
Dental Electric Suction Machine

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1. Product Introduction

M series Suction Machine is a classic medical equipment.

M series Suction Machine is used in the oral treatment process. It can suck out foreign objects attached to eubacteria, such as oral secretions and dirty blood. And it can also protect the oral environment before suctioning. Usually dental suction pumps are equipped with oral treatment machines.





2. Safe operation requirements

- ☑ This machine provides negative pressure for oral treatment equipment.
- ☑ Power supply is single-phase 220V, 50Hz. The power supply needs short-circuit protection system and corresponding grounding installation.
- ☑ During the use of this machine, if the power supply is suddenly cut off, please put the switch of the single-phase power box to the off position "O".
- ☑ Please pay attention to all safety operation
- ☑ Please check the gas (air) in the filter regularly and replace the filter element in time.

3. Main technical parameters

Please refer to the product introduction page

4. Symbols Description

	Caution		Please Use Suitable Voltage
	Earthing		Type B

5. Operation

5.1 Working environment

5.1.1 Ambient conditions

- ✱ Ambient Temperature $+5^{\circ}\text{C}\sim+40^{\circ}\text{C}$
- ✱ Relative Humidity $\leq 80\%$
- ✱ The surrounding air must be free of caustic substances.
- ✱ It cannot exceed 2000 meters above sea level.
- ✱ Operation modes: intermittent operation mode and continuous operation mode

5.1.2 Power Supply

- ✱ Power Supply: $110\text{V}\pm 10\%$ ☐ $220\text{V}\pm 10\%$ ☒ $240\text{V}\pm 10\%$ ☐
- ✱ Frequency: $50\text{Hz}\pm 1\text{Hz}$ ☒ $60\text{Hz}\pm 1\text{Hz}$ ☐

5.2. Unpacking and checking

First check whether the package is intact and undamaged, and then unpack the package to see whether all accessories are complete. If you have any questions, please contact the dealer or our company.

5.3. Installation notes

✱ Electrical installation should be completed by professional electricians or qualified personnel who have been professionally trained by our company.

✱ If the machine needs to be repaired, use original component, otherwise the quality warranty or trial guarantee is invalid.

5.3.1 Ambient temperature is $5^{\circ}\text{C}\sim 40^{\circ}\text{C}$

5.3.2 If the dental suction machine is installed for other purposes, it should be approved in advance in accordance with the relevant plan, building rules or laws as well as environmental protection.

5.3.3 If the dental suction unit is installed in a small room, there must be enough air circulation to cool the equipment. In this case, the diameter of the ventilation hole must be greater than 50 cm. If the air circulation is insufficient, a ventilation fan should be installed, and the wind speed should be faster than $1.2\text{M}^3 / \text{min}$.

5.4 Installation and usage

5.4.1 Election and Installation of Pipe

(A) Material of gas-liquid pump pipe of dental suction machine and dental treatment machine: PPR or PVC.

internal diameter: $\varnothing 32\text{ mm}$

Pipe length: $\geq 20\text{ m}$

The height difference between the pipe plane and the machine datum plane: the difference between the pipe plane and the equipment plane datum cannot exceed 0.2 meters.

(B) Exhaust outlet of the suction machine to the outdoors

Pipe Material: PPR or PVC

internal diameter: $\varnothing 32\text{mm}$

Pipe length: $\geq 10\text{m}$

(C) The exhaust port of the suction machine to the wastewater processor

Pipe Material: PPR or PVC

internal diameter: $\varnothing 32\text{mm}$

Pipe length: $\geq 10\text{m}$

The height difference between the pipe plane and the machine datum plane: the pipe surface must be lower than the equipment plane datum.

5.4.2 Electrical requirement

★ Power supply: The suction machine needs to be equipped with 220V 50Hz socket.

★ Control cable: 2-core vinyl insulated wire cable is used as a control cable of 0.5 m², and the joint of the gas-liquid traction hose is fixed with a steel sleeve.

5.4.3 Installation

5.4.3-1 This machine is installed in a well-ventilated room or outdoors where there is no sun or rain. Please check the pipeline link thoroughly.

5.4.3-2 Connect gas-liquid pump pipe.

\Refer to Figure 2, the inlet of the suction machine is connected to the vapor-liquid traction hose connector with a diameter of $\varnothing 32\text{mm}$ or $\varnothing 50\text{mm}$, and the pipe connector is fixed with a copper sleeve.

5.4.3.1.2 Connection of Discharge pipe

Refer to Figure 2, the mercury separator of the suction machine is connected to the $\varnothing 32\text{mm}$ discharge traction hose connector, and the pipe connector is fixed with a copper sleeve.

5.4.3.2 Connect the exhaust pipe of the suction machine to the outdoor pipe.

5.4.3.3 Electrical connections

5.4.3.3.1 Plug in the power plug of the suction machine with a grounding system.

5.4.3.3.2 Connect the control cable between the suction machine and the dental machine.

6. Maintenance

★ Clean the dust collecting bottle weekly.

★ Clean the pipe and outer surface every three months.



Warning! When disassembling the spare parts of the

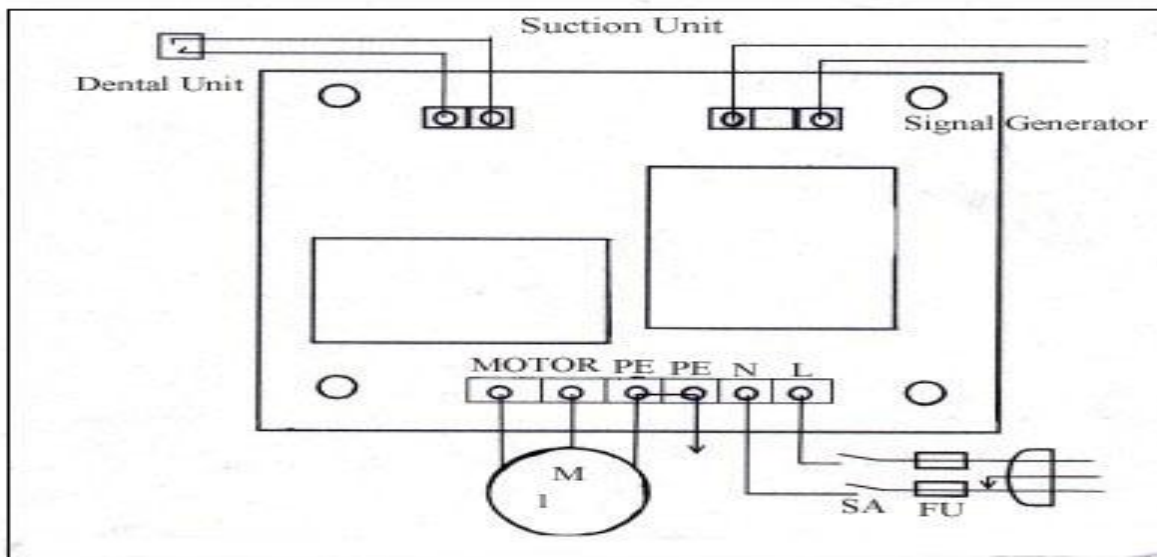
machine for cleaning, the power supply must be turned off.

7. Troubleshooting

Fault	Possible Cause(s)	Solution(s)
The suction machine does not work	No power supply	Check power supply and replace it with a new one
	Power switch off	Turn on switch of the suction machine
	Power cable is not connected properly	Connect the cable
	Fuse blow out	Change the fuse
	Suction machine control switch failure	Check the control switch and replace it
Suction pump demonstrates low level of suction power.	The internal diameter of suction pump tube is too small	Choose a suitable pipe for the suction machine
	The horizontal deviation between the suction pump tube and the suction machine is too large	Increase the height of the pump tube and lower the height of suction machine
	Pump line is too long	Adjust the space between the suction machine and the dental

		treatment machine
	Air leak in the pipeline (leakage)	Check the pipeline and clean the leakage

8. Circuit diagram



9. Transportation and storage

- ★ Ambient temperature: -40~35°C
- ★ Relative humidity: ≤95%
- ★ Atmospheric pressure: 500hPa~1060hPa

Caution: This machine should be "handle with care", "right up", "keep dry ", and "horizontally placed" during transportation and storage.