

For Commercial and Industrial Applications

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

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

Engineer \_\_\_\_\_

Approval \_\_\_\_\_

Contractor \_\_\_\_\_

Approval \_\_\_\_\_

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

Representative \_\_\_\_\_

LEAD FREE\*

Models OF744-10, OF844-12, OF948-16, and OF1054-20  
OneFlow® Anti-Scale System

Connection Sizes: ¾", 1" and 1¼"

Flow Rates: 10 gpm to 20 gpm (38 lpm to 76 lpm)

The OneFlow® Anti-Scale System provides protection from scale formation on internal plumbing surfaces. The OneFlow® system may be installed at the point-of-entry to a building to treat both hot\* and cold water, or it can be located directly before a water heater, boiler, or other hot water-using device that requires protection from the ill effects of hard water.

OneFlow® prevents scale by transforming dissolved hardness minerals into harmless, inactive microscopic crystal particles. These crystals stay suspended in the water and are passed to drain, thereby having a greatly reduced ability to react negatively like dissolved hardness does. The system requires very little maintenance, no backwashing, no salt, and no electricity. Typical hardness problems, especially build-up of scale in pipes, water heaters, boilers and on fixtures are no longer a concern.

OneFlow® is not a water softener or a chemical additive (like anti-scalants or sequestrants). It is a scale prevention device with proven third party laboratory test data and years of successful residential and commercial applications. OneFlow® is the one water treatment device that effectively provides scale protection and is a great salt-free alternative to water softening (ion exchange) or scale sequestering chemicals.


Features

- Chemical-free scale prevention and protection – converts hardness minerals to harmless, inactive microscopic crystals making OneFlow® an effective alternative technology to a water softener for the prevention of scale due to water hardness
- Virtually maintenance free - no control valve
- Uses environmentally friendly technology by using no salt or other chemicals to constantly add, no electricity and no wastewater
- Improves efficiency of all water using appliances – both hot\*\* and cold

NOTICE

\* For hot water applications where water temperature is 100°F – 140°F (38°C – 60°C), please consult ES-OneFlow-HotWater





WQA Certified against NSF/ANSI Standard 61 and 372 for Lead Free.

- Simple sizing & installation – all you need to know is pipe size and the peak flow rate
- Perfect system for towns or communities where water softeners are banned or restricted
- For high-flow applications, install multiple tanks in parallel
- OneFlow® does not remove minerals or add sodium to the water supply
- OneFlow can be installed as pre-treatment to commercial reverse osmosis systems (contact your Watts Representative for further details)

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

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

MODELS	ORDERING CODES	MAX. FLOW RATE	CONNECTION TYPE
OF744-10-C	0002102	10 GPM	1" Plastic MPT
OF744-10-D	0002103	10 GPM	1 1/4" Plastic MPT
OF744-10-E	0002104	10 GPM	1" Plastic MPT 90 Elbow
OF844-12-A	0002105	12 GPM	3/4" Sweat'
OF844-12-B	0002106	12 GPM	1" Sweat'
OF844-12-C	0002109	12 GPM	1" Plastic MPT
OF844-12-D	0002108	12 GPM	1 1/4" Plastic MPT
OF844-12-E	0002109	12 GPM	1" Plastic MPT 90 Elbow
OF948-16-A	0002110	16 GPM	3/4" Sweat'
OF948-16-B	0002111	16 GPM	1" Sweat'
OF948-16-C	0002112	16 GPM	1" Plastic MPT
OF948-16-D	0002113	16 GPM	1 1/4" Plastic MPT
OF948-16-E	0002114	16 GPM	1" Plastic MPT 90 Elbow
OF1054-20-A	0002115	20 GPM	3/4" Sweat'
OF1054-20-B	0002116	20 GPM	1" Sweat'
OF1054-20-C	0002117	20 GPM	1" Plastic MPT
OF1054-20-D	0002118	20 GPM	1 1/4" Plastic MPT
OF1054-20-AE	0002119	20 GPM	1" Plastic MPT 90 Elbow

# Connection Options

3/4" and 1" Sweat (19 and 25mm)  
1" and 1 1/4" Plastic MPT (25 and 32mm)

# Replacement Media

OF744RM	Media should be replaced every 3 years
OF844RM	Media should be replaced every 3 years
OF948RM	Media should be replaced every 3 years
OF1054RM	Media should be replaced every 3 years
OF1252RM	Media should be replaced every 3 years

# Specifications

A OneFlow® scale prevention system shall be installed on the main water service pipe just after it enters the building, but after other whole building water safety devices (backflow preventers or pressure reducing valves), to effectively address water hardness concerns. A system may also be installed further downstream to protect specific equipment or areas within a plumbing system. The system shall be plumbed with a bypass valve to allow isolation of tank(s) and to allow the bypass of untreated water usage in the event that service or media replacement be necessary. The installation area should be suitable in size for the tank(s) to be serviced without encumbrance and sit upright on a flat level surface.

The system must operate in an upflow manner and does not require additional water to backwash, flush, or regenerate once put into service. The system does not require any chemical additives and does not require electricity for operation.

The 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.

# Standards

Independent scientific testing has confirmed Template Assisted Crystallization (TAC) technology provides scale reduction of over 95+%. Testing was conducted under protocol based on DVGW W512 test to access control of scale formation.

# Feed Water Chemistry Requirements

pH	6.5 to 8.5
Hardness (maximum)	75 grains (1282 ppm CaCO3)
Water Pressure	15psi to 100psi (103 kPa to 6.9 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 & H2S	Must be removed prior to OneFlow®
Silica (maximum)	20 ppm***

# NOTICE

Not for use on closed loop systems.

# NOTICE

Important notice about iron, manganese and copper in the water supply.

# NOTICE

\*Iron and Manganese

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 mg/L and 0.05 mg/L, respectively.

# NOTICE

\*\*Copper

Pursuant to the EPA drinking water standards, the maximum copper concentration permitted is up to 1.3 ppm. Copper usually originates from new copper plumbing upstream of the OneFlow® system and high levels of copper can foul OneFlow media. To further minimize any problem with excess copper, avoid applying excess flux on the inner surfaces of the pipe and to use a low-corrosivity water soluble flux listed under the ASTM B813 standard. For applications with copper concentration greater than 1.3 ppm, please contact Watts Pure Water Technical Service at 1-800-224-1299.

# NOTICE

\*\*\*Silica

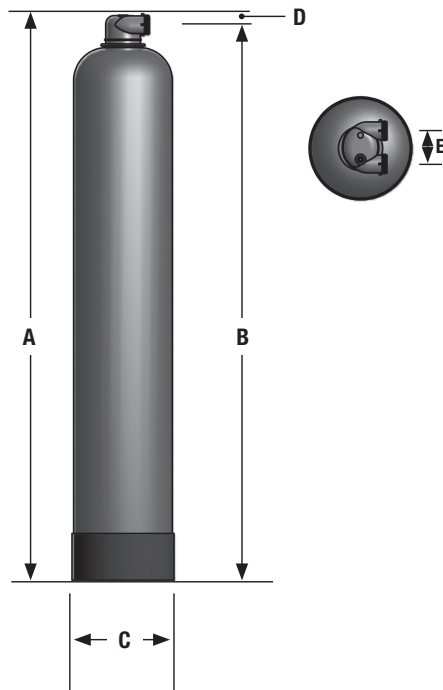
OneFlow® media does not reduce silica scaling. While silica tends to have a less significant effect on scale formation than other minerals, it can act as a binder that makes water spots and scale residue outside the plumbing system difficult to remove. This 20 ppm limitation is for aesthetic purposes.

### NOTICE

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

### NOTICE

Anytime OneFlow® systems are installed above the ground floor of a building it is recommended that a vacuum relief valve also be installed to protect against tank collapse in the event the plumbing system is drained. If a vacuum relief valve is not used then the system should be placed in bypass anytime the plumbing system is drained. The EDP code for the suggested vacuum relief valve is 0556031 (not included). The vacuum relief valve should be installed on the outlet of the system.



### Dimensions

Model	Dimensions									
	A		B		C		D		E	
	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
OF744-10	48½	1232	46	1168	7	178	2½	64	3	76
OF844-12	48½	1232	46	1168	8	203	2½	64	3	76
OF948-16	52½	1334	48	1219	9	229	2½	64	3	76
OF1054-20	59½	1511	57	1448	10	254	2½	64	3	76

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

### Peak Flow Rates — Weights

	OF744		OF844		OF948		OF1054	
*Maximum Flow	10 gpm	37.8 lpm	12 gpm	45.4 lpm	16 gpm	60.6 lpm	20 gpm	75.7 lpm
Dry Weight	22 lbs.	10.0 kgs.	25 lbs.	11.3 kgs.	29 lbs.	13.2 kgs.	35 lbs.	15.9 kgs.
Service Weight	80 lbs.	36.3 kgs.	97 lbs.	44.0 kgs.	129 lbs.	58.5 kgs.	168 lbs.	76.2 kgs.

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

Pressure drop at peak flow rate is less than 8 psi at 80 degree feed water.

### ⚠ 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.

1. 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.
2. Do not apply phosphate or any other antiscalant before or after OneFlow®.
3. 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.
4. 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).



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