



November 27, 2013

AQUION INCORPORATED
BIBHA DAHAL
101 S. GARY AVENUE
ROSELLE IL 60172

Re: Description: WATER TREATMENT DEVICE - POE SOFTENER
Manufacturer: AQUION INCORPORATED
Product Name: RAINSOFT TC-V SERIES
Model Number(s): TC 50V, TC 50CV, TC 50V, TC 50CV, TC 60SV, TC 60SCV, TC 60SV, TC 60SCV,
TC CAB 60SSV, TC CAB 60SSCV, TC 60SSV, TC 60SSCV, TC CAB 60V, TC CAB 60CV,
TC 60V, TC 60CV, TC 75V, TC 75CV, TC 75V, TC 75CV, TC 100V, TC 100CV,
TC CAB 100V, TC CAB 100CV, TC 100V, TC 100CV, TC 100V, TC 100CV, TC 100V,
TC 100CV, TC 100V, TC 100CV, TC 150V, TC 150CV, TC 150V, TC 150CV, TC 250V,
TC 250CV, TC 250V, TC 250CV, TC 400V, TC 400CV, TC 400V AND TC 400CV ALL
USING "V" RESIN
Product File No: 20130322

The specifications and/or plans for this plumbing product have been reviewed and determined to be in compliance with chapters SPS 382 through 384, 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 November 2018. This approval supersedes the approval issued on December 3, 2008 under product file number 20080524. 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 manufacturer's 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) 267-9787.
- 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 2 of this letter.

**WATER SOFTENING CAPABILITIES
 PRODUCT FILE NUMBER 20130322
 TABLE 1 OF 1**

Model Numbers		Capacity*						Flow Rate vs. Pressure Loss
Amazon Series		Rating 1		Rating 2		Rating 3		
Gold Series (metered)	Silver Series (time clock)	Grains	Pounds	Grains	Pounds	Grains	Pounds	gpm @ psig
TC 50 V	TC 50 V	7,550	2.0	14,400	5.0	17,000	7.5	10.0 @ 12.0
TC 50 CV	TC 50 CV	7,550	2.0	14,400	5.0	17,000	7.5	10.0 @ 15.0
TC 60SS V	TC 60SS V	8,020	2.0	14,500	6.0	16,500	9.0	12.0 @ 14.0
TC 60SS CV	TC 60SS CV	8,020	2.0	14,500	6.0	16,500	9.0	11.0 @ 15.0
TC 60 V	TC 60 V	8,020	2.0	14,500	6.0	16,500	9.0	12.0 @ 14.0
TC 60 CV	TC 60 CV	8,020	2.0	14,500	6.0	16,500	9.0	12.0 @ 15.0
TC 60S V	TC 60S V	8,020	2.0	14,500	6.0	16,500	9.0	12.0 @ 14.0
TC 60S CV	TC 60S CV	8,020	2.0	14,500	6.0	16,500	9.0	11.0 @ 15.0
TC 75 V	TC 75 V	8,020	2.0	21,500	7.5	25,800	11.0	10.0 @ 14.0
TC 75 CV	TC 75 CV	8,020	2.0	21,500	7.5	25,800	11.0	8.8 @ 15.0
TC 100 V	TC 100 V	10,430	2.5	25,450	10.0	29,400	15.0	10.0 @ 10.0
TC 100 CV	TC 100 CV	10,430	2.5	25,450	10.0	29,400	15.0	10.0 @ 14.0
TC 100 V	TC 100 V	10,010	2.5	24,400	10.0	28,200	15.0	9.5 @ 8.0
TC 100 CV	TC 100 CV	10,010	2.5	24,400	10.0	28,200	15.0	10.0 @ 14.0
TC 100S V	TC 100S V	10,010	2.5	24,400	10.0	28,200	15.0	9.5 @ 8.0
TC 100S CV	TC 100S CV	10,010	2.5	24,400	10.0	28,200	15.0	10.0 @ 12.0
TC 150 V	TC 150 V	15,600	3.8	38,200	15.0	44,000	22.5	11.0 @ 13.0
TC 150 CV	TC 150 CV	15,600	3.8	38,200	15.0	44,000	22.5	9.0 @ 15.0
TC 250 V	TC 250 V	26,100	6.2	63,600	25.0	73,400	37.5	12.0 @ 14.0
TC 250 CV	TC 250 CV	26,100	6.2	63,600	25.0	73,400	37.5	11.0 @ 15.0
TC 400 V	TC 400 V	41,700	10.0	101,800	40.0	117,500	60.0	13.5 @ 15.0
TC 400 CV	TC 400 CV	41,700	10.0	101,800	40.0	117,500	60.0	10.6 @ 15.0

* 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.

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
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 Bureau of Technical Services
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