EVERET

ALL FOR AUTO

PREPARATION ROOM

ITEM NO:EE-7660

USER MANUAL

KEEP THE MANUAL NEAR THE MACHINE ALL TIME AND MAKE SURE ALL USERS HAVE READ THIS.

FOLLOW THE INSTRUCTIONS CAREFULLY TO GRANT THE MACHINE A CORRECT FUNCTION AND LONG SERVICE LIFE.

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Chapter 1 Preparation Room Description

1.1 The Struction Description

The preparation room is composed of the following parts:(shown in Fig.1.1)

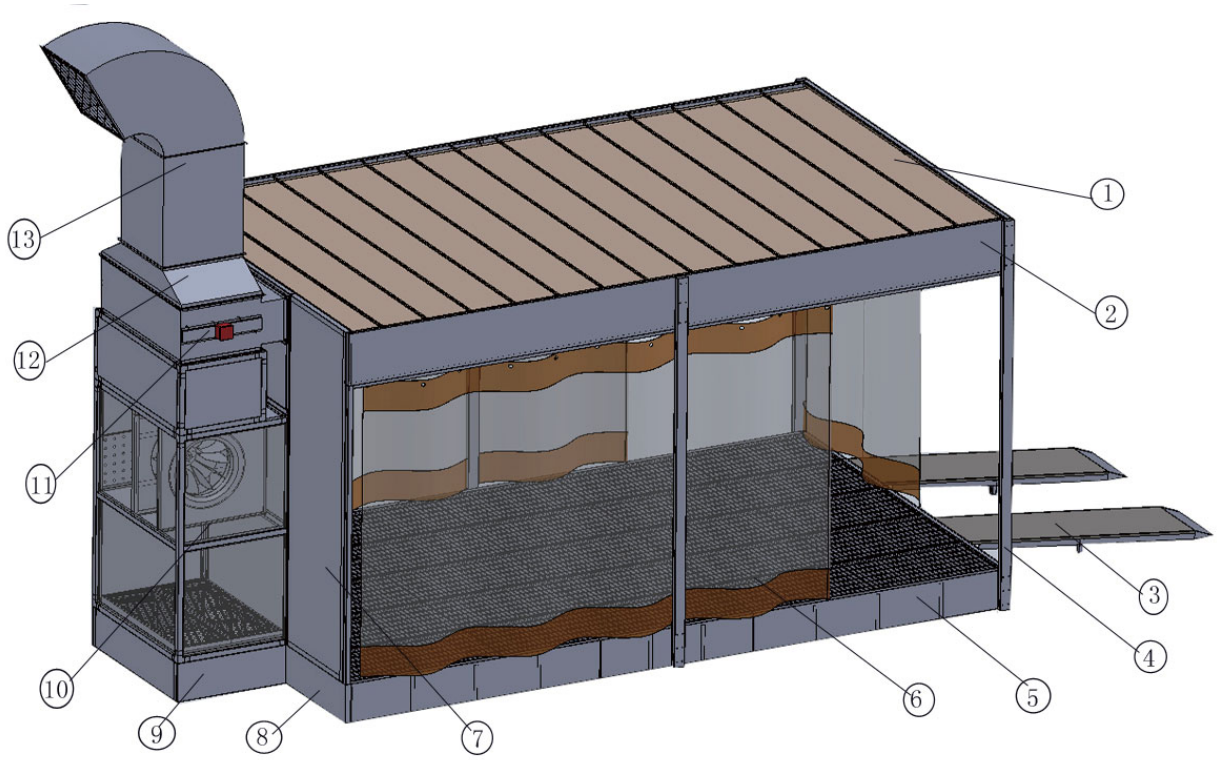


Fig. 1.1

1） The main room:

- The base parts(5): Side metal panel,Back metal panel,Front metal panel,Middle supporting,strenthen bar for basement,support net for filter,galvanization air block panel,floor filter grids,ramp for auto enter.
- The body parts: back wall board(7) side curtain(6),supporting post(4).
- The top parts(air cabint) (2) : top sealed board,lighting frame,filter slot panel,supporting for the filter,roof supporter beam,filter,roof cover(1).
- Ramp:grids style or vein board style(3).

2) Generator parts

- Bottom of generator (9).
- Middle frame of generator(10) :including the fans and fan pre-filter
- Top-frame for generator、the connection part between top frame and air cabint
- Electrical VCD adjust damper(11),which can adjust the air capacity between intake and exhaust air.
- Air duct(12,13):exhaust duct and the transition duct.

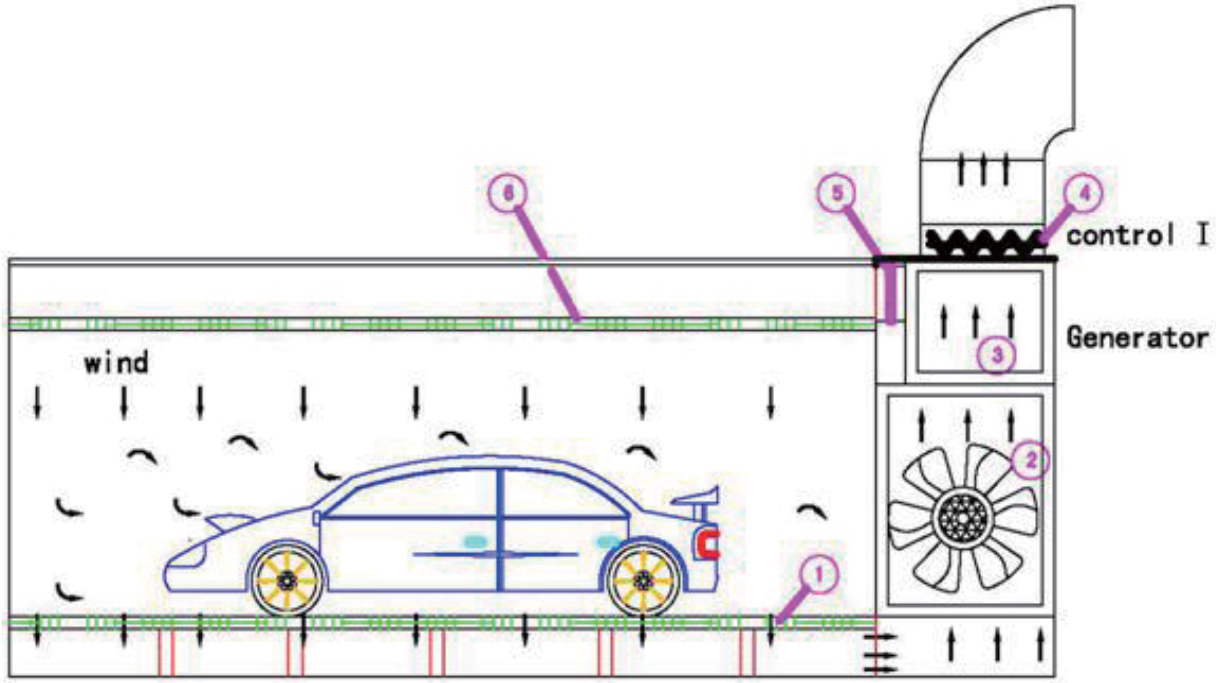
3） Control system(3)： control the motor ,light system,electrical vcd damper ect.

1.2 The Principle of Preparation Room

The car preparation room PA-4 consists of back wall, moving curtain and the aerator system, the adjustment system of ventilation, filter system, basement,lighting system, control system, etc. The preparation room has two functions: Sanding Process and painting compensation Process.

1、Sanding process: The ventilation process is as the following chart:

2、The operation steps: Withdraw the sides curtain or the front curtain →Close the damper of fine filter chamber ⑤ and open the damper ④→turn on the blower②→The blower take the exhaust air into the filter system from the grids, then inside the generator the dust will be absorbed into the filter system →the filtered air will be taken out from the duct



Sanding Process chart

Fig. 1.2

3、Painting repairing process is as the flowing chart:

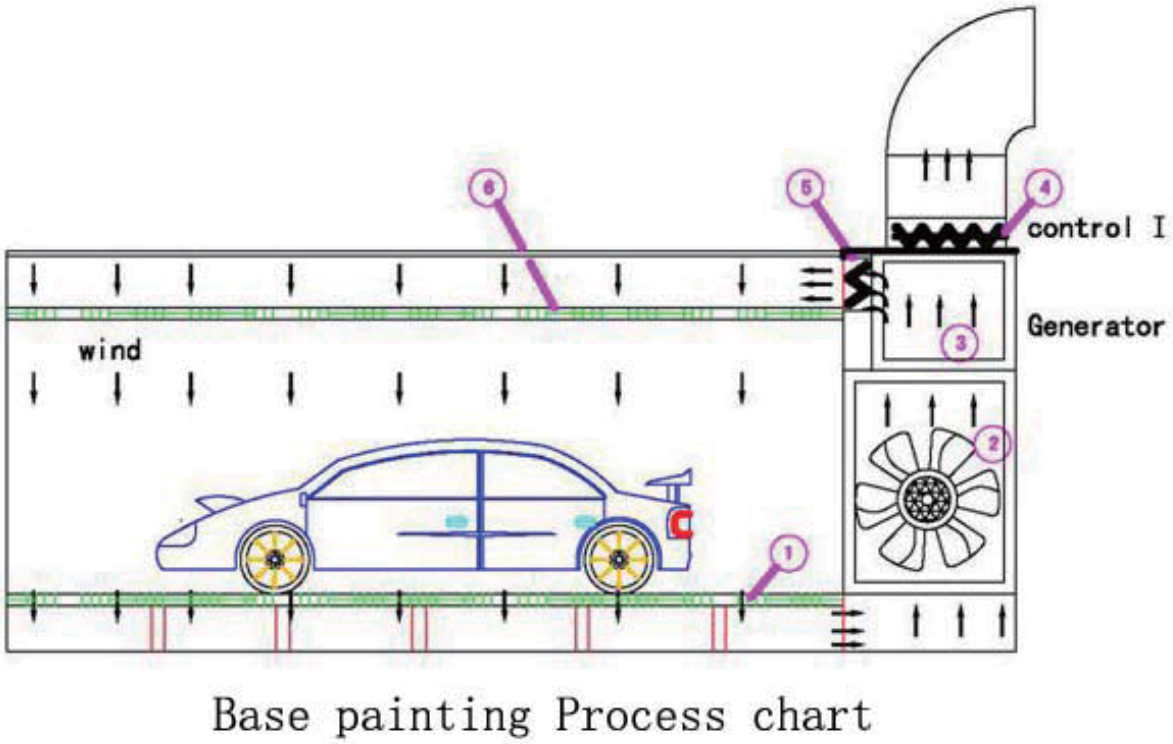


Fig. 1.3

The painting repairing steps: Withdraw the sides and front curtain→Open the damper ⑤and adjust the exhaust duct④→Turn on the blower→Some waste air will enter the filtering cotton and the dust-absorber filter→flowing into ventilator chamber, then the air be take into the filter system inside the generator, through the top filter and grids under the ground→Some exhausted air will be taken out from the duct and some fresh air will be taken in from the gap of the curtain.

1.3 Technique Parameters

Internal size：6.0×3.5×2.7 M(L×W×H)

External size: 7.2×3.6×3.5 M(L×W×H)

Illuminating lights： 8×4×40W=1.28 KW

Total Power: 7KW

Power of blower:1×5.5KW

Ventilation Capacity:18000 m3/h

Thickness of back wall：50mm

Filter area：15 ㎡

Chapter 2 The Installation of the Preparation Room

2.1 The Installation Environmental Characteristics

Before beginning the assemblage work it is necessary to make sure that the environment where the room is to be kept conforms with the characteristics below:

1. The electric power circuit has to be measured in order to ensure the correct function based on the installed power.
2. The face of the structure has to be smooth and leveled to warranty a perfect function
3. The support plan of the structure has to be of compact material, sufficiently resistant to bear the weight of the whole machine
4. For the correct function of the room it is necessary that it has around it the minimum space as shown in Fig.2.1.

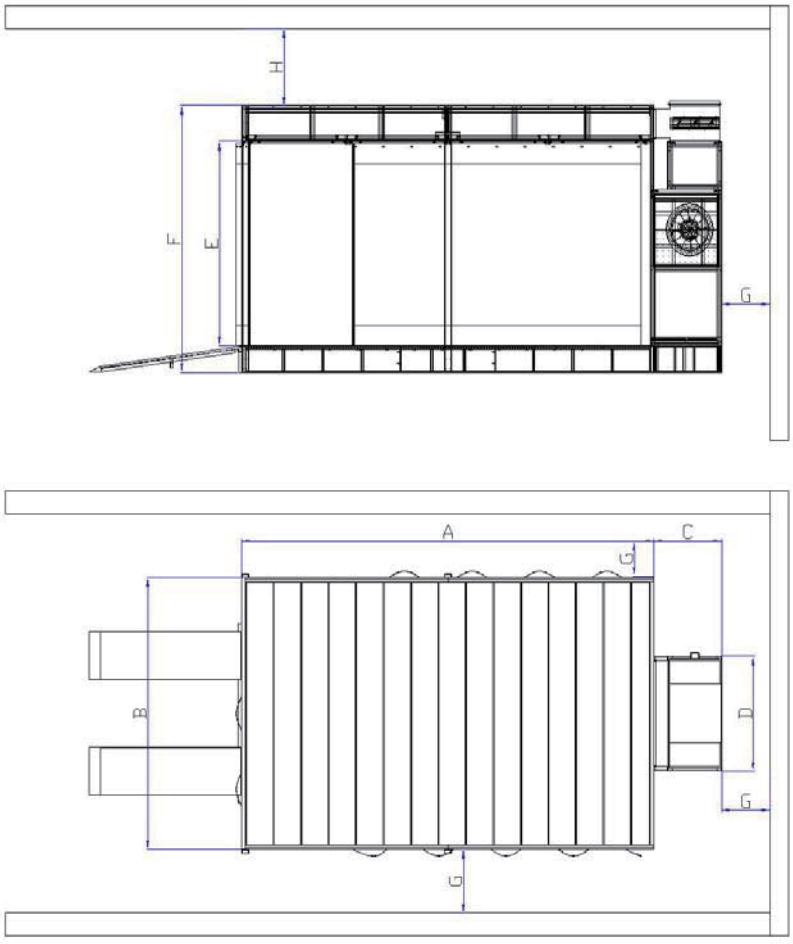


Fig. 2.1

Model (mm)	A	B	C	D	E	F	G	H
EE-7660	6000	3700	1055	1500	2700	3500	500	500

2.2 Some Necessary Tools

We will not offer the installation tools for the user,so you should prepare some necessary tools as shown Fig.2.2

Fig.2.2

2.3 Installation Methods and Steps

2.3.1 Basement installation

The basement installed step shown as the following step(shown in Fig.2.3)

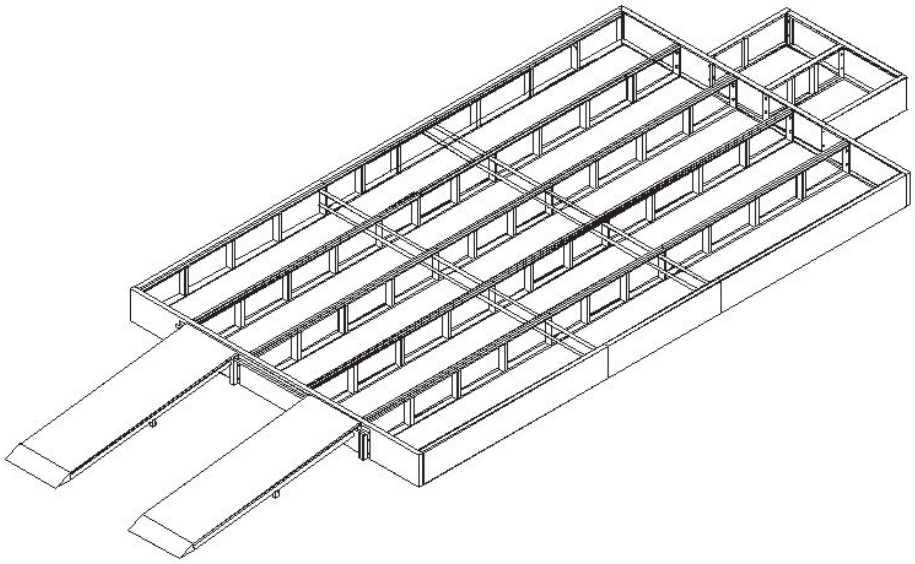


Fig. 2.3

1. Put the metal board(front,back,sides)and middle bracket in the right place,and connect them with bolt M8*20 according to the demand of the installation chart.then screw down.Shown in Fig.2.4.

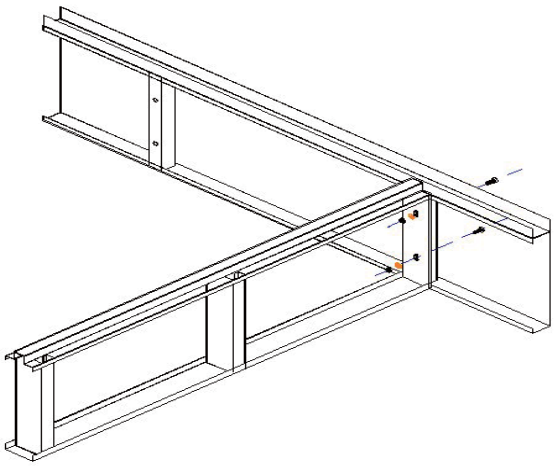


Fig. 2.4

2. Adjust the level of the connect point: find the highest point with the level measure apparatus,then elevate other point with something.Shown in Fig.2.5

3. Adjust the uprightness: adust the side boards and middle bracket with beeline,and distribute the distant between the rows,so that we can put the grids easily.Shown in Fig.2.5.

4. Check that all the longitudinal pieces have been mounted perfectly perpendicular to the end heads, to do this measure the two diagonals between the corner of the anterior end head and the opposite corner of the anterior end head, if they show the same values we are certain that it is assembled correctly. and the error value should be less than 5mm (shown in Fig.2.5).

5. Installate the bottom of the heat-air generator: the air out mouth should be connect with the metal sides board.(shown in Fig.2.5)

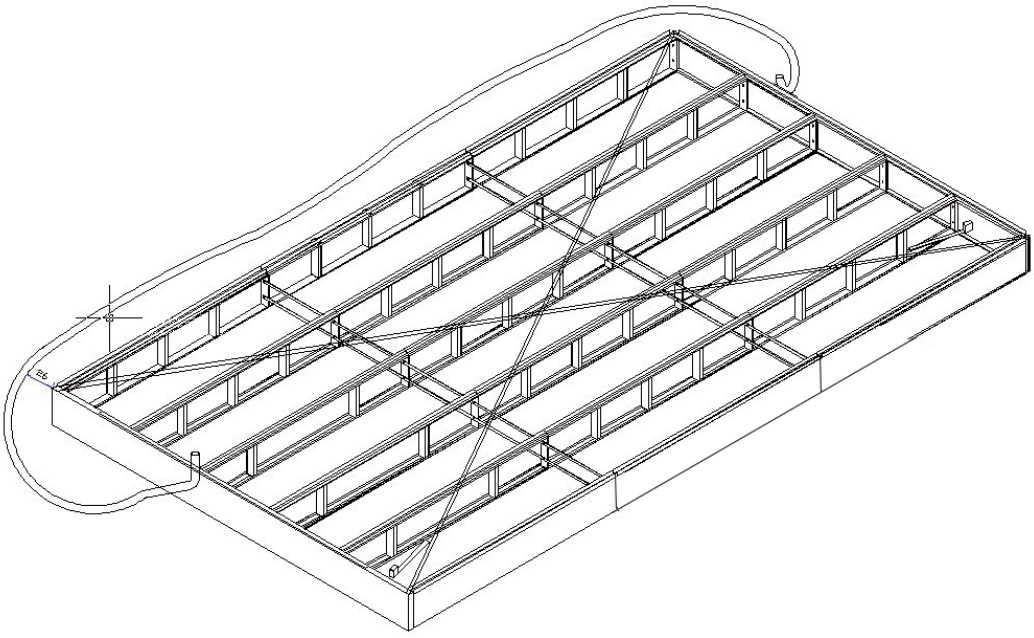


Fig. 2.5

2.3.2 Main room installation

1. Wall panel installation

connect the wall board in turn and fix the to the down U style slot with nail,make sure the gap should be smallest. shown in Fig2.6

2. Post installation

Connect the six post onto the basement panel in the define position,shown in Fig.2.6

3. Ceiling side panel installation

Fixing the front pane and side panel on the ceiling and supported by the post,shown inf Fig.2.6.

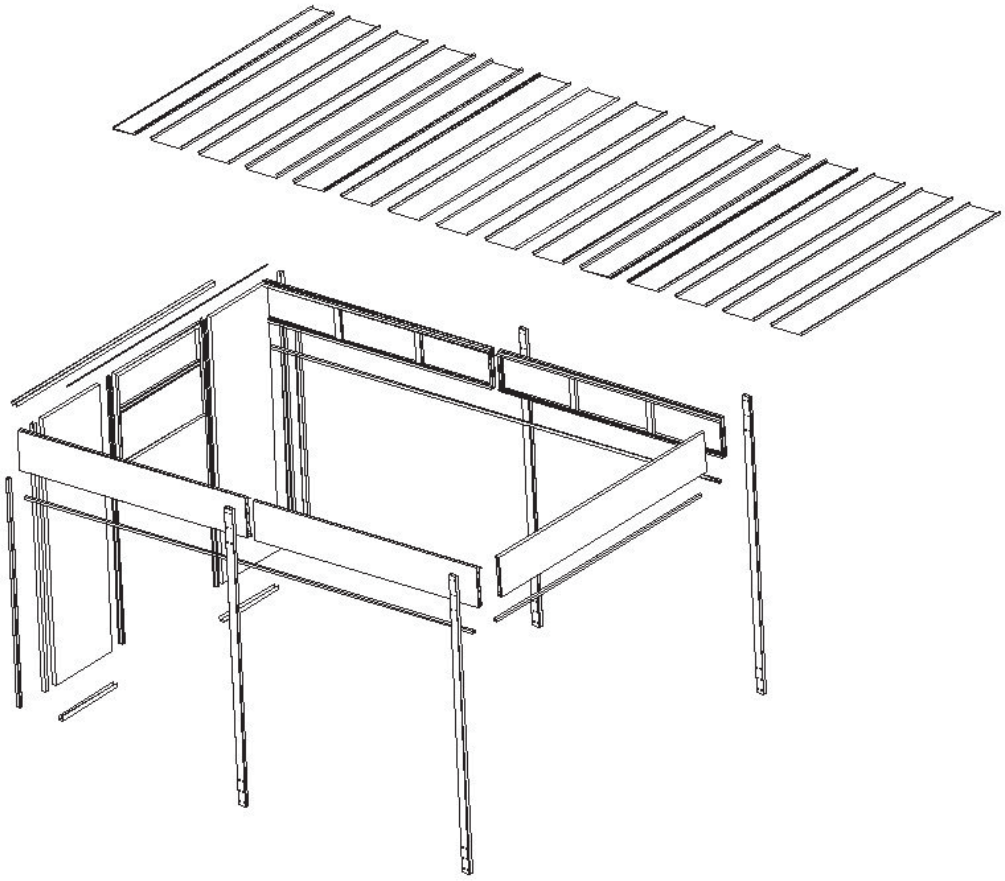


Fig. 2.6

2.3.3 Ceiling Installation

1. Supportor beam installation(shown in Fig.2.7)

1) Installate the horizontal beam to the up rim of side wall panel with the bolt.
2) Installate the vertical beam to the front and back wall with nails.
3) Connect the horizontal and vertical beam together with the nails.

2. Ceiling cover and filter slot panel installation

Connect all the panel according to the drawing with bolt and nails,pay attention to the size should be the same to the drawing.

3. Light box installation

Install the light box into the celing,one side fix to the ceiling cover panel,and another side fix to the side panel of the ceiling with nail.Shown in Fig.2.7.

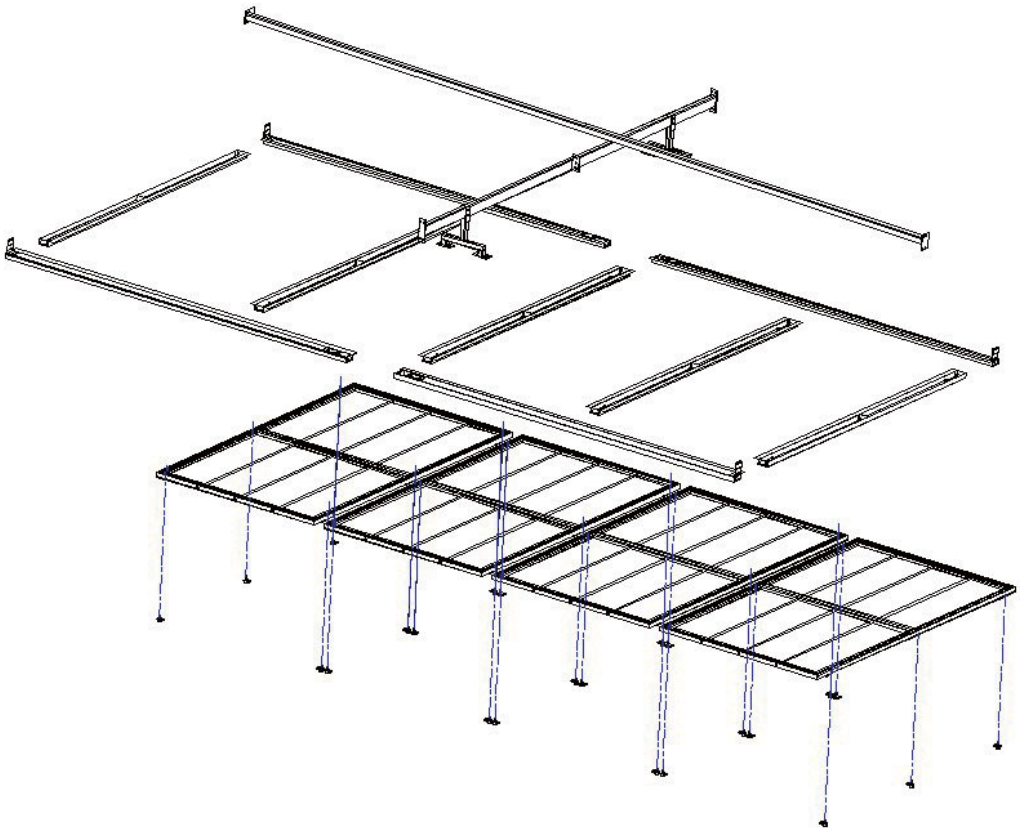


Fig. 2.7

4. Installate the roof cover ,connect one by one,then fix them on to the roof support beam with nails.And do some sealing with the transparent pastern shown in Fig.2.8

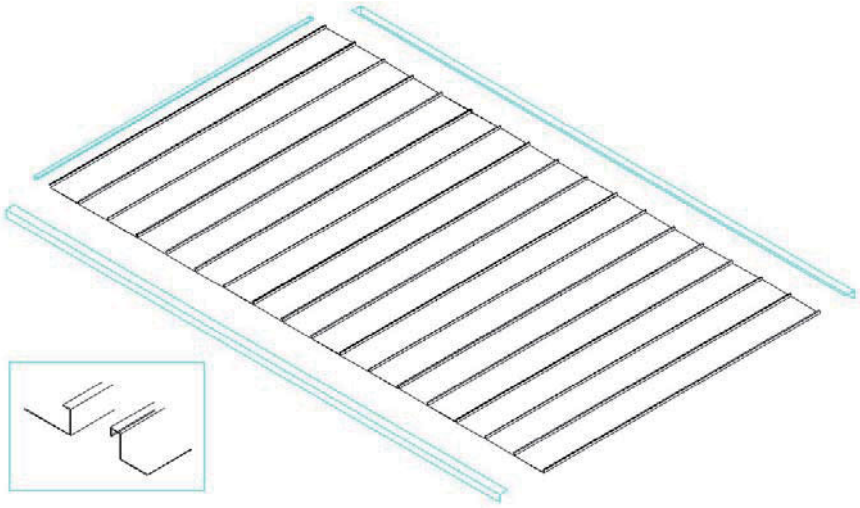


Fig. 2.8

5. Filter frame installation shown in Fig.2.7. Fix the filter on the frame with frame slot first, then installate the filter frame with the hinge.

2.3.4 Generator Installation

1. Main part installation

The generator part is the main part of the spray booth,the sperative part had been installed before delivery.Connect them together shown in Fig.2.9 is ok..Because the generator is heavy,you should pay attention to move them on to the basemen. Take with the Fox car would be better if you have.

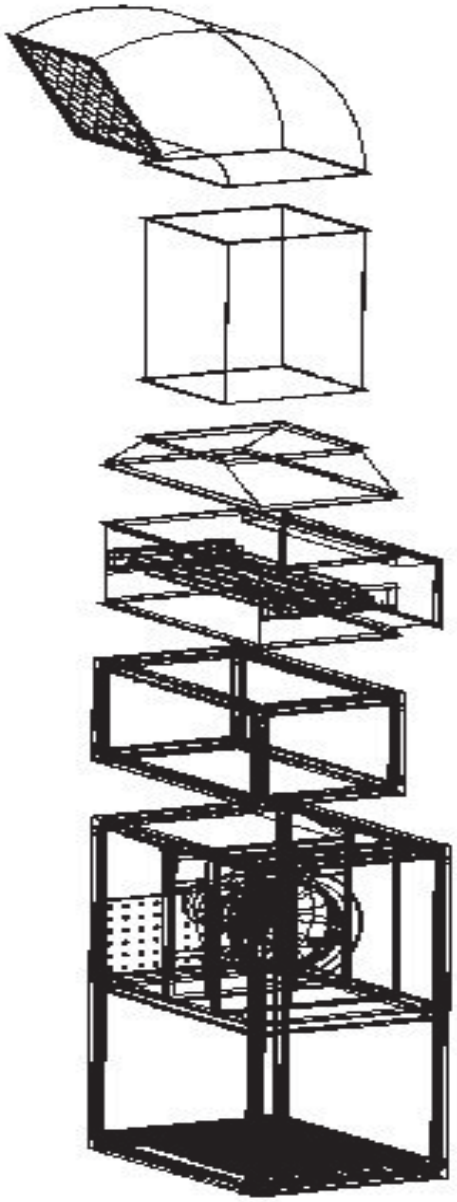


Fig. 2.9

3. Duct installation.

Consider of the shipping space,the duct have not been installated,user should assemble them by yourself.The connection method shown in Fig2.10.

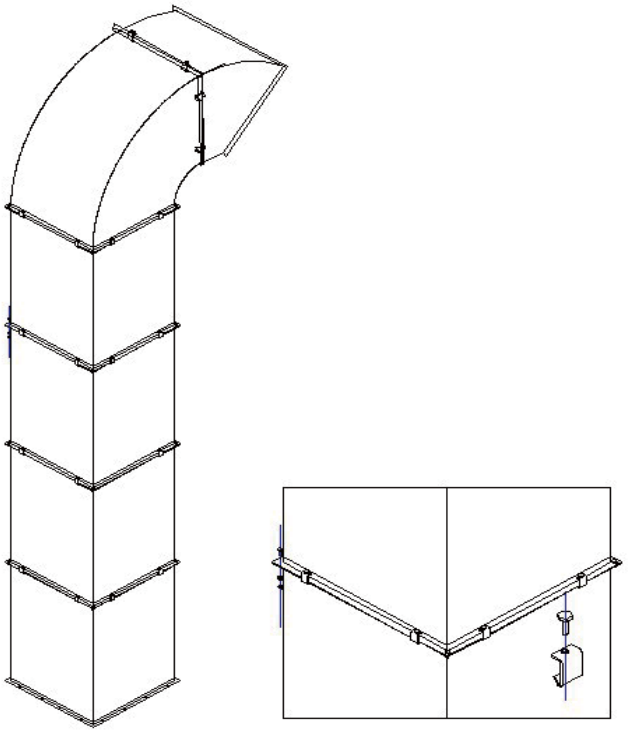


Fig.2.10

5. The control box installation and wire connecting

1)Install the control box onto to wall panel near the generator shown in Fig.2.11,and install the installation panel onto the wall with nail,then install the control box on to the panel.

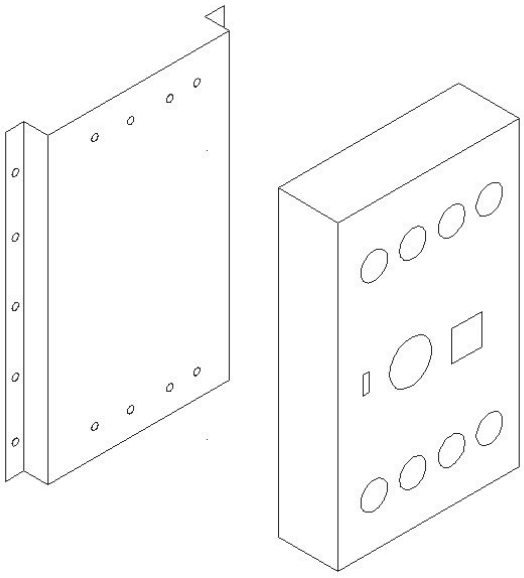


Fig. 2.11

2) Wire connection

The main component have been connected before delivery,the connection to the control box. you should

do as follow in Fig.2.12:

Connect the power supply into the control box and conect the control box to the burner,motor,light and control damper with electric wires according to the electrical chart we offer.

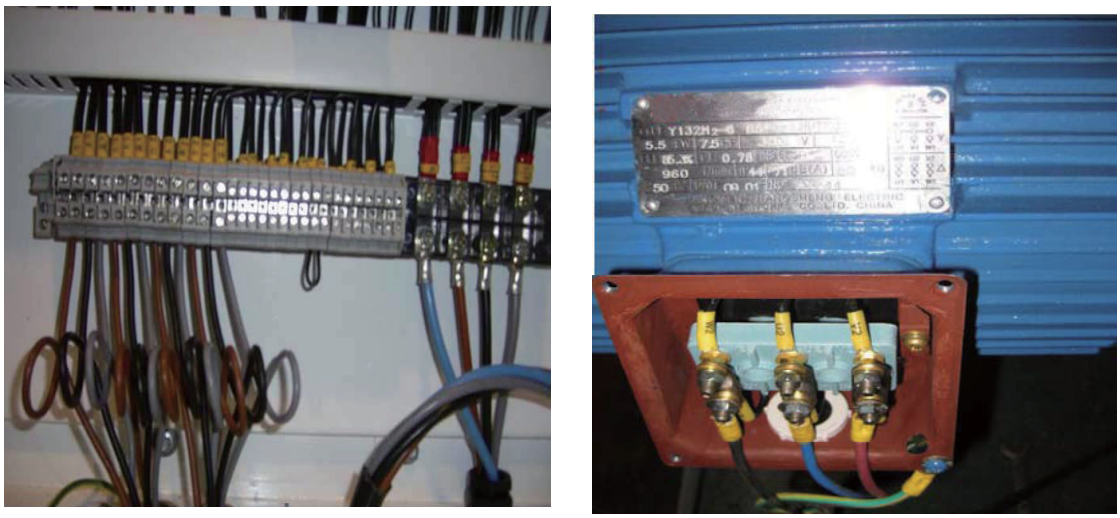


Fig. 2.12

Attention: You must connect the motor wire according to the electrical chart we offered.And you must be attention to the start method of the motor,Generally our spray booth have two start methods: motor direct start connection and Y/△ start connection. When you choose the motor direct start, The Up and Down ports of the motor should be connected with the metal pad, and then connect three ports (Up or Down) to the control box shown in Fig. 2. 13. When choose Y/△ start connection, you must take the metal pad out, and connect to the six connection ports in the motor.

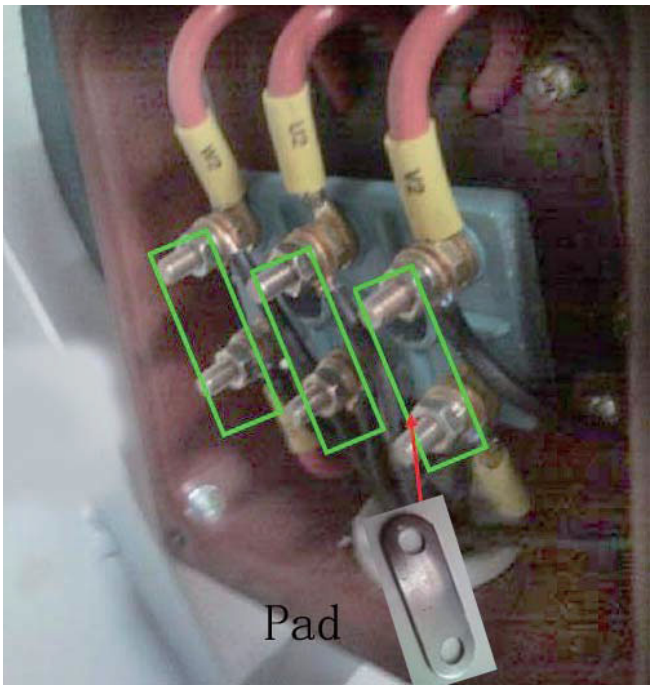


Fig.2.13

Chapter 3 Test and Operation

3.1 Preparation Before

3.1.1 Preparation before testing and operation

- Prepare three phase electric power supply which is suitable for the motor connection.
- Prepare electric power supply which is suitable for the fan connection.
- clean the inner of the room, including the floor, pannel and filters
- Closed the curtain of the preparation room , and then start the fan motor , open the light . At last, it can do the sanding or base painting.

3.1.2 Attention Norms

In the paragraphs below are listed all the regulations and prohibitions to be observed in order to prevent possible accidents:

- Drainpipe is needed on ground to drain unwanted seeper;
- It is not suitable to clean the sanding room by water often;

- Keep the floor clean and clear the ground before working ;
- Clean vehicle before entering and remove flammable or explosive danger (except for gasoline in oil box);
- Mending paint work is an accessorial function. Spray paint area should not be too large and spraying time should not be too long;
- Workers must dress work clothes and change shoes before entering the sanding room. Smoking is prohibited;
- Don't pile sundries inside the sanding room;
- Clean or change dust collector filter and other filters termly.

3.2 Operation

3.2.1 The introduction of theControl Box

- POWER
- The indicator light for power on/off
- BLOWER
- The indicator light for blower on/off
- LIGHTING
- The indicator light for light on/off
- POWER ON/OFF
- Put key into switch, turn to "ON",
- Start loop of electrical box;
- turn to "OFF" for close.
- START
- Press this button, blower starts, and indicator light on.

- STOP
- Press this button, the power of blower will be cut off and work will be stopped. Indicator light will be turned off.
- SOL1、SOL2
- The button for controlling the damper ④ and fine filter of it ⑤ , turn clockwise to open damper for increasing the wind capacity, otherwise will decrease the wind capacity
- 8. EMERGENCY
- Press the EMERGENCY key if some emergency situation happen, then the power will be cut off and the motor will be stopped.

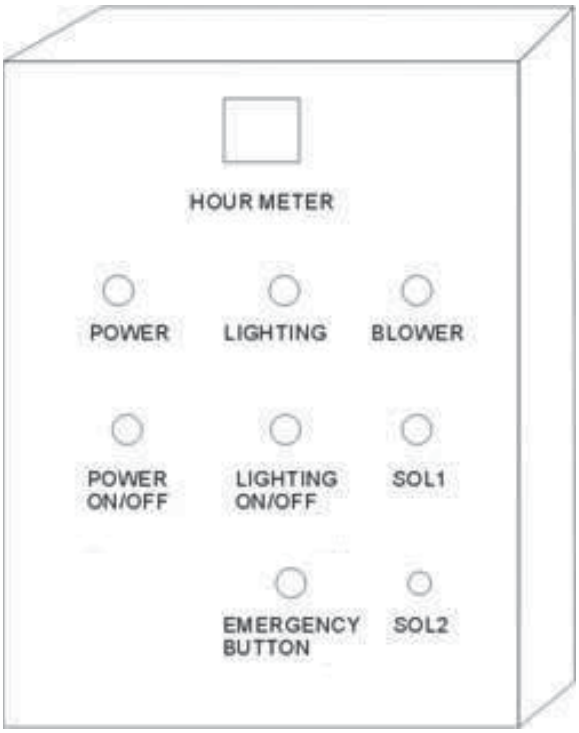


Fig. 3.1

3.2.2 Operation and Steps

- Switch on the outer electric power , indicator light on, the equipment is ready for working.
- Turn “POWER” switch with key clockwise to “NO”, blower start to operating, accumulative time meter begin to work, then the blower indicator turn on. Contrarotate the “Power” to “Off”, blower turn off, accumulative time meter stop to work, then the blower indicator turn off.
- Adjust damper 1（SOL1）or damper 2（SOL2）to finish sanding or paint mending process:
- (1) Turn damper1（SOL1）or damper2（SOL2）clockwise, damper open degree will be increased till full open; Otherwise decrease till complete close.
- (2) While sanding, withdraw movable shade(or draw back only one shade such as front shade), close damper⑤（SOL1），start damper④（SOL2）,finish the whole sanding process(see sketch map of sanding work).
- (3) Paint mending work: pull off the movable shade and start damper⑤（SOL1）, adjust damper ④（SOL2）to suitable position, then a part of air current will enter damper⑤ and cleaned by filter then flow down equably from the top, while other part of air will be vented outside through damper

adjustment④, meanwhile some fresh air will be filled in through gap of shade. The whole paint mending process will be finished (see sketch map of paint mending work).

- Turn illumination switch “LIGHTING” to “ON”, illumination lights on and “LIGHTING”on；turn to “OFF”, lights off and “LIGHTING”off.
- Start switch with key and illumination switch are controlled independently and non- interfering; adjust damper 1 （SOL1）, adjust damper 2（SOL2）and accumulative watch only start working after ventilator starts, or they will not work.
- “EMERGENGY BUTTON” switch. If emergent situation ,such as strange sound, lack phase, circuit failure or other abnormal ones occur inside ventilator, use this switch for emergent turnoff: press the button vertically, all control circuit will stop working, making emergent turnoff; turn the button clockwise, it will bound back automatically for switch reposition to connect the power again. It’s not allowed to use this switch to close or start for control equipments in normal situation.

Chapter 4 Maintenance and Repair

4.1 Ordinary Maintenance

Maintenance has to be a preventive and planned activity, seen as fundamental need to obtain safety, as a presupposition that the machines and the apparatus are subject to wear which is apotential cause of breakdowns.Therefore the safety of the booth depends also on a good preventive maintenance that aflows the substitution of the objects subject to wear out before the verification of the technical faults.

Maintenance in time is necessary,but the appropriate maintenance is also very important,you should abide to the following mainly maintenance method and attention problem

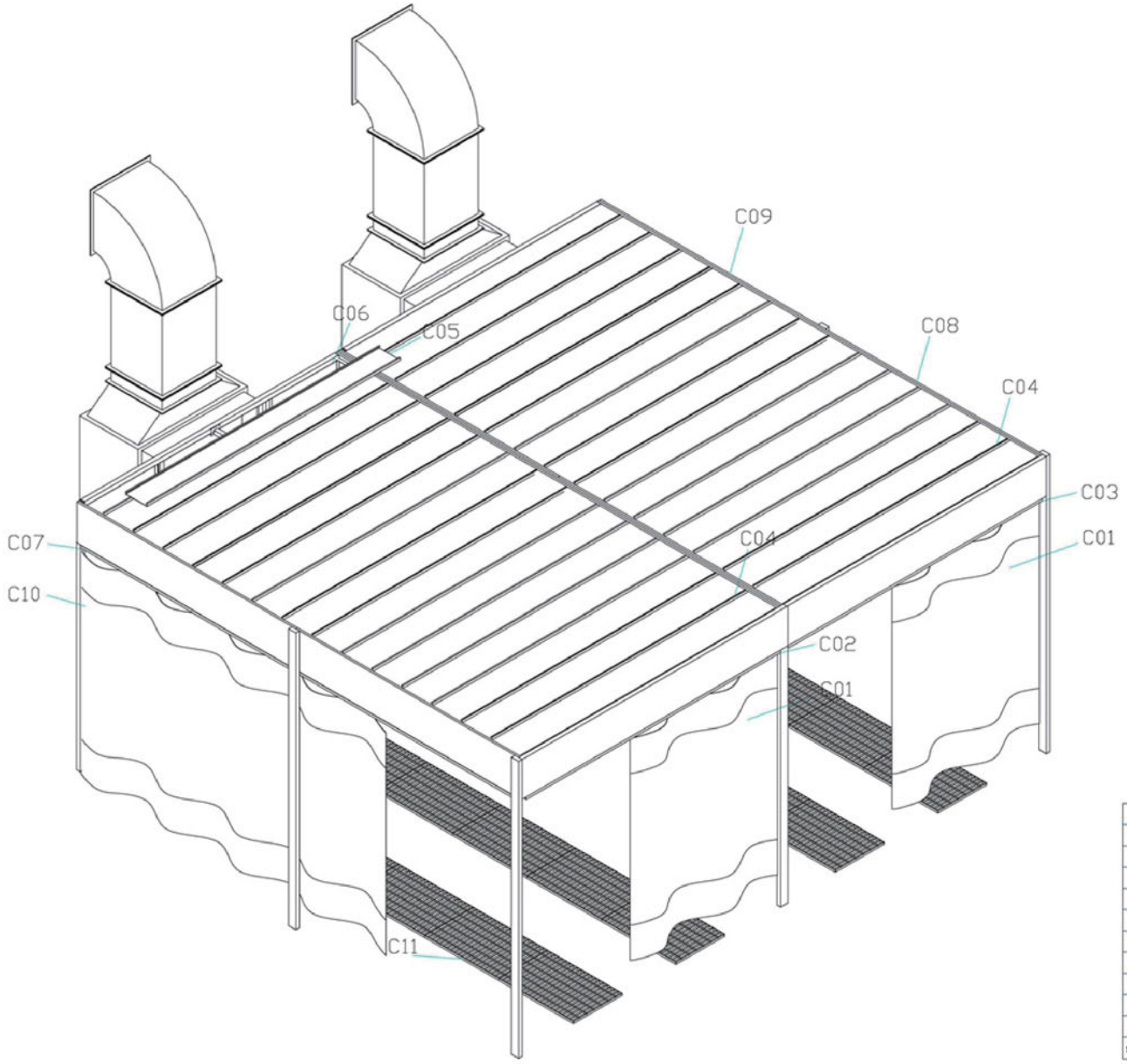
- Clean ground filter after each work；
- Change back filter and dust collector filter after 200 hours each work；
- Clean dust collector filter by compress air after 40 hours work；
- Change the top filter inside the sanding room after 200 times of spraying-work;
- Clean dust on ventilator leaves one time after 200 times of spraying-work.

4.2 Some Spare Parts for Maintenance

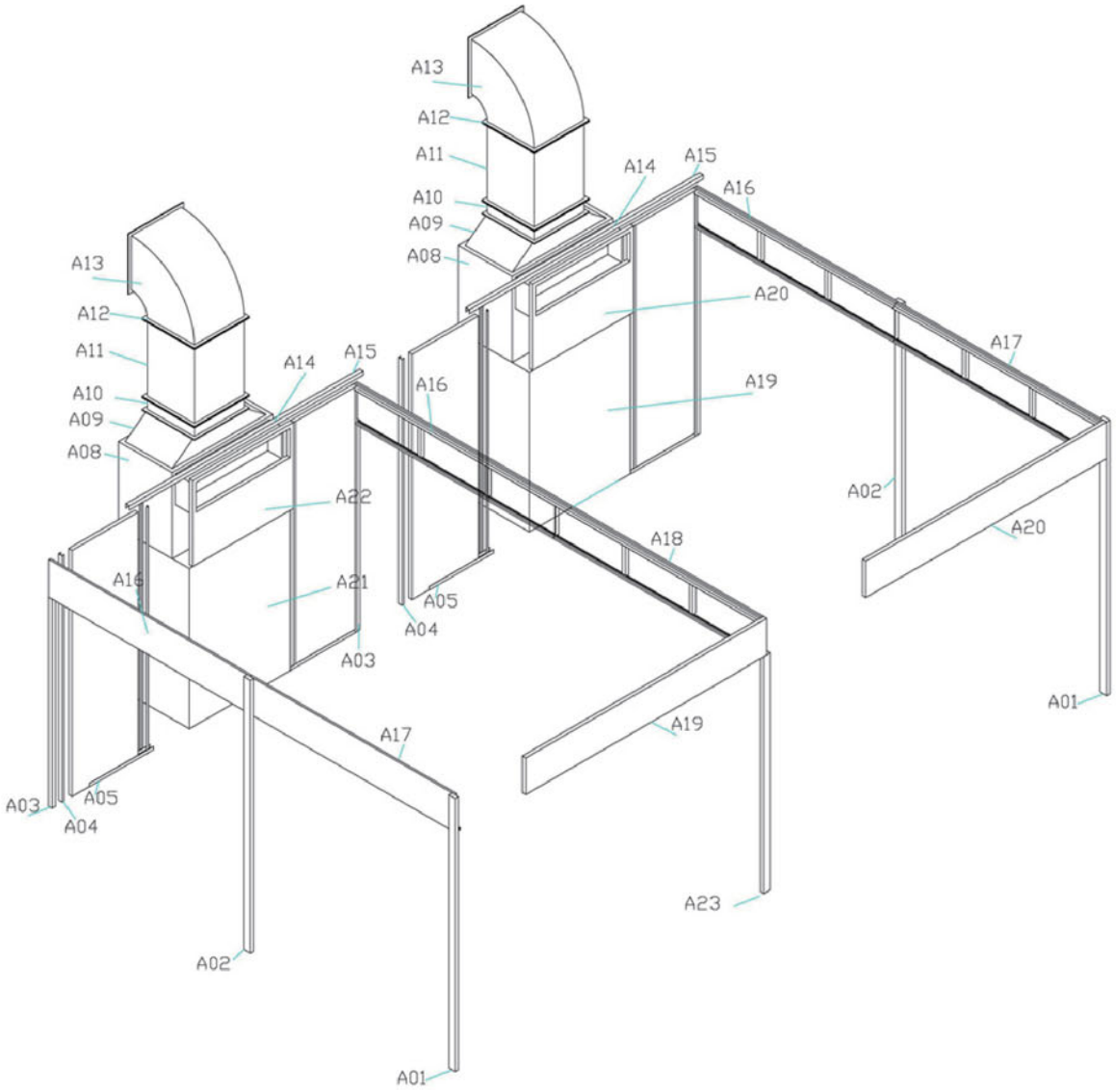
- Ballast for the light tube.
- Fuse for control box.
- Light tube for lighting
- Filter for dust prevent

Appendix I : Malfunction and Remedy

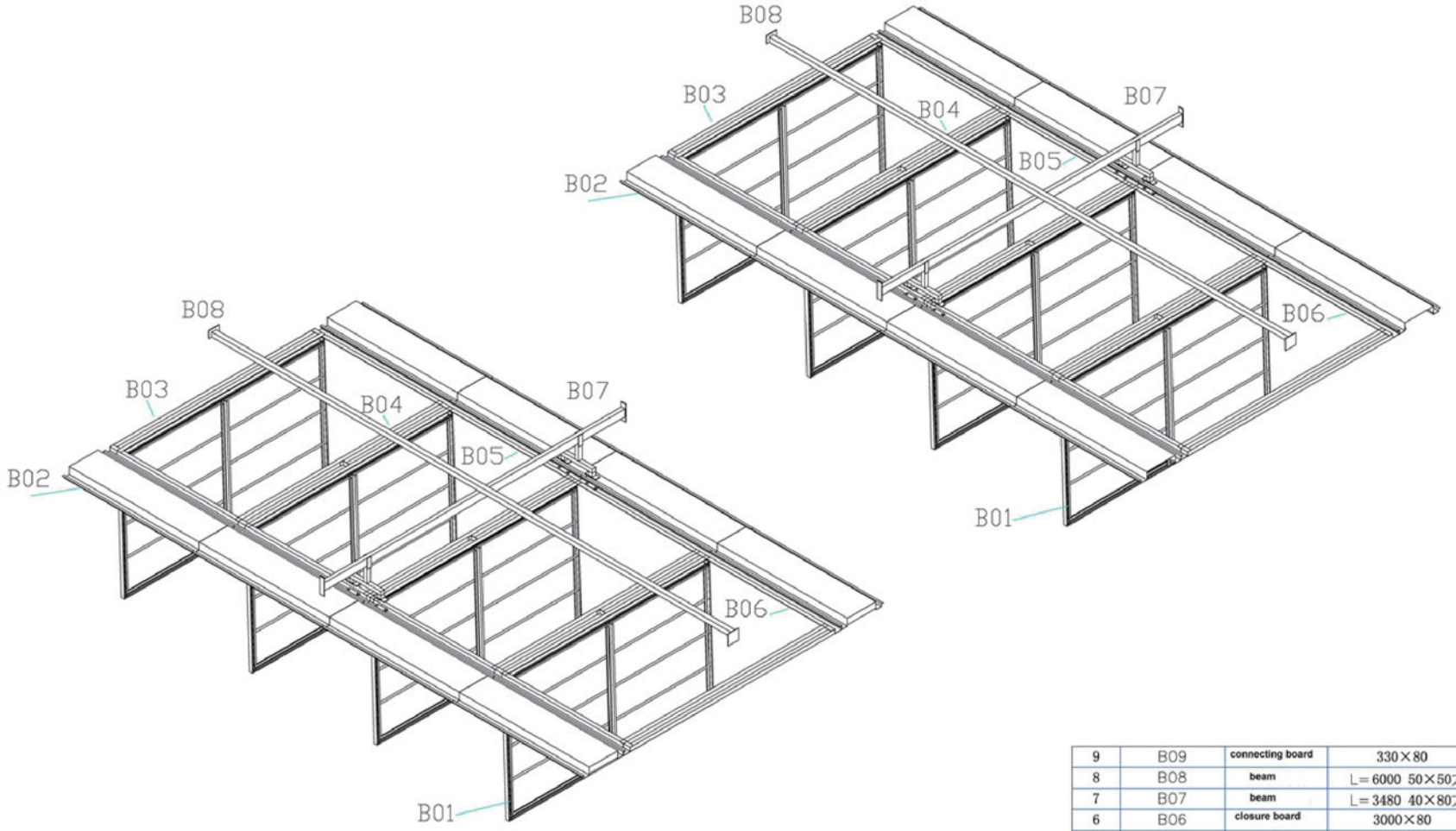
Malfunction	Possible Cause	Solution
Fan capacity is to small while sanding	1. Ground filter is blocked 2. dust collector filter is blocked 3. The damper not open completely 4. Not enough opening for damper④	1. Clean or change floor filter 2. Clean or change filter of dust collector 3. Let it open completely④
Adjustment failure for wind door opening	1、the axis of damper actuator is skidding 2、Damper actuator is damaged	1、Fasten again 2、Change
major ventilator can started	1. Fuse break 2. control circuit break 3. engine circuit break	1. Change fuse 2、Maintain and Connect 3、Maintain and change engine
Major ventilator vibrate tempestuously	1、screw loose 2、wind leaves is dirty and imbalanced	1、Check and tighten it 2、Clean and revise for balance



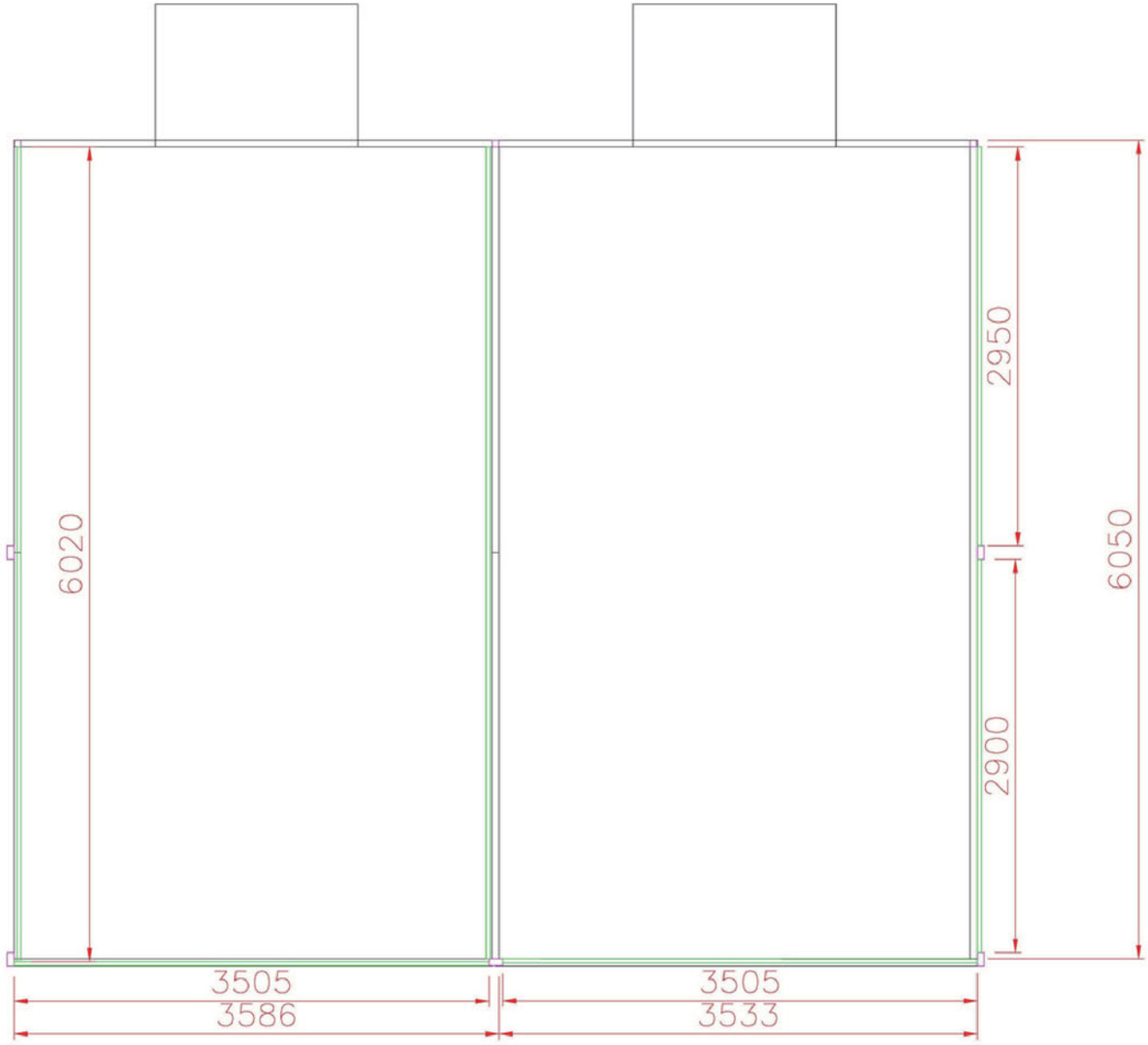
seq	code	name	specifications in mm	QTY	Remarks
11	C11	grids	667×700×25	20	
10	C10	curtains	3400×2650	6	
9	C09	curtain rail	2950×30×30	1	
8	C08	curtain rail	2900×30×30	1	
7	C07	curtain rail	6020×30×30	2	
6	C06	L channel for back wall	3170×25×30	8	
5	C05	roof panel	360×3470	2	
4	C04	roof panel	313×3470	36	
3	C03	curtain rail	3530×30×30	1	
2	C02	curtain rail	3430×30×30	1	
1	C01	curtains	2100×2650	4	



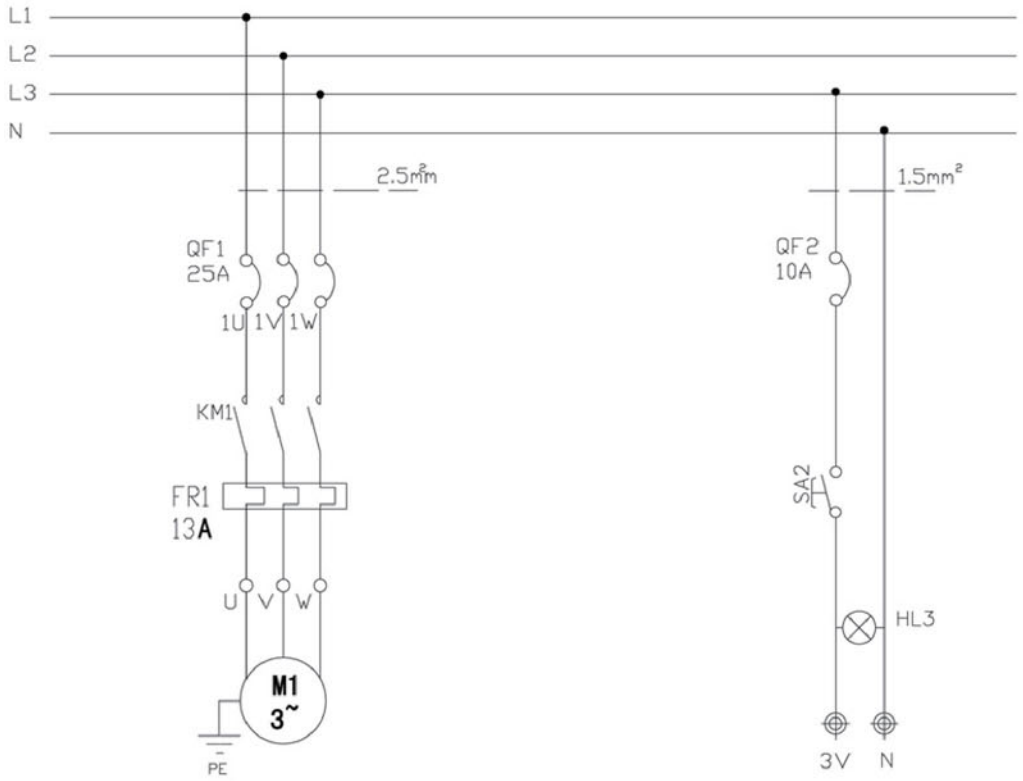
seq	code	name	specifications in mm	QTY	Remarks
23	A23	Posts	2700×100×50	1	
22	A22	intake frame	1500×1110×50	2	出风口380
21	A21	intake unit	1500×1055×2060	2	
20	A20	air chamber panel	3533×53×472	1	
19	A19	air chamber panel	3586×53×472	1	
18	A18	air chamber panel	6052×53×471	1	
17	A17	air chamber panel	3052×53×471	2	
16	A16	air chamber panel	3000×53×471	2	
15	A15	U channel	3480×53	2	
14	A14	VCD damper	1400×400×200	2	
13	A13	90° Bend	740×740	2	
12	A12	flange	20×710	80	
11	A11	ducts	740×740×1000	8	
10	A10	VCD damper	740×740×160	2	
9	A09	transition part	1400×700→740×740	2	
8	A08	top frame of intake unit	1500×800×1100	2	
7	A07	L channel	960×53×30	8	
6	A06	back wall panel	3165×985×50	4	
5	A05	U channel	960×53×30	4	
4	A04	U channel	3170×53×30	4	
3	A03	post	2700×50×50	3	
2	A02	post	3172×100×50	2	
1	A01	post	3172×100×50	2	

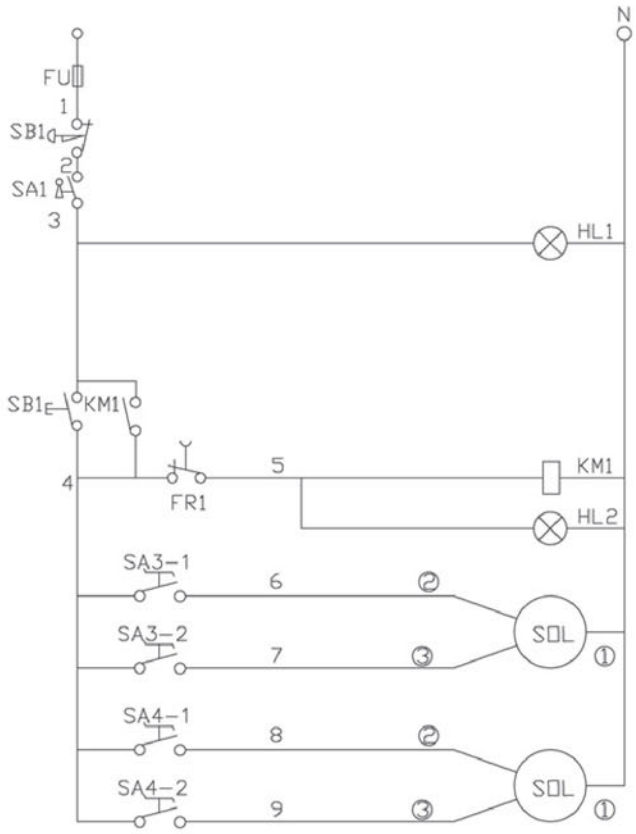


seq	code	name	specifications	qty	remarks
9	B09	connecting board	330×80	4	
8	B08	beam	L=6000 50×50方管	2	
7	B07	beam	L=3480 40×80方管	2	
6	B06	closure board	3000×80	4	
5	B05	closure board	3000×80	4	
4	B04	filter channel	2363×80	6	
3	B03	filter channel	2363×80	4	
2	B02	lighting fixture	1498×456×80	16	
1	B01	filter mesh	2358×1394	8	



RAIL DISTRIBUTION





U	V	W	PE	3U	N	6	N	7	8	N	9	PE	N	L1	L2	L3
motor				lighting		VCD Damper 1			VCD Damper 2			Power				
3X2.5MM²+1.5MM²				2X1.5MM²		2X0.75MM²			2X0.75MM²			3X4MM²+2.5MM²				

Automobile electric circuit diagram 5.5KW+Overhead\Side lighting		
First page	File name	
Total page 1	Software	CAD2004