

**AQUA PAK**



**SUPRA**

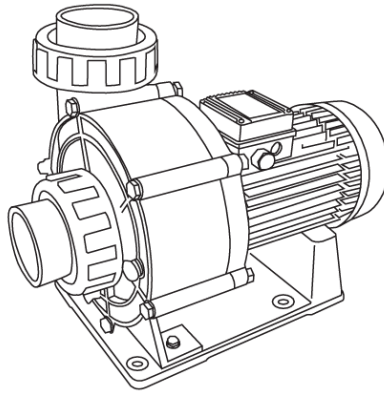
SUPRA3-30-1230, SUPRA3-30-3234, SUPRA3-40-3234, SUPRA4-55-3234 y SUPRA4-75-3234  
HIGH FLOW PUMP FOR COMMERCIAL SWIMMING POOLS



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## 1. SAFETY WARNINGS



### CAUTION

This motor pump is not intended for use by individuals (including children) with reduced physical, sensory, or mental capabilities, or lacking experience or knowledge, unless they are supervised or instructed in the safe operation of the motor pump by a person responsible for their safety.



### CAUTION

Children must be supervised to ensure they do not use the motor pumps as toys.



### CAUTION

Power supply cable: Type Y attachment.

If the power cable or cord is damaged, it must be replaced by the manufacturer, its authorized service agent, or qualified personnel in order to avoid a hazard.



### CAUTION

For proper protection and startup of three-phase motor pumps, it is recommended to use a suitable device (magnetic starter, solid-state starter, or variable frequency drive) that includes at least the following protections: phase loss, current imbalance, and voltage imbalance.

## 2. INTRODUCTION

With the help of this instruction manual, you will be able to properly install and keep the motor pump operating in optimal condition. We recommend following the instructions provided herein. Keep this manual in a safe place for future reference. These pumps are manufactured with high-quality materials and are subjected to strict hydraulic and electrical tests to ensure proper performance. Correct installation ensures the longevity of the equipment, provided that all installation instructions are strictly followed—especially proper wiring. Failure to do so may result in overvoltage damage to the motor, in which case we are not responsible for any resulting issues.

### 2.1. INSTALLATION

- The place where the motor pump will be installed must be covered but well ventilated, away from heat sources (for example: boilers, direct sunlight, etc.), free from flooding, and equipped with a good drainage system.
- The length of the motor pump's suction pipe should be as short as possible, but its diameter must be adequate. A reduced pipe diameter at the pump's suction would cause insufficient flow, resulting in overheating and possible cavitation.
- The motor pump should always be installed in a horizontal position on a fixed base, secured with screws through the foot holes to prevent unwanted noise and vibrations. It should also be placed in an accessible location to allow easy handling of the pump in case maintenance is required.
- Always try to ensure that the motor pump's data plate is located in a visible and accessible place for possible inspections and wiring modifications, but never leave the electrical connections exposed. It is recommended that the motor pump and its electrical installations are not placed in a highly trafficked area, to avoid affecting its operation and to prevent accidental contact by people passing by.
- The electrical components must be securely fixed, well protected to prevent damage, and kept out of reach of children.



#### **CAUTION**

**IMPORTANT! TO REDUCE THE RISK, DO NOT ALLOW CHILDREN TO PLAY WITH THE MOTOR PUMP**

### 3. ASSEMBLY PIPE

#### SUCTION PIPE

The diameter of the suction pipe must be at least equal to the diameter of the motor pump's suction inlet, but it is even more recommended to install the next larger diameter. For example, if the motor pump has a suction diameter of 3", it is recommended to install a suction pipe with a diameter of 4".



#### NOTE

NOTE: When increasing the pipe diameter to the next larger size, it is recommended to install a pipe section five times the diameter of the pipe being installed. This helps avoid turbulence and ensures a smoother flow toward the motor pump's suction.

- It is important that in motor pump installations with negative suction (when the motor pump is positioned above the water level of the pool), the suction pipe is installed with a consistently upward slope—that is, the pipe runs should have a slight incline leading up to the motor pump's suction. This helps to expel any air bubbles that may exist and prevents possible air accumulations (air pockets) that can interrupt continuous flow, thereby minimizing the risk of cavitation and/or dry running.
- Ensure that all joints (couplings, nipples, union nuts, pipes, hoses, etc.) are tightly secured and sealed, free from possible leaks or air ingress, since loose joints or any pores or cracks on the suction side greatly affect the motor pump's performance. This will result in failure to meet the previously expected flow rate and pressure.
- The length and path of the suction pipe should be as short and straight as possible, with the fewest fittings (elbows) possible. The fewer direction changes the suction pipe has and the closer it is to the water level, the more friction losses are minimized.

#### DISCHARGE PIPE

- The diameter of the discharge pipe must be at least equal to the diameter of the motor pump's discharge outlet, but it is even more recommended to install the next larger diameter. For example, if the motor pump has a discharge diameter of 4", it is recommended to install a discharge pipe with a diameter of 4.5".
- To further reduce friction losses, don't forget to connect the return nozzle tubing to a closed loop (LOOP).
- When carrying out the assembly, it is necessary to avoid traps or obstructions in the hydraulic installation, which in addition to affecting the efficiency of the system, prevent the total emptying of the pipe and the correct operation of the filter system.

## 4. ELECTRICAL CONNECTION

- Check that the voltage to be supplied is adequate with respect to the data on the motor plate.
- Make sure you comply with the electrical standards and regulations applicable to your country.



### NOTE

For longer cable lengths, special care must be taken in selecting the correct power cable gauge, in order not to exceed the maximum allowable voltage drop.

- A very thin cable will cause heating and premature engine damage. If you have questions, consult a qualified electrician.
- For adequate protection against possible electric shock, the installation must be carried out by qualified personnel and we suggest the following:
  - The electrical protection of the system must be done by means of a thermomagnetic switch with rapid triggering due to current leakage to physical ground with a trigger sensitivity of 30 mA and must not be exceeded.
  - The power cable must meet electrical standards.



### WARNING

Risk of electric shock: connect the grounding wire of the electrical circuit to the physical ground terminal (of the installation) and protect it using a ground fault circuit interrupter (GFCI). Contact qualified personnel to verify the proper functioning of the fault protection circuit.

### 4.1. RECOMMENDATIONS BEFORE START-UP

- Check that the motor pump shaft rotates freely.
- Check that the supply voltage and frequency are in accordance with the motor pump's data plate.
- Check that the direction of rotation of the motor matches what is indicated on the fan cover.
- If the engine does not start, try to locate the problem in the troubleshooting guide for possible faults.



### CAUTION

PRIME THE SUCTION PIPE (FILL THE WATER PIPE) BEFORE STARTING THE MOTOR PUMP.

## 5. START-UP AND OPERATION

- Before starting the motor pump, make sure that the suction and discharge connections are properly connected and free of leaks.
- Check that there are no obstacles in the pipes.
- Completely prime the suction pipe, fill the pipe and the motor pump body with water.
- Wait a reasonable amount of time for the pipe to self-priming.
- NEVER operate the motor pump with the valves closed.
- We recommend that you check that the amperage is maintained as indicated on the motor pump's data plate.
- NEVER OPERATE THE MULTI-PASS FILTER VALVE WITH THE MOTOR PUMP TURNED ON.



### **CAUTION**

IMPORTANT! THE MOTOR PUMP SHOULD NEVER WORK DRY



### **WARNING**

CAUTION! IT IS IMPORTANT TO CONNECT THE PIPING AND COMPLETE THE ENTIRE INSTALLATION BEFORE SUPPLYING POWER TO THE MOTOR PUMP.



## 6. MAINTENANCE AND CLEANING

- The SUPRA motor pump does not require a maintenance or special cleaning program.
- It is recommended to have a pre-filter in the suction to filter the pool's sediment and clean it periodically, as an obstruction in the suction potentially reduces the performance of the motor pump, as well as its priming capacity.
- Make sure to follow the following steps when cleaning the pre-filter:
  - 1) Turn off the motor pump and disconnect the power supply.
  - 2) Close the system valves (inlet and outlet of the motor pump).
  - 3) Open the pre-filter cover.
  - 4) Remove the pre-filter, empty it and clean it carefully.
  - 5) Place the pre-filter again.
  - 6) Firmly close the pre-filter cover, ensuring that the gasket is properly positioned to achieve an airtight seal.
  - 7) Reopen the valves used. The motor pump should never operate with the valves closed.
  - 8) Turn the motor pump back on.

If the motor pump will be inactive for a long period of time, it is recommended to disassemble, clean, and store it in a dry and well-ventilated place.

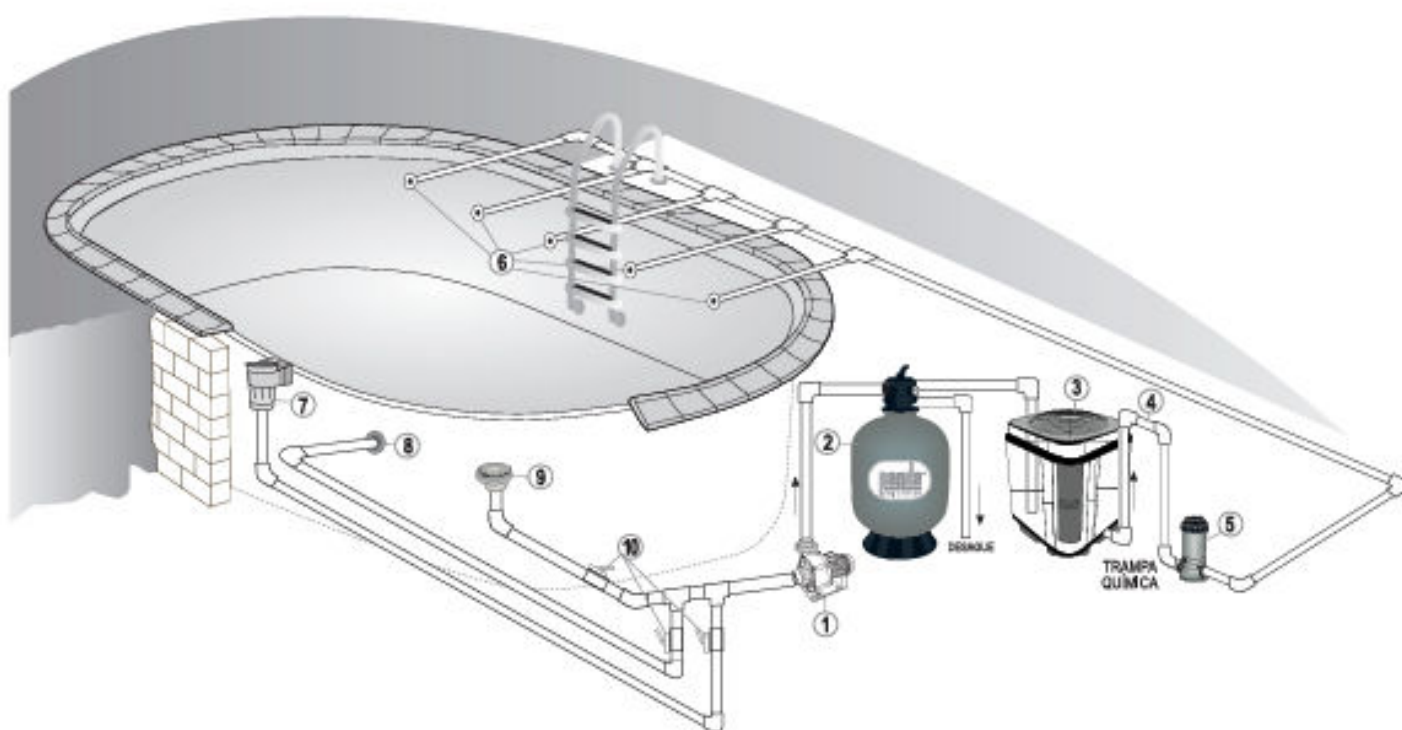


## 7. TROUBLESHOOTING GUIDE

Fault	Possible cause	Solution
The motor pump does not start	Incorrect voltage	Check that the voltage you are supplying the motor is adequate, according to the equipment's data plate.
	No voltage is coming	Check that the circuit breaker is closed and the motor pump switch is turned on.
	False contacts	Readjust all wiring connections.
	Thermal boot	Wait for the engine to drop its temperature to start automatically.
The motor pump does not deliver the correct flow rate	Clogged or leaking pipe	Ensure there is an adequate distance between the suction pipe and the discharge pipe in the pool to prevent air bubbles from entering the suction pipe.
		Check the suction pipe; it may be clogged or not fully primed.
		Check that the motor pump body is not obstructed by anything that blocks the flow.
		Check that there are no leaks in the connections between the motor pump and the piping.
	Limited piping	Check that the suction pipe diameter is not smaller than the suction diameter of the motor pump.
	Very high suction level	Reduce the suction level of the motor pump.
	Low voltage	Check that the voltage supplied to the motor pump is adequate.
		Avoid using electrical extensions.
	Clogged pool accessories	Clean pool accessories (Skimmer, bottom drain, pre-filter, filter, etc.).
The motor pump makes noise	Semi-closed or fully closed valves	Check that the valves are fully open.
	Closed filter valve	Check that the filter valve position is not in the closed position.
	Limited piping	Check that the suction pipe diameter is not smaller than the suction diameter of the motor pump.
	Vibrations in the equipment	Attach the motor pump to an immovable base by means of screws through the holes in the foot of the motor pump.
	Obstructions in the motor pump body	Check that the motor pump body does not have anything obstructing its flow.
	Possible pipe leaks	Check that there are no leaks in the joints (couplings, nipples, union nuts, etc.).
	Clogged pool accessories	Clean pool accessories (Skimmer, bottom drain, pre-filter, filter, etc.)
Problems with priming the pipe	If it has a pre-filter and it has leaks	Check that the prefilter cover is completely closed.
	Suction pipe disconnected	Check that the suction pipe is properly connected to the pool.
	Very high suction level	Reduce the suction level of the motor pump.
	Possible pipe leaks	Check that there are no leaks in the joints (couplings, nipples, union nuts, etc.).
	Air intake through the accessories	Check that the accessory pipes are free of cracks and are free of air intake.

## 8. INSTALLATION DIAGRAM

1 motor pump for pool	6 return nozzles
2 sand filters	7 skimmer
3 Motor heat pump	8 Nozzle for sweeper connection
4 Chemical Trap	9 Bottom drain
5 Automatic chlorinator	10 Ball valves (from the skimmer, sweeper and bottom drain)



## 9. USES AND PROHIBITIONS

### USES

Installation in covered, dry, well-ventilated environments, away from direct heat sources.

Exclusive use with clean or treated water in accordance with swimming pool system requirements.

Use with suction and discharge pipes with a diameter equal to or greater than that of the pump.

### PROHIBITIONS

Use is prohibited in applications outside the scope of swimming pool water circulation, such as wastewater, chemical, or industrial fluids.

Do not install outdoors without proper protection against rain, sun, or flooding.

Do not allow use by children or untrained individuals without supervision.

Do not operate with valves fully or partially closed.

Do not handle electrical connections or valves while the motor pump is running.