

## Champion ION SCALE PREVENTION SYSTEMS



### WATER FLOW SIZING

Note that the most important key to ION by Champion's documented reliable performance is in easily choosing the correct size, which is based simply and only on the gallons per minute (GPM or LPM) rate of water flow. The water flow may start and stop as required. However, when the water is flowing, it needs to be in the range of the model selected.

### Sizing/Pricing

Stainless Steel Housing			Specifications		
Model	Water Flow Range GPM	Water Flow Range LPM	Length (in")	Diameter (in")	Wt. (lbs)
116234	0.1 to 1.32	0.4 to 5.0	6.48	0.88	0.80
115683	0.4 to 2.76	1.5 to 10.4	7.00	1.25	2.00
115661	2.2 to 5.64	8.3 to 21.36	7.77	1.50	2.20
116235	4.3 to 9.0	16.0 to 33.6	8.97	1.75	3.40
115684	7.3 to 19.2	28.0 to 73.2	12.58	2.25	7.60
115685	15.0 to 42.0	57.0 to 158.4	25.375	3	26
115686	36.0 to 63.6	136 to 241.2	24.75	3.5	34



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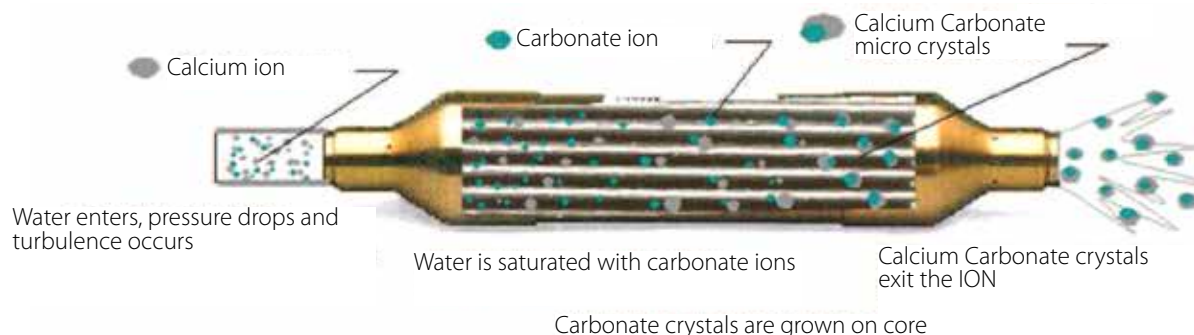
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## Champion Machine Cross Reference for the ION Scale Preventor

Model	Water Line	Filter Model	Water Line	Filter Model
<b>Undercounter Machines</b>				
UL-130	Fill/Final Rinse	116234		
UH-130B	Fill/Final Rinse	116234		
UH-230B	Fill/Final Rinse	116234		
UH-330B	Fill/Final Rinse	116234		
CG	Fill/Hot	116234	Cold/Final Rinse	116234
CG4	Fill/Hot	116234	Cold/Final Rinse	116234
CG6	Fill/Hot	116234	Cold/Final Rinse	116234
<b>Door Machines</b>				
DL-2000	Fill/Final Rinse	116234		
DH-2000	Fill/Final Rinse	116234		
DH-6000	Fill/Final Rinse	116234		
DH-6000-VHR			Fill/Final Rinse	116234
DH-6000T	Fill/Final Rinse	116234		
DH-6000T-VHR			Fill/Final Rinse	116234
<b>Rack Conveyors</b>				
44 PRO	Fill/Final Rinse	115683		
44DR	Fill/Final Rinse	115683	Cold/HR	115683
54DR	Fill/Final Rinse	115683	Cold/HR	115683
64	Fill/Final Rinse	115683	Cold/HR	115683
84	Fill/Final Rinse	115683	Cold/HR	115683
<b>Flight Conveyors</b>				
EUCC4	Fill	115661	Final Rinse	116234
EUCC6	Fill	115661	Final Rinse	116234
EUCC8	Fill	115661	Final Rinse	116234
EUCCW4/6/8	Fill	115661	Final Rinse	116234

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## How ION Technology Works

Upon entering an ION, water experiences a pressure drop and turbulent flow. This causes dissolved carbon dioxide (CO<sub>2</sub>) to become a gas in the water (much like bubbles in carbonated water).

The pressure drop changes the chemical characteristics of the water, producing a "saturated" condition with respect to calcium carbonate. This means the water in the ION is ready to precipitate or grow crystals of calcium carbonate (calcite). Calcium carbonate is commonly called "scale."

As the saturated water travels over the core in the ION housing, the core promotes the nucleation or growth of scale crystals. However, the force of the water passing through the ION continually keeps the core free of scale. The crystals are then carried out of the unit suspended in water.

The benefit comes as the ION treated water passes through applications such as cooling towers, ice and coffee machines, humidifiers, misting systems, evaporative coolers, or any system that uses water. At locations where scale would ordinarily grow on equipment surfaces, the scale now grows on the scale crystals grown within the ION (because the crystals that were generated within the ION function as alternative growth surfaces). This process can also attract and eliminate scale that was present in the equipment before the ION was installed.

In essence, ION takes existing total dissolved solids (TDS) and, through the processes of epitaxial nucleation and lattice matching, converts a portion of the TDS to suspended solids. That portion of the TDS that is converted to suspended solids protects the equipment from the growth of scale. The crystals stay suspended within the system and are discharged when the water exits the system.

The equipment stays clean and the scale goes down the drain. ION works with nature to prevent scale from growing on your equipment.

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## Sizing assistance

For non-Champion other warewashing equipment, consult the factory.

For out-of-production warewashing or non-warewashing equipment, please contact the factory for proper sizing.

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