

norweco[®]

PHOS-4-FADE[®]

PHOSPHORUS REMOVAL FILTER OWNER'S MANUAL

INTRODUCTION

The Phos-4-Fade phosphorus removal filter is a patented, non-mechanical component that significantly reduces total phosphorus in water or wastewater flows and prevents harmful algal blooms. It is a sound investment that protects you and the environment. Please take the time to familiarize yourself with the contents of this manual.

HOW THE SYSTEM WORKS

Developed to serve homes and small businesses beyond the reach of city sewers, the patented Phos-4-Fade phosphorus removal filter utilizes proprietary adsorptive filtration media for the reduction of total phosphorus in liquid flows to levels that meet or exceed the most stringent environmental regulations.

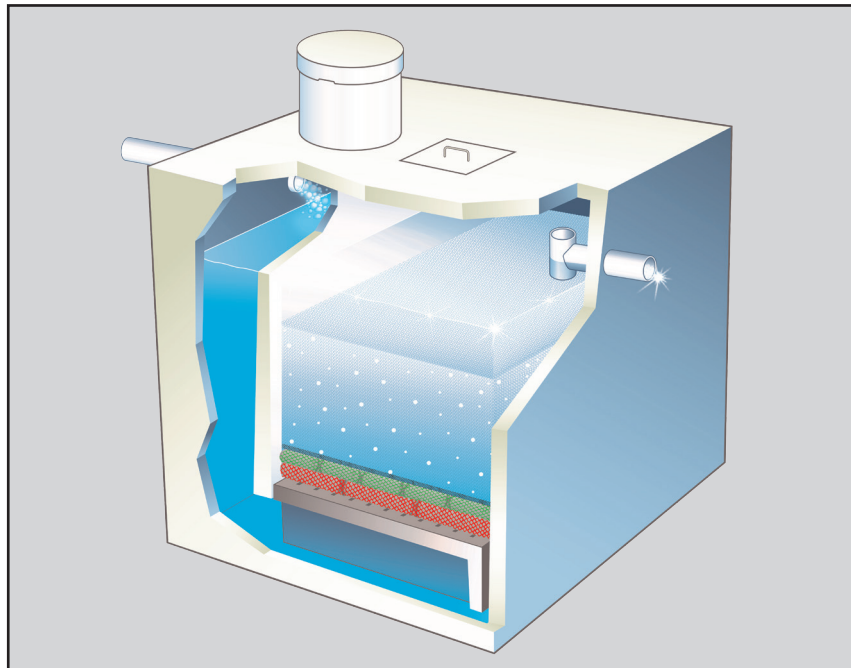
Incoming liquid from an upstream treatment or collection system enters the inlet chamber of the Phos-4-Fade filter. Flow then moves downward and passes into the media chamber through an array of transfer ports. Media support channels direct flow beneath the media where evenly spaced apertures provide uniform dispersal of the liquid. Progressively sized layers of primary and secondary filtration media evenly distribute the flow to the adsorptive media layer. As the flow passes through the proprietary adsorptive media, final polishing takes place as orthophosphate ionically bonds to the porous media surfaces. The adsorptive filtration media is highly porous and provides ample surface area to insure effective reduction or elimination of total phosphorus. The innovative Phos-4-Fade phosphorus removal filter reliably protects you, your property and the environment.

FEATURES AND ADVANTAGES

All Phos-4-Fade filter tanks are constructed of reinforced precast concrete or high density polyethylene (HDPE). Internal walls and baffles are cast-in-place or integrally molded to insure uniformity and strength. Risers and covers are either precast concrete, HDPE or heavy duty, glass-filled polypropylene. All components that will contact the wastewater are constructed entirely of molded plastic, precast concrete or ceramic material.

The phosphorus removal process begins as the primary and secondary filtration media layers entrap solids from the liquid flow. As flow passes through the adsorptive filtration media layer, phosphorus attaches to the surface of the Phos-4-Fade media. The adsorptive filtration media begins working immediately upon start-up to provide for instant and effective phosphorus removal.

The Phos-4-Fade filter can be easily installed as part of any onsite water or wastewater treatment system. The filter requires no electricity and operates continuously with minimal maintenance.



SYSTEM PERFORMANCE

The Phos-4-Fade filter successfully completed the stringent 12 month testing protocols outlined in CAN/BNQ 3680-600 and NQ 3680-910 following the Hydro-Kinetic system. The Hydro-Kinetic system with Phos-4-Fade filter is certified by BNQ to Class P-II requirements of CAN/BNQ 3680-600 with an average effluent total phosphorus of 0.15 mg/L. In addition, the Hydro-Kinetic system with Phos-4-Fade filter meets the Class IV requirements of NQ 3680-910 with an average effluent total phosphorus of 0.14 mg/L.

PHOS-4-FADE MEDIA

The primary and secondary filtration media layers precondition the flow by removing solids and promoting the initial removal of phosphorus. Progressively sized particles provide uniform hydraulic and organic loading to the adsorptive media layer. The proprietary adsorptive filtration media is a ceramic material with an extremely porous surface. Phosphorus adheres to the porous surface of the media as flow moves through the adsorptive media layer. Final polishing of the effluent occurs as the orthophosphate ionically bonds to the adsorptive media surface for safe and effective removal from the liquid.

NO OWNER MAINTENANCE

The Phos-4-Fade filter should be inspected and serviced by a qualified service provider, therefore, no owner maintenance is required during the warranty period. The frequency of media replacement depends on system use. The local distributor will inspect the system during the warranty period to determine if media replacement is required. Media replacement will normally be required at two to five year intervals. A properly licensed solids vacuum service must be used for removal and disposal of filtration media. The solids vacuum service should consult with local authorities to determine the proper disposal method of the exhausted adsorptive media. Contact your local distributor for complete instructions prior to pumping the Phos-4-Fade filter. NOTE: Make sure the system is refilled to capacity with clean water after pumping.

SUPPLEMENTAL SERVICE RECORD

For your reference, please document service performed on the following chart:

DATE	DESCRIPTION

ONE YEAR WARRANTY & LIFETIME EXCHANGE

The Phos-4-Fade filter components are backed by a one year limited warranty and lifetime exchange program. The Phos-4-Fade filter media is warranted to be free from defects in material and workmanship, under normal use and service, for a period of one year from the date of purchase. The one year limited warranty is included in the original purchase price of every Phos-4-Fade filter. The comprehensive lifetime exchange program offers owners a lifetime of protection. Owners may purchase replacement media at a prorated cost. If the media fails, do not attempt any type of repair. Unauthorized tampering or repair will void important provisions of the limited warranty. The local, licensed distributor or service center has detailed warranty information and should be contacted for service or replacement instructions.

WARRANTY REGISTRATION

A Warranty Registration Card was included with the Phos-4-Fade filter before it was shipped from the factory. If this card has not been returned to Norweco, complete and mail it immediately. If it is not returned within thirty days of the installation date, the one year limited warranty and lifetime exchange program will begin on the date of component shipment from the factory. Remove the Phos-4-Fade filter system record card and store it in a safe location with this Owner's Manual for future reference.



Engineering the future of water
and wastewater treatment

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