

# Single-Tank Water Softeners



## Standard Features

- High Flow Control Valves thru 3" – Flow Rates 200+ gpm
- Up to 1.2 Million Grain Tank Capacity
- Maximum Operating Pressure – 125 psi/110° F
- Fleck™ Top-mount Control Valves
- Timeclock or Electronic Meter Regeneration
- Premium Cation Resin – 30K grains/cu.ft.
- 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
- No Hard Water Bypass
- Clack™ Control Valves
- 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

## Typical Use:

- Boiler Feed
- Cooling Tower
- Schools
- Light Industrial
- Hotels/Motels
- Apartments
- Nursing Home/ Assisted Living
- Condominiums
- Car/Truck Wash
- Corporate Campus
- Hospitals

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 systems 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.



# Product Specifications

## Commercial Single-Tank Softeners

MODEL NUMBERS	GPM FLOW RATES				PIPE SIZE NPT		GRAINS EXCH CAP @ LBS SALT (PER RESIN TANK)	RESIN TANK		BRINE TANK		OVERALL HEIGHT	
	SERVICE		PEAK	BACK WASH	SERVICE	DRAIN		CU. FT. RESIN	SALT CAPACITY LBS Per TANK				
	15 PSI LOSS	8 PSI LOSS	25 PSI LOSS	Flow GPM			MAXIMUM			MINIMUM	DIA x HT		QTY
CTS60-10	20	15	27	5	1"	3/4"	60,000 GR @ 30 # 40,000 GR @ 12 #	14" x 65"	2	18" x 40"	300	1	72"
CTS60-15	31	23	43	5	1 1/2"	1"						1	72"
CMS60-10NT	19	14	26	5	1"	3/4"						1	81"
CMS60-15NT	30	22	42	5	1 1/2"	1"						1	72"
CTS90-10	19	14	26	5	1"	3/4"	90,000 GR @ 45 # 60,000 GR @ 18 #	14" x 65"	3	18" x 40"	300	1	72"
CTS90-15	30	22	42	5	1 1/2"	1"						1	72"
CMS90-10NT	18	13	25	5	1"	3/4"						1	81"
CMS90-15NT	29	21	41	5	1 1/2"	1"						1	72"
CTS120-10	20	15	27	7	1"	3/4"	6/22/10	16" x 65"	4	24" x 50"	700	1	72"
CTS120-15	33	24	45	7	1 1/2"	1"						1	72"
CTS120-20	47	34	64	7	2"	1"						1	77"
CMS120-10NT	19	14	26	7	1"	3/4"						1	81"
CMS120-15NT	32	23	43	7	1 1/2"	1"						1	72"
CMS120-20NT	46	34	63	7	2"	1"						1	77"
CTS150-15	35	26	48	10	1 1/2"	1"	150,000 GR @ 75 # 100,000 GR @ 30 #	18" x 65"	5	24" x 50"	700	1	74"
CTS150-20	51	37	72	10	2"	1"						1	80"
CMS150-15NT	34	25	47	10	1 1/2"	1"						1	74"
CMS150-20NT	50	37	66	10	2"	1"						1	80"
CTS210-15	39	28	53	12	1 1/2"	1"	210,000 GR @ 105 # 140,000 GR @ 42 #	21" x 62"	7	24" x 50"	700	1	74"
CTS210-20	60	43	77	12	2"	1"						1	79"
CMS210-15NT	37	27	50	12	1 1/2"	1"						1	74"
CMS210-20NT	59	43	76	12	2"	1"						1	79"
CTS300-20	68	50	91	15	2"	1"	300,000 GR @ 150 # 200,000 GR @ 60 #	24" x 72"	10	30" x 50"	1,000	1	87"
CMS300-20NT	66	48	89	15	2"	1"						1	87"
CTS450-20	84	61	105	25	2"	1"	450,000 GR @ 225 # 300,000 GR @ 90 #	30" x 72"	15	30" x 50"	1,000	1	95"
CTS450-30	158	115	212	25	3"	2"						1	96"
CMS450-20NT	81	59	101	25	2"	1"						1	95"
CMS450-30NT	151	110	201	25	3"	2"						1	96"
CTS600-20	90	66	110	35	2"	1"	600,000 GR @ 300 # 400,000 GR @ 120 #	36" x 72"	20	42" x 60"	2,900	1	97"
CTS600-30	185	135	250	35	3"	2"						1	97"
CMS600-20NT	86	63	106	35	2"	1"						1	98"
CMS600-30NT	176	129	236	35	3"	2"						1	98"
CTS900-30	200	146	268	50	3"	2"	900,000 GR @ 450 # 600,000 GR @ 180 #	42" x 72"	30	50" x 60"	4,100	1	110"
CMS900-30NT	186	136	248	50	3"	2"						1	110"
CTS1200-30	213	156	280	70	3"	2"	1,200,000 GR @ 600 # 800,000 GR @ 240 #	48" x 72"	40	50" x 60"	4,100	1	107"
CMS1200-30NT	196	143	257	70	3"	2"						1	107"

CTS = Clock (Timer)

CMS = Meter (Demand)

NT = Electronic Timer and Turbine Meter

## 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

## Committed to Innovation

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