Pentek GRO-50EN

Pentair Pentek GRO-50EN High Efficiency Reverse Osmosis Membrane User Manual

Introduction

The Pentair Pentek GRO-50EN is a high-efficiency encapsulated reverse osmosis membrane designed to produce high-quality water with reduced wastewater. This replacement membrane is suitable for various reverse osmosis systems and includes a permeate check valve and 150 ML/Minute drain line flow control. It offers double the recovery over standard reverse osmosis elements while maintaining comparable rejection performance. This product is NSF International tested and certified, ensuring reliability and peace of mind.

Product Features and Benefits

- **High Efficiency:** Produces great tasting, high quality water with less waste water.
- **Integrated Components:** Includes drain line flow control and permeate check valve.
- **Enhanced Recovery:** Doubles the recovery over standard reverse osmosis elements with comparable rejection performance.
- **Certified Quality:** NSF International tested and certified for peace of mind.
- **Flow Rate:** Provides a 50 Gallon Per Day (189 LPD) flow rate with 96% nominal rejection.



This diagram highlights key features such as double recovery, comparable rejection performance, high rejection stability at high input TDS, TLC thin layer composite membrane, and availability with or without drain-line flow control. It also details operational limits including maximum pressure (125 PSI), maximum temperature (120°F/48°C), pH (4-11), and free chlorine (0.1 ppm).

Installation and Replacement

The Pentair Pentek GRO-50EN membrane is designed as a direct replacement for compatible reverse osmosis systems, including many Vertex RO systems. Ensure you have the correct model (50 GPD) for your system.

General Replacement Steps:

1. **Preparation:** Turn off the water supply to your RO system and relieve system pressure.
2. **Access Membrane Housing:** Locate and open the membrane housing. Refer to your specific RO system's manual for detailed instructions on accessing the membrane.
3. **Remove Old Membrane:** Carefully remove the old membrane. Note the orientation of the old membrane for correct installation of the new one.
4. **Install New Membrane:** Insert the new GRO-50EN membrane into the housing. Ensure it is seated correctly. The membrane features color-coded connections (red for drain, blue for purified water) for easy identification.
5. **Secure Housing:** Close and secure the membrane housing.
6. **Restore Water Supply:** Slowly turn on the water supply to the RO system. Check for leaks.
7. **Flush System:** Flush the system according to your RO system's instructions to remove any air and condition the new membrane. This typically involves draining the storage tank once or twice.



Image of the Pentair Pentek GRO-50EN High Efficiency Reverse Osmosis Membrane, a cylindrical filter with blue and green labeling, ready for installation.

Operational Limits

For optimal performance and longevity of your GRO-50EN membrane, adhere to the following operational limits:

- **Maximum Pressure:** 125 PSI (6.90 bar)
- **Maximum Temperature:** 120°F (48°C)
- **pH Range:** 4-11
- **Free Chlorine:** 0.1 ppm (maximum)

Note: Filters and membrane elements are not certified to sanitize water, remove cysts, bacteria, or viruses. Filter and membrane element performance can be affected by fluctuations in water quality.

Maintenance

To ensure continuous high-quality water production and system efficiency, the GRO-50EN reverse osmosis membrane should be replaced regularly. The recommended replacement interval is typically every 1 to 3 years, depending on your water quality and usage. Timely replacement helps maintain optimal purification levels and prevents system degradation.

Troubleshooting

If you experience issues with your reverse osmosis system after membrane replacement, consider the following common troubleshooting steps:

- **Low Water Flow:** Check for kinks in tubing, ensure all valves are fully open, and verify proper system pressure. A new membrane requires flushing to achieve full flow.
- **Poor Water Quality (High TDS):** Ensure the membrane is correctly seated and not damaged. Verify that the drain

line flow restrictor is properly installed if required by your system.

- **Leaks:** Inspect all connections for tightness. Ensure O-rings are properly seated and lubricated.
- **Unusual Noises:** Check for air in the system. Allow the system to run and flush to purge air.

For persistent issues, consult your complete RO system's instruction manual or contact a qualified technician.

Specifications

Attribute	Detail
Brand	Pentek
Model Number	GRO-50EN
Material	Polypropylene (PP)
Product Dimensions	5"D x 5"W x 12"H
Item Weight	1.43 pounds
Flow Rate	50 Gallons Per Day (189 Liters Per Day)
Nominal Rejection	96%
External Testing Certification	NSF
UPC	051678023488
Part Number	4004424

Warranty Information

This Pentair Pentek GRO-50EN membrane comes with a 30-day manufacturer's warranty. For specific details regarding warranty claims or coverage, please refer to the documentation provided with your purchase or contact Pentair customer support.

Customer Support

For further assistance, technical support, or inquiries regarding the Pentair Pentek GRO-50EN High Efficiency Reverse Osmosis Membrane, please visit the official Pentair website or contact their customer service department. Always refer to your complete RO system's manual for system-specific instructions and troubleshooting.

Ask a question about this manual

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

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After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. Privacy details.

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question