

NOVATEK[®]
WATER CONDITIONING PRODUCTS

**RESIDENTIAL
WATER
SOFTENERS**



Water Softeners - Introduction

What is hard water?

Many water supplies contain dissolved hardness minerals, calcium and magnesium. These minerals build up as scale inside your kettle, water heater, plumbing fixtures and appliances, reducing their efficiency and leading to major repairs. The minerals also react with soap to form a scum or curd which appears as bathtub ring. This curd greys and stiffens your laundry, leaves your hair dull and your skin itchy.

Hard water costs you money. It's more than an inconvenience, it's like having a sneak thief in your home stealing your hard-earned money.

Conditioned water benefits

Soft water provides many benefits . . .

- Brighter, softer laundry
- Sparkling glassware and dishes
- Easier household cleaning
- Cleaner, shinier hair
- Smooth shaving

In addition, soft water saves you money. You can reduce expenditures on cleaning products and conditioners. Clothing and linens last longer and your expensive appliances and plumbing are protected against scale.

How Water Softeners Work

Water softeners contain a bed of ion exchange resin beads. As water passes through the bed, calcium and magnesium, the hardness minerals, are removed and held by the resin.

Eventually the resin beads become saturated with hardness minerals and must be cleaned and regenerated. A brine solution is drawn in to the resin bed to release the accumulated minerals. This process is called ion exchange.

After the minerals and brine are rinsed away with fresh water, the regenerated resin is ready to soften water again.

Metermatic SE Softener

The Metermatic SE softener combines a simplified electronic control with a solid state microprocessor which monitors your water use, regenerating only when a preset volume of water has been used.

Metermatic Softener

Metermatic's control valve includes a metering system which monitors your soft water use and initiates regeneration only when a pre-set volume of water has been used. This eliminates unnecessary regenerations, saving you salt, water and money.

Citation Softener (not available in Canada)

The Citation features a reliable 12 day calendar clock control valve which regenerates automatically at preset intervals.

9100SXT TMI Water Softeners

9100SXT TMI consists of two identical mineral tanks containing ion exchange resin, one tank is in operation, the second is in reserve. A tank containing brine solution completes the system. As water passes through the resin bed, calcium and magnesium, the hardness minerals, are removed and held by the resin.

Eventually the resin beads become saturated with hardness minerals and must be cleaned and regenerated. 9100SXT TMI's control valve automatically diverts the incoming water into the reserve tank, continuing conditioned water service while the first tank is being regenerated. A brine solution is drawn into the resin bed to release the accumulated hardness minerals. The minerals and brine are rinsed away with fresh water and the regenerated resin is ready to condition water again.

9100SXT TMI's control valve includes a simplified electronic control with metering system which monitors your soft water use, alternating the two mineral tanks and initiating regeneration only when a preset volume of water has been used. This ensures you always have conditioned water and eliminates unnecessary regenerations.

Water Softener Selection Guide

No. of People	Unit Selection	Total Hardness (grains/US Gal)								
		5	10	15	20	25	30	40	50	
1	1. Novatek Metermatic SE	NC24SE	NC24SE	NC24SE	NC24SE	NC24SE	NC24SE	NC24SE	NC24SE	NC24SE
	2. Novatek Metermatic	NC24MI	NC24MI	NC24MI	NC24MI	NC24MI	NC24MI	NC24MI	NC24MI	NC24MI
	3. Novatek Citation*	NC24CC	NC24CC	NC24CC	NC24CC	NC24CC	NC24CC	NC24CC	NC24CC	NC24CC
	4. Econoflo MI	EFC20MI	EFC20MI	EFC20MI	EFC20MI	EFC20MI	EFC20MI	EFC20MI	EFC20MI	EFC20MI
	5. Econoflo CC*	EFC20CC	EFC20CC	EFC20CC	EFC20CC	EFC20CC	EFC20CC	EFC20CC	EFC20CC	EFC20CC
	6. Econoflo SXT	EFC20SXT	EFC20SXT	EFC20SXT	EFC20SXT	EFC20SXT	EFC20SXT	EFC20SXT	EFC20SXT	EFC20SXT
2	1. Novatek Metermatic SE	NC24SE	NC24SE	NC24SE	NC24SE	NC24SE	NC24SE	NC24SE	NC24SE	NC32SE
	2. Novatek Metermatic	NC24MI	NC24MI	NC24MI	NC24MI	NC24MI	NC24MI	NC24MI	NC24MI	NC32MI
	3. Novatek Citation*	NC24CC	NC24CC	NC24CC	NC24CC	NC24CC	NC24CC	NC24CC	NC24CC	NC32CC
	4. Econoflo MI	EFC20MI	EFC20MI	EFC20MI	EFC20MI	EFC20MI	EFC20MI	EFC20MI	EFC20MI	EFC30MI
	5. Econoflo CC*	EFC20CC	EFC20CC	EFC20CC	EFC20CC	EFC20CC	EFC20CC	EFC20CC	EFC20CC	EFC30CC
	6. Econoflo SXT	EFC20SXT	EFC20SXT	EFC20SXT	EFC20SXT	EFC20SXT	EFC20SXT	EFC20SXT	EFC20SXT	EFC30SXT
3	1. Novatek Metermatic SE	NC24SE	NC24SE	NC24SE	NC24SE	NC24SE	NC24SE	NC24SE	NC32SE	NT40SE
	2. Novatek Metermatic	NC24MI	NC24MI	NC24MI	NC24MI	NC24MI	NC24MI	NC24MI	NC32MI	NT40MI
	3. Novatek Citation*	NC24CC	NC24CC	NC24CC	NC24CC	NC24CC	NC24CC	NC24CC	NC32CC	NT40CC
	4. Econoflo MI	EFC20MI	EFC20MI	EFC20MI	EFC20MI	EFC20MI	EFC20MI	EFC20MI	EFC30MI	EFT40MI
	5. Econoflo CC*	EFC20CC	EFC20CC	EFC20CC	EFC20CC	EFC20CC	EFC20CC	EFC20CC	EFC30CC	EFT40CC
	6. Econoflo SXT	EFC20SXT	EFC20SXT	EFC20SXT	EFC20SXT	EFC20SXT	EFC20SXT	EFC20SXT	EFC30SXT	EFT40SXT
4	1. Novatek Metermatic SE	NC24SE	NC24SE	NC24SE	NC24SE	NC32SE	NC32SE	NC32SE	NT40SE	NT64SE
	2. Novatek Metermatic	NC24MI	NC24MI	NC24MI	NC24MI	NC32MI	NC32MI	NC32MI	NT40MI	NT64MI
	3. Novatek Citation*	NC24CC	NC24CC	NC24CC	NC24CC	NC32CC	NC32CC	NC32CC	NT40CC	NT64CC
	4. Econoflo MI	EFC20MI	EFC20MI	EFC20MI	EFC20MI	EFC30MI	EFC30MI	EFC30MI	EFT40MI	EFT60MI
	5. Econoflo CC*	EFC20CC	EFC20CC	EFC20CC	EFC20CC	EFC30CC	EFC30CC	EFC30CC	EFT40CC	EFT60CC
	6. Econoflo SXT	EFC20SXT	EFC20SXT	EFC20SXT	EFC20SXT	EFC30SXT	EFC30SXT	EFC30SXT	EFT40SXT	EFT60SXT
5	1. Novatek Metermatic SE	NC24SE	NC24SE	NC24SE	NC32SE	NC32SE	NC32SE	NT40SE	NT64SE	NT64SE
	2. Novatek Metermatic	NC24MI	NC24MI	NC24MI	NC32MI	NC32MI	NC32MI	NT40MI	NT64MI	NT64MI
	3. Novatek Citation*	NC24CC	NC24CC	NC24CC	NC32CC	NC32CC	NC32CC	NT40CC	NT64CC	NT64CC
	4. Econoflo MI	EFC20MI	EFC20MI	EFC20MI	EFC30MI	EFC30MI	EFC30MI	EFT40MI	EFT60MI	EFT60MI
	5. Econoflo CC*	EFC20CC	EFC20CC	EFC20CC	EFC30CC	EFC30CC	EFC30CC	EFT40CC	EFT60CC	EFT60CC
	6. Econoflo SXT	EFC20SXT	EFC20SXT	EFC20SXT	EFC30SXT	EFC30SXT	EFC30SXT	EFT40SXT	EFT60SXT	EFT60SXT
6	1. Novatek Metermatic SE	NC24SE	NC24SE	NC24SE	NC32SE	NT40SE	NT40SE	NT40SE	NT64SE	NT96SE
	2. Novatek Metermatic	NC24MI	NC24MI	NC24MI	NC32MI	NT40MI	NT40MI	NT40MI	NT64MI	NT96MI
	3. Novatek Citation*	NC24CC	NC24CC	NC24CC	NC32CC	NT40CC	NT40CC	NT40CC	NT64MI	NT96CC
	4. Econoflo MI	EFC20MI	EFC20MI	EFC20MI	EFC30MI	EFT40MI	EFT40MI	EFT40MI	EFT60MI	EFT90MI
	5. Econoflo CC*	EFC20CC	EFC20CC	EFC20CC	EFC30CC	EFT40CC	EFT40CC	EFT40CC	EFT60CC	EFT90CC
	6. Econoflo SXT	EFC20SXT	EFC20SXT	EFC20SXT	EFC30SXT	EFT40SXT	EFT40SXT	EFT40SXT	EFT60SXT	EFT90SXT
7	1. Novatek Metermatic SE	NC24SE	NC24SE	NC32SE	NT40SE	NT40SE	NT64SE	NT96SE	NT96SE	NT96SE
	2. Novatek Metermatic	NC24MI	NC24MI	NC32MI	NT40MI	NT40MI	NT64MI	NT96MI	NT96MI	NT96MI
	3. Novatek Citation*	NC24CC	NC24CC	NC32CC	NT40CC	NT40CC	NT64CC	NT96CC	NT96CC	NT96CC
	4. Econoflo MI	EFC20MI	EFC20MI	EFC30MI	EFT40MI	EFT40MI	EFT60MI	EFT90MI	EFT90MI	EFT90MI
	5. Econoflo CC*	EFC20CC	EFC20CC	EFC30CC	EFT40CC	EFT40CC	EFT60CC	EFT90CC	EFT90CC	EFT90CC
	6. Econoflo SXT	EFC20SXT	EFC20SXT	EFC30SXT	EFT40SXT	EFT40SXT	EFT60SXT	EFT90SXT	EFT90SXT	EFT90SXT
8	1. Novatek Metermatic SE	NC24SE	NC24SE	NC32SE	NT40SE	NT64SE	NT64SE	NT96SE	NT96SE	CALL
	2. Novatek Metermatic	NC24MI	NC24MI	NC32MI	NT40MI	NT64MI	NT64MI	NT96MI	NT96MI	CALL
	3. Novatek Citation*	NC24CC	NC24CC	NC32CC	NT40CC	NT64CC	NT64CC	NT96CC	NT96CC	CALL
	4. Econoflo MI	EFC20MI	EFC20MI	EFC30MI	EFT40MI	EFT60MI	EFT60MI	EFT90MI	EFT90MI	CALL
	5. Econoflo CC*	EFC20CC	EFC20CC	EFC30CC	EFT40CC	EFT60CC	EFT60CC	EFT90CC	EFT90CC	CALL
	6. Econoflo SXT	EFC20SXT	EFC20SXT	EFC30SXT	EFT40SXT	EFT60SXT	EFT60SXT	EFT90SXT	EFT90SXT	CALL
9	1. Novatek Metermatic SE	NC24SE	NC32SE	NT40SE	NT40SE	NT64SE	NT64SE	NT96SE	NT96SE	CALL
	2. Novatek Metermatic	NC24MI	NC32MI	NT40MI	NT40MI	NT64MI	NT64MI	NT96MI	NT96MI	CALL
	3. Novatek Citation*	NC24CC	NC32CC	NT40CC	NT40CC	NT64CC	NT64CC	NT96CC	NT96CC	CALL
	4. Econoflo MI	EFC20MI	EFC30MI	EFT40MI	EFT40MI	EFT60MI	EFT60MI	EFT90MI	EFT90MI	CALL
	5. Econoflo CC*	EFC20CC	EFC30CC	EFT40CC	EFT40CC	EFT60CC	EFT60CC	EFT90CC	EFT90CC	CALL
	6. Econoflo SXT	EFC20SXT	EFC30SXT	EFT40SXT	EFT40SXT	EFT60SXT	EFT60SXT	EFT90SXT	EFT90SXT	CALL
10	1. Novatek Metermatic SE	NC24SE	NC32SE	NT40SE	NT64SE	NT64SE	NT96SE	NT96SE	CALL	CALL
	2. Novatek Metermatic	NC24MI	NC32MI	NT40MI	NT64MI	NT64MI	NT96MI	NT96MI	CALL	CALL
	3. Novatek Citation*	NC24CC	NC32CC	NT40CC	NT64CC	NT64CC	NT96CC	NT96CC	CALL	CALL
	4. Econoflo MI	EFC20MI	EFC30MI	EFT40MI	EFT60MI	EFT60MI	EFT90MI	EFT90MI	CALL	CALL
	5. Econoflo CC*	EFC20CC	EFC30CC	EFT40CC	EFT60CC	EFT60CC	EFT90CC	EFT90CC	CALL	CALL
	6. Econoflo SXT	EFC20SXT	EFC30SXT	EFT40SXT	EFT60SXT	EFT60SXT	EFT90SXT	EFT90SXT	CALL	CALL

* Calendar Clock Models are not available in Canada

Note: This guide will only select a water softener based on softening capacity. If high flow rates require a larger softener than the Water Softener Selection Guide suggests, consider the High Flow 7000 Series Water Softener.

How Do We Compare?

Softener Model Selection

Once the softener has been sized, the Water Softener Selection Guide on the previous page provides three different models for your customer to choose from. The differences among the various models are itemized on the following pages and will help your customer make the decision that is best for them.

Cabinet vs. Twin Tank

All 20,000 and 30,000 grain models shown in the Selection Guide are cabinet models. Cabinet models give a water softener that 'clean appliance' look which can be quite important if the unit is installed in the home in plain sight where visitors and household traffic is constantly nearby. Cabinet models are also slightly more compact allowing tight installations to be more easily serviced.

All cabinet models can be switched for an equivalent Twin Tank model (e.g. **NOVATEK NC24SE** Cabinet can be switched for **NOVATEK NT24SE** Twin Tank)

High Hardness OR High Demand Conditions

In certain cases due to high hardness or high usage demand situation, a standard Novatek or Econoflo softener may not be appropriate. In these cases we suggest calling our knowledgeable order desk staff for selection of a softener beyond the product range shown above. These options may include:

- **High Flow 7000SXT Series Softeners**
- **9100SXT TMI Twin Alternating Meter Initiated Softeners**
- **Light Commercial Softeners**
- **Water Softener in combination with additional equipment or drinking water systems**

Features	- GOOD - Econoflo	- BETTER - Metermatic	- BEST - Metermatic SE
Guarantee - Control Valve	5 Years	7 Years	7 Years
Guarantee - Cabinets, Brine Tanks and Mineral Tanks	10 Years	Lifetime	Lifetime
Bypass Valve	❖	❖	❖
Brine Overflow Safety Valve	❖	❖	❖
Insulated Tank Jacket on 9" & 10" Units		❖	❖
Soft Water Brine Refill		❖	❖
High Efficiency Counter-Current Regeneration		❖	❖
Uses 30% Less Salt per Regeneration*		❖	❖
Uses 50% Less Water per Regeneration**			❖
Fully Programmable			❖
Adjustable Regeneration Cycles			❖
Calendar Clock Override			❖
LED Display at a Glance			❖

*Metermatic SE and Metermatic use 30% less salt than Econoflo.

**Metermatic SE uses 50% less water than Econoflo and 45% less water than Metermatic.

Note: Metermatic and Metermatic SE softeners achieve a salt and water savings over Econoflo softeners due to the difference in the factory settings of comparable size products. It is recommended the factory settings remain unchanged, but adjustments may be made in the field.

Metermatic SE Water Conditioner

“Enjoy unlimited conditioned water”

The Metermatic SE softener combines a **simplified electronic control** with a solid state microprocessor which monitors your water use, regenerating only when a preset volume of water has been used. SE also features counter-current regeneration and improved brine distribution. These features enable the SE electronic meter softener to provide soft water using less water and up to 50% less salt than conventional calendar clock water conditioners.



Convenient pull pin, for quick valve removal

Metermatic SE features

- Exclusive Novatek® composite electronic meter control valve with a **7 year guarantee**
- Heavy duty cabinets, brine tanks and mineral tanks with a **lifetime guarantee**
- Exclusive SE turbine meter accurately and efficiently monitors water usage
- LED displays time of day, remaining capacity and regeneration cycle in progress
- Microprocessor retains information and settings indefinitely
- User-friendly push button controls
- Counter-current regeneration and high efficiency brining system yield maximum capacity per pound of salt
- Soft water refill improves brine efficiency
- Bypass valve for ease of installation and service
- Brine safety valve provides extra overflow protection
- Tank jacket reduces condensation (9" and 10" twin tank models)
- 110 volt to 24 volt transformer included



Item #19502:
Optional 90° Elbow

Specifications

Model No.	Capacity Grains			Flow Rate		Mineral Tank Size Inches	Total Resin Cu Ft	Cabinet/ Brine Tank Size Inches W x D x H	Salt Capacity Lbs	Shipping Weight Lbs
	@10 lbs per cu ft	Factory set @ 6 lbs per cu ft	@3 lbs per cu ft	Service USGPM	Backwash USGPM					
NC24SE*	21,400	16,200	11,600	8	1.5	9 x 35	0.75	14 x 22 x 42	250	90
NC32SE*	30,000	23,000	16,000	9	2	10 x 35	1.0	14 x 22 x 42	240	105
NT24SE	21,400	16,200	11,600	8	1.5	9 x 35 ⁽¹⁾	0.75	18 x 35	224	85
NT32SE	30,000	23,000	16,000	9	2	10 x 35 ⁽²⁾	1.0	18 x 35	224	100
NT40SE*	37,500	28,750	20,000	9	2	10 x 47	1.25	21 x 36	308	140
NT64SE*	60,000	46,000	32,000	12	3	12 x 52	2.0	21 x 36	308	190
NT96SE*	90,000	69,000	48,000	15	4	14 x 65	3.0	21 x 36	308	230

*Items include brine tank grid

⁽¹⁾ Mineral tank sizes are 9 x 35 in Canada and 8 x 44 in USA

⁽²⁾ Mineral tank sizes are 10 x 35 in Canada and 9 x 48 in USA

- **NC** indicates cabinet model, **NT** indicates twin tank model
- Maximum Water Temperature = 110°F (43°C)
- Maximum Operating Pressure = 100 PSIG (689 kPa)
- Voltage = 115 volts standard
- Pipe Size = 3/4"
- At the stated service flow rates, the pressure drop through these devices will not exceed 15 psig.

- Changing salt settings from factory setting may require changing injector sizes to achieve stated capacities.
- Do not use where water is microbiologically unsafe.
- The manufacturer reserves the right to make product improvements which may deviate from the specifications and descriptions stated herein, without obligation to change previously manufactured products or to note the change.

MEMBER



Metermatic Water Conditioner

“Make your life a little softer and save money too”

Metermatic is designed for practicality of use, incorporating environmental and economic considerations. Metermatic features the exclusive Novatek demand regeneration control valve, counter-current regeneration and improved brine distribution. These features enable the Metermatic to provide conditioned water using up to 50% less salt than conventional calendar clock water conditioners. Metermatic is kind to the environment and saves you money.

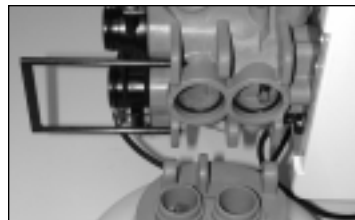


Metermatic features

- Exclusive *Novatek* composite meter control valve with a **7 year guarantee**
- Heavy duty cabinets, brine tanks and mineral tanks with a **lifetime guarantee**
- Counter-current regeneration and high efficiency brining system results in maximum capacity per pound of salt
- Soft water refill improves brine efficiency
- Bypass valve for ease of installation and service
- Brine safety valve provides extra overflow protection
- Tank jacket reduces condensation (9" and 10" twin tank models)



Item #19502:
Optional 90° Elbow



Convenient pull pin, for quick valve removal

Specifications

Model No.	Capacity Grains			Flow Rate		Mineral Tank Size Inches	Total Resin Cu Ft	Cabinet/ Brine Tank Size Inches W x D x H	Salt Capacity Lbs	Shipping Weight Lbs
	@10 lbs per cu ft	Factory set @ 6 lbs per cu ft	@3 lbs per cu ft	Service USGPM	Backwash USGPM					
NC24MI*	21,400	16,200	11,600	8	1.5	9 x 35	0.75	14 x 22 x 42	250	90
NC32MI*	30,000	23,000	16,000	9	2	10 x 35	1.0	14 x 22 x 42	240	105
NT24MI	21,400	16,200	11,600	8	1.5	9 x 35 ⁽¹⁾	0.75	18 x 35	224	85
NT32MI	30,000	23,000	16,000	9	2	10 x 35 ⁽²⁾	1.0	18 x 35	224	100
NT40MI*	37,500	28,750	20,000	9	2	10 x 47	1.25	21 x 36	308	140
NT64MI*	60,000	46,000	32,000	12	3	12 x 52	2.0	21 x 36	308	190
NT96MI*	90,000	69,000	48,000	15	4	14 x 65	3.0	21 x 36	308	230

*Items include brine tank grid

⁽¹⁾ Mineral tank sizes are 9 x 35 in Canada and 8 x 44 in USA

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- Do not use where water is microbiologically unsafe.
- The manufacturer reserves the right to make product improvements which may deviate from the specifications and descriptions stated herein, without obligation to change previously manufactured products or to note the change.



Citation Water Conditioner

A Proud Tradition

The Citation is designed for practicality of use, featuring the exclusive Novatek control valve, manufactured of corrosion-proof, high-density noryl.

The *Novatek* Citation is a refinement of technology proven and tested for three decades in thousands of applications. Many of the original Citations installed over 30 years ago are still providing their owners with soft water today. The improved Citation just does it better.



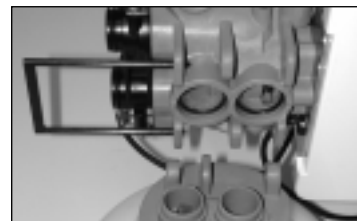
(Not available in Canada)

Citation features

- Exclusive *Novatek* composite 12 day calendar clock control valve with a **7 year guarantee**
- Heavy duty cabinets, brine tanks and mineral tanks with a **lifetime guarantee**
- Counter-current regeneration and high efficiency brining system yield maximum capacity per pound of salt
- Soft water refill improves brine efficiency
- Bypass valve for ease of installation and service
- Brine safety valve provides extra overflow protection
- Tank jacket reduces condensation (9" and 10" twin tank models)



Item #19502:
Optional 90° Elbow



Convenient pull pin, for quick valve removal

Specifications

Model No.	Capacity Grains			Flow Rate		Mineral Tank Size Inches	Total Resin Cu Ft	Cabinet/ Brine Tank Size Inches W x D x H	Salt Capacity Lbs	Shipping Weight Lbs
	@10 lbs per cu ft	Factory set @ 6 lbs per cu ft	@3 lbs per cu ft	Service USGPM	Backwash USGPM					
NC24CC*	21,400	16,200	11,600	8	1.5	9 x 35	0.75	14 x 22 x 42	250	90
NC32CC*	30,000	23,000	16,000	9	2	10 x 35	1.0	14 x 22 x 42	240	105
NT24CC	21,400	16,200	11,600	8	1.5	8 x 44	0.75	18 x 35	224	85
NT32CC	30,000	23,000	16,000	9	2	9 x 48	1.0	18 x 35	224	100
NT40CC*	37,500	28,750	20,000	9	2	10 x 47	1.25	21 x 36	308	140
NT64CC*	60,000	46,000	32,000	12	3	12 x 52	2.0	21 x 36	308	190
NT96CC*	90,000	69,000	48,000	15	4	14 x 65	3.0	21 x 36	308	230

*Items include brine tank grid

- **NC** indicates cabinet model, **NT** indicates twin tank model
- Maximum Water Temperature = 110°F (43°C)
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- Voltage = 115 volts standard
- Pipe Size = 3/4"
- At the stated service flow rates, the pressure drop through these devices will not exceed 15 psig.

- Changing salt settings from factory setting may require changing injector sizes to achieve stated capacities.
- Do not use where water is microbiologically unsafe.
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MEMBER



High Flow 7000 SXT Series

Newer homes across North America are being plumbed with a 1" to 1-¼" water main and many feature multiple washrooms, large bathtubs and multi-jet showers needing adequate flow with a minimal drop in pressure.

The High Flow 7000SXT Series Softener fills this requirement by using a new valve that is designed to accommodate a flow from a 1" or 1-¼" line. The valve features glass filled composite body, simple electronics and easy serviceability. The electronics feature a variable reserve that automatically determines when the softener should regenerate based on the residences actual usage pattern. Variable reserve saves water and salt by regenerating only when necessary.

The valve is mounted on a corrosion resistant fiberglass mineral tank which contains a 1" distributor, high quality softening resin and support bed. The system is also supplied with a new larger bypass valve and comes standard with both 1" and 1-¼" MNPT Noryl pipe adapters. Brine tanks are constructed of durable polyethylene and include brine safety floats and salt grids (when applicable).



HF30EM and HF45EM equipped with Tank Jackets

Note: US product equipped with black valve covers.

7000SXT Series features

- High Flow 7000SXT Control Valve with a **7 year guarantee**
- User friendly electronics and simple serviceability
- Adjustable cycles
- Meter initiated regeneration with day override
- Variable reserve
- Soft water brine tank refill
- High Flow Bypass Valve
- 1" or 1-¼" MNPT Noryl connectors
- Heavy duty mineral tank with a **lifetime guarantee**
- Durable brine tank with brine safety float with a **lifetime guarantee**

Options

- 1" & 1-¼" sweat copper connectors (Item #41242-01)
- 1-¼" & 1-½" sweat copper connectors (Item #41243-01)

Item #61601:
Optional 90° Elbow
(2 required)



7000 Cabinet Model Available in the USA only.

Specifications

Model Number	Capacity - Grains			Flow Rates			Mineral Tank Size inches	Resin Volume cu.ft.	Brine Tank Size W x D x H inches	Salt Capacity lbs	Shipping Weight lbs
	@ 15lb/cu.ft.	Factory set at 10lb/cu.ft.	@ 6lb/cu.ft.	Service usgpm (lpm)	Peak usgpm (lpm)	Backwash usgpm (lpm)					
HF30EM	30,000	27,500	20,000	10 (38)	12 (45)	2.0 (7.6)	10 x 35 ⁽¹⁾	1.0	18 x 35	224	85
HFC30EM ⁽²⁾	30,000	27,500	20,000	10 (38)	12 (45)	2.0 (7.6)	10 x 35	1.0	13.5Wx22.5Lx35.5H	250	108
HF45EM*	45,000	41,250	30,000	12 (45)	16 (61)	2.4 (9.1)	10 x 54	1.5	22 x 38	365	125
HF60EM*	60,000	55,000	40,000	13 (49)	19 (72)	3.5 (13)	12 x 52	2.0	22 x 38	365	150
HF90EM*	90,000	82,500	60,000	15 (57)	20 (76)	5.0 (19)	14 x 65	3.0	22 x 38	365	235

*Items include brine tank grid.

⁽¹⁾ Mineral tank sizes are 10 x 35 in Canada and 9 x 48 in USA

⁽²⁾ Cabinet model available in the USA only

- Maximum Water Temperature = 110°F (43°C)
- Maximum Operating Pressure = 100 PSIG (689 kPa)
- Electrical: 24 VAC/60Hz (115V to 24V Approved Class 2 Transformer included)
- The pressure drop for the stated peak flow rates will not exceed 15 psig through these devices.

- Changing salt settings from factory setting may require changing injector sizes to achieve stated capacities.
- Do not use where water is microbiologically unsafe.
- The manufacturer reserves the right to make product improvements which may deviate from the specifications and descriptions stated herein, without obligation to change previously manufactured products or to note the change.



9100SXT TMI Water Conditioner

“Continuous conditioned water service”

For residential applications where extreme hardness conditions exist, conditioned water demands are unusually high or a continuous 24 hour supply of conditioned water is required, Novatek® 9100SXT TMI is the ideal solution.

Most water conditioners deliver hard water during regeneration. 9100SXT TMI overcomes this problem by using two tanks containing ion exchange resin, unlike ordinary conditioners which use only one. As the capacity of one tank is depleted, the control valve automatically diverts the water supply to the reserve tank and conditioned water service is maintained. The depleted tank is regenerated and becomes the reserve.



Item #19502:
Optional 90° Elbow

9100SXT TMI features

- Control with a **7 year guarantee**
- Heavy duty brine tanks and mineral tanks with a **lifetime guarantee**
- Integral super-cap power back up.
- Larger, back-lit display with additional characters and information icons.
- Updated user interface with more intuitive controls and programming codes.
- New diagnostic view that displays flow rate, peak flow rate, hours in service, volume used, reserve capacity settings, and software version
- Easier to troubleshoot by technicians
- Improved regeneration display
- Unit displays abbreviations for the specific regeneration steps instead of the step number
- Unit shows minutes and seconds remaining for each regeneration step instead of just minutes
- Addition of the "Day of Week" control type option
- Improved time of day functionality
- Flow Indicator flashes when outlet flow is detected.
- Service Icon flashes if a regeneration cycle has been queued

For higher flow rates and greater capacities, see commercial specifications.

Specifications

Model No.	Capacity Grains			Flow Rate		Mineral Tank Size Inches	Total Resin Cu Ft	Brine Tank Size Inches	Salt Capacity Lbs	Shipping Weight Lbs
	@10 lbs per cu ft	Factory set @ 6 lbs per cu ft	@3 lbs per cu ft	Service USGPM	Backwash USGPM					
NT32TM	60,000	46,000	32,000	10	2	10 x 35 ⁽¹⁾	2.0	18 x 35	224	195
NT40TM*	75,000	57,500	40,000	11	2	10 x 47	2.5	21 x 36	308	221
NT48TM*	90,000	69,000	48,000	14	2	10 x 54	3.0	21 x 36	308	320

*Items include brine tank grid

⁽¹⁾ Mineral tank sizes are 10 x 35 in Canada and 9 x 48 in USA

- Maximum Water Temperature = 110°F (43°C)
- Maximum Operating Pressure = 100 PSIG (689 kPa)
- Voltage = 115 volts standard
- Pipe Size = 3/4"
- Capacity is based on TWO tanks of media.
- At the stated service flow rates, the pressure drop through these devices will not exceed 15 psig.

- Changing salt settings from factory setting may require changing injector sizes to achieve stated capacities.
- Do not use where water is microbiologically unsafe.
- The manufacturer reserves the right to make product improvements which may deviate from the specifications and descriptions stated herein, without obligation to change previously manufactured products or to note the change.



Econoflo Water Softeners

The Economical Soft Water Solution

Many water supplies contain hardness minerals which form a scale and create problems in water heaters, household appliances and plumbing systems. Econoflo removes calcium and magnesium, the hardness minerals, from your water supply. Your laundry will be cleaner and softer, bathing and grooming will be more enjoyable and your costly appliances, fixtures and plumbing will be protected against scale build-up.

Standard Features for All Models

- Heavy duty fiberglass tanks and brine tanks with a **10 YEAR guarantee**
- Choice of cabinet or twin tank styles
- Designed for simple operation and service
- Bypass valve for ease of installation and service
- Brine safety valve provides extra overflow protection



Item #19502:
Optional 90° Elbow



Meter Initiated Control Valve

- Demand regeneration control valve monitors water use, regenerating as necessary to save salt and water, **guaranteed for 5 YEARS**



Calendar Clock Control Valve

- Standard 12 day calendar clock control valve schedules regeneration to occur at regular preset intervals based on your estimated water usage, **guaranteed for 5 YEARS**



SXT Electronic Control Valve

- The easy to read large backlit display alternates between the time of day and remaining usable volume prior to regeneration, **guaranteed for 5 YEARS**
- The 5600SXT meter initiated valve regenerates only when needed once a preset volume of water has passed through the softener
- Regeneration cycles are fully adjustable
- An automatic override can be programmed to regenerate the valve after set number of days if regeneration has not been initiated by the meter due to low usage
- The standard regeneration occurs at 2:00 AM, but this can be easily adjusted to any other time of the day
- Diagnostics provide current and historical usage information

Econoflo Water Softeners

Specifications

Model Description	Capacity - Grains			Flow Rate		Mineral Tank Size Inches	Total Resin Cu Ft	Cabinet/ Brine Tank Size Inches W x D x H	Salt Capacity Lbs	Shipping Weight Lbs
	@15 lbs per cu ft	Factory Set @ 10 lbs per cu ft	@6 lbs per cu ft	Service USGPM	Backwash USGPM					
SXT Model										
EFC20SXT	22,500	20,625	15,000	8	1.5	9 x 35	.75	13 x 18 x 45	190	76.5
EFC30SXT	30,000	27,500	20,000	10	2.0	10 x 35	1.0	13 x 18 x 45	170	90.5
EFT20SXT	22,500	20,625	15,000	8	1.5	9 x 35 ⁽¹⁾	.75	18 x 35	239	86.5
EFT30SXT	30,000	27,500	20,000	10	2.0	10 x 35 ⁽²⁾	1.0	18 x 35	230	101.5
EFT40SXT	37,500	34,375	25,000	12	2.0	10 x 47	1.25	18 x 35	230	123
EFT60SXT*	60,000	55,000	40,000	13	3.0	12 x 52	2.0	22 x 38	365	185
EFT90SXT*	90,000	82,500	60,300	15	4.0	14 x 65	3.0	22 x 38	365	253
Meter Initiated Model										
EFC20MI	22,500	20,625	15,000	8	1.5	9 x 35	.75	13 x 18 x 45	190	70
EFC30MI	30,000	27,500	20,000	10	2.0	10 x 35	1.0	13 x 18 x 45	170	84
EFT20MI	22,500	20,625	15,000	8	1.5	9 x 35 ⁽¹⁾	.75	18 x 35	239	80
EFT30MI	30,000	27,500	20,000	10	2.0	10 x 35 ⁽²⁾	1.0	18 x 35	230	95
EFT40MI	37,500	34,375	25,000	12	2.0	10 x 47	1.25	18 x 35	230	115
EFT60MI*	60,000	55,000	40,000	13	3.0	12 x 52	2.0	22 x 38	365	170
EFT90MI*	90,000	82,500	60,300	15	4.0	14 x 65	3.0	22 x 38	365	235
Calendar Clock Model (Available in USA Only)										
EFC20CC	22,500	20,625	15,000	8	1.5	9 x 35	.75	13 x 18 x 45	190	70
EFC30CC	30,000	27,500	20,000	10	2.0	10 x 35	1.0	13 x 18 x 45	170	84
EFT20CC	22,500	20,625	15,000	8	1.5	8 x 44	.75	18 x 35	239	80
EFT30CC	30,000	27,500	20,000	10	2.0	9 x 48	1.0	18 x 35	230	95
EFT40CC	37,500	34,375	25,000	12	2.0	10 x 47	1.25	18 x 35	230	115
EFT60CC*	60,000	55,000	40,000	13	3.0	12 x 52	2.0	22 x 38	365	170
EFT90CC*	90,000	82,500	60,300	15	4.0	14 x 65	3.0	22 x 38	365	235

⁽¹⁾ Mineral tank sizes are 9 x 35 in Canada and 8 x 44 in USA

⁽²⁾ Mineral tank sizes are 10 x 35 in Canada and 9 x 48 in USA

*Items include brine tank grid.

- EFC indicates cabinet model, EFT indicates twin tank model
- Maximum Water Temperature = 110°F (43°C)
- Maximum Operating Pressure = 100 PSIG (689 kPa)
- Pipe Size = 3/4"
- Voltage = SXT: 24V / 60 Hz (120V to 24V wall mount transformer included); MI & CC: 115 volts standard

- At the stated service flow rates, the pressure drop through these devices will not exceed 15 psig.
- Changing salt settings from factory setting may require changing injector sizes to achieve stated capacities
- The manufacturer reserves the right to make product improvements which may deviate from the specifications and descriptions stated herein, without obligation to change previously manufactured products or to note the change.



Mini Cabinet Softener

The WaterGroup Mini Cabinet Water Softeners are ideal for apartments and space-constrained areas. Handles up to 22,000 grains of hardness and features the reliable Fleck 5600SXT valve. Efficiently sized at just 22" x 13" x 27", it's a compact package delivering big performance and the soft water customers desire.

The SXT electronics of the valve provide both the owner and installer simple to operate user friendly method of making adjustments to the control. An alternating display shows the time of day and gallons of soft water remaining while the softener is in service.



Features:

- Compact design
- Designed for simple operation and service
- Two models – moderate (EFC-MINI-17) and high (EFC-MINI-22) hardness capacities
- The high capacity model is effective in removing iron of up to 10ppm*
- Consumes less than 50% less water for regeneration than standard water softeners (consumes 14.5 gallons of water for 3 lbs/cu.ft. of salt)
- Meter initiated regeneration
- Electronic control with large backlit display and user-friendly programming
- Fully adjustable regeneration cycle
- Diagnostic provide current and historical usage information
- Regeneration day override can be programmed

- Bypass included with ¾" MNPT connections
- Heavy duty mineral tank
- Heavy duty cabinet includes air check, brine safety valve and overflow protection fitting
- Includes plastic salt grid

* Depends of inlet water chemistry. Frequent backwashing and use of Resin Cleaner may be required. This softener is not recommended for iron bacteria or organically bound iron.

Options:

- Upflow regeneration • 1" Yoke

Warranty:

The Mini Softener is backed by a seven year limited warranty against manufacturing defects and a ten year warranty on the mineral tank.

Model Comparison Chart

	EFC-MINI-17	EFC-MINI-22
Item Number	7111	7112
Control Valve	5600SXT, Meter Initiated	5600SXT, Meter Initiated
Dimensions-WxDxH - inches (mm)	13.5 x 22.5 x 27.25 (343 x 571 x 686)	13.5 x 22.5 x 27.25 (343 x 571 x 686)
Mineral Tank Size - inches (mm)	10" X 18" (254 x 457)	10" X 18" (254 x 457)
Salt Used for Regeneration lbs/cf	1 to 15	1 to 15
Length of Regeneration Cycle	18 minutes @ 3 lbs salt/cf	18 minutes @ 3 lbs salt/cf
Water used per Regeneration (gallons)	14.5 Gallons @ 3 lbs/cf	14.5 Gallons @ 3 lbs/cf
Salt Storage (lbs)	100 lbs (W/O Grid), 75 lbs (With Grid)	100 lbs (W/O Grid), 75 lbs (With Grid)
Shipping Weight - lbs (kg)	40 (18)	40 (18)
Service Flow Rates - USGPM (LPM)	10 (37.9)	10 (37.9)
Backwash Flow Rates - USGPM (LPM)	2 (7.6)	2 (7.6)
Maximum Water Temperature	110° F (43° C)	110° F (43° C)
Maximum Iron Reduction (ppm)	1	10
Maximum Water Pressure - psi (kPa)	120 (827)	120 (827)
Maximum Hardness Removed (Grains) (12 lbs salt/cf)	17,000	22,000
Salt Usage (lbs.)/Hardness Capacity (High Capacity)	6/8,500	6/11,000
Salt Usage((lbs.)/ Hardness Capacity (High Efficiency)	3 lbs/5,500	3 lbs/7,000
Programming Type	3 Button (Easy Programming)	3 Button (Easy Programming)
Bypass, 3/4"	YES	YES
Overflow Fitting	YES	YES
Safety Float Valve with Aircheck	YES	YES
Plastic Brine Grid	YES	YES
Res-Up Feeder	Optional	Optional

Additional Notes:

Electrical: Standard: 120V/60Hz (24V/60Hz with a supplied 120V/60Hz Wall Mount Approved Class 2 Transformer)
Pipe Size: 3/4"
The Service Flow Rate given will not exceed a pressure drop of 15 psi.

Caution:

These products are not intended to be used to treat water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.
The manufacturer reserves the right to make product improvements which deviate from the specifications and descriptions stated herein without obligation to change previously manufactured products or to note the change.

Iron Guard & Iron Guard Plus

Enjoy Iron-Free Soft Water

Combining proven water softener capabilities with the ability to remove clear and red water iron, the Iron Guard system, Model FE30MI, provides an effective and economical solution to hard and iron contaminated water. In addition, Iron Guard Plus, Model STFE30MI, is specially designed for application in low pH (acidic) water.

Hard water contains dissolved calcium and magnesium which build up inside your water heater, plumbing fixtures and appliances. The minerals also react with soap to form a scum which appears as bathtub ring, greys your laundry and leaves your hair dull and your skin itchy. Iron water leaves yellow, orange or brown stains on your laundry, sinks, tubs and toilets.

Iron Guard contains a bed of fine mesh ion exchange resin beads. As water passes through the bed, calcium and magnesium, the hardness minerals, and any clear or red water iron are removed and held by the resin. The Iron Guard Plus bed contains calcium carbonate in addition to the fine mesh ion exchange resin. This media combines to raise low pH water to enable the resin to remove hardness and red water iron.

Eventually, the resin beads become saturated and must be regenerated. A brine solution is drawn into the bed to drive out the accumulated minerals. This process is called ion exchange. After the minerals and brine are rinsed out with fresh water, the regenerated resin is ready to soften your water again.

The demand regeneration control valve includes a metering system which monitors your soft water use, regenerating only when necessary based on your water usage. Consequently, you save salt, water and money.

Iron Guard & Iron Guard Plus features

- Programmable composite meter control valve with a **7 year guarantee**
- Heavy duty fiberglass tank and brine tank with a **lifetime guarantee**
- Bypass valve for ease of installation and service
- Timed brine refill with brine safety valve provides dual assurance of accurate brine level and salt use
- Tank jacket reduces condensation problems
- Contemporary styling in an attractive smoke white finish



Specifications

Model No.	Rated Capacity @ 15 Lbs/Cu Ft	Salt Dosage Lbs	Max Hardness gpg	Max Iron ppm	Service Flow Rate USGPM	Backwash Flow Rate USGPM	Mineral Tank Size Inches	Brine Tank Size Inches	Resin Volume Cu Ft	Salt Capacity Lbs	Shipping Weight Lbs
FE30MI	32,000	15	75	7.5	8	1.5	10 x 47	22 x 38	1.0	400	145
FE45MI	48,000	23	75	7.5	10	2.4	12 x 52	22 x 38	1.5	400	185
FE60MI	64,000	30	75	7.5	12	3.5	14 x 50	22 x 38	2.0	400	230
STFE30MI†	32,000	15	75	7.5	8	1.5	10 x 54	22 x 48	1.0	400	145

***Applications must be based on analysis by an authorized Novatek representative or distributor.**

- Maximum Water Temperature = 110°F (43°C)
- Maximum Operating Pressure = 100 PSIG (689 kPa)
- Voltage = 115 volts standard
- Inlet/Outlet Pipe Size = 3/4" - Drain = 1/2"
- The manufacturer reserves the right to make product improvements which may deviate from the specifications and descriptions stated herein, without obligation to change previously manufactured products or to note the change.

All units include brine tank grid.

- Not recommended for iron bacteria or organically bound iron. Iron Guard Plus (STFE30MI) should not be applied unless pH is 6.8 or lower. Unit can be applied up to a maximum .75 mg/l manganese providing regular use of resin cleaner.
- Regular use of resin cleaner is essential to the proper functioning of the combination water softener and iron removal system.

† Iron Guard Plus may require the addition of media over a period of time.



Combination Softener and Tannins Filter

Tannins are decayed animal and vegetable matter which discolor your water and cause it to stain almost everything it comes in contact with. Hard water contains dissolved minerals, calcium and magnesium. The new combination Softener and Tannins Filter (STF) unit will restore your water to its natural clarity.

How it works

The combination Softener and Tannins Filter works to remove both hardness and tannins that cause undesirable color and staining by incorporating a mixed bed of specially formulated resins. As a softener, the unit removes hardness minerals which form a scale and create problems in household appliances and plumbing fixtures. As a Tannins Filter, the unit removes color caused by organics and holds them in the resin bed until the unit is regenerated. When the capacity for removing hardness or tannins is exhausted, the unit must be cleaned and regenerated. A solution of saturated salt brine is drawn through the resin bed to release the accumulated minerals and tannins. The bed is then rinsed clean of the minerals, tannins and brine with fresh water and is ready to work again.

Demand regeneration control

The demand regeneration control valve includes a metering system which monitors your water use and initiates regeneration only when necessary - saving you money!

Combination Softener and Tannins Filter features

- Programmable composite meter control valve with a **7 year guarantee**
- Heavy duty brine tank and mineral tank with a **lifetime guarantee**
- Bypass valve for ease of installation and service
- Brine safety valve provides extra overflow protection



Item #19502:
Optional 90° Elbow

Specifications

Model No.	Tannin Removal Capacity ppm-gallons	Hardness Removal Capacity Grains @10 lbs/cu ft	Salt Per Regeneration Lbs	Flow Rate USGPM	Backwash Flow Rate USGPM	Mineral Tank Size Inches	Brine Tank Size Inches	Softening Resin Cu Ft	Anion Resin Cu Ft (A860)	Salt Capacity Lbs	Shipping Weight Lbs
STF20-860	2,000	27,500	20	3.5	2.0	12 x 52	22 x 38	1	1	400	150
STF30-860	3,000	41,250	30	5	2.4	14 x 65	22 x 38	1.5	1.5	400	200

***Application must be based on analysis by an authorized representative or distributor.**

- Iron should be removed if in excess of 1.5 ppm
- Maximum tannin removal 3 ppm
- Suggested maximum hardness removal 20 grains per gallon
- Maximum Water Temperature = 110°F (43°C)
- Maximum Operating Pressure = 100 PSIG (689 kPa)
- Voltage = 115V Standard
- Pipe Size = 3/4"
- The manufacturer reserves the right to make product improvements which may deviate from the specifications and descriptions stated herein, without obligation to change previously manufactured products or to note the change.
- Regular use of Pro Soda Ash resin cleaner is recommended (see page 169).



Hot Water Softener

WaterGroup has a pre-assembled hot water softener. This softener uses a brass valve in a calendar clock initiated configuration setup.

Features:

- Hot Water Softener comes with a **five year limited warranty**
- Fully adjustable 5 cycle operation valve
- All softener internals and brine tank internals setup for hot water operation
- Maximum Operating Temperature = 65°C (150°F)
- The 1/2 cubic foot of resin unit is setup for low height installations
- Electrical: 120V/60Hz



Specifications

Item Number	Model Number	Capacity at regeneration salt levels (grains as CaCO ₃)				Service Flow Rate ⁽²⁾ USGPM	Backwash Flow Rate USGPM	Resin Volume cu.ft.	Mineral Tank Size Width x Height inches	Brine Tank Size Width x Height inches	Brine Tank Salt Capacity Lbs.	Shipping Weight Lbs.
		@15lb/cf	@10lb/cf ⁽¹⁾	@6lb/cf	@3lb/cf							
7376	FA15C	15,000	12,000	8,500	6,500	10	1.2	0.50	10 x 19	10 x 16	48	68
1901	FA20C	22,500	18,000	12,750	9,750	6	1.5	0.75	8 x 35	18 x 35	224	76
1902	FA30C	30,000	24,000	17,000	13,000	10	2.4	1.00	10 x 35	18 x 35	224	96
1903	FA40C	39,900	31,920	22,610	17,290	10	2.4	1.33	10 x 47	22 x 38	420	116

- Notes: ⁽¹⁾ 10lb/cu.ft. salt dosage is the standard factory setting.
⁽²⁾ The Service Flow Rate given will not exceed a pressure drop of 15psi.
- Maximum Water Temperature = 34° to 150°F (1° to 65°C)
 - Maximum Operating Pressure = 20 to 120 psi (137 to 827 kPa)
 - Voltage = 115 volts standard

- These products are not intended to be used to treat water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.
- The manufacturer reserves the right to make product improvements which deviate from the specifications and descriptions stated herein without obligation to change previously manufactured products or to note the change.
- Peak flow rates are intended for intermittent use only and are for residential application only.



