

## Engineering Specification

Job Name \_\_\_\_\_

Contractor \_\_\_\_\_

Job Location \_\_\_\_\_

Approval \_\_\_\_\_

Engineer \_\_\_\_\_

Contractor's P.O. No. \_\_\_\_\_

Approval \_\_\_\_\_

Representative \_\_\_\_\_

# LEAD FREE\*

## Model OFPSYS OneFlow®+ Salt-Free Scale Prevention and Water Filtration

Connection Size: 1" MNPT

Nominal Flow Rates up to 10 gpm (37.85 lpm)

The OneFlow®+ system is an economical and environmentally friendly physical water treatment technology that helps protect pipes, extend the life of appliances, and provide better tasting water through filtration. The OneFlow®+ system is a dual cartridge-based system with a radial flow 20 micron carbon block cartridge which reduces sediment, chlorine taste and odor\*\*, and an integrated OneFlow®+ scale prevention cartridge.

The OneFlow®+ system uses media-assisted crystallization (MAC) to attract dissolved hardness minerals and convert them into harmless, inactive microscopic crystal particles.

These crystals stay suspended in the water and have a greatly reduced ability to react and attach to surfaces like dissolved hardness does. They eventually find their way to a drain. The system requires very little maintenance, no backwashing, no salt and no electricity.

The OneFlow®+ system is not a water softener. It does not add chemicals to the water. It is a scale prevention device with years of successful residential installations. The OneFlow®+ system is the intelligent scale solution and is a great saltfree alternative to water softening (ion exchange) or scale sequestering devices.

### Features

- Reduces sediment, chlorine taste and odor\*\*
- Chemical-free scale prevention and protection – converts hardness minerals to harmless, inactive microscopic crystals making OneFlow®+ an effective salt-free alternative to ion exchange water softeners\*\*
- Virtually maintenance free – no salt bags or other chemicals to constantly add or maintain
- No control valve, no electricity and no wastewater
- Improves efficiency of all water heating devices and downstream plumbing components
- Simple installation – standard 1" connections
- Excellent system for homes where equipment protection is desired for longer equipment life and reduced energy consumption
- OneFlow®+ cartridge-based systems are easily maintained.
- Mounting bracket and multi-function tool included to allow cartridge change-outs when necessary



OFPSYS



The OFPSYS system is certified by WQA to NSF/ANSI/CAN 372 for lead free compliance.

### Specifications

A OneFlow®+ scale prevention system shall be installed on the cold water service line to condition the tap water just prior to the service line feeding the residential home. The OneFlow®+ system uses a 20 micron radial flow carbon block cartridge with a dirt holding capacity up to 2.2 lbs (1 kg)\*\*. This carbon block reduces chlorine taste and odors for up to 50,000 gallons (189,000 liters) of use\*\*, at a flow rate of 3 gpm (11.34 lpm). The system shall be capable of intermittent peak flow rates up to 10 gpm (37.85 lpm). The OneFlow®+ system also uses a scale prevention cartridge which is good for up to 250,000 gallons (945,000 liters)\*\* or replacement every 3 years, whichever comes first. The installation area should be suitable in size for the housing to be serviced without encumbrance and the system should be installed per the Installation, Operation & Maintenance manual as provided with each system.

The OneFlow®+ system must not require additional wastewater to backwash, flush, or regenerate once put into service. The system shall not require any chemical additives and shall not require electricity for operation.

#### ⚠ WARNING

Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.

\*The wetted surface of this product contacted by consumable water contains less than 0.25% of lead by weight.

\*\*Contaminant reductions not tested or certified by WQA.

Watts product specifications in U.S. customary units and metric are approximate and are provided for reference only. For precise measurements, please contact Watts Technical Service. Watts reserves the right to change or modify product design, construction, specifications, or materials without prior notice and without incurring any obligation to make such changes and modifications on Watts products previously or subsequently sold.

## Models

MODEL	ORDERING CODE	PEAK FLOW RATE	CONNECTION TYPE
OFPSYS	7100638	10 gpm (37.85 lpm)	1" NPT

## Replacement Cartridges

<b>OFPRFC</b>	Radial Flow Carbon Block Cartridge should be replaced at least once every year
<b>OFPSF</b>	Scale Prevention Cartridge should be replaced at least once every 3 years
<b>OFPCOM</b>	Combo Pack includes one carbon block cartridge and one scale prevention cartridge

## Feed Water Chemistry Requirements

pH	6.5-8.5
Hardness (maximum)	30 grains (513 ppm CaCO <sub>3</sub> )*
Water Pressure	10 psi to 90 psi (0.69 bar to 6.2 bar)
Temperature	40° F to 100° F (5°C to 38°C)
Free Chlorine	<2 ppm
Iron (maximum)	0.3 ppm**
Manganese (maximum)	0.05 ppm**
Copper (maximum)	1.3 ppm***
Oil & H <sub>2</sub> S	Must be Removed Prior to OneFlow
Total Phosphates	< 3.0 ppm
Silica (maximum)	20 ppm †
TDS	<1500 mg/l ††

### NOTICE

#### Not for use on closed loop systems.

\* Systems using OneFlow® cartridge technology are effective at controlling lime-scale formation inside the plumbing system at influent hardness levels up to 30 grains per gallon (513 ppm) as calcium carbonate. Due to variances in water chemistry, 30 grains per gallon is a recommended hardness maximum due to potential aesthetic issues related to soft scale residue formation outside of the plumbing system. Testing should be performed to determine proper application where hardness levels exceed 30 grains per gallon.

\*\*Just as with conventional water softening media, OneFlow® media needs to be protected from excess levels of certain metals that can easily coat the active surface, reducing its effectiveness over time. Public water supplies rarely, if ever, present a problem, but if the water supply is from a private well, confirm that the levels of iron (Fe) and manganese (Mn) are less than 0.3 ppm and 0.05 ppm, respectively.

### WARNING

\*\*\*Pursuant to the EPA drinking water standards, the copper concentration permitted is up to 1.3 ppm. Typically originating from new copper plumbing, high levels of copper can foul OneFlow media. New Copper lines need to be passivated for a minimum of 4 weeks before placing unit into service. For applications with copper concentration greater than 1.3 ppm, please consult Watts Water Quality Technical Service. To further minimize any problem with excess copper, avoid applying excessive flux on the inner surfaces of the pipe and use a low-corrosivity water soluble flux listed under the ASTM B813 standard.

### NOTICE

† OneFlow® 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. This 20 ppm limitation is for aesthetic purposes.

†† All other contaminants must meet the requirements of the USEPA Safe Drinking Water Act. Specific Mineral and Metal MCL's, identified in Watts published Feed Water Chemistry Requirements, supersedes the USEPA SDWA.

Water known to have heavy loads of dirt and debris may require pre-filtration prior to OneFlow®.

### WARNING

#### Using OneFlow® with Other Water Treatment Equipment

Due to the unique properties of OneFlow®, there are some unique requirements for using OneFlow® in conjunction with filtration or other forms of water treatment.

- OneFlow® must be the last stage in the treatment chain. Do not install any filters after OneFlow® or before any devices for which scale prevention is required. POU filters, e.g. carbon, RO or Ultraviolet (UV) are exempt from this requirement.
- Do not apply any other antiscalants before or after OneFlow.
- The addition of soaps, chemicals, or cleaners, before or after OneFlow treatment, may reverse its anti-scale treatment effects and/or create water with a heavy residue or spotting potential. Any adverse conditions caused by the addition of soaps, chemicals, or cleaners are the sole responsibility of the end user.
- OneFlow is not a water softener and does not soften the water - Water treatment chemistry (e.g. antiscalants, sequestrants, soaps, chemicals or cleaners etc...) will most likely have to be changed to be compatible with OneFlow treated water. Laundry and ware-washing chemistry will likewise require adjustments.

### NOTICE

#### Spotting May Occur on External Plumbing Surfaces

OneFlow media systems perform best in single pass potable water applications with NO additional chemical additives. Depending on hardness, soft scale spotting may occur. Soft scale spots in most cases can be easily wiped down with a damp cloth and will not form hard scale deposits. A Point of Use (POU) Water Softener should be used on mandatory spot-free applications (e.g. glass stemware, dishware).

OneFlow® + systems are complete, self-contained, loaded with media, and ready to use. A simple inlet and outlet connection is all that is required for installation. Please review operating pressures, temperatures and water chemistry limitations to ensure compatibility.

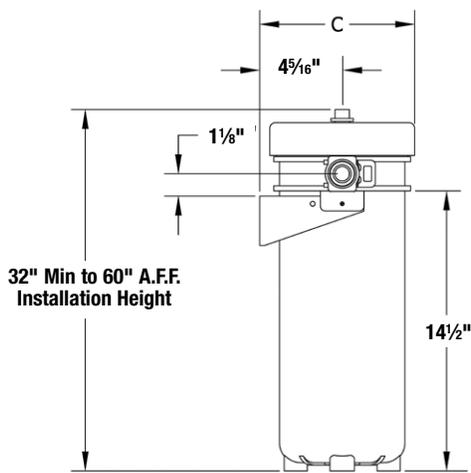
## System Specifications

**Inlet/Outlet Connections: 1" MNPT**

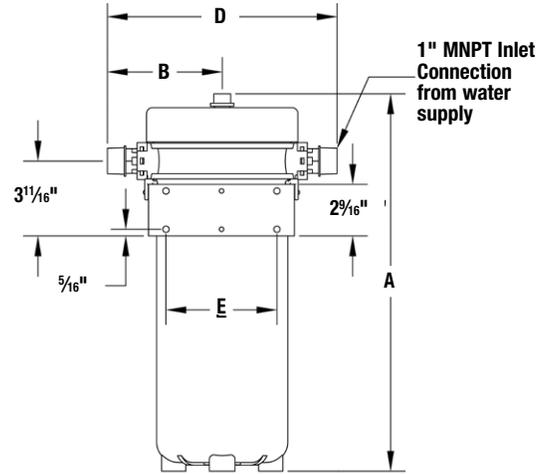
**Nominal Flow Rate up to 10 gpm (37.85 lpm)**

**Capacity:** OneFlow®+ system helps prevent scale in addition to reducing sediment, chlorine taste and odor.††† A replacement schedule of once per year for the carbon cartridge and once every 3 years for the OneFlow®+ anti-scale cartridge is typical for residential systems. Frequency of cartridge replacement will depend on volume of system usage and water quality.

††† Contaminant reductions are not tested or certified by WQA.



Side View



Back View

## Dimensions — Weights

MODEL	DIMENSIONS									
	A		B		C		D		E	
	<i>in.</i>	<i>mm</i>	<i>in.</i>	<i>mm</i>	<i>in.</i>	<i>mm</i>	<i>in.</i>	<i>mm</i>	<i>in.</i>	<i>mm</i>
OFPSYS	18 <sup>3</sup> / <sub>4</sub>	476	5 <sup>1</sup> / <sub>16</sub>	144	8 <sup>1</sup> / <sub>16</sub>	205	11 <sup>3</sup> / <sub>8</sub>	289	5 <sup>1</sup> / <sub>2</sub>	140

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 and replacing cartridge filters.

## Peak Flow Rates — Weights

MODEL	OFPSYS
*Maximum Flow	10 gpm 37.85 lpm
Dry Weight	16 lbs. 7.5 kgs.
Service Weight	28 lbs. 13 kgs.

\*Exceeding maximum flow rate can reduce effectiveness and void warranty.

### NOTICE

The information contained herein is not intended to replace the full product installation and safety information available or the experience of a trained product installer. You are required to thoroughly read all installation instructions and product safety information before beginning the installation of this product.

### NOTICE

Inquire with governing authorities for local installation requirements

