

BioGrowth High Throughput Stackable Incubator Shaker



Introduction

Maximize your lab's efficiency with our versatile equipment, available in single, double, or triple-layer configurations. Each layer operates independently, providing custom temperature and speed settings. The tempered glass door offers 360-degree visibility without opening the chamber. The three-wheel drive system guarantees smooth, stable, and durable operation. Safety features include over-temperature alarms and automatic power-off, with data recovery. The sleek, hygienic design features stainless steel interiors, an encrypted interface, and a timing function. Convenient side debugging holes facilitate oxygen regulation without opening the door. Compact and equipped with lighting and UV sterilization functions, it's the ultimate lab companion.

Product Features

- 1. Space-Saving Stacking:** Our equipment offers flexible stacking options, allowing users to maximize their workspace while minimizing the footprint. Each layer operates independently, enabling customization of both temperature and speed settings to suit your specific needs.
- 2. 360-Degree Visibility:** The unit features a hollow tempered glass door that provides uninterrupted visibility into the chamber from all angles without the need to open the door.
- 3. Smooth and Reliable Mobility:** The partial three-wheel drive system ensures three-dimensional body movement that's smooth, stable, and exceptionally durable, guaranteeing reliable operation over time.
- 4. Advanced Safety Features:** Our equipment comes equipped with crucial safety functions. It includes an over-temperature alarm feature and an automatic power-off function in case of irregularities. Additionally, it boasts a power-off recovery mechanism to prevent data loss due to power outages or system crashes.
- 5. Hygienic and Durable Design:** The equipment's exterior features a sleek, electrostatically sprayed plastic shell. Internally, it incorporates a 304 brushed anti-corrosion stainless steel universal platform measuring 524mm by 412mm. The inner cavity is also made of 304 brushed anti-corrosion stainless steel, with an arc corner design that not only enhances hygiene by preventing bacterial growth but also makes cleaning a breeze.

Product Features - Continued

6. **Intuitive and Secure Operation:** The user interface is both intuitive and secure. It's encrypted and locked to prevent repetitive operations and human errors. The system also includes a timing function, allowing users to set custom culture times within a range of 0-999.9 hours.
7. **Enhanced Oxygen Management:** The equipment is designed with a convenient debugging hole on the side. This feature allows for the regulation of oxygen levels for samples without needing to open the main door, greatly facilitating future technical certifications.
8. **Efficient Design:** The side door is designed for easy operation and covers a minimal area, taking up less than 0.65 square meters of space, ideal for limited spaces.
9. **Advanced Features:** The equipment is equipped with both lighting and UV sterilization functions for added convenience and enhanced sterilization capabilities.

Unique Advantages

1. **Intuitive Touchscreen Control:** The LCD touch screen consolidates temperature, speed, time, actual temperature, speed, and remaining time on a single interface. This simplifies operation, eliminating the need to toggle between screens. Additionally, you have the flexibility to easily set the rocker's rotation direction and control the forced convection fan's mode - be it continuous, automatic, or off.
2. **Comprehensive Data Management:** The equipment features a robust data memory function, continuously recording temperature and rotational speed data per minute. This data is compiled into historical records and real-time curve graphs. These tools prove invaluable for observing and analyzing how temperature and rotational speed influence experiments. Data can be securely stored for 12 months and effortlessly imported and exported through the USB interface.
3. **Adaptive Programming:** Thanks to PLC microcomputer intelligent control, this system can be tailored to suit your evolving requirements. Users can incorporate new programs at any time, enhancing user-friendliness and enabling program upgrades.
4. **Patented Air Circulation Design:** Our precision three-channel hot and cold gas mixing circulation air duct guarantees uniform temperatures throughout the chamber. This patented feature assures consistent and reliable temperature control.
5. **Built-in Stabilization:** The system boasts a built-in self-balancing mechanism that significantly boosts machine stability at high speeds. This innovation prolongs the equipment's lifespan and ensures consistent performance.

Unique Advantages - Continued

6. **Efficient Waterproof System:** The internal chamber includes a patented diversion waterproof system, facilitating thorough flushing without leaving inaccessible areas. This design simplifies cleaning, eliminating the need for special tools.

7. **High-Performance Motor:** It's equipped with a high-quality servo motor renowned for precise speed control, excellent high-speed performance, and robust stability. The integrated filter magnetic ring effectively shields the equipment from external interference, enhancing its intrinsic stability. The motor's specific amplitude ensures thorough mixing of micro-liquids within the chamber.

8. **Eco-Friendly Refrigeration:** The unit employs imported, high-quality compressors and nitrogen-free, environmentally friendly refrigerants. These components work quietly while delivering effective refrigeration, ensuring reliable long-term operation at low temperatures without frost or icing.

9. **Safety and Convenience:** A user-friendly feature halts or slows equipment operation when the lid is opened, enhancing safety and reducing stress on sensitive samples.

10. **Humidity Control:** An optional built-in humidity control module requires minimal space and can be paired with an external water replenishing bucket for automatic hydration. A high-precision humidity probe enables the chamber's humidity to reach 95% under standard cultivation conditions, effectively preventing sample volatilization. Real-time humidity monitoring is also available.



UMSI-HT-2T



UMSI-HT-3T

Technical Specifications

Model	UMSI-HT-1T	UMSI-HT-2T	UMSI-HT-3T
Number of overlays	1 layer	2 layers	3 layers
Type	Stacked		
Display	LCD touchscreen		
Rotation speed	60-1200rpm		
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		
Sterilization method	UV sterilization		
Tray size	522×377mm		
Tray capacity of shake flask	96-well microplate×16pcs	(96-well microplate×16pcs)×2	(96-well microplate×16pcs)×3
Illumination	FI tube, 30W		
Heating power	400W		
Cooling power	132W		
Power supply	AC220V±10%, 50-60Hz		
Timing function	0-999.9hours		
Net weight	128kg/Layer	239kg/Layer	349kg/Layer
Dimension(W×D×H)	899×712×740mm	899×712×1168mm	899×712×1717mm
Package size(W×D×H)	1030×860×760mm		
Gross weight	157kg/Layer		
Optional	Shading device, 90 °C high temperature module, embedded printer		