CellPro
Compact Stackable Incubator Shaker

Introduction

The CellPro Compact Stackable Incubator Shaker offers versatility for various cell culture needs, accommodating CHO, hybridoma, mammalian cells, insect cells, and more, making it the go-to solution for comprehensive biological cultures before the fermenter stage. With advanced bearing technology, it ensures a stable and impressively quiet startup, even when multiple units are stacked, eliminating disruptive vibrations. Its innovative air circulation system guarantees precise temperature field uniformity. Furthermore, its stackable design allows for up to 2 or 3 layers, optimizing laboratory space.

Product Features

1. **Versatile Layered Design:** Choose from one, two, or three layers, providing users with maximum storage space while occupying minimal floor space. Each layer offers independent temperature and rotation speed control, allowing users to set customized conditions as needed.

2. **Clear Observation:** The hollow tempered glass door ensures easy, uninterrupted viewing of the interior from all angles without the need to open the door.

3. **Efficient Three-Wheel Drive:** Utilizes a three-dimensional integrated partial three-wheel drive system for smooth, stable, and dependable operation.

4. **Safety Features:** Equipped with an over-temperature alarm and automatic power-off function to respond to abnormal situations. It also offers power-off recovery functionality to prevent data loss due to power interruptions or crashes.

5. **Sleek and Hygienic Design:** The streamlined exterior features a 304 mirror stainless steel interior, while the arc corner design simplifies cleaning and prevents bacterial growth. The outer shell is constructed with electrostatic spray plastic for added durability.

Product Features - Continued

6. **Secure and Convenient Interface:** The operation interface is encrypted and locked to prevent unintended actions and human errors. It also supports time accumulation and timing functions for added convenience.

7. **Oxygen Supply:** A dedicated oxygen hole on the side eliminates the need to open the door to meet the oxygen requirements of the samples.

8. **Enhanced Functionality:** This unit includes built-in lighting and UV sterilization functions for added versatility and convenience.

Unique Advantages

1. **Precise CO2 Control:** Utilizes an imported infrared CO2 sensor for automatic CO2 concentration control, delivering exceptional sensitivity and precision. Equipped with a controller and solenoid valve, users simply require a CO2 gas source for immediate use.

2. **CO2 Gas Purity:** Features a CO2 air inlet filtration system, effectively eliminating particulate impurities, microorganisms, and other contaminants from external CO2 gas sources.

3. **Intuitive LCD Interface:** Boasts an LCD touch screen interface for seamless control of CO2 concentration, temperature, speed, and time. Real-time feedback on CO2 concentration, temperature, speed, and remaining time is displayed on the same interface, enhancing user-friendliness. The touch screen offers options for rocker rotation direction, real-time time accumulation, timing functions, and control of the convection fan.

4. **Data Recording and Storage:** Employs a data memory function to record minute-by-minute temperature and rotational speed data in real-time, generating historical data and real-time curve graphs. This aids in monitoring and analyzing temperature and speed effects during experiments. Data can be stored for up to 3 months and easily imported/exported via the USB interface.

5. **Flexible Programmability:** Utilizes PLC microcomputer intelligent control, allowing users to add or modify programs at any time to meet specific requirements.

6. **Uniform Temperature Distribution:** Features a patented precision three-channel hot and cold gas mixing circulation air duct design to ensure consistent temperature distribution throughout the chamber.

7. **Enhanced Stability:** Incorporates a patented self-balancing system design to enhance machine stability and extend its service life.

Unique Advantages - Continued

8. **Effortless Cleaning:** Equipped with a built-in diversion waterproof system that enables thorough, tool-free cleaning of the internal cavity without any dead ends. This feature is also patented.

9. **Safety and Convenience:** Includes an instant-stop or slow-stop function when the lid is opened, ensuring safer and more stable operation by reducing shear forces on cells.

10. **Ambient Temperature Display:** Features a real-time display of the ambient temperature on the panel, facilitating precise temperature control within the chamber.

11. **User Management:** Allows for the setting of three or more levels of management permissions, each with independent usernames and passwords for login, security permission configuration, parameter adjustment, and data access.

12. **Optional Humidity Control:** Offers an optional built-in active humidity control module, minimizing space requirements. An external water replenishing bucket enables automatic water replenishment. High-precision humidity probes maintain humidity levels of up to 95% at 37°C during normal culture, effectively inhibiting sample volatilization. Real-time humidity monitoring is also provided.

UMSI-166-2TC

UMSI-166-3TC

Technical Specifications

Model	UMSI-166-1TC	UMSI-166-2TC	UMSI-166-3TC
Number of overlays	1 layer	2 layers	3 layers
Control interface	LCD touchscreen		
Rotation speed	10-250rpm		
Speed control accuracy	1rpm		
Shaking throw	50mm Standard/26mm Optional		
Maximum load	50kg		
Volumn	166L		
Temperature control mode	PLC control mode		
Temperature control range	4-60℃		
Temperature display resolution	0.1℃		
Temperature fluctuation	±0.1℃		
Temperature field uniformity	±0.5℃@37℃		
Working environment temperature	5-35℃		
CO_2 measurement principle	IR sensor detection		
CO_2 control range	0-20%		
CO_2 display resolution	0.1%		
CO_2 supply	0.05-0.1MPa is recommended		
Sterilization method	UV sterilization		
Tray size	581×520mm		
Tray capacity of shake flask	250ml×42　　500ml×25　　1000ml×17　2000ml×9　　3000ml×7		
Illumination	FI tube, 30W		
Heating power	600W		
Cooling power	278W		
Power supply	AC220V±10％，50-60Hz		
Timing function	0-999.9hours		
Data export interface	USB interface		
Historical data storage	Three months		
Push-pull blackout curtain	Optional		
Dimension(W×D×H)	999×795×661mm		
Net weight	153KG		
Package size(W×D×H)	1130×935×830mm		
Gross weight	183kg		