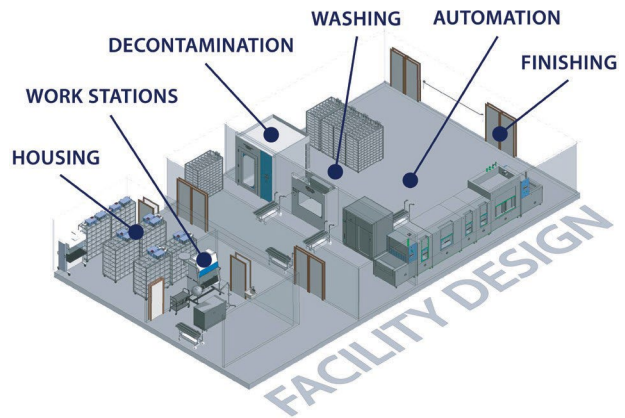


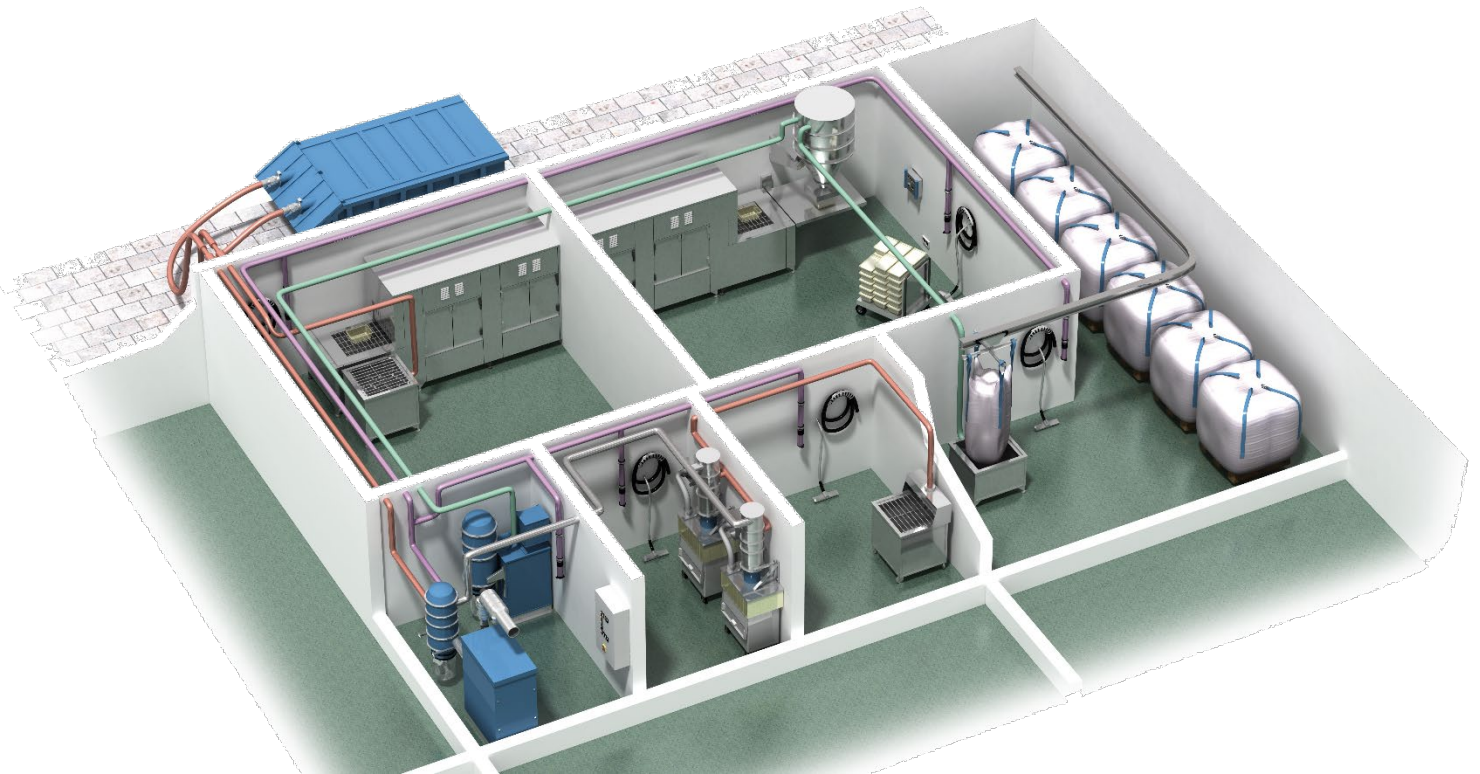
## Your trusted global partner providing critical solutions

For over 50 years, Allentown has provided key solutions to the biomedical research community. Our high-quality equipment and advanced vivarium systems continue to define and exceed industry standards. Innovation, quality and service are at the heart of the customer experience.



# Automation Solutions

## BEDDING MANAGEMENT





## Automation Solutions for Bedding Management, Built for you

In conjunction with our automated solutions for handling the cages in your washing area, Allentown also supply fully automated clean bedding distribution and dirty bedding removal systems. Automated bedding management systems enhance productivity, keep your facility clean, and supports staff well-being and safety, all worth considering for any laboratory. Offering both vacuum and mechanical drag bedding management systems allows us to tailor solutions to meet specific needs and optimized budget options.

### Key benefits of automation

#### Improved Efficiency

- Reduced downtime: Automated systems streamline processes, allowing for quicker turnover and more consistent operations.
- Ideal for large facilities: The benefits of automation scale with the size of the operation, making it indispensable in larger laboratories.
- Standardization: Supports adherence to animal welfare and standards operating procedure by maintaining consistent amount of bedding across cages.

#### Enhanced Cleanliness and Barrier Control

- Dust Reduction: Vacuum systems, in particular, minimize airborne dust and particles during bedding disposal, maintaining better air quality in the facility.
- Lower Risk of Cross-Contamination: Efficient waste management helps maintain clean environments for animals, particularly important for sensitive or pathogen-free studies.

#### Cost Efficiency and Environmental Benefits

- Reduced Labor Costs: By automating labor-intensive tasks, facilities can save on staffing costs or allocate resources more effectively.
- Waste Management Optimization: Systems designed to compress or streamline waste disposal reduce the frequency and cost of waste removal services.
- Waste Reduction: Properly managed automated systems can separate and compress waste for more sustainable disposal.

#### Ergonomic and Safety Benefits for Staff

- Labor Optimization: Staff can focus on more specialized or scientific tasks rather than performing repetitive manual labor.
- Reduced Physical Strain: Automation eliminates the need for heavy lifting, bending, and repetitive manual tasks, lowering the risk of injuries.
- Improved Air Quality: Minimizing exposure to dust and LAA enhances worker health and safety.

\*LAA – Laboratory Animal Allergen

## Clean bedding Delivery System

An automated Clean Bedding Delivery System is designed to streamline the process of distributing fresh bedding into animal cages efficiently and consistently:

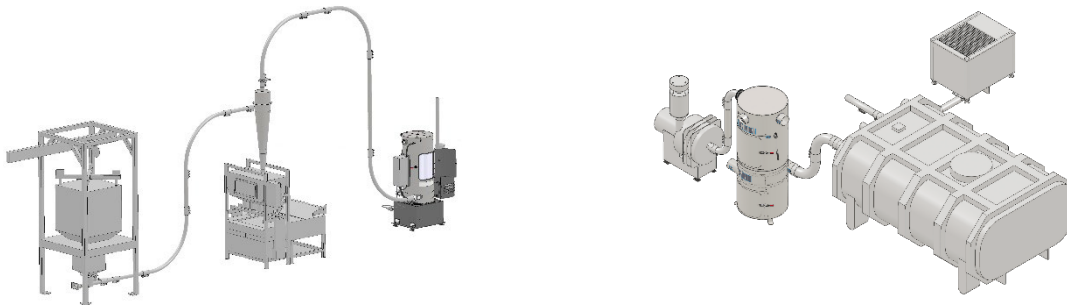
1. Clean bedding is delivered in bulk bags, which will be mechanically positioned above the distribution network.
2. Clean bedding material is stored in a dedicated hopper or silo, ensuring it is protected from contamination.
3. The system uses either a drag-chain or vacuum-driven transport to move bedding from the storage area to the distribution hopper or silo.
4. Bedding is delivered to the cages through chutes or dispensing systems that are integrated into the cage washing or preparation workflow.
5. The system will dispense a precise amount of bedding tailored to cage size or species requirements, ensuring consistency and reducing waste.
6. The dust generated by filling the bedding is exhausted.

## Soiled Bedding Disposal System

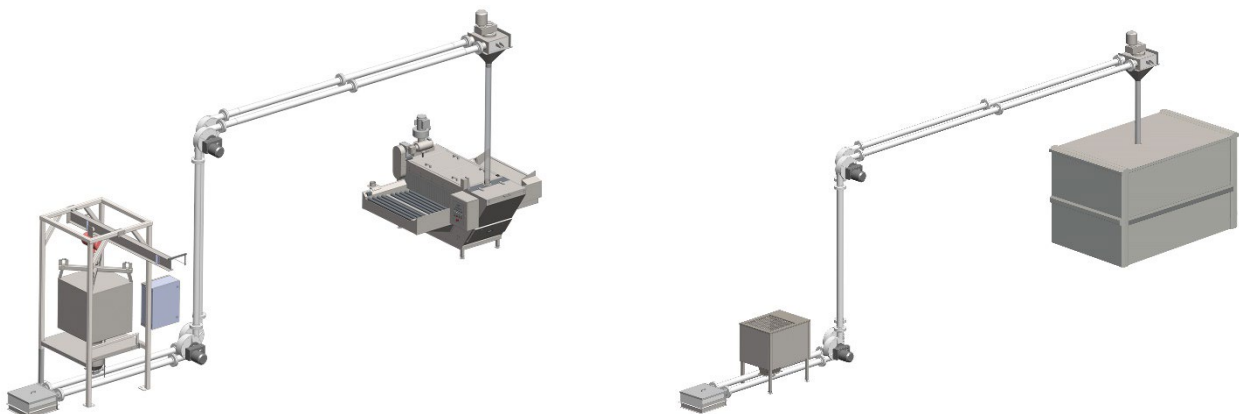
An automated Soiled Bedding Disposal System is designed to efficiently and hygienically manage the removal and disposal of dirty bedding from animal cages.

1. Cages with soiled bedding are emptied either manually or as part of an automated cage-washing system in our dust-free waste dump station.
2. The bedding is directed into the system's intake point, such as a chute or a drag-chain.
3. The system moves the soiled bedding from the intake area to the waste management unit depending on the transport mechanism:
  - Vacuum Systems: Uses powerful vacuum lines to pull bedding into a central waste collection area.
  - Mechanical Drag Systems: Employ chains to mechanically drag soiled bedding through enclosed conduits to the disposal point.
4. The system can include HEPA or similar filters to capture and contain airborne particles, minimizing dust exposure in the workspace.
5. We offer a range of solutions, including stations with integrated macerator.
6. You can choose from a range of discharge and storage systems for soiled bedding, from large outdoor containers to standard waste bins or plastic bags.

### Vacuum system



### Mecanical drag system



## Flexible and Tailored Automation

Whether you're new to automation, looking for targeted solutions in specific areas, or ready to integrate automation across your entire operation, we're here to partner with you. We'll help you determine the best solution for your facility, offering both vacuum or mechanical options to enhance your operations.

## Turnkey Project management

Allentown guarantees a turnkey offer thanks to our dedicated APM qualified International Project Manager. He will be a key part of our offering to manage the integration of high-value equipment into complex infrastructures that require meticulous planning, coordination and alignment with customer needs. You will gain critical benefits from this service:

- **Streamlined Communication** facilitating clear and consistent communication between the customer, design offices/architects and contractor.
- **Efficient Project Road Map Implementation and Execution** breaking down complex tasks into manageable phases, defining timelines, milestones, and resource needs.
- **Risk Management** by identifying potential risks early in the project to proactively implement mitigation strategies.
- **Customization** to meet the client's specific needs and facility infrastructure.
- **Quality Assurance** ensuring requirements are met accurately and that the equipment functions as expected before delivery and installation.
- **Improved Customer Experience and Satisfaction** helping deliver a seamless, predictable experience, by handling the complexity behind the scenes and keeping clients informed and involved at key stages.
- **Post-Installation Support and Training Coordination:** once equipment is installed, project managers will coordinate training sessions and provide support as needed, ensuring a smooth handover.