

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		