerobic experiments to measure oxygen consumption can be incubated. Conversely, in the *ex-situ* configurations (18 and 9 *ex-situ*), anaerobic experiments can be incubated where gas production is measured with or without the inclusion of an *ex-situ* gas removal unit, conveniently inserted inside the incubation chamber.



BPC® Air 18 standard

Efficient and sustainable power consumption

BPC Air's power consumption is significantly lower energy usage than the power consumption of traditional thermostatic and cooling water baths. This not only reduces the risk of overloading laboratory power grids, but also saves energy providing a more environmentally sustainable choice.

Streamlined operation with hanging bottle design

Utilizing an innovative suspension system and our tailor-made bottle collars, the BPC Air allows bottles to hang inside the incubation unit with their top exposed to the external environment. This design facilitates a closed system with a controlled temperature environment inside the bottle, while providing convenient access to the bottle's connection points from outside. Tubes can be effortlessly connected without the need for complicated tube management within the unit, and bottles can be readily accessed and removed without requiring the opening of a hatch or door.

Effortless agitation operation

BPC Air seamlessly integrates with BPC Instruments' multifunctional agitation system and BPC® Move. The motors are strategically positioned on top of the bottles outside the incubation unit, stirring the contents within the airtight environment while maintaining precise temperature control. Placing the motors on the top prevents any heat influence generated by the motors. Additionally, their accessible placement facilitates easy handling and monitoring of the agitators.



BPC® Air 18 *ex-situ*



BPC® Air 9 standard



BPC® Air 9 *ex-situ*

*Images are of complete configurations with accessory packages. Included components depends on the selected package and may vary from images. BPC Core unit is not included.

Compatible with respirometer systems

BPC Air serves as a designated incubation unit for the following BPC Instruments' respirometers (including Light and DUO version):



AMPTS® III



BPC® Blue Aerobic



BPC® Blue Anaerobic




BPC® Blue Premium



Gas Endeavour® III



Gas Endeavour® III MAX



Enjoy user-friendly
design, seamless
setup and operation
experience

Features

- **Dual functionality:** provides both cooling and heating capabilities without the need for additional accessories.
- **Seamless integration:** easily integrates with other BPC Instruments' respirometers.
- **Low power consumption:** operates with a significantly lower electricity consumption than conventional alternatives, reducing energy costs and environmental impact.
- **Floor standing design:** equipped with wheels for effortless mobility and placement.
- **Air as medium:** by utilizing air as the heating and cooling medium, BPC Air eliminates the need for water refills or other media.
- **Autonomous operation:** operates independently, requiring minimal oversight.
- **Easy access:** allows convenient access to bottles without the need to open a hatch.
- **Agitation compatibility:** compatible with BPC Instruments' multifunctional agitation system and BPC® Move for agitation during experiments.
- **Aerobic and anaerobic capability:** capable of conducting both aerobic and anaerobic experiments.



Technical specifications

Temperature interval: 10-60 °C

Heat transfer type: air to air

Power - cooling: 102 W

Input power: 100-240 V & 50-60 Hz

Noise level: 87.1 dBA / 86.2. dBC

Built-in sensors: temperature

Housing: stainless steel, compact laminate and plastic

Operation Environment: indoor (10 - 40 °C)

Operating humidity: 10-90 % RH non-condensing

Dimensions: 117 x 77 x 90 (182 with tubing rack) cm

Weight: 51.6 kg



Your **user experience** is a top priority for us

We take pride in providing support throughout the lifetime of our products. This applies to products covered under warranty, and even products where the warranty period has expired. Our goal is to ensure your instrument always works and continually delivers value.



Excellence is built on precision and accuracy

BPC Instruments is a global Swedish-based technology company developing and offering analytical instruments enabling more efficient, reliable, and high quality of research and analysis for industries in renewable bioenergy and environmental biotechnology. The result is not only higher accuracy and precision, but also significant reduction in time consumption and labour requirement for performing analyses. BPC Instruments' innovative products offer high-quality hardware and software based on deep knowledge and experience of target applications. The solutions are the first of their kind, making the company a pioneer in its field. Today, BPC Instruments exports to nearly 70 countries around the world.



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