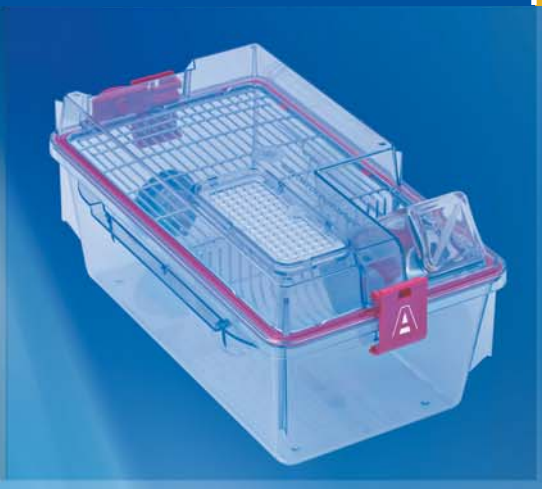
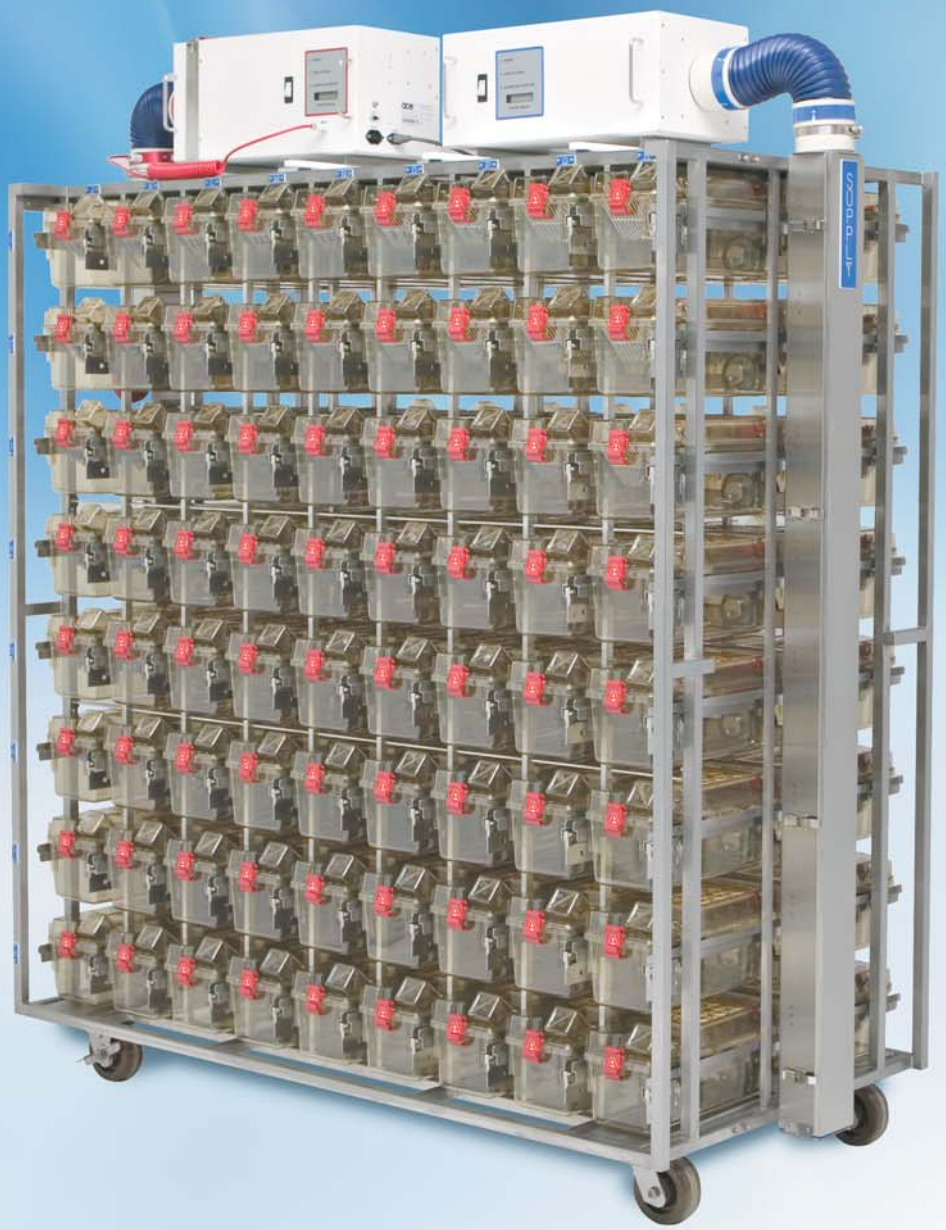


European Style IVC Systems



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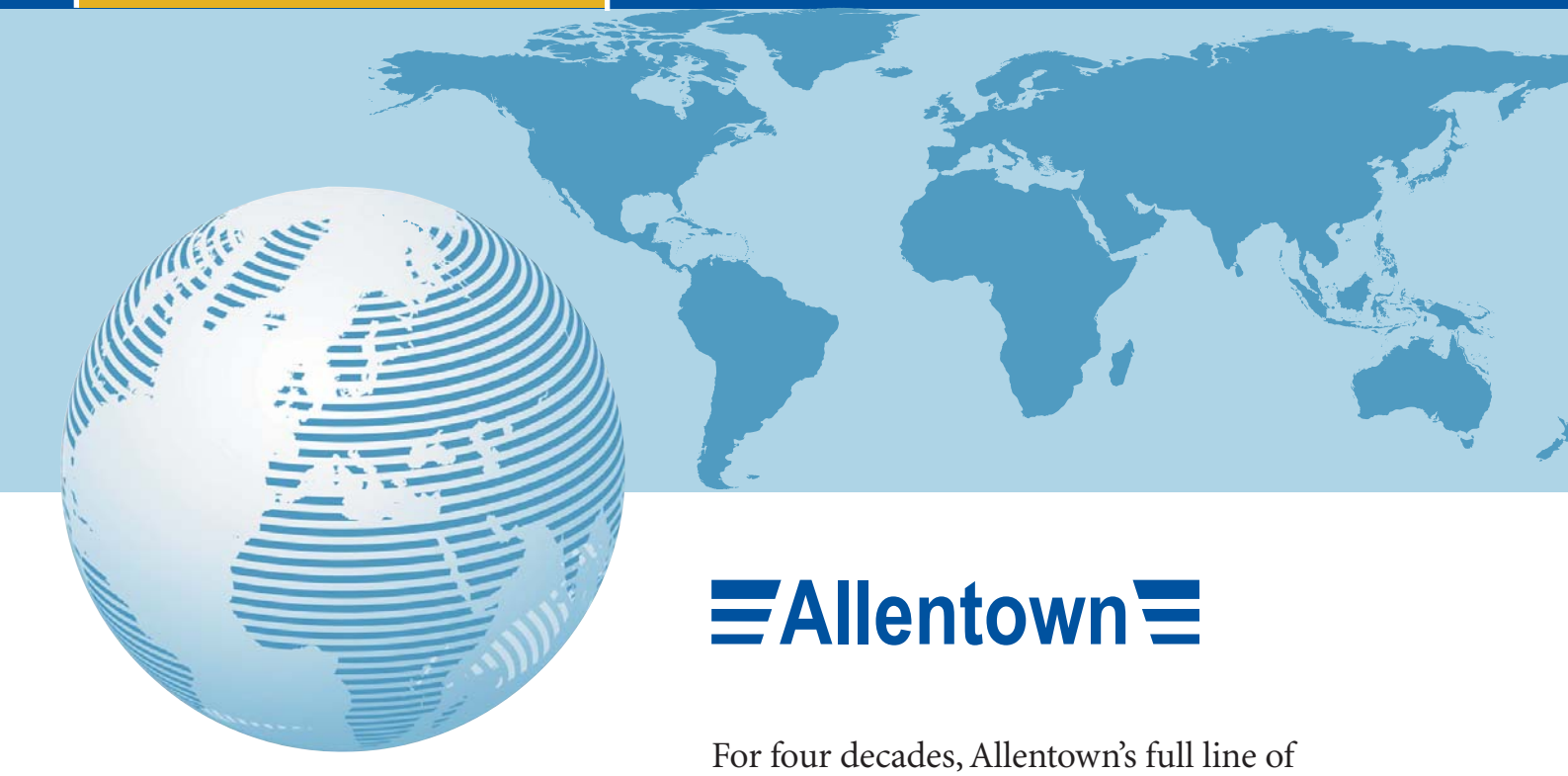
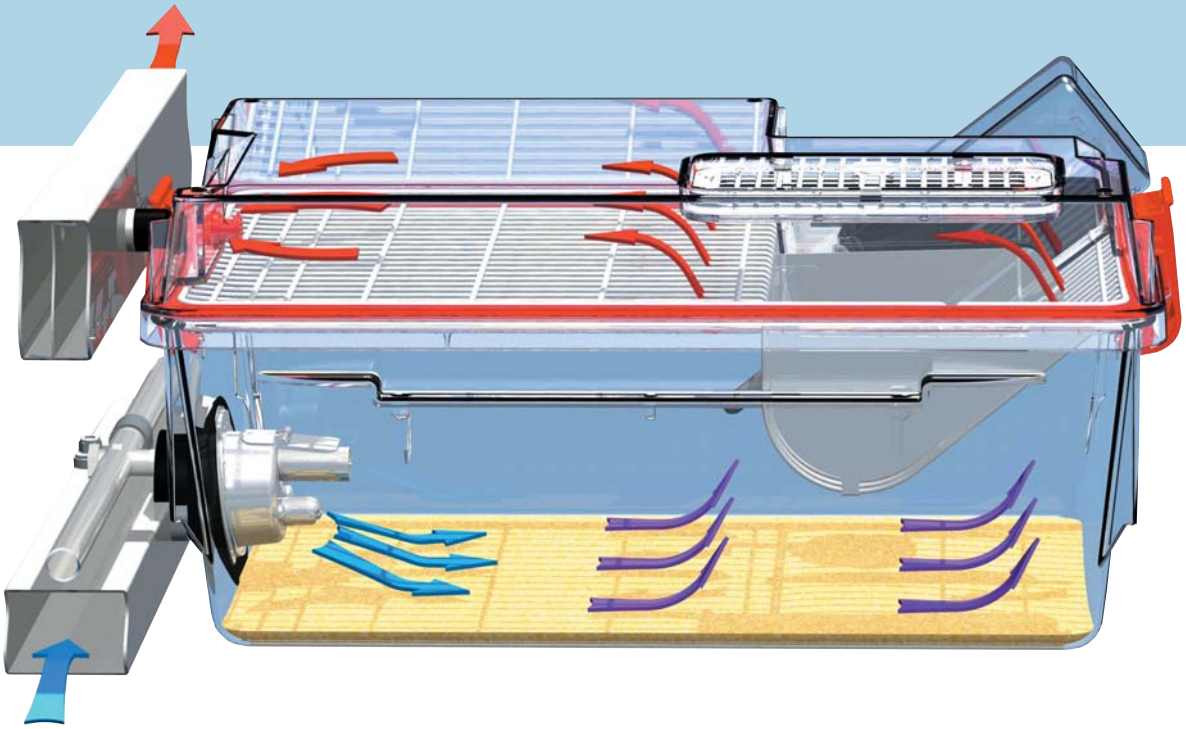


Allentown

For four decades, Allentown's full line of research animal housing and airflow technologies have provided uncommon solutions to the common challenges shared by the European and global biomedical research community. Pioneering Allentown patents and products have helped our European partners advance the quality of their research, while setting the standard for technological innovation and quality with thousands of installations across the globe. Our success is based on our strong business integrity, an exacting attention to detail, and our unparalleled service.

Innovative design, exceptional quality, and outstanding service, has made us a leader in IVC Systems for the bio-research community.



CAGE AIRFLOW

In either positive or negative operating mode, the airflow will always follow the same path, eliminating the risk of contamination. HEPA filtered supply air is introduced to the cage through our unique air distribution "bullet", providing an even, low velocity wash across the cage bottom. This maximizes the drying effect upon the bedding without creating distress to the animals, allowing extended change out intervals. Exhaust air is then extracted through the spring loaded exhaust port and into the aerodynamically designed exhaust collection tube. Both the spring loaded exhaust port and the supply kup with the auto-closure channel provide a closed system when the cage is removed from the rack. The fully gasketed and sealed exhaust and supply manifolds and plenums are typical Allentown workmanship. Airflow loss is minimized, creating the most air efficient system for maximum filter life and minimal energy consumption. However, the entire air distribution system can still be fully accessed, without tools, to allow thorough cleaning and inspection.

PERFORMANCE

Allentown's IVC Systems have been proven to exceed the standards in containing allergen contamination.

A study was conducted by the Institute of Occupational Medicine to evaluate the performance of Allentown's IVC system. The study focused on the testing of a Type II Long IVC unit.

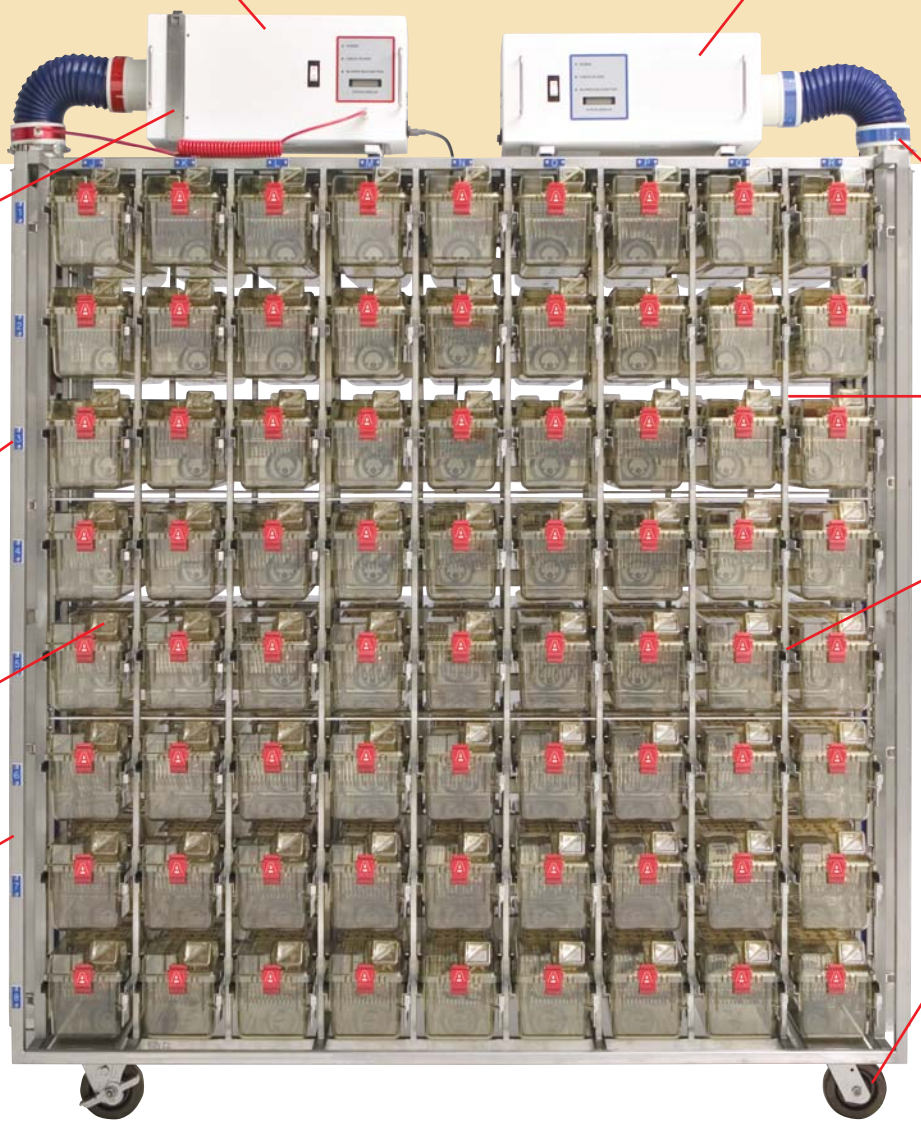
The system was assessed when operated in negative and positive pressure modes while stocked with approximately 300 male mice.

The following are excerpts from the IOM report relating to conclusions based on their study:

...the allergen levels in the immediate vicinity of the occupied rack were usually less than 1 ng.m-3, well below the 6 ng.m-3 level where we currently believe that the statistical risk for sensitization increases, and the 5 ng.m-3 'benchmark' level currently being applied by the industry in the UK.-3

...In conclusion, these results indicate that under conditions of the study, the IVC-rack was effective at containing allergen to levels consistent with minimal exposure3to MUP whether the rack was operated at negative or positive pressure.

Our IVC rack systems are available in several configurations to maximize productivity, through ease of use, efficiency, and safety.



Plenums

Opposite side vertical plenums are standard, ideal for rack-mounted blowers or for racks that are connected directly to the HVAC.

For applications where wall mounted blowers are used, vertical plenums can be located on the same side of the rack as an optional feature.

CAGE SIZE	CAGE QTY	CONFIGURATION W x H	RACK DIMENSIONS L x W x H (mm)
TYPE I LONG	64	8 X 8	1562 X 659 X 1968
	72	9 X 8	1746 X 659 X 1968
	80	10 X 8	1930 X 659 X 1968
	128	8 X 8	1734 X 892 X 1968
	144	9 X 8	1918 X 892 X 1968
	160	10 X 8	2102 X 892 X 1968
TYPE II LONG	48	6 X 8	1499 X 652 X 1943
	56	7 X 8	1734 X 652 X 1943
	64	8 X 8	1969 X 652 X 1943
	96	6 X 8	1672 X 879 X 1943
	112	7 X 8	1907 X 879 X 1943
	128	8 X 8	2142 X 879 X 1943
	144	8 X 9	2142 X 879 X 2056
TYPE III HIGH	36	6 X 6	691 X 1892 X 1938
	30	5 X 6	691 X 1594 X 1938
	24	4 X 6	691 X 1295 X 1938
TYPE IV-S	18	3 X 6	1494 X 686 X 1922
	24	4 X 6	1892 X 686 X 1922

Certification based on the TIZ-BIFO and TUV SUD guidelines

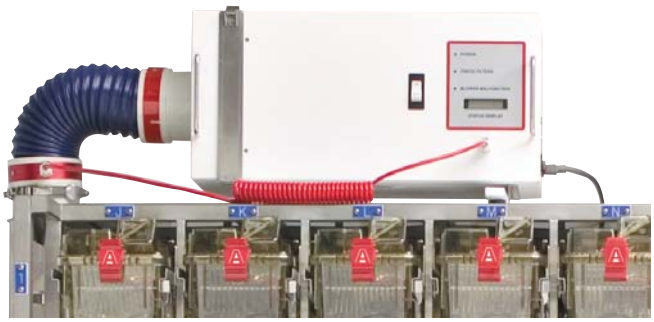
Supply Smart Bio-PAK SB4100

Wall mountable blower

SUPPLY SMART BIO-PAK SB4100
SMART EXHAUST-PAK SE6100-P/NC

Allentown's Smart Bio-PAK and Smart Exhaust-PAK are the standard in intelligent blowers. The first micro-processor controlled airflow is still the best, sampling airflow rates 20 times per second, and providing precise airflow rates that automatically adjust to changes in load and filter conditions. Performance is completely unaffected by voltage fluctuations, and these intelligent blowers communicate to a variety of monitoring and alarm systems. The Smart Exhaust-PAK includes limited access switches for selecting a negative or positive pressure environment at cage level. In negative mode, the Smart Exhaust-PAK energizes the supply blower only when sufficient negative pressure has been generated, so cages will never run positive in this mode.

- Air changes 30-100 per hour
- Universal power input: 90-264 VAC, 50-60hz
- Microprocessor controlled to maintain exact air flow rate for filter loading.
- Real time display of pressure differential
- Includes recoil pressure tap hose for connection to exhaust plenum
- Maintenance mode displays motor RPM, pressure differential, pressure set point, air changes, CFM, RPM, temperature, humidity, blower & filter alarm
- Failure indicators for filter blockage, blower malfunction, and power status
- Remote monitoring of alarms and operating parameters
- Optional Bluetooth wireless monitoring
- HEPA filtered air (99.99% efficient @ 0.3 microns)
- Lightweight aluminum case 9.5 kg
- Rack or wall mountable
- CE Recognized, UL listed
- Interlinked supply and exhaust power control
- Washable prefilter
- Optional temperature-humidity for supply and exhaust



Smart Exhaust-PAK SE6100-P/NC

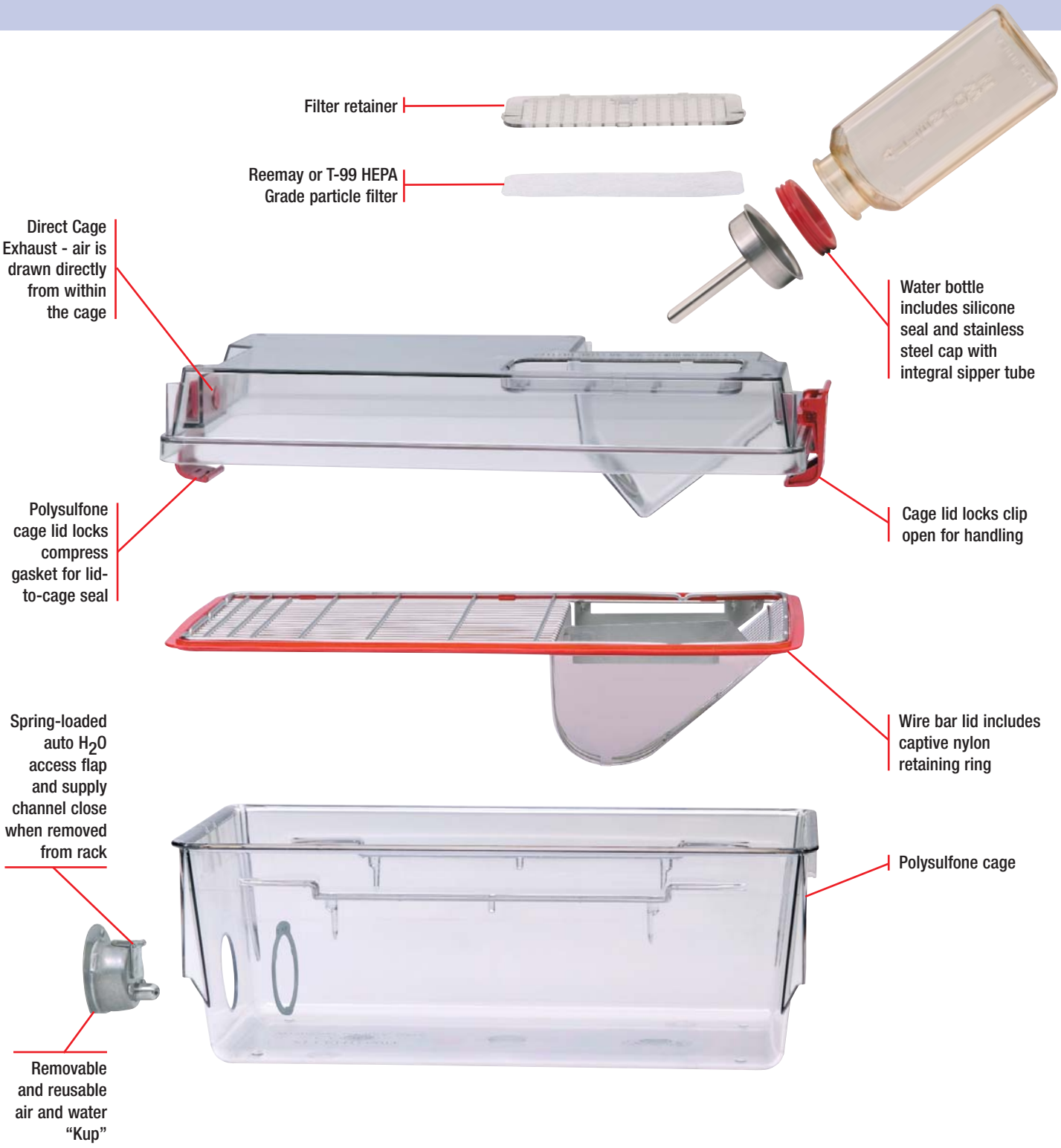
HYBRID RACK

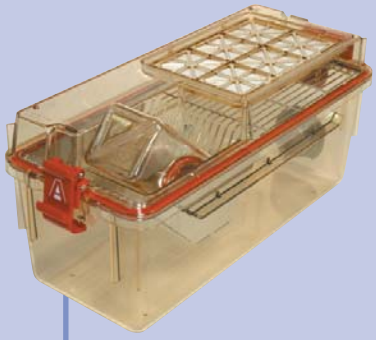
This lower-cost option gives facilities the option of converting to a ventilated rack at a later date. Exhaust and supply blowers, plenums and manifolds are added to the hybrid rack on-site by Allentown technicians. This flexible unit can include auto watering in either Hybrid or full IVC version.

STATIC RACK

The Static Rack is a lightweight, easily movable non-ventilated holding rack which can be configured for a variety of Allentown cage sizes. This economical housing option is built to the exacting strength and durability standards which have become Allentown trademarks.

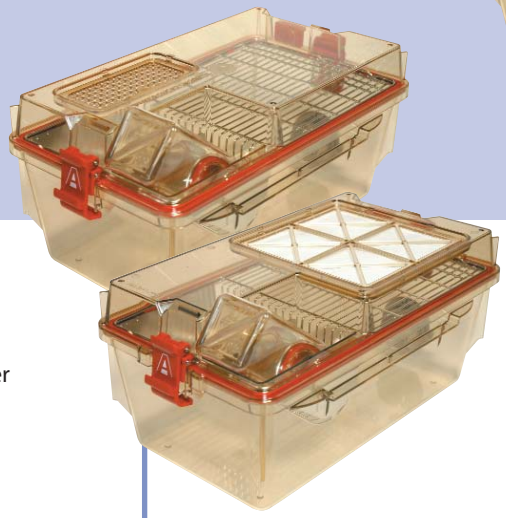
Our New Line of European Style Cages provide greater animal capacity within a standard rack footprint, along with the safety, security, and reliability you expect from Allentown.





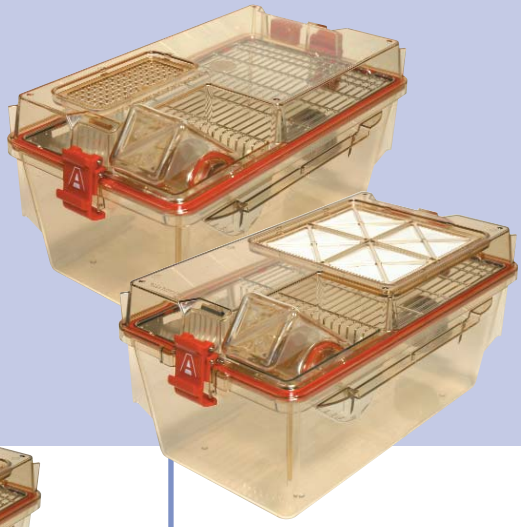
TYPE I LONG CAGE

- 130 mm interior height
- 435 cm^2 floor space
- 396 x 164 x 176 mm H
- T-99 HEPA grade particle filter



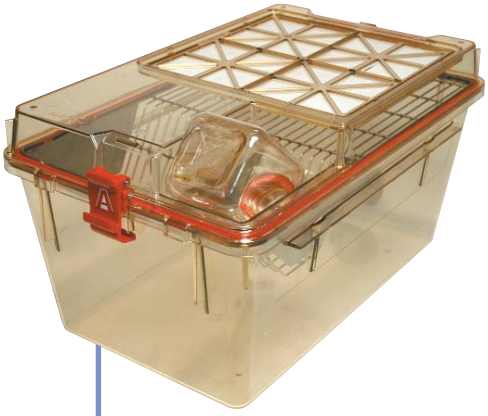
TYPE II LONG 12V CAGE

- 127 mm interior height
- 542 cm^2 floor space
- 213 x 362 x 185 mm H
- Standard Reemay particle filter
- Optional T-99 HEPA grade particle filter



TYPE II LONG 13V CAGE

- 137 mm interior height
- 530 cm^2 floor space
- 213 x 362 x 185 mm H
- Standard Reemay particle filter
- Optional T-99 HEPA grade particle filter

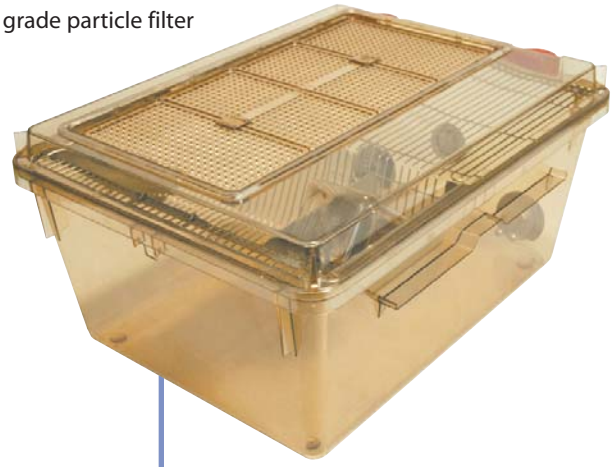


TYPE III HIGH

- 181 mm interior height
- 800 cm^2 floor space
- 274 x 443 x 231 mm H
- T-99 HEPA grade particle filter

Cage materials available for all models:

- Polycarbonate
- Udel® polysulfone
- Clear Udel® polysulfone
- Radel® polyphenylsulfone



TYPE IV-S

- 210 mm interior height
- 1400 cm^2 floor space
- 387 x 503 x 250 mm H

Allentown IVC cages can be successfully integrated in a variety of automated cage handling systems.

Mobile IVC System

ATU: Animal Transport Unit

FEATURES

- Variety of cage types and sizes (Type II Long shown)
- Positive and negative operation
- HEPA filtered supply and exhaust
- Cages secured via rack locks
- 10-hour battery back up
- Rugged stainless steel/aluminum construction
- Heavy-duty casters and corner bumpers
- 134.1 cm L x 75.18 cm W x 126.5 cm H
- 2 year warranty

The ATU Animal Transport Unit is a mobile animal transport/housing unit designed to provide a secure microenvironment for animals in transport or temporarily removed from main population. Cage ventilation is achieved via microprocessor controlled supply and exhaust blowers, each with dedicated HEPA filters. A 10-hour battery backup ensures constant airflow during transport and/or temporary housing.

All unit hardware is autoclavable, and the blowers and filters are conveniently accessible via panels secured with easy-lock fasteners. Quality built to the highest Allentown standards, the ATU is a sturdy, safe and reliable transport and temporary housing unit designed to meet the specific needs of research and animal husbandry staff.

Control Panel

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