IWS

Industrial Water Solutions

NEF Series

PACKAGED WATER SOFTENERS

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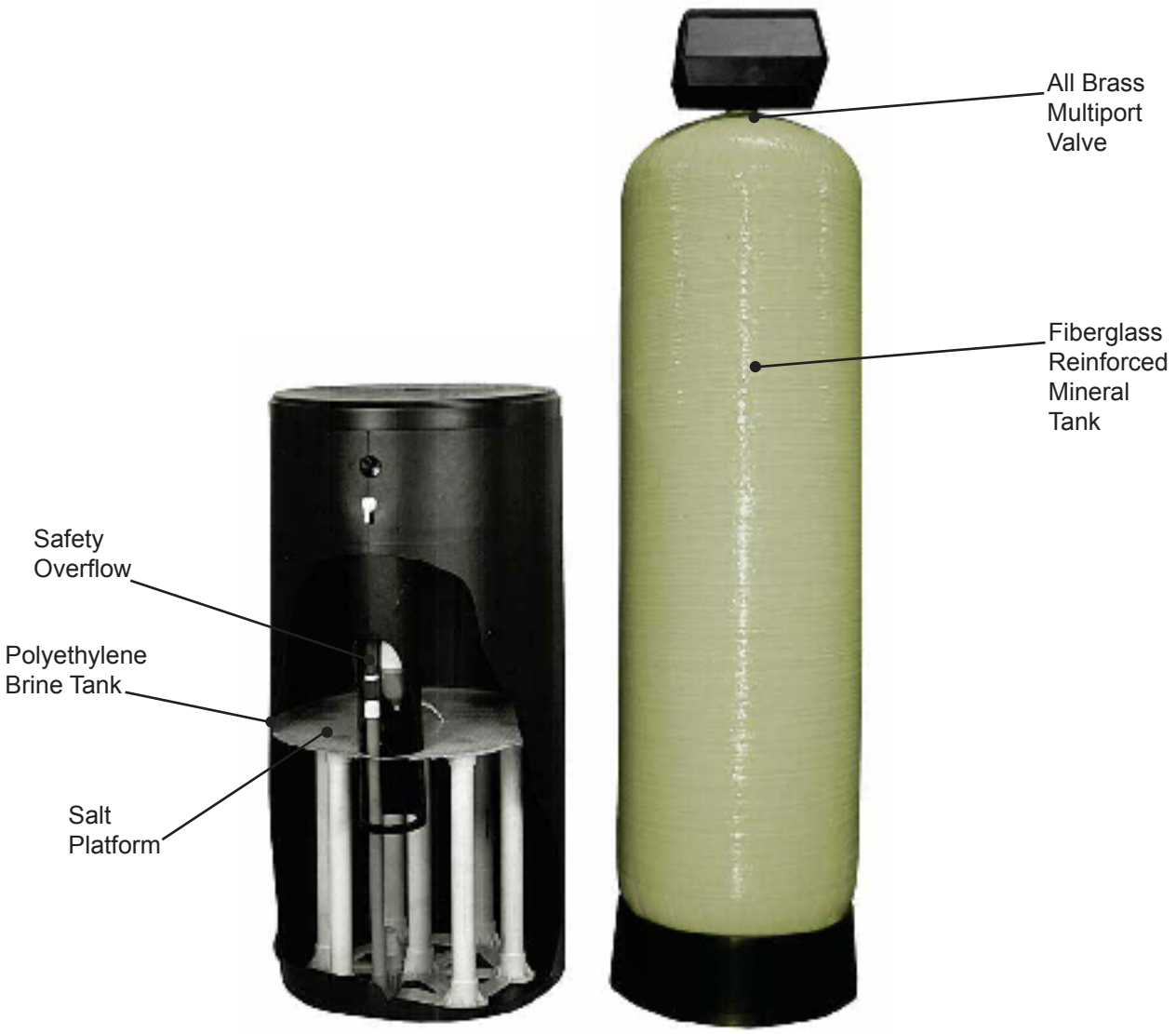

Over the years, IWS has built a reputation as an industry standard for high quality water treatment systems and equipment.

IWS NEF Series Softeners reflect that overall commitment to excellence, and are fabricated using field tested designs with a proven record of service reliability.

Designed for Multiple Applications

IWS NEF Series Water Softeners are designed to fit the requirements of many types of commercial and industrial applications.

Operating Specifications:

Pressure Range -	25 to 125 psi.
Temperature -	Up To 110 ºF
Electrical Rating -	120V / 60Hz 220V / 50Hz (Available on request)

Check with factory for other operating conditions.

Simplicity

Uncomplicated straightforward valve and brine system design coupled with rugged corrosion resistant tank construction ensures years of "trouble-free" field operation.

Low Maintenance

NEF Series Softeners are fabricated using high quality components to minimize maintenance requirements. If the need for service should arise, all valves, distributors, and operational components are easy to reach. All components are standard and readily available from stock.

Fully Automatic Operation

Standard integral time clock controller can be preset to initiate regeneration automatically at desired time intervals. If softened water usage increases unexpectedly, simply depress the manual regeneration lever and the unit will regenerate automatically and return to service without having to reset the time clock.

3/4" Valve

1 " Valve with meter option

3" Valve

1 1/2" Valve with meter option

2" Valve with meter option

5 Cycle, Motor Driven Control Valve:

IWS NEF Softeners utilize motor driven, corrosion resistant, all brass multiport control valves. These valves offer reliable operation and do not depend on water pressure for initiation of regeneration thereby eliminating problems caused by fluctuating water pressure. All four regeneration cycles (backwash, brining, slow rinse and brine tank refill) are fully adjustable. Single units offer an automatic bypass during regeneration for uninterrupted service.

Automatic Backwash Control:

IWS NEF Softeners utilize a patented self-adjusting flow control to maintain accurate backwash flow rates regardless of line pressure fluctuations. This control is factory installed and requires no field adjustment.

Choice of Single, Twin, or Triple Softener Systems:

IWS NEF Softeners are available in conventional single, twin, triple system designs. If your application requires an uninterrupted flow of soft water, we recommend a twin or triple system.

Optional Meter Operation:

Should the demand for soft water fluctuate often, you may specify an optional reset water meter which initiates regeneration on a "gallons used" basis. You may select a conventional auto-reset water meter or an electronic demand type meter.

Optional Alternating Operation:

IWS NEF Twin Alternating Softener systems are designed to assure you of a fully regenerated softener on standby, ready to go when the unit on-line exhausts. This is accomplished by the use of a sequencing stager which takes the exhausted unit out of service, and puts the freshly regenerated standby unit on stream. When the exhausted unit is fully regenerated, it is put on standby, ready to go on stream when the service unit exhausts. There is never an interruption of the soft water supply. Triple Alternating, Parallel or Additive Flow Operational systems systems are also available with one (1), two (2) or three (3) vessels on-line at any given time.

Optional Skid Mounted, Prepiped, and Prewired:

IWS NEF softener mineral tanks can be mounted on a steel skid and supplied with factory installed interconnecting piping and wiring. This will ensure quick "trouble free" installation and reduce installation costs.

Tough Corrosion Resistant Mineral Tanks:

NEF series mineral tanks are constructed of fiberglass reinforced polyester. All tanks are designed and built for 150 psi working pressure.

Tough Corrosion Resistant Brine Tanks:

Rigid, polyethylene brine tanks with dust tight covers are completely corrosion resistant and stand up well to everyday physical abuse.

High Platform Salt System:

Marlo's exclusive high platform salt system keeps brine clean and, therefore, allows the use of most grades of salt. Salt mushing and bridging are virtually eliminated because only an essential amount of salt is moistened for each regeneration.

Timed Filled Brining:

Motorized "timed-fill" control valve with automatic flow control affords accurate salt settings which can be easily adjusted by a salt setting dial on the softener control. No repositioning of plugs or removal of salt is necessary in order to vary salt dosages. Model NEF-1 thru NEF-8 are equipped as standard with a safety valve to prevent brine tank overflow. It is available as an option on all other models.

High Capacity Resin:

IWS utilizes virgin high capacity polystyrene, sulfonated resins of uniform size for maximum hardness removal and salt efficiency.

Fully Packaged:

All IWS softeners are fully factory assembled and tested before shipment. Each unit is shipped on wooden pallets to eliminate damage during shipment.

NEF SERIES SOFTENER SPECIFICATIONS

Catalog Model Number	Grains Capcity and Salt Dosages (Lbs.)		Pipe Size	Service Flow Rates		Backwash Flow Rate	Resin Load	Tank Sizes		Salt Storage Capacity	Dimensions Ins.				
				Continuous	Peak			Softener	Brine						
	Max.	Min.	In.	GPM	GPM	GPM	Cu. Ft.	In.	In.	Lbs.	Length Single	Length Twin	Length Triple	Width	Height
NEF - ½- ¾	15,000 7.5	10,000 3	¾	7	10	1.2	0.5	7 x 44	18 x 33	290	31	44	57	18	52
NEF - 1- ¾	30,000 15	20,000 6	¾	10	14	2.0	1.0	9 x 48	18 x 33	290	33	48	63	18	48
NEF - 1-1			1	14	19										48
NEF - 1½-1	45,000 22.5	30,000 9	1	15	20	3.0	1.5	10 x 54	18 x 40	320	34	50	66	18	62
NEF - 1½-1½			1½	18	28	3.5		13 x 54							62
NEF - 2-1	60,000 30	40,000 12	1	16	21	3.5	2.0	12 x 52	18 x 40	320	36	54	72	18	60
NEF - 2-1 ½			1½	28	39			13 x 54							60
NEF - 2-2			2	33	49										65
NEF - 3-1	90,000 45	60,000 18	1	17	22	5.0	3.0	14 x 65	18 x 40	270	38	58	78	18	73
NEF - 3-1 ½			1½	31	42										73
NEF - 3-2			2	39	54										78
NEF - 4-1	120,000 60	80,000 24	1	18	23	6.0	4.0	16 x 65	24 x 40	550	46	68	90	24	73
NEF - 4-1 ½			1½	34	46										73
NEF - 4-2			2	47	64										78
NEF - 5-1 ½	150,000 75	100,000 30	1½	37	51	8.0	5.0	18 x 65	24 x 40	500	48	72	96	24	74
NEF - 5-2			2	61	80										79
NEF - 7-1 ½	210,000 105	140,000 42	1½	39	52	12.0	7.0	21 x 62	24 x 50	600	51	82	113	24	71
NEF - 7-2			2	60	77										76
NEF - 8-1 ½	240,000 120	160,000 48	1½	42	55	15.0	8.0	24 x 72	24 x 50	550	54	90	126	24	81
NEF - 8-2			2	74	97										86
NEF - 8-3			3	120	170										89
NEF - 10-1 ½	300,000 150	200,000 60	1½	41	55	15.0	10.0	24 x 72	24 x 50	450	54	90	126	24	81
NEF - 10-2			2	68	91										86
NEF - 10-3			3	114	150										89
NEF - 15-2	450,000 225	300,000 90	2	84	105	25.0	15.0	30 x 72	30 x 48	590	66	108	150	30	93
NEF - 15-3			3	160	213										96
NEF - 20-2	600,000 300	400,000 120	2	87	110	35.0	20.0	36 x 72	39 x 48	1250	81	129	177	39	91
NEF - 20-3			3	185	250										94
NEF - 25-2	750,000 375	500,000 150	2	115	145	35.0	25.0	42 x 72	39 x 60	1700	87	141	195	42	96
NEF - 25-3			3	200	268										99
NEF - 25-2	900,000 450	600,000 180	2	105	135	35.0	30.0	42 x 72	42 x 60	2000	90	144	198	42	96
NEF - 30-3			3	165	225										99
NEF - 35-2	1,050,000 525	700,000 210	2	120	155	55.0	35.0	48 x 72	42 x 60	1700	96	156	216	48	99
NEF - 35-3			3	213	280										102
NEF - 40-2	1,200,000 600	800,000 240	2	125	160	55.0	40.0	48 x 72	42 x 60	1700	96	156	216	48	99
NEF - 40-3			3	205	275										102

(1) At a 15 psi pressure loss. (2) At a 25 psi pressure loss. (3) Add 24" min. additional clearance for loading media.