

# Multi-Tank Water Softeners



## Standard Features

- High Flow Control Valves thru 3" – Flow Rates 700+ gpm
- Up to 1.2 Million Grain Tank Capacity per Tank
- Maximum Operating Pressure – 125 psi/110° F
- Fleck™ Top-mount Control Valves
- Electronic Meter Regeneration
- Duplex – Alternating Tank Operation
- Triplex – Progressive Flow Operation
- Premium Cation Resin – 30K grains/cu.ft.
- No Hard Water Bypass
- Brine Tank – HDPE material, Salt Grid Plate or Gravel Underbed, Safety Brine Valve (30" & smaller diameter), Air Check and Overflow
- All Wetted Components are NSF Approved

## Options

- Clean Water Backwash
- Electro-Mechanical Control Valve
- Steel and ASME Rated Pressure Vessels
- Mechanical Flow Meter
- Side-mount Control Valves
- Flow Management with Motorized Ball Valves or Staged Diaphragm Valves
- Water Quality Monitor Initiated Regeneration
- High Capacity Resin
- Clack™ Control Valves

## Typical Use:

- Boiler Feed
- Hospitals
- Large Schools and Universities
- Industrial Pre-treatment
- Hotels/Motels
- Apartments/Condos
- Nursing Home/ Assisted Living
- Laundry Facilities
- Food Service
- Corporate Park

Automatically reduce hardness (calcium/magnesium) and dissolved iron/ manganese along with their unpleasant side-effects. Only the highest quality resin, controls and materials are used in CSI Commercial Water Softeners. Our motor-driven piston control valve is the most reliable under even severe water conditions and resists common adversaries such as hardness and iron. Meanwhile, our hub and lateral style or Vortech™ distribution system within the corrosion resistant tanks maximize flow while reducing pressure loss through the units. Designed for use in commercial, industrial or domestic water applications.

As we remain **Committed to Innovation**, **CSI** provides the design and engineering support to ensure the most effective treatment solution for each installation. For a stand-alone installation or a new construction project, replace or integrate new equipment into an existing process, we have the proper system options available to meet your needs.

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# Product Specifications

## Commercial Multi-Tank Softeners

MODEL NUMBER	Service GPM		Peak	Backwash	Pipe Size NPT		Grains Exch Cap @ # Salt Maximum Minimum	Resin Tank			Brine Tank			Overall Ht
	15 PSI LOSS	8 PSI LOSS	25 PSI LOSS	Flow GPM	Ctrl Valve Conn Size	Drain Line		Resin Vol. cf / tank	Softener DIA x HT	Qty tanks	Brine DIA x HT	Salt # \ tank	Qty tanks	
CAT60-10	18	13	23	2) 5	1"	1/2"	60,000 GR @ 30 # 40,000 GR @ 12 #	2 cf	14" x 65"	2	18" x 40"	300#	1	72"
CAT60-15	28	20	40	2) 5	1 1/2"	1"							1	73"
CAT90-10	17	12	22	2) 5	1"	1/2"	90,000 GR @ 45 # 60,000 GR @ 18 #	3 cf	14" x 65"	2	18" x 40"	300#	1	73"
CAT90-15	27	19	37	2) 5	1 1/2"	1"							1	73"
CAT120-10	17	12	24	2) 7	1"	1/2"	120,000 GR @ 60 # 80,000 GR @ 24 #	4 cf	16" x 65"	2	24" x 50"	700#	1	72"
CAT120-15	29	21	40	2) 7	1 1/2"	1"							1	72"
CAT120-20NT	46	34	63	2) 7	2"	1"							2	77"
CAT150-15	33	24	44	2) 10	1 1/2"	1"	150,000 GR @ 75 # 100,000 GR @ 30 #	5 cf	18" x 65"	2	24" x 50"	700#	1	75"
CAT150-20NT	50	37	66	2) 10	2"	1"							2	80"
CAT210-15NT	35	25	45	2) 12	1 1/2"	1"	210,000 GR @ 105 # 140,000 GR @ 42 #	7 cf	21" x 62"	2	24" x 50"	700#	1	75"
CAT210-20NT	59	43	76	2) 12	2"	1"							2	79"
CAT300-20NT	66	48	89	2) 15	2"	1"	300,000 GR @ 150 # 200,000 GR @ 60 #	10 cf	24" x 72"	2	30" x 50"	1000#	2	87"
CMS300-203QDNT	132	96	178	3) 15	2"	1"				3			87"	
CAT450-20NT	81	59	101	2) 25	2"	1"	450,000 GR @ 225 # 300,000 GR @ 90 #	15 cf	30" x 72"	2	30" x 50"	1000#	2	95"
CAT450-30NT	151	110	201	2) 25	3"	2"				2			96"	
CMS450-203QDNT	162	118	202	3) 25	2"	1"				3			95"	
CMS450-303QDNT	302	220	402	3) 25	3"	2"				3			96"	
CMS450-304QDNT	453	330	603	4) 25	3"	2"				4			96"	
CAT600-20NT	86	63	106	2) 35	2"	1"				600,000 GR @ 300 # 400,000 GR @ 120 #			20 cf	36" x 72"
CAT600-30NT	176	129	236	2) 35	3"	2"	2	98"						
CMS600-203QDNT	172	126	212	3) 35	2"	1"	3	97"						
CMS600-303QDNT	352	258	472	3) 35	3"	2"	3	98"						
CMS600-304QDNT	528	387	708	4) 35	3"	2"	4	98"						
CAT900-30NT	186	136	248	2) 50	3"	2"	900,000 GR @ 450 # 600,000 GR @ 180 #	30 cf	42" x 72"		2	50" x 60"		
CMS900-303QDNT	372	272	496	3) 50	3"	2"				3	110"			
CMS900-304QDNT	558	408	744	4) 50	3"	2"				4	110"			
CAT1200-30NT	196	143	257	2) 70	3"	2"	1,200,000 GR @ 600 # 800,000 GR @ 240 #	40 cf	48" x 72"	2	50" x 60"	4100#	2	107"
CMS1200-303QDNT	392	286	514	3) 70	3"	2"				3			107"	
CMS1200-304QDNT	588	429	771	4) 70	3"	2"				4			107"	

### Duplex CAT-series - Twin Demand Alternating Tank Operation, 24v electronic timer and turbine meter

(One tank is in operation and one tank is in standby/regeneration at all times)

- 1" One Valve/One Meter with hard pipe connection to off-tank manifold
- 1-1/2" One Valve/One Meter with hard pipe connection to off-tank manifold
- 2" One Valve per Tank/One Meter per system with Electronic Interconnect
- 3" One Valve per Tank/One Meter per system with Electronic Interconnect

### Triplex/Quad - "QDNT" Progressive Flow Electronic Phased Operation, 24v electronic timer and turbine meter

Electronic timers on up to 4 softeners can be linked and programmed for optimal treatment over highly variable and high flow rate applications. Systems operators program the flow rates at which each tank enters/leaves service mode. System is interlocked, allowing only one tank to regenerate at a time (immediate regeneration). Flow rates shown are assuming one tank is off-line for regeneration.

(1, 2, 3, or 4 tanks in operation depending on flow rate and regeneration status)

## Operating Information

For use on Potable Water Only

Do not use on microbiologically unsafe or unknown quality water

Installation must comply with state and local plumbing/electrical codes

120v/24v CUL/UL listed transformer included with electronic meter systems

Tank warranty void if subject to vacuum

Low flow channeling – less than .5 gpm/cu. ft. resin – may cause hardness leakage

Water Temperature Range

Ambient Air Temperature Range

Operating Pressure Range

Electronic Requirements

Influent Turbidity

Influent Chlorine

Iron/Manganese

35° – 110°F

35° – 120°F

20 – 125 psi

110v/60Hz

5 NTU

1 ppm max.

< 5 ppm

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