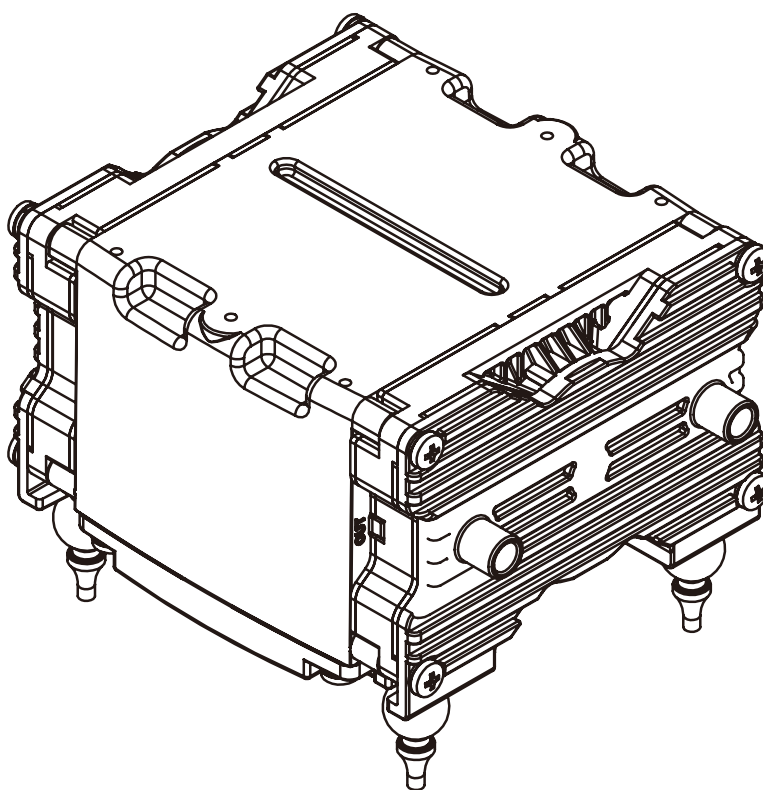


# HIBLOW®

## Air Pump

# Instruction Manual

VP-4020	VP-4020S
VP-5030	VP-5030S
VP-6035	VP-6035S
VP-7045	VP-7045S



 **TECHNO TAKATSUKI CO.,LTD.**

We take into consideration those who have vision problems such as amblyopia, presbyopia and others adopting Universal Design font.



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## Clipping Date

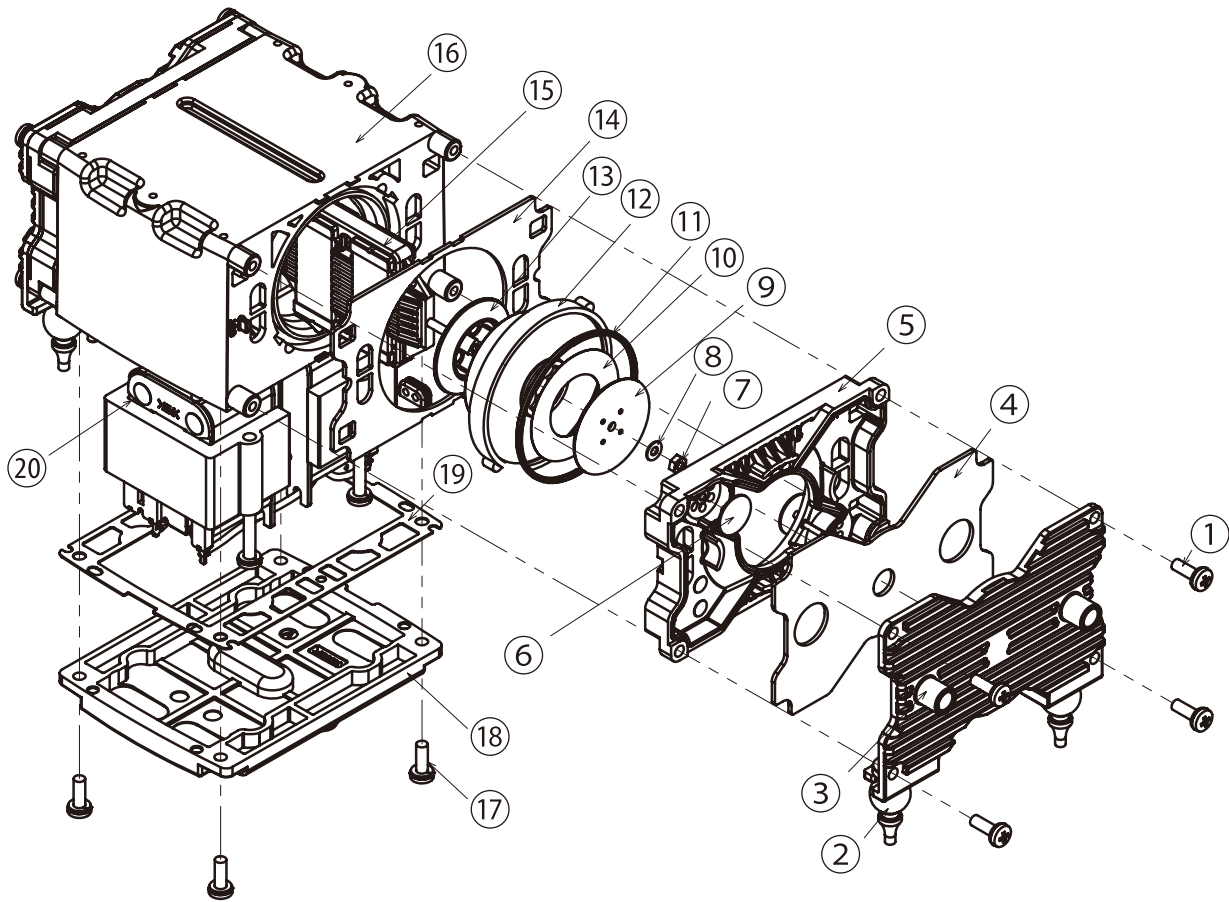
### Environment and Quality ISO

ISO-14001 of the International Organization for Standardization is pursuing organizations, including business enterprises, to voluntarily sets and determine goals for improving the environment, such as contamination prevention, and to achieve these goals organizationally. Furthermore, it calls for organizations to establish a structure to continuously carry out improvements and operate by observing regulations in accordance with regulations relating to the environment. This ISO-14001 is also called the Environmental Passport of International Standards. Meanwhile, the ISO-9000 series is quality control and the guarantee established by ISO in 1987. It is the International Standard of requirements for the quality guarantee system, not for the product itself. There are three quality guarantee models in ISO (ISO-9001, 9002 and 9003): ISO is the strictest standard to obtain as its quality system elements are consistent from planning control to after-service care. Before a product can obtain this standard, there is a three-audit check system consisting of an internal audit, customer audit and a third-party audit, and even after obtaining this standard, regular checks are performed. And furthermore, quality policy and goal announced by top management shall be put in writing, be penetrated the whole organization, become effective and be maintained, In short, the acquisition of ISO-14001 and ISO-9001 is the utmost proof of a trustworthy organization in the past, present and future.

### Product Liability Law TECHNO TAKATSUKI


Product Liability Law was adopted in July 1995. Previously, it become difficult for general customers to evaluate the quality of a product due to rapid changes in hi tech, it used to be a great disadvantage to the customer is lawsuit against faulty products. Nowadays, as it is easier to be compensated for loss by proving defects of a product, manufacturers need to pay more attention to quality than ever. Assessing PL Law and carried out various measures, then obtained ISO-9001 in December 1995 and ISO-14001 in November 2000. We are further aiming to enhance quality control and protection of the global environment, therefore, we appreciate your continuing support.




# 1 Part names



No.	Part Names
①	M4 Screw
②	Rubber foot
③	Casing cover (Head cover)
④	Head gasket
⑤	Casing
⑥	Valve
⑦	M3 Nut
⑧	M3 Washer
⑨	Diaphragm plate
⑩	Teflon sheet
⑪	Diaphragm ring
⑫	Diaphragm
⑬	Diaphragm plate
⑭	Casing gasket
⑮	Magnet plate (Rod)
⑯	Enclosure (Frame)
⑰	M4 Screw
⑱	Enclosure (Frame cover)
⑲	Frame cover gasket
⑳	Electric magnet assembly

## 2 Meaning of hazard severity panels (ISO)

**Hazard of alert symbol**  : When you see this symbol, be aware that personal injury or property damage is possible. The hazard is explained in the text following the symbol. Read the information careful before proceeding.

 <b>DANGER</b>	DANGER indicates a hazard with a high level of risk which, if not avoided, will result in death or serious injury.
 <b>WARNING</b>	WARNING indicates a hazard with a medium level of risk which, if not avoided, could result in death or serious injury.
 <b>CAUTION</b>	CAUTION indicates a hazard with a low level of risk which, if not avoided, could result in minor or moderate injury.

## 3 Handling Instructions

### 3 • 1 Prior to Use

#### **WARNING**

- This pump is exclusively for pneumatic transportation use.
  - As the inhaled fluid passes through the current carrier, inhaling flammable gas or liquid may cause ignition, electrocution or short-circuit accidents.



- Power source of this pump is exclusively for AC120V and 60Hz.
  - Using other than the designated power source may cause electrocution or short-circuit accidents.

#### **CAUTION**

- Do not use of the pump by young children or the infirm or valetudinarian persons without supervision.

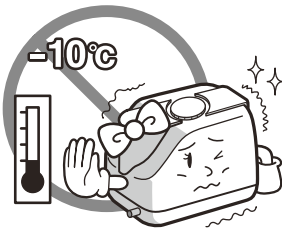
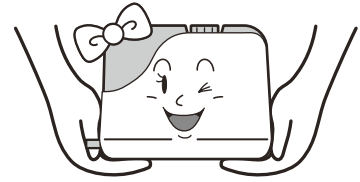


- As this pump is not manufactured to be vehicle-equipped, do not install in cars or other vehicles.
- If the problem of stoppage of airflow occurs, such as for fish culture, be sure to have an extra pump.

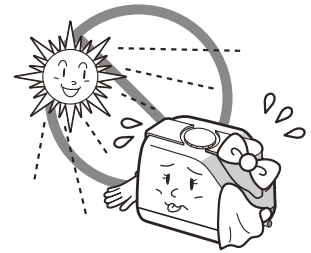
## 3 • 2 Storage and Carry

### ⚠ CAUTION

- When carrying the machine body, the body should be held with both hands.
  - Do not carry with the holding filter cover. It may cause the cover to fall off and the machine will fall out.
  - Do not carry by holding the electric cord. It may cause heating or ignition due to disconnection at the center core.
  - Avoid burn injuries by wearing gloves: the temperature of the pump increases while operating.



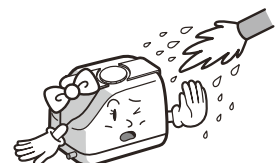
- Store the pump in a temperature area of -10 to 50 degrees Celsius. Temperatures outside of this range may cause of natural deterioration of rubber parts (diaphragm etc.) inside the pump.



## 3 • 3 Upon Installation

### ⚠ WARNING

- Request distributor or professional to install the machine including electrical work and plumbing.
  - Air leakage, electrocution and fire may result if not perfectly installed.
- Do not break or modify the power cord.
  - This may cause electrocution or fire.
  - Do not heat the object, pull the object or place things on top of the object, as this may cause damage.
- Do not wash the pump with water.
  - This may cause electrical leakage, electrocution and/or short-circuit accidents.

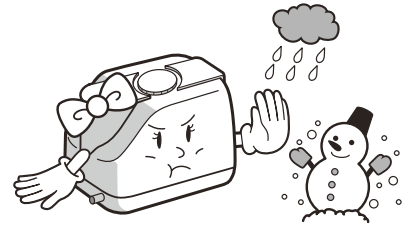


## (1) Installation site

### ⚠ WARNING

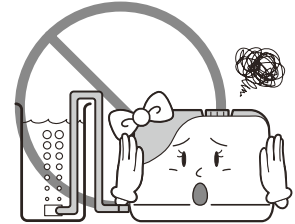
○ Install the pump where it is free from exposure to rainwater and snowfall.

- Exposure to water may cause electrical leakage and electrocution as water leaks into the current carrier.



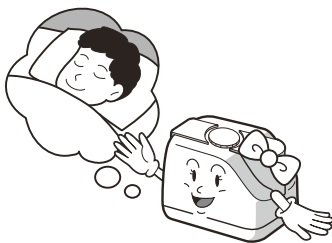
○ Install the pump above the water level.

- Installing the pump lower than the water level will cause the water will flow backward due to the siphon effect when the pump stops. Back-flow may cause electrical leakage, electrocution and short-circuit accidents as the current carrier may be exposed to the water.



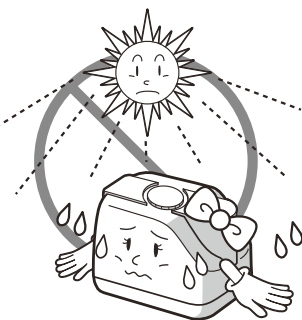
○ Do not install the pump where it is potentially flammable gas leaking.

- Leaking flammable gas remnants may cause ignition.



○ Install the pump away from where quiet is preferred, such as bedrooms and meeting rooms.

- Machine noise may continue into the night.

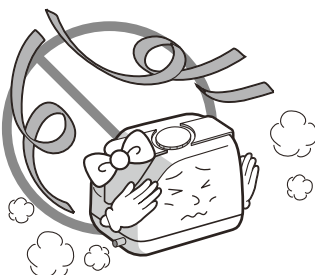


○ Install the pump where it is airy.

- A consistently high temperature of the pump's body may shorten the life duration of the diaphragm.

○ Avoid dusty and dirty places where it is humid and drafty.

- The life duration of the diaphragm may decrease as the clogging of the acceleration filters causes decrease in air volume and an extreme rise in temperature of the pump.

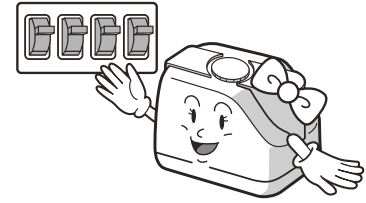


○ Install the pump where it is easy to maintain.

## (2) Electrical work

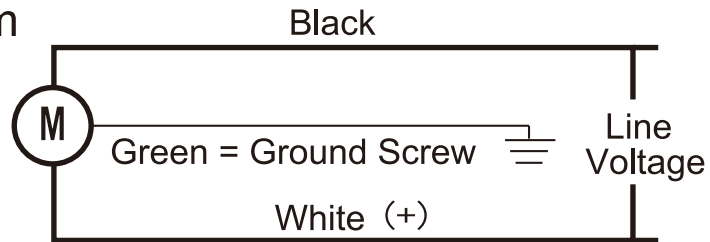
### ⚠ WARNING

- Make sure to install the electrical leakage breaker not exceeding 30mA of rated sense current for power source wiring.
- Lack of electrical leakage breaker may cause electrocution.



### AC 120V wiring diagram

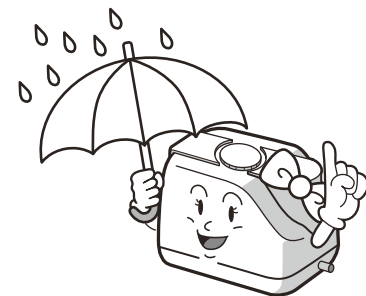
- Make sure the ground wire (green) is not connected to either line voltage terminal.



## (3) Waterproofing work

### ⚠ WARNING

- If there is a possibility that the pump will be exposed to the volume of water, set up a water guard roof or fence.
- If the pump inhales water all the way to current carrier, it may cause electrical leakage, electrocution and/or short-circuit accidents.
- Water will not go inside the pump in the case of a normal amount of rainfall.



- Not installing the pump on a horizontal plane may shorten the life of parts, as rubber parts may be unreasonably and incorrectly positioned.
- If a waterproofing or noise-insulation fence is set up, install a ventilator to avoid over heating (excess 40°C) inside the fence. For more detail, contact a local customer support office.
- Allow a minimum 5mm gap around the pump to avoid external contact.

## 4 Maintenance

### DANGER

- Do not touch the plug with wet hands.
  - This will cause electrocution.

### WARNING

- Check at least once a year to make sure the plug is not dusty, and fully insert the plug into the socket.
  - A dusty or incompletely connected plug may cause electrocution or fire.

### CAUTION

- Before cleaning, unplug the power cord to cease operation and be sure the machine is completely cooled down.
  - Foreign objects and/or dust in the pump may cause electrical leakage, short-circuit accidents and burn injuries.



- Daily check items
  - Proper air flow.
  - Unusual sounds or vibrations from the pump.
  - Pump temperature is too high.
  - Defects or discoloration on the power cord and plug.



## 5 After-service care

○ If machine is not working properly, please double check the following items.

Problem	Point to be checked
● Pump dose not work	● Is there a blackout? ● Is it unplugged?
● Air volume decrease ● Extremely high temperature ● Pump sometimes stops working	● Is the air inlet, plumbing or aeration tube clogged? ● Is the plumbing valve clogged? ● Is the filter or air inlet clogged?
● Makes unusual sounds	● Is it coming into direct contact with surrounding objects?

○ After inspecting the above points, if there is still a problem, unplug to cease operations and contact the distributor or the maintenance shop.

Name of product: HIBLOW Air Pump

Model type: VP-4020 VP-5030 VP-6035 VP-7045 VP-4020S VP-5030S  
VP-6035S VP-7045S

Failure report (as closely as possible in detail)

### WARNING

○ Do not keep continue operation with machine in questionable condition.

● This may cause breakdown, electrical leakage, electrocution and/or short-circuit accidents.

○ Do not repair the pump yourself.

● Imperfect repair causes electrical leakage, electrocution and/or short-circuit accidents.

○ Should you have any questions regarding after-service care, please contact the distributor, maintenance shop or customer service of our company.

## 6 Troubleshooting tips

Symptom	Possible cause	Point to check up	Remedy
Pump fails to work	Electrical connection	Plug and outlet	Plug securely into outlet
	Wire cut inside the cord	Check with tester	Change power cord, electromagnet or lead wire
	SR switch activated	Check <ul style="list-style-type: none"> <li>• Switch Slide</li> <li>• Chamber Block</li> </ul>	Exchange diaphragm
Pump works but makes loud, irregular noise	Diaphragm damaged		
	Faulty valve	Remove upper, lower housing and trace the source of cause	Exchange casing or diaphragm mounting block
	Faulty chamber block		
	Faulty filter	Filter clogged	Clean up filter
	Valve chamber cover out of place	Faulty tube	Repair or replace with new one
Pump works but no air comes from reservoir	Faulty piping connection	Rubber hose out of place, broken	Connect properly or replace with new one
	Pump runs normaly	Air piping clogged	Clean properly

## 7 Specifications

Model number		VP-4020	VP-5030	VP-6035	VP-7045
Rated supply	V	AC120V			
Frequency	Hz	60	60	60	60
Pressure range	kPa(G)	0 ~ 20	0 ~ 30	0 ~ 35	0 ~ 45
Rated air flow @10kPa(G)	NL/min	25.0	33.5	40.5	44.0
Wattage @10kPa(G)	W	13.0	20.5	28.5	34.0
Noise level @10kPa(G)	dBA	41.0	42.0	44.0	45.0
Weight	kg	1.95			

Model number		VP-4020S	VP-5030S	VP-6035S	VP-7045S
Rated supply	V	AC120V			
Frequency	Hz	60	60	60	60
Pressure range	kPa(G)	0 ~ ±20	0 ~ ±30	0 ~ ±35	0 ~ ±45
Rated air flow @10kPa(G)	NL/min	±26.5	±36.0	±45.5	±48.5
Wattage @10kPa(G)	W	14.0	22.0	31.0	36.5
Noise level @10kPa(G)	dBA	35.0	37.0	40.0	41.0
Weight	kg	1.95			

The numeric data represents average tendency, not guaranteed.  
 The specifications or design of this product is subject to change without prior notice.


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## **Manual**

Refer to the website other languages.

[http://www.hiblow-jp.com/hiblow\\_manual/](http://www.hiblow-jp.com/hiblow_manual/)