



# BIOQUELL L-4

A VERSATILE AND MOBILE SYSTEM FOR THE DECONTAMINATION OF ENCLOSURES AND ROOMS

Eliminate microbial contamination from your equipment or small enclosure systems, open spaces or rooms, and more using the multipurpose Bioquell L-4. Validated cycles can be achieved through quick and direct connections, simple room setup, or custom engineering solutions.

Our Hydrogen Peroxide Vapor technology effectively decontaminates isolators, BSCs, lyophilizers, pass-throughs, rack washers and more when connected to the Bioquell L-4.

Room decontamination options further showcase the system's versatility. Use the Bioquell L-4 inside a room by attaching a distribution head, or outside of a zone with connection solutions to meet your needs.



## LEADING EFFICACY ACCEPTED GLOBALLY



Bioquell's Hydrogen Peroxide Vapor decontamination solutions, such as the Bioquell L-4, allow for a 6-log kill (99.9999% elimination) of bioburden from every exposed surface, protecting every step of your process or research. Whether passing through materials, working in an isolator, or freeze drying biological material, life science leaders trust the Bioquell L-4 to remove multiple risk sources of contamination.

## ADAPTED TO MEET YOUR NEEDS



The flexibility of the Bioquell L-4 comes from its unique design. This system simply connects supply and return hoses to equipment via camlocks, or can be configured, to decontaminate a room with the addition of a vapor distribution head. For advanced needs, customized engineering requests can be accommodated as well. These may include the use of automation in a process or the installation of fixed pathways to introduce vapor in to a room.

## QUICK SETUP, RAPID DECONTAMINATION



Unlike other decontamination options, with Bioquell there is no need to wait for a limited temperature or humidity range to be reached. Once started, the Bioquell L-4's dual loop technology takes effect by first emitting vapor, and then rapidly converting the hydrogen peroxide vapor into water vapor and oxygen. The details of every cycle are printed and real time cycle data is available over Ethernet (Modbus protocol) for recording on LIMS, BMS, SCADA or other data acquisition system.

## YOUR BIOQUELL L-4 SYSTEM CAN BE OPTIMIZED WITH:

- Room distribution and aeration accessories
- Comprehensive validation and documentation (IQ/OQ/GCD/PQ)
- Integration testing for BMS and more complex systems
- Cycle recording (thermal printer and solutions for real time cycle data)
- Remote start stop integration and automation
- Storage for up to 300 pre-programmed cycles

## APPLICATIONS:

The Bioquell L-4's versatility provides bioburden elimination from numerous areas to protect you from a contamination event.

- Incubators
- Enclosed systems and equipment Isolators
- Pass-throughs
- Cage and rack washers
- Cleanroom and lab spaces up to 250m<sup>3</sup>
- Freeze dryers
- Material airlocks
- Bio-safety cabinets
- EPA/Filter banks

## MULTIPLE CONFIGURATIONS FOR INDIVIDUAL

### For Equipment and Enclosures



Decontaminate equipment such as isolators, lyophilizers, BSCs and more with this standard capability

### For Rooms and Open Spaces



Add a distribution head or work with Bioquell engineering for a custom solution to remove bioburden from areas up to 250m<sup>3</sup>

### Advanced Aeration Needs



Remove Hydrogen Peroxide Vapor faster, enhancing room turnaround time with up to two aeration units

## GET TECHNICAL WITH THE BIOQUELL L-4

Physical and safety data	Operating data	Power data
Dimensions and weight 515 x 1140 x 704 mm (20.3 x 44.9 x 27.7 in)  76.5 kg (168.6 lbs)	Temperature limit at start of cycles: 15-30°C (59-86°F) <sup>1</sup>  Storage and opening: 0-35°C (32-95°F)	Regional power data requirements: 230v: single phase 50/60 Hz 6A 120v: single phase 50/60 Hz 12A 100v: single phase 50/60 Hz 15A
Locking brake (2x) Castor lock	Relative humidity (RH) limits at start of cycle: 80% max <sup>2</sup> Storage and opening: 80% (max non-condensing)	Operational consumption: 1.44 kW/h (max)  Supply: Installation category II
Vapor hoses and connectors 1.5 inch nominal bore 1.5 inch male/female camlock coupling	Hydrogen peroxide liquid 35% w/w Bioquell supply only <sup>3</sup> Standard model fits 500 ml and 1000 ml bottle 5 liter model only fits 5000 ml bottle	

<sup>1</sup> The Bioquell L-4 will allow a cycle to start up to a maximum of 35°C (95°F) starting temperature. However when operating above 30°C, please contact Bioquell to ensure the correct cycle is set up.

<sup>2</sup> If requiring to operate outside this range, refer to Bioquell or its agents.

<sup>3</sup> For a full hydrogen peroxide specification, please contact Bioquell or its agents.

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