

SPK450/SPK450M/SPK450AF series

Pump Operation Manual

WARNINGS

Please pay careful attention to the following warnings signs and indications.



1. Only qualified, licensed personnel should install this pump. The electrical installation shall be in accordance with the national wiring regulations applicable to the country of intended use.
2. The pump operator must be provided with this manual. This must be read before and during operation.
3. These instructions are a guide only. Users not familiar with pumping equipment should seek advice from people experienced in pump equipment and installation
4. The pump is designed to be used with clean water. Do not use it with alternative fluids, specifically abrasive, corrosive or explosive fluids. Do not install or operate your pump in an explosive environment or near combustible matter. Do not pump hydrocarbons with this pump.
5. Incorrectly installed or tested equipment may fail, causing severe injury or property damage.
6. To avoid burns when handling the motor, allow it to cool for at least 20 minutes before carrying out any inspection / maintenance, this should only be done by a qualified person.
7. A thermal overload switch protects the motor from heat damage during operation. 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



8. Pollution of the liquid could occur due to leakage of lubricants from pump
9. The pump is electrically connected. Ensure that it is isolated from electrical supply during installation and any subsequent service work
10. This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
11. Children should be supervised when in the environment of the pump to ensure they do not play with the pump.
12. The pump must be supplied through a residual current device (RCD) having a rated residual operating current not exceeding 30mA
13. Risk of electric shock. This pump is supplied with a grounding conductor and grounding type plug. To greatly reduce the risk of electrical shock, connect only to a properly grounded, grounding type receptacle. Note: this pump has been evaluated for use with water only.
Note: This pump has not been investigated for use in marine areas.
14. This pump must not be used when people or animals are in the water to be pumped.
15. Do not run the pump dry (continue to use when no water is present) as this will damage the seal and reduce the life of the pump, this will invalidate the warranty.

CONSTRUCTION

Pump Housing	AISI12
Pump Shaft	stainless iron
Mechanical Seal	Alumina/Graphite (Dual Seal)
Pump Base	NBR with stainless inserted
Power Cable	H07RN-F 1mm
Float Cable	H07RN-F 1mm
Motor Housing	AISI12
Impeller	NBR with stainless inserted

USAGE LIMITATIONS

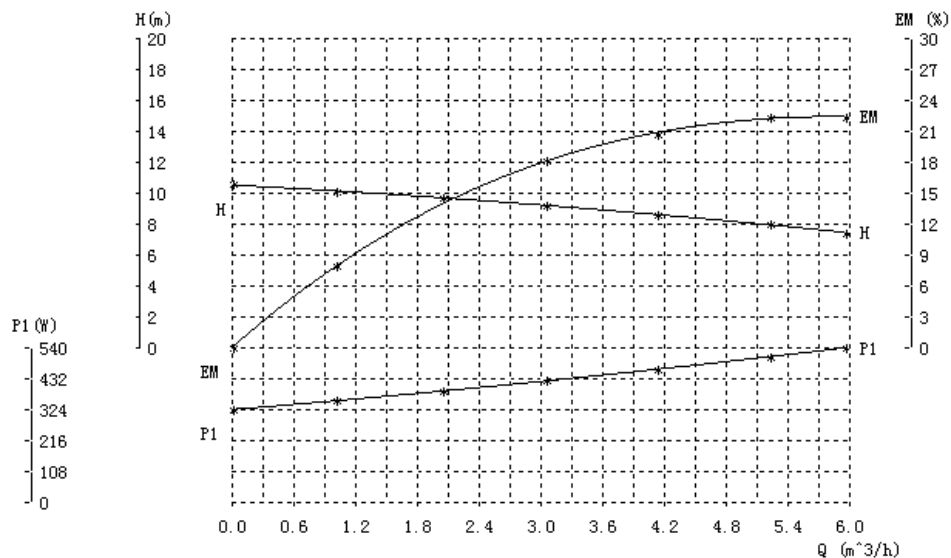
Type of liquid	clean water with no suspended abrasive material, PH value:6.5-8.5
Max liquid temperature	40°C
Max Submersion Depth	5m
Max. Diameter of solids	2.0mm
Protection Class	IP68
Insulation Class	B

TECHNICAL DATA

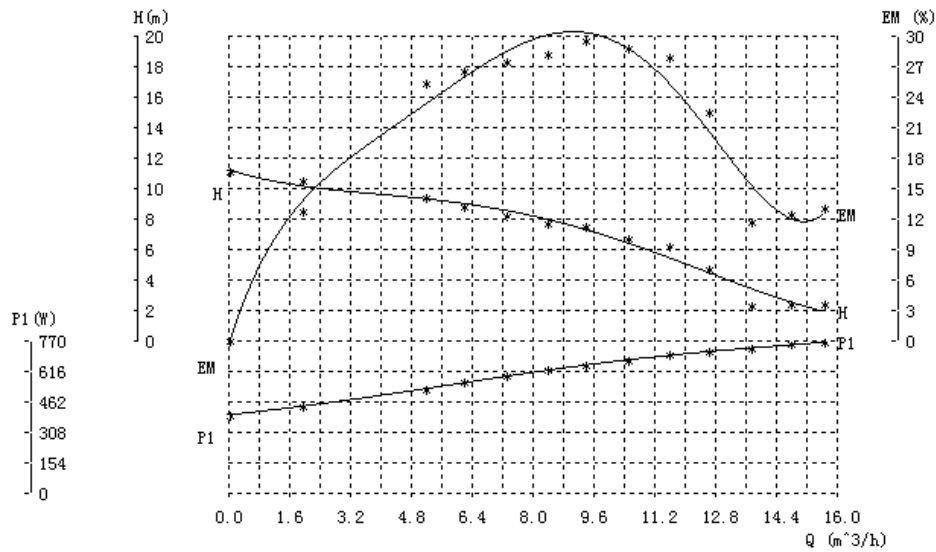
Pump Model	Power (W)	Outlet Diameter	Voltage V/HZ	Max. Flow(l/min)	Max. Head	G.W (kg)	Carton Size(mm)
SPK450	450W	1"	110/50	85	10	11.5	23*23*35
SPK450M	450W	2"	110/50	260	11	10.0	23*23*35
SPK450AF	450W	2"	110/50	260	11	10.0	23*23*35

PERFORMANCE CHART

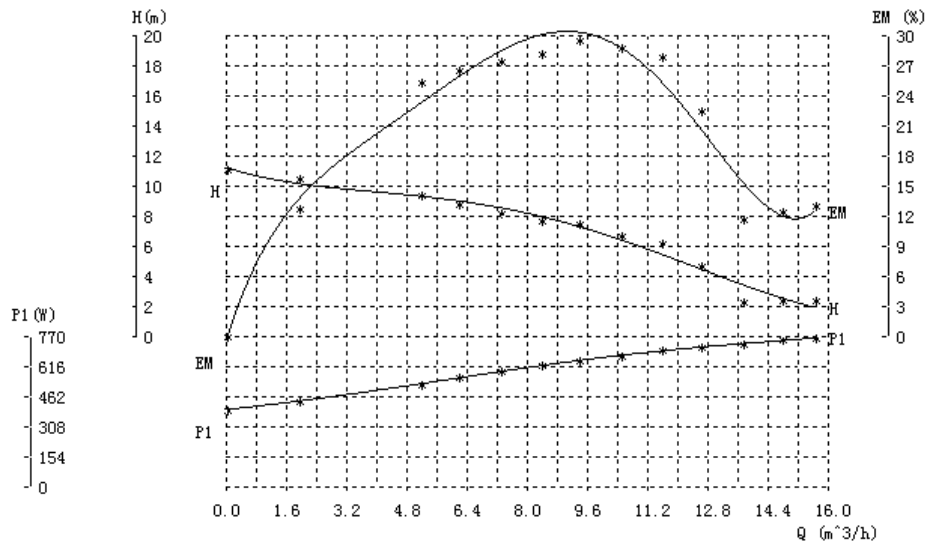
SPK450



SPK450M



SPK450AF



PREPARING FOR INSTALLATION

1. Ensure pump in good position

Inspect your pump, ensuring that it is not damaged. If the pump is damaged report it to where the pump has been purchased or hired from. Warranty of these pumps is void unless they are operated in accordance with these instructions.

2. Check pump technical data

For electrical and model details, please double check the rating plate to ensure the pump is suitable.

3. Locating the Pump

Do not use the electrical cable to lift or transport the pump. You must use the handle on top of the pump to lift the pump.

Using the handle at the top of the pump, connect a nylon rope or a stainless steel cable suitable to sustain its weight. Anchor the other end of the rope or cable so that it balances the weight of the

pump as it rests in its final position at the base of the tank/pit/well.

4. Power Source

If the pump is being installed in a permanent position arrange for an electrician to install a 10A weatherproof outdoor power point near the pump if there is not one there already.

5. Suction

If fitted ensure that the float switch can move freely within the tank/well/pit and cannot be trapped. The pumps should be positioned on a hard surface that is elevated from the base of the tank/pit/well. This is to keep the pump inlet clear of sediments which maybe present in the bottom of the pit/well/tank.

6. Discharge

It is advisable to fit a check valve on the discharge piping to prevent fluid from re-circulating when the pump has stopped.

If you are using a hard discharge pipe, screw this into the outlet of the pump housing. If you are using a flexible discharge hose, use hose clamps to secure this to the fitting provided.

The length and diameter of the discharge hoses/pipes will affect the pressure and flow rate at which your pump operates. A larger diameter hose or pipe will give less resistance to flow and allow for best performance. Pressure ratings of all components must exceed the maximum pressure of the pump by an appropriate safety factor. All pipe work should be supported independently of the pump.

7. Float Switch

SPK450AF is with float switch.

SPK450 & SPK450M is without float switch.

The function of float switch is to control pump working automatically. The pump works when the float is higher than certain level and stops operating when pump float is in the low position.

Please check that the float switch is free from any obstacle before using the pump.

8. Filter Mesh

The pump is designed for clean water, and can also be used for swimming pools. If using in a swimming pool a filter mesh will need to be fitted to filter impurities such as hair and cloth. Please leave some space between the filter and pump for its heat radiation.

INSTALLATION

1. Ensure that the pump submerged in water before connecting power.
2. Connect power plug to a suitable outlet. Then the pump start to work
3. During the running of the pump, if any abnormal phenomena, such as unusual sound, low water drawn out or intermittent water flow etc., you should immediately switch off the power supply and make an inspection to investigate the fault. Do not touch the pump body whilst the pump is plugged in to its power supply and still wet.
- 4.

For SPK450

You must pay attention to the water level whilst the pump is in operation, if the water level is less than 2mm you should immediately disconnect the power supply to stop the pump working. Otherwise if it runs without water for a period of time the motor will over heat and burn out the windings,

This will invalidate the warranty.

For SPK450M

You must pay attention to the water level whilst the pump is in operation, if the water level is sufficiently reduced you should immediately disconnect the power supply to stop the pump working. Otherwise if it runs without water for a period of time the motor will over heat and burn out the windings,

This will invalidate the warranty.

For SPK450AF

The pump will stop working automatically due to the float switch function.

5. If the pump must be removed from the pit, use the nylon rope or stainless cable to lift it. Do not use the power cable or float switch to lift the pump.
6. After using the pump, disconnect it from its power supply remove it from the pumping environment and clean it in/ with clean water, then clean away any mud/dirt from the inside and outside of the pump. Coat moving parts with oil and store in a dry place. The pump should be checked for any damage to the unit and power cable and repaired straight away with genuine spare parts. This should be done by a suitably qualified person only.

TROUBLE SHOOTING GUIDE

Symptom	Cause	Remedy
Pump does not start	Float switch isn't in the on position (SPK450AF Only)	Wait until there is enough water in the pit to start the pump
	Float is caught on something and can't rise above level (SPK450AF Only)	Ensure that the float can move freely
	No power supply	Ensure that the pump is connected to live outlet
		Check fuses and circuit breakers
	Pump is blocked	Disconnect the pump from the power outlet, and check the pump housing and discharge for foreign matter
No water from pump	Blockages in the pump or discharge	Disconnect the pump from the power outlet, and check the pump housing and discharge for foreign matter
	Air trapped in pump not venting through anti-airlock hole in pump casing	Unplug pump and ensure air lock hole is clear. Restart pump.
	Excessive lift	Ensure that the height that you

		are trying to lift water is within the pump's capacity. A larger pump may be required.
	Not enough water in the pit to pump	Wait until there is enough water in the pit. Ensure the float switch is operating freely. (SPK450AF Only)
Pump will not stop, even though there is little water in the pit	Float switch is trapped in the 'up' position (SPK450AF Only)	Ensure that the float can move freely
	Float switch is faulty (SPK450AF Only)	Replace the float switch
Pump runs intermittently; Thermal protection inside the pump is tripping and resetting	The pump is not completely submerged	Ensure pump is covered with water
	Water temperature is too high	Ensure that the water temperature limits are observed
Pump runs intermittently	When the pump shuts off, water in the discharge line is running back into the pit, lifting the float switch (SPK450AF Only)	Fit a non-return valve at the pump discharge so that water cannot return to the pit

SERVICE



- Pump should only be serviced by qualified personnel. For best results, use only genuine service parts.
- To avoid dangerous or fatal electrical shock hazard, turn OFF power to motor and remove plug from power outlet before working on pump or motor.

WARRANTY

You have purchased a quality product from Hire Supply Company (UK), This product is covered by a 24 month warranty. This warranty covers faults in the product construction, material and assembly. Faulty products will be repaired or exchanged free of charge. Faulty items become our property.

This warranty **DOES NOT** include faults caused by

- Unsuitable or improper use
- Incorrect installation

- Inadequate or complete lack of maintenance
- Chemical, electrochemical or electrical influences



Thank you for choosing Elite pumps !

The Hire Supply Company UK Limited,
7-10 Eldon Road Trading Estate, Attenborough, Nottingham
NG9 6DZ, UK
Tel:0845 309 0707



THE HIRE SUPPLY COMPANY (UK) LTD.