

# **SEWAGE PUMP Type SV**



## **User's manual**

## GENERAL INFORMATION

Please check the following point upon receipt of your pump :

- Is the pump exactly what you ordered? Check the nameplate, please.
- Is the frequency of the power supply correct?(50Hz or 60Hz power please check again)
- Has any damage occurred during shipment? Are any bolts or nuts loose?

Take the time to read the instructions carefully before using this appliance.

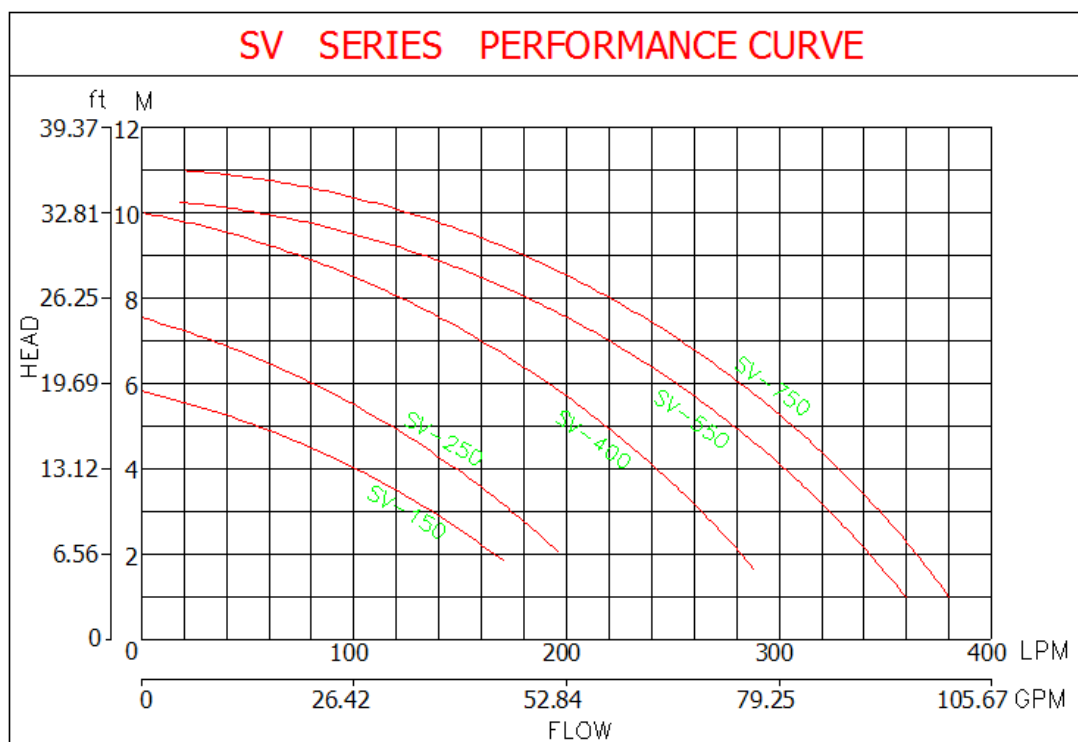
We are strongly to recommend that you keep this instruction manual in a safe place for future reference.

## SPECIFICATIONS

Model	Output (Hp) (W)	Discharge (mm) (Inch)	Rated Head(M) Flow(LPM)	Maximum Head(M) Flow(LPM)	Dimension L x W x H (mm)	Weight kg
SV-150	1/5 150	50 2"	4 100	5,7 170	415x155x200	8
SV-250	1/3 250	50 2"	4,5 120	7,5 220	415x155x200	9,5
SV-400	1/2 400	50 2"	6 180	10 300	435x155x240	12
SV-530	3/4 550	80 3"	8 220	10 360	435x155x260	14
SV-750	1 750	80 3"	9 230	11 380	435x155x260	18

Check the nameplate for your pump's specification as the table list.

Be careful not to exceed the given specifications in the use of your pump.



## MARKS AND MEANING

Keep the pump equipment out of the reach of children !



**WARNING** This sign warns the operator that the failure to follow an instruction may damage the pump and/or the system.

## LIMITATIONS

This series pumps are suitable to pump waste water and other sewage with solid, and use it permanent and temporary installation.

The pump could be placed for sump pit that means it could pump sewage water of tunnel.



The pump cannot be used for sea water and inflammable, corrosive, explosive or dangerous liquids.

Verify that the electropump never runs without liquids.

Liquid temperature : 40°C max

Immersion : 10 m max.

Passage max (solid size) : SV150 : 15mm / SV 250-400 : 27mm / SV550 : 35mm / SV750 : 37 mm

Start per hour : 30 max.

## INSTALLATION

Do not work on pump until power is unplugged.

Do not cut off ground pin or use an adapter fitting.

Do not use an extension cord.

Do not handle the pump by the wire, that will cause the failure from the power cord when it runs a long period time.

Do not position the pump into a un-identify site which you don't know the Max. Diameter particles mixed with the water.

The pump power cord should be connected to a separately fused, grounded line with a minimum capacity of 15 amps (for 1hp below), it can be connect to non- fuse breaker as the recommended amps.

Never touch the pump when it is connected to electrical power.

1. Before installing or servicing this pump, be certain pump power source is disconnected.
2. Installation and electrical wiring must adhere to state and local codes and must be completed before priming pump. Check appropriate community agencies, or contact local electrical and pump professionals.
3. Call an electrician when in doubt. Pump should be connected to a separate 15 amps circuit breaker or 15 amps fuse block. Note that, plugging into existing outlets may cause low voltage at motor, causing blown fuses, tripping of motor overload, or burned out motor.
4. A permanent ground connection from pump to the grounding bar at the service panel is mandatory, SV PUMP sump pumps come with a grounding conductor and a grounding-type attachment plug.

Do not connect pump to a power supply until permanently grounded. For maximum safety, ground pump to a circuit equipped with a fault interrupter device.

5. Voltage of power supply must match the voltage of the pump.

6. Before installing pump, clear sump basin of any water, debris, or sediment.



**Warning:** Sump basin must be vented in accordance with local plumbing codes. SV Sump pumps are not designed for and CANNOT be installed in locations classified as hazardous.

7. The following may cause severe damage to pump and will void warranty:

- (a) Using an extension cord.
- (b) Cutting off the ground pin or using an undentifiable adapter fitting.
- (c )Working on pump or switch while plugged in.
- (d) Removing motor housing, unscrewing impeller, or otherwise removing impeller seal
- (e) Running the pump continuously.
- (f) Pumping chemicals or corrosive liquids.
- (g) Pumping gasoline or other flammable liquids.
- (h) Piping, plastic PVC pipe could install in the outlet piping line, but drain hose, galvanized steel or copper pipe may be used if desired. All piping must be clean and free of all foreign-matter to prevent clogging.  
Use thread compound on all threaded joints unless specified other
- (i) Be sure you had connect the piping with the attached part on the discharge. And ensure your connection fitting without leak.  
Better using steel pipe for high power pumps, and using soft PVC pipe in the outlet piping line also could be accept, but you must ensure the connection been fastened, without leak water



## Electrical wire Connection



Verify that the voltage and frequency of the electropump shown on the nameplate correspond to those available on the mains.  
The installer must make sure that the electric system is grounded in accordance with the law in force.

It is necessary to use cable with a length of 10m for outdoors using. The plug and connections should be protected from water splashes. Before using the pump, always inspect it visually (especially power cable and plug).

Do not use the pump if it is damaged.

If the pump is damaged, have it inspected by the specialised assistance service only.

Make sure that electric connections are protected from inundation. Protect the plug and the power cable from heat, oil or sharp edge.



The power cable must be replaced by qualified personnel only.  
Grounding : The plug of the power cable has a double grounding contact, so that grounding can be performed by simply inserting the plug.

## Overload protection :

This series pump have a built in thermal protection switch. The pump stops if an overload condition occurs. The motor restarts automatically after it has cooled down.

## LIMITED WARRANTY

SV PUMP will repair or replace for the original user any portion of a new SV PUMP product which prove defective due to materials or workmanship of SV PUMP.

Contact the nearest authorized SV PUMP dealer for warranty service.

SV PUMP shall possess the sole right to determine whether to repair or replace defective equipment, parts or components.

THIS WARRANTY DOES NOT COVER DAMAGE DUE TO LIGHTING OR OTHER CONDITIONS BEYOND THE CONTROL OF SV PUMP SUPPLIER .

PUMPS : Warranted 12 months from date of purchase or 15 months from the date of manufacture.

Receipt and product date code required for warranty claim.

LABOR & COSTS : SV PUMP shall in no event be liable for the cost of field labor or other charges incurred by any customer in removing and/or reaffixing any SV PUMP product, parts or component.

### **THE WARRANTY WILL NOT APPLY**

- (a) to defects or malfunctions resulting from failure to properly install, operate, or maintain the unit in accordance with printed instructions provided.
- (b) to failures resulting from abuse, accident, or negligence.
- (c) to normal maintenance services and the parts used in connection with such service.
- (d) to units which are not installed in accordance with applicable local codes, ordinances, and good trade practices.
- (e) if the unit is moved from its original installation location.
- (f) if unit is used for purposes other than for what it was designed and manufactured for.

### **WARRANTY EXCLUSIONS : SV PUMP**

SPECIFICALLY DISCLAIMS THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE AFTER THE TERMINATION OF THE WARRANTY PERIOD.

### **Guarantee,**

The right to claim under guarantee must be proven by the purchaser by presentation of the purchase invoice.

Note:

1. Should your equipment not function correctly, please firstly check, whether other reasons, e.g. interruption of the power supply, or incorrect handling are the cause.
2. Please note that it is imperative that the following documents and details are produced together with your faulty equipment : a) Purchase receipt - b) Designation of the apparatus/type/brand - c) Description of the noted defect (an accurate description of the defect makes a rapid repair easier for us)

In the case of a claim for guarantee or defects, please contact the place of purchase.

## TROUBLESHOOTING CHECKLIST

(CAUTION: SHUT OFF POWER TO PUMP)

Pump does not run and hums	<ul style="list-style-type: none"> <li>* Water level in sump has not reached turn-on level as indicated in installation drawing.</li> <li>* Pump cord is not making contact in receptacle.</li> <li>* If all of the above are OK, and then the motor winding could be operate.</li> </ul>
Pump runs but does not deliver water.	<ul style="list-style-type: none"> <li>* Check valve is installed backwards. Arrow on valve should point in direction of flow.</li> <li>* Discharge shut-off valve (if used) may be closed.</li> <li>* Impeller or volute openings are fully or partially clogged. Remove pump and clean.</li> <li>* Pump is air-locked. Start and stop several times by plugging and unplugging cord. Check for clogged vent hole in pump case.</li> <li>* Inlet holes in pump base are clogged. Remove pump and clean the openings.</li> <li>* Vertical pumping distance is too high. Reduce distance or change the discharge fittings of the pump.</li> </ul>
Pump runs but delivers only a small amount of water.	<ul style="list-style-type: none"> <li>* Pump is air-locked. Start and stop several times by plugging and unplugging cord. Check for clogged vent hole in pump case.</li> <li>* Vertical pumping distance is too high. Reduce distance or change the discharge fitting of the pump. Inlet holes in pump base are clogged. Remove pump and clean the openings.</li> <li>* Impeller or volute openings are fully or partially clogged. Remove pump and clean.</li> <li>* Pump impeller is partially clogged with tar or paint, causing motor to run slow and overload. Remove pump and clean.</li> </ul>
Fuse blows or circuit breaker trips when pump starts.	<ul style="list-style-type: none"> <li>* Pump impeller is partially clogged with tar or paint, causing motor to run slow and overload. Remove pump and clean.</li> <li>* Motor stator may be defective.</li> <li>* Fuse size or circuit breaker may be too small. (Must be 15 amps).</li> <li>* Impeller or volute opening are fully or partially clogged. Remove pump and clean.</li> </ul>
Motor runs for a short time, then stops.	<ul style="list-style-type: none"> <li>* Inlet holes in pump base are clogged. Remove pump and clean the openings.</li> <li>* Pump impeller is partially clogged with tar or paint, causing motor to run slow and overload. Remove pump and clean.</li> <li>* Motor stator may be defective.</li> <li>* Impeller or volute openings are fully or partially clogged. Remove pump and clean.</li> </ul>

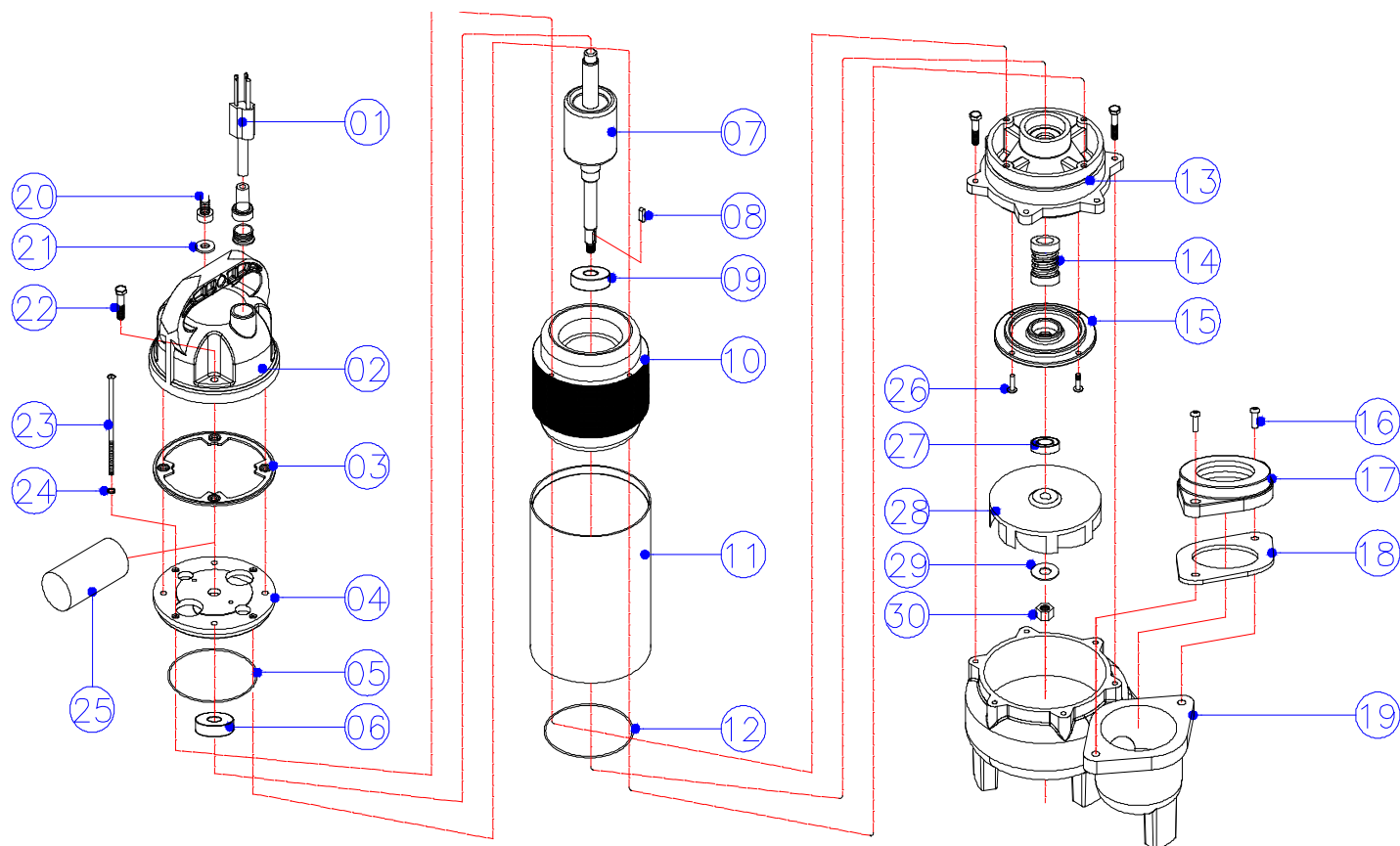
### ELECTRICAL PRECAUTIONS

Before servicing a pump, always shut off the main power breaker and then unplug the pump.

Make sure you are not standing in water and are wearing insulated protective sole shoes, under flooded conditions, Contact your local electric company or a qualified licensed electrician for disconnecting electrical service prior to pump removal.



## STRUCTURE AND PARTLISTS



15	Seal Plate	FC200	30	Nut	SUS304
14	Mechanical Seal	CA/CE	29	Washer	SUS304
13	Lower Bearing Housing	FC200	28	Impeller	FC200
12	O-ring	NBR	27	Oil Seal	NBR
11	Motor Housing	SUS304	26	Screw	SUS304
10	Coil	C60	25	Capacitor	250V/400V
09	Lower Bearing	NTN/NSK	24	Washer	SUS304
08	Key	SUS	23	Screw	SUS304
07	Rotor And Shaft	SUS410	22	Screw	SUS304
06	Upper Bearing	NTN/NSK	21	Screw Packing	NBR
05	O-ring	NBR	20	Screw	SUS304
04	Upper Bearing Housing	FC200	19	Pump Casing	FC200
03	Top Cover Packing	NBR	18	Discharge	PP/ABS/Cast iron
02	Top Cover	Nylon66+30%GF	17	Flange Packing	NBR
01	Power Cord	AWG16/18	16	Screw	SUS304
NO.	Part Name	Material	NO.	Part Name	Material