

VGB
2008
VGB-2008
For Multiple Drain Use Only
Submergred
9SCPM (Ploor) / Procym (Wall)

CMP 25513-00X-000, 25513-10X-000, 25514-00X-000, 25515-00X-000, 25516-00X-000, 25519-00X-000, 25531-00X-000, 25537-00X-000, 25539-00X-000, 25539-10X-000, 25548-00X-000

Read and keep these instructions for future reference.

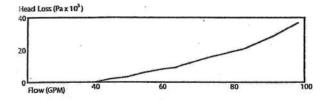
Always plumb and install all suction fittings according to all building codes that apply in your area.

WARNING: When using two or more suction fittings on a common suction line, suctions must be separated by a minimum of 3 ft or they must be located on two different planes (i.e., one on floor and one on the wall).

WARNING: DO NOT locate suction outlets on seating areas or on backrests for such seating areas.

The maximum flow rating for this suction fitting is 84 GPM (Wall) and 95 GPM (Floor). This suction fitting is designed for installation on side wall or door of hot tubs or pools in conjunction with at least one other suction fitting per pump. DO NOT adapt suction fitting to any pipe size smaller than

ASTM 1.5" SCH 40 PVC. Field built sumps should be constructed per ANSI/APSP-16 Figure 2 (see below) found on page 5 of the Standard. Suction fitting and fasteners should be observed for damage or tampering before each use. Missing, broken, or cracked suction fittings shall be replaced before use. Loose suction fittings shall be reattached or replaced before use. Contact your local pool and spa professional for all winterizing instructions and recommendations. Open area of cover is 13.20 in 2.



Tools Needed: Phillips Head Screwdriver

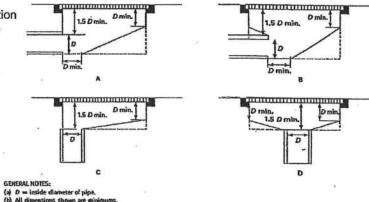
INSTALLATION INSTRUCTIONS

- Install sump provided or construct sump per ANSI/APSP-16 Figure 2 (see below)
- If mounting frame is provided, secure it in concrete or plaster.
- Use mounting screws to secure cover to frame or sump.

NOTE: In the event that one suction outlet is completely blocked, the remaining suction outlet(s) serving that system MUST have a flow rating capable of the full flow of the pump(s) for the specific suction system.

NOTE: Increasing size of the pump may increase flow rate of suction beyond rated safety limits causing entrapment or death.

CAUTION: Hair or body parts blocking the spa or pool suctions may become trapped and held against the suction fitting. Entrapment against the suction fittings can result in drowning or other severe injury. Never sit on or lean up against suction fittings. Never exceed the maximum allowable flow rate stated on the suction fitting. The suction fitting and fasteners should be inspected for damage or tampering before each use of the facility. Missing, broken, or cracked suction fittings shall be replaced before using this facility. Loose suction fittings shall be reattached or replaced before use of this facility.



REPLACEMENT PARTS	
* X CAN BE ANY DIGIT 0-9 TO DENOTE COLOR	

	* X CAN	BE ANY D	IGIT 0-9 TO DENO	DIE COFO	R
25	513-00X	255	513-10X	25	514-00X
Sump	25513-010-010	Sump	25513-110-010		25514-000-020
Plug	25520-050-010	Plug	25520-050-010	Plug	25520-050-010
Cover	25507-00X-010	Cover	25507-00X-010	Cover	25507-10X-010
O-Ring	26100-580-355	O-Ring	26100-580-355	O-Ring	26100-580-355
Screw	61004-083-212	Screw	61004-083-212	Screw	61050-550-250
25	515-00X	25	516-00X	25	519-00X
Sump	25515-010-010	Sump	25516-000-010	Sump	25519-010-010
Plug	25520-040-010	Extension	25516-000-020	Cover	25507-10X-010
Cover	25507-10X-010	Plug	25520-050-010	Reducer	25520-020-000
Ring	25532-80X-000	Cover	25507-00X-010	Plug	25520-040-000
Gasket	25515-000-011	O-Ring	26100-580-355	Screw	61051-058-030
Reducer	25520-020-000	Screw	61004-083-212		
Screw	61051-052-028				
. 25	531-00X	255	537-00X	25539-00X	
Frame	25530-000-010	Frame	25536-020-000	Frame	25539-000-020
Cover	25507-10X-010	Cover	25507-10X-010	Cover	25507-00X-010
O-Ring	26100-487-180	Screw	61008-102-420	Screw	61004-083-212
Screw	61008-102-420				
25	539-10X	25548-00X		*Replace within 7 installed	
Frame	25539-100-010	Ring	25532-80X-000		mmediately upon
Cover	25507-00X-010	Cover	25507-10X-010		of degradation or
Screw	61054-048-019	Screw	61051-058-038		damage.

WARNING: To reduce the risk of drowning from hair and body entrapment, install suction fittings with a marked flow rate in gallons per minute that exceeds the flow rate of your system by at least 25%. Always use multiple suction outlets. If the fitting/cover breaks, is damaged, or is missing, shut the system down immediately. Do not use the system until damaged parts have been replaced.

WARNING: Keep hair and clothing a minimum of 12 inches from all suction fittings and drains at all times. Persons with long hair should secure hair to a minimal length or wear swimming cap. Children should never be left unattended at any time in a swimming pool, spa, or bathtub. Be sure the temperature of the water never exceeds the manufacturer's recommendations.



TriStar® VS 950

»» Variable-Speed Pump

AMPLE INSTALLATION WITH DUIETER-THAN-EVER PERFORMANGE

No-rib strainer basket with see-through cover ensures

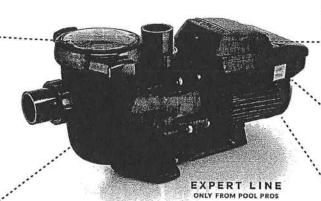
easy debris removal

Upgraded motor drive

delivers significantly quieter high-speed operation than other leading models

Advanced hydraulic design

provides ample power to replace most highperformance pumps up to 3 HP



Wall-mountable touchpad control can be rotated in four directions

Side and rear ports

accommodate both high and low voltage connections for simple installation

Permanent magnet, totally enclosed fan-cooled motor

offers more efficient operation and long-lasting reliability



INDUSTRY-LEADING ENERGY EFFICIENCY

As a member of the TriStar® VS family—the most energy-efficient pumps among leading brands, according to EPA ENERGY STAR® third-party testing-TriStar VS 950 saves pool owners up to \$1,500 per year. Its ENERGY STAR rating means local energy rebates may apply, too.



DESIGNED FOR DURABILITY

Built with a chemical-resistant Viton® seal and accompanied by a 4-year extended warranty. TriStar VS 950 offers powerful corrosion protection for years of reliable performance.



SEAMLESS RETROFITTING

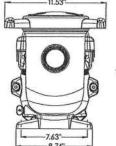
With dual-voltage capabilities, two pump base options and 2" x 21/2" CPVC union connections, TriStar VS 950 is easy to install in both new and existing pool pads and doesn't require costly rewiring.

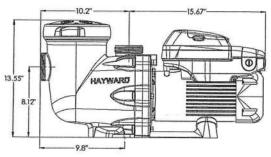


SPECIFICATIONS

MODEL NUMBER	STAND ALONE	RELAY CONTROL	HAYWARD AUTOMATION	VOLTAGE	TOTAL HP	SPEED RANGE	UNION CONNECTIONS	EXTENDED WARRANTY
SP32950VSP	•	•	•	230/115V	2.7/1.5	600-3450 RPM	2" x 2.5"	4 years

TRISTAR VS 950 DIMENSIONS (INCHES)





TRISTAR VS 950 PERFORMANCE COMPARISON -3450 RPM/230V 80 3450 RPM/115V -3000 RPM/230V 2400 RPM 70 1725 RPM 60 TDH [Ft. Water] 50 40 30 20 10 25 100 125 Flow [GPM]

TriStar VS 950 pumps are listed by:



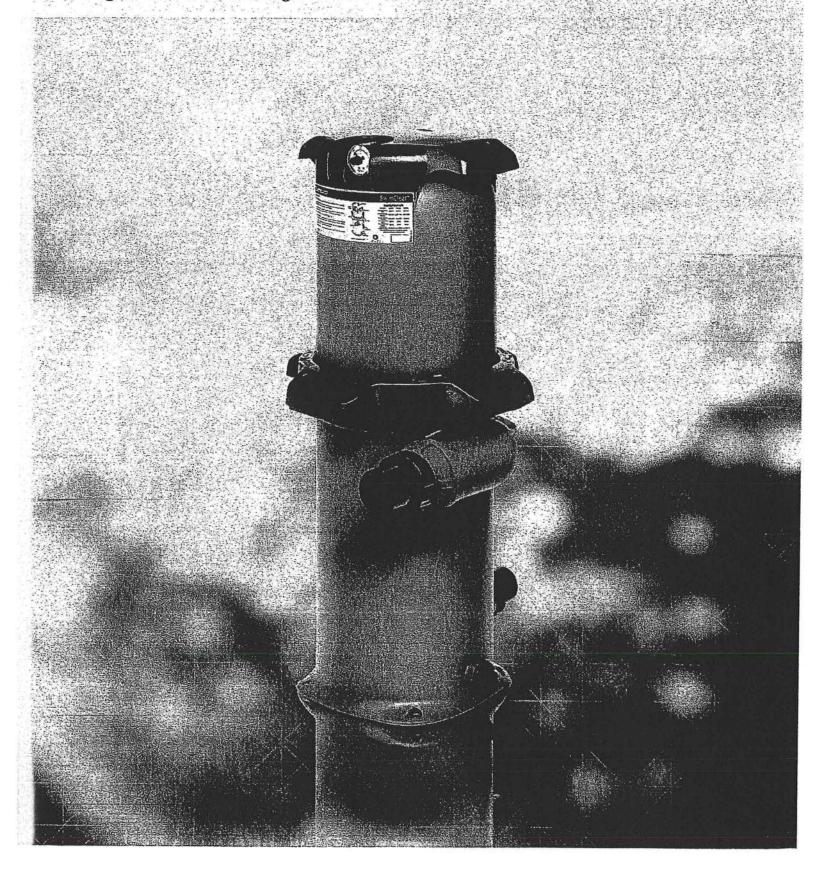


* Compared to single-speed pumps.

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SwimClear Single-Element Cartridge Filter



produced. Designed for greater hydraulic efficiency, they boast the industry's lowest head loss—saving pool owners more energy and money.

And with the lowest body height on the market, cleaning and changing filter cartridges is easier than ever.



design and ergonomic handles offer confident filter handling while preventing contact with fiberglass-based surfaces.

SWIMCLEAR CARTRIDGE FILTERS

Filter Type	Cartridge element: 100 ft,² 150 ft,² 200 ft² (9.29 m,² 13.94 m,² 18.58 m²)	
Filter Tank	High-strength, injection-molded, glass-reinforced copolymer	
Filter Element	Reinforced polyester	
Performance Range	100 to 120 GPM, 379 to 455 LPM	
Dimensions	C100S: 30½" H x 18½ W" (775 mm x 464 mm)*	
	C150S: 33%" H x 18½ W" (857 mm x 464 mm)*	
	C2005: 38%" H x 18% W" (984 mm x 464 mm)*	

FILTER PERFORMANCE DATA

MODEL NUMBER		EFFECTIVE		TURNOVER	
		FILTRATION AREA	DESIGN FLOW RATE**	8 HOURS	10 HOURS
	C100S	100 ft² / 9.29 m²	100 GPM / 379 LPM	48,000 gal / 182 kl	60,000 gal / 227 kl
Residential	C150S	150 ft² / 13.94 m²	120 GPM / 455 LPM	57,600 gal / 218 kl	72,000 gal / 273 kl
	C200S	200 ft²/ 18.58 m²	120 GPM / 455 LPM	57,600 gal / 218 kl	72,000 gal / 273 kl
	C100S	100 ft²/ 9.29 m²	38 GPM / 142 LPM	18,240 gal / 68 kl	22,800 gal / 85 kl
Public	C150S	150 ft² / 13.94 m²	56 GPM / 213 LPM	26,880 gal / 102 kl	33,600 gal / 128 kl
	C200S	200 ft²/ 18.58 m²	75 GPM / 284 LPM	36,000 gal / 136 kl	45,000 gal / 170 kl

^{*}Based on lock ring-width at base is 13" (330mm).

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SwimClear Filters are listed by:



Pumps » Filters » Heating » Cleaners » Sanitization » Automation » Lighting » Water Effects » White Goods

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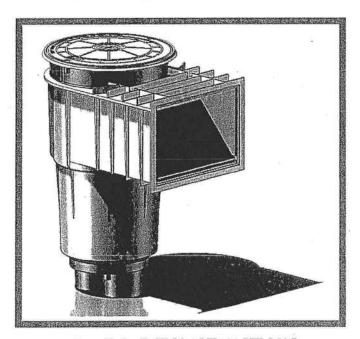


^{**}Determined by pump size and piping system hydraulics; 2" piping is recommended for flow rates of 90 GPM (341 LPM); Residential Design Flow rates based on 1 GPM/ft²; Public Design Flow rates based on 0.375 GPM/ft² [15.26 LPM/m²]



AUTOMATIC SURFACE SKIMMER by HAYWARD

Owner's Manual Models SP1070-SP1071 SERIES SKIM-MASTER



IMPORTANT SAFETY INSTRUCTIONS

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

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 warms 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.

Hayward Pool Products 620 Division Street, Elizabeth, NJ 07207 Phone: (908) 351.5400 www.haywardnet.com





WARNING - Read and follow all instructions in this owner's manual and on the equipment. Failure to follow instructions can cause severe injury and/or death.

MARNING - Suction Entrapment Hazard.



Suction in suction outlets and/or suction outlet covers which are, damaged, broken, cracked, missing, or unsecured can cause severe injury and/or death due to the following entrapment hazards:



Hair Entrapment- Hair can become entangled in suction outlet cover.

Limb Entrapment- A limb inserted into an opening of a suction outlet sump or suction outlet cover that is damaged, broken, cracked, missing, or not securely attached can result in a mechanical bind or swelling of the limb.



Body Suction Entrapment- A negative pressure applied to a large portion of the body or limbs can result in an entrapment. Evisceration/ Disembowelment - A negative pressure applied directly to the intestines through an unprotected suction outlet sump or suction outlet cover which is, damaged, broken, cracked, missing, or unsecured can result in evisceration/disembowelment.



Mechanical Entrapment- There is potential for jewelry, swimsuit, hair decorations, finger, toe or knuckle to be caught in an opening of a suction outlet cover resulting in mechanical entrapment.



MARNING - To Reduce the risk of Entrapment Hazards:

- When outlets are small enough to be blocked by a person, a minimum of two functioning suction outlets per pump must be installed. Suction outlets in the same plane (i.e. floor or wall), must be installed a minimum of three feet (3') [1 meter] apart, as measured from near point to near point.
- o Dual suction fittings shall be placed in such locations and distances to avoid "dual blockage" by a user.
- o Dual suction fittings shall not be located on seating areas or on the backrest for such seating areas.
- o The maximum system flow rate shall not exceed the flow rating of as listed on Table 1.
- o Never use Pool or Spa if any suction outlet component is damaged, broken, cracked, missing, or not securely attached.
- o Replace damaged, broken, cracked, missing, or not securely attached suction outlet components immediately.
- o In addition two or more suction outlets per pump installed in accordance with latest ASME, APSP Standards and CPSC guidelines, follow all National, State, and Local codes applicable.
- Installation of a vacuum release or vent system, which relieves entrapping suction, is recommended.

WARNING - Failure to remove pressure test plugs and/or plugs used in winterization of the pool/spa from the suction outlets can result in an increase potential for suction entrapment as described above.

WARNING - Failure to keep suction outlet components clear of debris, such as leaves, dirt, hair, paper and other material can result in an increase potential for suction entrapment as described above.

WARNING – Suction outlet components have a finite life, the cover/grate should be inspected frequently and replaced at least every ten years or if found to be damaged, broken, cracked, missing, or not securely attached.

A CAUTION — Components such as the filtration system, pumps and heater must be positioned so as to prevent their being used as means of access to the pool by young children.

MARNING - Never operate or test the circulation system at more than 50 PSI.

▲WARNING — Never change the filter control valve position while the pump is running.

WARNING — To reduce risk of injury, do not permit children to use or climb on this product. Closely supervise children at all times. Components such as the filtration system, pumps, and heaters must be positioned to prevent children from using them as a means of access to the pool.



WARNING – Hazardous Pressure. Pool and spa water circulation systems operate under hazardous pressure during start up, normal operation, and after pump shut off. Stand clear of circulation system equipment during pump start up. Failure to follow safety and operation instructions could result in violent separation of the pump housing and cover, and/or filter housing and clamp due to pressure in the system, which could cause property damage, severe personal injury, or death. Before servicing pool and spa water circulation system, all system and pump controls must be in off position and filter manual air relief valve must be in open position. Before starting system pump, all system valves must be set in a position to allow system water to return back to the pool. Do not change filter control valve position while system pump is running. Before starting system pump, fully open filter manual air relief valve. Do not close filter manual air relief valve until a steady stream of water (not air or air and water) is discharged.



WARNING — Separation Hazard. Failure to follow safety and operation instructions could result in violent separation of pump and/or filter components. Strainer cover must be properly secured to pump housing with strainer cover lock ring. Before servicing pool and spa circulation system, filters manual air relief valve must be in open position. Do not operate pool and spa circulation system if a system component is not assembled properly, damaged, or missing. Do not operate pool and spa circulation system unless filter manual air relief valve body is in locked position in filter upper body.

USE ONLY HAYWARD GENUINE REPLACEMENT PARTS





WARNING – Risk of Electric Shock. All electrical wiring MUST be in conformance with applicable local codes, regulations, and the National Electric Code (NEC). Hazardous voltage can shock, burn, and cause death or serious property damage. To reduce the risk of electric shock, do NOT use an extension cord to connect unit to electric supply. Provide a properly located electrical receptacle. Before working on any electrical equipment, turn off power supply to the equipment.

WARNING — To reduce the risk of electric shock replace damaged wiring immediately. Locate conduit to prevent abuse from lawn mowers, hedge trimmers and other equipment.

WARNING — Electrical ground all electrical equipment before connecting to electrical power supply. Failure to ground all electrical equipment can cause serious or fatal electrical shock hazard.

▲ WARNING — Do NOT ground to a gas supply line.

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

WARNING – Failure to bond all electrical equipment 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 all electrical equipment. Also, contact a licensed electrician for information on local electrical codes for bonding requirements.

Notes to electrician: Use a solid copper conductor, size 8 or larger. Run a continuous wire from external bonding lug to reinforcing rod or mesh. Connect a No. 8 AWG (8.4 mm²) [No. 6 AWG (13.3 mm²) for Canada] solid copper bonding wire to the pressure wire connector provided on the electrical equipment and to all metal parts of swimming pool, spa, or hot tub, and metal piping (except gas piping), and conduit within 5 ft. (1.5 m) of inside walls of swimming pool, spa, or hot tub. IMPORTANT - Reference NEC codes for all wiring standards including, but not limited to, grounding, bonding and other general wiring procedures.

WARNING – Risk of Electric Shock. Connect only to a branch circuit protected by a ground-fault circuit-interrupter (GFCI). Contact a qualified electrician if you cannot verify that the circuit is protected by a GFCI.

WARNING – Risk of Electric Shock. The electrical equipment must be connected only to a supply circuit that is protected by a ground-fault circuit-interrupter (GFCI). Such a GFCI should be provided by the installer and should be tested on a routine basis. To test the GFCI, push the test button. The GFCI should interrupt power. Push reset button. Power should be restored. If the GFCI fails to operate in this manner, the GFCI is defective. If the GFCI interrupts power to the electrical equipment without the test button being pushed, a ground current is flowing, indicating the possibility of an electrical shock. Do not use this electrical equipment. Disconnect the electrical equipment and have the problem corrected by a qualified service representative before using.

CAUTION — This pump is intended for use with permanently-installed pools and may be used with hot tubs and spas if so marked. Do not use with storable pools. A permanently-installed pool is constructed in or on the ground or in a building such that it cannot be readily disassembled for storage. A storable pool is constructed so that it is capable of being readily disassembled for storage and reassembled to its original integrity.

SAVE THESE INSTRUCTIONS

HAYWARD® Pool Products Limited Warranty

To original purchasers of this equipment, Hayward Pool Products, Inc. warrants its skimmers to be free from defects in materials and workmanship for a period of ONE (1) year from the date of purchase, when used in single family residential applications.

The limited warranty excludes damage from freezing, negligence, improper installation, improper use or care or any Acts of God. Parts that fail or become defective during the warranty period shall be repaired or replaced, at our option, within 90 days of the receipt of defective product, barring unforeseen delays, without charge.

Proof of purchase is required for warranty service. In the event proof of purchase is not available, the manufacturing date of the product will be the sole determination of the purchase date.

To obtain warranty service, please contact the place of purchase or the nearest Hayward Authorized Service Center. For assistance on your nearest Hayward Authorized Service Center please visit us at www.haywardpool.com.

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

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.

The express limited warranty above constitutes the entire warranty of Hayward Pool Products with respect to its' pool products and is in lieu of all other warranties expressed or implied, including warranties of merchantability or fitness for a particular purpose. In no event shall Hayward Pool products be responsible for any consequential, special or incidental damages of any nature.

Some states do not allow a limitation on how long an implied warranty lasts, or the exclusion of incidental or consequential damages, so the above limitation 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 620 Division Street Elizabeth, NJ 07207

*Supersedes all previous publications.



INSTALLATION INSTRUCTIONS:

The SP1070/1071 Series Skim-Master is a rugged and versatile automatic surface skimmer molded of non-corrosive ABS for residential or commercial installations. The SP1070/1071 is the basic skimmer unit, featuring totally corrosion-proof, unibody construction, adjustable deck collar and round access cover, self-adjusting weir, large debris basket, auxiliary port (SP1071 only), and multiple plumbing connections for easier installation. The optional SP1070FV Float Valve/By-Pass Assembly installs easily in the SP1070 / 1071 basic skimmer to provide a suction outlet thru-skimmer system and an auto safety by-pass for low water conditions.

Where required for commercial installations, the SP1070FVEKIT Float Valve and Equalizer Check Valve Kit and cover WG1070C can easily make the skimmer of your choice for commercial application. Refer to illustrations for details.

BASIC SKIMMER UNIT

FLOW ADJUSTMENT For full flow, move Flo-Control Slide Plate to full open. To adjust flow, move Slide Plate to desired position over pump outlet.

TO VACUUM Remove cover and basket. Screw hose adapter into pump outlet. Fill vacuum hose with water and insert over hose adapter. Or use optional SP11063 Skim-Vac over basket vacuum plate.

SKIMMER INSTALLED WITH SUCTION OUTLET CONNECTION AND FLOAT VALVE /

When used with the SP1070FV Float Valve, water is drawn by pump suction from the surface of the pool and from the suction outlet line. Flow is balanced by means of the Flo- Control Trimmer Plate under the float valve assembly. If obstruction to flow or evaporation occurs, causing a significant reduction of flow over the weir, the float will automatically snap shut. This diverts all flow to the pump from the suction outlet line and prevents possible air lock. When the pump is shut off, the float will rise back to the top of the float valve assembly, allowing for normal operation if the flow or water level condition has been remedied.

TO SWEEP / BRUSH To divert all suction to the suction outlet, simply hold the weir up above normal operating level and allow the float to "snap" shut. Or, lift out float valve assembly, close flo-control plate and replace. To reset float after sweeping, turn off pump for 10-15 seconds and allow float to rise.

WARNING: To prevent hair or body entrapment, a suction outlet fitting conforming to ANSI/ASME A112.19.8 must be installed.

TO VACUUM Remove cover, basket and float valve assembly. Screw hose adapter into pump outlet. Fill vacuum hose with water and insert over hose adapter. Or use optional SP11063 Skim-Vac. If Skim-Vac is used, block off suction outlet port for maximum efficiency.

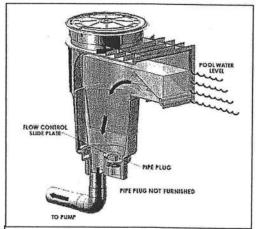
SKIMMER INSTALLED WITH EQUALIZER VALVE AND FLOAT VALVE

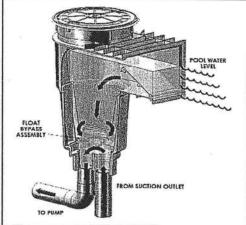
When using SP1070FVEKIT for commercial application, the Equalizer Check Valve installs over front port, and is used in conjunction with the Float Valve. If water level drops below skimmer opening, or if skimmer flow is obstructed, the float will automatically snap shut and the equalizer valve will open. This diverts all flow to the pump from the equalizer line and prevents airlock in the pump. When the pump is shut off, and the water level condition is corrected, the float will rise and the equalizer valve will close, allowing normal skimming operation when the pump is restarted.

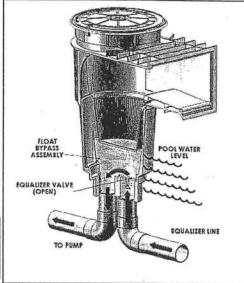
WARNING: To prevent hair or body entrapment at the skimmer equalizer, a equalizer wall or a suction outlet fitting conforming to ANSI/ASME A112.19.8 must be installed.

FLOW RATING

	MA	λX	MIN	
PIPE	GPM	LPM	GPM	LPM
1-1/2	36	136	10	37
2	63	238	20	75

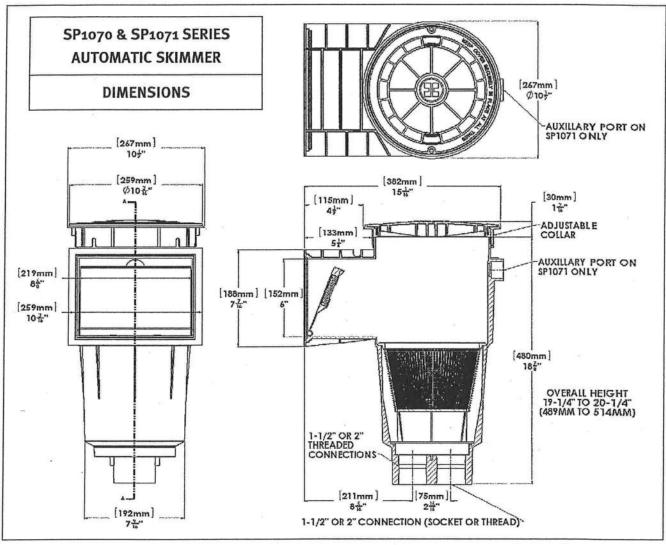


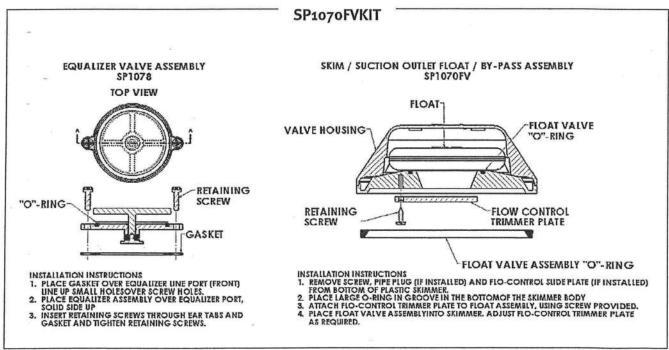




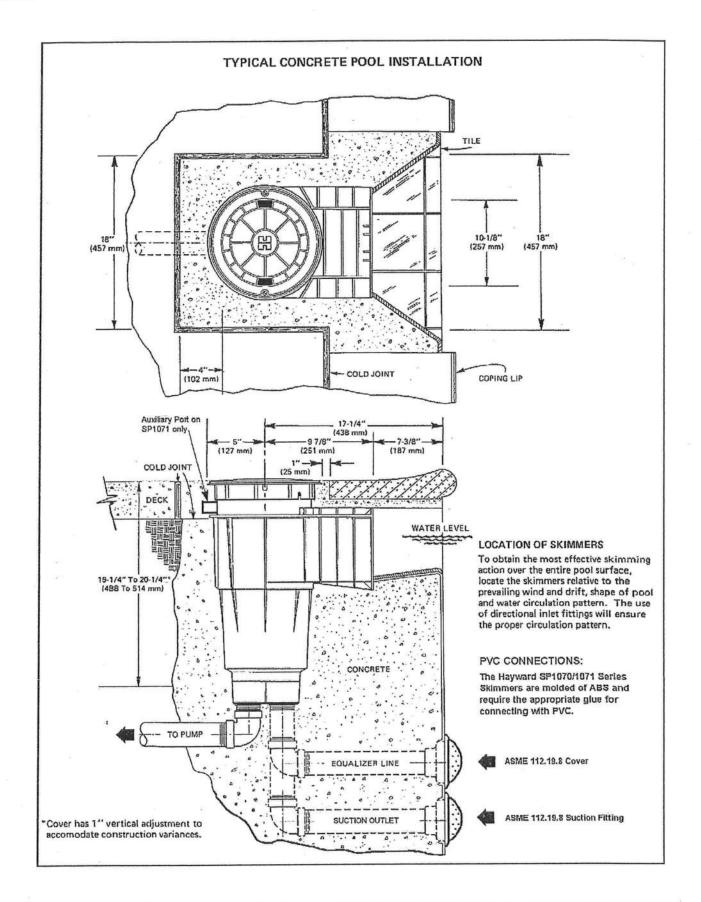
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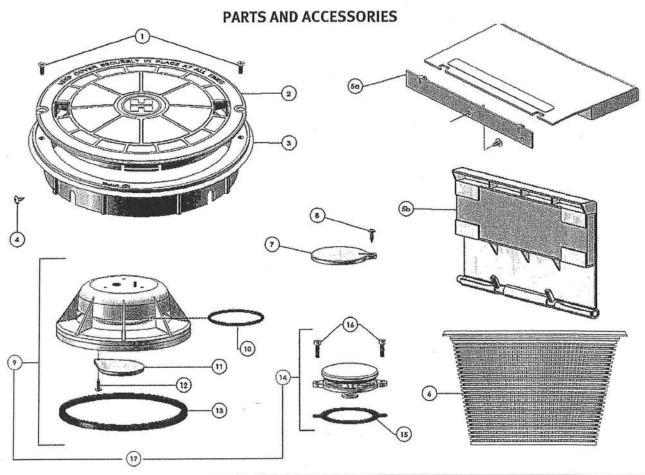








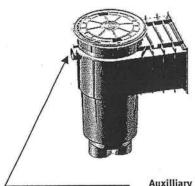




REF NO.	PART NUMBER	DESCRIPTION	NO. REQ'I
1	SPX1070Z3	COVER RETAINING SCREW	2
2	SPX1070C	COVER	1
	WGX1070C	COVER FOR COMMERCIAL APPLICATIONS	
3	SPX1070B	ADJUSTING COLLAR	1
4	ECX1019	ADJUSTING COLLAR SCREW	3
5a	SPX1070KHR	WEIR ASSEMBLY (FOR SP1070 SERIES MANUFACTURED PRIOR TO MAY 2002 ONLY)	1
5b	SPX1071K	WEIR ASSEMBLY	1
6	SPX1070E	BASKET	1
7	SPX1082H1B	FLO-CONTROL SLIDE PLATE	1
8	SPX1070Z6	RETAINING SCREW	1
9	SP1070FV	FLOAT VALVE	1
10	SPX1070Z2	FLOAT VALVE O-RING	1
11	SPX1070F	FLO-CONTROL TIMMER PLATE	1
12	SPX1070Z6	RETAINING SCREW	1
13	SPX1070Z1	FLOAT VALVE ASSEMBLY O-RING (BODY)	1
14	SP1078	EQUALIZER VALVE ASSEMBLY	1
15	SPX1078Z6	GASKET FOR EQUALIZER	1
16	SPX1078Z7	RETAINING SCREW	2
17	SP1070FVEKIT	FLOAT VALVE & EQUALIZER KIT	1

REPAIR PARTS ARE AVAILABLE THROUGH YOUR LOCAL AUTHORIZED HAYWARD DEALER

USE ONLY HAYWARD GENUINE REPLACEMENT PARTS



Auxilliary Port Feature.

To remove "Knock-out," drill a small pilot hole in The center of the knock-out. Then, using a drill Up to but not exceeding 3/4", remove the remaining Material.

	PRODUCT REGISTRATION (Retain For Your Records)	*
DATE OF INSTALLATION _		U

▲ Retain this Warranty Certificate (upper portion) in a safe and convenient location for your records.



DETACH HERE: Fill out bottom portion completely and mail within 10 days of purchase/installation or register online.

AUTOMATIC SURFACE SKIMMER

Warranty Card Registration

Register online at www.haywardnet.com

	Megister elline at its in a just and its in a just	
Please Print Clearly:		Years Pool has been in service
First Name	Last Name	□ (1year □ 13 □ 45 □ 6 10 □ 11-15 □ 115
Street Address	, and	Purchased from
City	StateZip	Builder Retailer Pool Service Ilnternet/Catalog
Phone Number	Purchase Date	Address
E-Mail Address	8	City State Zip
19		Phone
Model Number		Dype of Pool: Concrete/Gunite
Pool Capacity	(U.S. Gallons)	Other
	l communications regarding Hayward® Equipment or promotion oducts, 620 Division Street, Elizabeth, NJ 07207	S. New Installation
	NTY ON-LINE AT <u>WWW.HAYWARDNET.COM</u>	Installation for: In Ground. Above Ground Spa



1. Calculate pool volume: surface area \times avg depth \times 7.48 gals/cub. It = volume in gallons
450 x 4.5 x7.48 = 1/5/47
2. Determine preferred turnover time in hours: hour × 60 min/hour = turnover time in minutes
3. Determine max. pool flow: gallons ÷ turnover in minutes = flow rate + add water feature flow = pool flow rate
15.147 ÷ 81.6 = 185.6 + 185 = 185.6
Spa jets 6 x 6 gpm each jet = 6 flow rate
FOR SINGLE PUMP POOL/SPA COMBO USE THE HIGHER FLOW RATE ON #3 OR #4 IN THE FOLLOWING CALCULATIONS
Branch piping to be inch to keep velocity @ 6 fps max at 8/6 gpm Max. System Flow Rate (see note below)
Trunk piping to be inch to keep velocity @ 8 fps max at gpm Max. System Flow Rate (see note below)
Return piping to be 2" inch to keep velocity @ 10 fps max at 814 gpm Max. System Flow Rate (see note below)
Determine simplified TDH
1. $\frac{135}{\text{length of return pipe}} \times \frac{12}{\text{ft of head per 1 ft. of pipe}} = \frac{10}{\text{tdh in piping}}$
2. $\frac{48}{\text{length of suction pipe}} \times \frac{4}{\text{ft of head per 1 ft. of pipe}} = \frac{70}{\text{th in piping}}$
TDH in piping 70 Filter loss in TDH 8 Heater loss in TDH 6 (from filter data sheet) Heater loss in TDH 6 (from heater data sheet)
TOTAL SIMPLIFIED TOH
Pump Selection Fay Literal 13 Too using pump curve @ simplified TDH and system flow rate Pump model and size (h. p.)
Suction Outlet Cover <u>WHTVIJILY 640 .24 10</u> system flow rate must not exceed approved cover flow rate Make and rhodel