

Purefast® Home: Point-of-Entry Water System for PFAS Removal



Purefast® Home connects to your residential water system and will require a plumber for installation. Please follow this manual for system installation and commissioning to ensure proper setup and operation.

User Manual (v4_2023.11.02)

Important Information

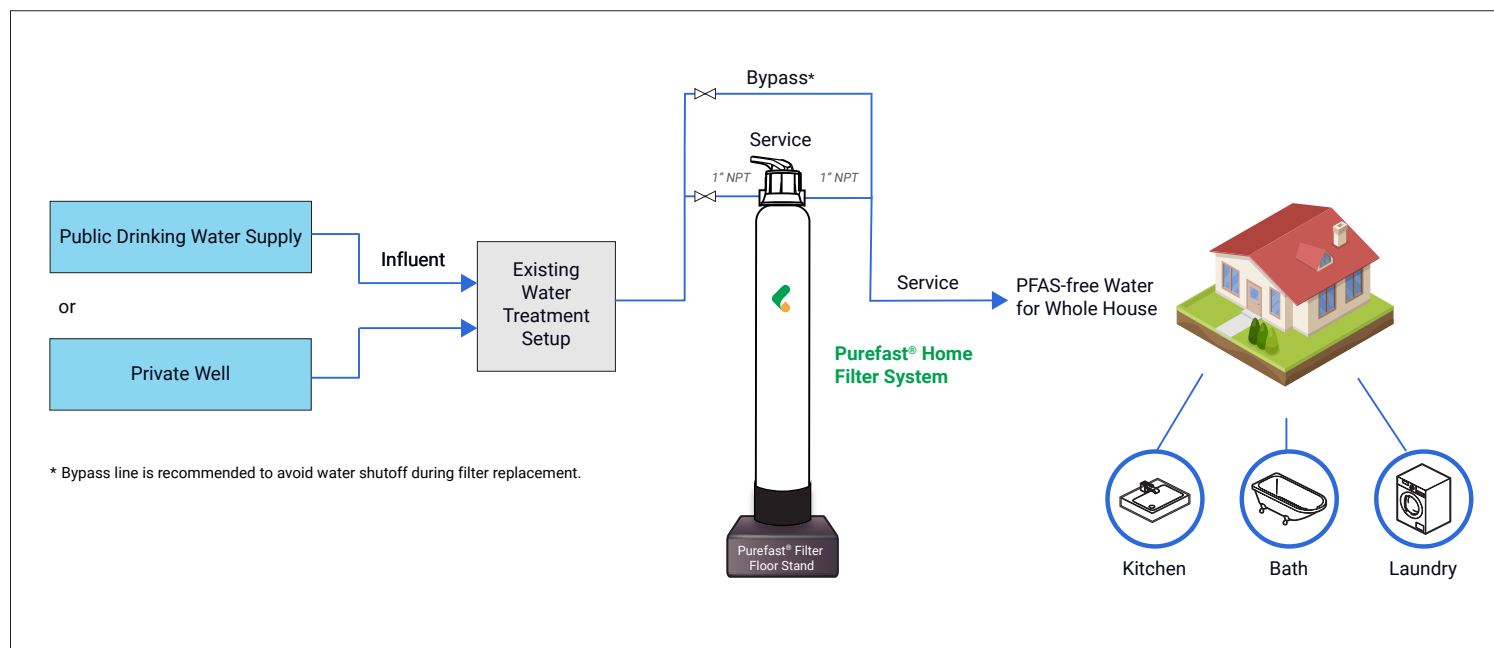
- Read this manual first and determine the location of Purefast® Home POE system before installation.
- Install the system on the main water supply after existing treatment systems (e.g., softener, UV disinfecter, pH neutralizer, GAC system, etc.) and upstream of all indoor faucets.
- The use of plumber's tape will be needed on the threaded connections.
- Purefast® Home PoE system comes pre-assembled and is ready for direct installation. Please DO NOT open the system or try to detach the control head from the vessel, as this can cause malfunction of the PoE system and damage to tubing inside the system.

Product Specifications

- Treatment Capacity¹⁾ : 80,000 gallons or 1 year
- Operating Temperature: 40-120°F
- Pressure Drop Spec: < 5 psi @ 5 gpm
- Max Operating Pressure: 100 psi
- Size: 6" (Diameter) x 35" (Height)
- Rated Flow Rate: 5 gpm
- Peak Flow Rate: 10 gpm



Installation Diagram



¹⁾ Treatment capacity is based on the above Rated Flow Rates.

Installation Instructions

Your pre-assembled Purefast® Home POE system consists of a FRP vessel, a control head and DEXSORB® media. The control head features three ports (1-inch FNPT), and a silver dial to switch between three operation modes (Backwash, Fast Rinse, and Filter). As shown in **Figure 1**:

- Port 1 is the inlet for all three modes.
- Port 2 is the outlet for discharge on the Backwash and Fast Rinse modes.
- Port 3 is the outlet for daily service on the Filter mode.

For system commissioning and operation, Ports 1, 2, and 3 should be used for the Backwash, Fast Rinse, and Filter modes according to the following instructions:

1. Preparation

- (1) Remove the packaging from the filter system.
- (2) Remove the three port head plugs from the control head. All ports are 1" FNPT connection.
- (3) Turn off the flow of main water supply line.
- (4) Plumb the system into the main water supply line through Port 1 (Filter inlet) and Port 3 (Filter outlet).
- (5) Set up temporary plumbing from Port 2 (Discharge outlet) to a house drain.

2. Backwash

Commissioning backwash is required to condition the system before operation.

- (1) Turn the dial to point the arrow to 'Backwash Mode', as pictured in **Figure 2**.
- (2) Start pumping water through Port 1 at a *low flow rate* of **0.5 gpm** to fill up the vessel. When the vessel is full, water will start flowing out of Port 2. The discharge from Port 2 will have a *grey/black and yellow, cloudy water* discharge during the backwash. Continue backwashing for approximately 20 minutes.
- (3) Turn off the flow to Port 1.

3. Fast Rinse

After backwashing:

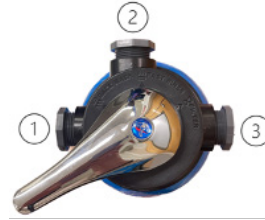
- (1) Turn the dial to point the arrow to 'Fast Rinse Mode', as shown in **Figure 3**.
- (2) Start pumping water through Port 1 at *full operation pressure* and rinse the system for 10 minutes.
- (3) Turn off flow to the system.

4. Filter

Filter mode is the standard mode for system operation. After backwashing and fast rinsing:

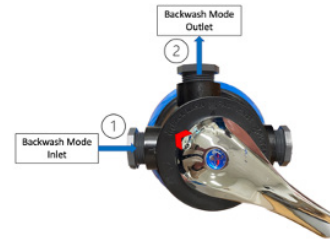
- (1) Turn the dial to 'Filter Mode', as shown in **Figure 4**.
- (2) Resume flow to the system to begin operation.
- (3) Enjoy the PFAS-free water from all indoor faucets.

Figure 1.



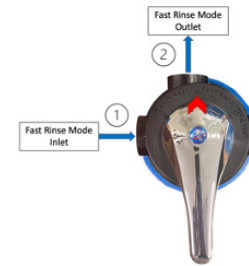
Cyclopure POE System Control Head featuring Ports 1, 2 and 3, and dial.

Figure 2.



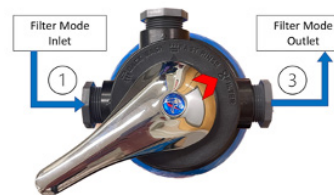
Cyclopure POE System Control Head in **Backwash** mode.

Figure 3.



Cyclopure POE System Control Head in **Fast Rinse** mode.

Figure 4.



Cyclopure POE System Control Head in **Filter** mode.

Product Performance Data Sheet

Internal testing demonstrates full removal of 8 PFAS (i.e., PFOA, PFOS, PFHpA, PFHxS, PFNA, GenX, PFBS, and PFDA) at an influent concentration of 50 ppt per PFAS.

Substance	Influent Challenge Concentration	Effluent Concentration	US EPA Proposed Drinking Water Limit
PFOA	50 ng/L	Non-Detect ²⁾	< 4 ng/L
PFOS	50 ng/L	Non-Detect	< 4 ng/L
PFHpA	50 ng/L	Non-Detect	NA
PFHxS	50 ng/L	Non-Detect	Hazard Index ³⁾ < 1.0
PFNA	50 ng/L	Non-Detect	Hazard Index < 1.0
GenX	50 ng/L	Non-Detect	Hazard Index < 1.0
PFBS	50 ng/L	Non-Detect	Hazard Index < 1.0
PFDA	50 ng/L	Non-Detect	NA

Warranties

Performance claims are based on **internal test data**. Actual performance is dependent on influent water quality, flow rates, system design and application. Results may vary. Cyclopure makes no warranties of any kind, expressed or implied, statutory or otherwise, and expressly disclaims all warranties of every kind, concerning its Purefast® Home filters, including, without limitation, warranties of merchantability and fitness for a particular purpose, except (i) that the filter should be capable of performing as described in the Performance Data Sheet, and (ii) the filter will be free of defects in materials and workmanship, when used in compliance with installation and operating guidelines, for a period of 12 months from the date of purchase. The company's obligation shall be limited solely to the refund of the purchase price or replacement of the product proven defective, in Cyclopure's sole discretion. Determination of suitability of this product for uses and applications contemplated by Buyer shall be the sole responsibility of Buyer. Use of this product constitutes Buyer's acceptance of this Limited Liability.

²⁾ Non-Detect means < 1 ng/L. (1 ng/L = 1 ppt)

³⁾ Defined by US EPA, Hazard Index = PFHxS in ppt /9 ppt + PFNA in ppt /10 ppt + GenX in ppt /10 ppt + PFBS in ppt /2000 ppt. And the Hazard Index should be < 1.0 to comply with the proposed drinking water PFAS limit by US EPA.