

Water Softener Sizing and RO Membrane and Tank Sizing

Self Serve Bays ONLY												
ONE (1) RO Membrane												
# of Bays	Total Soft Water (Gallons) used in one hour	Water Hardness, in grains, to determine Softener Capacity							RO Water Storage Tank			
		10	15	20	25	30	35	40	Max. Waste Water Generated per hour of RO Production	RO Gallons Required for 8 Hrs of Continuous Operation	RO Water Produced VS. an Hour of Operation (GPH)	Recommended Storage Tank Size for 8 Hrs of Continuous Operation
2	192	80K	80K	80K	128K	128K	192K	192K	107	155	Balanced	100 gal
3	288	80K	128K	128K	192K	192K	256K	256K	160	232	Balanced	100 Gal
4	384	80K	128K	192K	192K	256K	480K	480K	214	310	-21	165 gal
5	480	128K	192K	192K	256K	480K	480K	480K	267	387	-45	300 gal
6	576	128K	192K	256K	480K	480K	480K	480K	321	465	-69	300 gal x 2

NOTE: 7-12 Bays it is recommended to increase the number of filter membranes to increase the efficiency and production of Spot Free Rinse Water

TWO (2) RO Membranes												
# of Bays	Total Soft Water (Gallons) used in one hour	Water Hardness, in grains, to determine Softener Capacity							RO Water Storage Tank			
		10	15	20	25	30	35	40	Max. Waste Water Generated per hour of RO Production	RO Gallons Required for 8 Hrs of Continuous Operation	RO Water Produced VS. an Hour of Operation (GPH)	Recommended Storage Tank Size for 8 Hrs of Continuous Operation
2	192	80K	80K	80K	80K	128K	128K	128K	52	100	Balanced	100 gal
3	288	80K	80K	128K	128K	192K	192K	192K	78	150	Balanced	100 gal
4	384	80K	128K	128K	192K	192K	256K	256K	104	200	Balanced	100 gal
5	480	80K	128K	192K	256K	256K	480K	480K	130	250	Balanced	100 gal
6	576	128K	192K	192K	256K	480K	480K	480K	156	300	-6	100 gal
7	672	128K	192K	256K	480K	480K	480K	480K	182	350	-30	260 gal
8	768	128K	192K	256K	480K	480K	480K	480K	208	400	-54	300 gal x 2
9	864	192K	256K	480K	480K	480K	480K	480K	234	450	-78	300 gal x 2

NOTE: 10-12 Bays it is recommended to increase the number of filter membranes to increase the efficiency and production of Spot Free Rinse Water

Three (3) RO Membranes												
# of Bays	Total Soft Water (Gallons) used in one hour	Water Hardness, in grains, to determine Softener Capacity							RO Water Storage Tank			
		10	15	20	25	30	35	40	Max. Waste Water Generated per hour of RO Production	RO Gallons Required for 8 Hrs of Continuous Operation	RO Water Produced VS. an Hour of Operation (GPH)	Recommended Storage Tank Size for 8 Hrs of Continuous Operation
2	192	80K	80K	80K	80K	128K	128K	128K	24	72	Balanced	100 gal
3	288	80K	80K	128K	128K	192K	192K	192K	35	107	Balanced	100 gal
4	384	80K	128K	128K	192K	192K	256K	256K	47	143	Balanced	100 gal
5	480	80K	128K	192K	192K	256K	256K	480K	59	179	Balanced	100 gal
6	576	128K	192K	192K	256K	480K	480K	480K	71	215	Balanced	100 gal
7	672	128K	192K	256K	256K	480K	480K	480K	83	251	Balanced	100 gal
8	768	128K	192K	256K	480K	480K	480K	480K	95	287	Balanced	100 gal
9	864	192K	256K	480K	480K	480K	480K	480K	106	322	-8	100 gal
10	960	192K	256K	480K	480K	480K	480K	480K	118	358	-32	260 gal
11	1056	192K	256K	480K	480K	480K	480K	480K	130	394	-56	300 gal x 2
12	1152	192K	480K	480K	480K	480K	480K	480K	142	430	-80	300 gal x 2

FOUR (4) RO Membranes												
# of Bays	Total Soft Water (Gallons) used in one hour	Water Hardness, in grains, to determine Softener Capacity							RO Water Storage Tank			
		10	15	20	25	30	35	40	Max. Waste Water Generated per hour of RO Production	RO Gallons Required for 8 Hrs of Continuous Operation	RO Water Produced VS. an Hour of Operation (GPH)	Recommended Storage Tank Size for 8 Hrs of Continuous Operation
2	192	80K	80K	80K	80K	128K	128K	128K	16	64	Balanced	100 gal
3	288	80K	80K	128K	128K	128K	192K	192K	24	96	Balanced	100 gal
4	384	80K	128K	128K	192K	192K	256K	256K	32	128	Balanced	100 gal
5	480	80K	128K	192K	192K	256K	256K	480K	40	160	Balanced	100 gal
6	576	128K	128K	192K	256K	256K	480K	480K	48	192	Balanced	100 gal
7	672	128K	192K	256K	256K	480K	480K	480K	56	224	Balanced	100 gal
8	768	128K	192K	256K	480K	480K	480K	480K	64	256	Balanced	100 gal
9	864	128K	192K	256K	480K	480K	480K	480K	72	288	Balanced	100 gal
10	960	192K	256K	480K	480K	480K	480K	480K	80	320	Balanced	100 gal
11	1056	192K	256K	480K	480K	480K	480K	480K	88	352	-24	260 gal
12	1152	192K	256K	480K	480K	480K	480K	480K	96	384	-48	300 gal

NOTE: Light Gray cells are 1" ported Softeners, Dark Gray cells are for 1-1/2" ported Softeners, White cells are for 2" ported Softeners.

Water Softener Sizing and RO Membrane and Tank Sizing

ONE (1) Automatic and a number of Self Serve Bays

ONE (1) RO Membrane												
# of Bays	Total Soft Water (Gallons) used in one hour	Water Hardness, in grains, to determine Softener Capacity							RO Water Storage Tank			
		10	15	20	25	30	35	40	Max. Waste Water Generated per hour of RO Production	RO Gallons Required for 8 Hrs of Continuous Operation	RO Water Produced VS. an Hour of Operation (GPH)	Recommended Storage Tank Size for 8 Hrs of Continuous Operation
2	256	80K	128K	192K	192K	256K	256K	480K	285	413	-53	300 gal x 2
3	352	128K	192K	192K	256K	480K	480K	480K	338	490	-77	300 gal x 2

NOTE: 4-12 Bays it is recommended to increase the number of filter membranes to increase the efficiency and production of Spot Free Rinse Water

TWO (2) RO Membranes

TWO (2) RO Membranes												
# of Bays	Total Soft Water (Gallons) used in one hour	Water Hardness, in grains, to determine Softener Capacity							RO Water Storage Tank			
		10	15	20	25	30	35	40	Max. Waste Water Generated per hour of RO Production	RO Gallons Required for 8 Hrs of Continuous Operation	RO Water Produced VS. an Hour of Operation (GPH)	Recommended Storage Tank Size for 8 Hrs of Continuous Operation
2	256	80K	128K	192K	192K	256K	256K	480K	215	413	Balanced	100 gal
3	352	128K	192K	192K	256K	480K	480K	480K	255	490	-14	100 gal
4	448	128K	192K	256K	480K	480K	480K	480K	295	568	-38	300 gal
5	544	128K	192K	256K	480K	480K	480K	480K	312	600	-62	300 gal x 2
6	640	192K	256K	480K	480K	480K	480K	480K	312	600	-86	300 gal x 2

NOTE: 7-12 Bays it is recommended to increase the number of filter membranes to increase the efficiency and production of Spot Free Rinse Water

Three (3) RO Membranes

Three (3) RO Membranes												
# of Bays	Total Soft Water (Gallons) used in one hour	Water Hardness, in grains, to determine Softener Capacity							RO Water Storage Tank			
		10	15	20	25	30	35	40	Max. Waste Water Generated per hour of RO Production	RO Gallons Required for 8 Hrs of Continuous Operation	RO Water Produced VS. an Hour of Operation (GPH)	Recommended Storage Tank Size for 8 Hrs of Continuous Operation
2	256	80K	128K	192K	192K	256K	256K	480K	136	413	Balanced	100 gal
3	352	128K	192K	192K	256K	480K	480K	480K	162	490	Balanced	100 gal
4	448	128K	192K	256K	480K	480K	480K	480K	187	568	Balanced	100 gal
5	544	128K	192K	256K	480K	480K	480K	480K	198	600	Balanced	100 gal
6	640	192K	256K	480K	480K	480K	480K	480K	198	600	-16	165 gal
7	736	192K	256K	480K	480K	480K	480K	480K	198	600	-40	300 gal
8	832	192K	256K	480K	480K	480K	480K	480K	198	600	-64	300 gal x 2
9	928	192K	256K	480K	480K	480K	480K	480K	198	600	-88	300 gal x 2

NOTE: 10-12 Bays it is recommended to increase the number of filter membranes to increase the efficiency and production of Spot Free Rinse Water

FOUR (4) RO Membranes

FOUR (4) RO Membranes												
# of Bays	Total Soft Water (Gallons) used in one hour	Water Hardness, in grains, to determine Softener Capacity							RO Water Storage Tank			
		10	15	20	25	30	35	40	Max. Waste Water Generated per hour of RO Production	RO Gallons Required for 8 Hrs of Continuous Operation	RO Water Produced VS. an Hour of Operation (GPH)	Recommended Storage Tank Size for 8 Hrs of Continuous Operation
2	256	80K	128K	192K	192K	256K	256K	480K	103	413	Balanced	100 gal
3	352	128K	192K	192K	256K	480K	480K	480K	123	490	Balanced	100 gal
4	448	128K	192K	256K	480K	480K	480K	480K	142	568	Balanced	100 gal
5	544	128K	192K	256K	480K	480K	480K	480K	150	600	Balanced	100 gal
6	640	192K	256K	480K	480K	480K	480K	480K	150	600	Balanced	100 gal
7	736	192K	256K	480K	480K	480K	480K	480K	150	600	-8	100 gal
8	832	192K	256K	480K	480K	480K	480K	480K	150	600	-32	260 gal
9	928	192K	256K	480K	480K	480K	480K	480K	150	600	-56	300 gal x 2
10	1024	192K	480K	480K	480K	480K	480K	480K	150	600	-80	300 gal x 2
11	1120	192K	480K	480K	480K	480K	480K	480K	150	600	-104	300 gal x 2
12	1216	256K	480K	480K	480K	480K	480K	480K	150	600	-128	300 gal x 2

NOTE: Light Gray cells are 1" ported Softeners, Dark Gray cells are for 1-1/2" ported Softeners, White cells are for 2" ported Softeners.

Water Softener Sizing and RO Membrane and Tank Sizing

TWO (2) Automatic and a number of Self Serve Bays

ONE (1) RO Membrane												
# of Bays	Total Soft Water (Gallons) used in one hour	Water Hardness, in grains, to determine Softener Capacity							RO Water Storage Tank			
		10	15	20	25	30	35	40	Max. Waste Water Generated per hour of RO Production	RO Gallons Required for 8 Hrs of Continuous Operation	RO Water Produced VS. an Hour of Operation (GPH)	Recommended Storage Tank Size for 8 Hrs of Continuous Operation

NOTE: 1-12 Bays it is recommended to increase the number of filter membranes to increase the efficiency and production of Spot Free Rinse Water

TWO (2) RO Membranes

TWO (2) RO Membranes												
# of Bays	Total Soft Water (Gallons) used in one hour	Water Hardness, in grains, to determine Softener Capacity							RO Water Storage Tank			
		10	15	20	25	30	35	40	Max. Waste Water Generated per hour of RO Production	RO Gallons Required for 8 Hrs of Continuous Operation	RO Water Produced VS. an Hour of Operation (GPH)	Recommended Storage Tank Size for 8 Hrs of Continuous Operation
2	320	128K	128K	192K	256K	256K	480K	480K	225	433	-70	300 gal x 2
3	416	128K	192K	256K	256K	480K	480K	480K	251	483	-94	300 gal x 2
4	512	128K	192K	256K	480K	480K	480K	480K	277	533	-118	300 gal x 2

NOTE: 5-12 Bays it is recommended to increase the number of filter membranes to increase the efficiency and production of Spot Free Rinse Water

Three (3) RO Membranes

Three (3) RO Membranes												
# of Bays	Total Soft Water (Gallons) used in one hour	Water Hardness, in grains, to determine Softener Capacity							RO Water Storage Tank			
		10	15	20	25	30	35	40	Max. Waste Water Generated per hour of RO Production	RO Gallons Required for 8 Hrs of Continuous Operation	RO Water Produced VS. an Hour of Operation (GPH)	Recommended Storage Tank Size for 8 Hrs of Continuous Operation
2	320	80K	128K	192K	192K	256K	256K	480K	102	310	Balanced	100 gal
3	416	128K	128K	192K	256K	256K	480K	480K	114	346	-24	260 gal
4	512	128K	192K	256K	256K	480K	480K	480K	126	382	-48	300 gal
5	608	128K	192K	256K	480K	480K	480K	480K	138	418	-72	300 gal x 2
6	704	128K	192K	256K	480K	480K	480K	480K	150	454	-96	300 gal x 2
7	800	192K	256K	480K	480K	480K	480K	480K	162	490	-120	300 gal x 2

NOTE: 8-12 Bays it is recommended to increase the number of filter membranes to increase the efficiency and production of Spot Free Rinse Water

FOUR (4) RO Membranes

FOUR (4) RO Membranes												
# of Bays	Total Soft Water (Gallons) used in one hour	Water Hardness, in grains, to determine Softener Capacity							RO Water Storage Tank			
		10	15	20	25	30	35	40	Max. Waste Water Generated per hour of RO Production	RO Gallons Required for 8 Hrs of Continuous Operation	RO Water Produced VS. an Hour of Operation (GPH)	Recommended Storage Tank Size for 8 Hrs of Continuous Operation
2	320	80K	128K	192K	192K	256K	256K	480K	69	277	Balanced	100 gal
3	416	80K	128K	192K	256K	256K	480K	480K	77	309	Balanced	100 gal
4	512	128K	192K	192K	256K	480K	480K	480K	85	341	-16	165 gal
5	608	128K	192K	256K	480K	480K	480K	480K	93	373	-40	300 gal
6	704	128K	192K	256K	480K	480K	480K	480K	101	405	-64	300 gal x 2
7	800	192K	256K	480K	480K	480K	480K	480K	109	437	-88	300 gal x 2
8	896	192K	256K	480K	480K	480K	480K	480K	117	469	-112	300 gal x 2

NOTE: 9-12 Bays will require a special design to have an RO Spot Free Rinse system handle the required flow. Please Consult RYKO Manufacturing Co.

NOTE: Light Gray cells are 1" ported Softeners, Dark Gray cells are for 1-1/2" ported Softeners, White cells are for 2" ported Softeners.