AA-SCM-750 Pneumatic Stencil Cleaning Machine

Operating Instructions

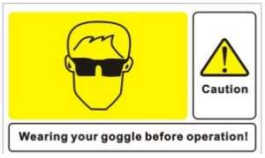
Contents

1. Use safety warnings

Notice: In order to ensure the safety of the operator and the machine itself, please read the operation manual carefully and pay attention to the warning signs on the machine before use.

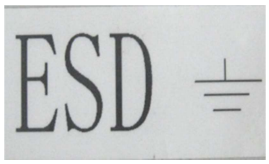
Flammable symbol: This sign requires you to place the device away from fire sources, and pay attention to fire prevention of flammable materials to avoid fire.

Protection symbol: This symbol reminds you to pay attention to hand pinching and injury during equipment operation.



Protection symbol: This symbol reminds you to wear industrial protective glasses during equipment operation.

Manual mark: This mark is to remind you of the important part of this equipment, and non-professional operators should not open it.



ESD mark: This mark reminds you to ensure good anti-static grounding.

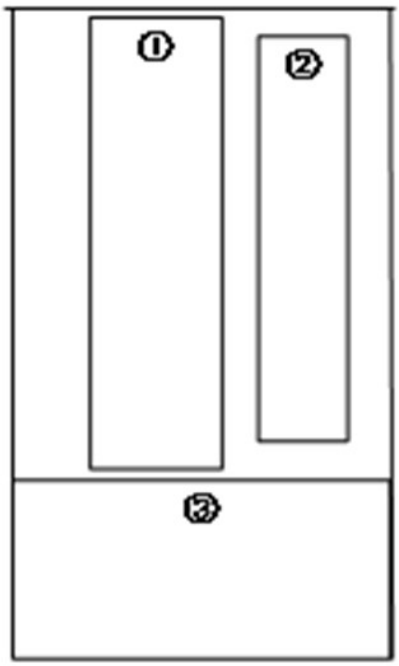
2. Equipment introduction

This machine uses compressed air as its energy source, and it is a new type of high-performance fully pneumatic cleaning equipment. Put the stencil into the cleaning room manually, after adjusting the cleaning and drying time, press the start button, the stencil will be cleaned and dried automatically. It will automatically stop running after the set time is reached. The opening time of the door is reset, so as to realize the next work flow, it is convenient for the operator to clean the screen, and the chief mate can improve the production efficiency.

Among them, because the liquid used for cleaning can be recycled in the machine, the consumption and cost of liquid are greatly reduced, the working time is greatly shortened, and the operator does not need to touch the liquid, so as to avoid harm to the human body to the greatest extent. The power source used by this machine is compressed air, which does not require any power input, so that its safety performance reaches 99.99%, and there is no requirement for liquid.

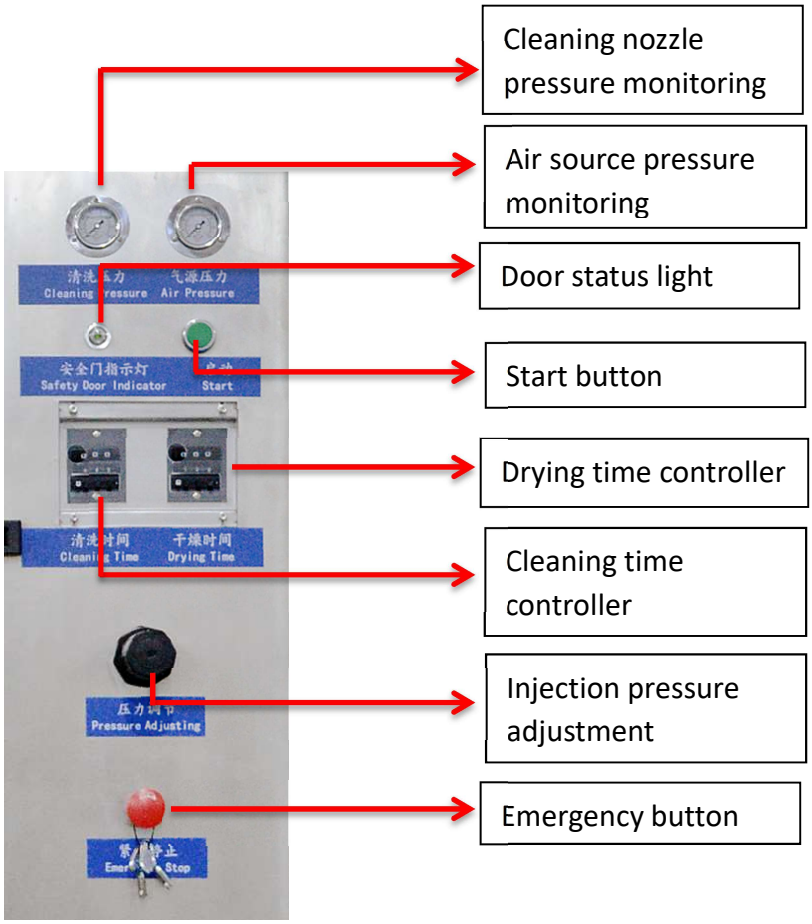
All control components use imported brands to make the machine run stably and have a long service life. Reduce the after-sales service after the warranty period. The humanized design and one-button operation make it easy to use and complete the cleaning and drying process easily. The exhaust gas produced by drying is discharged through the exhaust device with special structure inside the machine, which reduces the volatilization of liquid, reduces the consumption of liquid and compressed air, and minimizes the emission of liquid odor.

(Schematic diagram of putting the equipment grid board into the front)

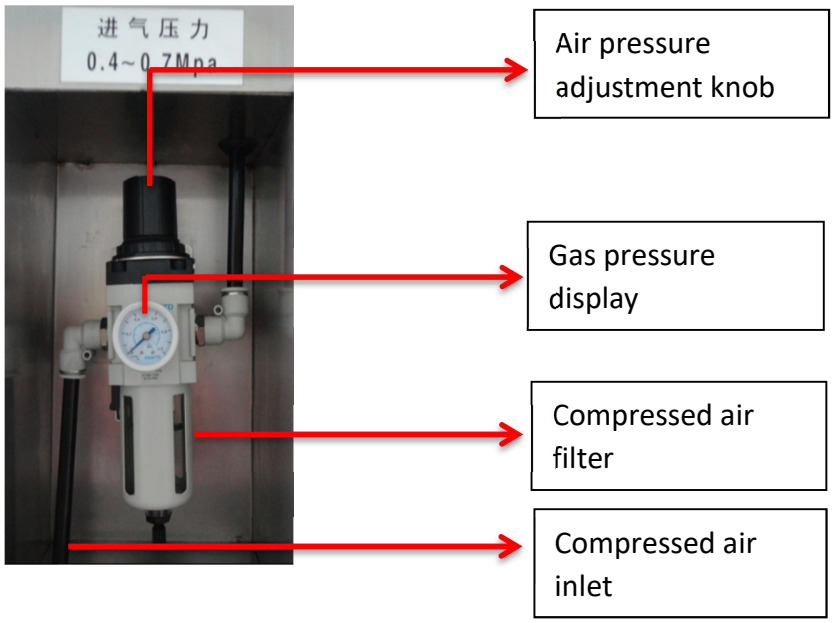


①: Cleaning chamber (Cleaning material inlet)
②: Control panel
③: Liquid tank storage location

(Control Operation Panel)



(Partial view of the side of the equipment)



3. Installation instructions

Required for installation:

1. Air supply source
The machine must be supplied with a compressed air source of 0.45-0.7Mpa from the outside, the flow rate is 400-600L/Min, and the inner diameter of the input gas pipe is >=12. If the air pipe must beφ12mm, the gas pressure should be greater than 0.45MPa when the machine starts, otherwise the machine will not run under normal conditions. And there must be a green wire that is forced to ground.

2. There is aφThe 100mm exhaust port needs to be connected to the outside with a separate air duct (less than 2 90-degree elbows and a length of no more than 6M, otherwise a forced draft device with a wind speed of 3M/s) must be connected to the outside, and it cannot be connected to any heat source. The ventilation pipes of the equipment are connected to avoid fire accidents.

Installation place:

In order to ensure the safety of personnel and prevent possible damage to the equipment, the equipment should be installed in an environment that meets the following conditions:
1) It is necessary to independently configure the placement area of the machine, an independent air outlet, and there are not many electrical equipment around.
2) The floor of the machine area needs to be laid with 1.0mm304 stainless steel plate.
3) Do not expose the machine to direct sunlight or places where a large number of heat sources radiate equipment such as heat treatment furnaces, and keep away from any fire and heat sources.
4) Please place the machine in an environment with a temperature of 0~30°C, a humidity below 85% (no condensation), and no corrosion or flammable gases.
5) Do not place the machine where it is easily damaged by vibration or shock.
6) The surrounding area is well ventilated, dry, dust-free and clean.

Space requirements:

In order to ensure the convenience of equipment operation, replacement of accessories and equipment maintenance, please reserve the installation space according to the following dimensions:
Equipment external dimensions: L950mm*W800mm*H1680mm
Note: A space of more than 1 meter must be reserved on the right side of the equipment operation surface to facilitate the addition and discharge of liquids.
(It is recommended to reserve L3000mm*W3000mm*H2000mm)

4. Operating Instructions

4.1. Precautions before operation

In order to ensure the safe operation and maintenance of the machine by the user, the following is the content of safe operation, which is the customer control specification:
4.1.1. It is strictly forbidden to use methods other than those described in this manual during operation. If you have any questions, please contact the company or its agent.
4.1.2. Before installation and use, the user must understand the operation mode of each part of the machine and the function of each button.
4.1.3. Do not place any scattered parts on the machine. Those who wear loose clothes and do not tie their hair cannot operate the machine at this time.
4.1.4. Operators are not allowed to use mobile phones or smoke in the area where the machine is placed. Do not bring any dangerous goods (such as lighters, etc.)
4.1.5. Personnel without proper training shall not operate the machine to avoid injury and equipment damage.
4.1.6. Please be sure to close the safety door or wear goggles, gloves, masks, etc. during operation to prevent liquid and gas from hurting the eyes and skin.

4.2. Preparation before starting up

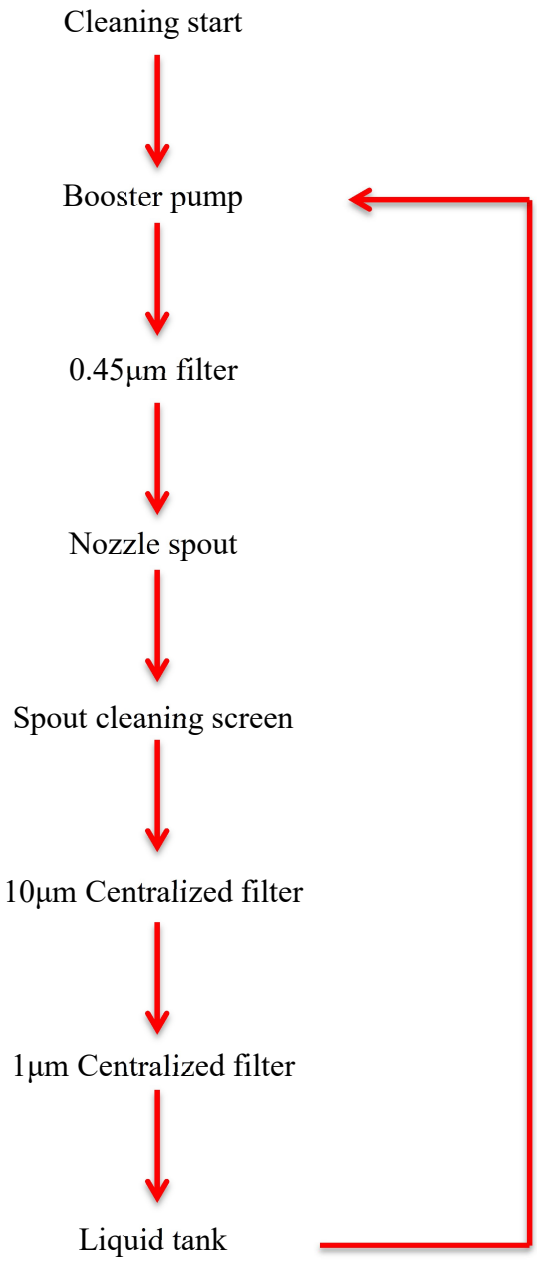
4.2.1. Check whether the electrostatic grounding is connected properly, and the grounding resistance is ≦5 ohms.
4.2.2. Connect the air source (connect the compressed air of 0.45-0.7Mpa to the equipment).
4.2.3. Connect the exhaust pipe (connectφ100mm exhaust pipe connected to the outside).
4.2.4. Use the automatic filling and draining system to add enough liquid (≦35L) into the liquid storage tank.
4.2.5. Adjust the stencil fixing jig according to the size of the stencil to be cleaned.

4.3. Main technical parameters

Dimensions	950(W)×800(L)×1680(H) mm
Ceaning method	360° rotating liquid spray cleaning and compressed air drying
Cleaning screen size	Basic specifications: 750mm×750mm×40mm(Max) (Large and special specifications can be customized)
Tank capacity	42L(Max)
Optimum Cleaning Solution Dosage	25L-35L
Filter method	Primary: 10μm
	Secondary: 1μm
	Fine filter: 0.45μm
Exhaust vent	φ100×30mm(H) Maximum gravity wind speed 3m/s
Machine material	SUS304# stainless steel
Total Weight	200Kg (without cleaning solution)
Required air pressure	0.45～0.7Mpa
Required air flow	400～600L/Min

4.4. Cleaning process and operation method

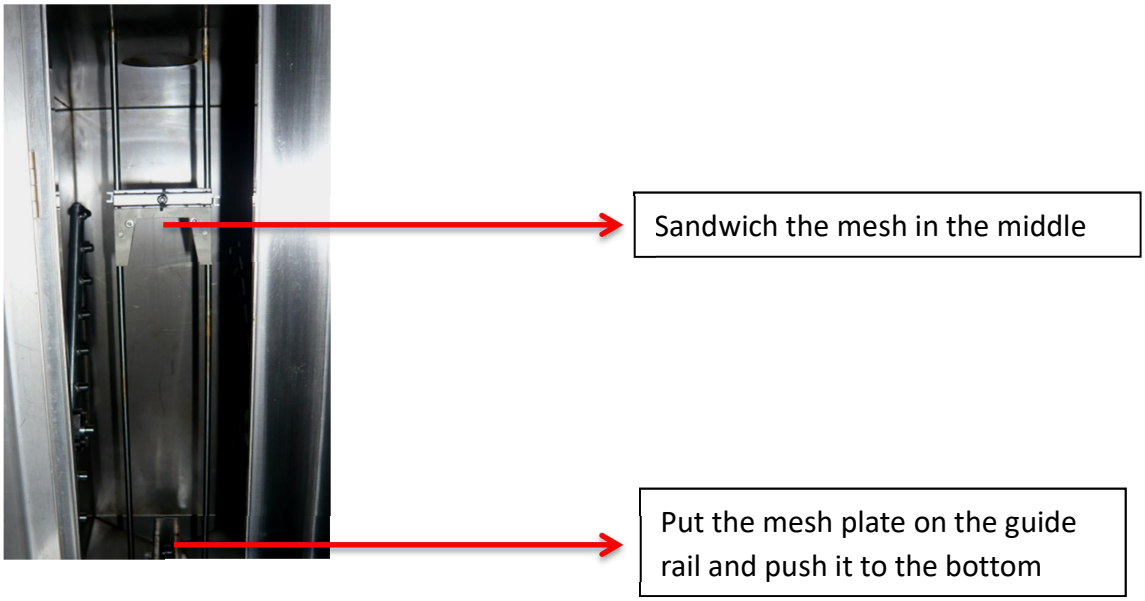
4.4.1 Cleaning process



4.4.2 Operation method

A. Observe the display status of each component on the control panel. The air source indicator (AIR) is green, indicating normal; if it is red, it indicates insufficient air pressure or no compressed air. (Need to adjust the air pressure to the normal working pressure)

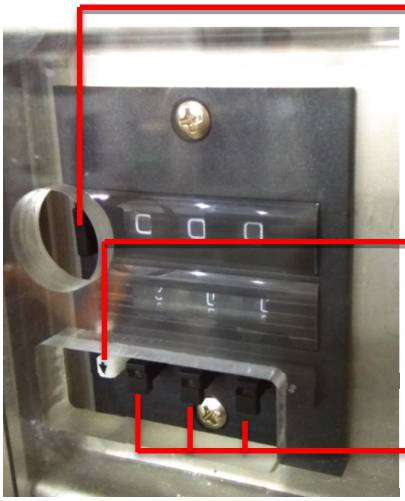
B. Open the door and put the stencil to be cleaned into the cleaning room. After confirming that it is put away, close the door of the cleaning room. Watch the control panel at this point. The (DOOR) indicator light shows green to start working normally, and red means the door is not closed properly, and the machine will not start to work.



C. Time setting

Cleaning time setting: press the white button (time setting lock button) in the direction of the arrow, and adjust the three black buttons on the right at the same time, release the white button after setting the required time, and close the protective cover. Time is locked.

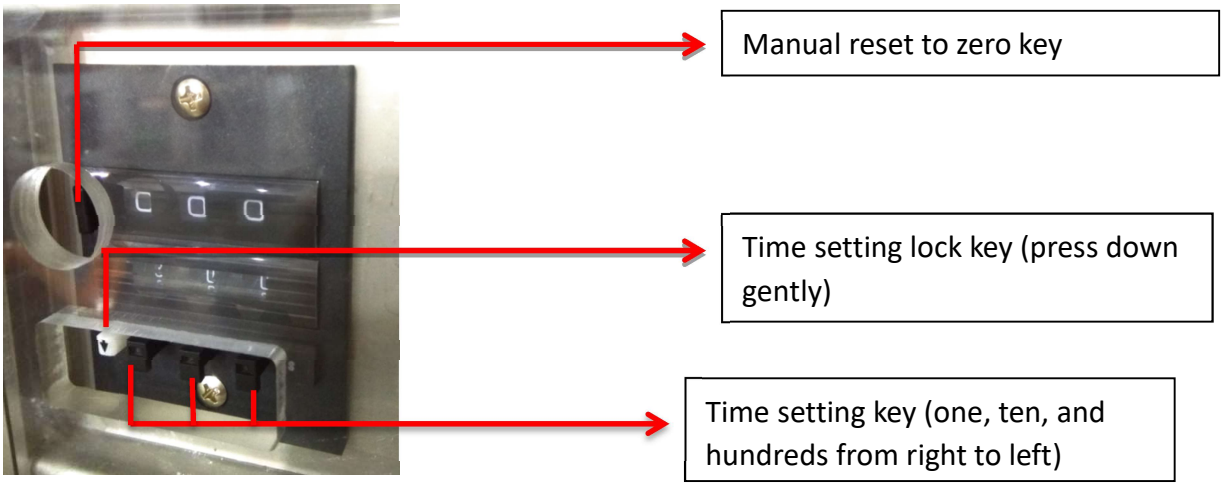
The time unit is seconds (except for those not in the range of 0~999), and the general cleaning time is set within the range of 180-999 seconds.



(Cleaning timer)

Drying time setting: press the white button (time setting lock button) in the direction of the arrow, and adjust the three black buttons on the right at the same time, release the white button after setting the required time, and the set time will be locked .

Generally, the drying time is set in the range of 120-400 seconds.



(Drying timer)

D. Adjust the emergency stop button (EMERGENCY STOP) in the reset state.

E. Press the start button (START), the equipment is started. The cleaning controller starts timing and starts cleaning the stencil at the same time. After the cleaning time is up, it will automatically switch to the drying controller, and the drying controller will start counting and start drying. After the drying time is up, the work is over, the timer stops counting, and the machine stops working at the same time.

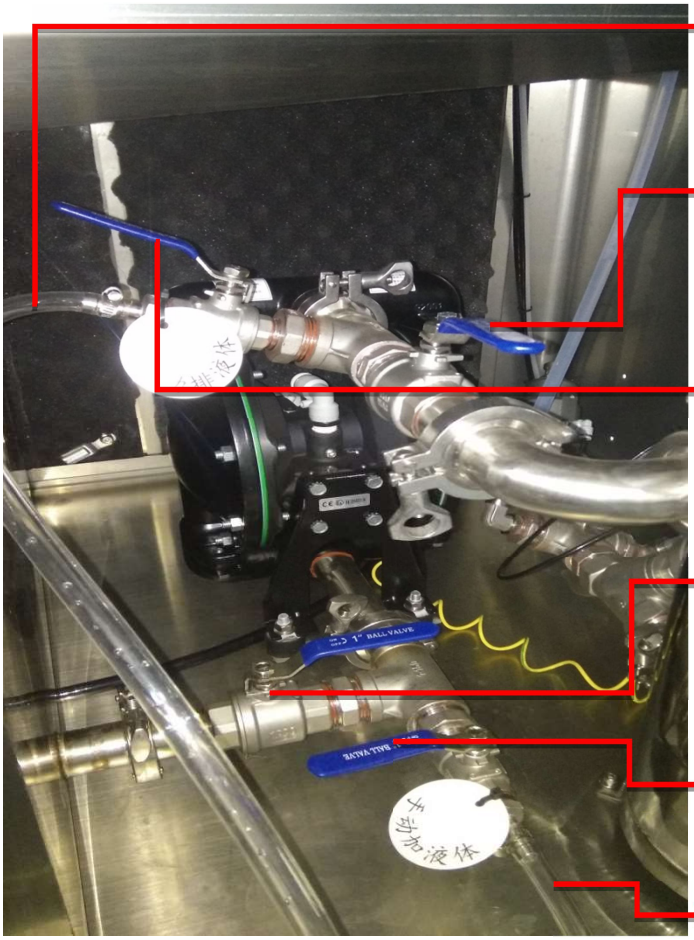
F. Open the door, the machine automatically resets, takes out the steel mesh, and the cleaning process ends.

4.5. Adding and discharging cleaning fluid

4.5.1 Special suggestion: When the machine is in normal working condition, cleaning agent should be added once a week.

4.5.2. Pay attention to check the height of the cleaning liquid at the lower right window of the machine. If the liquid level is lower than M, you need to add liquid in time.

4.5.3. Air pump inlet and outlet valves



Cleaning fluid outlet

1 Circulation valve: open during work, closed when draining, T-shaped is closed, one-shaped is open

2 Liquid discharge valve: it is closed during the working process, and it is opened when the liquid is discharged. The T shape is closed, and the one shape is open.

3 Circulation valve: open during working, closed when adding liquid, T-shaped is closed, one-shaped is open

4 Filling valve: it is closed during the working process, open when adding liquid, T-shaped is closed, and one-shaped is open

Cleaning fluid inlet

4.5.4. Add liquid

Before use, make sure to close valve 3 and valve 2, open valve 1, and then insert the filling tube into the container containing the cleaning solution. Set the cleaning time controller to the maximum time, close the door of the cleaning room, press the "start" button on the operation panel, the air pump starts to work, slowly open the valve 4, and the air pump adds the cleaning agent into the liquid storage tank. When the liquid level of the liquid storage tank reaches between M and H, you can stop adding liquid. Press the "emergency stop" button and reset, close valve 4, open valve 3, and add liquid to end.

4.5.5. Discharge liquid

First close valve 1 and insert the drain tube into an empty container. Set the cleaning time controller to the longest time, close the door of the cleaning room, press the "Start" button on the operation panel, slowly open the valve 2, and the air pump will pump out the cleaning agent from the liquid storage tank until it is exhausted, press The "emergency stop" button on the control panel closes valve 2, opens valve 1, and discharges liquid.

4.6. Replace consumables

There are two types of consumables for this equipment: filter element and filter screen. In order to ensure a good cleaning effect, the filter element should be replaced once a month.

4.6.1. Replace the filter element

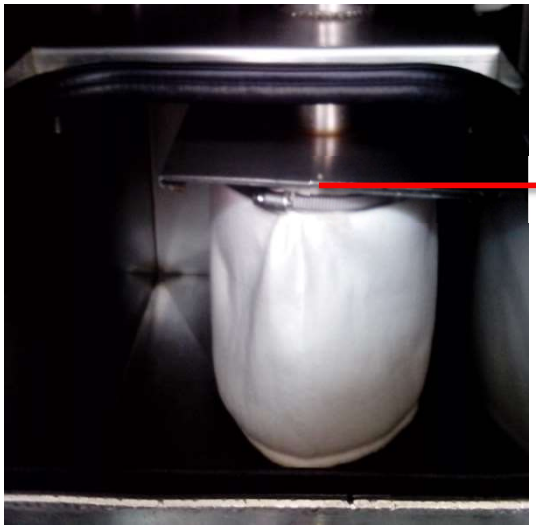
Open the door at the bottom right of the device, remove the filter with a wrench and take out the built-in old filter element, and install a new filter element after cleaning.

Notice: When replacing the filter element, it is necessary to wear industrial rubber gloves to drain all the liquids in the internal pipes, storage tanks and filters of the equipment. So as not to pollute the newly replaced filter element, and fail to achieve a good filtering effect.

Unscrew the locking screw by hand (clockwise is tight, counterclockwise is loose), remove the filter cover, and use a professional delivery wrench to remove the filter element fixing screw, replace the new filter element, and then install the filter Close the cover of the filter and tighten the screws, then start the machine, check whether there is any liquid leakage in the filter, and if so, tighten it again until there is no leakage.

Open the liquid tank cover, the filter box is installed inside

Liquid level scale 1MM=～0.18L (best cleaning capacity 25L-35L, maximum capacity 40L)



This is the filter box, after removing this screw, the filter bag is installed outside

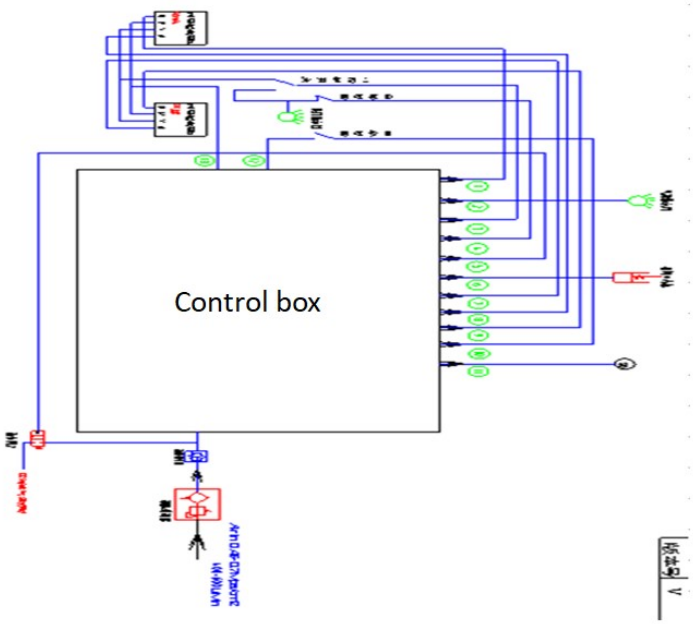
4.7. Precautions for use

4.7.1. Make sure the air pressure is within the normal working range before starting the machine.

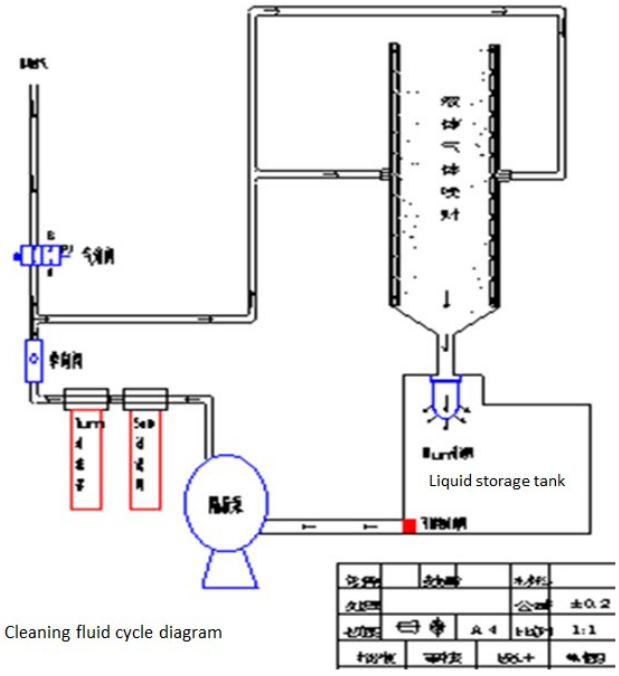
4.7.2. It is best to add the cleaning solution between the M--H positions of the scale line.

5. System introduction

5.1. Air source system diagram



5.2. Diagram of cleaning fluid circulation system



Cleaning fluid cycle diagram

6. Analysis of maintenance and common failure causes

In order to ensure the user's operation safety and maintain and repair the machine, the following are some suggestions for safety control, that is, customer control specifications:

1. When assembling, adjusting or maintaining the machine, please be sure to disconnect the air source, and hang a sign indicating that the machine is in operation at an obvious place around the machine to prevent others from accidentally plugging in the air source.

2. Multiple personnel must have a mutually safe confirmation contact language when working, especially before sending and cutting off the gas source and before the machine operates, audible notifications must be made to prevent accidents.

3. Please be sure to close the safety door or wear goggles, gloves, masks, etc. during operation to prevent liquid and gas from hurting the eyes and skin.

4. Do not touch the rotating parts inside the machine.

5. Drain all the liquid before maintenance of the machine, so as to facilitate the cleaning of internal media residues.

Maintenance plan:

Item / Cycle	Clean appearance	Cleaning inside the cleanroom	Check air pressure	Clear the liquid tank filter impurities	Check the sealing condition of liquid piping, joints, and gas lines	Nozzle cleaning
Every day	√	√	√	√		
Weekly				√		
Per month					√	
Per year						√

2. Common fault analysis:

Reason / Cycle	Insufficient air pressure	Insufficient gas flow	Drying timer set to 0	Improper selection of cleaning fluid	Dirty filters	Timer failure	Door open
AIR light not work	√						
Cannot start	√		√			√	√
Slow air pump action	√	√					
Poor cleaning effect	√	√		√	√		
Process interruption	√		√		√	√	√
Poor drying	√	√		√			

7. Warranty period and scope

The quality inspection of this machine has been completed before shipment, and the company will guarantee it under the following conditions.

7.1. Warranty period

Within 12 months after the company ships.

7.2. Warranty coverage

The company will be responsible for free repairs for faults that occur during normal use within the warranty period, but the following situations are not covered by the warranty:

1) Natural fading of the surface.
2) Consumables are worn out.
3) It does not affect the function of noise changes and heating sensation.
4) Improper operation or use by the user.
5) Improper maintenance.
6) Use parts not specified by our company.
7) Modification without the consent of the company.
8) Damage under other natural disasters.

In addition, the content of this warranty is only valid for this machine, and other derived problems are not covered by the warranty. Therefore, if users have any questions about the use, please contact our company.

8. Service scope

The sales amount of this machine does not include the consumables used by the equipment, or the cost of technical personnel's travel support, so the following situations will be charged additionally even within the warranty period:

1) Assembly adjustment guidance and trial run.
2) Regular maintenance.
3) Technical guidance or education training such as operation and process analysis.
4) Non-standard operating procedures and related technical guidance or education and training.
5) Other fee-based services or operations identified by the company.