## COMMERCIAL / INDUSTRIAL WATER SOFTENERS



When performance & value matters.



# CONTROL VALVES







SPECIFICATIONS	EWS1	EW\$1.5	EWS2QC
Service @ 15 psi drop Backwash @ 25 psi drop	27 gpm (includes meter & bypass) 27 gpm (includes bypass)	70 gpm 52 gpm	125 gpm 85 gpm
TANK APPLICATIONS: Softener Filter	6" - 21" diameter 6" - 21" diameter	12" - 30" diameter 12" - 30" diameter	12" - 48" diameter 12" - 36" diameter
Inlet/Outlet Fitting Connections	1" - 1.25" NPT 3/4" - 1.5" Sweat 3/4" - 1.5" Solvent 3/4" - 1" SharkBite®	1.5" Female NPT	2" Female NPT
Valve Material Cycles Regeneration	Noryl Up to 6 Downflow/Upflow	Lead Free Brass Up to 6 Downflow/Upflow	Lead Free Brass Up to 6 Downflow/Upflow
Operating Pressures Operating Temperatures	20 - 125 psi 40° - 110° F	20 - 125 psi 40° - 110° F	20 - 125 psi 40° - 110° F
METER: Flow Rate Range Volume Range (gallons) Totalizer	0.25 - 27 gpm 20 - 1,500,000 gallons Yes	0.5 - 75 gpm 20 - 1,500,000 gallons Yes	1.5 - 150 gpm 20 - 1,500,000 gallons Yes
Distributor Pilot	1.050" O.D. Pipe 3/4" NPS	1.90" O.D. Pipe 1.5" NPS	2.375" O.D. Pipe 2" NPS
Drain Line Connection	3/4" Male NPT Standard 1" Male NPT Optional	1.25" Female NPT with 3/4" Male NPT Standard 1" Male NPT Optional	1.5" Female NPT
Brine Line Connection	3/8" or 1/2" O.D. Poly Tube Compression	3/4" Female NPT 1/2" O.D. Poly Tube Compression	1" Male NPT elbow 3/4" x 1" Solvent elbow 1/2" O.D. Poly Tube Compression
Mounting Base Options	2 1/2" - 8 NPSM	4" - 8 UN	Quick Disconnect 4" - 8 UN 6" Flange Side Mount
Height From Top of Tank	7 3/8"	9.5"	with 4" - 8 UN QC Base is 11.2" with 6" Flange QC Base is 11.3"
Shipping Weight	4.5 lbs.	21 lbs.	29 lbs.
ELECTRICAL: Supply Voltage Supply Frequency Output Voltage	120V 60 Hz 12V AC	120V 60 Hz 12V AC	120V 60 Hz 12V AC
Output Current	500 mA	500 mA	500 mA

# CONTROL VALVES





SPECIFICATIONS	EWS2H	EWS3
Service @ 15 psi drop Backwash @ 25 psi drop	125 gpm (includes meter) 125 gpm	250 gpm 220 gpm
Tank Application: Softener Tank Application:Filter	18" - 63" diameter 18" - 48" diameter	18" - 63" diameter (2) 18" - 63" diameter
Inlet/Outlet Fitting Connections	2" Female NPT / 3" Female NPT 2.5" Groove Lock	3" Female NPT
Valve Material Cycles Regeneration	Lead Free Brass Up to 9 Downflow	Lead Free Brass Up to 9 Downflow
Operating Pressures Operating Temperatures	20 - 125 psi 40° - 110° F	20 - 125 psi 40° - 110° F
METER: Flow Rate Range Volume Range (gallons) Totalizer	1.5 - 125 gpm 10 - 999,000 gallons Yes	3.5 - 350 gpm 10 - 999,000 gallons Yes
Distributor Pilot	2.375" O.D. Pipe 2" NPS	3.5" O.D. Pipe 3" NPS
Drain Line Connection	2" Female NPT / 2.5" Groove Lock	3" Female NPT
Brine Line Connection	1" Male NPT elbow 3/4" x 1" Solvent elbow	1" Male NPT elbow 3/4" x 1" Solvent elbow
Mounting Base Options	Quick Disconnect 4" - 8 UN 6" Flange Side Mount	Quick Disconnect 6" Flange Side Mount
Height From Top of Tank	with 4" - 8 UN QC Base is 11.5" with 6" Flange QC Base is 11.6"	with 6" Flange QC Base is 12.5"
Shipping Weight	50 lbs.	57 lbs. (no meter)
ELECTRICAL: Supply Voltage Supply Frequency Output Voltage	120V AC 60 Hz 20V AC	120V AC 60 Hz 20V AC
Output Current	750 mA	750 mA

# COMMERCIAL / INDUSTRIAL WATER SOFTENER COMPONENTS



#### MOTORIZED ALTERNATING VALVE FEATURES (MAV)

- Engineered for duplex alternating system
- 1-1/4" to 2" Motorized Alternating Valves
- · Full porting with minimal pressure loss
- Provides for no raw water bypass during regeneration
- · Low voltage drive assy controlled by valve circuit board
- Operating pressures 20psi-125psi
- Operating temperatures 40° F 110° F
- · Patent seal spacer stack assy
- · Hydraulically balanced piston valve
- Proven and reliable Excalibur DC drive assy



#### **NO HARD WATER BYPASS (NHWB)**

- Engineered for duplex alternating with progressive flow
   system controller applications
- 1" to 3" No Hard Water Bypass Valves
- 316 stainless & composite materials of construction
- Designed for use in multiple tank configurations
- Proven and reliable Excalibur DC drive assy
- · Hydraulically balanced piston valve

- Patent seal spacer stack assy
- Operating pressures 20psi-125psi
- Operating temperatures 40° F 110° F
- · Low voltage drive assy controlled by valve circuit board
- Full porting with minimal pressure loss



#### **EXCALIBUR SYSTEM CONTROLLER**

- Excalibur System Controller may operate 2-6 vessels
- 1" to 2" Control Valve Engineered Systems
- System diagnostic & programming information download
- Two fused single pole double throw (SPDT) relay outputs
- Front panel displays for time of day, day of week, days until next regeneration, current system flow rate &
- total system volume utilized
- System regeneration types progressive flow, alternator, series, and random options
- Solid state processor friendly front panel programming
- Front panel LED status indicators for online, standby, and regeneration
- Single demand based output meter
- · Coin cell lithium battery for backup time of day



#### **MINERAL TANKS**

- Excalibur mineral tanks are made of high pressure composite materials - LLDPE liner with FRP filament winding outer shell
- Flanged tanks manufactured with continuous seamless inner liner shell with a solid anodize aluminum cast flange
- This design provides excellent strength, durability and leak free service
- · Maximum operating pressure 150psi
- Maximum operating temperature 120° F
- Mineral tanks are NSF 44 & PED certified



#### **ASSEMBLED BRINE TANKS**

- Excalibur brine tanks are rotationally molded of a high density polythylene for exceptional stress-crack resistant properties increased durability
- Injection molded plastic HDPE grids available for dry salt storage applications
- Brine float to eliminate brine tank overflowing
- Safety float brine valve delivers water demand for high
- flow brining application and refill
- Float eliminates pre-checking during brine refill when air is in the brine line could cause excessive flow rates
- Brine float is enclosed inside a brine well with cap and secured with a two piece overflow set
- Air check valve to initiate slow rinse cycle after brining complete



#### **RESIN**

- Excalibur C-800 water softening resin has a minimum 8% cross link gel type sodium form high capacity polystyrene ion exchange resin
- Performance maximum capacity of 30,000 grains per cubic foot when regenerated with 15lbs of salt
- Resin is solid containing no plates shells agglomerates or other shapes for high efficiency maximum
- capacity performance
- Excalibur premium water softening resins are manufactured in Canada
- Tested & certified to NSF ANSI 44 and 61 with WQA Gold Seal

# COMMERCIAL / INDUSTRIAL WATER SOFTENER COMPONENTS



#### **GRAVEL SUPPORT BED**

- Excalibur uncrushed gravel has a highly spherical shape that promotes good flow and even distribution support bed
- · Gravel will maintain the quality of the softened water
- Multi depth layered gravel support bed for maximum flow rates with minimum pressure drop



#### WATER DISTRIBUTION

- Excalibur high impact FDA approved hub and lateral high flow distributors are utilized to evenly collect and distribute the flow of water over the entire resin bed.
- This system configuration determines the need to regenerate based on a unit reaching zero capacity or day override.



#### PROGRESSIVE FLOW

Progressive flow provides minimum to maximum peak flow rates utilizing one or all of the vessels in the design configuration to satisfy current demand. This system will utilize and operate outlet isolation valves with a predetermined flow rate set point to bring online additional units to meet peak flow rate requirements.

# COMMERCIAL / INDUSTRIAL WATER SOFTENER APPLICATIONS

### **Commercial Applications**

CondominiumOffice BuildingsGas StationsApartment buildingsAgricultureRestaurantsAssisted Living FacilitiesCar WashHealth ClubsMotelsTrailer ParksGrocery StoresHotelsSchools

Laundry Mats

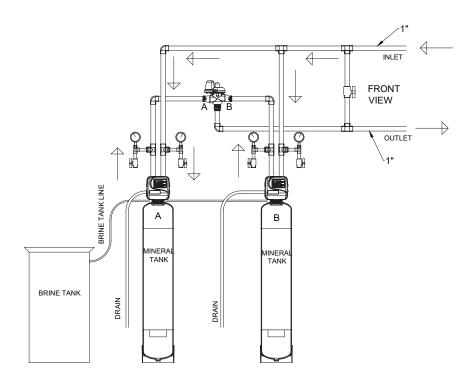
### **Industrial Applications**

Hospitals

Boiler Pre TreatmentAerospaceElectronicsPharmacuticalFood ProcessingPulp & PaperPaint BoothsBottling PlantsPower GenerationProcess WaterCooling TowerFisheries

Steel Industries Petro Chemical

### **EXCALIBUR 1" SIMPLEX & DUPLEX SOFTENER SPECIFICATIONS**



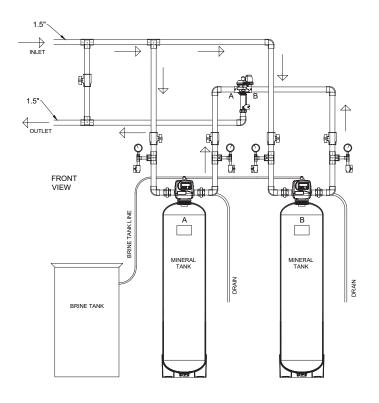
# Simplex & Duplex Fully Automatic Electronic Demand Commercial Water Softeners

- Flow Rates up to 27 USGPM
- Internal Electronic Flow Meter range 0.25-27 USGPM
- Fully adjustable 6 cycle valve
- Four methods to initiate regeneration metered immediate, metered delayed, time clock delayed, or pressure differential
- Duplex softeners utilize MAV controls to provide regeneration

MODEL	Capacity	Capacity	Max System	FL	OW RATE	(GPM)	APPRO	X. SPACE REQU	IIRED (in)	Shipping Weight
	10lbs/ft <sup>3</sup>	15lbs/ft <sup>3</sup>	Capacity (gr)	15PSI	25PSI	CRITICAL	LENGTH	WIDTH	HEIGHT	lbs
EWS \$130	27,000	30,000	30,000	10	15	5	30	20	57	90
EWS SD130	27,000	30,000	60,000	10	15	5	40	20	57	180
EWS \$145	40,500	45,000	45,000	12	17	7.5	31	20	63	115
EWS SD145	40,500	45,000	90,000	12	17	7.5	42	20	63	230
EWS \$160	54,000	60,000	60,000	14	19	10	34	20	62	150
EWS SD160	54,000	60,000	120,000	14	19	10	46	20	62	300
EWS \$175	67,500	75,000	75,000	16	21	12.5	36	20	64	250
EWS SD175	67,500	75,000	150,000	16	21	12.5	50	20	64	500
EWS \$190	81,000	90,000	90,000	17	22	15	45	24	75	350
EWS SD190	81,000	90,000	180,000	17	22	15	58	25	75	700
EWS \$1120	108,000	120,000	120,000	19	24	20	48	25	75	450
EWS SD1120	108,000	120,000	240,000	19	24	20	65	25	75	900
EWS \$1150	135,000	150,000	150,000	22	26	25	60	30	75	600
EWS SD1150	135,000	150,000	300,000	22	26	25	75	30	75	1,200
EWS \$1180	162,000	180,000	180,000	21	25	25	60	30	75	650
EWS SD1180	162,000	180,000	360,000	21	25	25	75	30	75	1,300
EWS \$1210	189,000	210,000	210,000	24	27	25	60	30	76	750
EWS SD1210	189,000	210,000	420,000	24	27	25	76	30	76	1,500

<sup>•</sup> Critical maximum flow rate refers to soft water feed to boilers, heat exchangers, reverse osmosis systems or any other equipment sensitive to hard water scaling flow rate not exceeding 5gpm/ft3

### **EXCALIBUR 1.5" SIMPLEX & DUPLEX SOFTENER SPECIFICATIONS**



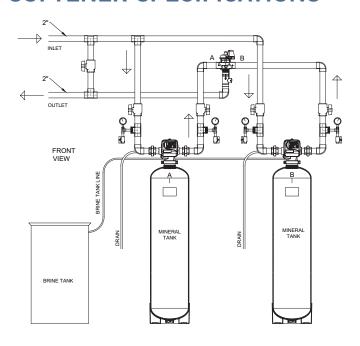
### Simplex & Duplex Fully Automatic Electronic Demand Commercial Water Softeners

- Flow Rates up to 78 USGPM
- External Electronic Flow Meter range 0.5-75 USGPM
- Fully adjustable 6 cycle valve
- Four methods to initiate regeneration metered immediate, metered delayed, time clock delayed, or pressure differiential
- Duplex softeners utilize MAV controls to provide regeneration

MODEL	Capacity 10lbs/ft <sup>3</sup>	Capacity 15lbs/ft <sup>3</sup>	Max System Capacity (gr)	FL	OW RATE	(GPM)	APPRO	X. SPACE REQU	IIRED (in)	Shipping Weight
	10103/11	13103/11	Capacity (gi)	15PSI	25PSI	CRITICAL	LENGTH	WIDTH	HEIGHT	103
EWS \$15120	108,000	120,000	120,000	40	52	20	46	24	75	450
EWS SD15120	108,000	120,000	240,000	40	52	20	68	24	75	900
EWS \$15150	135,000	150,000	150,000	44	57	25	46	24	74	600
EWS SD15150	135,000	150,000	300,000	44	57	25	72	24	74	1,200
EWS \$15180	162,000	180,000	180,000	43	56	30	46	24	74	650
EWS SD15180	162,000	180,000	360,000	43	56	30	72	24	74	1,300
EWS \$15210	189,000	210,000	210,000	50	64	35	49	24	74	700
EWS SD15210	189,000	210,000	420,000	50	64	35	82	24	74	1,400
EWS \$15240	216,000	240,000	240,000	55	71	40	58	30	85	900
EWS SD15240	216,000	240,000	480,000	55	71	40	96	30	85	1,800
EWS \$15300	270,000	300,000	300,000	53	68	50	58	30	85	975
EWS SD15300	270,000	300,000	600,000	53	68	50	96	30	85	1,950
EWS \$15450	405,000	450,000	450,000	60	78	70	73	39	95	1,475
EWS SD15450	405,000	450,000	900,000	60	78	70	96	39	95	2,950

Critical maximum flow rate refers to soft water feed to boilers, heat exchangers, reverse osmosis systems or any other equipment sensitive to hard water scaling flow rate not exceeding 5gpm/ft3

## EXCALIBUR 2"QC SIMPLEX & DUPLEX SOFTENER SPECIFICATIONS



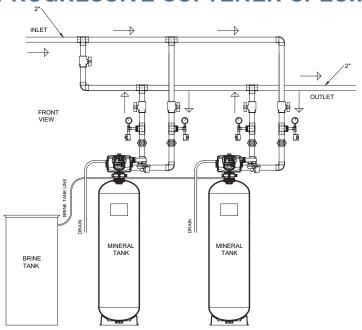
# Simplex & Duplex Fully Automatic Electronic Demand Commercial Water Softeners

- Flow Rates up to 136 USGPM
- External Electronic Flow Meter range 1.5-150 USGPM
- Fully adjustable 6 cycle valve
- Four methods to initiate regeneration metered immediate, metered delayed, time clock delayed, or pressure differential
- Duplex softeners utilize MAV controls to provide regeneration

MODEL	Capacity	Capacity	Max System	FLO	OW RATE	(GPM)	APPROX.	SPACE REQ	UIRED (in)	Shipping Weight
	10lbs/ft <sup>3</sup>	15lbs/ft <sup>3</sup>	Capacity (gr)	15PSI	25PSI	CRITICAL	LENGTH	WIDTH	HEIGHT	lbs
EWS S2MQC120	108,000	120,000	120,000	47	60	20	45	24	75	500
EWS SD2MQC120	108,000	120,000	240,000	47	60	20	68	24	75	1,000
EWS S2MQC150	135,000	150,000	150,000	54	70	25	46	24	74	650
EWS SD2MQC150	135,000	150,000	300,000	54	70	25	72	24	74	1,300
EWS S2MQC180	162,000	180,000	180,000	52	67	30	46	24	74	700
EWS SD2MQC180	162,000	180,000	360,000	52	67	30	72	24	74	1,400
EWS S2MQC210	189,000	210,000	210,000	68	88	35	49	24	74	750
EWS SD2MQC210	189,000	210,000	420,000	68	88	35	82	24	74	1,500
EWS S2MQC240	216,000	240,000	240,000	77	100	40	58	30	85	950
EWS SD2MQC240	216,000	240,000	480,000	77	100	40	96	30	85	1,900
EWS S2MQC300	270,000	300,000	300,000	75	97	50	58	30	85	1,025
EWS SD2MQC300	270,000	300,000	600,000	75	97	50	96	30	85	2,050
EWS S2MQC450	405,000	450,000	450,000	88	113	75	73	39	95	1,500
EWS SD2MQC450	405,000	450,000	900,000	88	113	75	107	39	95	3,000
EWS S2MQC600	540,000	600,000	600,000	97	126	100	92	50	109	2,000
EWS SD2MQC600	540,000	600,000	1,200,000	97	126	100	130	50	109	4,000
EWS S2MQC750	675000	750,000	750,000	106	137	125	96	50	109	2,750
EWS SD2MQC750	675000	750,000	1,500,000	106	137	125	140	50	109	5,500
EWS S2MQC900	810000	900,000	900,000	103	134	125	96	50	109	3,000
EWS SD2MQC900	810000	900,000	1,800,000	103	134	125	142	50	109	6,000
EWS S2MQC1200	1080000	1,200,000	1,200,000	105	136	125	102	50	109	3,900
EWS SD2MQC1200	1080000	1,200,000	2,400,000	105	136	125	154	50	109	7,800

<sup>•</sup> Critical maximum flow rate refers to soft water feed to boilers, heat exchangers, reverse osmosis systems or any other equipment sensitive to hard water scaling flow rate not exceeding 5gpm/ft3

## EXCALIBUR 2H" SIMPLEX & DUPLEX PROGRESSIVE SOFTENER SPECIFICATIONS



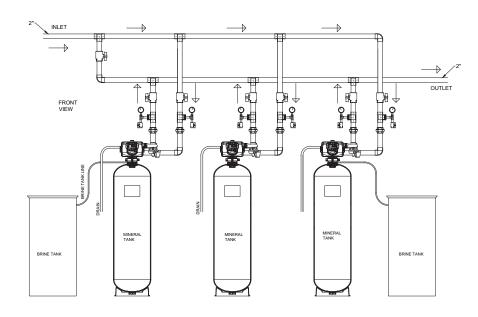
### Simplex & Duplex Fully Automatic Electronic Demand Commercial Water Softeners

- Flow Rates up to 136 USGPM
- Internal Electronic Flow Meter range 1.5-125 USGPM
- Fully adjustable 6 cycle valve
- Four methods to initiate regeneration metered immediate, metered delayed, time clock delayed, or pressure differiential
- Duplex softeners utilize MAV controls to provide regeneration

MODEL	Capacity	Capacity	Max		FLOW R	ATE (GPM)		APPROX.	SPACE REQ	UIRED (in)	Shipping
	10lbs/ft <sup>3</sup>	15lbs/ft <sup>3</sup>	System Capacity	15PSI	25PSI	Sys	tem	LENGTH	WIDTH	HEIGHT	Weight Ibs
			(gr)			Critical	Peak				
EWS S2H150	135,000	150,000	150,000	54	70	25	40	46	24	82	560
EWS SD2H150	135,000	150,000	300,000	54	70	50	80	72	24	82	1,120
EWS S2H180	162,000	180,000	180,000	52	67	30	48	46	24	82	610
EWS SD2H180	162,000	180,000	360,000	52	67	60	96	72	24	82	1,220
EWS S2H210	189,000	210,000	210,000	68	88	35	56	49	24	85	720
EWS SD2H210	189,000	210,000	420,000	68	88	70	112	76	24	85	1,440
EWS S2H240	216,000	240,000	240,000	77	100	40	64	58	30	89	940
EWS SD2H240	216,000	240,000	480,000	77	100	80	128	88	30	89	1,880
EWS S2H300	270,000	300,000	300,000	75	97	50	80	58	30	89	1,040
EWS SD2H300	270,000	300,000	600,000	75	97	100	160	88	30	89	2,080
EWS \$2H450	405,000	450,000	450,000	88	113	75	113	73	39	96	1,515
EWS SD2H450	405,000	450,000	900,000	88	113	150	226	110	39	96	3,030
EWS S2H600	540,000	600,000	600,000	97	126	100	125	92	50	98	2,000
EWS SD2H600	540,000	600,000	1,200,000	97	126	200	250	134	50	98	4,000
EWS S2H750	675,000	750,000	750,000	106	137	125	125	96	50	109	2,750
EWS SD2H750	675,000	750,000	1,500,000	106	137	250	250	144	50	109	5,500
EWS S2H900	810,000	900,000	900,000	103	134	125	125	96	50	109	3,000
EWS SD2H900	810,000	900,000	1,800,000	103	134	250	250	144	50	109	6,000
EWS S2H1200	1,080,000	1,200,000	1,200,000	105	136	125	125	102	50	109	3,900
EWS SD2H1200	1,080,000	1,200,000	2,400,000	105	136	250	250	158	50	109	7,800

<sup>•</sup> Critical maximum flow rate refers to soft water feed to boilers, heat exchangers, reverse osmosis systems or any other equipment sensitive to hard water scaling flow rate not exceeding 5gpm/ft3

## EXCALIBUR 2H" TRIPLEX & QUADPLEX PROGRESSIVE SOFTENER SPECIFICATIONS



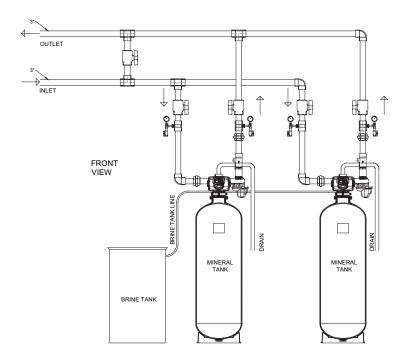
# Triplex & Quadplex Fully Automatic Electronic Demand Industrial Water Softeners

- Flow Rates up to 500 USGPM
- System designs up to 4 vessels
- Internal Electronic Flow Meter
- Fully adjustable 9 cycle valve
- Progressive flow on demand soft water
- Four methods to initiate regeneration metered immediate, metered delayed, time clock delayed, or pressure differiential
- Triplex & Quad softeners utilize NHWB valves to initiate regenerations and progressive flow system operations

MODEL	Capacity	Capacity	Max System	F	LOW RATE	(GPM)		APPROX.	SPACE REQ	UIRED (in)	Shipping
	10lbs/ft <sup>3</sup>	15lbs/ft <sup>3</sup>	Capacity (gr)	15PSI	25PSI	Syst	em	LENGTH	WIDTH	HEIGHT	Weight lbs
						Critical	Peak				
EWS ST2H150	135,000	150,000	450,000	54	70	75	120	150	24	82	1,680
EWS SQ2H150	135,000	150,000	600,000	54	70	100	160	200	24	82	2,240
EWS ST2H180	162,000	180,000	540,000	52	67	90	144	150	24	82	1,830
EWS SQ2H180	162,000	180,000	720,000	52	67	120	192	200	24	82	2,440
EWS ST2H210	189,000	210,000	630,000	68	88	105	168	160	24	85	2,160
EWS SQ2H210	189,000	210,000	840,000	68	88	140	224	211	24	85	2,880
EWS ST2H240	216,000	240,000	720,000	77	100	120	192	182	30	89	2,820
EWS SQ2H240	216,000	240,000	960,000	77	100	160	256	246	30	89	3,760
EWS ST2H300	270,000	300,000	900,000	75	97	150	240	182	30	89	3,120
EWS SQ2H300	270,000	300,000	1,200,000	75	97	200	320	246	30	89	4,160
EWS ST2H450	405,000	450,000	1,350,000	88	113	225	339	227	39	96	4,545
EWS SQ2H450	405,000	450,000	1,800,000	88	113	300	452	308	39	96	6,060
EWS ST2H600	540,000	600,000	1,800,000	97	126	300	375	280	50	98	6,000
EWS SQ2H600	540,000	600,000	2,400,000	97	126	400	500	385	50	98	8,000
EWS ST2H750	675,000	750,000	2,250,000	106	137	375	375	296	50	109	8,250
EWS SQ2H750	675,000	750,000	3,000,000	106	137	500	500	400	50	109	11,000
EWS ST2H900	810,000	900,000	2,700,000	103	134	375	375	296	50	109	9,000
EWS SQ2H900	810,000	900,000	3,600,000	103	134	500	500	400	50	109	12,000
EWS ST2H1200	1,080,000	1,200,000	3,600,000	105	136	375	375	318	50	109	11,700
EWS SQ2H1200	1,080,000	1,200,000	4,800,000	105	136	500	500	424	50	109	15,600

Critical maximum flow rate refers to soft water feed to boilers, heat exchangers, reverse osmosis systems or any other equipment sensitive to hard water scaling flow rate not exceeding 5gpm/ft3

## EXCALIBUR 3" SIMPLEX & DUPLEX PROGRESSIVE SOFTENER SPECIFICATIONS



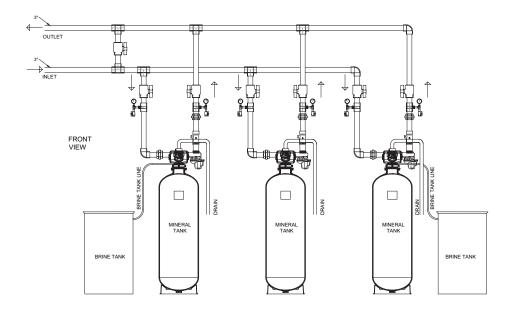
# Simplex & Duplex Fully Automatic Electronic Demand Industrial Water Softeners

- Flow Rates up to 500 USGPM
- External Electronic Flow Meter range 3.5-350 USGPM
- Fully adjustable 9 cycle valve
- Progressive flow on demand soft water
- Four methods to initiate regeneration metered immediate, metered delayed, time clock delayed, or pressure differiential
- Duplex softeners utilize NHWB valves to initiate regenerations and progressive flow system operations

MODEL	Capacity	Capacity	Max System	FI	OW RATE	E (GPM)		APPROX.	SPACE REQU	JIRED (in)	Shipping
	10lbs/ft <sup>3</sup>	15lbs/ft <sup>3</sup>	Capacity (gr)	15PSI	25PSI	Syst	em	LENGTH	WIDTH	HEIGHT	Weight Ibs
						Critical	Peak				
EWS \$3300	270,000	300,000	300,000	98	126	50	80	58	30	90	1,045
EWS SD3300	270,000	300,000	600,000	98	126	100	160	88	30	90	2,090
EWS \$3450	405,000	450,000	450,000	144	186	75	120	73	39	97	1,520
EWS SD3450	405,000	450,000	900,000	144	186	150	240	110	39	97	3,040
EWS \$3600	540,000	600,000	600,000	172	222	100	160	92	50	99	2,000
EWS SD3600	540,000	600,000	1,200,000	172	222	200	320	134	50	99	4,000
EWS \$3750	675,000	750,000	750,000	190	244	125	200	96	50	110	2,845
EWS SD3750	675,000	750,000	1,500,000	190	244	250	400	144	50	110	5,690
EWS S3900	810,000	900,000	900,000	186	240	150	240	96	50	110	3,100
EWS SD3900	810,000	900,000	1,800,000	186	240	300	480	144	50	110	6,200
EWS \$31200	1,080,000	1,200,000	1,200,000	194	251	200	250	102	50	107	3,900
EWS SD31200	1,080,000	1,200,000	2,400,000	194	251	400	500	158	50	107	7,800

<sup>•</sup> Critical maximum flow rate refers to soft water feed to boilers, heat exchangers, reverse osmosis systems or any other equipment sensitive to hard water scaling flow rate not exceeding 5gpm/ft3

## EXCALIBUR 3" TRIPLEX & QUADPLEX PROGRESSIVE SOFTENER SPECIFICATIONS



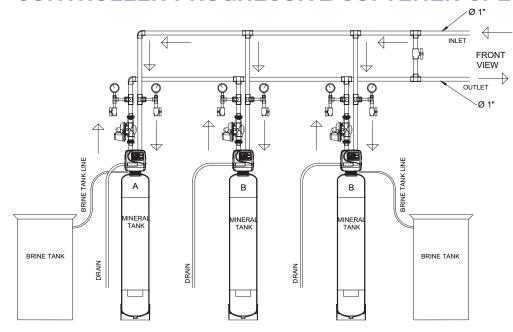
Triplex & Quadplex Fully Automatic Electronic Demand Industrial Water Softeners

- Flow Rates up to 1000 USGPM
- System designs up to 4 vessels
- External Electronic Flow Meter
- Fully adjustable 9 cycle valve
- Progressive flow on demand soft water
- Four methods to initiate regeneration metered immediate, metered delayed, time clock delayed, or pressure differiential
- Triplex & Quad softeners utilize NHWB valves to initiate regenerations and progressive flow system operations

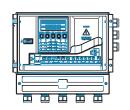
MODEL	Capacity	Capacity	Max System	F	LOW RAT	E (GPM)		APPROX.	SPACE REQ	UIRED (in)	Shipping
	10lbs/ft³	15lbs/ft³	Capacity (gr)	15PSI	25PSI	Syst	em	LENGTH	WIDTH	HEIGHT	Weight Ibs
						Critical	Peak				
EWS ST3300	270,000	300,000	900,000	98	126	150	240	190	30	90	3,135
EWS SQ3300	270,000	300,000	1,200,000	98	126	200	320	260	30	90	4,180
EWS ST3450	405,000	450,000	1,350,000	144	186	225	360	235	39	97	4,560
EWS SQ3450	405,000	450,000	1,800,000	144	186	300	480	325	39	97	6,080
EWS ST3600	540,000	600,000	1,800,000	172	222	300	480	285	50	99	6,000
EWS SQ3600	540,000	600,000	2,400,000	172	222	400	640	380	50	99	8,000
EWS ST3750	675,000	750,000	2,250,000	190	244	375	600	300	50	110	8,535
EWS SQ3750	675,000	750,000	3,000,000	190	244	500	800	400	50	110	11,380
EWS ST3900	810,000	900,000	2,700,000	186	240	450	720	300	50	110	9,300
EWS SQ3900	810,000	900,000	3,600,000	186	240	600	960	400	50	110	12,400
EWS ST31200	1,080,000	1,200,000	3,600,000	194	251	600	750	320	50	107	11,700
EWS SQ31200	1,080,000	1,200,000	4,800,000	194	251	800	1000	430	50	107	15,600

Critical maximum flow rate refers to soft water feed to boilers, heat exchangers, reverse osmosis systems or any other equipment sensitive to hard water scaling flow rate not exceeding 5gpm/ft3

## EXCALIBUR 1" COMMERCIAL/INDUSTRIAL SYSTEM CONTROLLER PROGRESSIVE SOFTENER SPECIFICATIONS



System Controller
1" Fully Automatic
Multi-Tank
Electronic Demand
Commercial/Industrial
Water Softeners

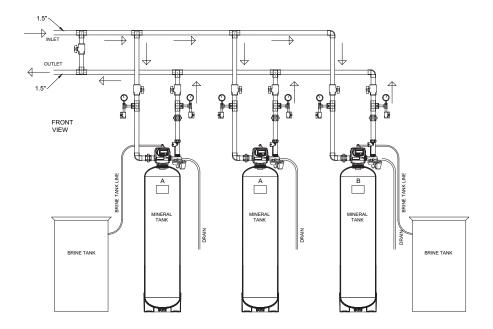


- Flow Rates up to 162 USGPM
- System designs up to 6 vessels
- Internal Electronic Flow Meters
- Fully adjustable 6 cycle valve
- Eliminates potential channelling for low flow conditions
- Progressive flow on demand soft water
- Four methods to initiate regeneration metered immediate, metered delayed, time clock delayed, or pressure differiential
- System Controller Softeners utilize NHWB valves to initiate regenerations and progressive flow system operations

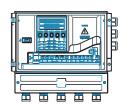
MODEL <sup>1</sup>	Vessel Ca	pacity (gr)		FL	OW R	ATE (C	SPM)				APPI	ROX. SI	PACE R	EQUIR	ED (INCHE	S)	SHIPPING
	10lbs/ft <sup>3</sup>	15lbs/ft³	Min.	Critical/	Р	rogres	sive Pe	ak Flo	W <sup>2</sup>		L	ENGTH	<b>- </b> 2		WIDTH	HEIGHT	WEIGHT LBS
	20120711	10.007.1	Flow	Vessel	2	3	4	5	6	2	3	4	5	6			
EWS SC1N30	27,000	30,000	0.9	5	16	24	32	40	48	42	100	130	162	195	20	57	90
EWS SC1N45	40,500	45,000	1.1	8	24	36	48	60	72	44	102	133	166	200	20	63	115
EWS SC1N60	54,000	60,000	1.6	10	32	48	64	80	96	48	114	148	185	222	20	62	150
EWS SC1N75	67,500	75,000	1.8	13	40	60	80	100	120	50	118	160	200	240	20	64	250
EWS SC1N90	81,000	90,000	2.1	15	44	66	88	110	132	58	149	200	250	300	24	75	350
EWS SC1N120	108,000	120,000	2.8	20	48	72	96	120	144	65	160	216	270	325	25	75	450
EWS SC1N150	135,000	150,000	3.5	25	50	75	100	125	150	75	190	220	280	335	30	75	600
EWS SC1N180	162,000	180,000	3.5	30	52	78	104	130	156	75	190	220	280	335	30	75	650
EWS SC1N210	189,000	210,000	4.8	35	54	81	108	135	162	76	190	230	290	345	30	76	750

- Critical maximum flow rate refers to soft water feed to boilers, heat exchangers, reverse osmosis systems or any other equipment sensitive to hard water scaling flow rate not exceeding 5gpm/ft3
- 1 = N must be replaced by number of Vessels to order.
- 2 = Numbers given below denote the number of vessels.

## EXCALIBUR 1.5" COMMERCIAL/INDUSTRIAL SYSTEM CONTROLLER PROGRESSIVE SOFTENER SPECIFICATIONS



System Controller
1.5" Fully Automatic
Multi-Tank
Electronic Demand
Commercial/Industrial
Water Softeners

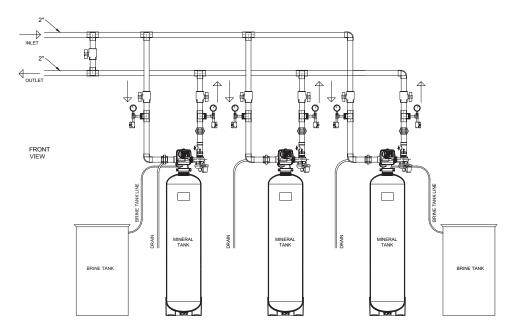


- Flow Rates up to 420 USGPM
- System designs up to 6 vessels
- External Electronic Flow Meter
- Fully adjustable 6 cycle valve
- Eliminates potential channelling for low flow conditions
- Progressive flow on demand soft water
- Four methods to initiate regeneration metered immediate, metered delayed, time clock delayed, or pressure differiential
- System Controller Softeners utilize NHWB valves to initiate regenerations and progressive flow system operations

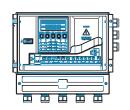
MODEL <sup>1</sup>	Vessel Cap	pacity (gr)		FLOW RATE (GPM)							APPR	S)	SHIPPING				
	10lbs/ft <sup>3</sup>	15lbs/ft³	Min.	Critical/	Р	rogress	ive Pea	ak Flow	<b>/</b> <sup>2</sup>		LI	ENGTH	2		WIDTH	HEIGHT	WEIGHT LBS
	10.00.11	10.00,10	Flow	Vessel	2	3	4	5	6	2	3	4	5	6			-20
EWS SC15N120	108,000	120,000	2.8	20	64	96	128	160	192	66	140	190	245	300	24	75	450
EWS SC15N150	135,000	150,000	3.5	25	80	120	160	200	240	75	150	205	260	315	24	74	600
EWS SC15N180	162,000	180,000	3.5	30	96	144	192	240	288	75	150	205	260	315	24	74	650
EWS SC15N210	189,000	210,000	4.8	35	112	168	224	280	336	78	160	214	275	330	24	74	700
EWS SC15N240	216,000	240,000	6.3	40	128	192	256	320	384	92	186	248	320	385	30	85	900
EWS SC15N300	270,000	300,000	6.3	50	136	204	272	340	408	92	186	248	320	385	30	85	975
EWS SC15N450	405,000	450,000	9.8	75	140	210	280	350	420	102	210	290	355	425	39	95	1,475

- Critical maximum flow rate refers to soft water feed to boilers, heat exchangers, reverse osmosis systems or any other equipment sensitive to hard water scaling flow rate not exceeding 5gpm/ft3
- 1 = N must be replaced by number of Vessels to order.
- 2 = Numbers given below denote the number of vessels.

## EXCALIBUR 2"QC COMMERCIAL/INDUSTRIAL SYSTEM CONTROLLER PROGRESSIVE SOFTENER SPECIFICATIONS



System Controller
2" Fully Automatic
Multi-Tank
Electronic Demand
Commercial/Industrial
Water Softeners



- Flow Rates up to 750 USGPM
- System designs up to 6 vessels
- External Electronic Flow Meters
- Fully adjustable 6 cycle valve
- Eliminates potential channelling for low flow conditions
- Progressive flow on demand soft water
- Four methods to initiate regeneration metered immediate, metered delayed, time clock delayed, or pressure differiential
- System Controller Softeners utilize NHWB valves to initiate regenerations and progressive flow system operations

MODEL <sup>1</sup>	Vessel Ca	pacity (gr)		FLOW RATE (GPM)							APPR	OX. SF	PACE F	REQUIR	ED (INCH	ES)	SHIPPING
	10lbs/ft³	15lbs/ft <sup>3</sup>	Min.			rogres	sive Pe	ak Flov	N <sup>2</sup>		L	ENGTI	H <sup>2</sup>		WIDTH	HEIGHT	WEIGHT LBS
	10100/10	10100/11	Flow	Vessel	2	3	4	5	6	2	3	4	5	6			
EWS SC2MQCN120	108,000	120,000	2.8	20	64	96	128	160	192	68	140	188	236	284	24	75	500
EWS SC2MQCN150	135,000	150,000	3.5	25	80	120	160	200	240	72	146	196	246	296	24	74	650
EWS SC2MQCN180	162,000	180,000	3.5	30	96	144	192	240	288	72	146	196	246	296	24	74	700
EWS SC2MQCN210	189,000	210,000	4.8	35	112	168	224	280	336	82	155	208	262	314	24	74	750
EWS SC2MQCN240	216,000	240,000	6.3	40	128	192	256	320	384	96	182	244	306	368	30	85	950
EWS SC2MQCN300	270,000	300,000	6.3	50	160	240	320	400	480	96	182	244	306	368	30	85	1,025
EWS SC2MQCN450	405,000	450,000	9.8	75	226	339	452	565	678	107	227	304	382	458	39	95	1,500
EWS SC2MQCN600	540,000	600,000	14.1	100	250	375	500	625	750	130	284	340	426	512	50	109	2,000
EWS SC2MQCN750	675,000	750,000	19.2	125	250	375	500	625	750	140	296	396	496	596	50	109	2,750
EWS SC2MQCN900	810,000	900,000	19.2	125	250	375	500	625	750	140	296	396	496	596	50	109	3,000
EWS SC2MQCN1200	1,080,000	1,200,000	25.0	125	250	375	500	625	750	154	314	420	526	632	50	109	3,900

- Critical maximum flow rate refers to soft water feed to boilers, heat exchangers, reverse osmosis systems or any other equipment sensitive to hard water scaling flow rate not exceeding 5gpm/ft3
- 1 = N must be replaced by number of Vessels to order.
- 2 = Numbers given below denote the number of vessels.





### **EXCALIBUR WATER SYSTEMS**

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