

**Attention: Before operating, checking-up and maintaining, user should read this operating manual carefully, please. The person who is not familiar with the product may not operate. Keeping the manual for reference.**

## **BSS Air Shower**

# **OPERATING MANUAL**

**SUZHOU BAISHEN TECHNOLOGY CO., LTD.**

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## 1. Prologue

The air shower is setup clean passageway; it is used for blowing off dust, which is attached with person body and vehicle. Also it is used as air lock, it can protect unpurifying air into cleaning zone.

## 2. Safety Proceeding

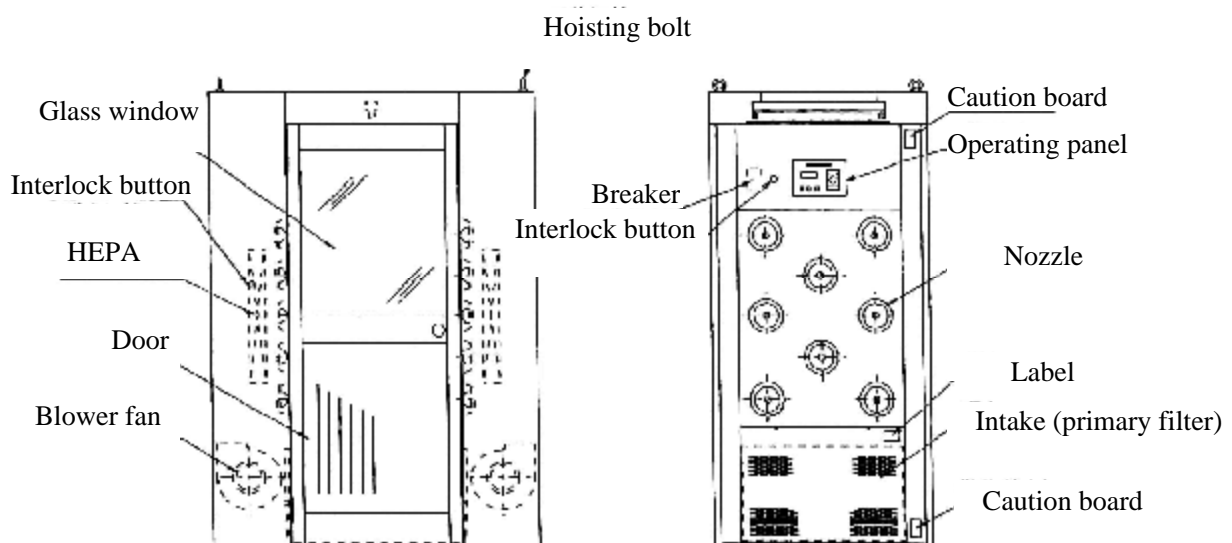
Admonition denotes classify

As safety precaution. Following table lists the alarm board, strict observe, please.

	Danger	Must set alarm board where can occur death or grievous bodily harm
	Alarm	Must set alarm board where can occur potential danger of death or grievous bodily harm
	Notice	Must set alarm board where can occur potential danger of flesh wound or middling damage.

●It is emphasized several outlines avoiding danger. In addition, it includes preventive action.

## 3.equipment structure



**Remark: specification and dimension refer to outline plot**

## **4. Air Clean Element**

Air shower ----- primary filter (coarse dispose)----- Blower fan

(Compression and blowing)----HEPA (microdots dispose)---nozzles (blast)

### **Primary filter**

It made of synthetic fiber. As HEPA's pre-processing for removing coarse dust.

### **Blow fan**

Japan style fan (2 grade), it features high static pressure.

### **HEPA**

It can be removed greater than 0.3  $\mu$  m particle dust (99.99%filtering efficiency), provide high cleanse air.

### ***Note:***

HEPA's material is damaged easily, please take care it when you operate.

### **Nozzle**

Filtered air by HEPA jets from air shower nozzles with high velocity; high-pressure air from nozzles can effectively blow off dust with person body. Nozzles angles can be adjustable.

## **5. Installing Affirm And Measure**

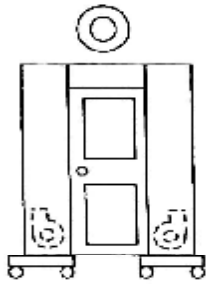
5.1 According to following explain to put the equipment into the site.

“O” Using this label measure to transit the equipment

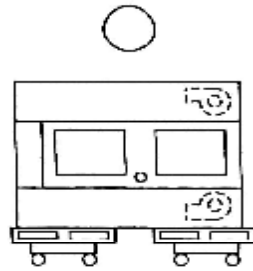
“X” Using the label measure to make the equipment distortion and dilapidation.

**Alarm:** when insulating, please confirm that the operating is under safe condition.

**Note:** misapplication of forklift may lead to air shower distortion and dilapidation.



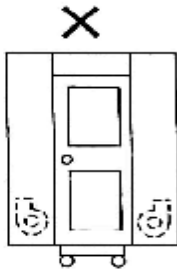
Carry it at two sides by two forklifts



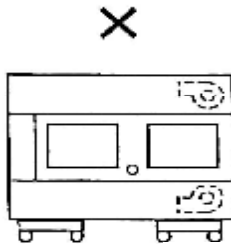
Put it across on the salver to carry by two forklifts

AS-0810.0810MDF

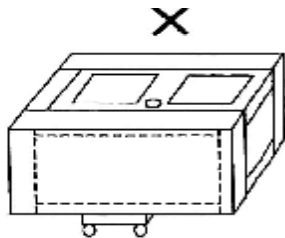
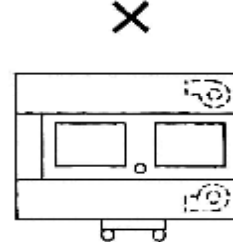
The others ban to put it across



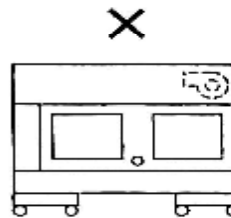
Carry it under the motherboard by two forklifts



Carry it with cross direction by forklift



Carry it at the door by forklift



Carry it at no fan part by forklift

## 5.2 Affirm of installation

5.2.1 Motherboard level, they must keep a right angle between wall and motherboard.

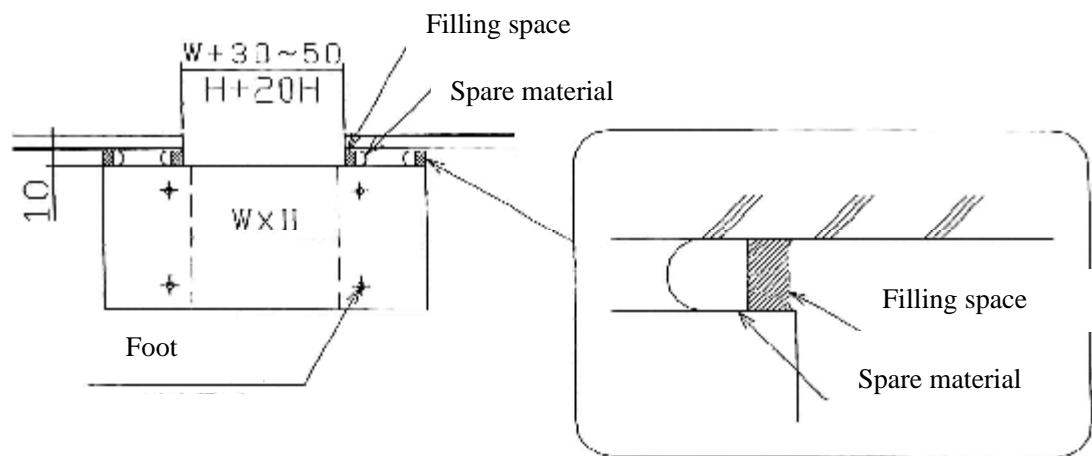
5.2.2 If motherboard isn't level, put the equipment wandering it will lead the body deflection or open and close the door obstacle

5.2.3 Adjusting horizontal according to space, correcting motherboard

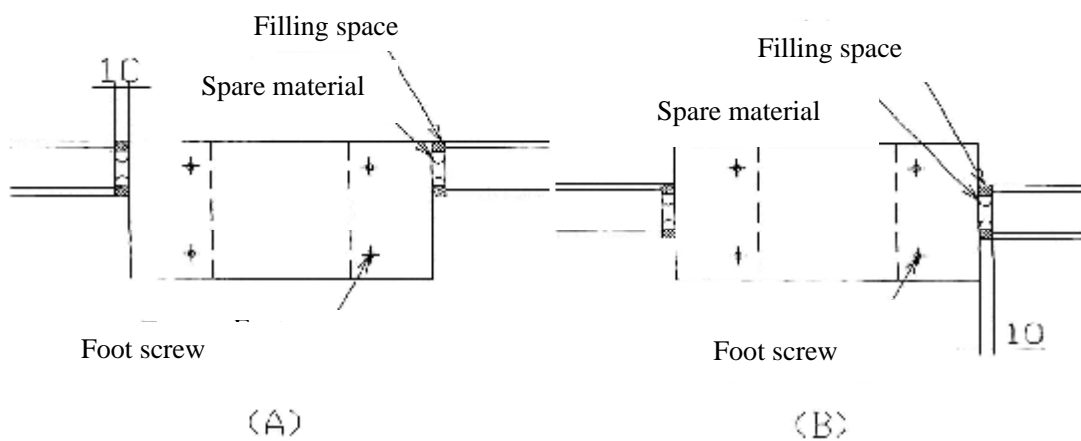
**Alarm:** when installing, please confirm that the operating is under safe condition.

## Installing example:

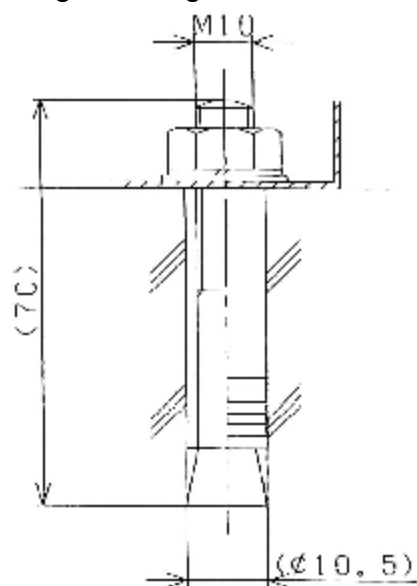
### ① Installing against wall



### ② Built-in wall installing



### ③ Processing for fixing bottom of the body



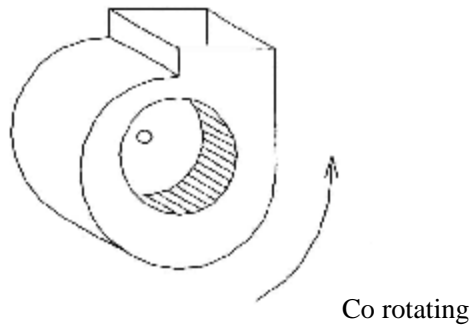
- a. Confirm installing position, deposit the air shower body
- b. Remove the suction opening
- c. Confirm the installing hole then bore hole by electric drill (recommend M10)
- d. Level up the gasket, screw down the bolts by spanner
- e. Fix suction opening

Different screw manufactory, there is different dimension, please pay attention to it in the construction.

### 5.3 Power supply connection

AC380v 3 phase 50/60Hz, please confirm blow fan running direction at first, then connecting

**Alarm:** As safety precaution. Always cut off the power supply before operating it.



The ground terminal of the power socket must be seriously grounded to ensure the safety of workers

## 6. Operating

### 6.1 Operating panel

6.1.1 The power switch is located at front panel of air shower; press the power switch to turn the air shower on or off.

6.1.2 Manual and auto switch

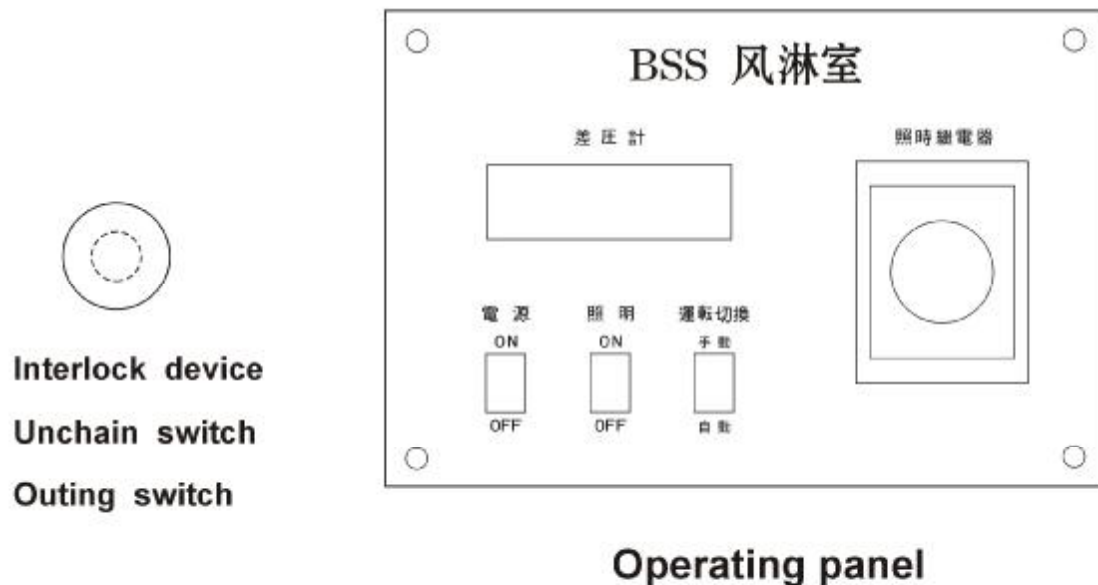
6.1.3 Lighting switch

6.1.4 Time relay: set the running time is between 0—60s

6.1.5 Differential pressure meter: being applicable for measurement of air differential pressure. It can display loss of pressure for HEPA.

6.1.6 Outing button: when person is in air shower room, press the button, please step out from the low cleanliness side.

6.1.7 Interlock relieve button: unchain or reset faction



6.1.8 processing

① Press the lighting switch, the fluorescent lamp light up.

② When the blower fan starts, the nozzle begin shower, cleaning circle faction can be performed.

③ Set the switch on the auto state, when the person enters into air shower the photo electricity control switch connecting shower circuit automatically, shower operating is obtained.

④ The two doors of air shower adopted interlock; open air shower the side door and another side door locked automatically. Avoiding air interfere of two sides of air shower. Under shower state, two doors are all under locking state, please don't open the door.

⑤ The shower time is 30s generally, in the shower process, patting clothing and



turning person body, shower effecting is better.

## **7. Maintain**

As prolong the equipment life span. Please process maintain and checking.

**Alarm:** when cheking, please cut off power of breaker.

### **① Primary filter**

When you need replace primary filter, removing the air shower interior baseboard, put it out from the frame to change filter material.

### **② HEPA**

When you need replace HEPA, removing the air shower interior nozzle-board, put its frame out to change filter material.

Replacing standard

HEPA life span is 1 year after using.

Differential pressure meter indicate range is 50Hz 250 Pa, 60 Hz: 350Pa.

Alarm: when choking, please cut off power of breaker.

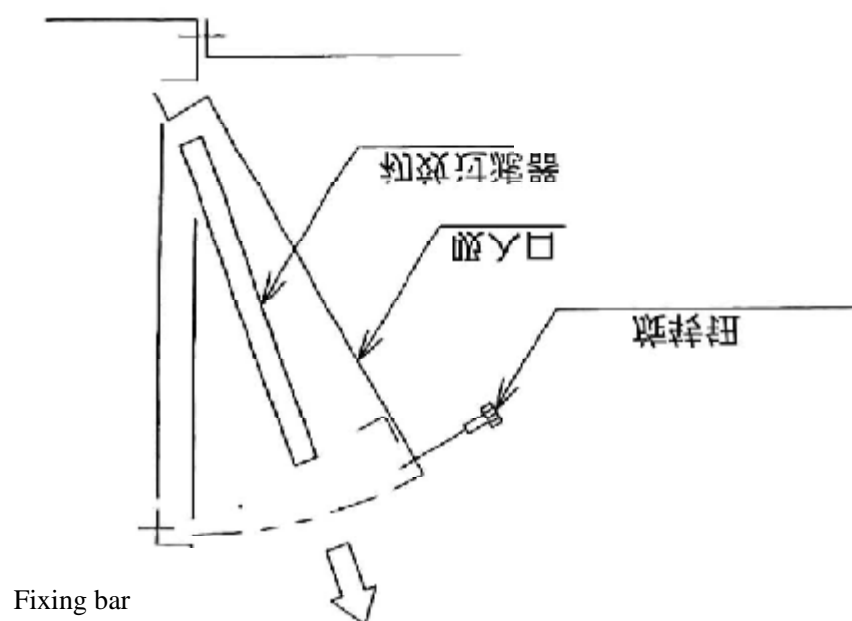
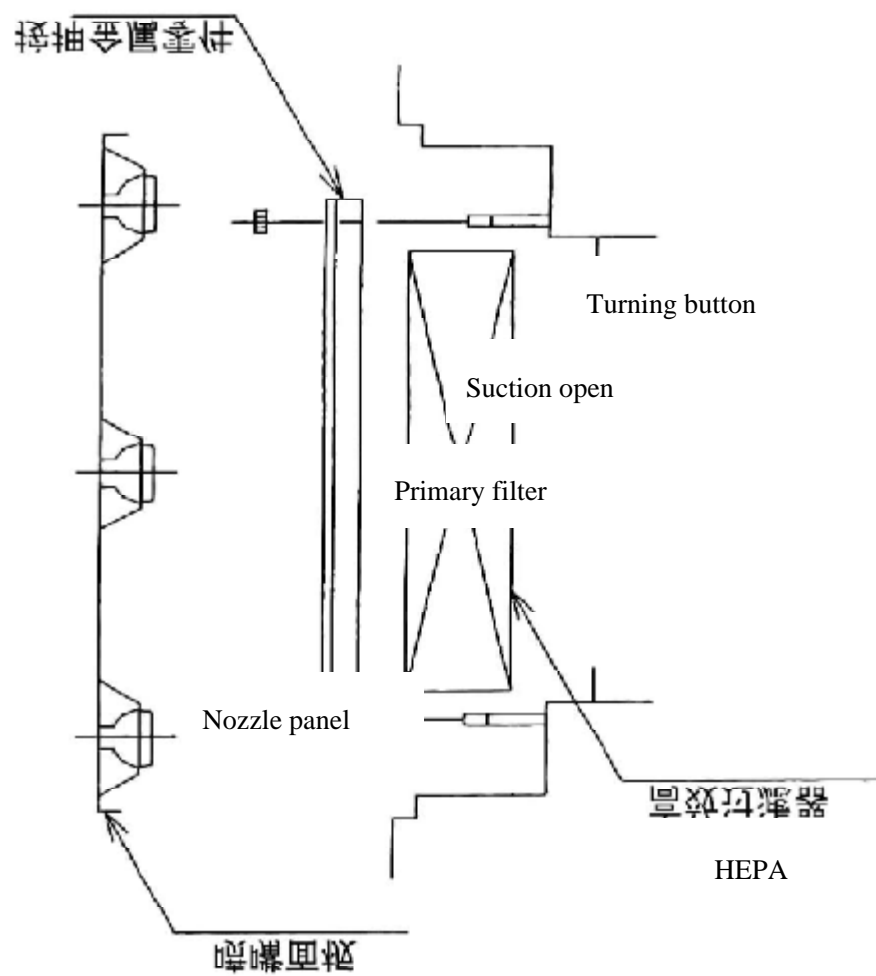
### **③ Fan:**

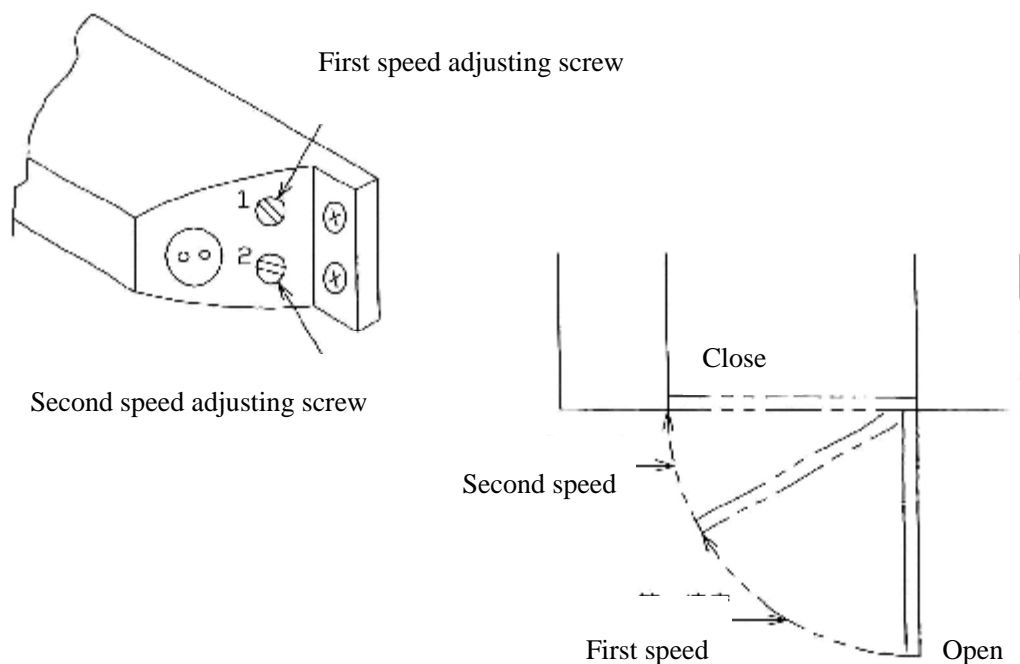
In case, the fan is out of the way, please remove the suction open,

Check using condition for the screw and rubber-installing margin.

### **④ Closing power adjustment**

Closing power has been set at factory for average conditions. If more closing power is required, move forearm from center hole in arm shoe to whole closest main arm. If less closing power is required, move forearm to hole farthest from main arm.





### Trouble diagnosis and maintenance for air shower

When trouble occurs, main tenancy should be carried on before ac power supply is disconnected

Breaker relay switch are installed on the back face of operating panel.

Item	Trouble	Remedy
Lighting	The fluorescent lamp isn't light up when the switch is under opening state	Change the starter or fluorescent lamp
Blower fan	Ejecting air speed is low  Nozzle doesn't blow	Exchange another two phases at will Replace HEPA Clean primary filter or change it Please confirm if the switch setting position is altering under circle condition.  Reset relay Reset switch
Act	Nozzle of auto running mode air shower	Adjust range travel switch Repeat open and close act

	doesn't work even if the door is under closing state	
Interlock	The door doesn't lock  The door is locked	Confirm interlock believe switch Adjust range travel switch when the door is closed  The opposite door isn't closed, please adjust it.
Auto door	The door doesn't open  The door doesn't close	Clean photo-electricity sensor  Clean the sensor

Spare part

BS---\*\*10\BS--\*\*20type

Name	Type	Specification	Manufacture
Lighting lamp	20 w	White	
Primary filter	AS3000147A		China Baishen
HEPA	13SF610*610*70	HEPA	
Blower fan		0.4kw	China Baishen

BS---\*\*15type

Name	Type	Specification	Manufacture
Lighting lamp	20 w	White	
Primary filter	AS3000097A		China Baishen
HEPA	13SF610*760*70	HEPA	China Baishen
Blower fan		0.75kw	China Baishen

Model Data		BSS-0810MSF	BSS-0810MDF	BSS-0810MTF	BSS-0810ADF
Outline dimension mm		1300×1000×2110	1500×1000×2110	1500×1000×2110	1500×1000×2110
Internal dimension mm		800×1000×1940	800×1000×1940	800×1000×1940	800×1000×1940
Air exhausting speed		>23m/sec	>23m/sec	Two sides>22m/sec Top >20m/sec	>23m/sec
Air quantity		>8m³/min	>16m³/min	>16m³/min	>16m³/min
Filter efficiency		99.99%			
Power		AC380V 3Φ 50/60Hz			
Power consumption 50/60Hz		420/645VA	840/1290 VA	840/1290 VA	940/1390 VA
Primary filter	Dimension	738×420×15mm(non woven synthetic polyester,with aluminium alloy frame)			
	Quantity	1	2	2	2
HEPA filter	Mode	CHC-17S-MP			
	Quantity	1	2	2	2
Outer body		Secc galvanize steel melamine bake lacquer			
Body coating		Bs standard color (munsell 2.5Y8.5/1.5approx color			
Domain		s.s			
Door	Aluminium alloy frame (glass window)				
	Manual Auto				Auto sensor
Outlet		Nozzles Φ30, direction can be adjusted)			
Lighting		20W×1			
Blower fan		0.4KW-2Pmotor①	0.4KW-2Pmotor②	0.4KW-2Pmotor②	0.4KW-2Pmotor②
Operating panel		Differential pressure meter, timer,lighting>manual-auto shift switch			
Weight		250Kg approx	300Kg approx	300Kg approx	330Kg approx
Remark		Interlock, Differential pressure meter for selecting			

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**SUZHOU CLEANING TECH. RESEARCH INSTITUTE**  
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