

# LumiCult Incubator Shaker



# LumiCult

## Large Capacity Stackable Incubator Shaker



### ***Introduction***

Elevate your lab's efficiency with our compact, superimposed equipment. Its one-, two-, or three-layer configuration optimizes space utilization. A 360-degree observation is enabled by a hollow tempered glass door. Enjoy a smooth and quiet operation via the integrated three-wheel drive system.

Your safety is paramount with over-temperature alarms, an automatic power-off feature, and power recovery to safeguard your data during outages or crashes. The sleek design combines aesthetics with functionality, and the system offers enhanced security, oxygen access, and built-in lighting and UV sterilization functions.

This versatile triple-layer unit seamlessly integrates an oscillating incubator with a light incubator, allowing precise control and analysis.

### ***Product Features***

- 1. Maximized Space Efficiency:** A one-, two-, or three-story superimposed configuration offers users the utmost utilization of space within a compact footprint.
- 2. User-Centric Design:** The lower two layers feature downward flip-up door openings, while the third layer boasts upward flip-up door openings. Each level provides independent control over temperature and speed settings, catering to diverse user requirements.
- 3. 360-Degree Observation:** Enhanced by a hollow tempered glass door, this design allows effortless, uninterrupted viewing of the interior from any angle without the need to open the door.
- 4. Smooth Three-Wheel Drive:** The unit employs an integrated three-wheel drive system for seamless, stable, durable, and reliable operation in three dimensions.
- 5. Safety and Data Protection:** Equipped with an over-temperature alarm function and an automatic power-off mechanism in case of abnormalities, ensuring data integrity by facilitating power recovery after outages or crashes.

## ***Product Features - Continued***

6. **Sleek Aesthetics:** Featuring a streamlined exterior, the interior lining is constructed from 304 brushed anti-corrosion stainless steel, complemented by a fixed arc corner design that not only simplifies cleaning but also prevents bacterial growth. The outer shell is coated with electrostatic spray plastic for added durability.
7. **Enhanced Security:** The operation interface is fortified with encryption and locking mechanisms to prevent inadvertent or repeated operations, reducing the risk of human errors.
8. **Oxygen Provision:** Strategically positioned on the side are debugging holes that meet the oxygen demands of samples without necessitating door openings. This facilitates later customer compliance with relevant technical certifications.
9. **Lighting and UV Sterilization:** Additionally, the unit offers built-in lighting and timed UV sterilization functions, ensuring a well-illuminated and sterilized environment when needed.

## ***Unique Advantages***

1. **Versatile Three-Layer Design:** The triple-layer configuration seamlessly integrates a full-temperature oscillating incubator with a light incubator, offering both static and dynamic culture capabilities. It optimizes space utilization while maintaining a small footprint.
2. **Customizable Lighting Control:** Tailored to meet diverse customer requirements, this system accommodates up to 24 programmable lighting segments. Each segment permits individual settings for temperature, lighting, speed, time, and more. It faithfully replicates changes in sunlight intensity and the natural temperature fluctuations that occur during sunrise and sunset, providing insight into the effects of light and temperature variations.
3. **Efficient LED Light Source:** A specially designed LED cold light source delivers remarkable efficiency, energy savings, and high luminosity of up to 30,000LX. It offers stepwise adjustment from 1% to 100% intensity and boasts an extended service life.
4. **Intuitive Touchscreen Control:** The LCD touch screen simplifies operation by displaying temperature, speed, time, actual measurements, and remaining time all on a single interface. With no need to switch between screens, users can freely set the rocker's forward or reverse rotation. Real-time displays of time accumulation and timing functions enhance convenience. Additionally, the forced convection fan can be effortlessly toggled between normal, automatic, or off modes.
5. **Data Memory and USB Connectivity:** The system includes a data memory function that records temperature and rotational speed data per minute, creating historical data and real-time curve graphs for in-depth analysis. These records can be stored for 12 months and are easily imported or exported via the USB interface.

## ***Unique Advantages - Continued***

6. **Smart PLC Control:** Employing advanced PLC microcomputer intelligent control, the system allows users to add programs at any time, providing greater flexibility and an upgrade-able programming interface.
7. **Precision Air Circulation:** A patented precision three-channel hot and cold gas mixing circulation air duct design ensures uniform temperature distribution throughout the entire chamber.
8. **Enhanced Stability:** With a self-balancing system design, this incubator shaker enhances machine stability even at high speeds, thereby prolonging its operational lifespan.
9. **Easy-Access Rocking Plate:** The rocking plate is effortlessly pulled out, simplifying the loading and unloading of shaker bottles. It features a patented built-in diversion waterproof system, enabling thorough cleaning without requiring special tools.
10. **Quality Servo Motor:** Equipped with a high-quality servo motor, the system ensures precise speed control and exceptional stability. Its integrated filter magnetic ring effectively shields external interference, bolstering overall machine stability.
11. **Efficient Refrigeration:** The system utilizes imported, high-quality compressors and nitrogen-free, environmentally friendly refrigerants. These components guarantee low noise levels and effective cooling, enabling stable, long-term operation at low temperatures without frost or icing.
12. **User-Friendly Lid Functions:** A user-centric design includes instant-stop or slow-stop functionality upon lid opening, enhancing safety and convenience. This feature minimizes the shearing force on cells and improves overall stability.
13. **Real-time Ambient Temperature Display:** An external ambient temperature probe provides real-time ambient temperature readings on the panel, facilitating precise control of the chamber's internal temperature.
14. **Management Permissions:** An optional feature allows for the establishment of three or more levels of management permissions. Each level includes an independent user name and password, enabling secure login, setting security permissions, modifying parameters, and accessing screen data, simplifying management.
15. **Humidity Control (Optional):** The system offers an optional built-in active humidity control module, requiring no additional space. Combined with an external water replenishing bucket, it achieves automatic water replenishment. Using a high-precision humidity probe, humidity levels of up to 95% at 37°C are attainable under normal cultivation conditions, effec-

## Technical Specifications

Model	UMSI-325-1TI	UMSI-325-2TI	UMSI-325-3TI
Number of overlays	1 layer	2 layer	3 layer
Type	Superposition		
Display	LCD touchscreen		
Rotation speed	10-300rpm		
Speed control accuracy	1rpm		
Shaking throw	26mm		
Maximum load	50KG		
Temperature control mode	PLC control mode		
Temperature control range	4-60 °C		
Temperature display resolution	0.1 °C		
Temperature fluctuation	±0.1 °C		
Temperature field uniformity	±0.5 °C@37 °C		
Ambient temperature	5-35 °C		
Heating power	800W		
Cooling power	350W		
Volumn	325		
Sterilization method	UV sterilization		
Tray size	957×535mm		
Tray capacity of shake flask	250ml×66 or 500ml×45 or 1000ml×28 or 2000ml×15		
Illumination	0-16000LUX(Standard)		0-30000LUX(Optional)
Power supply	AC220V±10%, 50-60Hz		
Timing function	0-999.9hours		
Weight	259KG		
Dimension(W×D×H)	1400×847×648mm		
Package siza(W×D×H)	1538×980-×810mm		
Gross weight	280KG		

# LumiCult Horizontal Incubator Shaker



## ***Introduction***

Discover next-level control and precision with our equipment's intuitive touchscreen interface. Easily set temperature, speed, and timing functions while observing critical data all on one screen. You can even change the rocker's rotation direction and manage the forced convection fan without the hassle of switching screens. With customizable culture times and efficient, quiet three-wheel drive, this equipment is built for flexibility and reliable operation. Safety is a top priority, with over-temperature alarms, automatic power-off, and data recovery. Plus, its sleek design, clear observation, hygienic materials, and UV sterilization functions make it a comprehensive lab solution.

## ***Product Features***

- 1. Intuitive Touchscreen Control:** The LCD touch screen allows you to effortlessly configure temperature, speed, and time settings. Critical information like actual temperature, speed, and remaining time is conveniently displayed on the same interface. Switching between functions is seamless, making observations more intuitive. You have the flexibility to set the rotation of the rocker in either forward or reverse motion. Additionally, the touch screen provides real-time updates on the time accumulation and timing functions, allowing you to easily control the forced convection fan, whether it's set to run continuously, automatically, or turned off.
- 2. Customizable Culture Time:** Benefit from a timing function that lets you set culture durations anywhere between 0 to 999.9 hours, providing you with the flexibility to tailor your experiments to precise timeframes.
- 3. Efficient and Quiet Operation:** The equipment utilizes a three-dimensional partial three-wheel drive system, ensuring smooth, stable, and durable performance. Importantly, it operates quietly, creating a conducive environment for your experiments.
- 4. Safety and Data Protection:** Equipped with an over-temperature alarm function and an automatic power-off feature in abnormal situations, this equipment prioritizes safety. Its power-off recovery function safeguards against data loss caused by unexpected power outages and crashes.

## ***Product Features - Continued***

5. **Observation Made Easy:** The inclusion of a hollow tempered glass door enables clear observation of the chamber's interior from all angles without the need to open the door.
6. **Hygienic Design:** Its elegant arc-shaped exterior is complemented by a robust interior lining made from 304 brushed anti-corrosion stainless steel. The arc corner design not only simplifies cleaning but also inhibits the growth of bacteria. Meanwhile, the outer shell is constructed from electrostatic spray plastic, enhancing both durability and aesthetics.
7. **Convenient Oxygen Access:** A thoughtful debugging hole on the side of the equipment caters to the oxygen requirements of your samples without necessitating the opening of the main door. This feature is designed with ease of use and technical certification in mind.
8. **Enhanced Functionality:** The equipment is equipped with both lighting and ultraviolet sterilization functions, providing comprehensive support for your experimental needs.

## ***Unique Advantages***

1. **Versatile Dual-Functionality:** This innovative unit seamlessly combines a full-temperature oscillating incubator and a light incubator, catering to both static and dynamic cultures. Enjoy the convenience of two functions in a single machine.
2. **Customizable Light Settings:** Tailor your experiments precisely to your needs by programming lighting conditions. With the ability to create up to 24 segments, each segment can feature unique settings such as temperature, light intensity, rotation speed, and duration. This capability allows you to mimic natural variations in sunlight and temperature, replicating the effects of sunrise and sunset.
3. **Efficient LED Lighting:** Designed with a special LED cold light source, this equipment boasts high efficiency and energy savings. Its light intensity can reach an impressive 30,000LX, with the flexibility to adjust brightness from 1% to 100% in precise increments. The extended service life ensures consistent performance over time.
4. **User-Centric Safety:** A user-friendly feature includes an instant-stop or slow-stop function when the lid is opened. This not only enhances safety but also minimizes the shearing force on delicate cells, resulting in greater stability during experiments.
5. **Uniform Temperature Distribution:** Employing a fan-shaped circulation system, the equipment guarantees temperature uniformity throughout the entire chamber, ensuring optimal experimental conditions.

## ***Unique Advantages - Continued***

6. **Comprehensive Data Management:** Benefit from a data memory function that records temperature and rotational speed data on a per-minute basis. This historical data is visualized in real-time curve graphs, simplifying the observation and analysis of temperature and rotational speed's impact on your experiments. Data is stored securely for 12 months and can be effortlessly imported or exported via the built-in USB interface.

7. **Intelligent Control:** Utilizing PLC microcomputer intelligence, you can effortlessly add and customize programs to meet your specific requirements. This user-centric approach allows for a more flexible and intuitive programming operation.

8. **Effortless Maintenance:** Featuring a patented built-in diversion waterproof system, cleaning this equipment is hassle-free. The internal cavity can be waterproofed and rinsed without any inaccessible areas, eliminating the need for specialized tools.

9. **Robust Motor and Interference Shielding:** Equipped with a high-quality servo motor, this unit offers precise control over speed, minimizes post-use faults, and maintains exceptional stability. Its built-in filter magnetic ring effectively shields the machine from external interference, bolstering overall stability.

10. **Reliable Cooling:** The selection of high-quality compressors and nitrogen-free, environmentally friendly refrigerants ensures low noise and exceptional cooling performance. This guarantees prolonged, stable operation even at low temperatures.





## Technical Specifications

Model	UMSI-349-1TI	
Number of overlays	1 layer	
Type	Horizontal	
Display	LCD touchscreen	
Rotation speed	10-300rpm	
Speed control accuracy	1rpm	
Shaking throw	26mm	
Maximum load	50KG	
Temperature control mode	PLC control mode	
Temperature control range	4-60 °C	
Temperature display resolution	0.1 °C	
Temperature fluctuation	±0.1 °C	
Temperature field uniformity	±0.8 °C @37 °C	
Ambient temperature	5-35 °C	
Heating power	800W	
Cooling power	350W	
Volumn	349	
Sterilization method	UV sterilization	
Tray size	905×530mm	
Tray capacity of shake flask	250ml×60 or 500ml×40 or 1000ml×24 or 2000ml×15 or 3000ml×11 or 5000ml×8	
Illumination	0-16000LUX(Standard)	0-30000LUX(Optional)
Power supply	AC220V±10%, 50-60Hz	
Timing function	0-999.9hours	
Weight	178KG	
Dimension(W×D×H)	1331×755×710mm	
Package siza(W×D×H)	1450×950-×950mm	
Gross weight	252KG	

# LumiCult Vertical Incubator Shaker



## *Introduction*

Experience advanced laboratory equipment with our integrated LCD touchscreen interface, offering seamless control of temperature, speed, time, and real-time data on a single screen. Say goodbye to toggling between screens and enjoy an intuitive experience. Configure the rocker's rotation direction and control the forced convection fan easily. You can also set precise culture times as needed. Our system features robust three-wheel drive for smooth, stable, and quiet operation. Safety is a priority with over-temperature alarms, automatic power-off, and power-off recovery features. Enjoy 360° observation through the tempered glass door in a sleek and hygienic design. Plus, debugging holes on the side provide oxygen supply without disruption, and built-in lighting and UV sterilization enhance functionality.

## *Product Features*

- 1. Integrated LCD Touchscreen:** The LCD touchscreen conveniently displays temperature, speed, time, actual measurements, and operational status all on a single interface. This eliminates the need to switch between screens, enhancing the user's intuitive experience. Additionally, users have the flexibility to freely set the rocker's rotation direction. The touchscreen also provides real-time access to time accumulation and timing functions. You can effortlessly configure the forced convection fan to operate continuously, automatically, or turn it off as needed.
- 2. Flexible Timing Control:** The system offers a timing function that allows users to set culture durations as desired, ranging from 0 to 999.9 hours.
- 3. Robust Three-Wheel Drive:** A three-dimensional integrated partial three-wheel drive ensures smooth, stable, durable, and reliable operation.
- 4. Safety Features:** Equipped with an over-temperature alarm and automatic power-off function, the system responds to abnormal situations promptly, preventing data loss due to power outages and crashes. It also includes a power-off recovery feature.
- 5. Clear Observation:** The system features a hollow tempered glass door that facilitates clear observation from any angle without needing to open the door.

## ***Product Features - Continued***

- 6. Sleek and Hygienic Design:** The equipment boasts a streamlined exterior with an interior lining made of corrosion-resistant 304 brushed stainless steel. The arc corner design simplifies cleaning, reducing the risk of bacterial growth. The outer shell is finished with electrostatic spray for added durability.
- 7. Oxygen Supply without Disruption:** Convenient debugging holes on the side cater to the oxygen requirements of samples without necessitating door openings. This ensures a smoother experience for future customers seeking technical certification.
- 8. Enhanced Functionality:** The system comes with built-in lighting and ultraviolet sterilization functions, enhancing its versatility and utility.

## ***Unique Advantages***

- 1. Versatile Functionality:** This system seamlessly combines a full-temperature oscillating incubator and a light incubator, accommodating both static and dynamic cultures within a single unit.
- 2. Space-Saving Design:** Featuring a double-layer rocking plate and a vertical layout, this design maximizes usable space while minimizing its footprint, making it an efficient use of floor space.
- 3. Customizable Lighting Conditions:** Users have the flexibility to tailor lighting conditions to their specific requirements. With the capability to program up to 24 segments, each segment can have unique settings for temperature, light intensity, rotation speed, time, and more. This allows for the simulation of natural variations in sunlight intensity and temperature throughout the day, replicating the effects of sunrise and sunset.
- 4. Efficient LED Lighting:** The system incorporates a specialized LED cold light source that combines high efficiency with energy-saving capabilities. It delivers exceptional light intensity, reaching up to 30,000LX, and offers stepwise adjustability from 1% to 100%. This source boasts a long service life.
- 5. Uniform Temperature Distribution:** Utilizing a patented three-channel hot and cold gas mixing circulation air duct design, the equipment ensures consistent temperature uniformity throughout the entire chamber.

## ***Unique Advantages - Continued***

6. **Data Management and Analysis:** A built-in data memory function records temperature and rotational speed data in real-time at one-minute intervals. This data can be accessed to create historical records and real-time curves, facilitating in-depth analysis of temperature and rotational speed's impact on experiments. Data can be stored for up to 12 months and conveniently imported or exported via a USB interface.

7. **Smart Microcomputer Control:** The system employs PLC microcomputer intelligent control, enabling users to add programs at any time. This user-friendly interface allows for a more personalized experience, and programming capabilities can be easily upgraded.

8. **Effortless Cleaning:** Equipped with a patented built-in diversion waterproof system, the machine's internal cavity can be thoroughly waterproofed and rinsed without leaving any inaccessible areas. This innovative feature simplifies cleaning, eliminating the need for special tools.

9. **Precision Motor and Interference Shielding:** A high-quality servo motor provides precise speed control and robust stability. An integrated filter magnetic ring effectively shields the machine from external interference, enhancing overall stability.

10. **Reliable Cooling:** The system relies on imported high-quality compressors and nitrogen-free, environmentally friendly refrigerants. This combination ensures quiet operation, efficient cooling, and long-term stability even at low temperatures.

11. **User Safety and Cell Stability:** To enhance safety and protect cell cultures, the system features a user-friendly design with instant-stop or slow-stop functionality upon lid opening. This reduces shearing forces on cells and provides enhanced stability during operation. This reduces shearing forces on cells and provides enhanced stability during operation. tively inhibiting sample volatilization. Humidity levels are displayed in real-time.



## Technical Specifications

Model	UMSI-233-1TI
Number of overlays	1 layer
Type	Vertical
Display	LCD touchscreen
Rotation speed	10-300rpm
Speed control accuracy	1rpm
Shaking throw	26mm
Maximum load	50KG
Temperature control mode	PLC control mode
Temperature control range	4-60 °C
Temperature display resolution	0.1 °C
Temperature fluctuation	±0.1 °C
Temperature field uniformity	±0.8 °C@37 °C
Ambient temperature	5-35 °C
Heating power	600W
Cooling power	278W
Volumn	233
Sterilization method	UV sterilization
Tray size	509×485mm
Tray capacity of shake flask	(250ml×25 or 500ml×16 or 1000ml×9) ×2 layers
Illumination	0-16000LUX(Standard) 0-30000LUX(Optional)
Power supply	AC220V±10%, 50-60Hz
Timing function	0-999.9hours
Weight	199KG
Dimension(W×D×H)	687×793×1229mm
Package siza(W×D×H)	850×810-×1440mm
Gross weight	235KG

**Shanghai Unicorn Medical Technology Co., Ltd.**

Room J, Building 4, B Zone, No. 925 Yecheng Road, Jiading Industrial Area, Shanghai

Tel: +86 (021) 6082 8473 Cel: +86 173 1710 8636 Email: [info@unicornlifescience.com](mailto:info@unicornlifescience.com)

**[www.unicornlifescience.com](http://www.unicornlifescience.com)**

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