

# Installation, Operation and Maintenance Manual

## PeakFlowE™

Model #GXXX001725

PeakFlowE™ Anti-Scale System

Chemical-Free, Salt-Free Scale Prevention

CLICK ANYWHERE on THIS PAGE to RETURN to CLOGGED TANKLESS COIL or PIPES, LIME SCALE at [InspectApedia.com](http://InspectApedia.com)

### ⚠ WARNING



Read this Manual BEFORE using this equipment. Failure to read and follow all safety and use information can result in death, serious personal injury, property damage, or damage to the equipment. Keep this Manual for future reference.

## Introduction

The PeakFlowE™ Anti-Scale System provides protection from scale formation on internal plumbing surfaces. The PeakFlowE™ system is a single cartridge-based system that must be installed on a cold water line prior to a single residential water heating device (water heater or tankless water heater).

The PeakFlowE™ system is built with the finest and most advanced materials and each system is quality inspected and pressure tested prior to shipment. With proper installation and routine maintenance, you will have years of trouble-free operation. Please refer to this manual when performing routine filter changes. The instructions make periodic maintenance quick and easy and ensure you will receive maximum benefit from your system.

## System Specifications

**Maximum Pressure:** 90psi / 6.2 bar

**Maximum Temperature:** 100°F / 38°C

**Minimum Temperature:** 40°F / 5°C

**Service Flow Rate:** Up to 6 gpm (23 lpm)

**Continuous Flow Rate:** Up to 4 gpm (15 lpm)

**Inlet/Outlet Connections:** 3/4" FNPT

**Capacity:** Media cartridge does not have a grain removal capacity. However, other contaminants present in the water will gradually degrade the effectiveness of this cartridge. Change the PeakFlowE™ media cartridge (#GXXX001726) at least once every two years.

### ⚠ WARNING

- Connect system to cold water supply only. Water temperature cannot exceed 100°F / 38°C.
- System must be installed in a vertical, upright and level position.
- PeakFlowE™ systems must not be used in conjunction with polyphosphate or any other scale inhibitor.
- Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.



**KD Navien®**

## NOTICE

- Do not discard this manual after installation. This manual contains important operation, maintenance and precaution - ary information. Please present this manual to user/operator/ owner after installation.
- It is strongly encouraged that you read this manual before installing the system to ensure the best possible installation.
- Installation must conform to all local and state plumbing codes and regulations.
- Notice to user/operator/owner: Please retain this manual for future reference for parts, maintenance or troubleshooting.
- It is recommended that all personnel responsible for operation and maintenance of this product read the precautions, operation and maintenance sections of this manual.

## Feed Water Chemistry Requirements

pH	6.5 to 8.5
Hardness (maximum)	75 grains (1282 ppm CaCO <sub>3</sub> )
Water Pressure	15 psi to 90 psi (1.03 bar to 6.2 bar)
Temperature	40°F to 100°F (5°C to 38°C)
Chlorine	< 2 ppm
Iron (maximum)	0.3 mg/l
Manganese (maximum)	0.05 mg/l
Copper	1.3 ppm*
Oil & H <sub>2</sub> S	Must be Removed Prior to PeakFlowE™
Polyphosphate	Must be Removed Prior to PeakFlowE™
Silica (maximum)	20 ppm**

## ⚠ WARNING

\* High levels of copper that originate from new copper plumbing can foul the PeakFlowE™ media. After the installation of a new copper plumbing system, wait a minimum of 4 weeks before using the PeakFlowE™ system. Avoid applying excess flux on the inner surfaces of the pipe and use a low-corrosivity water soluble flux listed under the ASTM B813 standard.

\*\*PeakFlowE™+ media does not reduce silica scaling. While silica tends to have a less significant effect on scale formation than other minerals, it can act as a binder that makes water spots and scale residue outside the plumbing system difficult to remove.

## ⚠ WARNING

## Installation Precautions

- Do NOT install system on line pressure above 90 psi.
- Do NOT install system on HOT water line. Failure to limit line temperature to 100°F may result in housing failure and damage.
- Do NOT install the system backwards with the feed water line connected to the outlet.
- Do NOT use liquid pipe compounds for fitting connections. USE two to three wraps of Teflon® tape.
- Do NOT solder plumbing connections attached to filter housing or inlet valve. Inlet valve and filter housing will be damaged by high temperature.
- Do NOT allow system to freeze. Turn off water supply to housing and drain housing if temperature falls below 40°F.
- Do NOT install system in direct sunlight or where system is exposed to harsh chemicals or may be subjected to being struck by moving equipment, carts, mops or any other item that may cause damage.
- ALLOW a minimum of 3" under the housing to allow for filter replacement.
- IF water hammer is evident, install water hammer arrestors before the PeakFlowE™ unit.
- Do NOT overtighten fitting connections into inlet valve or housing outlet.
- Always back-up valves and fittings with a wrench when installing a fitting to avoid turning the valve.
- Do NOT install the unit behind equipment where it may be difficult to access the system for filter replacement.

Position the PeakFlowE™ unit in a suitable location. The direction of flow through the PeakFlowE™ unit is always through the inlet first; keep this in mind when determining installation location. Do NOT mount the PeakFlowE™ system near any source of heat. Also, do not mount the system above any device or area that would be adversely effected by water.

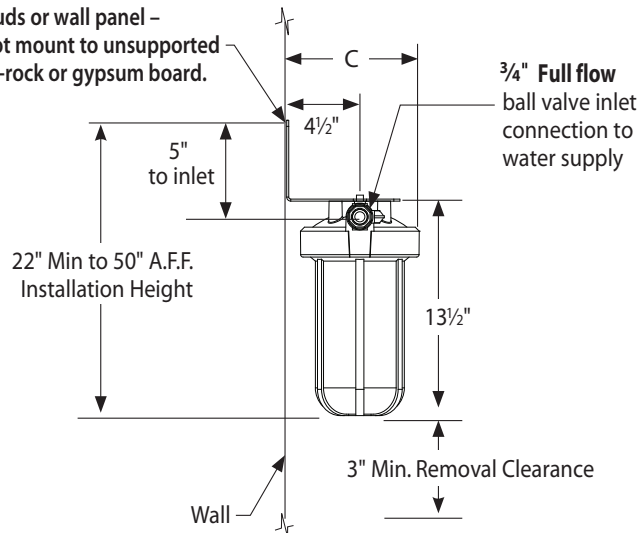
*Teflon® is a registered trademark of E.I. DuPont de Nemours & Company.*

## Installation

1. Turn off all equipment to be fed by the PeakFlowE™ System, locate water supply shutoff valve and turn OFF.
2. Determine if the water line has an existing water treatment system. If so, examine system for use of polyphosphate or other scale inhibitors. PeakFlowE™ will not be effective if used in conjunction with other scale inhibitors. Remove the scale inhibitors from the water line or discontinue installation.
3. Install a 3/4" full-flow ball valve on the water supply side that will feed the water system.
4. Anchor the PeakFlowE™ system on a wall stud or suitable mounting material spanning wall studs. System must be vertical and upright.
5. Run a suitable line from the 3/4" full-flow ball valve at the tap water source to the inlet ball valve on the left side of the PeakFlowE™ system. Use 2-3 wraps of Teflon® tape and brace the inlet ball valve on the system with a wrench when connecting the feed water line. **NOTE:** DO NOT OVERTIGHTEN CONNECTION FITTING INTO BALL VALVE.
6. Select the appropriate size tubing for the equipment being fed and connect it to the outlet of the PeakFlowE™ System. **NOTE:** DO NOT connect the tubing to the equipment at this time. Prior to making connection to the equipment, this line will be used to facilitate flushing the system. As an option, a drain valve in a tee on the outlet side of the PeakFlowE™ system could be provided in the line to facilitate flushing when changing filters.
7. With PeakFlowE™ inlet valve closed, slowly open the 3/4" full-flow ball valve at the tap water source. Check for leaks.
8. If a drain valve was not installed on the outlet side of the system, hold the tubing that will connect to equipment in a clean bucket or over sink or drain. Open the system inlet feed valve and allow water to flush through system for 2 minutes at the specified system flow rate to allow air bubbles to escape. **NOTE:** NO ACTIVATION IS REQUIRED FOR THE PeakFlowE™ SYSTEM TO PERFORM PROPERLY. FLUSHING IS RECOMMENDED TO ALLOW AIR TO ESCAPE THE SYSTEM.
9. Make certain that the end of the tubing to be connected to the equipment is clean and sanitary.
10. Connect tubing to equipment. Open all water supply valves and check for leaks.
11. If no leaks, turn on equipment and check for normal operation.
12. Attach the Service Log to the installed PeakFlowE™ System and fill in install date.

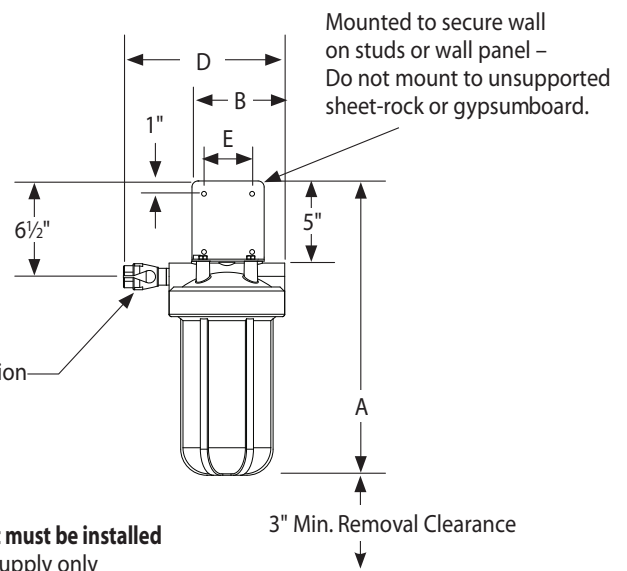
## Installation Drawings & Dimensions

Mounted to secure wall on studs or wall panel – Do not mount to unsupported sheet-rock or gypsum board.



3/4" Full flow ball valve with 3/4" FNPT inlet connection from building water supply

Water filtration unit must be installed on the cold water supply only



## Dimensions — Weights

Model	Dimensions						Weight	
	A		B		C		E	
	in.	mm	in.	mm	in.	mm	in.	mm
GXXX001725	18 1/2	470	4 1/2	114	8 5/8	219	3	76
							lbs.	kgs
							15	6.8

The overall height and the height of the inlet fitting varies due to material variations and assembly tolerances. Please allow additional clearance above the filter for making connections.

## Operation

With sufficient pressure, operation of the Navien PeakFlowE™ System is completely automatic. Dependable operation involves only periodic filter changes and service documentation.

## Maintenance

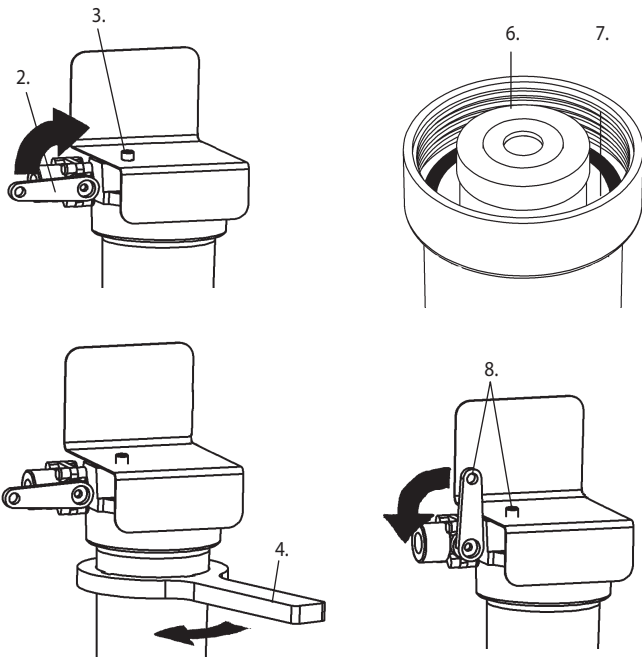
Routine maintenance of your PeakFlowE™ System involves periodic filter cartridge changes and/or replacement of sump O-rings. If the system sizing recommendations have been followed, the PeakFlowE™ cartridge should last two years.

### Filter Change Frequency

The filters should be changed in response to the following conditions.

**GXXX001726** • 24 months since installation or last filter change.

\*Frequency of cartridge replacement will depend on volume of system usage.



### Replacement Filter Cartridges

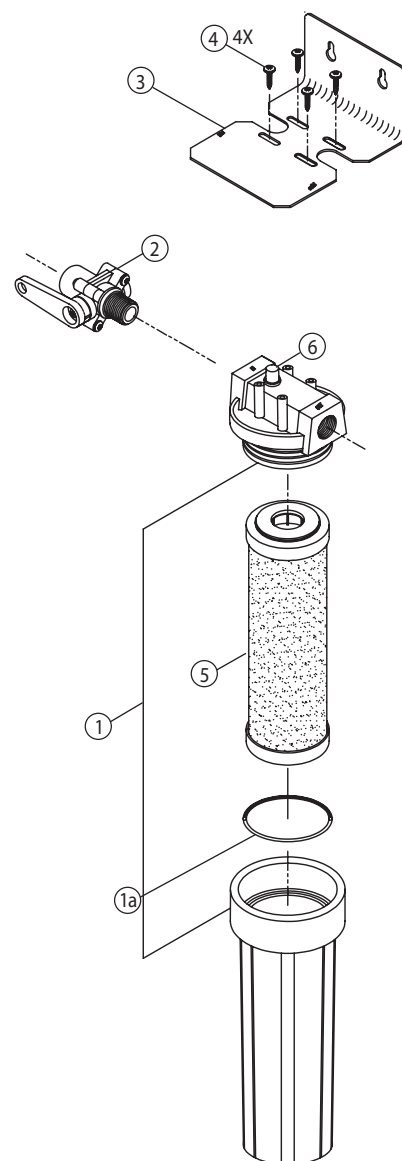
PeakFlowE™ systems can only be used with PeakFlowE™ filter cartridges. Use of replacement cartridges other than those specified will void warranties, certifications and may compromise equipment protection, water quality and equipment life.

### Filter Cartridge Replacement Procedure

1. **IMPORTANT:** All other equipment connected to the PeakFlowE™ system must be turned off prior to shutting off water supply from filters.
2. Turn OFF water to PeakFlowE™ system by closing the Inlet Ball Valve.
3. Press the red button to release pressure.
4. Remove housing - use filter wrench if necessary.
5. Remove filter from housing. Clean inside of housing with warm water. If desired, disinfect housing by adding a teaspoon of household bleach to housing, fill with water, let stand for 5 minutes, and then discard.
6. Insert new cartridge into filter housing. Match cartridge model number to model number on bracket.
7. Check O-ring for damage and replace if damaged or distorted. Make certain the O-ring is properly positioned and reinstall filter housing (hand tighten only).
8. Slightly open the inlet ball valve; push the red pressure relief button to release trapped air until a small amount of water comes out - release the red button and fully open the ball valve.
9. Open the flush valve downline from the filter housing (if equipped) and flush the new cartridge to drain or bucket for two (2) minutes or until water runs clear. If no flush valve is present, disconnect line from equipment to flush to drain.
10. **VERY IMPORTANT:** With water supply inlet valve OPEN and water flow confirmed, turn on connected equipment. Failure to supply water to equipment may cause serious damage.
11. Record filter change on the service log.

Replacement Parts for: PeakFlowE™ Anti-Scale System #GXXX001725  
PeakFlowE™ Replacement Media #GXXX001726

Drawing ID #	Description
1	10" Full Flow Housing, 3/4" ports w/PR
1a	Full Flow O-ring
2	Ball Valve PVC, 3/4" F x M
3	Full Flow Mounting Bracket
4	Mounting Screws
5	PeakFlowE™ Replacement Cartridge
6	Pressure Relief Button (part of housing)
7	Full Flow Housing Wrench (not shown)



# Limited Warranty

Navien, Inc. warrants its PeakFlowE™ cartridge systems as follows:

- The PeakFlowE™ cartridge system is warranted to be free of defects in materials and workmanship for 1 year from the date of original shipment.
- PeakFlowE™ cartridges are warranted for performance for a period of one year from the date of original installation when installed and operated in accordance with the instructions in the corresponding Installation and Operation Manual.
- Carbon replacement filter cartridges are not warranted to perform for any period of time because the service life of replacement carbon filter cartridges varies significantly with local water conditions and volume.

## Conditions

1. The PeakFlowE™ system must be installed in applications with municipally supplied water adhering to EPA guidelines with the exception of oil and grease, copper, phosphate, silica and chlorine. See copper warnings on page 2 and condition number 5 below.
2. Any component failure must not result from abuse, fire, freezing or other acts of nature, violence, or improper installation.
3. Equipment must be installed and operated in compliance with the local plumbing codes and on an approved water supply.
4. Equipment is limited to use at water pressures and temperatures that do not exceed our published specifications.
5. Water supply must not exceed 2.0 PPM chlorine. For water supply exceeding 2.0 PPM chlorine, pretreatment is required. (Please contact your water treatment specialist.)
6. Information, including model number, serial number, and date of installation, must be provided for any claims pertaining to equipment in warranty.
7. Defective parts are subject to inspection by either Watts Regulator Company or any authorized representative before final commitment of warranty adjustment is made.
8. Navien, Inc. reserves the right to make changes or substitutions in parts or equipment with material of equal quality or value and of then current production.

## Limitations

Our obligation under this warranty with respect to the media cartridge is limited to furnishing a replacement for, or at our option, repairing any part(s) to our satisfaction that prove defective within the warranty period stated above. Such replacement parts will be delivered to the owner F.O.B. nearest factory, at no cost, excluding freight and local labor charges, if any.

Our obligation under this warranty with respect to the PeakFlowE™ media will be limited to furnishing a replacement for the media within two years from date of original installation. Such replacement media will be delivered to the owner F.O.B. nearest factory, at no cost, excluding freight and local labor charges, if any. Damage to the media due to chlorine, other oxidizers or fouling caused by local water conditions or any other operation outside of the limits shown under Specifications, is not covered by this warranty.

THE WARRANTY SET FORTH HEREIN IS GIVEN EXPRESSLY AND IS THE ONLY WARRANTY GIVEN BY NAVIEN, INC. WITH RESPECT TO THE PRODUCT. NAVIEN, INC. MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED. NAVIEN, INC. HEREBY SPECIFICALLY DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

The remedy described under this warranty shall constitute the sole and exclusive remedy for breach of warranty, and Navien, Inc. shall not be responsible for any incidental, special or consequential damages, including without limitation, freight, handling, lost profits or the cost of repairing or replacing other property which is damaged if this product does not work properly, other costs resulting from labor charges, delays, vandalism, negligence, fouling caused by foreign material, damage from adverse water conditions, chemical, or any other circumstances over which Navien, Inc. has no control. This warranty shall be invalidated by any abuse, misuse, misapplication or improper installation of the product.

Some states do not allow limitations on how long an implied warranty lasts, and some states do not allow the exclusion or limitation of incidental or consequential damages. Therefore the above limitations may not apply to you. This warranty gives you specific legal rights, and you may have other rights that vary from state to state. You should consult applicable state laws to determine your rights. SO FAR AS IS CONSISTENT WITH APPLICABLE STATE LAW, ANY IMPLIED WARRANTIES THAT MAY NOT BE DISCLAIMED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN DURATION TO THE APPLICABLE WARRANTY PERIODS STATED ABOVE.

### CALIFORNIA PROPOSITION 65 WARNING

**WARNING:** This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm  
(California law requires this warning to be given to customers in the State of California.)

