# Sentry SPP - Sealed Positive Pressure IVC



The Sentry SPP employs a Sealed Positive Pressure (SPP) system to achieve the type of germ-controlled environment traditionally found only in isolators. Though successfully employed for research involving mice that are either Axenic (germ-free) or Gnotobiotic (containing a limited, yet defined microbiota), isolators have the down side of being large, cumbersome, and difficult to use when compared to the relative ease of more traditional IVCs. The Sentry SPP combines the secure, positive containment of old-style isolators, with the ease and flexibility of an Allentown IVC.

#### **Patented 4-Point Seal**

When you remove a cage from the Sentry SPP, both the cage AND the rack are sealed from the room. We accomplish this with quick disconnect couplings on both the cages and the rack that automatically seal once the cage is undocked from the rack. Our four-point-sealing system is so innovative that it's patented,

and found nowhere else other than on Allentown housing solutions.

US Patent 6,308,660





### **CERTIFIED Cage Level Supply HEPA Filtration**

To keep the microenvironment completely clean and germ free in an effort to maintain the integrity of the mice within, Sentry SPP cages will also include a <u>certified</u> HEPA filter within the cage.

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#### **Battery Backup**

Being a completely sealed system, the Sentry SPP requires a battery backup in the case of power failures or emergency conditions. With 10 or 20 hours of emergency backup power, blower redundancy, and wireless monitoring and alarming, the Sentry SPP allows ample time for laboratory staff to provide for the wellbeing of the animals during emergency conditions.



#### SmartDock<sup>™</sup> Prevents Cages from Docking Incorrectly

The deceptively simple, yet critically important, modifications of Allentown's SmartDock Technology ensure that neither the cage nor the lid of the Sentry SPP will dock incorrectly, securing the reliable connection of Allentown's patented four-point-sealing system, and the health and well-being of your valuable research animals! Add to this the highly visible docking indicator of our plastic cage runners, and docking your SPP cages incorrectly becomes all but impossible!



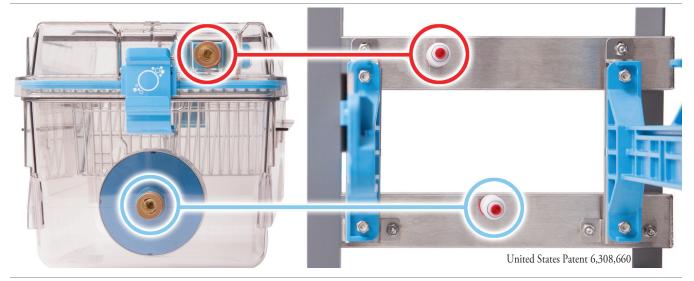
### Germ Free Cage Change

To facilitate cage change while still maintaining the integrity of the germ-free environment, Allentown offers a special negative pressure Transfer Chamber that seamlessly integrates with our SC-Plus Safety Cabinet. This chamber will decon the cages as they make their way into the cabinet and under the hood.



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## Rodent Housing



## **Rack System**

- Lightweight, compact, and autoclave compatible rack design
- Patented four-point seal system. Upon removal of the cage, both the rack and cage are sealed from the room
- Plastic (polysulfone) cage support runners with integrated spring operated cage lock with docking indicator
- Ergonomic, single finger motion docking with auto-locking feature
- Horizontal airflow manifolds with stainless steel sanitary fittings for ease of cleaning
- 5" diameter stainless steel casters with gray polypropylene wheels with sealed ball bearings and (4) foot-operated brakes
- Same side supply and exhaust plenum configuration
- 3" diameter vertical supply and 3" diameter vertical exhaust plenums with back and bottom door access
- 304 stainless steel, welded frame construction, utilizing both square and rectangular structural tubing
- Air tubes are 304 stainless steel and never enter the cage
- 10- or 20-hr. battery back-up with redundant power source

## Cage System

- Cage floor space of 83 in<sup>2</sup>
- Clear polysulfone plastic
- Gasketed cage lid ensures safety and protection from damage, and maintains cage negative pressure when removed
- Standard, certified cage level supply HEPA filtration
- Standard cage level exhaust filtration

- Weekly cage change capable via single pass, constant airflow pattern yielding 30 ACH
- Rack level HEPA filtration HEPA filtered air to animal and HEPA filtered exhaust
- Filter, blower and power alarming via dry contacts
- Blower battery gravity lock system when installed on rack
- Positive cage operation with control loop feedback for constant airflow
- Quick-release fittings for in-site HEPA certification or decontamination of entire rack system
- On-site control board programming of blower alarms, filter alarms, disconnected hose, battery operating airflow point and AC operating airflow point
- Real-time battery charge indicator
- Real-time AC or battery indicator
- Fully autoclavable rack and cages
- Row and column identification labels
- Model number and serial number identification labels
- Optional WiVarium Plus Tablet Based Blower Control and Rack Monitoring
- Optional thimble hookup for the removal of heat and odor
- Optional, certified cage level exhaust HEPA filtration
- SmartDock<sup>™</sup> prevents cages from docking incorrectly
- Clear cage and flip-up cardholders improve observations
- Compact nesting and stacking for more efficient autoclaving throughput
- Front pocket wire bar lid or PFT

