

Engineering Specification

Job Name _____

Contractor _____

Job Location _____

Approval _____

Engineer _____

Contractor's P.O. No. _____

Approval _____

Representative _____

E-Treat®

Model ETREATWCS

Salt-Free Scale Prevention and Water Conditioning System

Connection Sizes: 1"

Flow Rates: Up to 12 gpm (45 lpm)

The Watts E-Treat® Water Conditioning System is a whole home solution for consumers that want to reduce limescale build up inside their plumbing systems while improving the taste and odor of water from every tap in their home.

E-Treat combines the revolutionary scale prevention capabilities of OneFlow® with coconut shell-activated carbon to reduce tastes, odors, chlorine, and organic substances typically found in drinking water.

The Etreat Water Conditioning System is a two step treatment process in one, easy to service tank.

Step #1 (Main Tank)

Water enters the system and flows down through two cubic feet of coconut shell-activated carbon. This initial water treatment process improves water quality by reducing bad tastes, foul odors, chlorine, and organic substances through adsorption.

Step #2 (Inner Tank)

Then, the water flows upward through the inner tank where our highly-effective OneFlow anti-scale media attracts dissolved hardness minerals and converts them into harmless particles that won't stick to pipes and components to form lime scale

Features and Benefits

- Chemical-free scale prevention and filtration
- Reduces lime scale, chlorine taste and odor and sediment
- Small space requirements
- Generates no waste water
- Requires no electricity
- Improves efficiency of all water using appliances – both hot and cold
- Simple sizing & installation – all you need to know is pipe size and the peak flow rate
- Ideal system for towns or communities where water softeners are banned or restricted
- For high-flow applications, install multiple tanks in parallel
- E-Treat does not remove minerals or add sodium to the water supply



Model ETREATWCS

⚠ WARNING

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

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.

WATTS®

Models

MODELS	ORDERING CODES	MAX. FLOW RATE	CONNECTION TYPE
ETREATWCS	68101339	12 GPM	1" Plastic MNPT

Contaminant Treatment

Chlorine Reduction 300,000 gallons or up to 3 years @ 12 gpm

Scale Prevention Up to 3 years

Replacement Media

ORDERING CODE	REPLACEMENT MEDIA REBED KIT
68110169	Replacement Activated Carbon and OneFlow® Media
68110145	Replacement Activated Carbon and OneFlow® Media Plus Tools

Specifications

A Watts E-Treat® model ETREATWCS combination scale prevention and carbon filtration 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 and chlorine taste and odor concerns. A system may also be installed further downstream to protect specific equipment or areas within a plumbing system. The system shall be furnished 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 shall accomplish the functions of scale prevention and dechlorination in a single tank and 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.

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.

Certifications

OneFlow Media – Certified to NSF/ANSI 61 and 372

Carbon Media A9231-ALLF – Certified to NSF to NSF/ANSI 61 for material safety only.

Feed Water Chemistry Requirements

pH	6.5-8.5
Hardness (maximum)	30 grains (513 ppm CaCO3)*
Water Pressure	20 psi to 125 psi (1.37 bar to 8.61 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	1.3 ppm***
Oil & H2S	Must be Removed Prior to E-Treat System
Total Phosphates	< 3.0 ppm
Silica (maximum)	20 ppm †
TDS	1500 mg/l ††

NOTICE

Not for use on closed loop systems.

NOTICE

* Systems using OneFlow® technology are effective at controlling lime-scale formation inside the plumbing system at influent hardness levels up to 30 grains per gallon (513 ppm CaCO3) of 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 Requirements, supersedes the USEPA SDWA.

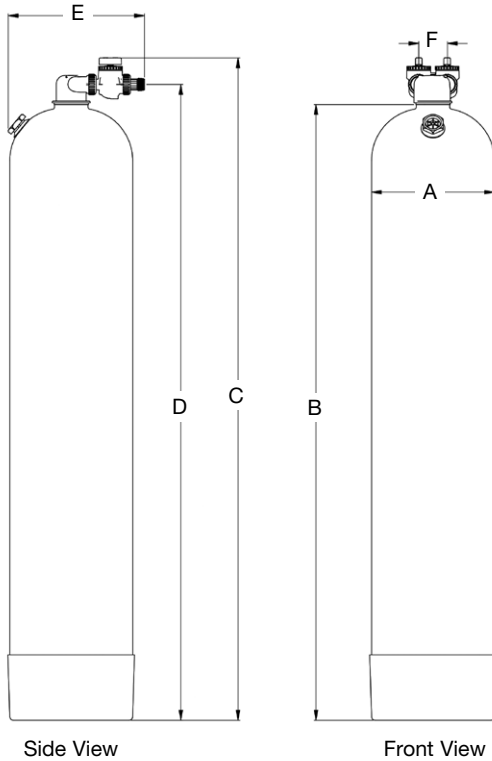
NOTICE

Water known to have heavy loads of dirt and debris may require pre-filtration prior to the E-Treat system.

NOTICE

Anytime E-Treat 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 inlet of the system.

Dimensions



WARNING

Using E-Treat Systems with Other Water Treatment Equipment

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

1. E-Treat must be the last stage in the treatment chain. Do not install any filters after E-Treat 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 E-Treat.
3. The addition of soaps, chemicals, or cleaners, before or after E-Treat 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. E-Treat 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 E-Treat treated water. Laundry and ware-washing chemistry will likewise require adjustments.

NOTICE

Spotting May Occur on External Plumbing Surfaces

E-Treat 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).

MODEL	DIMENSIONS											
	A		B		C		D		E		F	
	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
ETREATWCS	13	33	65	1651	73 ³ / ₈	1861	71	1803	14 ¹ / ₂	368	3	76

Peak Flow Rates — Weights

ETREATWCS		
*Maximum Flow	12 gpm	45 lpm
Dry Weight	90 lbs.	41 kgs.
Service Weight	326 lbs.	148 kgs.

*Exceeding maximum flow 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.

