BioGrowth
Large Capacity Horizontal Incubator Shaker

Introduction

Elevate your laboratory work with our advanced equipment. The integrated LCD touch screen simplifies parameter configuration and monitoring, making it intuitive for users. You can precisely set culture durations using the built-in timing function, granting flexibility for experiments. The robust three-wheel drive system guarantees smooth, quiet, and reliable operation while incorporating essential safety features like over-temperature alarms and automatic power-off recovery. The hollow tempered glass door allows 360° observation without opening it. The sleek design offers easy cleaning with a stainless steel interior and an exterior that's corrosion-resistant. Security is enhanced with encryption, and side-mounted debugging holes facilitate oxygen supply without opening the main door. Plus, the equipment includes lighting and UV sterilization functions for added convenience. Welcome to a new era of laboratory equipment.

Product Features

1. **Efficient Touch Screen Interface:** The LCD touch screen provides a unified platform to set temperature, speed, time, actual temperature, speed, and remaining time simultaneously. This intuitive design eliminates the need for switching between interfaces. It also allows you to freely configure the rocker's rotation direction and control the forced convection fan, choosing between continuous operation, automatic mode, or deactivation.

2. **Customizable Culture Time:** The equipment comes equipped with a handy timing function, enabling users to set the culture time as needed within the range of 0 to 999.9 hours.

3. **Smooth and Reliable Three-Wheel Drive:** It employs a three-dimensional integrated three-wheel drive system, ensuring a smooth, stable, durable, reliable, and quiet operation.

4. **Safety Features:** The equipment is equipped with an over-temperature alarm function and an automatic power-off feature to respond to abnormal situations. Furthermore, it includes a power-off recovery function to prevent data loss due to power interruptions and crashes.

Product Features - Continued

5. **360° Observation:** A hollow tempered glass door allows you to effortlessly observe the interior of the unit from all angles, eliminating the need to open the door for inspection.

6. **Hygienic Design:** The equipment boasts an appealing arc-shaped exterior. Internally, it features a lining constructed from 304 brushed anti-corrosion stainless steel with rounded corners, which not only simplifies cleaning but also inhibits bacterial growth. The outer shell is coated with electrostatic spray plastic to prevent corrosion.

7. **Secure User Interface:** The operation interface is safeguarded with encryption and locking features to prevent unintended and repeated operations, minimizing the risk of human errors.

8. **Technical Convenience:** The unit is equipped with debugging holes on the side, enabling the adjustment of oxygen levels for samples without the need to open the main door. This feature also simplifies future technical certifications.

9. **Enhanced Functionality:** The equipment comes with built-in lighting and UV sterilization functions to provide comprehensive functionality.

Unique Advantages

1. **Safety and Convenience:** This equipment boasts a user-friendly design that prioritizes safety and ease of use. When you open the lid, it employs an instant stop and a slow stop mechanism, significantly reducing the shearing force on cells and enhancing overall stability.

2. **Optimized Temperature Distribution:** A fan-shaped circulation system is incorporated to ensure a uniform temperature distribution throughout the entire chamber, guaranteeing consistent and reliable experimental conditions.

3. **Data Memory and Export:** The unit is equipped with a data memory function that records temperature and rotational speed data on a per-minute basis. This data is utilized to create historical records and real-time curve graphs, simplifying the observation and analysis of temperature and rotational speed effects during experiments. Users can conveniently store this data for up to 12 months and effortlessly import or export it via a USB interface.

4. **Smart Control:** The equipment utilizes PLC microcomputer intelligent control, offering the flexibility to add programs at any time to meet user-specific requirements. This intelligent system also allows for upgrades to programming operations, ensuring adaptability.

5. **Innovative Waterproof Design:** It features a built-in diversion waterproof system, enabling complete waterproofing and thorough flushing of the internal cavity. This unique design eliminates dead ends, making cleaning a breeze and eliminating the need for specialized tools. This design is patented for its effectiveness.

Unique Advantages - Continued

6. **High-Quality Servo Motors:** The equipment is equipped with high-quality servo motors known for their precision in controlling speed and impressive stability. These motors also include a built-in filter magnetic ring, effectively shielding the equipment from external interference and bolstering its internal stability.

7. **Environmentally Friendly Cooling:** It incorporates imported high-quality compressors and nitrogen-free, eco-friendly refrigerants. These components work in harmony, generating low noise and providing efficient refrigeration. This ensures that the equipment operates smoothly at low temperatures for extended periods without frost or icing concerns.

Technical Specifications

Model	UMSI-LHZ-1T	UMSI-LHZ-1TR
Number of overlays	1 layer	1 layer
Type	Horizontal	
Display	LCD touchscreen	
Rotation speed	10-300rpm	
Speed control accuracy	1rpm	
Shaking throw	26mm	
Temperature control mode	PLC control mode	
Temperature control range	RT＋5-60℃	4-60℃
Temperature display resolution	0.1℃	
Temperature fluctuation	±0.1℃	
Temperature field uniformity	±0.8℃@37℃	
Ambient temperature	5-35℃	
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	FI tube, 30W	
Power supply	AC220V±10％，50-60Hz	
Timing function	0-999.9hours	
Net weight	165KGS	179KGS
Dimension(W×D×H)	1331×755×710mm	
Optional	Shading device, 90℃ high temperature module, embedded printer	