

SECTION 5

E-Treat® Water Conditioning Systems



WATER QUALITY PRODUCTS
Catalog 10

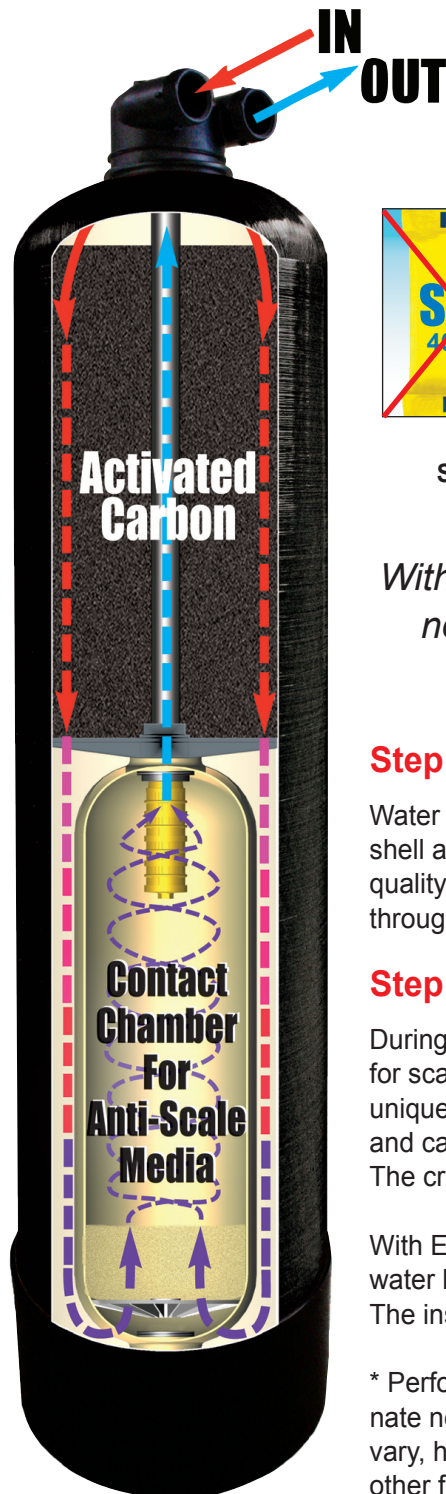
Watts product specifications in U.S. customary units and metric are approximate and are provided for reference only. Watts reserves the right to change or modify product design, construction, specifications or materials without prior notice and without incurring any obligation to make such changes and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

Watts E-Treat® Water Conditioning Systems

Good for the environment. Good for the planet. Good for you!

Conventional water softeners are generally considered the most effective and practical way to reduce water hardness and prevent scale formation in pipes and plumbing fixtures. Water softeners, however, require salt to regenerate, and

they must be backwashed periodically to rinse and refresh the ion exchange resin. Brine water discharge and the need to conserve water have challenged this conventional technology, and new methods to provide scale-free water are being considered.



Introducing The Environmentally Friendly Solution To Water Quality Improvement Problems!



NO SALT!



NO WASTED WATER!



NO SCALE!*



NO CHLORINE!



NO ELECTRICITY!

With E-Treat® Water Conditioning Systems, there's no salt, no backwash, no scale, no chlorine and no electricity!

Here's how it works:

Step #1 (Main Tank)

Water enters the system and flows down through a two cubic foot bed 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 & Contact Chamber)

During this process, water flows upward through the inner tank where treatment for scale prevention is provided using our highly effective, anti-scale media. This unique material transforms calcium *ions* into Calcium *crystals*, which are stable and cannot attach to pipes, surfaces, hardware or heat exchanger components. The crystals are so small they are easily rinsed away by the water flow!

With E-Treat®, there is no scale on plumbing fixtures, no costly repairs to hot water heaters due to scale, no salt, no brine tank and no electrical control valve. The installation is easy because only a simple "in and out" valve is required.

* Performance testing proves E-Treat® Water Conditioning Systems virtually eliminate new scale formation and aids in the removal of existing scale. Results may vary, however, and performance is based on water hardness levels, flow rate and other factors.

Model # ETREATWCS

E-Treat® Water Conditioning Systems



Calcium scale in pipes and plumbing equipment results in high energy costs and may lead to expensive repairs to appliances, such as hot water heaters, ice machines, coffee makers and dishwashers. Scale can also be a source for bacteria to grow, which may become a health concern in drinking water applications.



Anti-Scale Media

On the other hand, Calcium is important to human health, and supplements are recommended if Calcium is reduced or totally void in one's diet.



Installation

E-Treat® Water Conditioning Systems are typically installed where water enters the house for whole house water treatment. pipe connections are 1".

Media And Carbon Replacement

E-Treat® Water Conditioning Systems with scale control media are designed to provide whole house water conditioning for up to five years, based on hardness and chlorine levels before the scale control media must be replaced.

We recommend replacement of the activated carbon every two years, for optimum performance. A dome hole is provided for this extraction.

Our trained water quality improvement dealer in your area can complete the media and carbon replacement procedure.

Specifications (Model # ETREATWCS)

Maximum flow rate	12 gallons per minute
Maximum temperature	120°F (60°C)
Minimum temperature	40°F (4°C)
Maximum hardness	Sizing is based on maximum hardness of 25 grains per gallon.
pH range	6 to 9
Pressure	Maximum pressure is 125 psi; 8.75 bar (minimum pressure is 20 psi 1.4 bar).
Tank sizes	Outer tank is 13" x 65". Inner tank is 9" x 30" (outer tank is black).
Flow pattern	In the outer tank the flow is downward. In the inner tank the flow is up-flow.
Certification	Anti-scale media is NSF Standard 61 Certified for material safety.
By-Pass Valve	By-pass valve is included.
Capacity	System comes with 2 cu. ft. of coconut shell carbon and 4 liters of anti-scale media.

NOTE: Do not use where water is microbiologically unsafe or with water of unknown quality without adequate disinfection before or after the unit. System must be maintained according to manufacturer's instructions. Pre-treatment for sediment, Iron, Hydrogen Sulfide, Manganese, hydrocarbons and copper may be required depending on conditions. Install systems in new homes with copper pipe after six weeks of water use.



Water Conditioning System Installation

INSTALLATION INSTRUCTIONS:

1. Place system on a smooth flat surface.
2. Install the fittings and / or the bypass (see separate instructions).
Slide the nut on first then the split ring and o-ring.
3. Connect incoming cold water to the inlet of the system.
4. Connect system outlet to service water of the house.
5. Open the nearest valve down stream of the system to allow the air to purge from the system, and allow the initial carbon fines to go down the drain.
6. Remove the dome hole plug.
7. Slowly open inlet valve and allow the system to fill with water.
8. Watch the water level through the dome hole opening. Close the inlet valve and reinstall the dome hole plug once the tank is full of water.
9. Fully open the inlet valve and allow water to run to drain until it is clear.
This flushes the carbon fines from the system.
10. Close the down stream valve five minutes after the water runs clear.
11. Check for leaks and repair as required.
12. System is ready for use.

CONDITIONS OF OPERATION & RECOMMENDATIONS:

- A five-micron pre-filter is recommended if sediment is present in the water
- Maximum continuous flow rate 12 gpm
- Minimum pressure 15 PSI
- Maximum pressure 125 PSI
- Minimum operating temperature 34 F
- Maximum operating temperature 120 F
- Water pH range 6.0 to 9.0
- Maximum feed water hardness is 25 grains per gallon.
- Hydrogen sulfide, iron, and manganese pretreatment required
- Maximum chlorine 4 ppm
- Oil and grease should not be present

NOTE: Failure to install the proper pretreatment will cause the scale control media to be ineffective.



IMPORTANT

The non-electric, "in / out" valve used with E-Treat Systems is designed to be used in both up-flow and down-flow installations. E-Treat Systems are down-flow through the bed of carbon and up-flow through the anti-scale media. Labels are provided; however facing the valve, looking directly into the ports of the valve, the inlet is on the LEFT.

Note: Do not use where water is microbiologically unsafe or with water of unknown quality without adequate disinfection before or after the unit. System must be maintained according to manufacturer's instructions. Pre-treatment for sediment, Iron, Hydrogen Sulfide, Manganese, hydrocarbons and copper may be required depending on conditions. Install systems in new homes with copper pipe after six weeks of water use.

Watts E-Treat® Anti-Scale Systems



The problem

Calcium creates scale in pipes, on appliances and other plumbing surfaces. This leads to higher heating and energy costs and expensive repairs to appliances, such as ice machines, coffee makers, dishwashers and cooling towers in commercial buildings.

Scale can also be a source for bacteria to grow, which can be a health concern in drinking water applications.

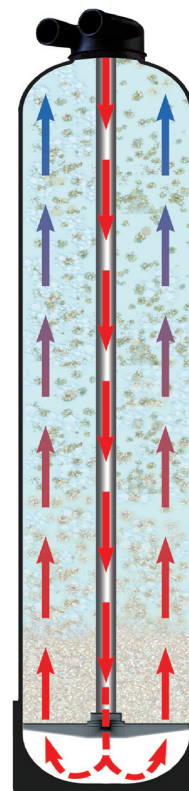
Calcium, on the other hand, is important to human health, and supplements are recommended if Calcium is reduced or totally void in one's diet.

The solution

Watts E-Treat® Scale Control Systems transform Calcium *ions* into Calcium *crystals*, which are stable and can't attach to pipes, surfaces, hardware or heat exchanger components. The crystals are so small they are easily rinsed away by the water flow

Benefits

- Scale is virtually eliminated!
- Aids in removing existing scale.
- No costly repairs to appliances due to scale.
- No salt.
- No brine tank.
- No backwash.
- Saves water!
- No electricity.
- Easy installation.

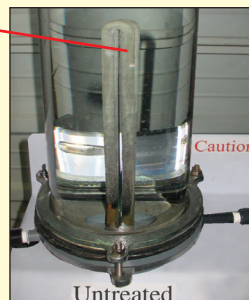


Proven results!

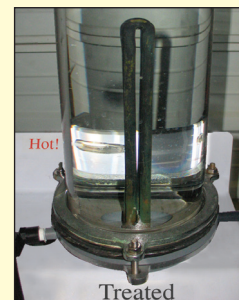
Lab tests conducted at the Watts test facility indicate Watts® Scale Control Media virtually eliminates new scale formation and aids in the removal of existing scale. Tests were conducted in water temperatures to 180°F and hardness levels of 17 grains per gallon.

Note: For satisfactory results recommended flow rates and model sizing must be followed.

SCALE



Scale Build-Up
(In untreated water).



No Scale!
(With Scale Control treatment).

Residential models

PART NUMBER	TANK SIZE (IN.)	TANK TYPE	PIPE SIZE (IN.)	MEDIA LITERS	GRAVEL LBS.	SERVICE FLOW GPM	FLOOR SPACE L X W X H (IN.)	SHIP WT. (LBS)
M8408-RES	8x35	Vortech	1"	3.5	NA	10	11x11x42	30
M8409-RES	9x35	Vortech	1"	4	NA	12	12x12x42	32
M8410-RES	10x54	Vortech	1"	4.5	NA	15	13x13x61	37
M8412-RES	12x52	Vortech	1"	6.5	NA	20	15x15x59	45
M8413-RES	13x54	Vortech	1"	7.5	NA	25	15x15x61	51

Note: By-pass valves are optional. KC11V3006 is optional by-pass valve for 1" systems. Maximum hardness is 25 grains per gallon at specified flow rates. Do not use where water is microbiologically unsafe or with water of unknown quality without adequate disinfection before or after the unit. System must be maintained according to manufacturer's instructions. Pre-treatment for sediment, Iron, Hydrogen Sulfide, Manganese, hydrocarbons and copper may be required depending on conditions. Install systems in new homes with copper pipe after six weeks of water use.

E-Treat® Water Conditioning Systems

E-Treat[®] Anti-Scale System Installation

The flow thru the Anti-Scale System is upward. Therefore, the inlet and outlet connections are opposite of traditional water treatment equipment.

The flow rate must not exceed the maximum specified flow rate of the system. A flow control device will be required for applications where flow rates may exceed the maximum specified flow rate.

Part Number	Tank Size	Pipe Size	Max Service Flow
M8408-RES	8x35	1"	10 gpm
M8409-RES	9x35	1"	12 gpm
M8410-RES	10x54	1"	15 gpm
M8412-RES	12x52	1"	20 gpm
M8413-RES	13x54	1"	25 gpm

Installation Instructions:

1. Place system on a smooth flat surface.
2. Install the fittings and / or the bypass (see separate instructions). Slide the nut on first then the split ring and o-ring.
3. Connect incoming cold water to the inlet of the system.
4. Connect system outlet to service water of the house.
5. Partially open a valve down stream of the system to allow the air to purge from the system.
6. Slowly open inlet valve and allow the system to fill with water.
7. Close the down stream valve five minutes after all the air has been purged from the system and plumbing. This flushes any fines out of the system.
8. Check for leaks and repair as required.
9. System is ready for use.

Conditions for Operation:

- Minimum pressure 15 PSI
- Maximum pressure 125 PSI
- Minimum operating temperature 34 F
- Maximum operating temperature 120 F
- Water pH range 6.0 to 9.0
- Maximum feed water hardness is 25 grains per gallon.
- Maximum chlorine 3 ppm, de-chlorination recommended
- Oil and grease should not be present
- Warning - Do not exceed specified flow rates
- Residential systems are designed for intermittent flow
- For continuous flow use commercial systems



Top view with optional bypass

Note: Do not use where water is microbiologically unsafe or with water of unknown quality without adequate disinfection before or after the unit. System must be maintained according to manufacturer's instructions. Pre-treatment for sediment, Iron, Hydrogen Sulfide, Manganese, hydrocarbons and copper may be required depending on conditions. Install systems in new homes with copper pipe after six weeks of water use.

E-Treat® WATER CONDITIONING SYSTEMS - LIMITED WARRANTY

Watts Water Quality & Conditioning Products warrants its E-Treat® tank systems as follows:

- Tanks having diameters of 6" to 12" are warranted to be free of defects in materials and workmanship for 10 years from the date of original installation or 123 months from date of original shipment, whichever comes first.
- The head is warranted to be free of defects in materials and workmanship for 5 years from date of original installation or 63 months from date of original shipment, whichever comes first.
- The E-Treat® media is warranted for performance for a period of 2 years from the date of the original installation or 27 months from date of original shipment, whichever comes first, when installed and operated in accordance with the instructions in the corresponding Installation and Operation Manual.

Watts Water Quality & Conditioning Products warrants its E-Treat® cartridge systems as follows:

- The E-Treat® cartridge system is warranted to be free of defects in materials and workmanship for 1 year from the date of original installation or 15 months from the date of original shipment, whichever comes first.
- E-Treat® 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 E-Treat® system must be installed and serviced by an authorized Watts Water Quality & Conditioning Products dealer, or other entity approved by Watts.
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 that does not exceed the specification of the system.
4. Equipment is limited to use at water pressures not to exceed 100psi and temperatures not to exceed 110 degrees F.
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. Water supply must not exceed 0.3 mg/l iron, 0.05 mg/l manganese, 1.3 mg/l copper, oil/hydrogen sulfide/phosphates none allowed. Copper usually originates from new copper plumbing. We recommend six weeks of use prior to placing the E-Treat® systems in service. For water supply exceeding these limitations, pretreatment is required. (Please contact your water treatment specialist.)
7. Information, including model number, serial number, and date of installation, must be provided for any claims pertaining to equipment in warranty.
8. Defective parts are subject to inspection by either Watts Water Quality & Conditioning Products or any authorized representative before final commitment of warranty adjustment is made.
9. Watts Water Quality & Conditioning Products reserves the right to make changes or substitutions in parts or equipment with material of equal quality or value and of then current production.
10. This warranty shall not apply to any E-Treat® system installed or used for commercial applications. For purposes of this warranty, a commercial application is an application for a building with 4 or more dwelling units or any application when water is to be commercially used.

Limitations

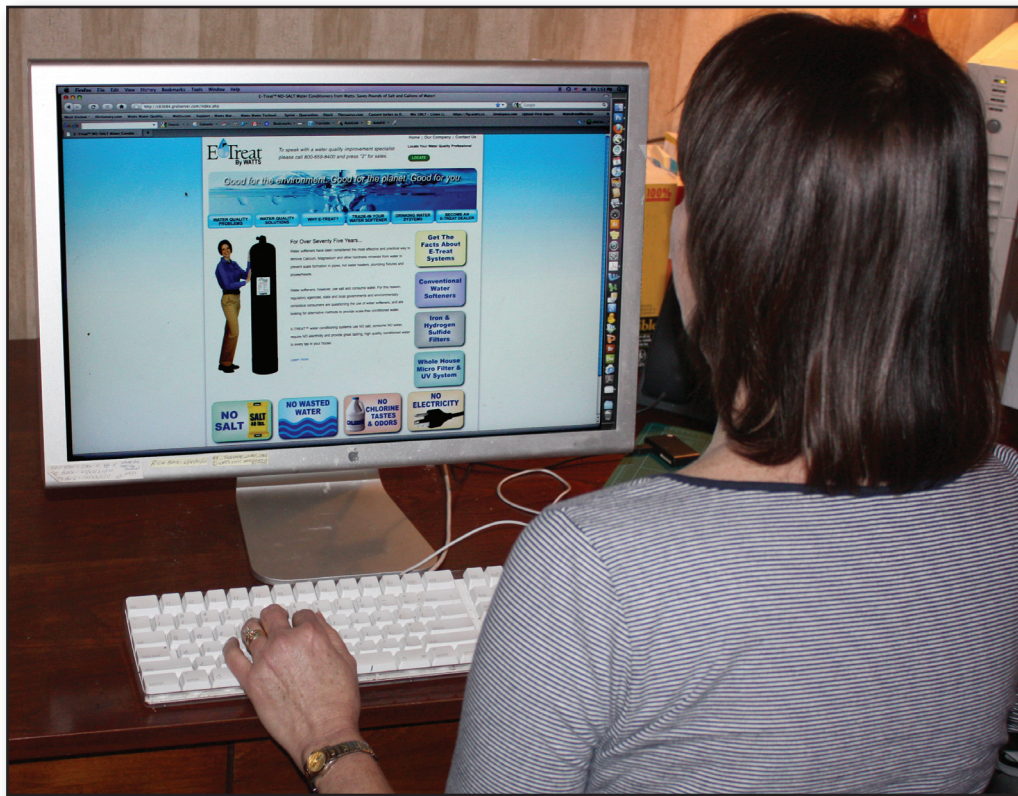
Our obligation under this warranty with respect to the tank or valve is limited to furnishing a replacement for, or at our option, repairing any part or parts to our satisfaction that prove defective within the warranty period stated above. Such replacement parts will be delivered to the owner F.O.B.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

Our obligation under this warranty with respect to the E-Treat® 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 WATTS WATER QUALITY & CONDITIONING PRODUCTS WITH RESPECT TO THE PRODUCT. WATTS WATER QUALITY & CONDITIONING PRODUCTS MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED. WATTS WATER QUALITY & CONDITIONING PRODUCTS 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 Watts Water Quality & Conditioning Products 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 Watts Water Quality & Conditioning Products 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.



Have you visited www.etreatwater.com yet?

If not, you owe it to yourself to visit our new interactive web site to learn more about E-Treat® Water Conditioning Systems and E-Treat® Drinking Water Systems.

The "green movement" is sweeping the planet and "sustainability" is of great interest to people everywhere. Watts gives you the opportunity to market new technology, offering features and benefits consumers want, need and are willing to pay for . . . without cutting your price!

Please be sure to navigate through the site, page by page, and learn about our exciting new products.

Check it out today!

www.etreatwater.com