


HAYWARD®


OWNER'S MANUAL INSTALLATION, OPERATION & PARTS




MODELS S310T2, S360T2, PRO™ SERIES HIGH-RATE SAND FILTERS

Basic safety precautions should always be followed, including the following: Failure to follow instructions can cause severe injury and/or death.

 This is the safety-alert symbol. When you see this symbol on your equipment or in this manual, look for one of the following signal words and be alert to the potential for personal injury.

 **WARNING** warns about hazards that **could** cause serious personal injury, death or major property damage and if ignored presents a potential hazard.

 **CAUTION** warns about hazards that **will** or **can** cause minor or moderate personal injury and/or property damage and if ignored presents a potential hazard. It can also make consumers aware of actions that are unpredictable and unsafe.

The **NOTICE** label indicates special instructions that are important but not related to hazards.

SAVE THIS INSTRUCTION MANUAL

Use only High Rate Sand No. 20 Silica Sand (.45mm - .55mm)



HAYWARD POOL PRODUCTS, INC.

620 Division Street Elizabeth, NJ 07207 Tel: 908-351-5400

WWW.HAYWARDPOOL.COM



⚠ WARNING – To avoid dangerous or fatal electrical shock, turn OFF power to motor before working on electrical connections.

⚠ WARNING – Failure to bond pump to pool structure will increase risk for electrocution and could result in injury or death. To reduce the risk of electric shock, see installation instructions and consult a professional electrician on how to bond pump. Also, contact a licensed electrician for information on local electrical codes for bonding requirements.

Your Hayward Pro Series high-rate sand filter is a high performance, totally corrosion-proof filter that blends superior flow characteristics and features with ease of operation. It represents the very latest in high-rate sand filter technology. It is virtually foolproof in design and operation and when installed, operated and maintained according to instructions, your filter will produce clear, sparkling water with only minimal attention and care.

HOW IT WORKS

Your filter uses special filter sand to remove dirt particles from pool water. Filter sand is loaded into the filter tank and functions as the permanent dirt removing media. The pool water, which contains suspended dirt particles, is pumped through your piping system and is automatically directed by the patented filter control valve to the top of the filter tank. As the pool water is pumped through the filter sand, dirt particles are trapped by the sand bed, and filtered out. The cleaned pool water is returned from the bottom of the filter tank, through the control valve and back to the pool through the piping system. This entire sequence is continuous and automatic and provides total recirculation of pool water through your filter and piping system.

After a period of time, the accumulated dirt in the filter causes a resistance to flow, and the flow diminishes. This means it is time to clean (backwash) your filter. With the control valve in the backwash position, the water flow is automatically reversed through the filter so that it is directed to the bottom of the tank, up through the sand, flushing the previously trapped dirt and debris out the waste line. Once the filter is backwashed (cleaned) of dirt, the control valve is manually resequenced to Rinse, and then Filter, to resume normal filtering.

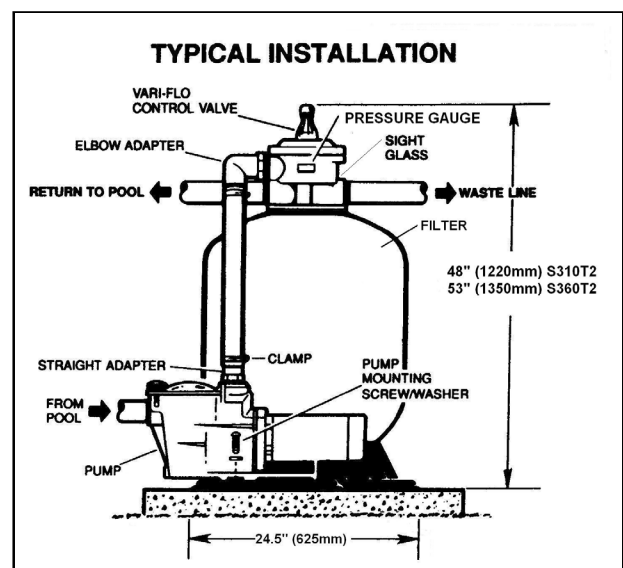
INSTALLATION

Only simple tools (screwdriver and wrenches), plus Teflon tape manufactured for plastic adapters, are required to install and/or service the filter.

- The filter system should be installed, not more than 6 feet above pool water level, on a *level* concrete slab, very firm ground, or equivalent, as recommended by your pool dealer. Position the filter so that the piping connections, control valve and winter drain are convenient and accessible for operation, service and winterizing.
- Assemble pump and pump mounting base, No. S160TPAK1, or S160TPAK3 (if supplied) to the filter according to instructions packed with the base.
- Loading sand media. Filter sand media is loaded through the top opening of the filter.
 - Loosen flange clamp and remove Filter Control Valve (if previously installed).
 - Cap internal pipe with sand shield to prevent sand from entering it. Be sure pipe is securely in place in bottom underdrain hub.
 - We recommend filling tank approximately 1/2 way with water to provide a cushioning effect when the filter sand is poured in. This helps protect the underdrain laterals from excessive shock. (Be sure the winter drain cap is securely in place on drain pipe).

NOTE: Check to confirm all laterals are in the down position before loading with sand. (See Figure A.)

- Carefully pour in correct amount and grade of filter sand, as specified on Table 1. (Be sure center pipe remains centered in opening). Sand surface should be leveled and should come to within 6" of the top of the filter tank. Remove sand shield from internal pipe.
- Assemble Filter Control Valve to filter tank.
 - Loosely pre-assemble both halves of the clamp with one screw and one nut, turning the nut 2 or 3 turns. Do not tighten. Wipe filter flange clean.
 - Insert Filter Control Valve (with valve/flange O-ring in place) into the tank neck, taking care that the center pipe slips into the hole in the bottom of the valve. Install clamp around tank and valve flange and assemble second screw and nut. Tighten just enough so that the valve may be rotated on tank for final positioning.
 - Wrap two turns of Teflon pipe sealant tape manufactured for plastic pipe on the 1/4" NPT male end of gauge. Carefully screw pressure gauge, into 1/4"NPT tapped hole in valve body. Do not over tighten.
 - Connect pump to control valve opening marked PUMP according to instructions. After connections are made, tighten valve flange clamp with screwdriver, tapping around clamp with screwdriver handle to help seat valve flange clamp.
 - Make return to pool pipe connection to control valve opening marked RETURN and complete other necessary plumbing connections, suction lines to pump, waste, etc.
 - Make electrical connections to pump per pump instructions.
 - To prevent water leakage, be sure winter drain cap is securely in place and all pipe connections are tight.



SPECIFICATIONS

MODEL NUMBER	EFFECTIVE FILTRATION AREA		MAXIMUM WORKING PRESSURE		REQUIRED CLEARANCE				MEDIA REQUIRED		
	FT ²	M ²	PSI	BAR	SIDE		ABOVE		TYPE	AMOUNT	
					INCH	MM	INCH	MM		LBS	KG
S310T2	4.9	.46	50	3.45	18	460	18	460	0.45-0.55mm	500	230
S360T2	6.5	.60	50	3.45	18	460	18	460	0.45-0.55mm	700	320

**Also known as No. 20 Silica Sand.

TABLE 1

PARTS
Models S310T2, S360T2

REF NO	PART NO.	DESCRIPTION	NO. REQ
1	SP071620T	Vari-Flo XL Control Valve 2"	1
2	ECX270861	Pressure Gauge	1
3	GMX600F	Valve/Tank O-ring	1
4	GMX600NM	Flange Clamp	1
5	SX202S	Sand Shield -2004 Corrugated Design	1
6a	SX310DA2	Folding Lateral Assy S310T2	1
6b	SX360DA	Folding Lateral Assy S360T2	1
7a	SX310AA1	Filter tank Assy less valve & clamp	1
7b	SX360AA1		
8a	SX310HA	Lateral (Screw in) Prior to 2005	10
8b	SX310HN	Lateral (One piece)	10
9a	SX108HG	Drain Cap Kit (Round)	1
9b	SX180LA	Drain Cap Assy	1
10	SX310J	System Base	1

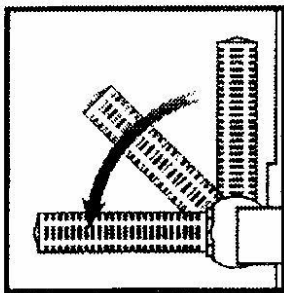
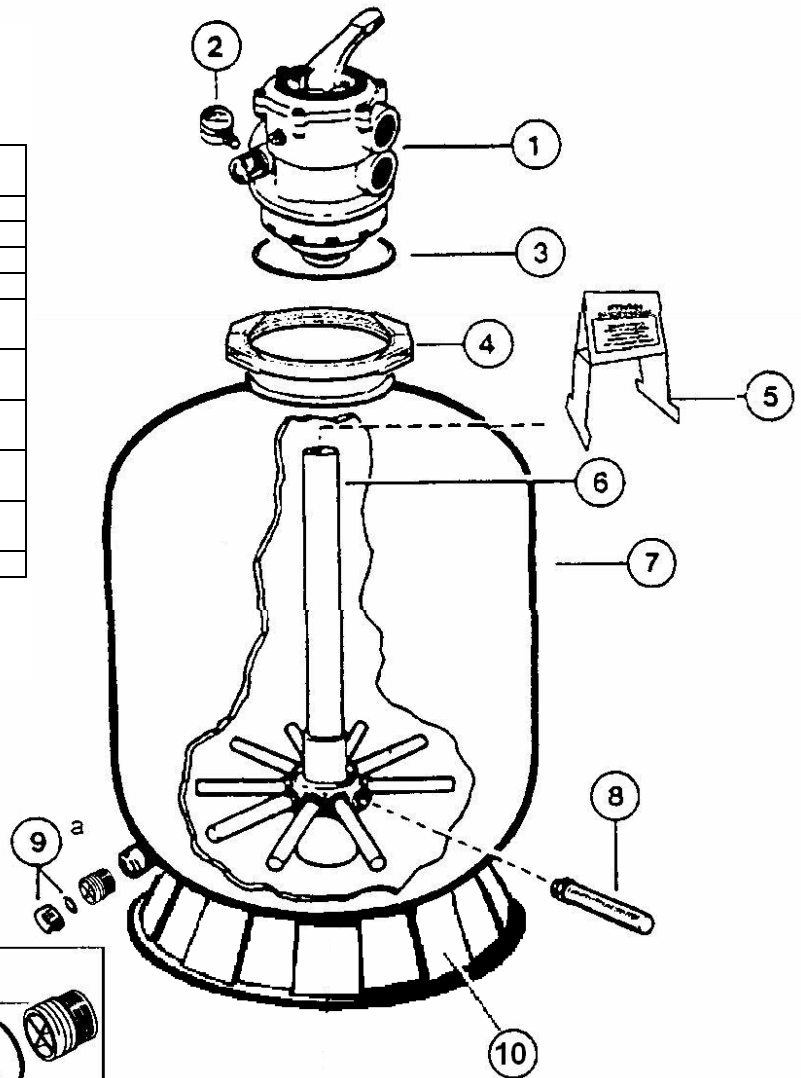


FIGURE A

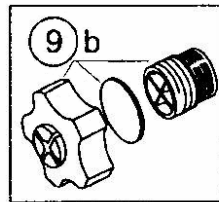


FIGURE B

MAXIMUM RECOMMENDED SYSTEM FLOW RATE BY PIPE SIZE					
Pipe Size	Flow rate	Pipe Size	Flow rate	Pipe Size	Flow rate
[mm]	GPM [Liter/Min]	[mm]	GPM [Liter/Min]	[mm]	GPM [Liter/Min]
1"	20	1 ½"	45	2 ½"	110
[32]	[75]	[50]	[170]	[75]	[415]
1 ¼"	30	2"	80	3"	160
[40]	[110]	[63]	[300]	[90]	[600]

TABLE 2

PRODUCT REGISTRATION	
(Retain For Your Records)	
DATE OF INSTALLATION _____	
PURCHASED FROM _____	
MODEL _____	SERIAL NUMBER _____
▲ Retain this Warranty Certificate in a safe and convenient location for your records.	

PROBLEM SOLVING LIST

	LOW WATER FLOW	SHORT FILTER CYCLES	POOL WATER WON'T CLEAR UP
REMEDY	1. Check skimmer and pump strainer baskets for debris. 2. Check for restrictions in intake and discharge lines. 3. Check for air leak in intake line (indicated by bubbles returning to pool). 4. Backwash filter.	1. Check for algae in pool and superchlorinate as required. 2. Be sure chlorine and pH levels are in proper range (adjust as required). 3. Check surface of filter sand for crusting or caking (remove 1 " of sand if necessary).	1. Check chlorine, pH and total alkalinity levels and adjust as required. 2. Be sure flow rate through filter is sufficient. 3. Operate filter for longer periods. 4. Be sure Vari-Flo valve is set on "Filter" position.

POOL CHEMISTRY GUIDELINES

SUGGESTED POOL CHEMISTRY LEVELS		ACTION REQUIRED TO CORRECT POOL CHEMISTRY	
		TO RAISE	TO LOWER
pH	7.2 to 7.6	Add Soda Ash	Add Muriatic Acid or Sodium Bisulphate
TOTAL ALKALINITY	100 to 130 ppm	Add Sodium Bicarbonate	Add Muriatic Acid
CHLORINE (UNSTABILIZED)	0.3 to 1.0 ppm	Add Chlorine Chemical	No action - chlorine will naturally dissipate
CHLORINE (STABILIZED)	1.0 to 3.0 ppm	Add Chlorine Chemical	No action - chlorine will naturally dissipate
CHLORINE STABILIZER (Cyanuric Acid)	40 to 70 ppm	Add Stabilizer	Dilution - partially drain & refill pool with water that has not been treated with Cyanuric Acid.

HAYWARD® LIMITED WARRANTY

This equipment was inspected before shipment from our plant. To original purchasers of this equipment, Hayward Pool Products, Inc., 620 Division Street, Elizabeth, New Jersey, warrants its products free from defects in materials and workmanship for a period of **ONE (1)** year from the date of purchase.

Parts which fail or become defective during the warranty period, except as a result of freezing, negligence, improper installation, use, or care, shall be repaired or replaced, at our option, without charge, within 90 days of the receipt of defective product, barring unforeseen delays.

To obtain warranty replacements or repair, defective components or parts should be returned, transportation paid, to the place of purchase, or to the nearest authorized Hayward service center. For further Hayward dealer or service center information, contact Hayward customer service department. No returns may be made directly to the factory without the express written authorization of Hayward Pool Products, Inc.

To original purchasers of this equipment, Hayward Pool Products, Inc. warrants its vacuum release systems to be free from defects in materials and workmanship for a period of **ONE (1)** year from the date of purchase.

Filters which become defective during the warranty period, except as a result of freezing, negligence, improper installation, use or care, shall be repaired or replaced, at our option, without charge.

All other conditions and terms of the standard warranty apply.

Hayward shall not be responsible for cartage, removal and/or reinstallation labor or any other such costs incurred in obtaining warranty replacements.

The Hayward Pool Products warranty does not apply to components manufactured by others. For such products, the warranty established by the respective manufacturer will apply.

Some states do not allow a limitation on how long an implied warranty lasts, or the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights, which vary from state to state.

Hayward Pool Products, Inc.
620 Division Street
Elizabeth, NJ 07207

*Supersedes all previous publications.

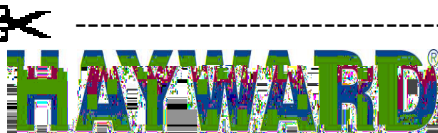
▼ **DETACH HERE: Fill out bottom portion completely and mail within 10 days of purchase/installation.**

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Mail to: Hayward Pool Products, Inc., 620 Division Street, Elizabeth, NJ 07207, Attn: Warranty Dept.

Warranty Registration Card



Name _____

Years pool has been in service less than 1 1-3 3-5 5-10

Address _____

Purchased from: _____

City _____ State _____ Zip _____

Company name _____

E-mail Address _____

Address _____

Product Purchased _____

City _____ State _____ Zip _____

Product Serial No. _____

New Installation Replacement

Please send me more information on these other products from Hayward:

Type of In-Ground Pool:
 Vinyl Fiberglass Gunite

Pump Filter Automatic Pool Cleaner Light
 Chlorinator Skimmer Heater Heat Pump
 Salt/Chlorine Generator Controls

Size of Pool _____

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