

OWNER'S GUIDE



HAYWARD® SELF-PRIMING

TriStar™ Pump - SP3200 Series

INSTALLATION AND OPERATING INSTRUCTIONS

Your Hayward self-priming centrifugal pump has been quality-built and engineered to give you many years of efficient, dependable, corrosion-free service.

The advanced design reduces operation and maintenance to simple, common-sense procedures.

IMPORTANT

*This appliance is not intended for use by young children or infirm persons unless they have been adequately supervised by a responsible person to ensure they can use the appliance safely.

*Young children should be supervised to ensure that they do not play with the appliance.

GENERAL TIPS ON PUMP INSTALLATION

Locate the pump as close to pool as practical and run suction line as direct as possible. **Secure pump to base with screws or bolts to reduce vibration and pipe stress.**

Never overtighten pipe connections—use only pipe sealants formulated specifically for plastics, i.e., Teflon tape, Permatex No. 2, etc.

Suction line should have continuous slope from lowest point in line. Make sure suction joints are tight. Suction pipe should be as large or larger than discharge pipe.

Damp, non-ventilated locations should be avoided. Motors require free circulation of air to aid in cooling.

Insure that the electrical supply available agrees with motor's voltage and is 50 HZ, and that wire size is adequate for the KW rating and distance from power source. Motor must always be properly earthed. Electrical circuits must be supplied through a Residual Current Device - RCD (safety switch), with a rated residual operating current of 30mA. All electrical wiring must be performed by qualified electrical contractor, and must conform to electrical regulations and AS3000 wiring rules.

STARTING AND PRIMING INSTRUCTIONS

Fill strainer/housing with water to suction pipe level. Never operate the pump without water. Water acts as a coolant and lubricant for the mechanical shaft seal.

Open all suction and discharge lines and valves, as well as air bleed (if available) on filter. (The air that is to be displaced from the suction line must have some place to go.)

CAUTION: All suction and discharge valves must be open when starting the system. Failure to do so could cause severe personal injury and/or property damage.

Turn on power and allow a reasonable time for priming. Five minutes is not unreasonable. (Priming time depends on suction lift and horizontal length of suction piping.) If the pump will not start, or will not prime, see TROUBLE SHOOTING GUIDE on back page.

Notice for Solar Applications

A check valve must be fitted to the discharge of the pump when installed with solar system.

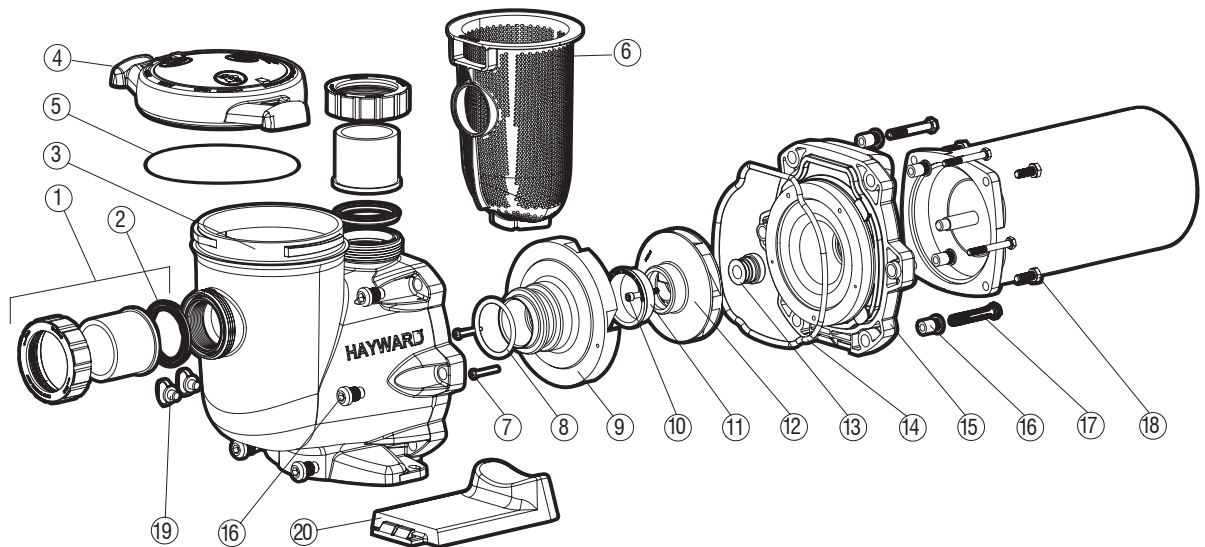
Special Notice for 415V. 3 Phase Models

Only a qualified electrician may connect or disconnect this pump to/from a power supply.

The motor must be connected by means of fixed wiring so that the IP rating is maintained when doing so. Electrician must check direction of rotation at time of installation.

The motor is not suitable for flex and plug connection as starter/contactors with overload is required and this must be set according to the rated current.

Parts for Pump Models: TS270, TS350, TS350-E, TS425, TS475, TS525, TS600



Ref #	Code	Description
1	SPX3200UNKIT	Union Connector Kit (Includes Nut, Connector, Gasket)
2	SPX3200UG	Union Gasket (T-Seal), 50 duro EPDM
3	SPX3200A	Pump Strainer Housing, 2" X 2" with Drain Plugs, threaded style
4	SPX3200DLS	Strainer Cover Kit (Includes Strainer Lexan Cover, Lock Ring, O-Ring)
5	SPX3200S	Strainer Cover O-Ring
6	SPX3200M	Strainer Basket
7	SPX3200Z8	Diffuser Screws (2 per)
8	SPX4000Z1	Diffuser O-Ring
9	SPX3200B3	Diffuser
10	SPX3200Z1	Impeller Screw
11	SPX3021R	Impeller Ring
12	SPX3207C	Impeller with Impeller Screw - Suits TS270
12	SPX3210C	Impeller with Impeller Screw - Suits TS350
12	SPX3215C	Impeller with Impeller Screw - Suits TS425
12	SPX3220C	Impeller with Impeller Screw - Suits TS475
12	SPX3230C	Impeller with Impeller Screw - Suits TS525
12	SPX3230CU	Impeller with Impeller Screw - Suits TS600
13	SPX4000SA	Shaft Seal Assembly
14	SPX3200T	Housing O- Ring
15	SPX3200E	Seal Plate
16	SPX3200Z211	Housing Insert & Seal Plate Spacer Kit
17	SPX3200Z3	Housing Bolt
18	SPX3200Z5	Motor Bolt
19	SPX4000FG	Drain Plug with O-Ring
20	SPX3200GA	Motor Support Bracket

Parts listed below must be ordered for specific model

SPX3207AQM	MOTOR-TRISTAR	- Suits TS270
SPX3210AQM	MOTOR-TRISTAR	- Suits TS350
SPX3215AQM	MOTOR-TRISTAR	- Suits TS425
SPX3220AQM	MOTOR-TRISTAR	- Suits TS475
SPX32302AQM	MOTOR-TRISTAR	- Suits TS525
SPX3230UAQM	MOTOR-TRISTAR	- Suits TS600
SPX3210ADEM	MOTOR-TRISTAR	- Suits TS350-E



3 SPEED OPERATION (3 Speed Models Only)

WORLD LEADING 8 STAR ENERGY EFFICIENCY

Hayward 3 Speed Pumps incorporate Superior Wet End Design characteristics, providing Industry Leading Performance and Energy Savings that allow Hayward Pumps to out perform and out last most competitors with ease.

REDUCES ENERGY CONSUMPTION AND OPERATING COST

By reducing the speed of the pump motor, and in turn the flow rate of water through the plumbing and filtration system, friction losses are minimized resulting in a need for much less expensive energy to circulate and filter the water. In Fact a reduction of 50% in Pump Speed will reduce power consumption by UP TO 75%!

IMPROVED WATER QUALITY

In addition to lower operating costs, a reduction in flow rate has the potential to improve the water quality in most installations. At reduced flow rates the capacity of media such as Sand, Glass and Zeolite, will actually improve allowing it to trap and retain finer particles than at higher flow rates.

FLEXIBILITY OF 3 SPEEDS

Hayward 3 Speed Pumps have been designed to provide an appropriate setting to suit various functions and installation requirements. For most private pools of up to 50,000 litres low speed will provide sufficient performance to meet daily filtration needs. Higher speed may be selected in times of abnormal or increased demand ensuring optimum performance at all times, as well as for backwashing, or media filters, or operation of water features.

SELECTING THE CORRECT SPEED SETTING

To maximise efficiency and performance it is important to select the appropriate speed setting for your specific requirements. Following is an operation guide, please consult a pool professional for correct sizing, model selection, and installation advice.

Filter (Low Speed) - This speed will meet the daily requirements for most private use pools up to 50,000 litres and will reduce your filtration operation cost over an 8 hour period by around 75% compared to a normal single speed pump. Average flow will provide a turnover rate of 1.4 times the entire pool volume in an average days operation.

Boost (Medium Speed) - This speed can be used for operation of Automatic Pool Cleaners or to increase flow, to the equivalent of a larger pump, for operation of pool accessories other than filtration.

Turbo (High Speed) - Designed for backwashing and operation of accessories that may require extra flow for specific functions, such as Spa Jets and Water Features.

Boost and Turbo could also be selected for periods of increased pool usage and filtration demand or for when used to filter larger volumes of water.

MAXIMUM TOTAL HEAD - IMPORTANT INSTALLATION INFORMATION

Model	Max Total Metres Head	Max Pressure KPa	Model	Max Total Metres Head	Max Pressure KPa
TS270	17.2	169	TS600	24.9	244
TS350	17.7	174			
TS425	19.3	189	TS350-E Turbo	17.7	174
TS475	20.3	199	Boost	11.3	111
TS525	20.8	204	Filter	4.6	45

MAINTENANCE

1. Clean strainer basket regularly. Do not strike basket to clean.
2. Inspect strainer cover O-ring regularly and replace as necessary. Keep cover O-ring lubricated.
3. Hayward pumps have self-lubricating motor bearings and shaft seals. No lubrication is necessary.
4. Keep motor clean. Insure air vents are free from obstruction.

**NB Do not use petroleum based lubricants on gaskets, O-rings or plastic components.
Use only silicone based lubricants.**

A. MOTOR WON'T START

1. Check open switches or relays, blown circuit breakers or fuses.
2. Ensure power cord is plugged in and power is switched on, (240v Models Only).
3. Refer to Authorised Service Agent or other qualified person.

B MOTOR CUTS OUT

NOTE: Your Hayward pump motor is equipped with Automatic Thermal Overload Protection. The motor will automatically shut-off, under normal conditions, before heat damage buildup, due to an improper operating condition, can occur. The motor will auto-restart when safe heat level is reached.

If motor fails to restart switch power off and contact an authorised Hayward Pump Service Technician or other qualified service company.

C. MOTOR HUMS, BUT DOES NOT START

If motor fails to start switch power off and contact an authorised Hayward Pump Service Technician or other qualified service company.

D. PUMP WON'T PRIME

1. Make sure pump/strainer is filled with water, and that cover gasket is clean and properly seated. Tighten the strainer cover lock ring by hand only.

2. Make sure all suction and discharge valves are open and unobstructed, and that pool water level is above all suction openings.

E. LOW FLOW - Generally, check for:

1. Clogged or restricted strainer or suction line;
2. Plugged or restricted discharge line of filter (high discharge gauge reading).
3. Air leak in suction (bubbles issuing from return fittings).

F. NOISY PUMP—Check for:

1. Air leak in suction causing rumbling in pump.
2. Cavitation due to restricted or undersized suction line and restricted discharge lines.
3. Vibration due to improper mounting, etc.
4. Foreign matter in pump housing.
5. Motor bearings made unserviceable by wear, rust, or continual overheating. Refer to authorised service agent.

G. If the Supply Cord is damaged, it must be replaced by the manufacture, its service agent or similarly qualified persons in order to avoid hazard.

SERVICE & REPAIRS

Consult your local authorised Hayward dealer or service center. No pumps or motors may be returned directly to the factory without the expressed written authorisation of Hayward Pool Products (Australia) Pty Ltd.

Warning

The Pump Motor is an electrical device and as such should not be disassembled or serviced by anyone other than an authorised Hayward Service Technician or qualified Electrical Service Company. An experienced Pool Service Technician should attend to any other problems that cannot be corrected by routine maintenance.



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