

# PhenoMaster NG Cages

Advanced Multipurpose Platform for Rodent Metabolic,  
Behavioral & Physiological Studies



## 1. Mouse Cage Type 2: Versatile Solution for Metabolic Research



- A classic metabolic cage with various configurations, it supports Pull and Push calorimetry.
- With up to 4 weight sensors and finest IR activity resolution 1.25 mm
- Easy to clean and maintain, designed with convenience in mind.

## 2. Iso Cage: Sterile Environment for Germ-Free Applications



- Equipped with a specialized HEPA filter for superior protection against contamination.
- Optimized for experiments requiring stringent sterility, maintaining animal welfare and data accuracy.
- Designed for easy maintenance with durable materials and a modular build.

## 3. Opto Mouse Cage: Advanced Behavioral Studies



- It features an Operant Wall for cognitive testing.
- Includes a Counterbalance Arm for tubing and fiber integration, enhancing experiment flexibility.
- High compatibility with advanced devices for optogenetics and neurobehavioral research.

### Key Features

- **Lid-Mounted Modules:** Enabling quick access for cleaning and modifications.
- **Enhanced Animal Welfare:** Optimized cage design with extra living space.
- **Fastest Setup, Easy Handling:** Unique design enables quick assembly and exchange.

# PhenoMaster NG Cages

Advanced Multipurpose Platform for Rodent Metabolic,  
Behavioral & Physiological Studies



## 4. Speakman BMR Chamber: Innovative Tool for Measuring Basic Metabolic Rate



- Developed in collaboration with John R. Speakman, this chamber mimics hood calorimetry for precise BMR measurements.
- Allows simultaneous monitoring of activity and metabolic rates.
- High-speed indirect calorimetry with a resolution of 1 second, ensuring unmatched data accuracy

## 5. Metabolic PhenoCage: Precise Sample Collection for Metabolic Studies



- Separates and collects urine and feces for advanced microbiome analysis.
- Includes a high-speed cooling unit to preserve samples immediately after collection, ensuring integrity.
- Equipped with sensors to monitor food and water intake, delivering comprehensive metabolic data.
- Focuses on animal welfare with reduced stress designs and a specialized resting plate.

## 6. Group-housing Cage for Mice: Efficient Group Studies with RFID Integration



- Allows group housing for mice while maintaining individual animal identification.
- Integrated RFID technology enables individual food/drink consumption and activity monitoring
- Supports social interaction studies, ensuring animal welfare in a natural environment.

### Key Features

- **Third-Party Devices Integration:** Via counter-balance arm for tethered animals.
- **Sensor for Environmental Control:** Precise in-cage humidity, temperature, and pressure monitoring.
- **Built to Last:** High-quality materials ensure long-lasting durability has context menu.

# PhenoMaster NG Cages

Advanced Multipurpose Platform for Rodent Metabolic,  
Behavioral & Physiological Studies



## 7. Rat Cage Type 3: Compact and Flexible for Metabolic Studies



- Designed for precise metabolic and physiological data collection.
- Perfect for use in climate-controlled environments, ensuring stable experimental conditions.
- Features optimized airflow and robust build quality for long-term reliability.

## 8. Rat Cage Type 4: Enhanced Comfort for Obese Rats



- Provides ample space and a comfortable environment tailored for larger or obese rats.
- Features advanced monitoring capabilities for food, water intake, and activity.
- Focused on animal welfare, reducing stress, and ensuring data reliability.

## Why TSE Systems?



Industry-leading modular solutions designed for scalability and flexibility.



Future-ready, multi-purpose solutions that adapt to your evolving research needs.



Trusted by researchers worldwide for precision, durability, and innovation.

TSE Systems GmbH  
Barbara-McClintock-Str. 4 ·  
12489 Berlin  
030 639221100

[www.tse-systems.com](http://www.tse-systems.com)



Scan or Click to Contact us

TSE Systems, Inc.  
11964B Oak Creek  
Parkway, Huntley,  
Illinois 60142, USA