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› [Hayward](#) /

› Hayward W3EC50C93S Perflex 1.5 HP Diatomaceous Earth Pool Filter Pump System User Manual

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Hayward W3EC50C93S Perflex 1.5 HP Diatomaceous Earth Pool Filter Pump System User Manual

Model: W3EC50C93S | Brand: Hayward

1. INTRODUCTION

The Hayward W3EC50C93S Perflex 1.5 HP Diatomaceous Earth Pool Filter Pump System is designed for above-ground pools. This system provides efficient water filtration, aiming to deliver clear water. It operates with reduced resistance compared to some conventional units, allowing for more filtered water output with less pump horsepower. The complete system includes an EC50AC filter with clamp, a 1.5 HP PowerFlo Matrix Pump, a modular platform base, a union connection, and a 1½-inch hose package.

2. SAFETY INFORMATION

Always adhere to local electrical and plumbing codes. This product must be installed and serviced by a qualified professional. Disconnect power before performing any service or maintenance. Ensure the pump is properly grounded. Do not operate the system if any components are damaged. Keep children away from the pool equipment area. Read all instructions before installation and operation.

3. PACKAGE CONTENTS

Verify that all components are present before beginning installation:

- EC50AC Filter with Clamp
- 1.5 HP PowerFlo Matrix Pump
- Modular Platform Base
- Union Connection
- 1½-inch Hose Package





Image: The Hayward Perflex DE Pool Filter Pump System, showing the filter tank, pump, and base. This image illustrates the main components included in the package.

4. SETUP INSTRUCTIONS

1. **Site Selection:** Choose a level, firm location for the filter system, preferably close to the pool and an electrical outlet. Ensure adequate drainage and protection from direct sunlight or extreme weather.

2. **Assemble Base and Pump:** Secure the pump to the modular platform base according to the diagrams in the full manual.
3. **Connect Pump to Filter:** Attach the pump outlet to the filter inlet using the provided union connection. Ensure all connections are tight to prevent leaks.
4. **Hose Connections:** Connect the pool skimmer/main drain hose to the pump inlet. Connect the filter outlet hose to the pool return line. Use hose clamps to secure all connections.
5. **Electrical Connection:** Connect the pump to a dedicated, properly grounded electrical circuit protected by a Ground Fault Circuit Interrupter (GFCI). Consult a qualified electrician if unsure.
6. **Priming the Pump:** Before starting, ensure the pump basket is full of water. Open all suction and return valves. Turn on the pump and allow it to prime. If the pump does not prime within a few minutes, turn it off, check for air leaks, and re-prime.
7. **Adding Diatomaceous Earth (DE):** Once the pump is primed and circulating water, slowly add the recommended amount of DE powder into the skimmer. The DE will coat the filter grids, enabling filtration. Refer to the full manual for specific DE quantities.



Image: The Hayward Perfex DE Pool Filter Pump System with key dimensions labeled (33 inches height, 25.8 inches length, 15.6 inches width). This helps in planning the installation space.

5. OPERATING INSTRUCTIONS

After initial setup and priming, the system is ready for operation.

- **Starting the System:** Ensure all valves are open and the pump is primed. Turn on the power to the pump.
- **Monitoring Pressure:** Observe the pressure gauge on the filter. Note the initial clean filter pressure. This will be your baseline.
- **Run Time:** Operate the filter system for a sufficient duration each day to ensure proper water circulation and filtration. The exact time depends on pool size, usage, and environmental factors.
- **Backwashing:** When the pressure gauge reads 7-10 PSI above the clean filter pressure, or if water clarity decreases, it is time to backwash the filter.

6. MAINTENANCE

Regular maintenance ensures optimal performance and longevity of your filter system.

6.1 Backwashing the Filter

1. Turn off the pump.
2. Open the air relief valve on top of the filter.
3. Open the backwash valve or remove the drain plug to allow water to exit.
4. Turn on the pump and backwash until the discharge water runs clear. This typically takes 1-3 minutes.
5. Turn off the pump.
6. Close the backwash valve/replace the drain plug and close the air relief valve.
7. Add the recommended amount of fresh DE powder into the skimmer while the pump is running to re-coat the filter grids.

6.2 Periodic Cleaning

Periodically, the filter grids may require a more thorough cleaning with a specialized filter cleaner to remove oils and scale buildup. Refer to the full product manual for detailed instructions on disassembling and cleaning the filter grids.

6.3 Winterization

Before freezing temperatures arrive, the filter system must be properly winterized to prevent damage. This typically involves:

- Draining all water from the pump and filter.
- Removing and cleaning the filter grids.
- Storing the pump and filter in a dry, protected area, or covering them if they remain outdoors.

7. TROUBLESHOOTING

Problem	Possible Cause	Solution
Low water flow	Clogged skimmer/pump basket, dirty filter, air leak in suction line, low water level in pool.	Clean baskets, backwash filter, check for and seal air leaks, raise pool water level.
Cloudy pool water	Insufficient filtration time, dirty filter, improper chemical balance, insufficient DE.	Increase run time, backwash/clean filter, test and adjust water chemistry, add more DE.

Problem	Possible Cause	Solution
Pump not starting	No power, tripped breaker/GFCI, motor issue.	Check power supply, reset breaker/GFCI. If problem persists, consult a qualified technician.
DE leaking into pool	Damaged filter grids, improper assembly of filter components, worn gaskets/O-rings.	Inspect filter grids for tears or damage, ensure filter components are correctly assembled and sealed, replace worn gaskets/O-rings.

8. SPECIFICATIONS

Feature	Detail
Brand	Hayward
Model Number	W3EC50C93S
Style	1.5 HP (W3EC50C93S)
Material	Diatomaceous Earth (Filter Media)
Product Dimensions (L x W x H)	25.8" x 15.6" x 33"
Item Weight	55 pounds
Power Source	Corded Electric
Maximum Flow Rate	50 gpm
UPC	610377387019

9. WARRANTY AND SUPPORT

This Hayward product is covered by a manufacturer's warranty. For specific warranty terms and conditions, please refer to the warranty card included with your product or visit the official Hayward website. For technical support, replacement parts, or service inquiries, please contact Hayward customer service directly. Contact information can typically be found on the Hayward website or in the product packaging.

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