

**YJ-S-1**

**Air Shower**

**Operation Manual**

# 1. Name of Equipment

Air Shower

# 2. Model

YJ-S-1

# 3. Introduction

Air showers are specialized antechambers which personnel need to pass through before entering clean rooms in order to decontaminate. Decontamination is done by clearing off dust and dirt particles from bodies of clean room personnel to minimize contamination of equipment or products.

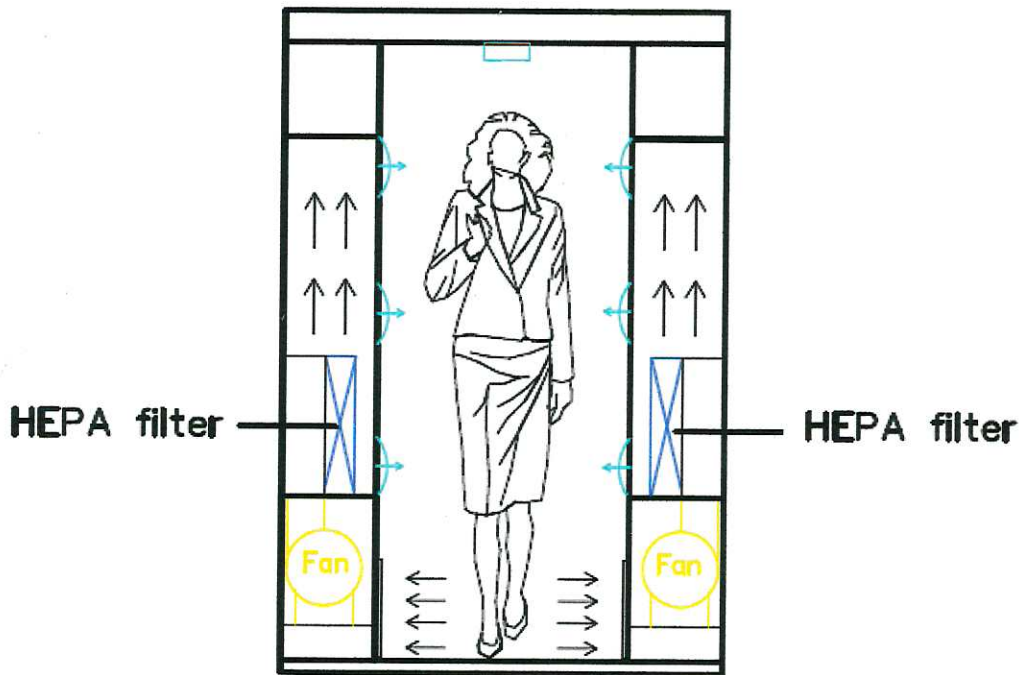
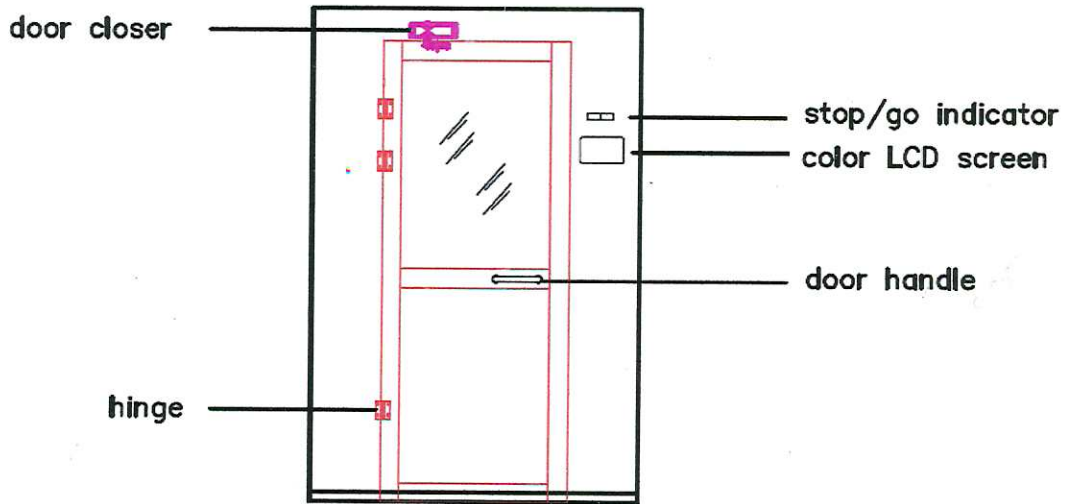
In fields where sterile or dust-free conditions are critical, for example, life science and biomedical research, pharmaceutical, parenteral drug, microelectronics, aerospace and precision manufacturing, air showers are considered essential equipment.

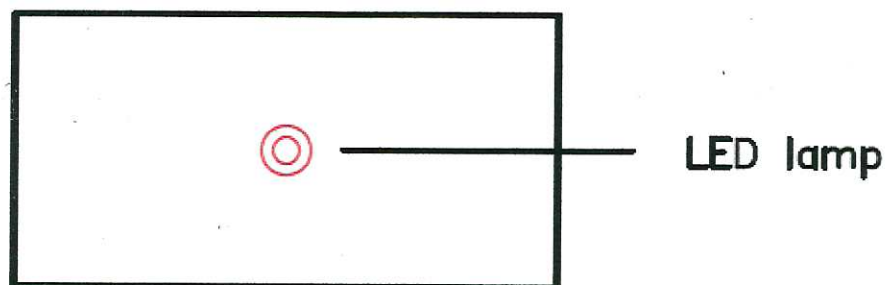
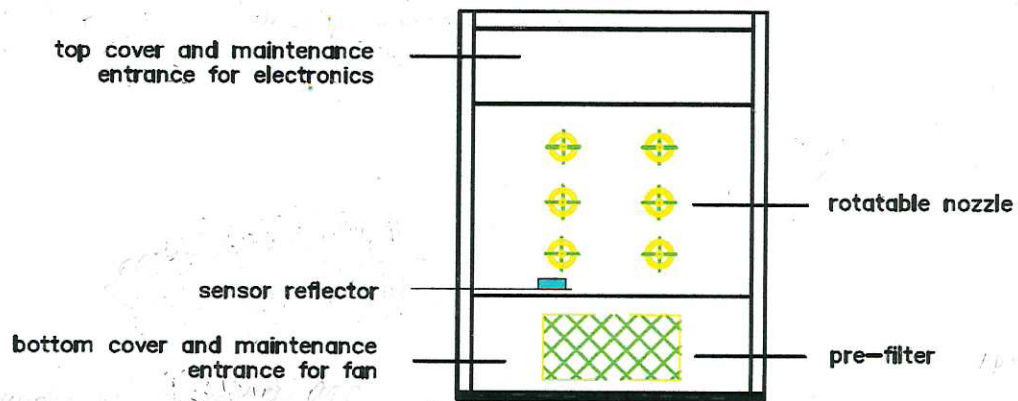
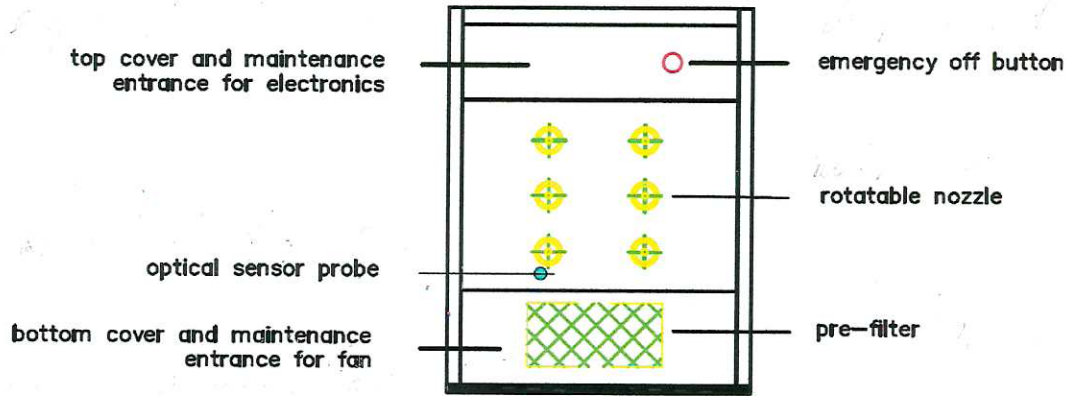
# 4. Principle of Work

Air in air shower is pressed into static pressure chamber through pre-filter by low noise centrifugal fan, then pressed out by HEPA filter. The clean air sprays out from left and right sides through rotatable nozzles after HEPA filter, blowing off the dust from body, then intaked into pre-filter by blower. The dust is absorbed by pre-filter and HEPA filter. Clean air sprays out from nozzle again. It's an inner circulation.

# 5. Main Structures

air shower cabinet	top cabinet	door
electronic control plate	color LCD screen	electronic interlock
connection wire	indicator light	lamp
basement	low noise centrifugal fan	HEPA filter
pre-filter	door closer	door handle
sensor reflector	rotatable nozzle	optical sensor probe
emergency off button		





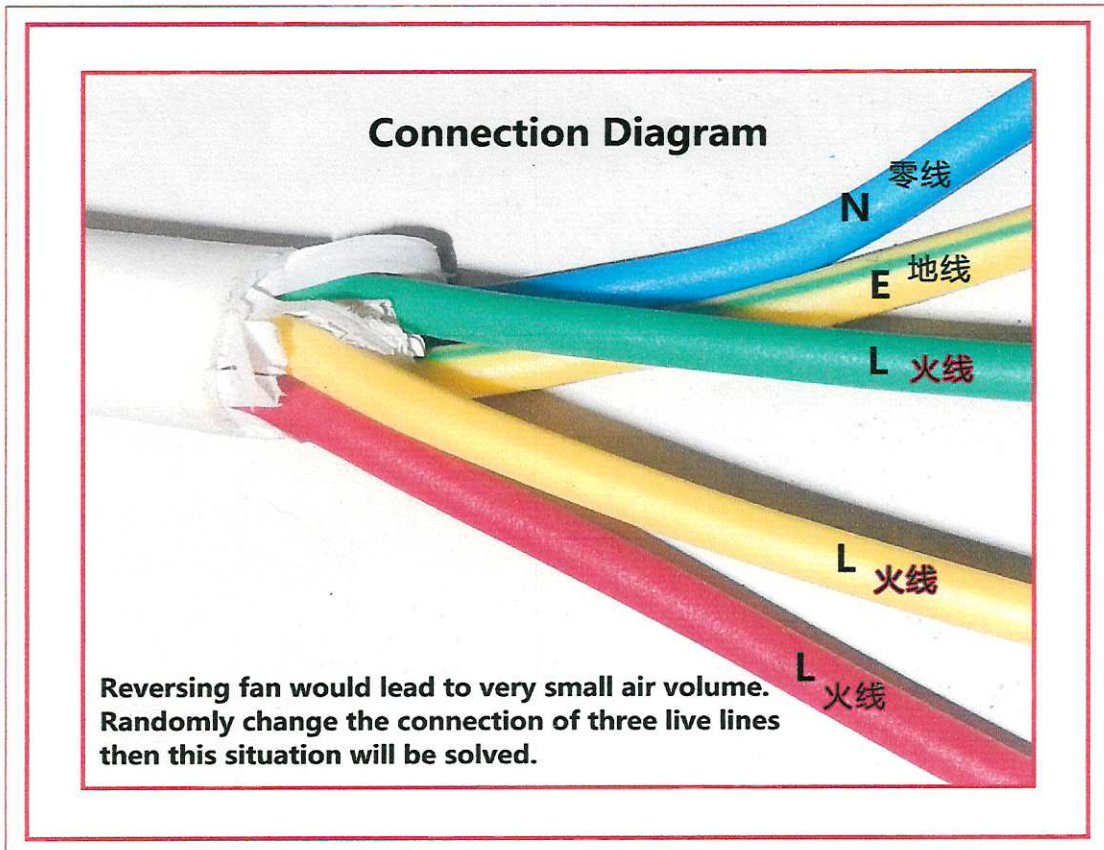
## 6. General Specifications

External Dimensions (W*D*H)	1400*1000*2100 mm
Air Shower Area Dimensions (W*D*H)	800*900*1960 mm
Material	SUS304
Airflow Velocity	>22 m/s
Number of Nozzles	12 (left: 6, right: 6), rotatable
Air Shower Duration	0-99 seconds (adjustable)

Persons Per Cycle	1
Filtration Elements	Pre-filter, 2 pcs; HEPA filter, 2 pcs
Lamp	1 pc
Fan	0.55 KW/set, 2 sets
Display Screen Functions	Interlock Status Reminder of HEPA Filter Replacement Lighting Time Adjustment Showering Time Adjustment Time Setting
Power Consumption	380V/50Hz, three-phase

## 7. Installation

Finished product doesn't need installation on-the-site. Connect power cords. It should put foam rubber at the joint of the air shower and clean room to ensure good seal. Red, yellow, green lines: L-line; Blue line: N-line; Yellow line with pattern: E-line.



## **8. Operating Features**

- 1) YJ-S-1 air shower is equipped with electronic interlock function. When front door is open, back door is auto-closed. Vice versa. Front door and back door can not be opened at the same time.
- 2) Stop/go indicator to show the people flow.
- 3) Lighting time and shower time adjustment. Press **Parameter Setting** on the bottom left corner of the screen. Then press the part where numbers of lighting time and shower time shown. Digital keyboard pops up. Input the number you need to adjust them.
- 4) Emergency off button inside the air shower cabinet. If emergency happens when blowing, press it, the interlock will be unlocked immediately. People can push the door and leave the air shower. Twist it to make the air shower system back to normal status.

## **9. Operating Process for Entering into Clean Area**

- 1) Open front door, back door is closed at the same time.
- 2) Enter into air shower, close front door. When optical sensor detects worker, it starts blowing meanwhile. Two doors can't be opened during blowing.
- 3) After finishing blowing, open back door manually, front door is locked. Then close back door, leave air shower room, enter into clean room.
- 4) The air shower raises alarm if workers enter into it without closing the door.

## **10. Maintenance**

- 1) Front door and back door can not be opened at the same time. Close the door after entering into the air shower to prevent damage.
- 2) Two doors are locked during blowing. It is not allowed to open doors during this period, otherwise it will cause lock out of control.
- 3) If pre-filter turns black and has dust in surface, please clean non-woven fabrics

which is inside of the pre-filter or change a new one.

- 5) When finding the reminding of HEPA filter replacement, please change it.
- 6) Pull down adjustable plate of nozzle when changing HEPA filter. Take it out, then place a new one. Please pay attention to arrow mark on high efficiency filter. The arrow direction is airflow direction.
- 7) The grade and specification for new HEPA filter should be the same with the old one. Be careful while installing. Don't break the frame.
- 8) Ensure no leaking between filter and frame after changing new HEPA filter.
- 9) Electric wires should be inspected regularly.

## **11. Warranty**

One year, life time service.