

HAKKO HOT AIR GENERATOR

100V HOT AIR GENERATOR

HAP1012

INSTRUCTIONS MANUAL

Thank you for your choosing our product.
Read the instructions before use and keep in the convenient place for future reference.

Please confirm the following on delivery.

- Check if the name plate is correct as you ordered.
- Check if there are any damages or deformation during transportation.
- Check if there are any loosened bolts or screws.



 **HAKKO ELECTRIC MACHINE WORKS CO., LTD.**

FOR SAFE USE OF THIS PRODUCT

We use the following symbols for safety.



Improper use causes the danger of death or injury.



Improper use may cause the danger of death or injury.



Improper use may cause the danger of light injury or property damage.

DANGER

- Do not heat explosive or flammable gases nor operate the device in the atmosphere of those.

Otherwise it causes explosion or fires. The device is not designed in explosion proof.



WARNING

- Do not take apart or deform the device.

It may cause fire, electric shock or failures.



- Do not touch parts of high temperature with bare hand.

Temperature around the exit of outlet is very high. It may cause burns.



- Do not take off the side cover during operation.

It may cause fire, electric shock or burns.



- Do not close the exit of inlet and outlet at work.

It may cause fire or failures.



- Do not pour water at the body or the control panel.

Water may cause short circuit, electric shock or failures.



- Do not touch the control panel by wet hands.

It may cause electric shock.



- **Do not use in dusty or linty environment.**

Heated lint or dust may cause fire.



- **In case of powder transportation by hot air, the check valve is needed on the outlet.**

If powder reverses into the outlet, it may cause fire or explosion.



- **Do not touch the terminal part of the heater during operation.**

It may cause electric shock or burns.



- **Do not put a hand or other things into the inlet or the outlet.**

It may cause fire, injury or failures.



CAUTION

- **Do not put flammable things around the exit of outlet.**

It may cause fire.



- **Do not heat steamy air.**

It may cause electric shock or failures.



- **Do not use outdoors.**

Otherwise it may cause electric shock or failures. The device is designed only for indoor use.



- **Do not put flammable things near the inlet.**

It may cause fire or failures.



- **Power cable must be unfolded and turned on.**

Otherwise it may cause fire or failures.



- **Do not step nor put things on the device.**

It may cause electric shock or failures.



- **Do not use with any power voltage other than 100V.**

Otherwise it may cause fire, electric shock or failures.



- **Do not use on the inclined ground.**

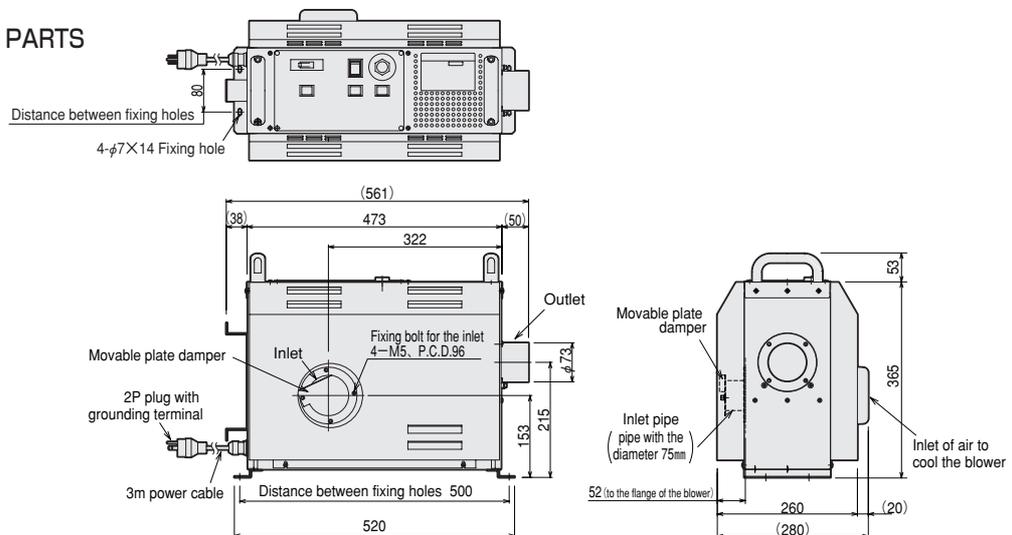
It may cause fire or failures by accidental falling.



1. MAIN SPECIFICATIONS

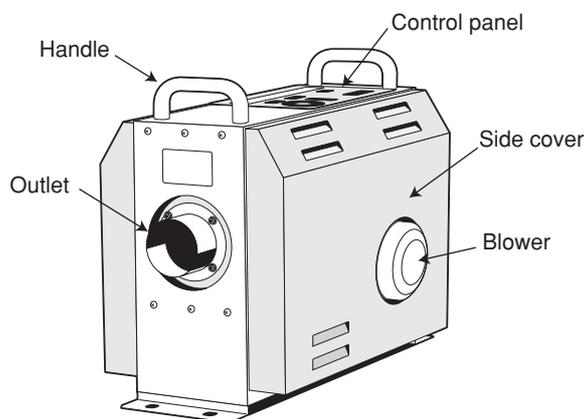
Product No.	HAP1012	
Product code	00700710	
Power	100V (50/60Hz)	
Heater capacity	1.2 kW	
Temperature range of air at the exit of outlet 20°C of environmental temperature. No air circulation	30 ~ 40 °C (with the damper full open) 60 ~ 80 °C (with the damper closed)	
Temperature range set by the thermostat	33 ~ 120 °C	
Air volume (50/60Hz as reference)	3.9 / 4.6 m ³ /min (with the damper full open) 1.2 / 1.5 m ³ /min (with the damper closed)	
Air volume control	A movable plate damper controls air inlet.	
Noise at the maximum of air volume	68 dB	
The diameter of the inlet	φ 75mm (SPCC pipe)	
The diameter of outlet	φ 73mm (Stainless steel pipe)	
Temperature range of air at the inlet	-10 °C ~ 100 °C	
Weight	24 kg	
Power cable	3m Flexible cable (VCTF) with plug	
Blower specifications	Maximum air volume	5.4 / 6.2 m ³ /min (50/60Hz)
	Maximum static pressure	0.63 / 0.91 kPa (50/60Hz)
	Blower capacity	100V 0.15 kW (50/60Hz)

DIMENSIONS OF PARTS

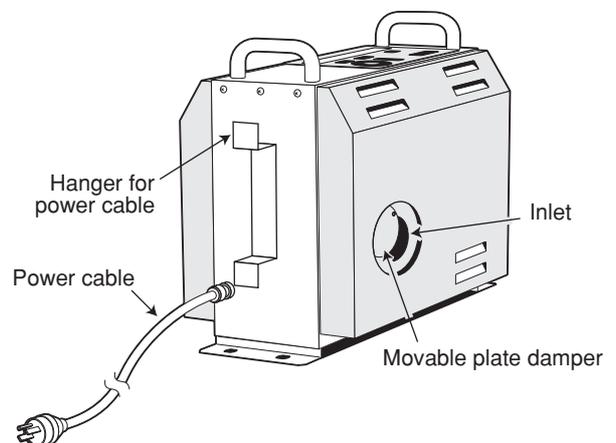


2. NAMES OF PARTS

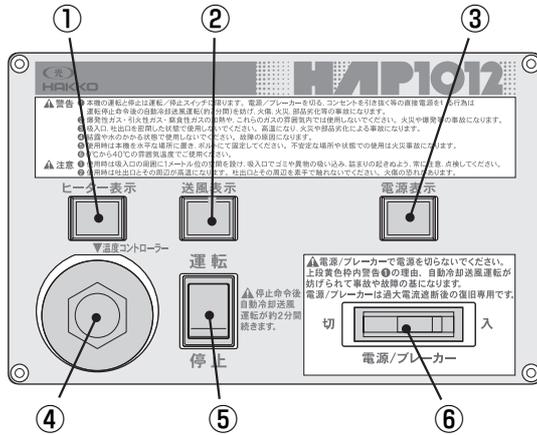
FRONT



BACK



CONTROL PANEL



- ① Heater lamp
- ② Blower lamp
- ③ Power lamp
- ④ Temperature control dial
- ⑤ Operation switch
- ⑥ Power breaker

3. INSTALLATION

《INSTALLATION LOCATION》

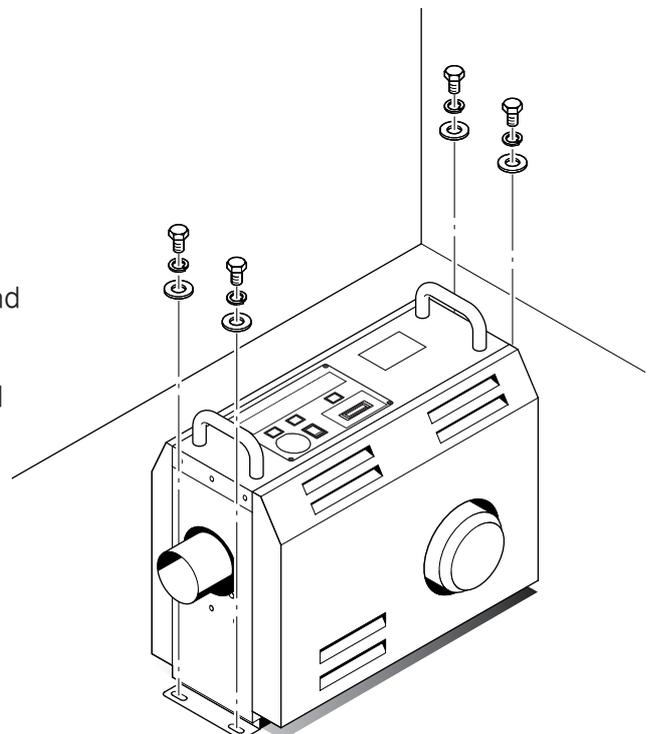
- The device is designed for indoor use. Installation is required at the following condition.

- ① Temperature : 0 ~ 40 °C
- ② Relative humidity : R.H.80 % or less
- ③ No explosive or corrosive gases
- ④ Indoor without rain or wind
- ⑤ Little dust
- ⑥ Do not set the device in closed space. Keep the inlet 50mm or more from the wall
- ⑦ Flat, hard and level floor

《INSTALLATION》

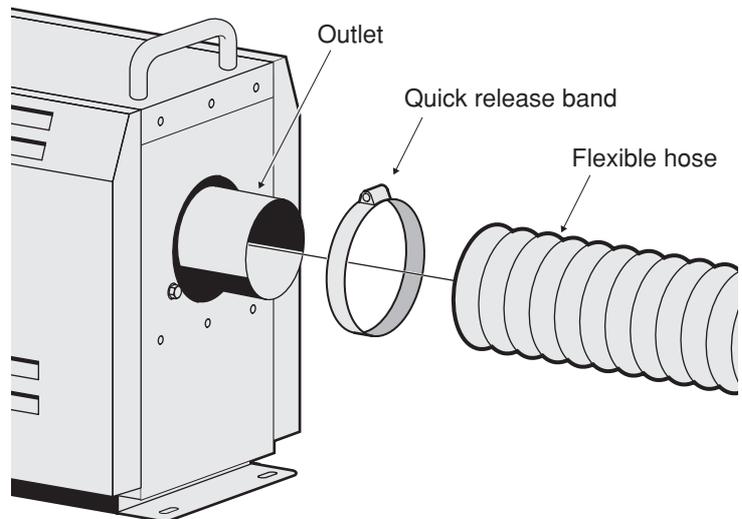
- (1) Install the device horizontally.
- (2) Keep enough space for maintenance around the device.
- (3) Fix the device tightly with bolts, washers and spring washers through (four) fixing holes.

Bolts, washers and spring washers are not attached in the component.

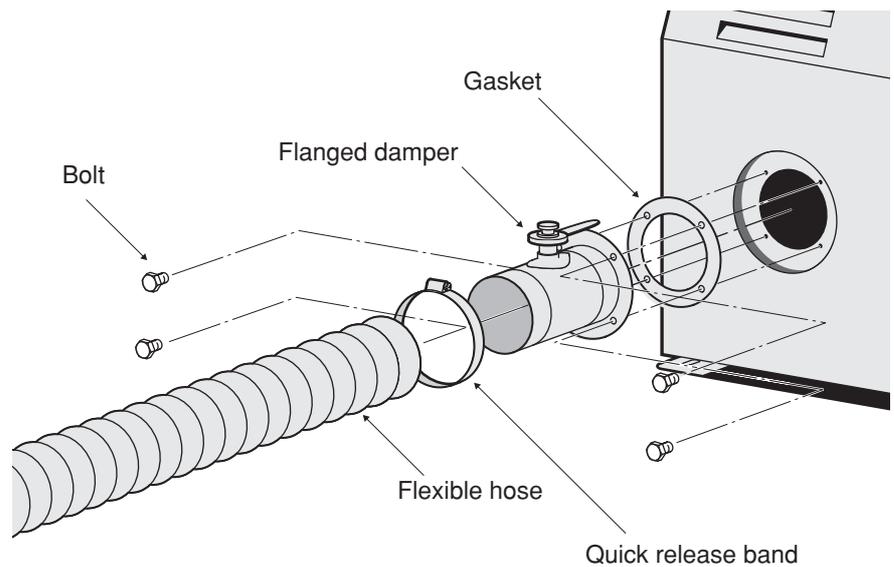


《PIPING》

- (1) In case of connecting the flexible hose with the outlet, tighten the hose with quick release band.

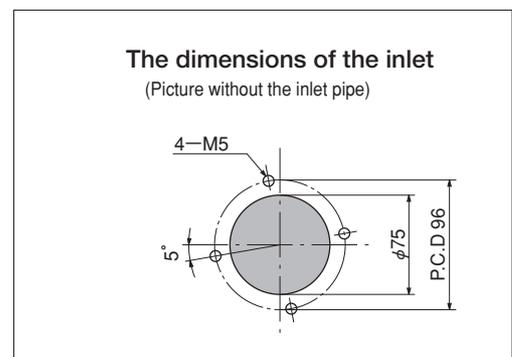


- (2) In circular system use, after removing the plate damper, connect the flexible hose and tighten with quick release band. Use flanged damper to control air volume during circulation. (available flanged damper : PPD0075 or PSD0075)



* Refer to specifications on diameters of the inlet and the outlet.

* Fix a hose connection or a flanged damper with the inlet by four bolts.
(Quick release band and flexible hose are supplied as optional parts.)



4. HOW TO OPERATE

- (1) Turn on the power breaker on the control panel. The power lamp (orange) lights up.
- (2) Turn on the operation switch.
- (3) Rotate the temperature control dial in a clockwise direction. Hot air comes out from the outlet and the blower lamp (green) lights up. The heater lamp (red) lights up as long as the preset temperature is higher than that of air.
- (4) Adjust the temperature control dial on temperature in use.
- (5) Adjust the air volume and temperature by controlling the movable plate damper of the inlet. Temperature will increase as the damper closes.
- (6) After reaching the preset temperature, the heater lamp is alternately turned on and off by temperature control.
- (7) When you stop the device, turn off the operation switch first. The heater is turned off and the blower is going on for two more minutes. After the blower stops, turn off the power breaker.



CAUTION

Do not turn off the power breaker without cooling for two minutes. Otherwise it may cause failures.

5. MALFUNCTIONS AND SOLUTIONS

Stop operation and power off immediately after malfunction arises.

Cool down and solve the problem before you re-start. Ask your distributor or the Sales Head Office of HAKKO CO., LTD. if the device would not recover.

MALFUNCTION	POSSIBLE CAUSE	SOLUTION
The device doesn't work though the operation switch is on.	No power supply.	Check if the plug is connected into the socket and the power breaker is turned on. Check if feeding voltage is as much as 100V.
	Due to malfunction of the blower, a thermostat works.	Check if the inlet and the fan of the blower.
	Blowout of the thermal fuse.	Replace the thermal fuse. *1
No air comes out.	Preset temperature of the controller is too low.	Increase the preset temperature.
	Failures in the thermostat or the fan.	Repair or replace the thermostat or the fan.
The temperature of air doesn't increase.	Preset temperature of the controller is too low.	Increase the preset temperature.
	Failures in the thermostat or the fan.	Repair or replace the heater or the thermostat. *1
	Blowout of the thermal fuse.	Replace the thermal fuse. *1
The temperature of air is too high.	The damper is fully closed.	Open the damper.
	Failure in the thermostat.	Repair or replace the thermostat.

* 1 : Ask your distributors or the Sales Head Office of HAKKO CO., LTD.

6. MAINTENANCE

- (1) Wipe dirt on the body by cloth with alcohol. Do not use thinner or water.
- (2) Keep the inlet clean.



AFTER-SALE SERVICE

● If you have any questions,

If you have any questions about our products, contact with your distributors, or the Sales Head Office of HAKKO CO., LTD. The addresses and phone numbers are as follows.

Contact Information of HAKKO Group

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