

Purefast® Home80

Handout

DEXSORB® for PFAS Removal

Cyclopure's DEXSORB granular adsorbent is a first-ever use of renewable cyclodextrins in water treatment. Sub-nanometer cyclodextrins are molecularly selective for the removal of per- and polyfluoroalkyl substances (PFAS) from drinking water. DEXSORB is certified under NSF 61 as safe for drinking water treatment.



Product Specifications

- Treatment Capacity¹⁾ : 80,000 gallons (approximately 12 months)
- 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

Pricing

- \$800 per unit, including the filtration system (vessel + control head) pre-loaded with DEXSORB media, plus a floor stand
- Taxes and shipping not included



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 Final 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 |

Demonstrated Performance

DEXSORB has been applied in other residential filtration products and large-scale engineered treatment systems across the U.S. It has demonstrated superior effectiveness and capacity for PFAS removal in the treatment of drinking water, surface water and groundwater.

- Purefast Countertop Filter: Using DEXSORB media in the filter, Cyclopure's Purefast filter for Brita® pitchers has been certified under NSF 53 for the removal of PFOA/PFOS.
- DEXSORB is being used to treat PFAS at municipal drinking water plants in pilot systems in Massachusetts, Maryland and Alabama. The DEXSORB Packed-Bed Filtration System has received New Technology Approval in the state of Massachusetts to treat PFAS in drinking water.
- Purefast Home80 has been available for sale and installed in U.S. households to remove PFAS from drinking water since September 2023.

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

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

³⁾ Defined by US EPA, Hazard Index = PFHxS in ppt /10 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 final drinking water PFAS limit by US EPA.



Product Support Contact

contact@cyclopure.com
cyclopure.com



Purefast® Home80

Point-of-Entry Water System for PFAS Removal

High-capacity water filtration systems using DEXSORB® to remove PFAS to non-detect at a cost of one penny per gallon. The Purefast Home80 filter connects to your residential water system and will require a plumber for installation.



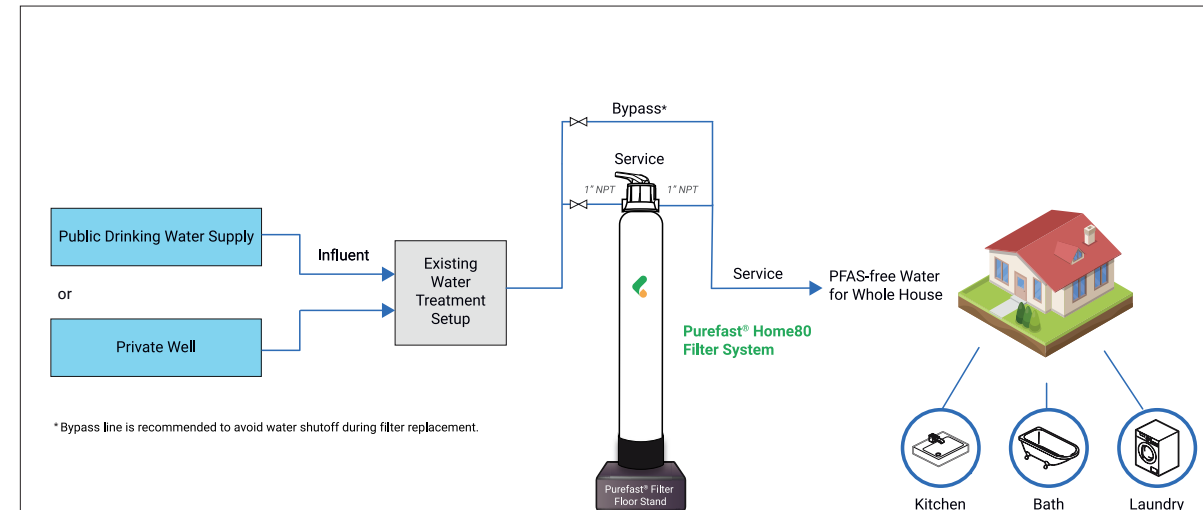
Purefast® Home80

User Manual

Important Information

- Read this manual first and determine the location of Purefast® Home80 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.
- We recommend installing a bypass line to avoid water shutoff during filter replacement.
- The Purefast® Home80 system must be placed on the provided floor stand before plumbing the system into the main water supply line.
- The use of plumber's tape will be needed on the threaded connections.
- Purefast® Home80 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.

Installation Diagram



| | | | | |
|---------------|---------|---------|---------------|---|
| | Service | Peak | Region | The United States |
| Flow Rate | 5 gpm | 10 gpm | Service | System assembly, Installation through regional certified plumbers |
| Pressure Drop | < 5 psi | < 8 psi | Certification | DEXSORB is certified under NSF 61 for drinking water treatment. |

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.

Installation Instructions

Your pre-assembled Purefast® Home80 system consists of a FRP vessel, a control head and DEXSORB® media. Your Purefast® Home80 Accessories Box contains a floor stand, one PFAS water test kit, and a ¾-inch garden hose adapter. 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) Place your pre-assembled system onto the provided floor stand at the desired location.
- (5) Plumb the system into the main water supply line through Port 1 (Filter inlet) and Port 3 (Filter outlet).
- (6) Set up temporary plumbing from Port 2 (Discharge outlet) to a house drain. You may use the ¾-inch garden hose adapter provided.

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 gray/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. Purefast® Home80 Control Head featuring Ports 1, 2 and 3, and dial.

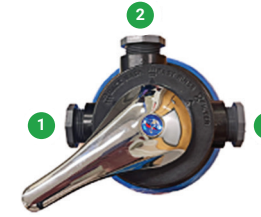


Figure 2. Purefast® Home80 Control Head in **Backwash** mode.

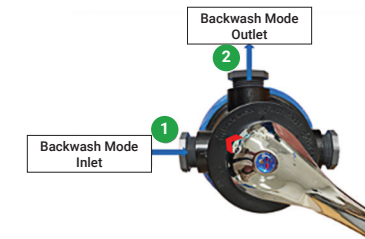


Figure 3. Purefast® Home80 Control Head in **Fast Rinse** mode.

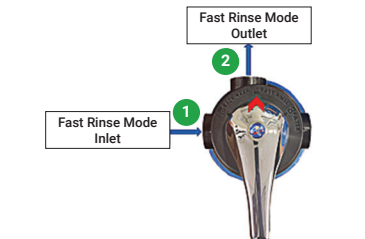
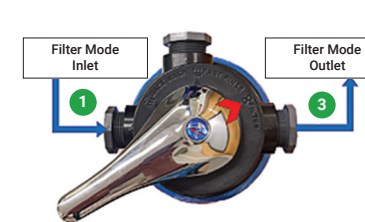


Figure 4. Purefast® Home80 Control Head in **Filter** mode.



Replacements

- After 1 year, you will receive a reminder to replace the PFH80 filter and return the used filter vessel back to Cyclopure's Chicago facility.

Filter Exchange Program

- Sustainability is a priority at Cyclopure. Our Purefast Home Water Treatment System will do the work to achieve ZERO PFAS at every tap in your home. If you return your used filter vessel to the company, we will ensure that ZERO PFAS waste is returned to the environment.
- We use Cyclopure's proprietary PFAS desorption and media regeneration method to separate PFAS from used DEXSORB media at ambient conditions. The separated PFAS waste will then be fully destroyed. Regenerated DEXSORB will be reconditioned for reuse!
- When you are ready to replace your current filter, contact us to place a new order. When you receive the new filter, save the shipping box to return the used filter to our Chicago facility. **Shipping is prepaid.**

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.

Purefast® Home80 0-100-0 System

0 There are **0 PFAS** in your water.

100 We reuse **100% of the vessel media** in non-drinking water applications.

0 **0 PFAS waste after use** as PFAS are separated and concentrated from media for full destruction to prevent recontamination.

