A WATTS Brand

Technical Data Sheet

AquaSolve™

The eco-friendly solution to hard water.

Models M8407-COM, M8408-COM, M8409-COM, M8410-COM, M8412-COM

M8407-COM M8408-COM M8409-COM M8410-COM M8412-COM

Flow Rates: 10 gpm to 30 gpm (38 lpm to 144 lpm)

The AquaSolve Scale Control System provides protection from scale formation on internal plumbing surfaces. The AquaSolve system may be installed at the point-of-entry to a building, 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.

AquaSolve 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.

AquaSolve 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 commercial applications. AquaSolve is the one water treatment device that effectively provides scale protection and is a great alternative to water softening (ion exchange) or scale sequestering chemicals.

Notes

The wetted surface of this product contacted by consumable water contains less than 0.25% of lead by weight. Maximum entering water temperature is 110°F.

Features

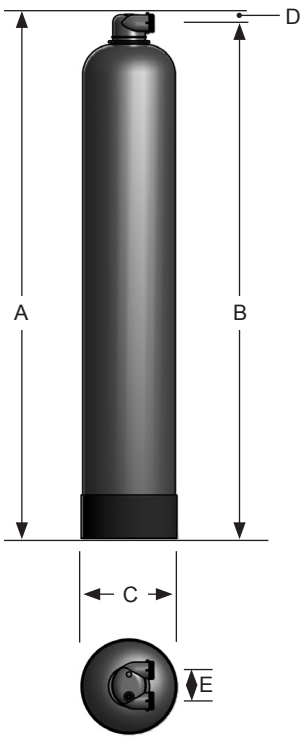
- Chemical free scale prevention and protection – converts hardness minerals to harmless, inactive microscopic crystals making AquaSolve an effective alternative technology to a water softener for the prevention of scale due to water hardness
- Virtually maintenance free – No salt bags or other chemicals to constantly add
- No control valve, no electricity and no wastewater
- Uses environmentally friendly “green” technology
- Improves efficiency of all water using appliances – both hot and cold
- Simple sizing and installation – all you need to know is pipe size and the peak flow rate
- Perfect system for areas where water softeners are banned or restricted
- AquaSolve does not remove minerals or add sodium to the water supply
- AquaSolve can be installed as a pre-treatment to reverse osmosis (AquaSolve should be the last stage in treatment unless a point-of-use system is being used downstream).

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.

Models

Model	Max Flow Rate	Connection Sizes
M8407-COM	10 gpm (38 lpm)	1" (25mm)
M8408-COM	12 gpm (45.4 lpm)	1" (25mm)
M8409-COM	16 gpm (60.8 lpm)	1" (25mm)
M8410-COM	20 gpm (76 lpm)	1¼" (32mm)
M8412-COM	30 gpm (114 lpm)	1¼" (32mm)



Connections

1" and 1¼" Plastic MPT (25 and 32mm)
A flexible connection is recommended between the AquaSolve and rigid building piping.

Replacement Media

Model	Timing
M8407-COM-RM	Media should be replaced every 3 years
M8408-COM-RM	Media should be replaced every 3 years
M8409-COM-RM	Media should be replaced every 3 years
M8410-COM-RM	Media should be replaced every 3 years
M8412-COM-RM	Media should be replaced every 3 years

Dimensions

Model	A		B		C		D		E	
	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
M8407-COM	48½	1232	46	1168	7	178	2½	64	3	76
M8408-COM	48½	1232	46	1168	8	203	2½	64	3	76
M8409-COM	52½	1334	48	1219	9	229	2½	64	3	76
M8410-COM	59½	1511	57	1448	10	254	2½	64	3	76
M8412-COM	56½	1435	54	1372	12	305	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 – Pressure Drop

	M8407-COM		M8408-COM		M8409-COM		M8410-COM		M8412-COM	
Maximum Flow	10 gpm	37.8 lpm	12 gpm	45.4 lpm	16 gpm	60.6 lpm	20 gpm	75.7 lpm	30 gpm	113.6 lpm
Dry Weight	22 lbs.	10.0 kgs.	25 lbs.	11.3 kgs.	29 lbs.	13.2 kgs.	35 lbs.	15.9 kgs.	43 lbs.	19.5 kgs.
Service Weight	80 lbs.	36.3 kgs.	97 lbs.	44.0 kgs.	129 lbs.	58.5 kgs.	168 lbs.	76.2 kgs.	235 lbs.	106.6 kgs.
Pressure Drop @ Full Rate	2 psi		2.5 psi		4.5 psi		7.1 psi		16 psi	

Exceeding maximum flow can reduce effectiveness and void warranty.

Feed Water Chemistry Requirements

pH	6.5-8.5
Hardness (maximum)	75 grains (1282 ppm CaCO3)
Water Pressure	15psi to 100psi (1.03 bar to 6.9 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 ScaleNet
Silica (maximum)	20 ppm

AquaSolve media does not reduce silica scaling. Silica 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.

*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 AquaSolve media.
For applications with copper concentration greater than 1.3 ppm, please consult PVI 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.

Notes

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

Not for use on closed loop systems.

Specifications

A AquaSolve scale control 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 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.

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