


# Vertical Shaker & Incubator

## Scope of Application

The Vertical Shaker is a laboratory equipment that significantly improves space utilization through a double-layer vertical shaking plate design. It is primarily used for microbial culture (bacterial fermentation/vaccine development), cell research (stem cell expansion/drug screening), and biochemical reactions (enzyme kinetics/DNA hybridization). It meets the high-precision experimental requirements in the pharmaceutical, food, environmental protection, and scientific research fields.

## Structural Features

### Outer Casing

Integrates constant temperature incubation and shaking functions, saving space.The casing is made from selected cold-rolled steel plate base material, treated with an electrostatic baking paint process. This forms a dense protective layer on the surface which is hard, robust, and offers excellent rust resistance.

### Working Chamber

- A standard 25mm test port is located on the left side.
- Interior made of SUS304 stainless steel, mirror-polished.
- Shelf brackets feature a quick-release design for easy installation and removal.
- Equipped with interior lighting and UV sterilization function.

### Viewing Glass

Double-layer tempered glass viewing window allows clear observation of items inside the chamber while providing good thermal insulation.

## Control Panel

Microcomputer-based intelligent digital display temperature controller, offering high precision, no overshoot, multi-data display on a single screen, temperature calibration function, and timer function.

## Motor

Low-heat dissipation brushless DC motor ensures smooth and stable operation, with high starting torque, wide speed regulation, and maintenance-free operation.

## Fluorine-free Refrigeration

Selects well-known domestic compressors, uses fluorine-free refrigerant, features low noise and effective cooling.

## Safety System

Includes leakage protection, abnormal power failure (power-off recovery function), and over-temperature alarm.

## Optional Features

Needle printing function, USB storage interface.

## Clamps

Universal spring clamp, adhesive pad, or triangular flask clamp (choose one of the three).

| Model | LYC-180L-AC | LYC-280L-AC | LYC-600L-AC |
|---|---|---|---|
| Rotation Speed | 30–300 rpm | | |
| Speed Accuracy | ±1 rpm | | |
| Orbital Diameter/Amplitude | Φ26 mm | | |
| Standard Configuration (Flask Clamps) | 250ml × 40 pieces | 250ml × 70 pieces | 250ml × 120 pieces |
| Tray Quantity | 2 pcs | | |
| Tray Size | 50 × 35 cm | 74 × 46 cm | 97 × 76 cm |
| Rated Power | 950 W | 1100 W | 1500 W |
| Temperature Control Range | 4–60°C | | |
| Temperature Control Accuracy | ±0.1°C | | |
| Temperature Uniformity | ±1 (Tested at 25°C) | | |
| Temperature Resolution | 0.1°C | | |
| Timer Range | 1–9999 min | | |
| Power Supply | AC220V 50HZ | | |
| Inner Dimension (W×D×H) | 64 × 46 × 65 cm | 84 × 52 × 65 cm | 110 × 64 × 85 cm |
| Overall Dimension (W×D×H) | 76 × 70 × 120 cm | 95 × 78 × 120 cm | 122 × 84 × 120 cm |