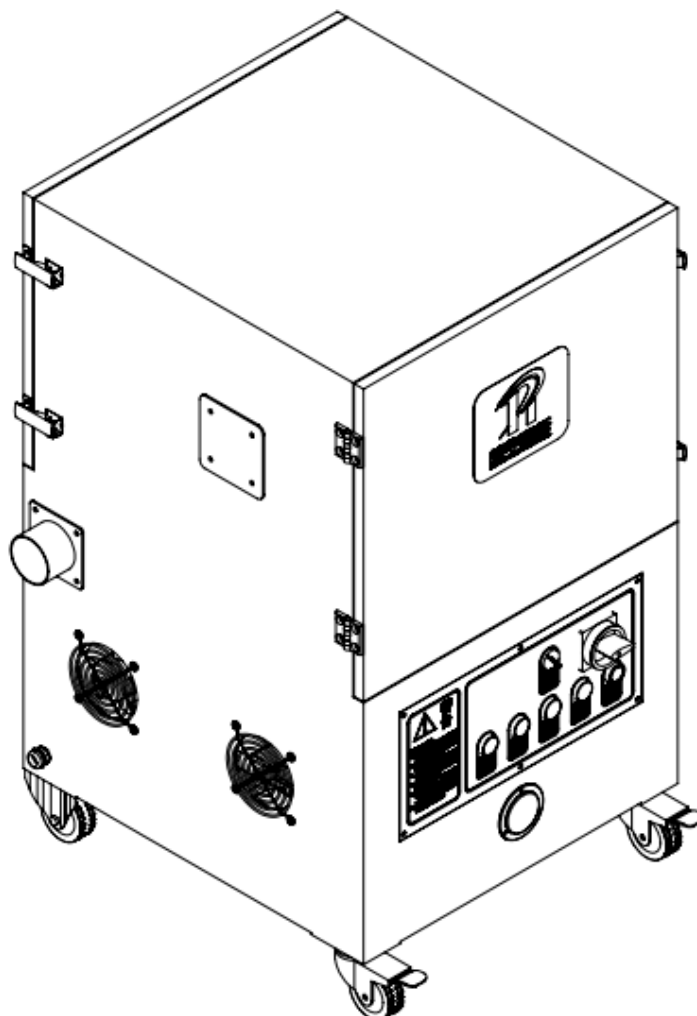


## DG Series Industrial Dust Collector

### Instruction manual




















Thank you very much for choosing PwC environmental protection related products, please be sure to read this manual before use.

This manual contains important safety rules and related reference data, please be sure to read it carefully before use, and store it properly for all users to refer to. **(Pictures are for reference only, everything is subject to the actual product)**

Applicable product  
models:

DG-22EF and its  
extended variants

 <b>General safety precautions for industrial dust collectors.</b>	
 <p>These symbols are used to warn operators of specific action steps that are prohibited.</p>	
 <p>These symbols are used to warn operators of specific operating steps that must be paid special attention to in order to operate safely.</p>	
	The personnel participating in the wiring and inspection must be professionals with the appropriate competence.
	Before the equipment is serviced, remember to cut off the power first.
	Make sure that the power cord is not trampled and squeezed, and if the wire is damaged, please deal with or replace it immediately.
	Be sure to use the power cord that came with this unit, and contact the manufacturer if you need to extend the power cord.
	Do not operate the power wiring with wet or wet hands!
	The plug connected to the power supply must have a ground wire, and the power supply must have a leakage protection switch.
	When you do not use the machine for a long time, turn it off and unplug it.
	Do not climb, stand or place heavy objects on the machine.
	Do not attempt to repair this industrial equipment yourself, please contact the manufacturer to discuss and then choose a repair plan.
	Please be sure to use the original product for the replacement filter, otherwise our company is not responsible for subsequent equipment problems.
	The instruction manual of this equipment should be placed next to the machine intact so that the staff can read it in time.
	The castors should be put in the brake state before the equipment works (if the equipment is equipped with brake casters).
	This machine is forbidden to absorb high temperature or oily smoke.
	When the user's industrial electrical equipment is large, the power socket and wiring should not be overloaded to avoid fire or electric shock accidents.
	Please regularly clean the filter from the outside with compressed air to avoid equipment failure caused by filter blockage.
	It is strictly forbidden to scrape or knock on the surface of the filter with wooden sticks, iron products and other objects, which will cause permanent damage to the filter.
	It is recommended to turn off the blowback for at least 30 minutes after the fan stops, because offline cleaning is better.

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## 1、Scope of product use

The DG series is designed with high negative pressure as the design feature of the dust collector and is the basic model. It is widely used in equipment supporting, such as laser processing operations, fine dust operations, food and pharmaceutical industries, semiconductors, electronics industries, milling, engraving operations and other working conditions.

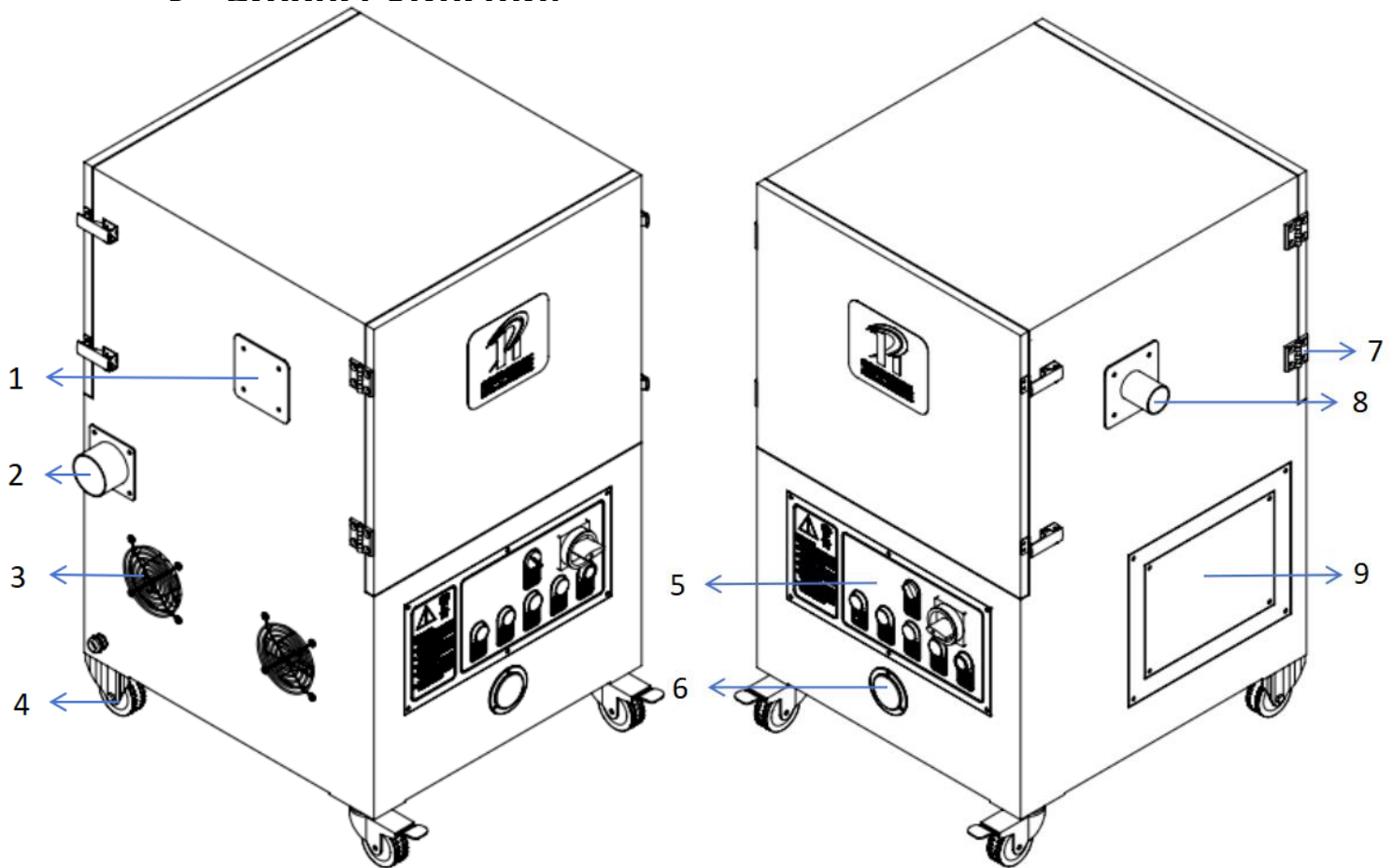
### Requirements for the local usage environment:

- (1) The altitude does not exceed 2000m.
- (2) The ambient temperature is -20~+40°C.
- (3) The relative humidity of the surrounding air is not more than 95% (at 25°C).
- (4) Combustible dust environment (zone 21, zone 22) place.
- (5) In places where there is no significant shaking and shock vibration.
- (6) In non-corrosive environments or collected non-corrosive dust.

## 2、Product technical parameters

Model	DG-22EF
Power(Kw)	2.2
Power Supply (V/Hz)	380/50
Maximum flow rate (m3/h)	265
Maximum Negative Pressure (Pa)	240
Number of filters	1
Filtration area (m2)	3.5
Filtration efficiency	≥99%
Suction caliber(mm)	75 (或定制)
Noise dB(A)	≤72

## 2 Product Structure



Exterior component composition			
1. Tuyere sealing plate	2. Air outlet	3. Shields	4. Casters
5. Control Panel	6. Pressure gauge	7. Hinge	8. Air inlet
9. Electrical box door panel			

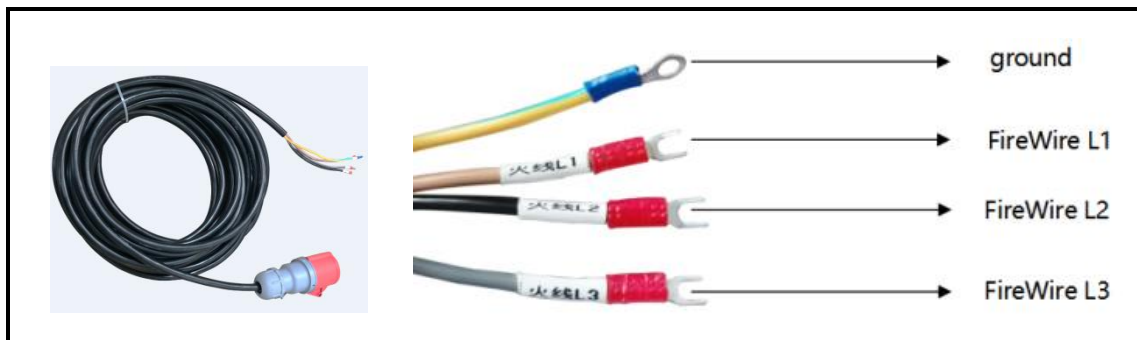
## 4、 Device placement

First of all, please place the machine in a suitable position, please pay attention:

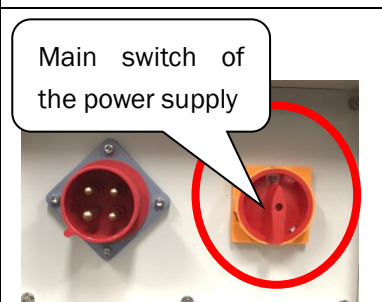
- There should be at least 1000mm ash cleaning area directly in front of the machine (easy to pull out the ash discharge from the collection box).
- There should be at least 500mm connection pipe and maintenance space left and right of the machine.
- The explosion discharge port behind the machine should be in an open area, and it is strictly forbidden to face the operator or flammable and explosive substances, and if necessary, the discharge port should be pointed up or taken out to the outdoor safety area.
- This equipment is designed for indoor use, if you have to use it outdoors, you must do a good job of rain, sunscreen, lightning protection measures and devices, the protection program must be approved by our company.
- After the equipment is placed, a cordon is arranged around the perimeter, and non-maintenance technicians are not allowed to approach at will.

## 5、 Device operation steps/processes

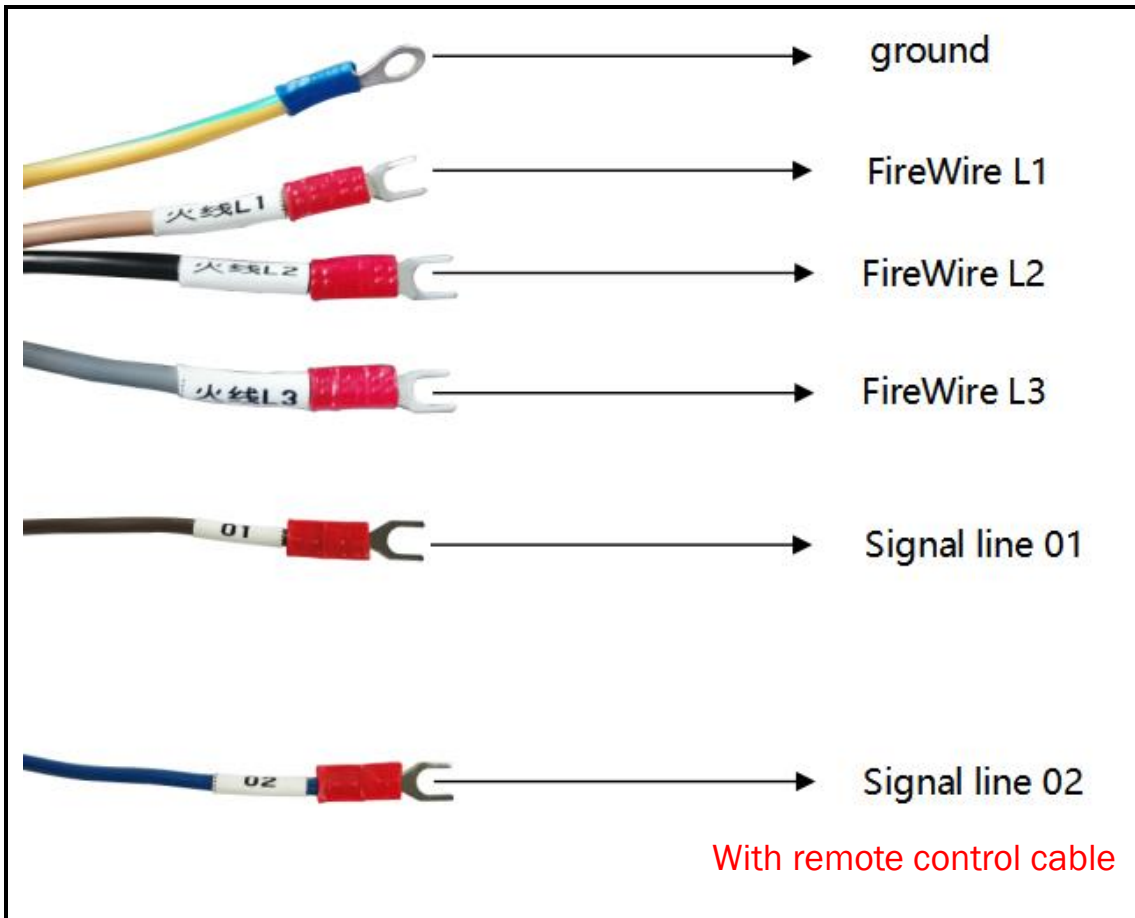
### 5.1 Plug it in



- The power supply used in this machine is 380V/50Hz, and the power parameters refer to the nameplate of the equipment, please be sure to ensure that the power supply provided by your power distribution cabinet can meet the voltage, frequency and power conditions.
- When our factory equipment comes standard with a cable with quick connector 10 meters, if it is out of range, please be sure to put it forward before the order is signed/delivered, we can do the corresponding length according to your requirements.
- Professional electricians connect the three live wires L1, L2, L3 and ground wires on the power line to your company's power distribution cabinet, and must be connected to the ground wire, and must ensure that the terminal is tightened, firm and not easy to fall off.



- Turn on the main power switch, at this time, on the control panel, the power indicator light is red, and the power cord is connected



- The power supply used in this machine is 380V/50Hz, and the power parameters refer to the nameplate of the equipment, please be sure to ensure that the power supply provided by your power distribution cabinet can meet the voltage, frequency and power conditions.
- Professional electrician will connect the three live wires L1, L2, L3 and ground wires on the power line to your company's power distribution cabinet, and must be connected to the ground wire, and be sure to ensure that the terminal is compressed, firm and not easy to fall off.
- If the machine has a remote control line, please connect the 01 and 02 of the remote control line to the control cabinet of your company's host computer, and your company only needs to provide a passive switch signal to control the opening and closing of the fan of the equipment.



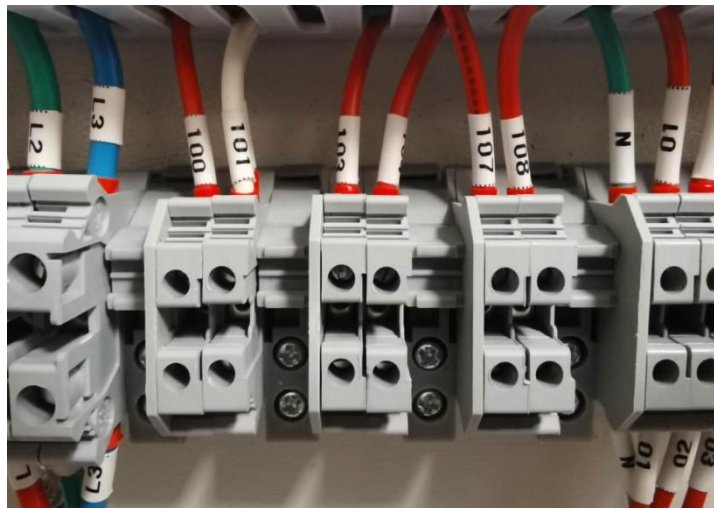
- After the power is turned on, the power indicator light on the device control box lights up, which proves that the power is turned on.
- Turn the remote control knob to the remote position, and the opening and closing of the fan of the equipment are controlled by the upper computer.
- Turn the remote control knob to the local position, and the opening and closing of the machine fan are controlled by the local control panel.

**【Note】** The control of the pulse backflush switch can still only be controlled locally, if the pulse backflush needs remote control, it must be customized by the manufacturer before the equipment is delivered.

## 5.2 Remote control line [optional]

**If you do not need to control the device remotely, this step can be skipped.**

- For the convenience of upper computer control, the remote control terminal is reserved on the control circuit.
- The remote-local switching button is also reserved on the local control panel, which can be switched freely between remote and local.
- Because the specific location of the owner's host computer is not easy to determine, the remote control line needs to be matched by the owner, we reserve the corresponding terminal interface, if we need to match the remote control line, please be sure to put forward before the order is signed/delivered, and clarify the corresponding length, specifications and the number of the corresponding terminal interface. Otherwise, our company will deliver all according to the standard configuration.

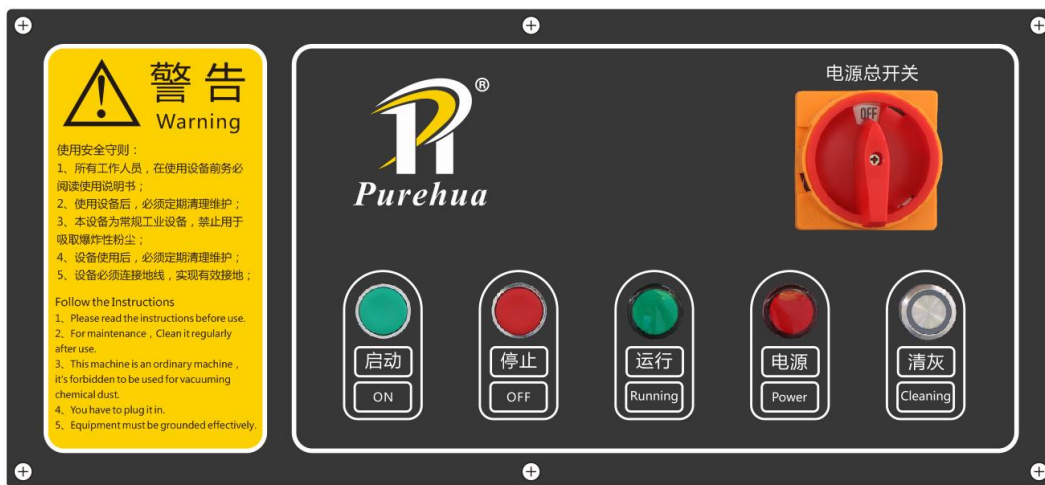


- 101 and 102 terminal block correspondence function: remote start and start of the fan
- 103 and 104 terminal block correspondence function: equipment operation feedback
- 107 and 108 terminal block correspondence function: pressure difference between the inside and outside of the filter cartridge
- Turn the remote control knob to the remote position, and the opening and closing of the fan of the equipment are controlled by the upper computer.
- Turn the remote control knob to the local position, and the opening and closing of the machine fan are controlled by the local control panel.
- **【Note】** The control of the pulse backflush switch can still only be controlled locally, if the pulse backflush needs remote control, it must be customized by the manufacturer before the equipment is delivered.

**Concentrate:**

If the dust collector is equipped with a front-mounted spark trap, the internal consumables of the spark trap are primary filters, which need to be cleaned regularly (twice a week) according to the actual dust volume on site.

## 5.3 Operate the control panel



Standard control panel

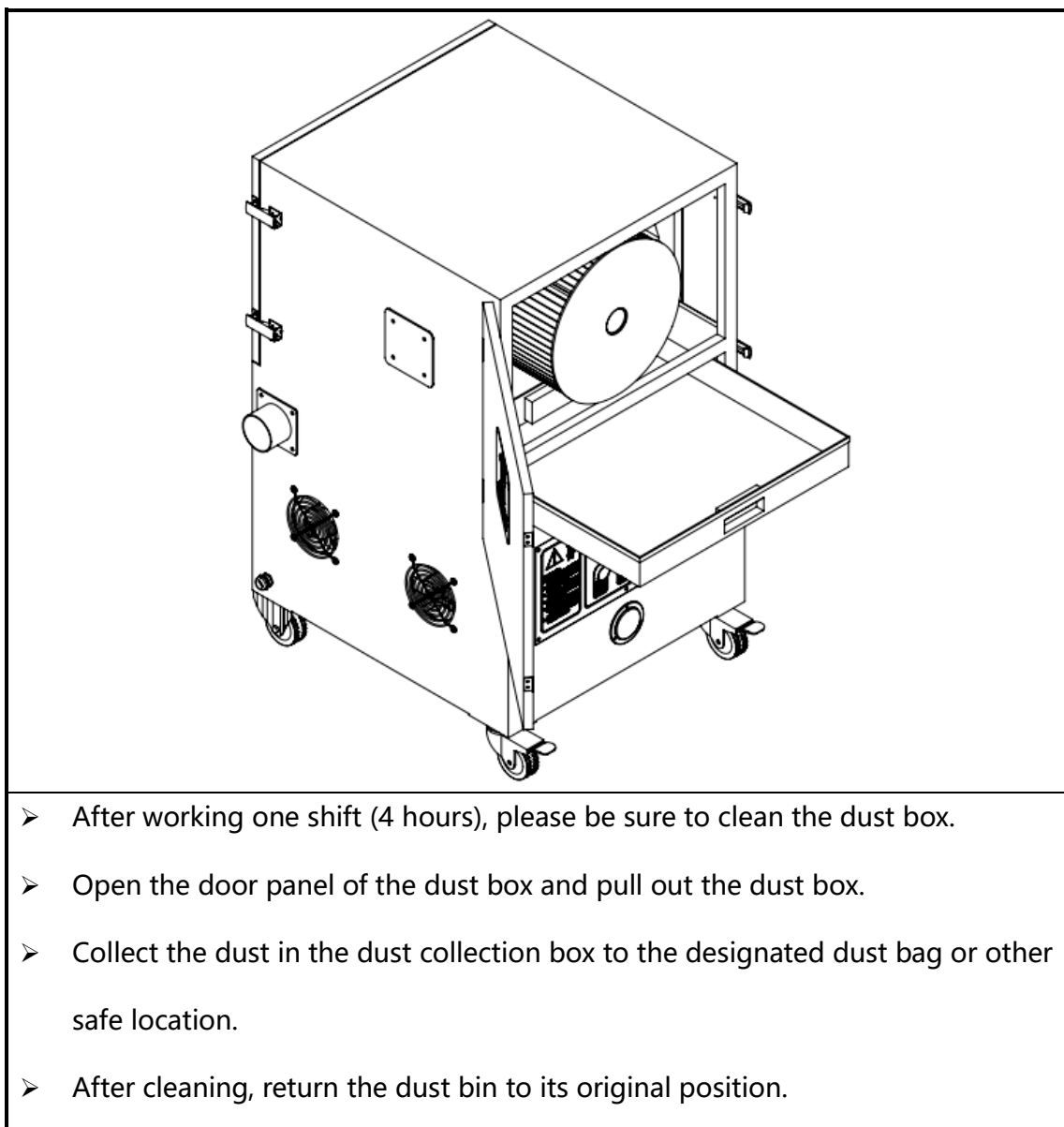


With remote control control panel

- DG series is equipped with two control panels, one is standard and the other is with remote control, which needs to be proposed in advance when the order is confirmed, and the equipment is delivered according to the remote function when it is delivered.
- When the remote function is needed, the remote control knob is rotated to the remote end, and the host computer gives a passive switch signal to control the opening and closing of the fan.

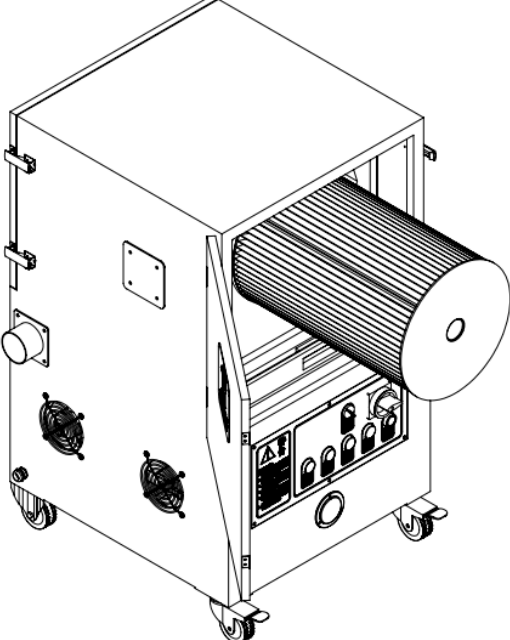
- When local control is required, rotate the remote control knob to the local side, and each button of the control panel on the device will be implemented locally.
- This machine is provided with start, stop, blowback switch buttons and power, run, blowback indicators.
- After the power indicator light is on, press the start button, the internal fan of the device will start, and the machine will start running.
- If the device cannot be started after pressing the "start" button, it may be due to the phase sequence problem, our equipment has a phase sequence protector inside, it is recommended to replace two of the three live wires of the power cord at will. If it has not been resolved, please contact our after-sales service personnel immediately.
- Put the ash cleaning button to the state of "on" [press to "on", bounce up and return to "off"), the ash cleaning indicator light is on, and the ash cleaning starts to clean the ash online, the ash cleaning is to spray out the compressed air instantly, and there may be a short sound of "bang", which is a normal phenomenon.
- After the work is finished, after pressing the "stop" button, the fan will stop running, and the ash cleaning is still in progress at this time, if the conditions permit, after shutting down the fan, let the ash cleaning action last for more than 30 minutes, because the effect of offline ash cleaning is better.

## 5.4 Ash unloading operation



## 6、Routine maintenance

### 6.1 Maintenance and replacement of cartridges

	 <div data-bbox="1074 607 1329 869" style="border: 1px solid black; padding: 5px;"> <p>The picture is for reference only, and the number of filter cartridges is subject to the actual number.</p> </div>
<p><b>Maintenance of the cartridge</b></p>	<p>Open the front and rear (or left and right) access door panels, and loosen the 6 nuts on the filter cartridge to remove the filter cartridge.</p> <p>After the filter cartridge is disassembled, take it to a specific area, do a good job of personal protection, and manually use compressed air for deep cleaning.</p> <p>After cleaning, reinstall the cartridge back to the original 6 nuts and lock the removed access door panel.</p> <p>When cleaning the filter cartridge, do not use stick beating or other strong means to avoid permanent damage.</p> <p>When cleaning the filter cartridge, be cautious about using water washing, which will affect the service life of</p>

	the filter.
<b>Replacement of the cartridge</b>	<ul style="list-style-type: none"><li>➤ It is recommended to replace the filter cartridge after 12 months of use.</li><li>➤ The assembly and disassembly steps of replacing the filter cartridge are the same as the action steps of the filter cartridge maintenance and cleaning.</li><li>➤ When replacing, be sure to replace all the filter cartridges of the machine at once.</li><li>➤ It is recommended to use our original accessories when replacement, otherwise, our company will not be responsible for the follow-up equipment after-sales problems, because the filtration accuracy and wind resistance of the filter cartridge of different manufacturers are different, which will affect the service life of other components of the equipment.</li></ul>



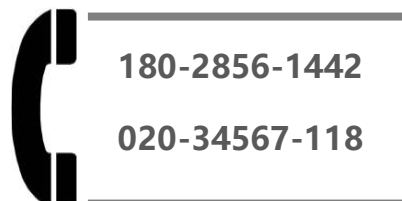


## 8、 General fault finding and troubleshooting methods

Fault characteristics	The cause of the failure	Exclusion method
The dust collector does not work	The order is reversed	Swap the power cords L1 and L2
	The factory voltage fluctuates too much, undervoltage or overvoltage	Negotiated and resolved within the factory
	The excessive current causes the thermal overload protector to open	Detect motor operation, which may be thermal overload disconnection
	The pulse valve does not work	Clean or replace the pulse valve
	The compressed air supply pressure is too low	Check the pressure of the oil/water separator and the compressor
Insufficient suction	The suction hose is clogged or broken	Clean or replace
	Check whether the blowback function is normal	Check whether the trachea is well connected and whether the pulse controller is working
	The filter cartridge is blocked	Clean or replace the filter cartridge
Excessive emission concentration	The cartridge/bag is not installed correctly	Reinstall to adjust the filter bag position
	The filter cartridge/bag is broken	Replace the filter cartridge/bag
Excessive noise	The motor bearings are damaged	Contact the manufacturer for replacement
	The impeller scrapes onto the deflector	Trim the deflector
	The motor is reversed	Contact the manufacturer for guidance on processing
	The air inlet is noisy	The pipe is too small or uneven inside
	The exhaust outlet is noisy	If possible, the exhaust air can be led out

Note: When the dust collector has a special fault or the actual working conditions of the dust collector are quite different from the original design conditions, please contact our company in time to obtain a solution.

National after-sales service



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