



December 3, 2008

RAINSOFT
AQUION WATER TREATMENT PRODUCTS
YE LIU
2080 E. LUNT
ELK GROVE VILLAGE IL 60007

Re: Description: WATER TREATMENT DEVICE- SOFTENER
Manufacturer: RAINSOFT
Product Name: RAINSOFT EC4 SERIES (POE)
Model Number(s): TC 50 CT, TC 50 T, TC 50 CT, TC 50 T, TC 60S CT, TC 60S T, TC 60SS CT,
TC 60SS T, TC 60SS CT, TC CAB60SS T, TC CAB60S CT, TC CAB60S T,
TC CAB60 CT, TC CAB60 T TC CAB60 CT, TC CAB60 T, TC 75 CT, TC 75 T,
TC 75 CT, TC 75 T, TC 100 CT, TC 100 T, TC 100S CT, TC 100S T,
TC 100 CT, TC 100 T, TC 100S CT, TC 100S T, TC 100 CT, TC 100 T,
TC 100 CT, TC 100 T, TC 150 CT, TC 150 T, TC 150 CT, TC 150 T, TC 250 CT,
TC 250 T, TC 250 CT, TC 250 T, TC 400 CT, TC 400 T, TC 400 CT AND
TC 400 T (POE)
Product File No: 20080525

The specifications and/or plans for this plumbing product have been reviewed and determined to be in compliance with chapters Comm 82 through 84, Wisconsin Administrative Code, and Chapters 145 and 160, Wisconsin Statutes.

The Department hereby issues an approval based on the Wisconsin Statutes and the Wisconsin Administrative Code. This approval is valid until the end of December 2013.

This approval supersedes the approval issued on May 8, 2006 under product file number 20060046.

This approval is contingent upon compliance with the following stipulation(s):

- This product has undergone sufficient testing to document the product's ability to reduce only those contaminants and/or substances as specified in this approval letter when the product is installed and maintained in strict accordance with the manufacturers published instructions.
- Where the Department of Natural Resources (DNR) has jurisdiction, a written approval may be required prior to installation of this product in a water supply system to reduce the concentration of a contaminant that exceeds the primary drinking water standards contained in ch. NR 809, Wis. Admin. Code, the enforcement standards contained in ch. NR 140, Wis. Admin. Code, or for a water supply system that is subject to a written advisory opinion by the DNR. For more information contact the DNR Section of Private Water Systems, P.O. Box 7921, Madison, WI 53707, telephone (608) 266-3415.
- If these approved devices are modified or additional assertions of function or performance are made, then this approval shall be considered null and void, unless the change is submitted to the department for review and the approval is reaffirmed.
- These cation exchange water softeners shall be sized, installed, programmed and maintained such that wastewater volumes, total dissolved solids and chloride discharges are minimized.

➤ At the time of installation, these devices shall be provided with an effective means to warn the users when they are not performing their function. This shall be accomplished by one of the following:

1. sounding and alarm or flashing a light, each connected to an acceptable power source;
2. providing a sampling kit for analysis of hardness or other appropriate contaminants; or
3. providing a hardness monitor.

Based on testing data submitted to and reviewed by the department, this approval recognizes that these plumbing products will reduce the concentration of contaminants as specified on pages 1 through 3 of this letter.

**WATER SOFTENING CAPABILITIES
 PRODUCT FILE NUMBER 20080525
 TABLE 1 OF 1**

Model Numbers	Capacity*						Flow Rate
	Rating 1		Rating 2		Rating 3		
Apollo Series	Grains	Pounds	Grains	Pounds	Grains	Pounds	gpm @ psig
Metered							
TC 50 T	5,900	2.0	8,800	5.0	10,700	7.5	10.0 @ 13
TC 50 CT	5,900	2.0	8,800	5.0	10,700	7.5	10.0 @ 13
TC 60SS T	4,300	2.0	7,700	6.0	8,800	9.0	12.0 @ 15
TC 60SS CT	4,300	2.0	7,700	6.0	8,800	9.0	12.0 @ 15
TC 60 T	7,100	2.4	10,600	6.0	12,800	9.0	10.0 @ 10
TC 60 CT	7,100	2.4	10,600	6.0	12,800	9.0	10.0 @ 10
TC 60S T	4,300	2.0	7,700	6.0	8,800	9.0	12.0 @ 15
TC 60S CT	4,300	2.0	7,700	6.0	8,800	9.0	12.0 @ 15
TC 75 T	8,800	3.0	13,300	7.5	16,000	11.2	10.0 @ 10
TC 75 CT	8,800	3.0	13,300	7.5	16,000	11.2	10.0 @ 10
TC 100 T	12,200	3.0	21,100	10.0	24,400	15.0	10.0 @ 10
TC 100 CT	12,200	3.0	21,100	10.0	24,400	15.0	10.0 @ 10
TC 100 T	11,500	3.0	20,000	10.0	23,100	15.0	10.0 @ 10
TC 100 CT	11,500	3.0	20,000	10.0	23,100	15.0	10.0 @ 10
TC 100S T	11,500	3.0	20,000	10.0	23,100	15.0	10.0 @ 10
TC 100S CT	11,500	3.0	20,000	10.0	23,100	15.0	10.0 @ 10
TC 150 T	18,300	4.5	31,700	15.0	36,700	22.5	10.7 @ 13
TC 150 CT	18,300	4.5	31,700	15.0	36,700	22.5	10.7 @ 13
TC 250 T	30,400	7.5	52,800	25.0	61,100	37.5	12.0 @ 14
TC 250 CT	30,400	7.5	52,800	25.0	61,100	37.5	12.0 @ 14
TC 400 T	48,700	12.0	84,500	40.0	97,800	60.0	12.1 @ 15
TC 400 CT	48,700	12.0	84,500	40.0	97,800	60.0	12.1 @ 15

* The softener capacity rating is based on grains of hardness, due to calcium and magnesium cations, removed (as calcium carbonate) while producing soft water between successive regenerations and is related to the pounds of salt required for each regeneration. The tests run to generate the data for table 1 were conducted in accordance with Water Quality Association Standard S-100. Studies conducted on sulfonated poly-styrene di-vinyl benzene (SSDVBC) cation exchange media have documented that if hardness is reduced to less than 1.0 grain per gallon (17.1 mg/l), then barium and radium will also be effectively reduced. Thus, the capacity of these device for reducing barium and/or radium are based on the hardness reduction capacity ratings displayed above.

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This device was tested under controlled laboratory, or field, conditions. The actual performance of this device for a specific end use installation will vary from the tested conditions based on local factors such as water pressure, water temperature and water chemistry.

The department is in no way endorsing this product or any advertising, and is not responsible for any situation which may result from its use.

Sincerely,

Glen W. Schlueter
Engineering Consultant-Plumbing Product Reviewer
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Safety and Buildings Division
Department of Commerce
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GWS:gws