



# Product Information

# Product Descriptions

This section contains descriptions of the following BioZone products:

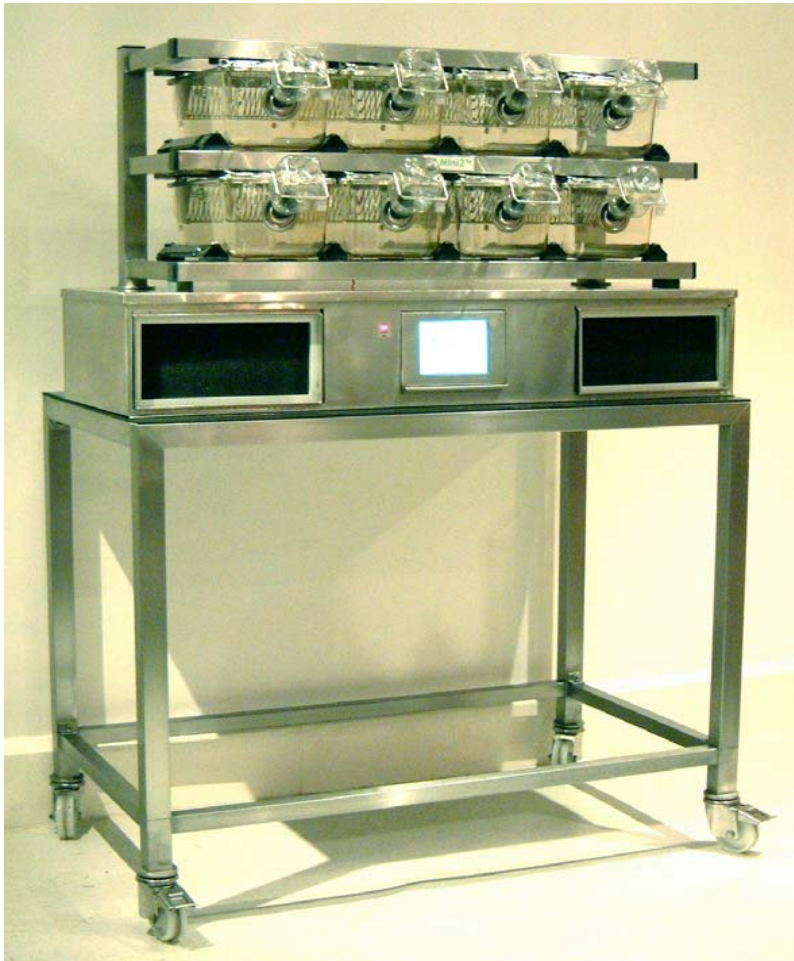
- SmartRack IVC system
- MiniRack mobile IVC system
- DuoZone technology
- MiniRoom isolation cubicles
- DigiFlow monitoring and control system
- DigiFlow Networking remote monitoring
- BioScreen health monitoring
- Environmental Monitoring and Control
- FlexiRack versatile housing with FlexiZone biocontainment
- FinTube for larger species
- Laboratory furniture & accessories
- Telemetry applications
- Activity monitoring
- Technical service

# SmartRack™ – a flexible range of IVC racks capable of meeting clients evolving needs



- New model introduced in 2004
- Incorporates BioZone's well proven airflow technology in a more efficiently produced design
- Models available from basic to highly sophisticated
- Upgradeable after purchase
- Ergonomically friendly
- High capacity to available footprint
- Multiple cage & species options
- Uses same cage units as other BioZone products - fully interchangeable

# MiniRack™ - the smallest member of the BioZone IVC family.



Has all the benefits of larger racks plus:

- fits on a lab bench or in a small procedures room
- cart available for easy mobility
- battery back-up for use on the move
- multiple sizes - single and double sided
- option for temperature/RH control
- ideal for special studies e.g. telemetry, activity monitoring, post-op recovery, etc.

# DuoZone™ technology – the ultimate in biocontainment without seals



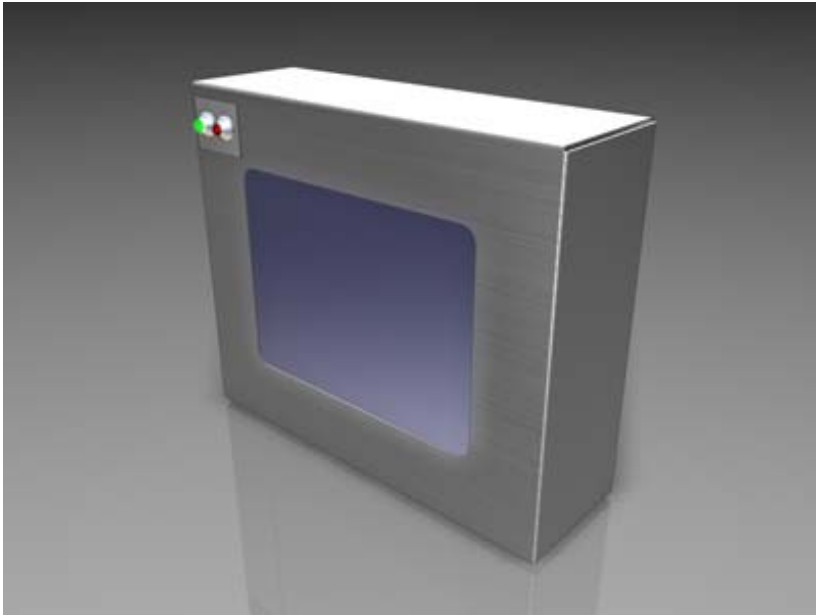
- Two adjacent zones:
  - an animal zone with pressure and air supply control, and
  - a surround zone with pressure control
- Containment at row level or at rack level
- HEPA in/out to both zones
- Independent pressure control of each zone; options of pos-pos, pos-neg, or neg-neg (e.g. quarantine, BSL-3+; isotope studies, etc)
- Highly effective use of facility space whilst minimising risk of cross-contamination
- Permits simultaneous containment and protection without cage seals

# MiniRoom™ Isolation Cubicles – combining flexibility with containment



- Capable of housing a wide range of species
- Horizontal laminar flow for greater protection – positive or negative pressure
- Counter-balanced doors for safer, easier access
- Electromagnetic inter-locking doors for greater security
- Easy to clean and maintain
- DuoZone option with IVC rack
- Custom-built to facility room sizes

# DigiFlow™ – bringing hi-tech monitoring & control to IVCs and isolation cubicles



- Large bright digital display; easy TouchScreen™ control
- Secure adjustment of air change rate and pressure control (+ or -)
- Continuous air flow control increases HEPA life
- Serial port for PC input of personalized settings and data output to PC

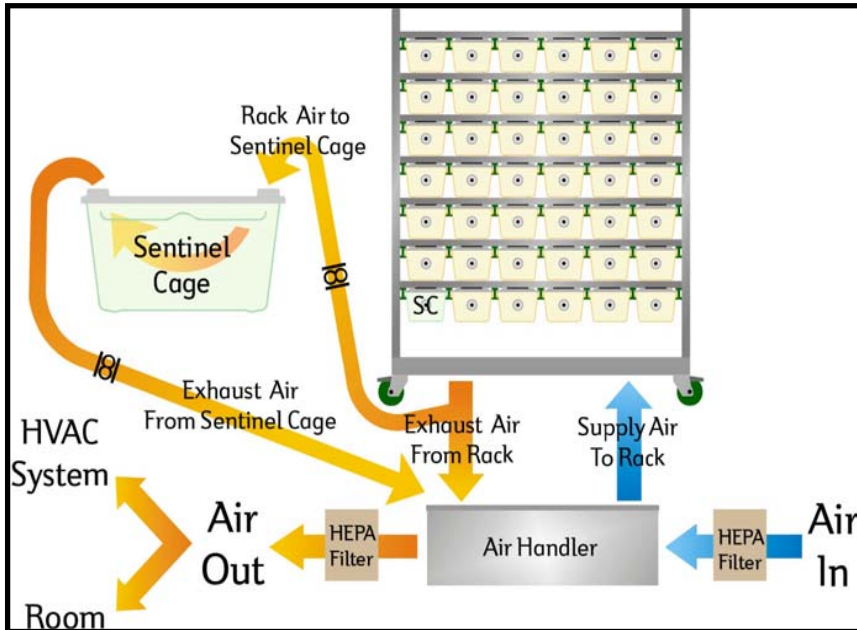
# DigiFlow Networking™ –advanced IVC & cubicle monitoring system



With DigiFlow Networking™ you can:

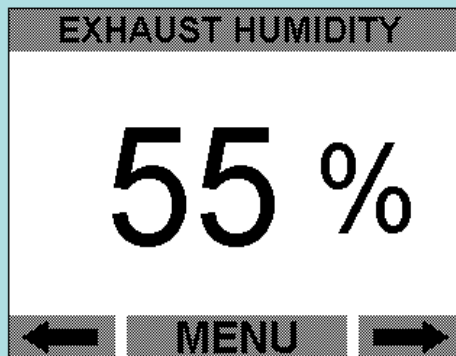
- remotely monitor all BioZone racks and MiniRooms™
- view data using LAN/internet connections
- program alarms to alert by email or phone/text message
- remotely reset alarms and adjust limits
- analyze gathered data in a range of user-defined formats – in real time or retrospectively

# Health monitoring with BioScreen™



- Enables **continuous health status monitoring** of any BioZone IVC
- Is available as an **integral unit** or as an **external accessory**
- Exposes **sentinel mice** to exhaust air from all cages
- Is **patented technology** – only available from BioZone
- Provides **independently proven effectiveness** (Yale & Germany)
- Is **compatible with PCR exhaust filter testing** at cage, row or rack level (also independently validated)

# Environmental Monitoring and Control



- DigiFlow monitoring and control of temperature and humidity
- Easy TouchScreen control
- Option of Self contained heating and chilling or use of HVAC
- Option of monitoring ammonia
- Serial port for PC input of personalized settings and data output to PC

# FlexiRack & FlexiZone – designed with versatility in mind



- Flexibility of species, social group size and cage environment
- One rack for rabbits, guinea-pigs, ferrets, mink or small primates
- Quick and easy to change
- Adjacent racks can be linked to give communal cages
- **FlexiZone** – all the benefits of FlexiRack plus ventilation for biocontainment and bioprotection

# FinTube™ framed pens for larger species – dogs, cats, pigs, sheep, etc.



- Custom-made using BioZone's unique FinTube™ design
- Interchangeable panels of Trespa™, HDPE, SS rods, toughened glass, etc.
- Installed with minimal impact on floor and wall surfaces – totally flexible
- Hands-free latches, locks etc.

# Laboratory Furniture & Accessories



- A range of custom designed trolleys, carts and workbenches
- Options we can incorporate include:
  - height adjustable work-tops
  - cupboards, shelves & pivot arms
  - gas outlets
  - power sockets
  - phone sockets
  - computer cabling
- Customised handling systems for animal facilities

# Telemetry - IVC designed for radio telemetry applications



- Instrumented animals benefit from IVC protection
- Receiver sits under cage for convenient positioning
- Stainless dividers between cages prevent signal interference and cross-talk
- Available in various rack configurations to suit different study sizes

# Activity monitoring – 24/7 for mice or rats with minimal staff input



- Monitored animals benefit from full IVC protection
- Standard single-sided BioZone IVC racks easily adapt to simultaneously monitor up to 90 cages
- Infra-red sensors view entire cage in >200 segments
- Applications include behavioral phenotyping, neuroscience, aging studies, biorhythms, etc.
- All data analyzed in real time and saved for subsequent re-analysis
- Option to review data remotely
- Software GLP compliant

# Technical Service – for peace of mind



- Equipment commissioned on site world-wide by fully trained field engineers – test results fully documented
- Containment and/or protection recertified at annual service
- Free software upgrades available
- Service package includes 24/7 helpline for rapid response worldwide

# Conclusion - BioZone equipment offers clients:

- safe and secure protection and containment both for animals & staff
- through pressure control up to BSL3+ - **not through cage seals which are life-threatening to animals** – and to BSL-4 through reduced handling
- reduction in labor and more rewarding work for staff
- due to reduced cage change frequency and excellent ergonomics
- ability to do in-cage monitoring of animals
- both for health screening and for scientific needs
- highest capacity per footprint of facilities
- lower per diems and more science in the space available