







HARD WATER CAN BE HARD ON YOUR BUSINESS.

When you run a business that uses water, it's important to have the hard facts: hard water costs industry millions of dollars

annually in additional maintenance and equipment replacement. Why is hard water such a problem? Because it contains minerals that can build up in pipes and equipment. The resulting rock-like scale restricts water flow, and clogs valves and vents. Hard water scale on water heaters and boilers reduces heat transfer, requiring more energy and frequently causing premature burnout. In addition, particles in the water can cause excessive wear on valve seals which leads to dripping faucets and fixture staining.



LIFE DOESN'T HAVE TO BE SO HARD.

With all the problems hard water can cause, it's easy to see how you can save money and resources by conditioning your water.

Save on Energy Expenses

Use up to 29 percent less energy to heat soft water because it minimizes the scale that prevents heat transfer inside boilers and water heaters.

Reduce Plumbing Repairs

Eliminate hard water-related plumbing system malfunctions including hard water mineral buildup that causes flow restrictions and pipe damage.

Prolong Appliance Life

Commercial warewashers and other machines last longer without harmful scale buildup that can damage parts and restrict operation.

Reduce Chemical Use

Soft water cuts detergent and chemical use by as much as 75 percent since it doesn't require extra chemicals to create desired results.

Make Cleaning Easier

Spend less time cleaning without the scale and scum associated with hard water.

Reduce Fixture Wear

Prevent damage-causing scale buildup on faucets, sinks and tubs. Eliminate additional scrubbing that can cause premature wear.

Eliminate Hard Water Spots on Glassware and Flatware

Avoid hard water spots that can spoil customer experiences and require additional cleaning of dishes, glasses and flatware.

Prolong Linen and Textile Life

Prolong the life of commercial linens and textiles without the damaging effects of hard water minerals like premature wear and fading.

Provide a Better Customer Experience

Customers who use soft water for cleaning and bathing enjoy luxuriously softer, silkier skin and hair, and less soap and shampoo.

Additional Advantages for Steam Boiler Pretreatment

Reduce scale buildup that requires additional cleaning and downtime in commercial steam applications.

















NORTH STAR COMMERCIAL WATER SOFTENING SYSTEMS

ECONOMICAL, HEAVY-DUTY WATER CONDITIONING FOR STEAM BOILERS, HOSPITALS, HOTELS, RESTAURANTS, AND OTHER INDUSTRIAL AND COMMERCIAL APPLICATIONS

For more than 90 years, **North Star Water Treatment** has been engineering and manufacturing the most innovative water treatment technologies available. That experience and ingenuity goes into every commercial series water softener we

make. Our exacting standards make the **North Star commercial series** our most advanced commercial system ever and the optimal choice for your application. The true test of even the most advanced water conditioning system is how well

it softens water while conserving salt and water, and minimizing operator intervention. Our robust feature set provides distinct advantages that will allow your business to enjoy the benefits of soft water while saving considerable time and money.



Single and Multi Tank Systems



Demand Regeneration



Countercurrent Regeneration



Proportional Brining



Non-Volatile Memory



Turbine Meter with Low Flow Accuracy



Water Totalizer



Lockout Feature



NORTH STAR HAS YO

NORTH STAR HAS YOU COVERED

Resin Tanks - 10 years Salt Tanks - 3 years Electronics - 3 years Parts - 1 Year

Advanced Electronic Controls with EPA and Smart Memory

Sophisticated electronics serve as the brains of the **North Star commercial series**, constantly monitoring your water usage and automatically adjusting system performance for optimum operating efficiency, all while delivering the clean, soft water your business demands.

Using our exclusive North Star H2Oracle Predictive Technology, your system schedules regenerations based on your water demand instead of a preset schedule so it won't waste water and salt by cleaning itself unnecessarily. Unlike competitive systems that regenerate more often than necessary wasting water, salt, and wearing out system components earlier, North Star's commercial series regenerates only when necessary using up to 65 percent less water and 33 percent less salt.

Programmed memory is permanent, even during a power outage. And our permanent backup capacitor stores power to ensure operation during more than 48 hours of interrupted power.

Dependable, Reliable, Solid-State Controls with LCD Display

More accurate than systems with knobs or mechanical dials. No moving parts to wear out. Minimal maintenance. Set options at the touch of a button. The LCD control panel displays time, flow rates, regeneration time, hardness setting capacity remaining and other helpful information.

Industrial Grade Reliable Valve

Our valves have fewer than 25 moving parts, so they require less service than competitive valves that commonly contain up to 85 components.

Turbine Flow Meter with Low Flow Accuracy

The turbine flow meter provides precise water usage information to the **North Star Smart Control**, even at flows as low as 2 gpm. The sensor and non-corrosive materials used in the turbine provide for long-term reliability.

24-Volt Power Supply

Our low voltage power supply eliminates special wiring requirements, providing additional installation flexibility.

High Performance Softening Media

North Star uses only FDA-approved* longlasting softening resin in every commercial softener to condition your water more effectively.

* Resin meets U.S. FDA Standard No. 21CFR173.2500.

Washed Quartz Underbedding

Washed quartz doesn't impart hardness into softened water and allows for more powerful countercurrent regeneration.

Industrial Grade Media and Salt Storage Tanks

Durable, high-pressure resin tanks and rugged, long-lasting salt storage tanks withstand impact and environmental abuse.







SAVE MONEY, HASSLE AND TIME WITH THE NORTH STAR

REGENERATION PROCESS

Not all water conditioners work the same way. Subtle changes in the process can have a big effect on the quality of your water. Here are some of the key features you'll find only with the **North Star Regeneration Process** that will save you

Regeneration Process that will save you money, hassle and time.

Countercurrent Flow

The softener cleans the resin bed in the opposite direction of the service flow, from the bottom up. This process raises the bed with a piston action, lifting the hardness up and out of the tank, a critical difference from other systems that use co-current regeneration (same direction as service flow). This older regeneration process

deposits hardness from the top of the media bed into the cleaner resin below where it requires additional salt and water for removal.

Positive Action Brine Valve and Dynamic Soft Water Brining

Makes only the amount of brine needed for regeneration. Keeps the salt tank free from the effects of hard water and allows for more efficient regenerations. Dry salt storage eliminates the need for a salt platform, helps prevent salt bridging and conserves salt. Positive action helps prevent overfilling and eliminates air draw during slow rinse cycle.

Adjustable Backwash

Features high flow backwash hardware to ensure proper bed cleaning. Customizable backwash duration based on initial water analysis.

Fast Rinse Cycle

Provides a final media bed cleaning to prepare it for service.

Automatic Bypass

Provides water during regeneration should you need it.

ADDITIONAL FEATURES THAT MAKE **NORTH STAR'S COMMERCIAL SERIES BEST-IN-CLASS.**



- Snap Clamp Rings for Ease of Connecting
- Top Distributor Basket
- 3 Brine Make-Up Flow Control
- Removable Aspirator
- 5 Up to 2" NPT Union Connections
- Adjustable Backwash Flow Control

- Up to 2" Ported Flow Passage in Plastic Valve Housing
- B High Torque 24 V-DC Motor
- Valve Tank Adaptor Allows Easy Access into Tank with Clamp Ring Connector
- High-Strength, Corrosion Resistant Piston

COMMERCIAL HEAVY DUTY WATER SOFTENING SYSTEM

WITH 1" HIGH PERFORMANCE VALVE

SPECIFICATIONS

Salt Dosage ¹		PA071	PA 101	PA 131	PA 191	PA251	PA321				
		Grains Capacity ²									
Grains	4 lbs./cu. ft.	37,000	54,000	72,000	108,000	144,000	180,000				
Capacity at Salt Dosage	6 lbs./cu. ft.	50,000	72,000	96,000	144,000	192,000	240,000				
	8 lbs./cu. ft.	61,000	84,000	112,000	168,000	224,000	280,000				
	10 lbs./cu. ft.	67,000	93,000	124,000	186,000	248,000	310,000				
	12 lbs./cu. ft.	<i>7</i> 1,000	99,000	132,000	198,000	264,000	330,000				
Resin Tank Size (in.)		12.3" x 54"	17.6" x 59.5"	17.6" x 59.5"	24" × 72"	24" x 72"	24" x 72"				
Resin Quantity (cu. ft.)		2	3	4	6	8	10				
Connecting Pipe Size		1″	1″	1″	1″	1″	1″				
Drain Line Conne	ection Size (in.)	5/8" I.D. Hose	5/8" I.D. Hose	5/8" I.D. Hose	5/8" I.D. Hose	5/8" I.D. Hose	5/8" I.D. Hose				
Salt Tank Size (in	.)	17" x 38.5"	24" x 50.5"	24" x 50.5"	31" x 51"	31" x 51"	31" x 51"				
Salt Tank Capaci	ty (lbs.)	340	1,000	1,000	1,500	1,500	1,500				
Operating Pressu	re	30 - 125 psi	30 - 125 psi	30 - 125 psi	30 - 125 psi	30 - 125 psi	30 - 125 psi				
Operating Tempe	erature	35 - 100°F	35 - 100°F	35 - 100°F	35 - 100°F	35 - 100°F	35 - 100°F				
Max. Drain Flow	(gpm)	5	7	7	10	10	10				
Recharge Water	Used (gal.)	108	166	180	286	293	302				
Max. Clear Wate	er Iron³	20 ppm	20 ppm	20 ppm	20 ppm	20 ppm	20 ppm				
Electrical Rating		24VDC - 65 Watts	24VDC - 65 Watts	24VDC - 65 Watts	24VDC - 65 Watts	24VDC - 65 Watts	24VDC - 65 Watts				

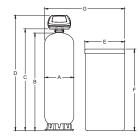
Flow rates and capacities shown are per tank. All systems are available in single, duplex, triplex and quadplex configurations

OPERATIONAL FLOWS*

Model	Flow Rate (GPM) and Pressure (PSI) Loss (ΔP)											
Model	5 gpm	10 gpm	15 gpm	20 gpm	25 gpm	30 gpm	35 gpm	40 gpm				
PA071	2.6 ΔΡ	6.6 ΔP	11.8 ∆P	18.3 ∆P	26.0 ΔP	34.8 ∆P	-	-				
PA 101	1.3 ∆P	3.8 ∆P	7.3 ∆P	11.8 ∆P	17.4 ∆P	24.1 ∆P	31.8 ∆P	-				
PA 131	1.4 ∆P	4.0 ΔP	7.8 ∆P	12.7 ΔP	18.6 ΔP	25.7 ΔΡ	33.7 ΔP	-				
PA 191	1.2 ∆P	3.1 ∆P	6.3 AP	10.5 ∆P	16.3 ∆P	21.9 ∆P	29.1 ΔP	37.3 ΔP				
PA251	1.2 ∆P	3.3 ∆P	6.6 ΔP	10.9 ΔΡ	16.8 AP	22.6 ΔΡ	30.0 ΔΡ	38.4 ∆P				
PA321	1.2 ∆P	3.5 ∆P	6.9 AP	11.3 ΔP	17.3 ΔP	23.3 ΔP	30.9 ΔΡ	39.5 ∆P				

System design flow rates
For intermittent use only
Not for use at these flow rates
All specifications listed are for SINGLE unit operation.

DIMENSIONS



	Α	В	С	D	E	F	G
Model	Resin Tank Diameter	Resin Tank Height	Inlet - Out- let Height	Overall Height	Brine Tank Diameter	Brine Tank Height	Simplex
PA071	12.3″	54"	58"	63.75"	17"	38.5"	36″
PA101, PA131	17.6″	59.5"	62.5"	68.25"	24"	50.5"	48"
PA 191, PA251, PA321	24"	72"	<i>7</i> 9.8″	85.5"	31″	51″	61″

Duplex = 1 Brine Tank | Triplex = 2 Brine Tanks | Quadplex = 2 Brine Tanks

¹ Salt dosages can be set to maintain desired efficiences or changed to auto adjusting, salt-efficiency or boiler option. See manual for details.

² Grains capacity is for counter-current regeneration sizing purposes. The actual capacity could be 5% - 10% greater than shown for each salt dosage.

³ Increased amount of clear water iron (ferrous) can reduce softening efficiency and capacity. Periodic use of resin bed cleaner may be necessary. Iron removal will depend on water conditions (i.e. pH, hardness, content and type of iron)

COMMERCIAL HEAVY DUTY WATER SOFTENING SYSTEM

WITH 1-1/2" HIGH PERFORMANCE VALVE

SPECIFICATIONS

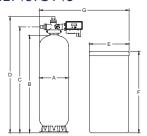
Salt Dosage ¹		PA 1015	PA 1315	PA 1615	PA1915	PA2515	PA3215	PA3615	PA4515			
		Grains Capacity ²										
Grains	4 lbs./cu. ft.	54,000	72,000	90,000	108,000	144,000	180,000	216,000	270,000			
Capacity at Salt Dosage	6 lbs./cu. ft.	72,000	96,000	120,000	144,000	192,000	240,000	288,000	360,000			
	8 lbs./cu. ft.	84,000	112,000	140,000	168,000	224,000	280,000	336,000	420,000			
	10 lbs./cu. ft.	93,000	124,000	155,000	186,000	248,000	310,000	372,000	465,000			
	12 lbs./cu. ft.	99,000	132,000	165,000	198,000	264,000	330,000	396,000	495,000			
Resin Tank Size (in.)		17" × 58"	17" x 58"	17" x 72"	24" x 72"	24" x 72"	24" x 72"	30" x 72"	30" x 72"			
Resin Quantity (cu. ft.)		3	4	5	6	8	10	12	15			
Connecting Pipe	Size	1-1/2" NPT	1-1/2" NPT	1-1/2" NPT	1-1/2" NPT	1-1/2" NPT	1-1/2" NPT	1-1/2" NPT	1-1/2" NPT			
Drain Line Conne	ection Size (in.)	1-1/2" NPT	1-1/2" NPT	1-1/2" NPT	1-1/2" NPT	1-1/2" NPT	1-1/2" NPT	1-1/2" NPT	1-1/2" NPT			
Salt Tank Size (in	.)	24"× 50"	24"× 50"	24"× 50"	31" x 51"	31" x 51"	31" x 51"	41" x 51"	41" x 51"			
Salt Tank Capaci	ty (lbs.)	1,000	1,000	1,000	1,500	1,500	1,500	2,500	2,500			
Operating Pressu	re	30 - 125 psi	30 - 125 psi	30 - 125 psi	30 - 125 psi	30 - 125 psi	30 - 125 psi	30 - 125 psi	30 - 125 psi			
Operating Tempe	erature	35 - 100°F	35 - 100°F	35 - 100°F	35 - 100°F	35 - 100°F	35 - 100°F	35 - 100°F	35 - 100°F			
Max. Drain Flow	(gpm)	7	7	7	12	12	12	24	24			
Recharge Water Used (gal.)		151	166	181	271	302	332	543	588			
Max. Clear Wate	er Iron³	20 ppm	20 ppm	20 ppm	20 ppm	20 ppm	20 ppm	20 ppm	20 ppm			
Electrical Rating		24VDC - 65 Watts	24VDC - 65 Watts	24VDC - 65 Watts	24VDC - 65 Watts	24VDC - 65 Watts	24VDC - 65 Watts	24VDC - 65 Watts	24VDC - 65 Watts			

Flow rates and capacities shown are per tank. All systems are available in single, duplex, triplex and quadplex configurations

OPERATIONAL FLOWS*

Flow Rate (GPM) and Pressure (PSI) Loss (ΔP)											
10 gpm	20 gpm	30 gpm	40 gpm	50 gpm	60 gpm	70 gpm					
1.5 ∆P	3.5 ∆P	7 ∆P	10.5 ∆P	16 ΔΡ	20.4 ΔΡ	-					
2 ΔΡ	4.5 ∆P	8.5 ∆P	12.5 ΔP	18 ∆P	19 ΔΡ	33.9 ∆P					
2.5 ΔΡ	5 ΔΡ	10 ΔΡ	14.5 ∆P	21.4 ΔΡ	26.9 ΔΡ	37.9 ΔP					
1 ΔΡ	2 ΔΡ	4 ∆P	8 AP	12.4 ∆P	15.9 ∆P	23.9 ΔΡ					
1 AP	2.5 ΔP	5.5 ∆P	8.5 ∆P	12.9 <u>A</u> P	16.4 ∆P	24.9 ΔP					
1 AP	3 AP	6 ΔP	9 AP	13.9 ∆P	17.9 ΔΡ	26.9 ΔΡ					
-	2 ΔΡ	4.5 ∆P	7 ∆P	10.9 ∆P	13.9 ∆P	21.9 ΔΡ					
-	2.5 ΔP	5 ΔP	6.5 ΔP	10.5 ΔP	14.9 ∆P	20.9 ΔΡ					
	1.5 ΔP 2 ΔP 2.5 ΔP 1 ΔP 1 ΔP 1 ΔP	1.5 ΔP 3.5 ΔP 2 ΔP 4.5 ΔP 2.5 ΔP 5 ΔP 1 ΔP 2 ΔP 1 ΔP 2.5 ΔP 1 ΔP 2.5 ΔP - 2 ΔP	1.5 ΔP 3.5 ΔP 7 ΔP 2 ΔP 4.5 ΔP 8.5 ΔP 2.5 ΔP 5 ΔP 10 ΔP 1 ΔP 2 ΔP 4 ΔP 1 ΔP 2.5 ΔP 5.5 ΔP 1 ΔP 3 ΔP 6 ΔP - 2 ΔP 4.5 ΔP	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$					

DIMENSIONS



	Α	В	С	D	E	F	G
Model	Resin Tank Diameter	Resin Tank Height	Inlet - Out- let Height	Overall Height	Brine Tank Diameter	Brine Tank Height	Simplex
PA1015, PA1315	17"	58″	64"	70.5"	24"	50″	44"
PA 1615	17"	72"	77"	83.5"	24"	50"	44"
PA 1915, PA2515, PA3215	24"	72"	77"	83.5"	31"	51"	59"
PA3615, PA4515	30″	72"	81″	87.5"	41"	51"	75″

Duplex = 1 Brine Tank | Triplex = 2 Brine Tanks | Quadplex = 2 Brine Tanks



¹ Salt dosages can be set to maintain desired efficiences or changed to auto adjusting, salt-efficiency or boiler option. See manual for details.

² Grains capacity is for counter-current regeneration sizing purposes. The actual capacity could be 5% - 10% greater than shown for each salt dosage.

³ Increased amount of clear water iron (ferrous) can reduce softening efficiency and capacity. Periodic use of resin bed cleaner may be necessary. Iron removal will depend on water conditions (i.e. pH, hardness, content and type of iron)

COMMERCIAL HEAVY DUTY WATER SOFTENING SYSTEM

WITH 2" HIGH PERFORMANCE VALVE

SPECIFICATIONS

Salt Dosage ¹		PA102	PA132	PA162	PA 192	PA252	PA322	PA362	PA452	PA602		
		Grains Capacity ²										
Grains	4 lbs./cu. ft.	54,000	72,000	90,000	108,000	144,000	180,000	216,000	270,000	360,000		
Capacity at Salt Dosage	6 lbs./cu. ft.	72,000	96,000	120,000	144,000	192,000	240,000	288,000	360,000	480,000		
	8 lbs./cu. ft.	84,000	112,000	140,000	168,000	224,000	280,000	336,000	420,000	560,000		
	10 lbs./cu. ft.	93,000	124,000	155,000	186,000	248,000	310,000	372,000	465,000	620,000		
	12 lbs./cu. ft.	99,000	132,000	165,000	198,000	264,000	330,000	396,000	495,000	660,000		
Resin Tank Size (in.)		17" × 58"	17" × 58"	17" × 72"	24" x 72"	24" × 72"	24" x 72"	30" x 72"	30" x 72"	36" x 72"		
Resin Quantity (cu. ft.)		3	4	5	6	8	10	12	15	20		
Connecting Pip	oe Size	2" NPT	2" NPT	2" NPT	2" NPT	2" NPT	2" NPT	2" NPT	2" NPT	2" NPT		
Drain Line Con	nection Size (in.)	2" NPT	2" NPT	2" NPT	2" NPT	2" NPT	2" NPT	2" NPT	2" NPT	2" NPT		
Salt Tank Size	(in.)	24" x 50"	24" × 50"	24" x 50"	31" x 51"	31" x 51"	31" x 51"	41" x 51"	41" x 51"	41" x 51"		
Salt Tank Capo	acity (lbs.)	1,000	1,000	1,000	1,500	1,500	1,500	2,500	2,500	2,500		
Operating Pres	ssure	30 - 125 psi	30 - 125 psi	30 - 125 psi	30 - 125 psi	30 - 125 psi	30 - 125 psi	30 - 125 psi	30 - 125 psi	30 - 125 psi		
Operating Tem	perature	35 - 100°F	35 - 100°F	35 - 100°F	35 - 100°F	35 - 100°F	35 - 100°F	35 - 100°F	35 - 100°F	35 - 100°F		
Max. Drain Flo	ow (gpm)	7	7	7	12	12	12	24	24	32		
Recharge Wate	er Used (gal.)	151	166	181	271	302	332	543	588	784		
Max. Clear W	ater Iron ³	20 ppm	20 ppm	20 ppm	20 ppm	20 ppm	20 ppm	20 ppm	20 ppm	20 ppm		
Electrical Ratin	g	24VDC - 65 Watts	24VDC - 65 Watts	24VDC - 65 Watts	24VDC - 65 Watts	24VDC - 65 Watts	24VDC - 65 Watts	24VDC - 65 Watts	24VDC - 65 Watts	24VDC - 65 Watts		

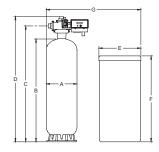
Flow rates and capacities shown are per tank. All systems are available in single, duplex, triplex and quadplex configurations

OPERATIONAL FLOWS*

Model	Flow Rate (GPM) and Pressure (PSI) Loss (ΔP)											
Model	10 gpm	20 gpm	30 gpm	40 gpm	50 gpm	60 gpm	70 gpm	80 gpm	90 gpm	100 gpm	110 gpm	120 gpm
PA102	1.5 ∆P	3.5 ∆P	6 ΔP	9 ΔΡ	12.5 ΔP	16.5 ΔP	-	-	-	-	-	-
PA 132	2 ΔΡ	4.5 ∆P	7.5 ∆P	11 ∆P	15.5 ΔP	20 ΔP	25 ΔP	-	-	-	-	-
PA162	2.5 ΔΡ	5 ΔP	9 ΔΡ	13 ∆P	18 ∆P	23 ΔP	29 ΔΡ	35 ∆P	-	-	-	-
PA 192	1 ΔΡ	2 ΔΡ	4 ΔP	6.5 ΔP	9 ΔΡ	12 ΔP	15 ∆P	19 AP	23 ∆P	-	-	-
PA252	1 ΔΡ	2.5 ΔΡ	4.5 ∆P	7 ΔP	9.5 ΔΡ	12.5 ΔP	16 ΔΡ	20 ΔΡ	24 ΔP	28 ΔP	-	-
PA322	1 ΔP	3 AP	5 ∆P	7.5 ∆P	10.5 ΔP	14 ∆P	18 ∆P	22 ΔP	26 ΔP	31 AP	-	-
PA362	-	2 ΔΡ	3.5 ∆P	5.5 ΔP	7.5 ΔP	10 ∆P	13 AP	16 AP	20 ΔΡ	23 ΔP	27 ΔΡ	31 AP
PA452	-	2.5 ΔΡ	4 ΔP	6 ΔP	8 AP	11 ∆P	14 ∆P	17 ΔΡ	21 AP	25 ΔP	29 ΔΡ	33 ∆P
PA602	-	-	3 AP	5 ΔP	<i>7</i> ΔP	9 ΔP	12 ΔΡ	15 ∆P	18 AP	21 AP	25 ΔΡ	29 ∆P

System design flow rates
For intermittent use only
Not for use at these flow rates
All specifications listed are for SINGLE unit operation.

DIMENSIONS



	A		С				
Model	Resin Tank Diameter	Resin Tank Height	Inlet - Out- let Height	Overall Height	Brine Tank Diameter	Brine Tank Height	Simplex
PA 102, PA 132	17"	58"	64"	70.5"	24"	50"	44"
PA162	17"	72"	77"	83.5"	24"	50"	44"
PA 192, PA252, PA322	24"	72"	77"	83.5"	31″	51"	59"
PA362, PA452	30"	72"	81″	87.5"	41"	51"	75"
A602	36"	72"	88.5"	94"	41"	51"	80″

Duplex = 1 Brine Tank | Triplex = 2 Brine Tanks | Quadplex = 2 Brine Tank

¹ Salt dosages can be set to maintain desired efficiences or changed to auto adjusting, salt-efficiency or boiler option. See manual for details.

² Grains capacity is for counter-current regeneration sizing purposes. The actual capacity could be 5% - 10% greater than shown for each salt dosage.

³ Increased amount of clear water iron (ferrous) can reduce softening efficiency and capacity. Periodic use of resin bed cleaner may be necessary. Iron removal will depend on water conditions (i.e. pH, hardness, content and type of iron)



TAP OUR **EXPERTISE**

North Star Water Treatment Systems

has been providing high quality water systems for more than 90 years, and is one of the largest manufacturers of commercial water systems in the world. When you buy a North Star Water Treatment System, you also get the collective experience and knowledge of this proven, dedicated organization.

EASY AND ECONOMICAL LOCAL TO USE. SIMPLE **TO SERVICE AND** MAINTAIN.

Few moving parts make our commercial series a dependable performer. When service or routine maintenance is necessary, this same design makes it easy for your North Star expert or your own staff to make the necessary adjustments quickly without a lot of time or expense.

CALL YOUR **NORTH STAR REPRESENTATIVE TODAY**

If you need more information about **North Star Commercial Series Water Systems**, contact us at 1-800-972-0135 or visit www.northstarwater.com for a distributor nearest you.



Backed by more than 90 years in water treatment and three U.S. manufacturing plants (luka & Ripley, MS and Woodbury, MN), North Star Water Treatment Systems has the solutions you're seeking. Whether it's drinking water filtration or water softening, problem water correction or simple cartridge filtration, look to the experts at North Star. From residential to commercial to institutional, NORTH STAR TREATS YOU RIGHT.



TAP OUR **EXPERTISE**





North Star Water Treatment Systems 5240 Bradco Blvd., Mississauga, ON L4W 1G7 Canada 1-800-79-NORTH

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