BL **BLANCLABO**
laboratory equipment

LABWIT®

HUMIDITY CONTROL

CO₂ CONTROL

ADJ. SHAKING DIAMETER

TCS
TEMP. CONTROL SYSTEM

TOUCH SCREEN DISPLAY
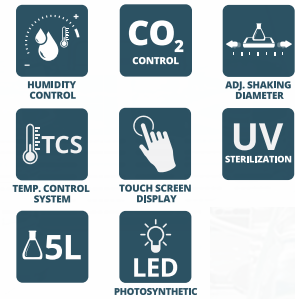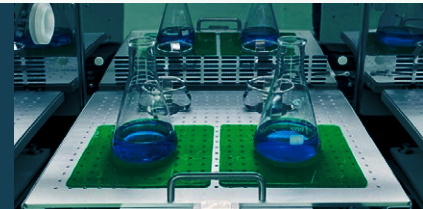
UV STERILIZATION

5L

LED PHOTOSYNTHETIC

ZWYC-293G

ULTRA COMPACT STACKABLE
Shaking Incubator

The Ultra ZWYC-293G offers comprehensive solutions for shaking cultivations on small foot print, including active humidity and CO_2 control technology, offering exceptional flexibility, allowing for traditional shaking incubations with flasks and tubes, as well as micro-volume high-throughput microbial screening with 96-well plates.

Features

Intuitive Operation with Smart Controller

The new version features 7.0" large touch screen with resolution (800x480 Pixels) and brightness (250 nit), making experiment programming and monitoring even more effortless.

Customize operational parameters and track real-time parameter, ensuring precise control over your samples' environment. PID microprocessor controller provide precise temperature control accuracy of 0.1°C. Programmable mode enables to customize and to auto-mate changes to multiple segments of different tempera-ture and speeds setpoints.

Easy Cleaning Chamber and Contamination Control

► The chamber is made of quality stainless steel with rounded corners, allowing for easy cleaning and durability.

► The chamber bottom is designed to catch and drain excess water and liquid spills in case of any breakages through the outlet on the side.

► The UV lights sterilizes the chamber with germicidal irradiation to maintain contamination-free conditions. Interlocked with door switch, the UV lights turns off automatically when door is opened to protect user's safety.

Maximized Capacity with Minimized Footprint

Ideal for benchtop and under-bench, but still up to two ZWYC-293G can be stacked for maximized shaking capacity with minimized floor space. Each unit runs independently. There is no special tools or kits necessary for stacking operation. Compatible to stack with former Premium Compact ZWYR-293.

Direct Beltless Driving System

Direct beltless driving system together with brushless DC motor provides quiet and vibration free shaking motion even when unit is operating at top speed with maximum workload.
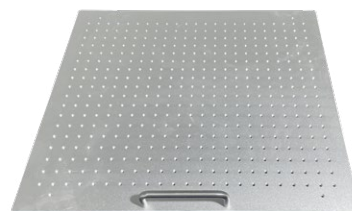
www.blanc-labo.com

Flexible Shaking Diameter Options:

Ø1-50mm Stepless Adjustable (standard): Allowing to handle an extensive range of sample types and sizes, tailor the shaking conditions to your exact specifications, from small vials to large flasks or multi-well plates, from gentle swirling to vigorous agitation from 30-300rpm.

Ø3mm for Microplates (Option): Featuring optimal mixing of contents in microplates and deep well plates up to 1200rpm, achieving efficient oxygenation in each of the wells.
This model revolutionizes cell culture technology by aligning with the trends of automation and high precision in handling and analytical work through high-throughput microbial screening.

Stepless Adjustable Shaking Diameter
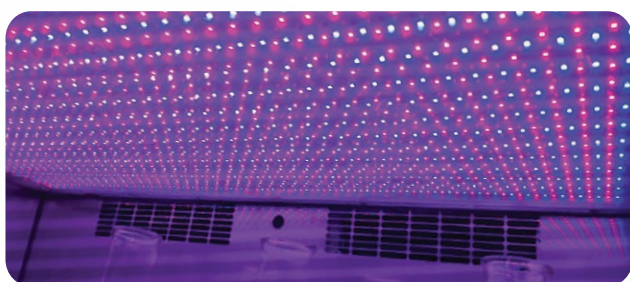
Predrilled Tray

Extended Chamber Capacity

► One piece of static shelf with adjustable positions (10-20cm from ceiling, 5 levels) included as standard, providing extra flexibility for static incubation.
► Plain shaking tray is also available as option for use together with stick mats (Max. 4pcs).
► With internal height above the shaking tray of 415mm to the ceiling, the unit is compatible with 5L flasks even when the photosynthetic LED lighting panel is installed.

Capacity	P8021 50ml	P8022 100ml	P8023 250ml	P8024 500ml	P8026 1000ml	P8027 2000ml	P8028 3000ml	P8029 5000ml	P8012 96 Well Plate	P8010 Tube Rack
Plain Tray	53	42	23	14	9	6	4	2	12	4
Predrilled Tray	33	33	23	14	9	6	4	2	12	4

Photosynthetic LED Lighting

► The photosynthetic LED lighting panel can be equipped for the cultivation of those phototrophic organisms, such as plant culture, algae, etc.
► Light panels with light intensity up to 220 μmol/(m2*s) guarantee even light distributions over the shaking tray.
► Available in Red & Blue, and Warm White.
► Easy programmable for day and night simulations.
► With height of 10mm, the light panel minimizes the impact on the useable internal height above the shaking tray.

Photosynthetic Lighting (Option)

Advanced CO$_2$ controlling with Infrared (IR) sensor (Option)

For cultivations of mammalian cells and algae, well maintained CO$_2$ concentration is crucial to keep the pH value of the solution media at healthy level.

Labwit incorporates a word class single beam, dual wavelength IR CO$_2$ sensor, which guarantees superior performance and accuracy under all situations.
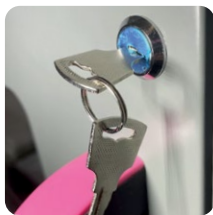
Data Logging

The units are equipped with USB Port as standard, so that operators could save all the operational parameters to the portable USB drive. The controller can save up to 5 days of data internally when USB drive is not connected.
Option: RS-485 interface, Built-in printer, TCP/IP interface.

Complete Protection For Cell Culture

This model has been designed to include many features for the comprehensive of the application and the sample safety, hence providing you with added peace of mind.

▶ Password protection before entering the "SET" page, and preventing unauthorized changes of critical settings.
▶ Key lock prevents unauthorized access to the valuable samples during cultivations.
▶ Automatic stop shaking motion, heating and cooling control when the door is opened.
▶ Sensor failure, door ajar alarm.
▶ Over-current and leakage protection.
▶ Non-volatile memory guarantees data integrity in the event of power interruption.
▶ Audible and visual alarm when parameter deviates from the set point.

Direct Injection Humidification System (Option)

Humidity is important for long term cell cultivations with flasks as well as where micro plates are used. Active controlled humidification system can effectively reduce evaporations during cultivation, hence, preventing the samples from drying out.
The humidification system of Ultra Compact features 140°C steam direct injection into the chamber and active PID control with world class humidity sensor for utmost accuracy of measurement.

Other Features

▶ Internal chamber equipped with lighting ensure complete visibility.
▶ Fully insulated chamber and door with double folded glass window optimize the energy efficiency.
▶ Φ50mm access port
▶ H15cm base stand.

Options:
H35cm cabinet base stand
(Single unit & Double Stack);
H50cm frame base stand
(Single unit only)

Specifications

Machine	
Outside (WxDxH)	840 x 764 x 625mm
Inside (WxDxH)	570 x 505 x 418mm
Volume	120L
Net / Gross Weight	120kg/165kg
Control Panel	7" (800 x 480) TFT Touch Screen
Illumination	LED
Language	English
Ambient Temperature (°C)	5-35°C
UV Light	254nm, 8W x 2 Pcs
Noise Level	<55 dB (1m above floor)
Power	765W
Electricity	AC 220-240 Volt, 50/60Hz
Data logging	USB port
Static Shelf	Standard, 1 piece
Base Stand	Standard: H 15cm Options: H 35cm or H 50cm
Key Lock	Yes, standard

Shaking Unit	
Drive Type	Direct Beltless Driving System
Tray Size (WxD)	500 x 400mm
Maximum Load	15kg
Speed Range	30-300 rpm
Speed Accuracy	±1 rpm
Timer	0 - 9999 mins
Shaking Mode	Orbital
Shaking Diameter	Ø1-50mm Stepless Adjustment

Temperature	
Control Mode	Fixed Value & Program
Temperature Range (°C)	Ambient - 20 to 60°C (Min. 4°C)#
Temperature Accuracy (°C)	0.1°C
Temperature Uniformity (°C)	±0.3°C @37°C
Principle of Sensor	PT100
Air Circulation	360m³/Hour
Recovery (@37°C)	8 mins (30 Seconds Door Opening)
Control Mode	Fixed Value & Program

CO_2 (Option)	
Part No.	P5054
Principle of Sensor	Infrared, NDIR
CO_2 Range	0-20%
CO_2 Accuracy	±0.15 @ 5.0%
Temperature Range	25-55°C
CO_2 Recovery (@5%)	5 mins (30 Seconds Door Opening)
Principle of Sensor	Infrared, NDIR
CO_2 Range	0-20%

Photosynthetic Lighting (Option)

Part NO.	P5031RB	P5031WW
Light Type	LED, 50% Red, 50% Blue	LED, 100% Warm White
Spectrum	Red: 640-660nm, Blue: 430-450nm	4000k: 400-700nm
Light Intensity	Up to 350 μmol/(m2*s)	Up to 220 μmol/(m2*s)
Control	Yes, Individually, from 0-100% output	Yes, from 0-100% output
Power	120W	
Control Mode	Fixed Value & Programmable	
Dimensions (WxDxH)	550 x 430 x 10mm	

Min. 15°C when Photosynthetic Lighting option is applied. With P5020, temperature range upgrade to 4-80°C, no UV light.

Humidity (Option)	
Part No.	P5053
Humidity Range	40-80%RH, at 25-55°C
Humidity Accuracy	0.1%RH
Humidity Uniformity	±3%RH
Principle of Sensor	Capacitive
System	Direct Steam Injection

Ø3mm Shaking Diameter (Option)	
Part No.	P5052
Shaking Speed	100-1200rpm
Shaking Tray	96 Well Plate Tray (P6050)
Tray Size (WxD)	530 x 435mm
Max. Capacity	96 Deep Well Plate: 2x16 pcs

	Order Information
ZWYC-293G	120L, Ultra Compact Shaking Incubator, 4-60°C
P4003	Built-in Printer
P5053	Direct Steam Humidification Kit for ZWYC-293G
P5054	IR CO_2 Kit for ZWYC-293G
P5016	RS-485 Interface
P5020	Temperature Upgrade, 80°C, for ZWYR-D2401; ZWYC/R-293
P5031RB	LED Lighting Panel and Control Kit, Red & Blue for ZWYC/R-293
P5031WW	LED Lighting Panel and Control Kit, Warm White for ZWYC/R-293
P5032-35	Cabinet Base Stand for ZWYR-293, ZWYC-293G, 840x710x350mm
P5032-50	Frame Base Stand for ZWYR-293, ZWYC-293G, 840x710x500mm
P5033	TCP/IP interface
P5052	Ø3mm Shaking Diameter for ZWYC-293G, 150-1200rpm, with P6050 x 1

P6040	Tray for ZWYC/R-293, 500x400mm, Predrilled	P8023	O Clamp, S/S, for 250ml Flask, with Spring Retainer
P6041	Tray for ZWYC/R-293, 500x400mm, Plain	P8024	O Clamp, S/S, for 500ml Flask, with Spring Retainer
P6050	96 Well Plate Tray for ZWYC-293G, 530x435mm	P8025	O Clamp, S/S, for 750ml Flask, with Spring Retainer
P7029	Universal Spring Pallet for: ZWYR-293, ZWYC-293G, 500x400mm	P8026	O Clamp, S/S, for 1000ml Flask, with Spring Retainer
		P8027	O Clamp, S/S, for 2000ml Flask, with Spring Retainer
P8010	Tube Rack S/S	P8028	O Clamp, S/S, for 3000ml Flask, with Spring Retainer
P8011	Tube Rack ABS Plastic	P8029	O Clamp, S/S, for 5000ml Flask, with Spring Retainer
P8032	O Clamp for 96 Well Plate, S/S	P8022	O Clamp, S/S, for 100ml Flask, with Spring Retainer
P8017	Sticky Mat, 20 x 20cm	P8023	O Clamp, S/S, for 250ml Flask, with Spring Retainer
P8022	O Clamp, S/S, for 100ml Flask, with Spring Retainer	P8024	O Clamp, S/S, for 500ml Flask, with Spring Retainer

Labwit quality assurance program demands the continuous assessment and improvement of all Labwit products. The information in this leaflet could thus change without notification and does not constitute a product specification. Please contact Labwit or any of their representatives if you require more details.