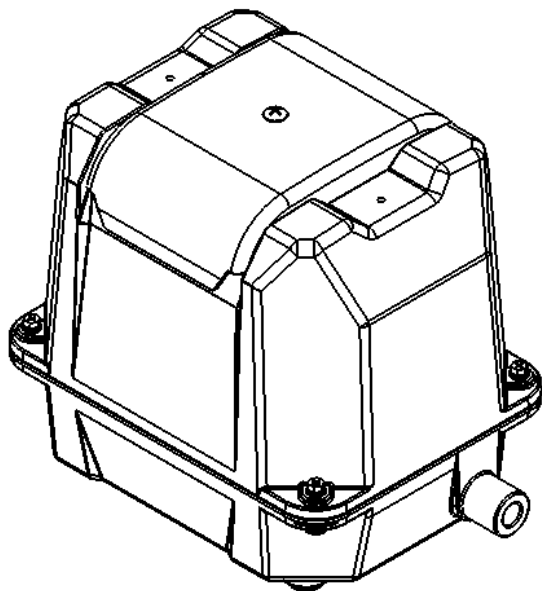




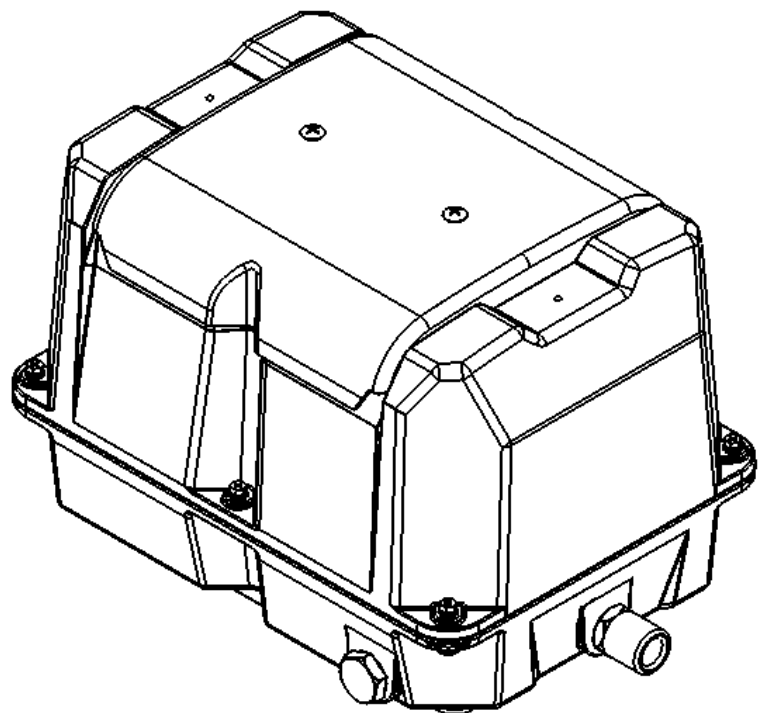
# INSTRUCTION MANUAL FOR ELECTROMAGNETIC AIR PUMP

MODEL : JDK-150/200/250

300/400/500



JDK-150/200/250



JDK-300/400/500

We thank you for your purchasing our air pump. Prior to use of it, it is kindly requested that the instructions in the columns of WARNING in this manual should be read carefully to understand the equipment well. Then, keep this manual available in case of need.

**SECOH SHANGHAI MEC LTD.**

# Specifications

Model		JDK-150	JDK-200	JDK-250	JDK-300	JDK-400	JDK-500	
Rated Voltage	V	AC220-240						
Frequency	Hz	50						
Oper. Press.	kPa	20.0						
Air Capacity	L/min	150	200	250	300	400	500	
Power	W	110-120	170-190	230-250	220-240	350-370	470-490	
Outlet Dia.	mm	O.D.26 (hard vinyl chloride pipe VP20)			O.D.27 (hard vinyl chloride pipe VP20)			
Mass	kg	Approx. 10.0			Approx. 18.0			
Standard Accessories		Hose with relief valve (with hose band)						

- ※ The air capacity, power in the specifications shown are typical values in service at operating pressure, and so these are not guaranteed values.

## TO THE CUSTOMER:

Fill in the date purchased as well as the name of distributor or service shop for convenience when ordering repair.

Date purchased	
Name of distributor/ Service shop	Tel.

## WARNING&CAUTION

- Prior to operation, read "Instructions" to ensure that the air pump is put in operation correctly.
- Be sure to follow the instructions herein described, especially, the following safety instructions.



### WARNING

High potential risks resulting from improper handling, as it can cause death or serious injuries.



### CAUTION

High potential risks resulting from improper handling, as in some cases it can cause serious injuries.

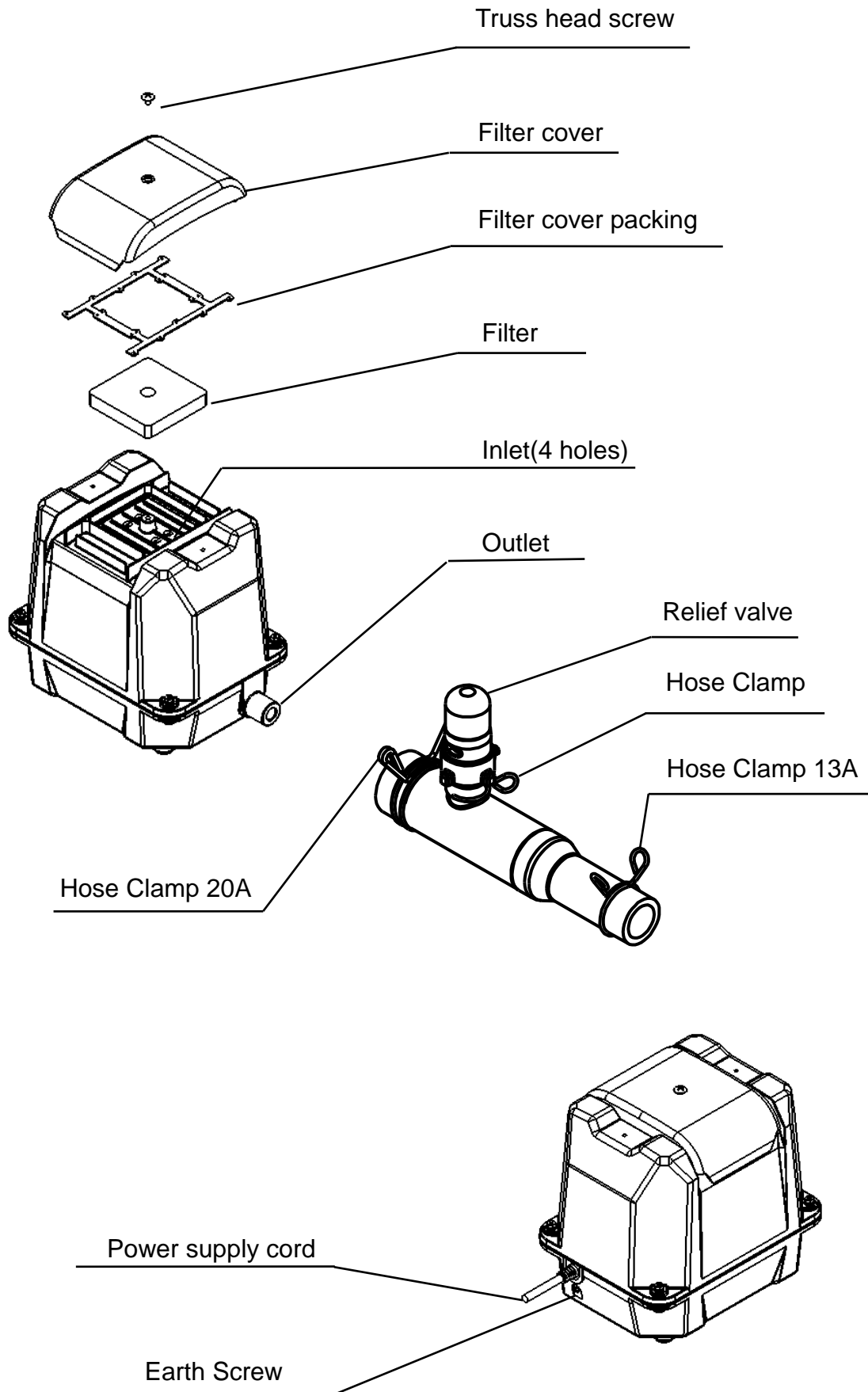
- Each time after reading this manual, keep it in a designated place so that the user has access to it at any time.
- In applications of using purification tank, make sure to carry out the maintenance management contract.
- Short of daily maintenance may cause failure of the pump or early breakage.
- This appliance mounting and electric installation is only by professionals. Children and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge should not play and use with the appliance. If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.

# CONTENTS

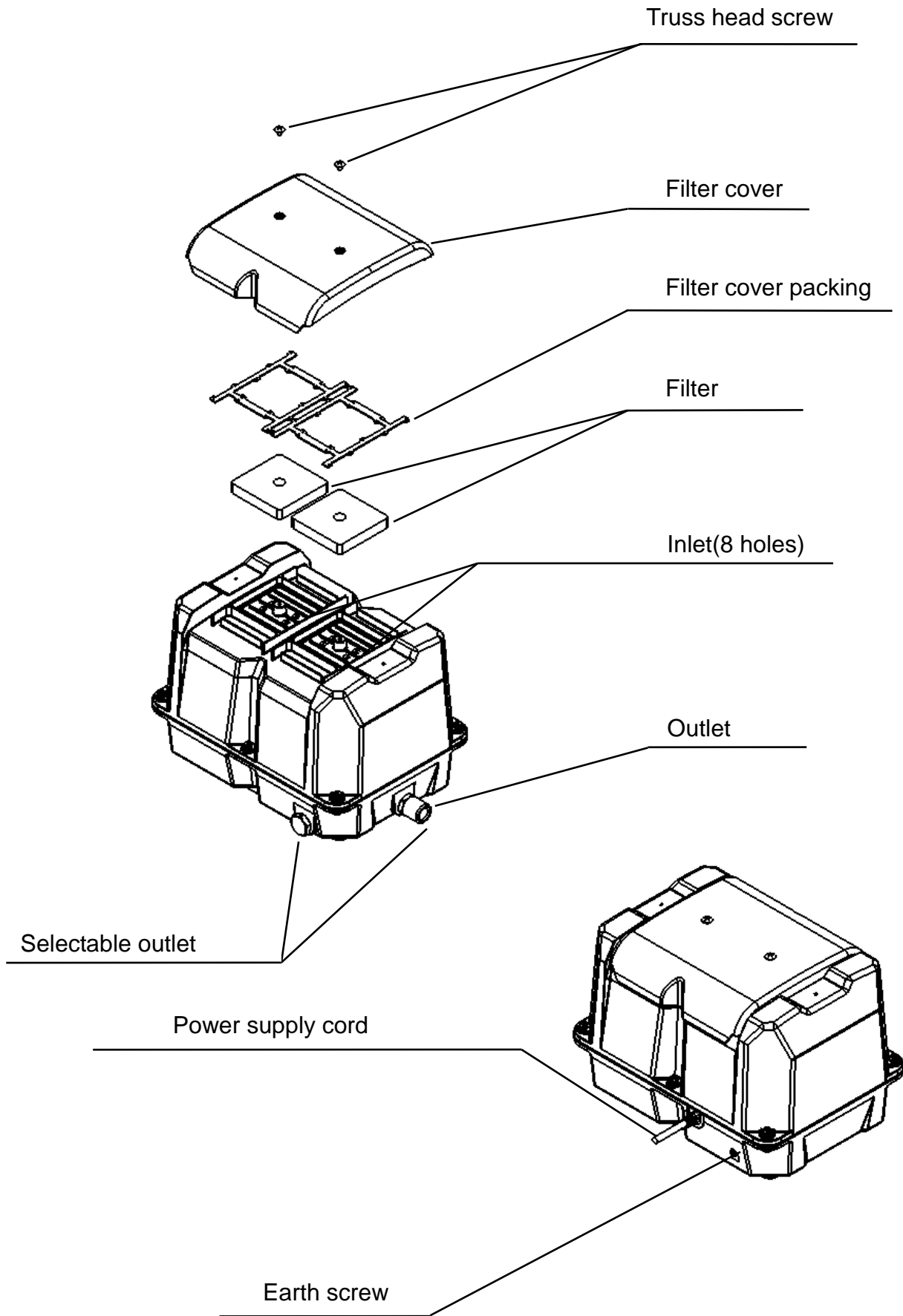
1.Name of Parts .....	1
2.Instructions	3
2-1 Prior to Operation .....	3
2-2 Storage and Transfer .....	3
2-3 Installations	4
1) Instructions to Location of the Air pump .....	4
2) Instructions to Electric Installation .....	5
3) Instructions to Mounting .....	6
4) Instructions to Piping .....	7
5) Instructions to Operation .....	9
3.Daily Maintenance .....	10
4.After-Sale Servicing	11
4-1 Repair and Its Order .....	11
4-2 Replacement Parts .....	12

# 1.Name Of Parts

JDK-150/200/250



JDK-300/400/500



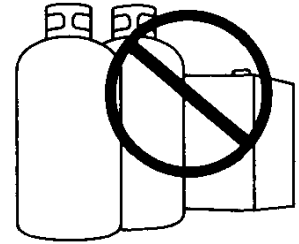
## 2. Instructions

### 2-1 Prior to Operation



#### CAUTION

- This air pump is designed only for air feeding.
  - Since the fluid flowed in runs through the charged part, inflow of any flammable gas or liquid could cause ignition, electric shock or short-circuit.

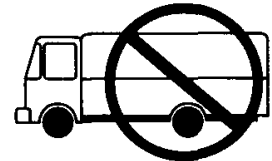


- This air pump is designed only for the voltage of 220-240V ( 50Hz).
  - Using undesignated power supply cord could cause electric shock or short circuit.

- Do not transform the pump.
- Nonprofessionals do not disassemble or repair the pump.



- This air pump is not designed to be mounted on the vehicle. So, do not install it on the vehicle.
- In applications where the stop of air supply can never be allowed , such as fish raising, a spare air pump should be provided.
  - Make sure to operate the spare air pump every other month to confirm its proper operation.

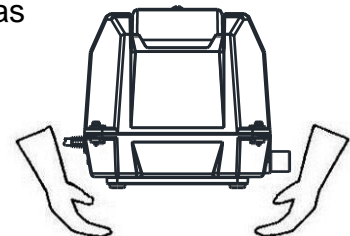


### 2-2 Storage and Transfer

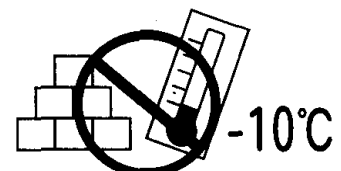


#### CAUTION

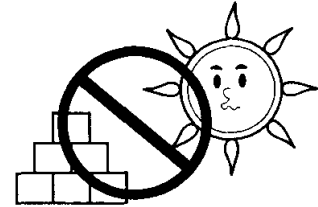
- When transferring the air pump. Carry the body by both hands.
  - Do not carry the air pump by holding the filter cover, as the body slipped of the filter cover may drop on your foot.
  - Do not carry the air pump by holding the power cord, which will cut the wires in it. It may cause heat or ignition. Wear gloves not to be burnt. The body is heated during operation.



- Do not store the air pump in a place where the ambient temperature is below  $-10^{\circ}\text{C}$ . The magnet inside the pump is weakened, and as the result, the equipment will not perform as intended.



- Do not store the air pump in any areas sunlit directly or at high temperature, which will speed up the natural deterioration of Rubber parts inside the air pump.

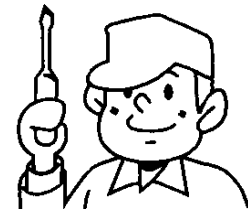


## 2-3 Installations



### WARNING

- Installation of the air pump (including wiring and piping) should be done by our distributor or a specialist.
- Improper installation done by yourself could cause air leak, electric shock or fire.



### 1) Instruction to Location of the Air pump



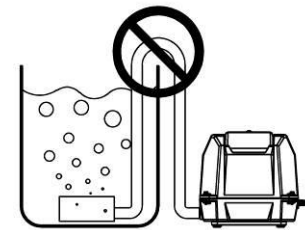
### CAUTION

- Do not install the air pump in a place where it can be submerged by rain or snow.
- Electric leakage or shock will be caused by water leaked in the charged part of the submerged air pump.

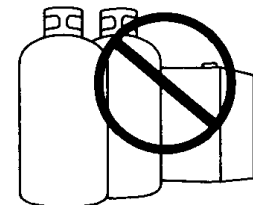


### CAUTION

- Set the air pump above the water level.
- Setting of the air pump below the water level will cause counterflow of water from siphon phenomenon, when stopping the air pump. Such counterflow of water will cause the charged part to be immersed in water, and result in electric leakage, electric shock or short circuit.



- Do not install the air pump in a place where any flammable gas can be leaked.
- Ignition could be caused by the accumulation of the leaked gas around the air pump.

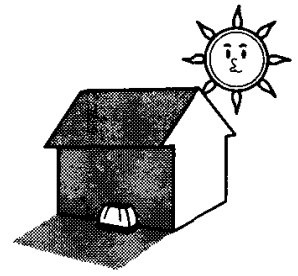


- Set the air pump away from places like bed room, reception room, etc. Noise may bother in the quiet nighttime.
- When the surrounding is quiet at night, the operating sound may be a nuisance.





- Set the air pump in the shade and well ventilated place.
  - The lives of the diaphragms and valves in the air pump may be shortened under quite high temperature caused by the heat of the sunlight.



- Do not set the air pump in a humid , air-blocked, dusty or place full of rubbish.
  - The lives of the diaphragms and valves of the air pump may be shortened by the overheat of the air pump due to the less suction of air through easily blocked filter in a dusty place.



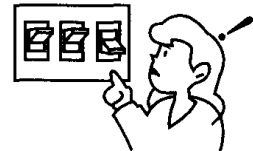
- Do not install the pump right under ventilators which may cause suction of oily air.
  - Contacting with oil will speed up the deterioration of rubber parts like diaphragms, valves, etc.
- Set the air pump in a place where working space for maintenance can be secured.

## 2) Instruction to Electric Installation

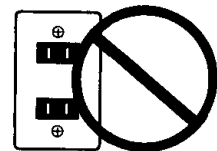


### CAUTION

- A Breaker with Ground-Fault Protection should be set in the wiring of power supply.
  - No provision of Breaker with Ground-Fault Protection will be cause of electric shock.
  - If outdoor use, the appliance shall be supplied through a residual current device (RCD) having a rated operating current not exceeding 30 mA.



- When installing the air pump outdoors, be sure to use a waterproof receptacle.
  - Exposing of the changed part to rain water will be cause of electric leakage or electric shock.



- This product should be grounded with an appropriate grounding wire.
  - Do not connect the grounding wire with gas pipe, downcomer, lighting rod or telephone line.
  - Improper grounding or no grounding can result in a risk of electric shock.

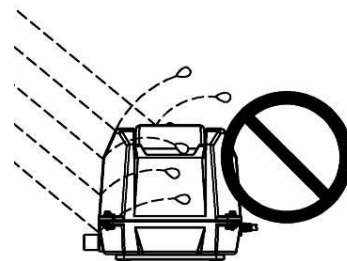


### 3) Instruction to Mounting



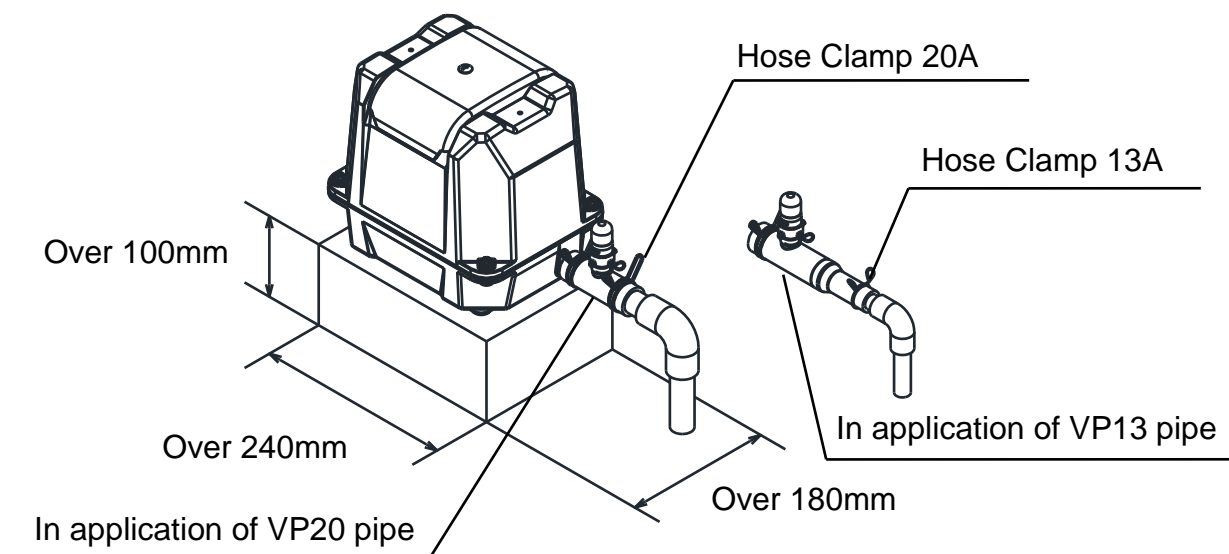
## CAUTION

- When mounting the air pump at a place got wet heavily, provide a roof or a fence to keep the air pump from water.
- Water taken in the air pump may enter the charged parts, which could cause electric leakage, electric shock or short circuit.
- Ordinary rain will not enter the air pump.

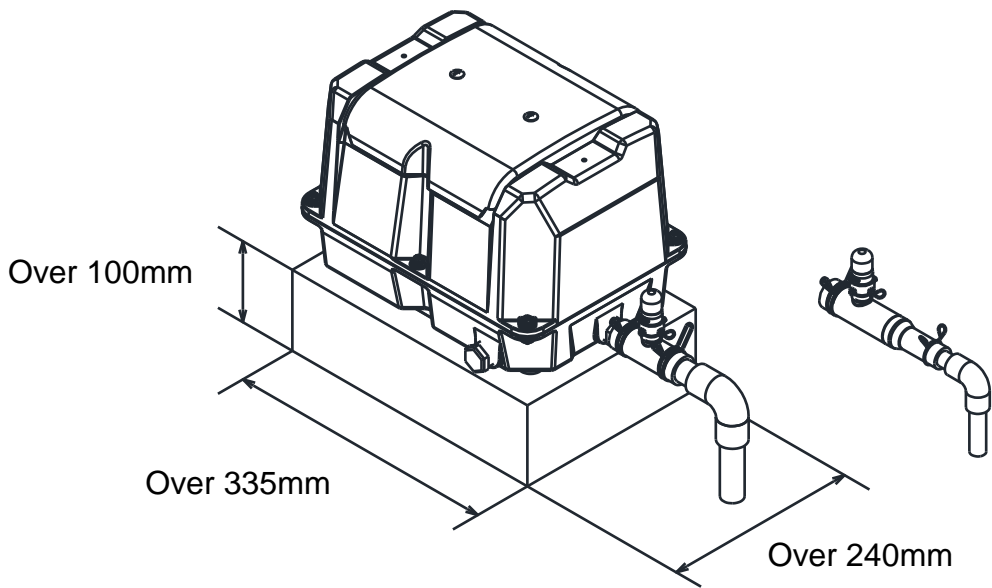


- The exclusive mount for air pump installation made of concrete should be arranged. The mount should be away from the foundation for at least 150mm and its height should be min 100mm higher than the foundation.
- Noise may be caused by vibration of the air pump mounted on an unstable place such as concrete blocks, shelf etc.
- Install the air pump on a horizontal mount taken a level after the concrete has been completely dry.
- Setting the air pump before concrete has been completely dry can embed it therein.
- The load caused by setting the air pump in a declining position may shorten the life of the parts.
- A ventilation fan should be put in a fence for water, noise proofing to keep temperature inside the fence below 40°C.

JDK-150/200/250



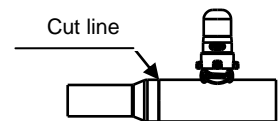
# JDK-300/400/500



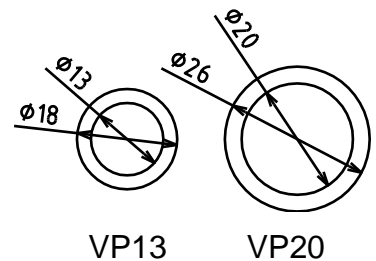
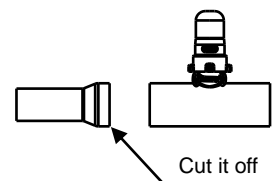
## 4) Instruction to Piping

- The pipe to discharge air should be hard vinyl chloride pipe VP13(ID13mm × OD18mm) or VP20(ID20mm × OD26mm).
- To confirm the dimension of the air pipe, please read the instruction manual of purification tank first.
  - If the air pipe is VP13, using the hose intactly.
  - If the air pipe is VP20, cut off the part of VP13 along the cut line.
- Air piping should be as short and straight as possible.
  - The total length of air piping should be shorter than 10m(each bend is regard as1.5m). The longer air piping, the larger air pipe diameter should be picked.
- Make sure that no particles of soil,sand,etc are left in the in the piping under its construction.

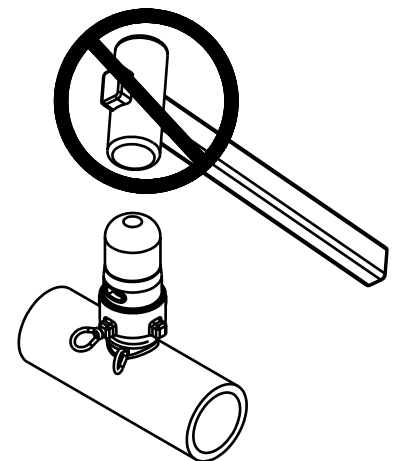
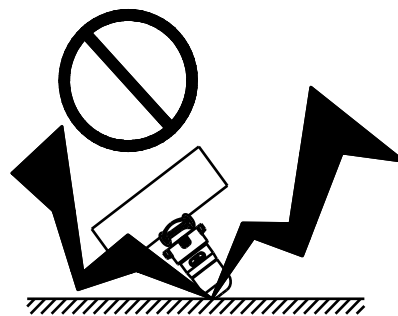
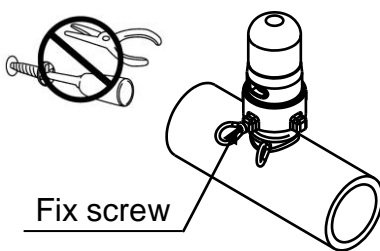
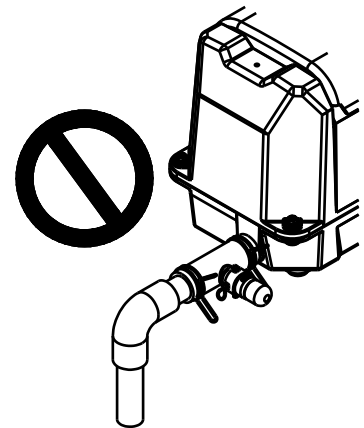
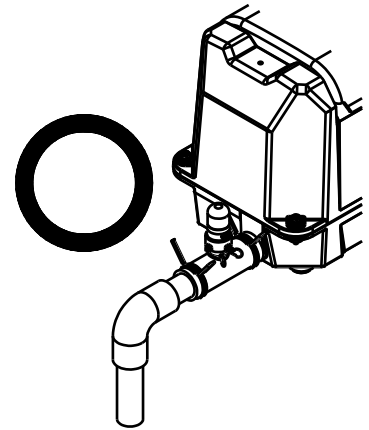
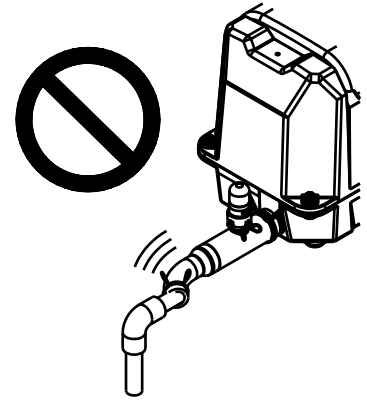
In application of VP13 pipe



In application of VP20 pipe



- Extra pressure caused by foreign objects in the piping will be applied on the air pump, which will result in overheat of the air pump. It may shorten the life of diaphragms and valves.
- Connect the air pump to the air piping with an accessory hose, and secure the connection with a hose band.
- Adjust the locations of the air pump outlet and air piping so that no forcible loads are applied to the hose.
- The function of the relief valve is to prevent the breakage of air pump and piping when pressure exceed the limit. To prevent the mishandling to it, pay attention to the following instructions when installing.
  - Set the valve vertical to the ground.
  - The relief valve is set to open when exceed the range of working pressure and locked with screw. Loosening the screw will change the setting pressure. So do not adjust the screw.
  - Once the relief valve is open, the discharged air volume will decrease and noise will rise. Shut down the air pump right away and clean up the blocked area.
  - Do not let it fall or being striken. Great impact could cause breakage or mishandling of the relief valve.
  - The accessory relief valve is designed only for the electromagnetic air pump of our company. Do not use it out of our pump.

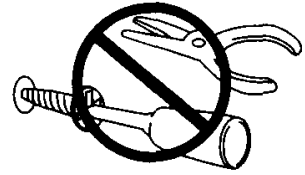


## 5) Instruction to Operation

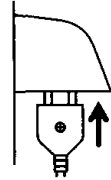


### WARNING

- Do not break or transform the power cord.
  - Breaking or working of the cord will be cause of electric shock or fire.
  - Heavy loading, heating or pulling will be cause of breakage.



- Clean the dust on electric source plug at least once a year. Plug in completely.
  - Dust on the power plug or incomplete plugging in will be cause of electric shock.

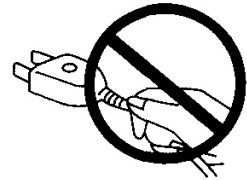


### CAUTION

- Do not touch the cords with wet hand.
  - Touching with wet hand will be cause of electric shock.



- Pull off the power cord by holding the power plug.
  - Pulling the power cord by itself will cause a part of the core wire to be broken, and lead to heating or ignition.



- Do not wash the air pump with water directly.
  - Washing can cause leakage, electric shock or short circuit.
- Do not clean the pump with naphtha, paint thinner etc.
  - It may damage the powder-coated surface or plastics.

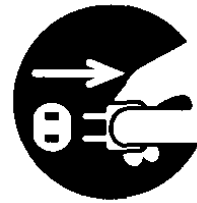


### 3. Daily Maintenance



#### CAUTION

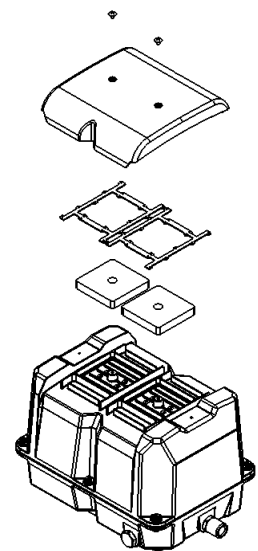
- Prior to maintenance servicing, pull off the power cord to stop operation of the air pump.
- Since dust could enter the air pump and cause accidents such as leakage or short circuit, be sure to do cleaning regularly.



#### ● CLEAN THE FILTER

#### EVERY FOUR MONTHS.

- 1) Undo the truss head screw. Remove the filter cover.
  - 2) Take out the filter and slap down the dust and dirt by hand. If it is heavily contaminated, wash it by rubbing using neutral detergent. Then, wash with water and dry it in the shade.
  - 3) Please confirm whether there is any dust or dirt blocking the inlets. If yes, please clear it up.
  - 4) Reassemble the filter back in place, and press in the filter cover. Secure the filter cover with truss head screw.
- Make sure that the filter cover packings are not dislocated or broken before installation.
    - If the filter cover packings are broken, replace them in time, or it could be the cause of leaking rain water in or abnormal noise.



#### CAUTION

- Keeping running over four months without cleaning-up could cause block of the filter or inlet, which will lead to air circulation problem. Low discharged air volume could decrease the life of diaphragms of valves, and worsen the water quality in purification tank.

#### ● DAILY CHECKS

- Is air blowing out properly?
- Isn't the air pump making abnormal noise or vibrations?
- Is the temperature of the air pump not abnormally high?
- Is the power cord or plug not damaged, swelled or discolored?
- ※ If any irregularity is found, read "REPAIR AND ITS ORDER".

## 4. After-sale Servicing

### 4-1 Repair and its Order

- When "fail" is doubted, read the following and check it again.

State	Checks
<ul style="list-style-type: none"><li>● The air pump does not work.</li></ul>	<ul style="list-style-type: none"><li>● Is the plug inserted in the socket correctly?</li><li>● Doesn't the power supply give out?</li><li>● Does the breaker disconnect?</li></ul>
<ul style="list-style-type: none"><li>● The discharged air volume decrease.</li><li>● Abnormal temperature rise.</li><li>● The air pump sometimes operate and sometimes doesn't.</li></ul>	<ul style="list-style-type: none"><li>● Is the piping or diffuser pipe not blocked?</li><li>● Doesn't the valve in the piping shut?</li><li>● Is the filter not blocked?</li></ul>
<ul style="list-style-type: none"><li>● Noise is abnormal.</li></ul>	<ul style="list-style-type: none"><li>● Is the air pump not in touch with the surrounding articles?</li></ul>

- If the failure is found even after checking the above points, remove the plug to stop operation. Then, call the distributor or service shop with the following information.

Air pump name: Electromagnetic air pump  
Model: JDK-○○○(Refer to name plate attached)  
Manufacture code: ○○○○○○  
Failure state: As detailed as possible.



### **WARNING**

- Do not continue the operation as it runs abnormally.
  - Continue running will cause electric leakage, electric shock or short circuit.
- Do not proceed with repairing by yourself.
  - Improper repairing will be the cause of electric leakage, electric shock or short circuit.

## 4-2 Replacement Parts

- Do not use any parts for replacement other than genuine parts.
  - Parts other than genuine parts may have different sizes, so the air pump will not only work with bad performance but also cause to be broken.
- In order to ensure long time service of the air pump, it is recommended that diaphragm and valve should be replaced at least once a year.
  - Diaphragms and valves are consumption parts. So the deterioration characteristic of rubber could cause the bad performance or breakage of the air pump.
- The replacement parts will be available for seven(7) years after production stop of the pump.

- Customer Service Office -

### **SECOH SHANGHAI MEC LTD.**

Head Office : No. 160 Xuanchun Road, Xuanqiao Town, Pudong New Area,  
Shanghai, China

Tel: +86-21-58039273

Fax: +81-21-58039265