

# Bioquell™ Hydrogen Peroxide Vapor Bio-decontamination

Products & services range



**ECOLAB®**

GLOBAL EXPERTS IN  
CONTAMINATION CONTROL

# About Ecolab

A trusted partner for millions of customers, Ecolab is a global sustainability leader offering water, hygiene and infection prevention solutions and services that protect people and the resources vital to life. Building on a century of innovation, we deliver comprehensive science-based solutions, data-driven insights and world-class service to advance food safety, help maintain clean and safe environments, optimize water and energy use, and improve operational efficiencies for customers in more than 170 countries around the world.

# Our assurance

Ecolab is committed to providing exceptional service, total plant solutions and unsurpassed industry expertise to help you achieve your business goals.

Our breadth of resources and integrated business model ensure consistency across your operations.

## A unique range of advanced hydrogen peroxide vapor bio-decontamination equipment and solutions



# Bioquell™ Hydrogen Peroxide Sterilant\*

Bioquell's proprietary technology uses a 35% hydrogen peroxide aqueous solution to kill microorganisms. Whether for bio-decontaminating equipment or rooms, a single cycle using Bioquell Hydrogen Peroxide Sterilant provides a 6-log bioburden reduction on exposed surfaces.

You can operate Bioquell systems at ambient room temperature and relative humidity, without the need to attain significantly reduced humidity that can be associated with other hydrogen peroxide bio-decontamination systems.



## Bio-decontamination products & services

- Isolators with integrated bio-decontamination
- Mobile room bio-decontamination options
- Fixed bio-decontamination systems
- Integrated solutions for pass-through chambers and process equipment
- Rapid Bio Decontamination Service (RBDS)

\*WHEN USED ACCORDING TO THE LABEL INSTRUCTIONS, ECOLAB BIOQUELL SYSTEMS UTILIZE BIOQUELL HYDROGEN PEROXIDE STERILANT-AQ (EPA REGISTRATION NUMBER: 1677-277)



# Isolator with integrated bio-decontamination

## Bioquell Qube™



SUPPORTS GMP COMPLIANCE



ANNEX 1 COMPLIANT AND BPR APPROVED\*



MODULAR



6-LOG SPORICIDAL KILL



### The ideal isolator with integrated bio-decontamination

- Light, flexible, modular aseptic isolator in convenient configurations
- ISO 5 / Grade A working environment with rapid air clean up and integrated hydrogen peroxide vapor 6-log sporicidal kill bio-decontamination
- Optional 21 CFR Part 11 audit trail compliance package available
- Validated bio-decontamination cycles using Bioquell Hydrogen Peroxide Sterilant\*

The Bioquell Qube isolator has built-in hydrogen peroxide vapor bio-decontamination technology making it an ideal solution for aseptic processing. With multiple configurations available and a range of options and accessories, the Bioquell Qube isolator is suitable for applications such as:


- Cell and Gene Therapy
- Sterility testing
- Cytotoxics preparation
- Small batch production (clinical trials, R&D, etc.)






# Room | Zone bio-decontamination


## Bioquell ProteQ™




SUPPORTS GMP COMPLIANCE



<400 m³



BMS CONNECTIVITY



6-LOG SPORICIDAL KILL


### Mobile bio-decontamination system for rooms and zones

- Advanced distribution and aeration capabilities with wireless communication provides faster setup and cycle times
- Optional 21 CFR Part 11 audit trail compliance package
- Hosts all components within its frame, including additional optional aeration units
- Control a network of three systems with one optional master control panel
- Bio-decontamination cycles using Bioquell Hydrogen Peroxide Sterilant\*




# Enclosure | Zone bio-decontamination


## Bioquell™ L-4




SUPPORTS GMP COMPLIANCE



<350 m³



BMS CONNECTIVITY



6-LOG SPORICIDAL KILL

### Bio-decontamination for enclosures, equipment and more

- Multipurpose mobile generator offers flexibility of use
- Suitable for isolators, enclosures, pass-through chambers, freeze dryers, incubators and rooms
- Easy ‘no touch’ bottle loading
- Optional 21 CFR Part 11 audit trail compliance package
- Validated bio-decontamination cycles using Bioquell Hydrogen Peroxide Sterilant\*



## Bioquell™ BQ-50



<200 m³




6-LOG SPORICIDAL KILL

### A portable bio-decontamination system for hospital-wide use


- Mobile, simple to operate, rapid bio-decontamination cycles with intelligent parametric control
- Offers cost-effective bio-decontamination of rooms and laboratories in non-regulated areas
- Bioquell BQ-50 suite includes separate high capacity aeration units
- Bio-decontamination cycles using Bioquell Hydrogen Peroxide Sterilant\*




## Bioquell™ IG-2




SUPPORTS GMP COMPLIANCE



<75 m³



BMS CONNECTIVITY



6-LOG SPORICIDAL KILL

### Seamlessly engineered and integrated option for hydrogen peroxide vapor bio-decontamination

- Designed to be built into process equipment and isolators for a seamless user experience
- Quickly bio-decontaminate equipment such as lyophiliser, filling lines, isolators, incubators, and more
- Rapid bioburden reduction for pass-throughs and airlocks
- Custom and challenging integration applications with the coordination and guidance of Bioquell engineers
- Validated bio-decontamination cycles using Bioquell Hydrogen Peroxide Sterilant\*

\*SIZE FOR LARGEST ROOM BIO-DECONTAMINATION VOLUME SUBJECT TO CONFIGURATION, LOADING AND ENVIRONMENTAL CONDITIONS

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# Pass-through & airlock bio-decontamination


## Bioquell SeQure™




SUPPORTS GMP COMPLIANCE



<400 m³



BMS CONNECTIVITY



6-LOG SPORICIDAL KILL

### A dedicated, wall-mounted bio-decontamination system

- Fixed hydrogen peroxide vapor generator for chambers or rooms
- Fast to install and validate (<1 week)
- Validated bio-decontamination cycles using Bioquell Hydrogen Peroxide Sterilant\* with optional additional aeration if needed



- Bottle module with peroxide traceability and wastage minimization through the two-bottle module system
- Optional 21 CFR Part 11 audit trail compliance package available

## Bioquell™ Hydrogen Peroxide (HPV-AQ)\*



- EPA registered sterilant: Bioquell Hydrogen Peroxide-AQ (EPA Registration Number: 1677-277)
- An aqueous hydrogen peroxide solution designed for use with Bioquell technology
- Bottles are tracked through the use of RFID tags, providing traceability of the batch number on cycle reports

# Hydrogen peroxide biological indicators (BI), chemical indicators (CI) & CI data scanner

## Bioquell™ Biological Indicators

- Consistent, reliable and independently tested
- 6-log *Geobacillus stearothermophilus* biological indicators
- Developed to validate hydrogen peroxide vapor technology



## Bioquell™ Chemical Indicators

- Two specially formulated options for rooms and for isolators / small enclosures that help quickly indicate a cycle has achieved an expected 6-log sporicidal kill



## Bioquell™ Chemical Indicator (CI) Data Scanner

- An easy to use tool which provides a quantifiable result from a Bioquell CI used in a bio-decontamination cycle which stores results electronically for improved record keeping and reporting



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BOTTLES SHOWN ARE FOR UNITED STATES. BIOQUELL HYDROGEN PEROXIDE NAMES MAY VARY BY REGION.



# Bioquell™ Rapid Bio Decontamination Service

## Bioquell™ RBDS



SUPPORTS GMP COMPLIANCE



SCALABLE



BMS CONNECTIVITY



6-LOG SPORICIDAL KILL

### A fully managed Rapid Bio Decontamination Service

- Planned, proactive or rapid emergency deployment based on client operations
- Dedicated response options to host Bioquell equipment onsite in critical areas for rapid emergency deployment
- Single room/lab to whole facility bio-decontamination to fit client requirements
- Bio-decontamination of Biological Safety Cabinets (BSCs), incubators, robotic enclosures and other similar laboratory based equipment
- 6-log sporicidal kill using Bioquell Hydrogen Peroxide Sterilant\*
- Fully managed process, from site survey through to final bio-decontamination report, with no capital equipment expenditure required

### Applications:

- Bioprocessing, biomanufacturing and production zones
- Biosafety labs of all levels
- Cleanrooms and research labs
- Post-construction new-area commissioning
- Shutdown, end of campaign and facility restart periods
- Emergency response
- Dedicated response plans
- Equipment bio-decontamination needs (BSC, lyophilizer and more)



# Other services

## Ecolab services

### Installation & commissioning

To get the most from your Bioquell Hydrogen Peroxide Vapor bio-decontamination equipment, it must be correctly installed and configured. Depending on your application, this may not be a straightforward process, and our highly trained engineers are able to take you from a new, boxed unit to a fully functional and compliant set-up, ready for you to use, regardless of the complexity of your system.

### Maintenance & calibration

Bioquell's experienced field service engineers can check, change and calibrate your bio-decontamination equipment, ensuring it remains in excellent condition. Whether it is breakdown cover for business / process critical systems or annual service and maintenance plans, the Ecolab team is able to tailor a service to suit you.

### Material compatibility testing

Ecolab offers a testing service to determine the compatibility of materials and components with Ecolab's Bioquell bio-decontamination systems. We also offer a hydrogen peroxide ingress testing service for clients who are concerned about hydrogen peroxide permeating into sensitive materials such as bags, vials, and syringes being loaded into isolators and material airlocks.

### Training & support

To ensure longevity and efficient operation of your system, it is essential to start with a solid knowledge base. Using a combination of practical exercises, face-to-face training and a comprehensive e-learning system, we are able to 'transfer knowledge' through the medium which suits you. And once the training has been completed, our technical support team will continue to help you with any questions.



### Validating Bioquell equipment



SUPPORTS GMP COMPLIANCE

- Professional validation of Ecolab's Bioquell Hydrogen Peroxide Sterilant bio-decontamination process within client environment including provision of regulatory compliant paperwork
- Installation and Operational Qualification (IQ/OQ), Gas Cycle Development (GCD) and Performance Qualification (PQ) to ensure equipment is operational within required timelines
- Rapid and efficient hydrogen peroxide vapor cycle development to fit client process to provide a robust bio-decontamination cycle which achieves a 6-log sporicidal kill using Bioquell Hydrogen Peroxide Sterilant\* in the shortest amount of time
- We provide you with documentation to satisfy your regulatory requirements, from airflow checks and particle counts to full bio-decontamination cycle development

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# Automated bio-decontamination using Bioquell™ Hydrogen Peroxide Vapor technology



Create efficiencies in your  
process



Repeatable, validated  
results



Offers regulatory compliance  
and audit readiness

For expert implementation of automated bio-decontamination measures in your facility  
contact your [Ecolab Account Manager](#) or visit [www.bioquell.com](http://www.bioquell.com)

For more information contact your [Ecolab Account Manager](#)

USE BIOQUELL PRODUCTS SAFELY. ALWAYS READ THE LABEL AND PRODUCT INFORMATION BEFORE USE.

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