

# Clean and soft water for business needs.

Commercial softening equipment.

COMMERCIAL  
WATER SOFTENERS



**Hydrotech**    
Your clear choice in water treatment.

# Application of Commercial Water Softening Equipment

Water hardness is responsible for many maintenance and process problems in commercial applications. Softening the water supply in commercial applications should be a high priority when it is used for expensive equipment. An unsoftened water supply can be costly when it results in frequent maintenance, and lost down time. Applications for commercial softeners include laundromats, car / truck washes, restaurants, schools, hospitals, health clinics, dentists offices, office complexes, apartment and condominium buildings, livestock operations, manufacturing plants, heating plants and machine and welding shops.

Hydrotech® has three series of commercial water softeners to fit almost any commercial softening application. All of our products feature:

- Pressure vessels constructed of a seamless polyethylene liner wrapped with a continuous filament wound epoxy resin shell (fiberglass). Tanks up to 24 inches in diameter are manufactured by Hydrotech®.
- Hub and lateral flow distributors
- Brine tanks constructed of a one piece rotationally molded durable polyethylene. All assemblies include lid, air check assembly, brine well and salt support grid.
- Premium quality, FDA grade softening resin
- Gravel support bed
- Recommended Maximum Operating Pressure = 100 psig (690 kPa)
- Recommended Maximum Operating Temperature = 100°F (38°C)
- Electrical = 115V, 1Ph, 60Hz (standard)

Additionally, our FAF, TMI and LCS Series are defined and differentiated as described in the following sections.

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## FAF Series Description and Features

The FAF Series is Hydrotech®'s primary group of commercial softeners that have been engineered to provide solutions to almost any application. Softeners are available in this series up to 58 cubic foot of resin per tank with pressure vessels 63 inches in diameter. The FAF Series offers the most options and configurations of the three commercial softener series available.

### Standard Features

#### Control Valves

- Single valve per tank controls all softener functions
- Electro-mechanical timer controls all valve cycles including service, backwash, brine draw, slow rinse, fast rinse and brine tank refill
- Meter initiated regeneration
- All control valves constructed of lead free-brass\*
- Main piston is also lead-free brass\* with a Teflon coating
- **No hard water bypass** during regeneration is standard on multi-tank systems
- Simple threaded (NPT) inlet, outlet and drain connections
- CSA certified valves (in Canada)

#### System Types

- Systems available as single or multi-tank systems
- Parallel flow or alternating operation on multi-tank systems

### Optional Features

- Calendar clock initiated regeneration
- Electronic controller (3200NT & 3200ET†)
- Demand Recall multi-tank systems (3214NT)
- Side mounted control valve adapter and manifold available on 2850, 2900s, 3150 and 3900 only
- Brine tank safety float
- Sodium Chloride Dealkalizer anion resin systems (DAF Systems)
- Environmental covers (2750, 2850, 2900s)

- Optional brine tank sizes
- Hot water systems (up to 150°F)

### Standard System Control Types

*System 4* - Single tank meter initiated. Regeneration is delayed until 2:00 a.m. (adjustable). *Hard Water Bypass during regeneration* is standard or *No Raw Water Bypass during regeneration* is optional.

*System 5* - Multi-tank meter initiated regeneration. All tanks are in service to provide parallel flow. Each tank is equipped with its own meter and brine tank. Regeneration is immediate once capacity is exhausted. Each control is interlocked to prevent more than one system from regenerating at the same time. Valves are equipped with no hard water bypass to prevent hard water passing to service while a tank is regenerating.

*System 6* - Sequential Demand system with all tanks in service and all water flow is monitored by one meter. The tanks regenerate sequentially, on demand with one tank off line at any time.

*System 7* - Duplex alternating tank meter initiated regeneration. Service / standby operation with one tank online while the second tank is regenerating or is in standby. One meter supplied for entire system. Valves are equipped with no hard water bypass to prevent hard water passing to service while a tank is regenerating or is in standby.

\*As defined under Section 1417(d) of the U.S.E.P.A. Safe Drinking Water Act  
† Available in Canada only

### Valve Types



2750 - 1" Control Valve



2850 - 1-1/2" Control Valve



2900s - 2" Control Valve



3150 - 2" Control Valve



3900 - 3" Control Valve

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## TMI Series Description and Features

The TMI Series is an excellent choice for softening applications requiring a duplex alternating tank system needed to ensure soft water is continuously available without interruption. This series is available with three different control valves up to 11 cubic foot of resin per tank in 24 inch diameter pressure vessels. Additional flexibility is provided with the available options.

### Standard Features

#### Control Valves

- Single valve per system (two tanks) controls all softener functions
- Electro-mechanical timer controls all valve cycles including service, backwash, brine draw, slow rinse, fast rinse and brine tank refill
- Meter initiated regeneration
- 9000 and 9500 control valves constructed of lead free-brass\*. 9100 control valve constructed of fiber reinforced polymer
- Main piston is also lead-free\* brass with a Teflon coating
- Simple threaded (NPT) inlet, outlet and drain connections
- CSA certified valves (in Canada, except 9100 which uses a 24VAC Class 2, certified transformer)

#### System Types

- Duplex tank alternating operation only

### Optional Features

- 9100 control valve
- Electronic controller (3200ET<sup>†</sup> or SE)
- Brine tank safety float
- Optional brine tank sizes
- Sodium Chloride Dealkalizer anion resin systems (DTMI Systems)

\*As defined under Section 1417(d) of the U.S.E.P.A. Safe Drinking Water Act  
† Available in Canada only

### Valve Types



9000 Valve with mechanical timer



9100 Valve with SE Timer



9500 Valve with 3200ET optional timer

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## LCS Series Description and Features

The LCS Series is our newest product, perfect for Light Commercial applications requiring a simple cost effective solution for single tank softening applications. This series features the 7000 control valve. Additional flexibility is provided with the available options.

### Standard Features

#### Control Valves

- Single valve per tank controls all softener functions
- Electronic timer controls all valve cycles including service, backwash, brine draw, second backwash, slow rinse, fast rinse and brine tank refill
- Meter initiated regeneration
- 7000 control valve constructed of fiber reinforced polymer
- Main piston is a lead-free\* brass with a Teflon coating
- Simple threaded (NPT) inlet, outlet and drain connections
- 7000 valves uses 24VAC Class 2, certified transformer

#### System Types

- Single tank operation only

### Optional Features

- Brine tank safety float
- Optional brine tank sizes
- Additional pipe connection types

\*As defined under Section 1417(d) of the U.S.E.P.A. Safe Drinking Water Act

### Valve Types



7000 Valve



# System Selection

The FAF, TMI and LCS Series commercial softener model descriptions are designated by the formats as shown in the examples below.

Specifications for FAF, TMI and LCS Series commercial softeners are provided in the three tables to the right. Once the softening application criteria have been determined, use these tables to determine the most suitable softener series, size and system type best suited to meet the requirements.

## FAF Series

**FAF 240 - 2 D 7 0**

↑  
FAF Standard Softener

↑  
Softener Size indicates grain capacity of single tank x 1000 (@15 lbs salt setting)

↑  
Valve Type  
1 = 2750-1"  
1.5 = 2850-1.5"  
2 = 2900s-2"  
2.0 = 3150-2"  
3 = 3900-3"

↑  
Number of Mineral Tanks  
S = Single  
D = Duplex  
T = Triplex  
Q = Quadraplex

↑  
System  
C = Calendar Clock  
4 = Meter Initiated Single  
5 = Meter Initiated System 5  
6 = Meter Initiated System 6  
7 = Meter Initiated System 7

↑  
Special Option Number  
0 - Standard Mechanical Unit  
2 - 3200ET System w/o Special Options  
R - Demand Recall 3214 NT  
8 - NT Parallel Flow w/o Special Options  
9 - NT Alternating w/o Special Options  
X - Non-Standard System

## TMI Series

**TMI 60 - 3/4 DA 0**

↑  
TMI Standard Softener

↑  
Softener Size indicates grain capacity of a single tank x 1000 (@15 lbs salt setting)

↑  
Valve Type  
3/4 = 9000, 3/4"  
1 = 9000, 1"  
3/4P\* = 9100, 3/4"  
1P\* = 9100, 1"  
1.5 = 9500, 1.5"

↑  
System  
DA = Duplex Alternating

↑  
Special Option Number  
0 - Standard Mechanical System  
2 - 3200ET Unit w/o Special Options  
6 - SE Timer  
X - Non-Standard System

\*P denotes plastic version

## LCS Series

**LCS 120 - 1.25 S 4 0**

↑  
LCS Standard Softener

↑  
Softener Size\* indicates grain capacity of single tank x 1000 (@15 lbs salt setting)

↑  
Valve Type  
1.25 = 7000-1.25"

↑  
Number of Mineral Tanks  
S = Single

↑  
System  
4 = Meter Initiated Single

↑  
Special Option Number  
0 - Standard System  
X - Non-Standard System

\*Note: On LCS Series Systems, the softener size number in kilograins does not necessarily indicate the maximum attainable capacity due to control valve limitations. The softener size has been denoted similarly to FAF and TMI systems for consistency.

# FAF Series Commercial Softener Specifications

Model	Capacity (grains) @15lb-salt/cu.ft. <i>@10lb-salt/cu.ft.</i>	Resin Volume cu.ft. <i>(cu.m.)</i>	Critical Application Max. Flow Rate usgpm (lps)	2750 - 1" Valve Units		2850 - 1.5" Valve Units		2900s - 2" Valve Units		3150 - 2" Valve Units		3900 - 3" Valve Units		Salt per Regen. lbs (kg) <i>@15lbs. salt/cu.ft. @10lbs. salt/cu.ft.</i>	Backwash Flow Rate usgpm (lps)	Mineral Tank Dimensions (mm) inches (mm)	Brine Tank Dimensions (USA) inches (mm)	Brine Tank Dimensions (Canada) inches (mm)	Shipping Weight Single lbs (kg)
				Flow Rate at 15 psi and 25 psi Pressure Drops (Single Tank Systems)															
				@ 15psi usgpm (lps)	@ 25psi usgpm (lps)	@ 15psi usgpm (lps)	@ 25psi usgpm (lps)	@ 15psi usgpm (lps)	@ 25psi usgpm (lps)	@ 15psi usgpm (lps)	@ 25psi usgpm (lps)	@ 15psi usgpm (lps)	@ 25psi usgpm (lps)						
FAF 45	45,000 <i>40,500</i>	1.5 <i>(0.04)</i>	7.5 <i>(0.47)</i>	17 <i>(1.07)</i>	23 <i>(1.45)</i>								23 (10) <i>15 (7)</i>	2.4 <i>(0.15)</i>	10 x 54 <i>(254 x 1372)</i>	18 x 40 <i>(457 x 1016)</i>	21 x 36 <i>(533 x 914)</i>	180 <i>(82)</i>	
FAF 60	60,000 <i>54,000</i>	2 <i>(0.06)</i>	10 <i>(0.63)</i>	22 <i>(1.39)</i>	29 <i>(1.83)</i>	36 <i>(2.27)</i>	49 <i>(3.09)</i>	50 <i>(3.15)</i>	75 <i>(4.73)</i>				30 (14) <i>20 (9)</i>	5.0 <i>(0.32)</i>	14 x 50 <i>(356 x 1270)</i>	18 x 40 <i>(457 x 1016)</i>	21 x 36 <i>(533 x 914)</i>	270 <i>(122)</i>	
FAF 90	90,000 <i>81,000</i>	3 <i>(0.08)</i>	15 <i>(0.95)</i>	20 <i>(1.26)</i>	27 <i>(1.70)</i>	32 <i>(2.02)</i>	44 <i>(2.78)</i>	41 <i>(2.59)</i>	60 <i>(3.79)</i>				45 (20) <i>30 (14)</i>	5.0 <i>(0.32)</i>	14 x 65 <i>(356 x 1651)</i>	18 x 40 <i>(457 x 1016)</i>	21 x 36 <i>(533 x 914)</i>	330 <i>(150)</i>	
FAF 120	120,000 <i>108,000</i>	4 <i>(0.11)</i>	20 <i>(1.26)</i>	21 <i>(1.32)</i>	29 <i>(1.83)</i>	35 <i>(2.21)</i>	49 <i>(3.09)</i>	49 <i>(3.09)</i>	70 <i>(4.42)</i>				60 (27) <i>40 (18)</i>	7.0 <i>(0.44)</i>	16 x 65 <i>(406 x 1651)</i>	18 x 40 <i>(457 x 1016)</i>	21 x 36 <i>(533 x 914)</i>	390 <i>(177)</i>	
FAF 150	150,000 <i>135,000</i>	5 <i>(0.14)</i>	25 <i>(1.58)</i>	24 <i>(1.51)</i>	31 <i>(1.96)</i>	43 <i>(2.71)</i>	58 <i>(3.66)</i>	76 <i>(4.79)</i>	103 <i>(6.50)</i>				75 (34) <i>50 (23)</i>	12 <i>(0.75)</i>	21 x 54 <i>(533 x 1372)</i>	24 x 50 <i>(610 x 1270)</i>	24 x 48 <i>(610 x 1219)</i>	500 <i>(227)</i>	
FAF 180	180,000 <i>162,000</i>	6 <i>(0.17)</i>	30 <i>(1.89)</i>	24 <i>(1.51)</i>	31 <i>(1.96)</i>	42 <i>(2.65)</i>	57 <i>(3.60)</i>	72 <i>(4.54)</i>	98 <i>(6.18)</i>				90 (41) <i>60 (27)</i>	12 <i>(0.75)</i>	21 x 54 <i>(533 x 1372)</i>	24 x 50 <i>(610 x 1270)</i>	24 x 48 <i>(610 x 1219)</i>	560 <i>(255)</i>	
FAF 210	210,000 <i>189,000</i>	7 <i>(0.20)</i>	35 <i>(2.21)</i>	23 <i>(1.45)</i>	31 <i>(1.96)</i>	41 <i>(2.59)</i>	55 <i>(3.47)</i>	67 <i>(4.23)</i>	93 <i>(5.87)</i>				105 (48) <i>70 (32)</i>	12 <i>(0.75)</i>	21 x 69 <i>(533 x 1753)</i>	24 x 50 <i>(610 x 1270)</i>	24 x 48 <i>(610 x 1219)</i>	640 <i>(291)</i>	
FAF 240	240,000 <i>216,000</i>	8 <i>(0.23)</i>	40 <i>(2.52)</i>	23 <i>(1.45)</i>	30 <i>(1.89)</i>	40 <i>(2.42)</i>	54 <i>(3.41)</i>	63 <i>(3.97)</i>	89 <i>(5.62)</i>				120 (54) <i>80 (36)</i>	12 <i>(0.75)</i>	21 x 69 <i>(533 x 1753)</i>	24 x 50 <i>(610 x 1270)</i>	24 x 48 <i>(610 x 1219)</i>	690 <i>(314)</i>	
FAF 270	270,000 <i>243,000</i>	9 <i>(0.25)</i>	45 <i>(2.84)</i>	24 <i>(1.51)</i>	31 <i>(1.96)</i>	42 <i>(2.65)</i>	57 <i>(3.60)</i>	75 <i>(4.73)</i>	104 <i>(6.56)</i>				135 (61) <i>90 (41)</i>	15 <i>(0.94)</i>	24 x 72 <i>(610 x 1829)</i>	30 x 50 <i>(762 x 1270)</i>	30 x 48 <i>(762 x 1219)</i>	820 <i>(373)</i>	
FAF 300	300,000 <i>270,000</i>	10 <i>(0.28)</i>	50 <i>(3.15)</i>	23 <i>(1.45)</i>	31 <i>(1.96)</i>	42 <i>(2.65)</i>	57 <i>(3.60)</i>	73 <i>(4.61)</i>	102 <i>(6.44)</i>				150 (68) <i>100 (45)</i>	15 <i>(0.94)</i>	24 x 72 <i>(610 x 1829)</i>	30 x 50 <i>(762 x 1270)</i>	30 x 48 <i>(762 x 1219)</i>	880 <i>(399)</i>	
FAF 330	330,000 <i>297,000</i>	11 <i>(0.31)</i>	55 <i>(3.47)</i>	23 <i>(1.45)</i>	31 <i>(1.96)</i>	42 <i>(2.65)</i>	56 <i>(3.53)</i>	71 <i>(4.48)</i>	99 <i>(6.25)</i>				165 (75) <i>110 (50)</i>	15 <i>(0.94)</i>	24 x 72 <i>(610 x 1829)</i>	30 x 50 <i>(762 x 1270)</i>	30 x 48 <i>(762 x 1219)</i>	930 <i>(423)</i>	
FAF 360	360,000 <i>324,000</i>	12 <i>(0.34)</i>	60 <i>(3.79)</i>			46 <i>(2.90)</i>	61 <i>(3.85)</i>	84 <i>(5.30)</i>	116 <i>(7.32)</i>			156 <i>(9.84)</i>	215 <i>(13.56)</i>	180 (82) <i>120 (54)</i>	25 <i>(1.57)</i>	30 x 72 <i>(762 x 1829)</i>	30 x 50 <i>(762 x 1270)</i>	30 x 48 <i>(762 x 1219)</i>	1130 <i>(514)</i>
FAF 390	390,000 <i>351,000</i>	13 <i>(0.37)</i>	65 <i>(4.10)</i>			46 <i>(2.90)</i>	61 <i>(3.85)</i>	82 <i>(5.17)</i>	114 <i>(7.19)</i>			152 <i>(9.59)</i>	210 <i>(13.25)</i>	195 (88) <i>130 (59)</i>	25 <i>(1.57)</i>	30 x 72 <i>(762 x 1829)</i>	30 x 50 <i>(762 x 1270)</i>	30 x 48 <i>(762 x 1219)</i>	1180 <i>(536)</i>
FAF 450	450,000 <i>405,000</i>	15 <i>(0.42)</i>	75 <i>(4.73)</i>			45 <i>(2.84)</i>	60 <i>(3.79)</i>	80 <i>(5.05)</i>	112 <i>(7.07)</i>			142 <i>(8.96)</i>	200 <i>(12.62)</i>	225 (102) <i>150 (68)</i>	25 <i>(1.57)</i>	30 x 72 <i>(762 x 1829)</i>	39 x 48 <i>(991 x 1219)</i>	36 x 48 <i>(914 x 1219)</i>	1340 <i>(609)</i>
FAF 510	510,000 <i>459,000</i>	17 <i>(0.48)</i>	85 <i>(5.36)</i>			45 <i>(2.84)</i>	59 <i>(3.72)</i>	79 <i>(4.98)</i>	109 <i>(6.88)</i>			138 <i>(8.71)</i>	190 <i>(11.99)</i>	255 (116) <i>170 (77)</i>	25 <i>(1.57)</i>	30 x 72 <i>(762 x 1829)</i>	39 x 48 <i>(991 x 1219)</i>	36 x 48 <i>(914 x 1219)</i>	1440 <i>(655)</i>
FAF 570	570,000 <i>513,000</i>	19 <i>(0.54)</i>	95 <i>(5.99)</i>					86 <sup>(1)</sup> <i>(5.43)</i>	116 <sup>(1)</sup> <i>(7.32)</i>	85 <i>(5.36)</i>	112 <i>(7.05)</i>	180 <i>(11.36)</i>	247 <i>(15.58)</i>	285 (116) <i>190 (86)</i>	35 <i>(2.20)</i>	36 x 72 <i>(914 x 1829)</i>	39 x 48 <i>(991 x 1219)</i>	36 x 48 <i>(914 x 1219)</i>	1580 <i>(718)</i>
FAF 600	600,000 <i>540,000</i>	20 <i>(0.57)</i>	100 <i>(6.31)</i>					85 <sup>(1)</sup> <i>(5.36)</i>	115 <sup>(1)</sup> <i>(7.26)</i>	84 <i>(5.30)</i>	111 <i>(6.98)</i>	177 <i>(11.17)</i>	245 <i>(15.46)</i>	300 (136) <i>200 (91)</i>	35 <i>(2.20)</i>	36 x 72 <i>(914 x 1829)</i>	42 x 60 <i>(1067 x 1524)</i>	42 x 60 <i>(1067 x 1524)</i>	1648 <i>(748)</i>
FAF 630	630,000 <i>567,000</i>	21 <i>(0.59)</i>	105 <i>(6.62)</i>					84 <sup>(1)</sup> <i>(5.30)</i>	114 <sup>(1)</sup> <i>(7.19)</i>	83 <i>(5.22)</i>	111 <i>(6.98)</i>	173 <i>(10.91)</i>	242 <i>(15.27)</i>	315 (143) <i>210 (95)</i>	35 <i>(2.20)</i>	36 x 72 <i>(914 x 1829)</i>	42 x 60 <i>(1067 x 1524)</i>	42 x 60 <i>(1067 x 1524)</i>	1700 <i>(773)</i>
FAF 660	660,000 <i>594,000</i>	22 <i>(0.62)</i>	110 <i>(6.94)</i>							88 <i>(5.55)</i>	116 <i>(7.32)</i>	202 <i>(12.74)</i>	273 <i>(17.22)</i>	330 (150) <i>220 (100)</i>	45 <i>(2.83)</i>	42 x 72 <i>(1047 x 1829)</i>	42 x 60 <i>(1067 x 1524)</i>	42 x 60 <i>(1067 x 1524)</i>	1850 <i>(841)</i>
FAF 720	720,000 <i>648,000</i>	24 <i>(0.68)</i>	120 <i>(7.57)</i>							88 <i>(5.55)</i>	116 <i>(7.32)</i>	201 <i>(12.68)</i>	269 <i>(16.97)</i>	360 (163) <i>240 (109)</i>	45 <i>(2.83)</i>	42 x 72 <i>(1047 x 1829)</i>	42 x 60 <i>(1067 x 1524)</i>	42 x 60 <i>(1067 x 1524)</i>	2650 <i>(1202)</i>
FAF 780	780,000 <i>702,000</i>	26 <i>(0.74)</i>	130 <i>(8.20)</i>							87 <i>(5.49)</i>	115 <i>(7.26)</i>	197 <i>(12.43)</i>	266 <i>(16.78)</i>	390 (177) <i>260 (118)</i>	45 <i>(2.83)</i>	42 x 72 <i>(1047 x 1829)</i>	42 x 60 <i>(1067 x 1524)</i>	42 x 60 <i>(1067 x 1524)</i>	2860 <i>(1300)</i>
FAF 900	900,000 <i>810,000</i>	30 <i>(0.85)</i>	150 <i>(9.46)</i>							89 <i>(5.56)</i>	117 <i>(7.37)</i>	213 <i>(13.44)</i>	284 <i>(17.92)</i>	450 (204) <i>300 (136)</i>	60 <i>(3.77)</i>	48 x 72 <i>(1291 x 1829)</i>	50 x 60 <i>(1270 x 1524)</i>	42 x 60 <i>(1067 x 1524)</i>	3330 <i>(1510)</i>
FAF 1020	1,020,000 <i>918,000</i>	34 <i>(0.96)</i>	170 <i>(10.73)</i>							88 <i>(5.55)</i>	116 <i>(7.32)</i>	208 <i>(13.12)</i>	280 <i>(17.67)</i>	510 (231) <i>340 (154)</i>	60 <i>(3.77)</i>	48 x 72 <i>(1291 x 1829)</i>	50 x 60 <i>(1270 x 1524)</i>	42 x 60 <i>(1067 x 1524)</i>	3540 <i>(1606)</i>
FAF 1080	1,080,000 <i>972,000</i>	36 <i>(1.02)</i>	180 <i>(11.36)</i>							88 <i>(5.55)</i>	116 <i>(7.32)</i>	205 <i>(12.93)</i>	276 <i>(17.41)</i>	540 (245) <i>360 (163)</i>	60 <i>(3.77)</i>	48 x 72 <i>(1291 x 1829)</i>	50 x 60 <i>(1270 x 1524)</i>	42 x 60 <i>(1067 x 1524)</i>	3640 <i>(1655)</i>
FAF 1740	1,740,000 <i>1,566,000</i>	58 <i>(1.64)</i>	220 <i>(13.88)</i>							87 <i>(5.48)</i>	116 <i>(7.32)</i>	220 <i>(13.88)</i>	295 <i>(18.61)</i>	870 (395) <i>580 (245)</i>	95 <i>(5.99)</i>	63 x 86 <i>(1600 x 2185)</i>	70 x 58 <i>(1778 x 1474)</i>	70 x 58 <i>(1778 x 1474)</i>	6740 <i>(3064)</i>

Shipping Weights:  
 • Single units shipping weights shown are maximums for each unit size.  
 • Valve type, multiple unit systems and additional options may alter this figure.  
 • Please consult customer service or a system specification drawing for actual shipping weights.

**Additional Notes:**  
 • Critical applications refer to softening prior to equipment such as: Boiler makeup water, heat exchangers and other equipment sensitive to hardness scaling.  
 • Depending on the valve used in each system, critical application flow rates are decreased if the pressure drop is 15psig or greater.  
 • Factory settings shown in italics.  
 • Hydrotech® 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.

<sup>(1)</sup> Must have 60 psi minimum to regenerate units properly.



# TMI Series Commercial Softener Specifications

Model	Capacity (grains) @15lb salt/cu.ft. @10lb salt/cu.ft.	Resin* Volume (cu.ft.) (cu.m.)	Critical Application Max. Flow Rate usgpm (lps)	Flow Rates usgpm (lps)		Max. Flow to Drain usgpm (lps)	Salt per Regen. lbs (kg) @15lb salt/cu.ft. @10lb salt/cu.ft.	Mineral Tank Dimensions (mm)	Brine Tank (CANADA) Dimensions (mm)	Brine Tank (USA) Dimensions (mm)	Approx. Space Required inches (mm)			Shipping Weight lbs (kg)
				15 psi drop	25 psi drop						Height	Depth	Width	
TMI 30-3/4"	30,000 <i>27,000</i>	1.0 (.028)	5 (0.32)	13 (0.82)	18 (1.14)	2.0 (0.13)	15 (6.8) <i>10 (4.5)</i>	9 x 48 (229 x 1219)	21 x 36 (533 x 914)	19 x 34 (483 x 864)	59 (1499)	25 (635)	62 (1575)	250 (114)
TMI 30-1"	30,000 <i>27,000</i>	1.0 (.028)	5 (0.32)	14 (0.88)	19 (1.20)	2.0 (0.13)	15 (6.8) <i>10 (4.5)</i>	9 x 48 (229 x 1219)	21 x 36 (533 x 914)	19 x 34 (483 x 864)	59 (1499)	25 (635)	62 (1575)	250 (114)
TMI 40-3/4"	40,000 <i>36,000</i>	1.33 (.038)	6.5 (0.41)	13 (0.82)	18 (1.14)	2.4 (0.15)	20 (9.1) <i>13.3 (6.0)</i>	10 x 54 (254 x 1372)	21 x 36 (533 x 914)	19 x 34 (483 x 864)	65 (1651)	25 (635)	64 (1626)	290 (132)
TMI 40-1"	40,000 <i>36,000</i>	1.33 (.038)	6.5 (0.41)	15 (0.95)	21 (1.32)	2.4 (0.15)	20 (9.1) <i>13.3 (6.0)</i>	10 x 54 (254 x 1372)	21 x 36 (533 x 914)	19 x 34 (483 x 864)	65 (1651)	25 (635)	64 (1626)	290 (132)
TMI 50-3/4"	50,000 <i>45,000</i>	1.66 (.047)	8 (0.50)	15 (0.95)	21 (1.32)	4 (0.25)	25 (11.3) <i>16.6 (7.5)</i>	12 x 52 (305 x 1321)	21 x 36 (533 x 914)	19 x 34 (483 x 864)	63 (1600)	25 (635)	68 (1727)	355 (161)
TMI 50-1"	50,000 <i>45,000</i>	1.66 (.047)	8 (0.50)	17 (1.07)	23 (1.45)	4 (0.25)	25 (11.3) <i>16.6 (7.5)</i>	12 x 52 (305 x 1321)	21 x 36 (533 x 914)	19 x 34 (483 x 864)	63 (1600)	25 (635)	68 (1727)	355 (161)
TMI 60-3/4"	60,000 <i>54,000</i>	2 (.057)	10 (0.63)	16 (1.01)	22 (1.39)	5 (0.32)	30 (13.6) <i>20 (9.1)</i>	14 x 50 (356 x 1270)	21 x 36 (533 x 914)	19 x 34 (483 x 864)	61 (1549)	25 (635)	72 (1829)	430 (195)
TMI 60-1"	60,000 <i>54,000</i>	2 (.057)	10 (0.63)	18 (1.14)	25 (1.58)	5 (0.32)	30 (13.6) <i>20 (9.1)</i>	14 x 50 (356 x 1270)	21 x 36 (533 x 914)	19 x 34 (483 x 864)	61 (1549)	25 (635)	72 (1829)	430 (195)
TMI 60-1-1/2"	60,000 <i>54,000</i>	2 (.057)	10 (0.63)	33 (2.08)	45 (2.84)	5 (0.32)	30 (13.6) <i>20 (9.1)</i>	14 x 50 (356 x 1270)	21 x 36 (533 x 914)	19 x 34 (483 x 864)	62 (1575)	30 (762)	69 (1753)	510 (232)
TMI 90-3/4"	90,000 <i>81,000</i>	3 (.085)	15 (0.95)	15 (0.95)	21 (1.32)	5 (0.32)	45 (20.5) <i>30 (13.6)</i>	14 x 65 (356 x 1651)	21 x 36 (533 x 914)	24 x 50 (610 x 1270)	76 (1930)	25 (635)	72 (1829)	540 (245)
TMI 90-1"	90,000 <i>81,000</i>	3 (.085)	15 (0.95)	17 (1.07)	23 (1.45)	5 (0.32)	45 (20.5) <i>30 (13.6)</i>	14 x 65 (356 x 1651)	21 x 36 (533 x 914)	24 x 50 (610 x 1270)	76 (1930)	25 (635)	72 (1829)	540 (245)
TMI 90-1-1/2"	90,000 <i>81,000</i>	3 (.085)	15 (0.95)	29 (1.83)	41 (1.90)	5 (0.32)	45 (20.5) <i>30 (13.6)</i>	14 x 65 (356 x 1651)	21 x 36 (533 x 914)	24 x 50 (610 x 1270)	77 (1956)	30 (762)	69 (1753)	610 (277)
TMI 120-1"	120,000 <i>108,000</i>	4 (.112)	18 (1.14)	18 (1.14)	24 (1.51)	7 (0.44)	60 (27.3) <i>40 (18.2)</i>	16 x 65 (406 x 1651)	21 x 36 (533 x 914)	24 x 50 (610 x 1270)	77 (1956)	30 (762)	73 (1854)	680 (309)
TMI 120-1-1/2"	120,000 <i>108,000</i>	4 (.112)	20 (1.26)	32 (2.02)	44 (2.78)	7 (0.44)	60 (27.3) <i>40 (18.2)</i>	16 x 65 (406 x 1651)	21 x 36 (533 x 914)	24 x 50 (610 x 1270)	77 (1956)	30 (762)	73 (1854)	750 (341)
TMI 150-1-1/2"	150,000 <i>135,000</i>	5 (.141)	25 (1.58)	39 (2.46)	52 (3.28)	12 (0.75)	75 (27.3) <i>50 (22.7)</i>	21 x 54 (533 x 1753)	24 x 48 (610 x 1219)	24 x 50 (610 x 1270)	71 (1956)	30 (762)	92 (2337)	960a (341)
TMI 180-1-1/2"	180,000 <i>162,000</i>	6 (.167)	30 (1.89)	38 (2.33)	50 (3.15)	12 (0.75)	90 (40.8) <i>60 (27.3)</i>	21 x 54 (533 x 1753)	24 x 48 (610 x 1219)	24 x 50 (610 x 1270)	86 (2184)	30 (762)	92 (2337)	1070 (559)
TMI 210-1-1/2"	210,000 <i>189,000</i>	7 (.198)	35 (2.21)	37 (2.33)	50 (3.15)	12 (0.75)	105 (47.7) <i>70 (31.8)</i>	21 x 69 (533 x 1753)	24 x 48 (610 x 1219)	24 x 50 (610 x 1270)	86 (2184)	30 (762)	92 (2337)	1230 (559)
TMI 240-1-1/2"	240,000 <i>216,000</i>	8 (0.23)	36 (2.27)	36 (2.27)	48 (3.03)	12 (0.75)	120 (54.5) <i>80 (36.4)</i>	21 x 69 (533 x 1753)	24 x 48 (610 x 1219)	30 x 50 (762 x 1270)	86 (2184)	30 (762)	92 (2337)	1340 (609)
TMI 270-1-1/2"	270,000 <i>243,000</i>	9 (0.26)	38 (2.40)	38 (2.40)	51 (3.22)	15 (0.94)	135 (61.4) <i>90 (40.8)</i>	24 x 72 (610 x 1829)	30 x 48 (762 x 1219)	30 x 50 (762 x 1270)	89 (2261)	36 (914)	104 (2652)	1590 (723)
TMI 300-1-1-2"	300,000 <i>270,000</i>	10 (0.28)	38 (2.40)	38 (2.40)	51 (3.22)	15 (0.94)	150 (68.2) <i>100 (45.4)</i>	24 x 72 (610 x 1829)	30 x 48 (762 x 1219)	30 x 50 (762 x 1270)	89 (2261)	36 (914)	104 (2652)	1695 (771)
TMI 330-1-1/2"	330,000 <i>297,000</i>	11 (0.31)	37 (2.33)	37 (2.33)	50 (3.15)	15 (0.94)	164 (75.0) <i>110 (49.9)</i>	24 x 72 (610 x 1829)	30 x 48 (762 x 1219)	30 x 50 (762 x 1270)	89 (2261)	36 (914)	104 (2652)	1800 (818)

\* Resin Volume is per tank, system volume is twice the individual tank volume.

• Factory settings shown in italics.

• Hydrotech® 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.

# LCS Series Commercial Softener Specifications

Model	Capacity at Factory Setting grains*	Resin Volume cu.ft. (cu.m.)	Critical Application Max. Flow Rate usgpm (lps)	Flow Rates usgpm (lps)		Max. Flow to Drain usgpm (lps)	Salt per Regeneration at Factory Setting lbs (kg)	Mineral Tank Dimensions inches (mm)	Brine Tank (CANADA) Dimensions inches (mm)	Brine Tank (USA) Dimensions inches (mm)	Approx. Space Required inches (mm)			Shipping Weight lbs (kg)
				15 psi drop	25 psi drop						Height	Depth	Width	
LCS 60 - 1.25" S40	54,000	2 (0.06)	10 (0.63)	22 (1.39)	30 (1.89)	5 (0.32)	20 (9)	14 x 50 (356 x 1270)	21 x 36 (533 x 914)	18 x 40 (457 x 1016)	58 (1473)	33 (838)	54 (1372)	225 (102)
LCS 90 - 1.25" S40	81,000	3 (0.08)	15 (0.95)	20 (1.26)	28 (1.77)	5 (0.32)	30 (14)	14 x 65 (356 x 1651)	21 x 36 (533 x 914)	18 x 40 (457 x 1016)	73 (1854)	33 (838)	54 (1372)	285 (129)
LCS 120 - 1.25" S40	108,000	4 (0.11)	20 (1.26)	22 (1.39)	29 (1.83)	7 (0.44)	40 (18)	16 x 65 (408 x 1651)	21 x 36 (533 x 914)	18 x 40 (457 x 1016)	73 (1854)	33 (838)	55 (1397)	345 (156)
LCS 150 - 1.25" S40	135,000	5 (0.14)	24 (1.51)	24 (1.51)	32 (2.02)	12 (0.75)	50 (23)	21 x 54 (533 x 1372)	24 x 48 (610 x 1219)	24 x 50 (610 x 1219)	63 (1600)	36 (914)	64 (1626)	460 (209)
LCS 180 - 1.25" S40	162,000	6 (0.17)	24 (1.51)	24 (1.51)	32 (2.02)	12 (0.75)	60 (27)	21 x 54 (533 x 1372)	24 x 48 (610 x 1219)	24 x 50 (610 x 1219)	63 (1600)	36 (914)	64 (1626)	515 (234)
LCS 210 - 1.25" S40	175,000	7 (0.20)	23 (1.45)	23 (1.45)	31 (1.96)	12 (0.75)	56 (25)	21 x 69 (533 x 1753)	24 x 48 (610 x 1219)	24 x 50 (610 x 1219)	78 (1981)	36 (914)	64 (1626)	295 (134)
LCS 240 - 1.25" S40	200,000	8 (0.23)	23 (1.45)	23 (1.45)	31 (1.96)	12 (0.75)	64 (29)	21 x 69 (533 x 1753)	24 x 48 (610 x 1219)	24 x 50 (610 x 1219)	78 (1981)	36 (914)	64 (1626)	655 (297)
LCS 270 - 1.25" S40	180,000	9 (0.25)	24 (1.51)	24 (1.51)	32 (2.02)	15 (0.94)	54 (24)	24 x 72 (610 x 1829)	30 x 48 (762 x 1219)	30 x 50 (762 x 1219)	81 (2057)	42 (1067)	73 (1854)	785 (356)
LCS 300 - 1.25" S40	200,000	10 (0.28)	24 (1.51)	24 (1.51)	32 (2.02)	15 (0.94)	60 (27)	24 x 72 (610 x 1829)	30 x 48 (762 x 1219)	30 x 50 (762 x 1219)	81 (2057)	42 (1067)	73 (1854)	835 (379)
LCS 330 - 1.25" S40	220,000	11 (0.31)	24 (1.51)	24 (1.51)	32 (2.02)	15 (0.94)	66 (30)	24 x 72 (610 x 1829)	30 x 48 (762 x 1219)	30 x 50 (762 x 1219)	81 (2057)	42 (1067)	73 (1854)	885 (401)

\* The factory regeneration recommended setting of the LCS Series is shown in italics in the table above. Higher capacities with an increased salt dosage is achievable on most systems with the exception of some larger systems. Consultation with Hydrotech®'s Commercial Engineering and Applications department is recommended regarding modifying regeneration settings.

• Hydrotech® 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.



## Optional Valve Controls



### 3200NT Network Controller

The 3200NT Network Controller is highly recommended for any FAF Series system. The technology allows all valves to be identical in configuration. This allows for simple system expansion in the future without needing to replace existing controls. The control also makes initial setup simple and allows modifications to the system operation to be done in the field. The 3200NT control also includes additional diagnostic functionality to assist with system troubleshooting.

Available for:

- FAF Series softeners (2750, 2850, 2900s, 3150 and 3900 valves)
- One to four valves within a system (parallel flow and alternating systems)



### 3200NT System 14 Network Controller

The 3200NT System 14 Network Controller is the newest electronic controller available and is highly recommended for any FAF Series system. The demand flow system is programmed to bring multiple units to the service position and back to Stand-by based on system flow demands.

Available for:

- FAF Series softeners (2750, 2850, 2900s, 3150 and 3900 valves)
- Networks two to four valves within a system
- Demand recall multi-tank parallel flow systems



### 3200ET Electronic Timer

The 3200ET is a precise electronic control available with all FAF Series systems. A bright 7 digit display shows flow and totalizer information and programming is easy via the simple touchpad.

Available for:

- FAF Series softeners (2750, 2850, 2900s, 3150 and 3900 systems)
- TMI Series softeners (9000, 9100 and 9500 systems)

*Note: Available in Canada only*

(shown on 2900s Valve)



### SE Electronic Control

The SE electronic control, which comes standard on the 9100SE TMI control valve is also available on other controls. It does not feature any diagnostic capability, but it allows simple programming flexibility when compared with standard electro-mechanical timers. The SE control is about "simple electronics", with the user in mind. The bright LED display alternates between time of day and volume of capacity remaining prior to regeneration.

Available for:

- FAF Series softeners (2750, 2850, System 4 only in USA only)
- TMI Series softeners (9000, 9100 and 9500 valves)

## Warranty

All equipment is manufactured by Hydrotech® and is warranted against defects in material or workmanship for the following periods:

- Fiberglass Tanks - 5 years
- Brine Tank - 1 year
- Control Valve and Electronics - 5 years
- Brine Tank Air Check - 2 years
- All other components are for a period of one year

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