



## SUBMERSIBLE SUMP PUMP OPERATING & INSTALLATION INSTRUCTIONS

Your pump has been carefully packaged at the factory to prevent damage during shipping. However, occasional damage may occur due to rough handling. **Carefully inspect your pump** for damages that could cause failures. Report any damage to the Pump Installer from whom you purchased the pump. Please read these instructions carefully. **Failure** to comply to instructions and designed operation of this system, may **void** the warranty.

### MODELS

SPWA 25 - ¼ HP  
SPWA 33 - 1/3 HP  
SPWA 50 - ½ HP

SPV 25 - ¼ HP  
SPV 33 - 1/3 HP  
SPV 50 - ½ HP



### **IMPORTANT:**

**Prior to installation, record Model, Serial Number and Date Code from pump nameplate for future reference.**

**MODEL:** \_\_\_\_\_

**SERIAL #:** \_\_\_\_\_

**DATE CODE:** \_\_\_\_\_

**INSTALLATION DATE:** \_\_\_\_\_

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## SAFETY INSTRUCTIONS:

The pump that you have purchased is produced with the latest in material and workmanship. Always remove the plug from the electrical outlet before installing the pump. Before installation and operation, we recommend the following procedures:

1. Check with your local electrical and plumbing codes to ensure you comply with the regulations. These codes have been designed with your safety in mind. Be sure you comply with them.
2. We recommend that a separate circuit be lead from the home electrical distribution panel properly protected with a fuse or a circuit breaker. We also recommend that a ground fault circuit be used. **Consult a licensed electrician for all wiring.**
3. The ground terminal on the three prong plugs should never be removed. They are supplied and designed for your protection. **Do not use an extension cord.**
4. Do not stand in water when connecting or disconnecting power cord from outlet.
5. This product should be connected to a three prong grounded outlet equipped with a ground fault circuit interrupter.
6. Do not pump flammable liquids with this pump as an explosion or fire could result.
7. Do not run this pump dry. Running your pump without water will damage the mechanical seal, reduce the life of the pump and void the warranty.
8. This product does not require lubrication. A special oil has been put in the motor housing at the factory for lifetime lubrication of the bearings. Use of any other oil can cause and void the warranty.

## MATERIAL REQUIRED FOR SUBMERSIBLE SUMP PUMP APPLICATION

### Submersible sump pump installation

- Desired length of 1 ½" (38mm) or 1 ¼" (32 mm) of ABS/DWV pipe to connect the pump to the drain line
- (1) - 1 ¼" (32mm) or 1 ½" (38 mm) check valve
- Sump pit or sump basin
- 1 ¼" (32 mm) – 1 ½" (38 mm) stainless steel clamps
- ABS cement

### Tools Required

- Screwdrivers
- Hacksaw to cut pipe
- Knife to assist in pipe cutting
- Round file to smooth pipe ends
- Pipe wrench
- Adjustable wrench to tighten fittings

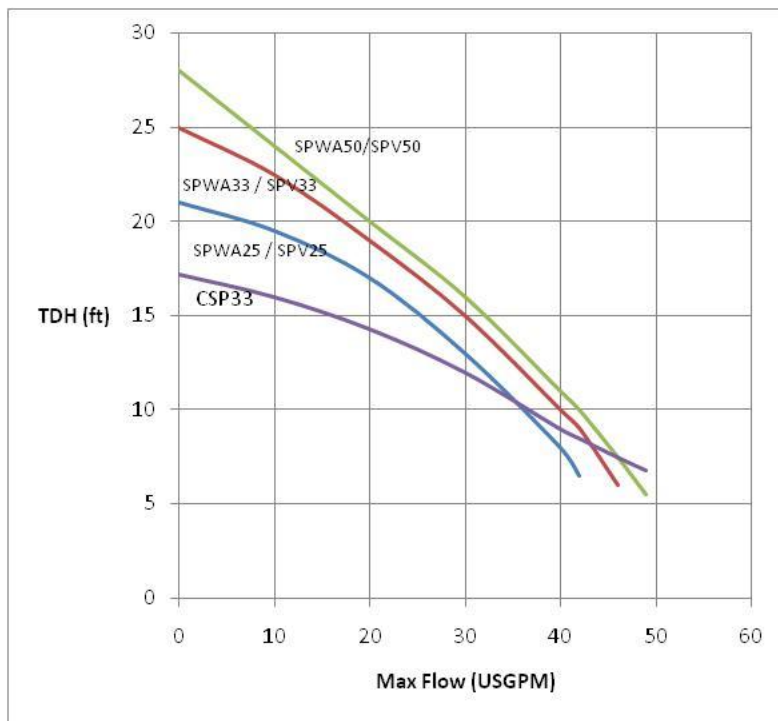
## APPLICATION

▪ This submersible sump pump is designed for a permanent sump installation and dewatering around homes and farms. It can be used in a light commercial application.

## FEATURES

- Non corrosive material.
- Stainless steel mechanical rotary seal.
- Thermal and overload protection.
- Piggy back grounded cables.
- 115VAC, 60 Hz

## PERFORMANCE



### Submersible Sump Pump Specifications

Item #	Model Number	Description	TDH (ft/m)	* Max Flow (usgpm/lps)	Solids Handling	HP	Voltage	Frequency Hz	Rated Amp	Maximum Amp	Output Power (W)	Motor Speed
45010001	SPWA25	Sump Pump - Tethered Switch	21/6.4	42/2.6	1/8"	1/4 HP	115	60	3.0	7.1	180	3500
45010002	SPWA33	Sump Pump - Tethered Switch	25/7.6	46/2.9	1/8"	1/3 HP	115	60	4.0	9.5	250	3500
45010003	SPWA50	Sump Pump - Tethered Switch	28/8.5	49/3.1	1/8"	1/2 HP	115	60	4.7	13.3	370	3500
45010004	SPV25	Sump Pump - Vertical Switch	21/6.4	42/2.6	1/8"	1/4 HP	115	60	3.0	7.1	180	3500
45010005	SPV33	Sump Pump - Vertical Switch	25/7.6	46/2.9	1/8"	1/3 HP	115	60	4.0	9.5	250	3500
45010006	SPV50	Sump Pump - Vertical Switch	28/8.5	49/3.1	1/8"	1/2 HP	115	60	4.7	13.3	370	3500

\* Note: Maximum flow based on a minimum 6' Head

## INSTALLATION STEPS

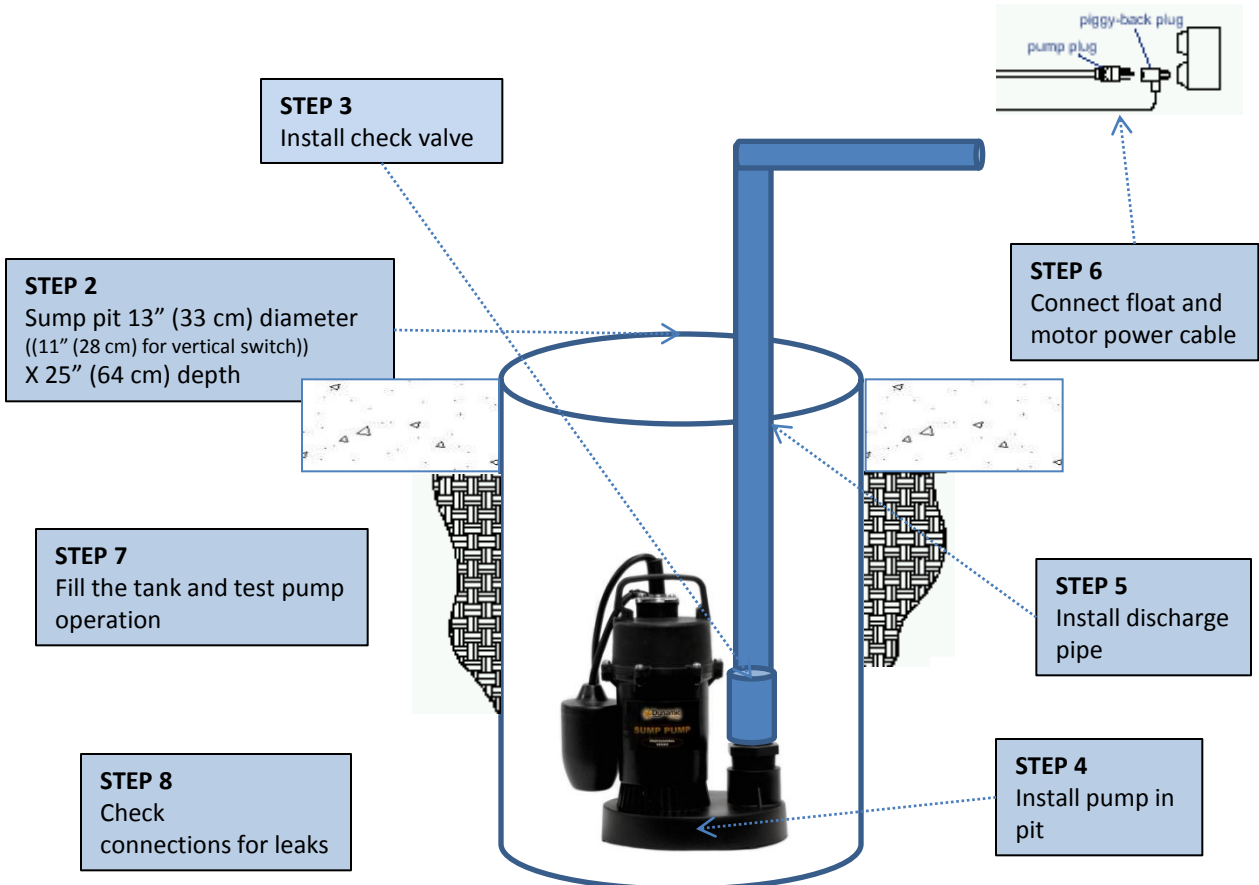
- STEP 1:** We recommend that you install your pump in a clean location where there is adequate room for servicing at a later date. Protection from freezing temperatures and good ventilation should be considered as well, to provide the pump an environment for long life. **Do not use to pump gas, or toxic fuels. This submersible sump pump is designed to pump relatively clean sump water only. Do not pump in mud, sand, gravel, cement, oil, brine or chemicals. Use in these applications will void warranty.** Friction losses in the discharge pipe must be taken into consideration when the horizontal offset is greater than 50 feet (15 m). The discharge pipe should be increased from 1 ½" (38 mm) to 2" (51 mm). This will reduce friction losses and allow the pump to give maximum performance. More friction losses must also be taken into consideration when many elbows and fittings are installed in the discharge line. Each elbow and/or fitting must be considered as 1 foot (.3 m) of head. The float switch of your pump has been pre-set at the factory and should not need any adjustment. If adjustment is necessary, refer to step 2. **Never run the pump dry.** Damage to the seal may occur. Fill pump pit or sump basin with water before turning on the power.
- STEP 2:** Assuming that you have a sump pit located in your basement floor... Your sump pit may be constructed from concrete, brick, tile or more recently a sump basin made from plastic and/or fibreglass. The minimum size of your sump pit should be no less than 13" (330mm) for a tethered float and 11" (279 mm) for a vertical float. The minimum depth should be no less than 25" (635 mm). The tether length should be no shorter than 3" (76 mm) for proper operation. DO NOT increase the tethered length on the float switch to more than a 5" (127 mm) tether or the pump will not turn OFF.
- STEP 3:** At this step, you have the opportunity to install a 1 ½" (38 mm) or a 1 ¼" (32 mm) discharge. We recommend a 1 ½" (38 mm) ABS/DWV discharge. Install a check valve on the discharge pipe of your pump and secure it with stainless steel clamps or glued nipple for ABS/DWV pipe. This check valve will allow easy access to pump, should service be required.
- STEP 4:** Install and position your submersible sump pump in the centre of your sump pit or basin and ensure that there is clearance to allow the mechanical float switch a free working area without obstructions (pipe, pit's wall, power cord). The float cord length is factory set and should not need adjustment. If adjustment is required, the switch cord can be shortened or lengthened. (refer to step 2 for details)
- STEP 5:** Install your discharge pipe from check valve to the point of discharge or drain. For installation over 50 feet (15 m) of horizontal position discharge pipe, use a 2" (51 mm) pipe to reduce friction loss.

## INSTALLATION STEPS

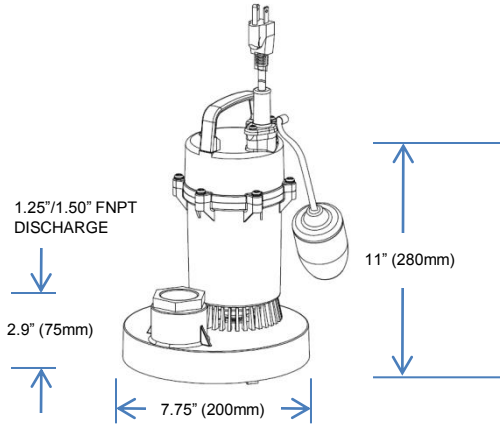
### CONTINUED

- STEP 6:** The mechanical switch provided with your pump is supplied with a serial electrical male plug. Fix the power cord of the pump into the piggy-back receptacle of the switch and plug this one into electrical grounded outlet. We recommend that a licensed electrician be employed to do the wiring. Permanently ground the motor in accordance to the electrical codes for your area. Do not use an extension cord to connect your pump to the power source. From your distribution panel to the receptacle, we recommend a wire gauge not smaller than 14 gauge. Use tape or tie wrap to fix power cords to discharge pipe.
- STEP 7:** Fill the sump pit or basin with water to test the operation of your submersible sump pump. The motor should start when the water level reaches approximately 3" over your pump. Allow the pump to go through several "on-off" cycles to assure satisfactory operation. If needed, see the trouble shooting guide in this manual.
- STEP 8:** Review your installation with typical diagram. Check all connections for leaks.

## INSTALLATION DIAGRAM



# PUMP DIMENSIONS



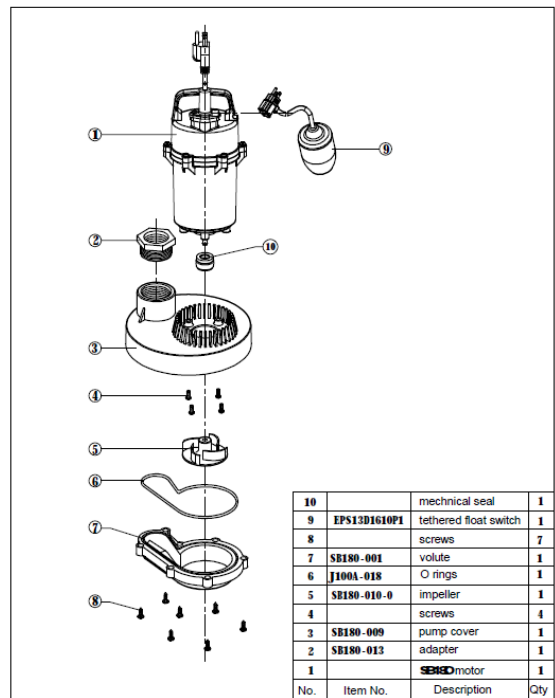
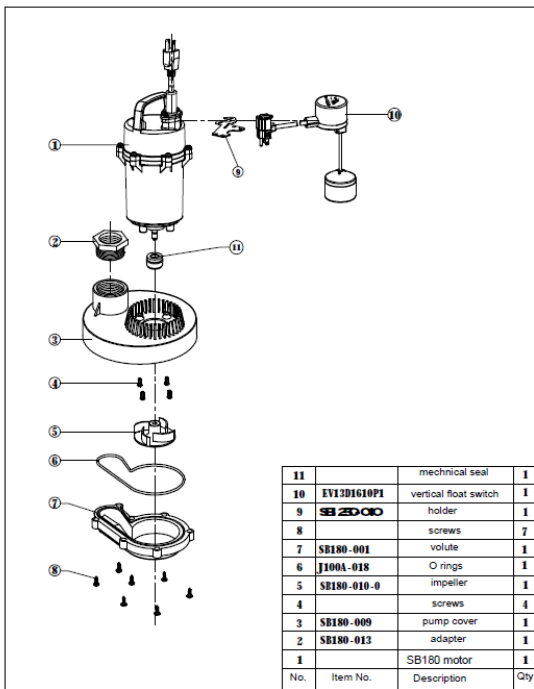
# MAINTENANCE

Unplug the switch and pump motor power cord. Remove the pump from pit or basin. Remove trash accumulation and dirt from the pump and float switch. Be sure the float switch operates freely after cleaning. If tar or paint has been received in the pit or basin, use kerosene to remove residue from float switch or pump. **Do not use strong paint solvents.**

Remove the screws that hold the strainer or the base to the bottom of the pump body. Pry the base off the pump body carefully. Clean the impeller and volute passage way from any debris which may have become in contact with these parts. Again, if tar or paint has entered pump, clean with kerosene. **Do not use strong paint solvents.** Be sure impeller turns freely after cleaning.

Check and clean away any debris which may be clogging the suction inlet, pump discharge, check valve and discharge line.

# EXPLODED VIEWS



## TROUBLE SHOOTING GUIDE CHECKLIST

**NEVER MAKE ADJUSTMENTS TO ANY ELECTRICAL APPLIANCE OR PRODUCT WITH THE POWER CONNECTED. DON'T JUST UNSCREW THE FUSE OR TRIP THE BREAKER, REMOVE THE POWER FROM THE RECEPTACLE.**

### **Motor does not run**

- Switch is *off* position
- Blown fuse
- Tripped breaker
- Plug disconnected
- Corroded plug
- Low water level
- Thermal overcharge
- Defective switch/float
- Defective motor
- Improper float position
- Turn switch to *on* position
- Replace
- Reset
- Re-install
- Clean prongs
- Add water and verify
- Cool the motor
- Replace
- Replace/repair
- Check movement

### **Pump does not deliver to full capacity**

- Jammed impeller
- Plugged check valve
- Blocked suction/inlet
- Discharge leak
- Blocked line/pipe
- Worn impeller
- Defective motor
- Clean
- Clean/replace
- Check for debris in pit and clean
- Repair
- Check for debris or ice
- Repair/replace
- Replace

### **Pump does not shut off**

- Defective switch
- Float obstruction
- Blocked suction/inlet
- Replace
- Adjust/check
- Check for debris in pit and clean

### **Pump cycles too frequently**

- Check valve not installed or leaking
- Float tether is too short – minimum tether length is 3" ( 76mm)
- Replace or repair
- Adjust float tether length



## **2 Year Limited Warranty**

Dynamic Pumps warrants this pump to be free from defects in material and workmanship for a period of 2 years from date of manufacture.

This pump is guaranteed to do the work for which it is intended when properly installed and operated. The only exception shall be when proof of purchase or installation is provided (end user bill of sale required) and then the warranty period shall be from the date thereof.

### **HOW TO CLAIM WARRANTY**

The dealer from whom you purchased your pump has a thorough knowledge of it's operation and maintenance. If trouble develops, please consult the dealer.

The manufacturers obligation under this Warranty shall be limited to the repair or replacement of any parts found by the manufacturer to be defective, provided the part or the assembly is returned freight prepaid to the manufacturer or its authorized service centre.

If a unit or part should prove defective within 24 months, return it to your dealer, transportation charges prepaid. The repair will be made or a replacement unit or part will be supplied free of charge. The serial number of the unit, or unit from which the defective part is taken, must be supplied.

This warranty does not oblige the manufacturer to bear the cost of field labor or transportation in connection with the replacement or repair of defective parts or units, nor shall it apply to any product upon which repairs or alterations have been made, unless authorized by the manufacturer.

The manufacturer shall in no event be liable for consequential damages or contingent liabilities arising out of the failure of any product, its power unit or its accessories to operate properly. No express, implied or statutory warranty other than herein set forth is made authorized to be made by the manufacturer.