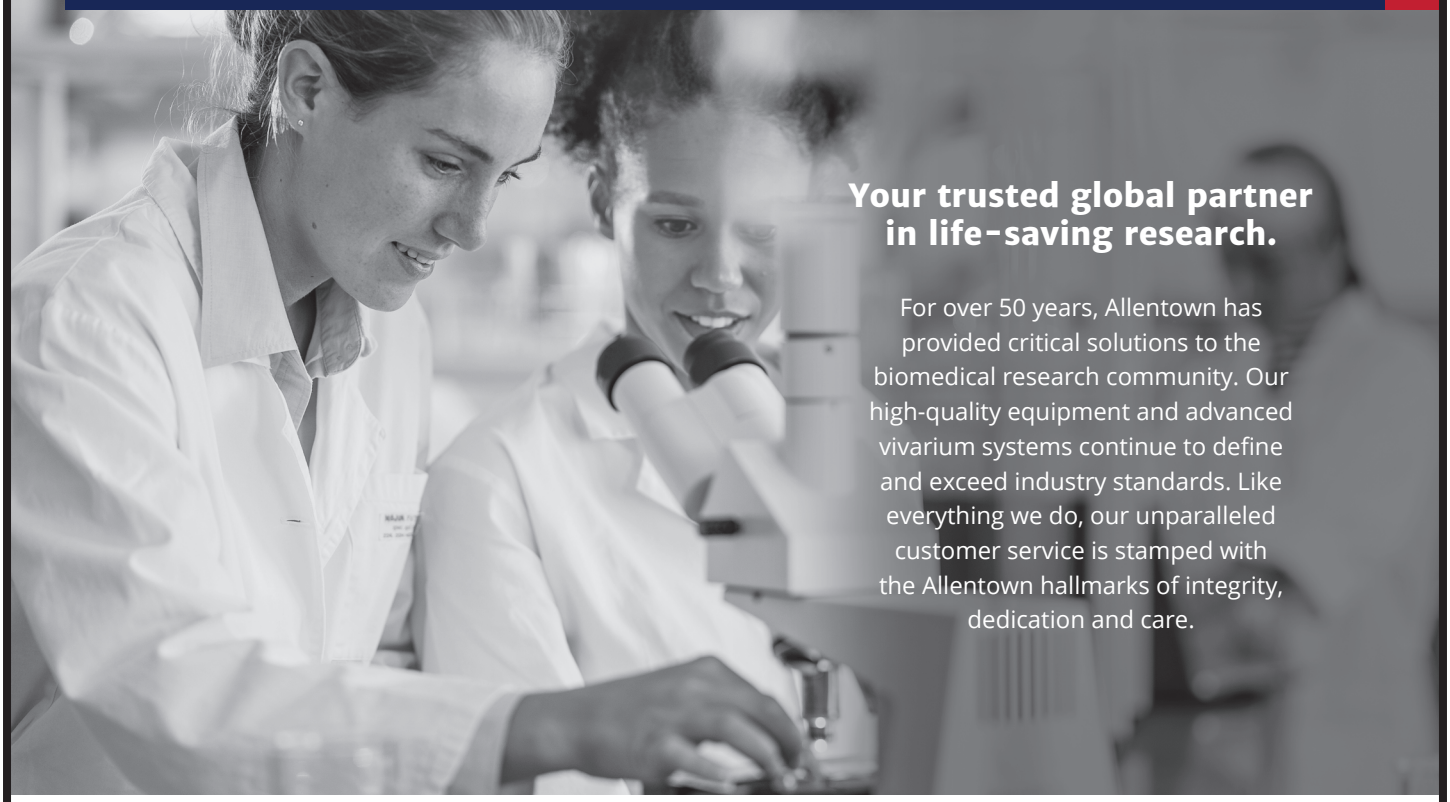
Allentown
Improving Life – it's in our DNA.®

ANIMA LAB
animal facility and laboratory equipment • animal research models

BCU-2

DATA SHEET



Your trusted global partner in life-saving research.

For over 50 years, Allentown has provided critical solutions to the biomedical research community. Our high-quality equipment and advanced vivarium systems continue to define and exceed industry standards. Like everything we do, our unparalleled customer service is stamped with the Allentown hallmarks of integrity, dedication and care.

BCU-2™

SEALED NEGATIVE PRESSURE IVC

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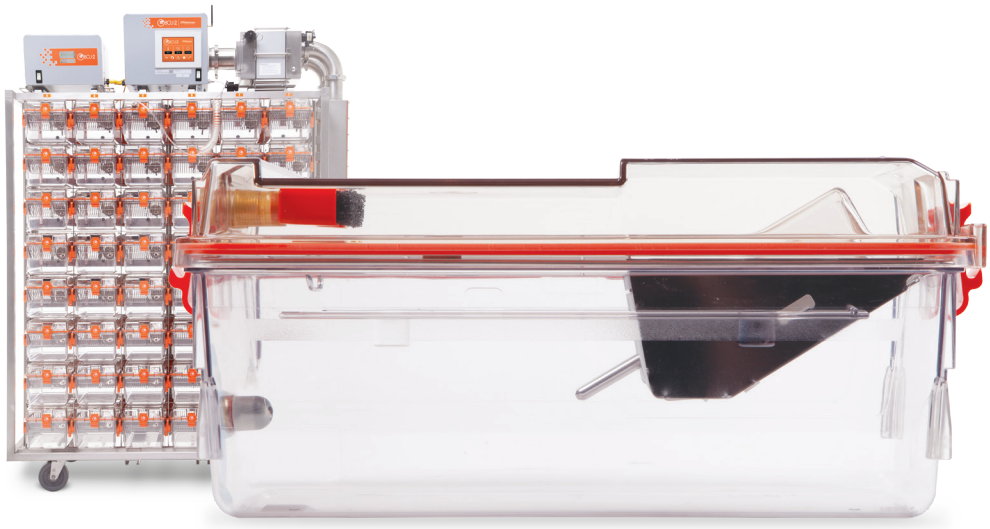
OVERVIEW

Providing critical solutions with integrity and care.



The Gold Standard in Biocontainment Housing

Designed in conjunction with customers who were looking for an alternative to glove-box isolators, Allentown brought the first BCU to market in 1997, and for more than 20 years it has continued to be the gold standard in biocontainment housing. Now, Allentown has taken the groundbreaking innovations pioneered by the NexGen Easy IVC and applied them to the BCU-2, creating a new unit that maintains the solid, reliable performance of the original BCU, while providing the light weight, streamlined ease-of-use of the NexGen.

Patented 4-point seal (United States Patent 6,308,660) – When you remove a cage from the Allentown BCU-2 system, both the cage *and* the rack are sealed from the room.

SmartDock™ technology – Prevents cages from docking incorrectly, ensuring the health and well-being of valuable research animals.

Battery backup – At least 10 hours of emergency backup power, blower redundancy, and wireless monitoring and alarming.

Easy cage removal and wellness checks – No need to fully remove cages from the rack, making animal observation simpler, easier and faster.

BCU-2 Animal Transfer Unit (ATU) – A mobile animal transport / housing unit designed to provide a secure microenvironment for animals in transport or temporarily removed from the main population.

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COMPONENTS

IVC System

- Patented four-point seal system. Upon removal of the cage, both the rack and cage are sealed from the room
- Negative cage operation with control loop feedback for constant airflow
- Whole rack system and cages are autoclavable up to 134 °C[1] and chemically sterilisable
- Plastic (polysulfone) cage support runners with integrated spring operated cage lock with docking indicator
- Ergonomic, single-finger motion docking with auto-locking feature
- Multi-directional 127 mm diameter stainless steel casters with gray polypropylene wheels with sealed ball bearings and four foot-operated brakes
- Horizontal airflow manifolds with stainless steel sanitary fittings for ease of cleaning
- Same-side supply and exhaust plenum configuration
- 100 mm diameter vertical supply and 100 mm diameter vertical exhaust plenums with back and bottom door access
- 304 stainless steel, welded frame construction, utilizing both square and rectangular structural tubing
- Cage air tubes are 304 stainless steel
- At least 10 hours of battery backup with redundant power source
- Weekly cage change capable via single pass, constant airflow pattern yielding 40 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
- Quick-release fittings for on-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

Cage System

- Cage floor space of 537 cm^2
- Clear polysulfone plastic
- Gasketed cage lid ensures safety and protection from damage, and maintains cage negative pressure when removed
- Standard cage level exhaust filtration
- Optional, certified cage level exhaust HEPA filtration
- Optional, certified cage level supply HEPA filtration
- SmartDock™ 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

IVC System (continued)

- Real-time AC or battery indicator
- 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
- 12-cage Animal Transfer Unit (ATU) available

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[1] Please send Allentown the additional information such as cycle time and pressure so we can confirm the settings will not damage the racks or its components.

COMPONENTS

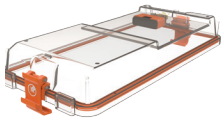
Cage System with Standard Filter Top
194 mm x 178 mm x 419 mm
Floor space: 537 cm²

Bottle

250 mL | 281 g (filled)
Item # PC250BCL+SLC

430 mL | 485 g (filled)
Item # PC430BHT+SLC

Top



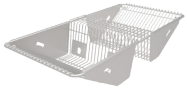
Standard Filter Top Assembly
193 mm x 55 mm x 396 mm | 590 g
Item # 226376

Cardholder

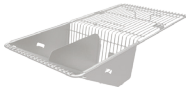
76 mm x 102 mm Vertical
Item # VH34P3-8
(also available in 76 mm x 127 mm
Item # VH35P3-8)

76 mm x 102 mm Horizontal
Item # HH34P3-8
(also available in 76 mm x 127 mm
Item # HH35P3-8)

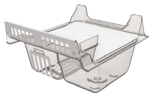
WBL / Feeder



Dual Pocket Wire Bar Lid
Food capacity: 454 g
178 mm x 76 mm x 375 mm | 907 g
Item # 413750



Full Pocket Wire Bar Lid
Food capacity: 426 g
178 mm x 74 mm x 375 mm | 499 g
Item # 412483



PFT with Stainless Steel Grate (Hydropac®*)
Food capacity: 426 g
178 mm x 112 mm x 220 mm | 272 g
Item # 225664-1

Filters

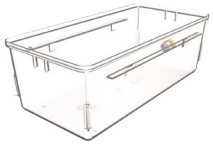
Certified Intra-Cage HEPA Filter (Exhaust)
Item # 228780

Certified Intra-Cage HEPA Filter (Supply)
Item # 228535

Intra-Cage Extract Filter Housing
Item # 216716-2

Intra-Cage Extract Filter
Item # FH1000PF

Cage



Cage Assembly
194 mm x 130 mm x 384 mm | 653 g
Item # 227422

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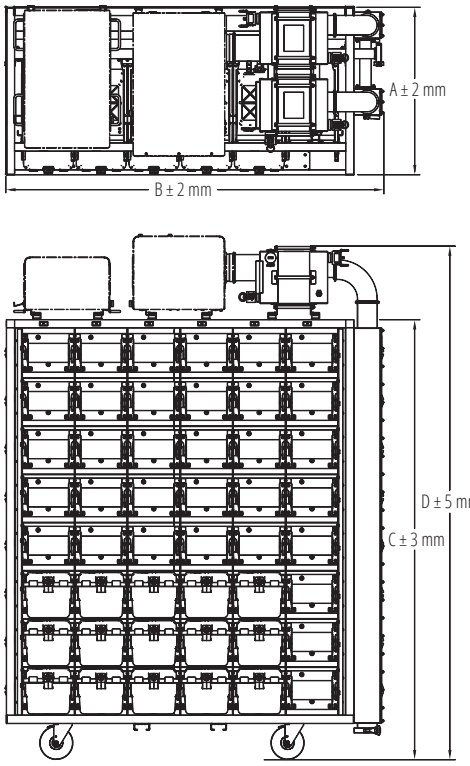
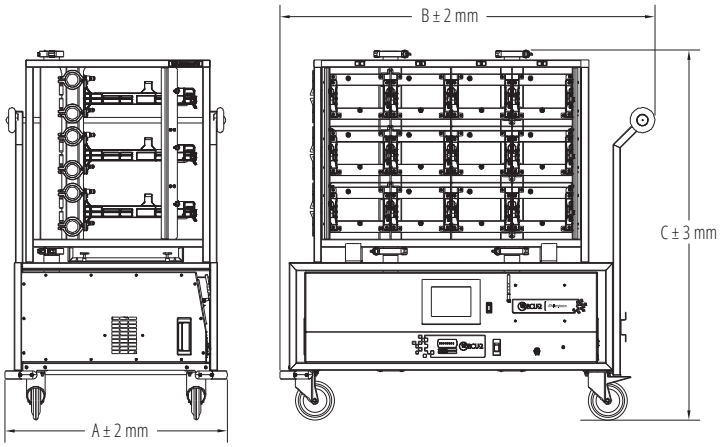
*The feeder / watering device is approved by Hydropac / Lab Products, Inc. for use with Hydropac® branded valves and pouches. All dimensions shown (Width x Height x Depth) 01-2020

SPECIFICATIONS

Size	Depth (A)	Width (B)	Height[1] (C)	Height[1] (D)	Matrix		Sides	Weights[2] (loaded)	Weights[2] (unloaded)	Animal Capacity	ACH	Supply Air	Thimble	Energy Use	Heat Load
	mm	mm	mm	mm	Col.	Row		kg	kg			m^3/ hr	m^3/ hr	Watts	Watts
Sentry SPP															
48	651	1466	1708	1195	6	8	1	237	148	240	40	15.3	18.7	28.0	25.0
Sentry SPP ATU															
12	749	1264	1224	N/A	4	3	1	59	38	60	40	3.8	–	21.7	20.0

Note: a.) Airflow at sea-level b.) Airflow tolerance ±10% [1] Height includes casters. [2] All weights are approximations.





Notes

- Voltage: 90 – 264 Vac, 50 / 60 Hz, 1 Ph
- Power: 28 Watts
- Current: 0.29 A @ 120 Vac (0.18 A @ 230 Vac)
- Operating pressure: 0.300 inches H_2O at the supply HEPA
- Noise (ISO 7779): 43 dBA @ 1.0 meter (clean filter)
- HEPA filter: H14
- Audible alarm: Option, trigger on blower and power fail
- Communications: Bluetooth® or Wi-Fi
- Battery life: At least 10 hours @ ½ pressure

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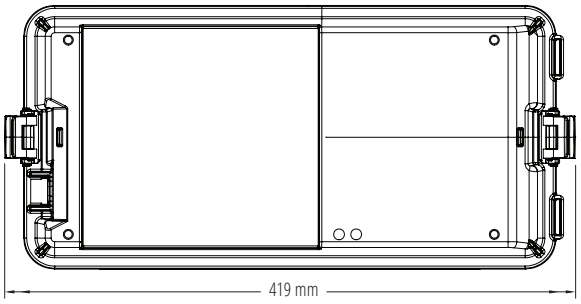
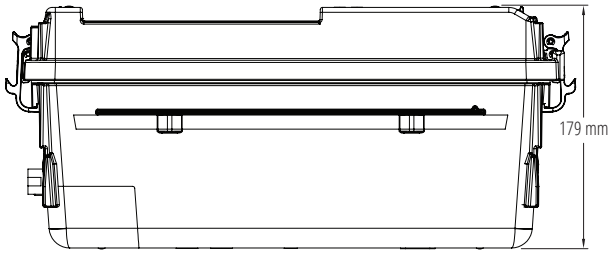
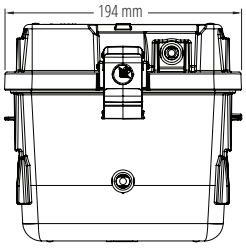
Allentown recommends that projects that have critical size, airflow, water or electrical needs be handled through approval drawings to insure all critical areas are addressed and have visibility throughout the team including, A&E, MEP and construction persons.

SPECIFICATIONS

External Dimensions

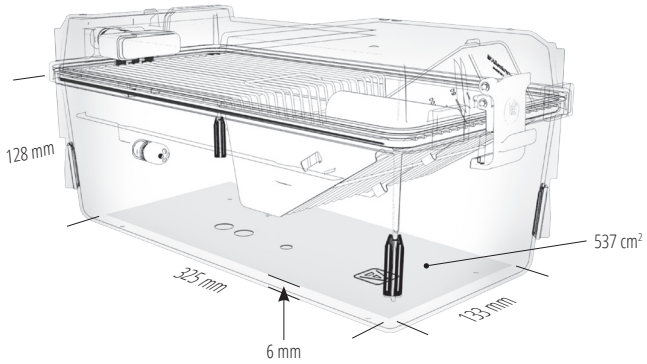




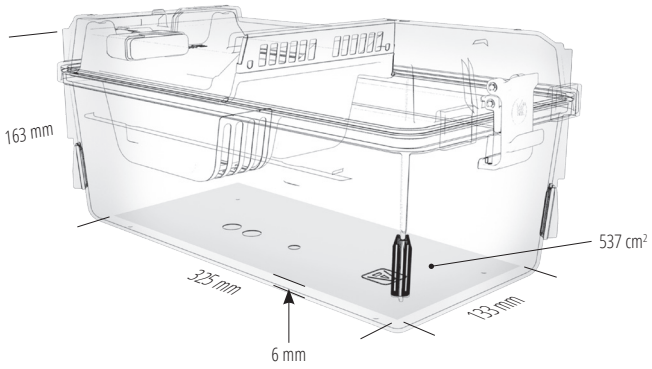


Internal Dimensions

Full Pocket



PFT



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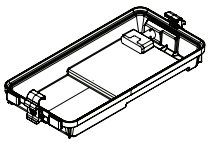
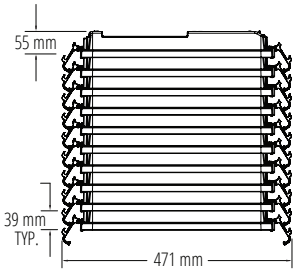
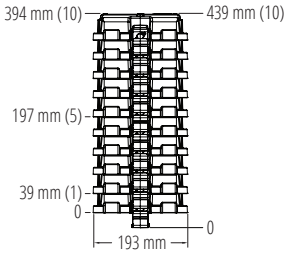
SPECIFICATIONS

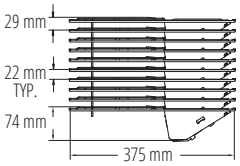
Standard Filter Top

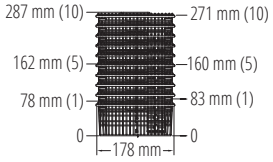




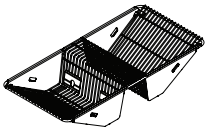


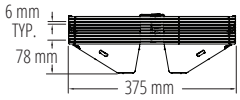
Full Pocket Wire Bar Lid

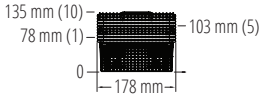




Dual Pocket Wire Bar Lid







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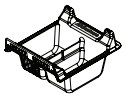
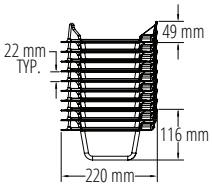
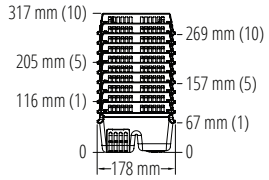
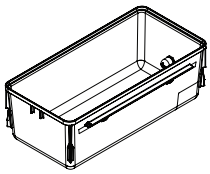
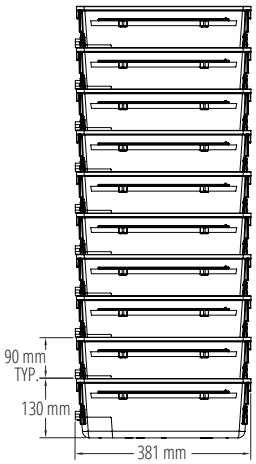


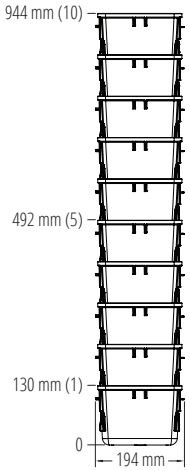




Cage







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