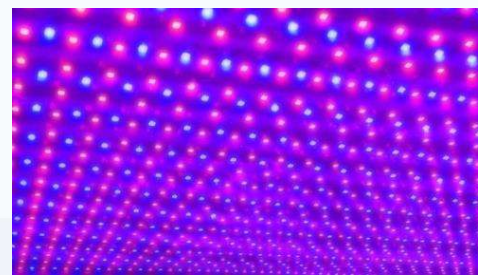




PREMIUM  
COMPACT  
STACKABLE  
**Shaking Incubator**

**Advanced Expert  
of Cell Culture Incubation**



ACCURACY - RELIABILITY - FLEXIBILITY

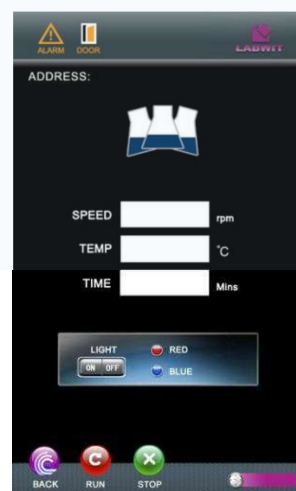
## Introduction

The new ZWYR-293 represents a significant advancement in research technology, offering a range of new upgrades designed to streamline your experiments and elevate your scientific discoveries. With this cutting-edge instrument, we are confident that you will achieve unparalleled precision, efficiency, and reproducibility in your research endeavors.

## Features

### **New** Intuitive Operation with Smart Controller

The new version features 7.0" large touch screen with higher resolution (800x480 Pixel) and brightness (250 nit), making experiment programming and monitoring even more effortless. Customize operational parameters and track real-time parameter, all at your fingertips, ensuring precise control over your samples' environment.



Large 7" Touch Screen

### Maximized Capacity with Minimized Footprint

Ideal for benchtop and under-bench, but still up to two ZWYR-293 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.



Maximized Chamber Capacity

### Direct Beltless Driving System

Direct beltless driving system together with brushless DC motor provides quiet and vibration free shaking motion, allows extended speed ranges from 30 to 300 RPM,  $\pm 1$  RPM, even when unit is operating at top speed with maximum workload.



Stepless Adjustable Shaking Diameter

### **New** Stepless Adjustable Shaking Diameter

The shaking diameter can be changed from  $\varnothing 1$ -50mm, allowing to handle an even more 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.

### Extended Chamber Capacity

- The predrilled shaking tray (500x400mm) is included as standard accessory, taking up to 9 pcs of 1L Erlenmeyer flasks.
- 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.

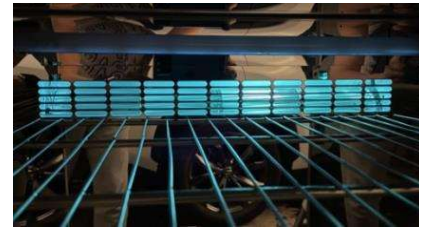


Predrilled Tray

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

### Easy Cleaning Chamber and Contamination Control

- The chamber is made of quality stainless steel, easy to clean and durable to use.
- 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 sterilization system is isolated from the samples, sterilizes chamber air in the back chamber wall to maintain contamination-free conditions within the chamber even when chamber is loaded.



UV Light

### Photosynthetic LED Lightings

- The photosynthetic LED lighting panel can be equipped for the cultivation of those phototrophic organisms, such as plant culture, algae, etc. Light panels available in warm white and blue & red, with light intensity up to 220  $\mu\text{mol}/(\text{m}^2 \cdot \text{s})$ . Even light distributions over the shaking tray. 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)

### 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.

- New** • 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.



Password Protection

### 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.

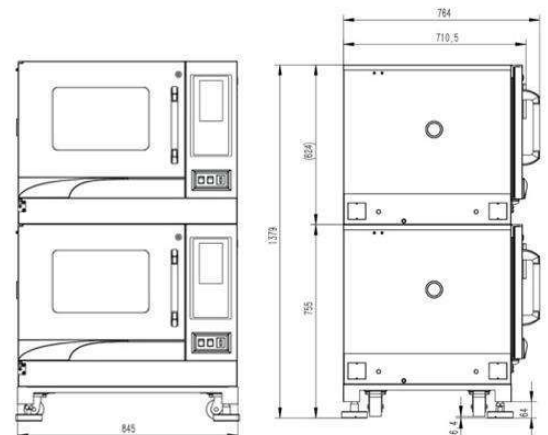
Option: RS-485 interface, Built-in printer, TCP/IP interface.



### Other Features

- Internal chamber equipped with lighting ensure complete visibility.
- Fully insulated chamber and door with double folded glass window optimize the energy efficiency.
- $\Phi 50\text{mm}$  access port
- One piece of predrilled shaking tray included as standard; clamps excluded.
- 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 TEMP.	5-35°C
UV Light	254nm, 11W
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: H15cm Options: H35cm or H50cm
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
Temp. Range	Ambient-15 to 60°C (Min. 4°C)#
Temp. Accuracy	0.1°C
Temp. Uniformity	±0.5°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

Photosynthetic Lighting		
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/(m <sup>2</sup> *s)	Up to 220 µmol/(m <sup>2</sup> *s)
Control	Yes, Individually, from 0-100% output	Yes, from 0-100% output
Power	120W	
Control Mode	Fixed Value & Programmable	
Dimensions (WxDxH)	550x430x10mm	
# Min. 15°C when Photosynthetic Lighting option is applied		

## Ordering Information

Part No.	Description
ZWYR-293	ZWYR-293, 120L, Premium Compact Shaking Incubator, 4-60°C, 30-300rpm
P5031RB	LED Lighting Panel and Control Kit, Red & Blue for ZWYR-293
P5031WW	LED Lighting Panel and Control Kit, Warm White for ZWYR-293
P5032-35	Cabinet Base Stand for ZWYR-293, 840x710x350mm
P5032-50	Frame Base Stand for ZWYR-293, 840x710x500mm
P6040	Tray for ZWYR-293, 500x400mm, Predrilled
P6041	Tray for ZWYR-293, 500x400mm, Plain
P7029	Universal Spring Pallet for ZWYR-293, 500x400mm
P8010	Tube Rack S/S
P8011	Tube Rack ABS Plastic
P8032	O Clamp for 96 Well Plate, S/S
P8017	Sticky Mat, 20 x 20cm

Part No.	Description
P8022	O Clamp, S/S, for 100ml Flask, with Spring Retainer
P8023	O Clamp, S/S, for 250ml Flask, with Spring Retainer
P8024	O Clamp, S/S, for 500ml Flask, with Spring Retainer
P8025	O Clamp, S/S, for 750ml Flask, with Spring Retainer
P8026	O Clamp, S/S, for 1000ml Flask, with Spring Retainer
P8027	O Clamp, S/S, for 2000ml Flask, with Spring Retainer
P8028	O Clamp, S/S, for 3000ml Flask, with Spring Retainer
P8029	O Clamp, S/S, for 5000ml Flask, with Spring Retainer
P4003	Built-in Printer
P5016	RS-485 Interface
P5033	TCP/IP interface
P8022	O Clamp, S/S, for 100ml Flask, with Spring Retainer
P8023	O Clamp, S/S, for 250ml 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. Information in this leaflet could thus change without notification and does not constitute a product specification. Please contact Labwit or their representatives if you require more details