

Calculated Flow Rate Capability Only Based on Pressure Loss, the High Flow Rates May not Deliver Soft Water

Selecting a system flow rate by pressure drop alone does not guarantee that the system will provide treated (i.e. softened) water.

Caution: Flow rates in the table may exceed resin manufacturer's recommended maximum flow rates.

Actual flow rates will vary depending on system design, installation fittings and/or bypasses and water temperatures.

Tank Diameter (in)	Resin Volume (ft ³)	WS1.25 flow rate (gpm)		WS1.5 flow rate (gpm)		WS2 flow rate (gpm)		WS2 QC/WS2H flow rate (gpm)		WS3 flow rate (gpm)	
		15 psi ΔP	25 psi ΔP	15 psi ΔP	25 psi ΔP	15 psi ΔP	25 psi ΔP	15 psi ΔP	25 psi ΔP	15 psi ΔP	25 psi ΔP
9 ¹	1	19	28	NA	NA	NA	NA	NA	NA	NA	NA
10 ¹	1	22	31	NA	NA	NA	NA	NA	NA	NA	NA
10 ¹	1.5	19	28	NA	NA	NA	NA	NA	NA	NA	NA
12 ¹	2	23	31	NA	NA	NA	NA	NA	NA	NA	NA
13 ^{1,3,4}	2	25	34	35	45	38	49	NA	NA	NA	NA
13 ^{1,3}	2.5	24	32	33	43	35	46	NA	NA	NA	NA
14 ^{2,3,4}	3	24	33	35	46	39	50	NA	NA	NA	NA
16 ^{2,3,4}	4	25	34	40	52	47	60	NA	NA	NA	NA
18 ^{2,3,4}	5	27	35	44	57	53	69	54	70	NA	NA
18 ^{2,3,4}	6	26	34	43	56	51	66	52	67	NA	NA
21 ^{3,4}	5	NA	NA	52	67	72	94	75	97	NA	NA
21 ^{3,4}	6	NA	NA	51	65	70	91	71	92	NA	NA
21 ^{3,4}	7	NA	NA	50	64	66	85	68	88	NA	NA
22 ^{3,4}	5	NA	NA	54	70	75	97	78	100	NA	NA
22 ^{3,4}	6	NA	NA	53	68	72	94	74	96	NA	NA
22 ^{3,4}	7	NA	NA	52	67	68	88	70	91	NA	NA
24 ^{3,4,5}	8	NA	NA	55	71	76	98	77	100	111	143
24 ^{3,4,5}	9	NA	NA	54	69	74	96	76	98	104	134
24 ^{3,4,5}	10	NA	NA	53	68	73	94	75	97	98	126
30 ^{4,5}	10	NA	NA	60	78	89	115	92	120	158	205
30 ^{4,5}	15	NA	NA	58	75	84	109	88	113	144	186
36 ^{4,5}	15	NA	NA	NA	NA	95	123	100	130	185	238
36 ^{4,5}	20	NA	NA	NA	NA	93	119	97	126	172	222
42 ^{4,5}	25	NA	NA	NA	NA	98	127	106	137	190	244
48 ^{4,5}	40	NA	NA	NA	NA	98	127	105	136	194	251
63 ^{4,5}	65	NA	NA	NA	NA	NA	NA	112	144	213	275
63 ^{4,5}	72	NA	NA	NA	NA	NA	NA	111	143	210	270

¹ WS1.25 flow rate data was obtained by calculation from a 12x52 test unit using 60±2°F influent water; Clack model WS1.25 valve with meter, V3007-05 1.25" fittings and D1237 932 bottom distributor 1.320; #20 Red Flint Gravel approximately 2" above the top of the distributor; and C249NS resin.

² WS1.25 flow rate data was obtained by calculation from a 16x65 test unit using 60±2°F influent water; Clack model WS1.25 valve with meter, V3007-05 1.25" fittings and D7178-02 top mount hub and lateral distributor system; 1/4X1/8 gravel to cover the top of the lateral and 2" of #20 Red Flint Gravel; and C249NS resin.

³ WS1.5 flow rate data was obtained by calculation from a 18x65 test unit using 60±2°F influent water; Clack model WS1.5 valve with meter, D1300 top baffle diffuser 1.5/50MM and DKSHL18TM1.5S distributor assembly; 1/4X1/8 gravel to cover the top of the lateral and 2" of #20 Red Flint Gravel; and C249NS resin.

⁴The WS2 and WS2 QC/WS2H system flow rates were calculated based on valve flow coefficients, Ionac C249 pressure drop data for the bed, and distributor-gravel-resin interface data from the testing of the WS1.5 systems.

⁵The WS3 system flow rates were calculated based on valve flow coefficients, Ionac C249 pressure drop data for the bed, and distributor-gravel-resin interface data from the testing of the WS3 system with a model DKSHL30TM3S distributor with 300 pounds of #20 red flint gravel.

