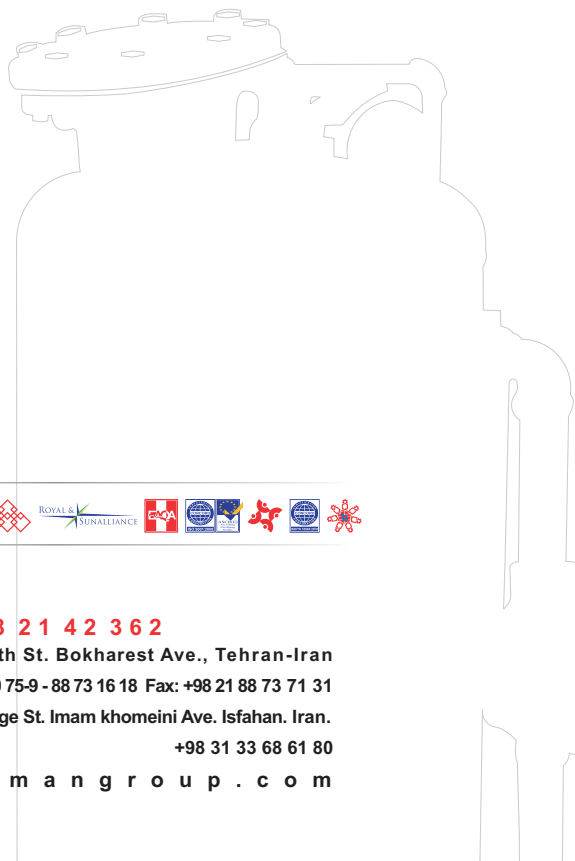




Manufacturer of Boilers, Thermal Oil Heaters, Heat Exchangers  
Pressure Vessels, Storage Tanks & Industrial Water Treatment Equipment ,...



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[www . p a c k m a n g r o u p . c o m](http://www.packmangroup.com)



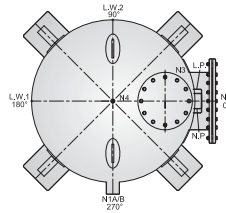
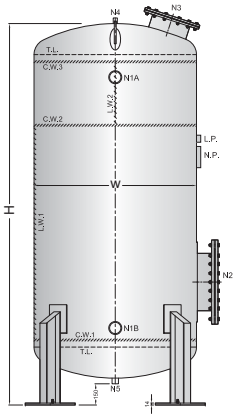
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## Water Softener

**PWS**

[www . m o c . q n o 1 g n s m k c s q . w w w](http://www.moc.qno1gnsmkcsq.www)



- There are two kinds of control valves, hand adjustment and semi automatic.
- The resin storage tank is made of ST37 with 6-10 thickness and two layer epoxy.
- The salt tank is made of steel or plastic and the nozzles are made of brass.
- The internal water temperature is between 5-55 degree of centigrade.
- working pressure: 1-6 bar
- Test pressure: 10 bar

$$\text{water Softener Capacity (Grain)} = \frac{(\text{Flow Rate (Gpm)} \times 60 \times \text{Washing Cycle (hr)} \times \text{Water Hardness (ppm)})}{17.1}$$

Model	PWS-3	PWS-6	PWS-9	PWS-12	PWS-15	PWS-18	PWS-21	PWS-24	PWS-30	PWS-36		
<b>Capacity (Grain)</b>	30,000	60,000	90,000	120,000	150,000	180,000	210,000	240,000	300,000	360,000		
Vessel Diameter (W)	(mm) 270	270	300	400	450	500	500	550	600	600		
Inlet/Outlet Size	(in.) 3/4"	3/4"	3/4"	1"	1"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"		
Flow Data	Service Flow Rates	Medium (gpm)	2.7	5.3	8.1	10.6	13.3	15.9	18.6	21.2	26.5	31.8
		Maximum (gpm)	4.4	8.8	13.3	17.7	22.1	26.5	30.9	35.3	44.2	53.1
	Regeneration (NaCl Injection)	Brine Flow Rate (gpm)	0.4	0.9	1.3	1.8	2.2	2.7	3.1	3.5	4.4	5.3
		Min. Req. Duration (min.)	22	22	22	22	22	22	22	22	22	22
Rinse	Flow Rate (gpm)	1.6	3.2	4.8	6.4	8.1	9.5	11.1	12.7	15.9	19.1	
	Min. Req. Duration (min.)	17	17	17	17	17	17	17	17	17	17	
Resin	Volume (lit)	25	50	75	100	125	150	175	200	250	300	
Brine 10% NaCl Solution	NaCl (kg)	4	8	11	15	19	23	26	30	38	45	
Height (Cap top)	(mm)	1,220	1,740	2,010	1,690	1,690	1,690	1,860	1,800	1,910	2,140	
Total Height (H)	(mm)	1,350	1,900	2,150	1,850	1,850	1,850	2,000	1,950	2,050	2,250	
Occupied Space	(mm x mm)	560 x 450	560 x 450	580 x 500	790 x 650	830 x 700	880 x 740	880 x 740	x 790	950 x 780	950 x 780	
Total Pressure Drop	(Type, in.)	4	4	5	6	6	6	6	8	8	8	

Model	PWS-45	PWS-54	PWS-75	PWS-96	PWS-120	PWS-150	PWS-180	PWS-200	PWS-220	PWS-250	PWS-300	PWS-360		
<b>Capacity (Grain)</b>	450,000	540,000	750,000	960,000	1,200,000	1,500,000	1,800,000	2,000,000	2,200,000	2,500,000	3,000,000	3,600,000		
Vessel Diameter (W)	(mm) 650	750	800	900	1000	1150	1250	1300	1350	1400	1500	1600		
Inlet/Outlet Size	(in.) 2"	2"	2"	2"	2 1/2"	2 1/2"	4"	4"	4"	4"	4"	4"		
Flow Data	Service Flow Rates	Medium (gpm)	39.8	47.7	66.3	84.8	106.1	132.5	159.2	177.6	193.5	220.8	265.1	318.2
		Maximum (gpm)	66.3	79.5	110.4	141.3	176.7	220.8	265.1	295.9	322.4	368.1	441.7	530.1
	Regeneration (NaCl Injection)	Brine Flow Rate (gpm)	6.6	8.1	11.1	14.1	17.7	22.1	26.5	29.6	32.2	36.8	44.2	53.1
		Min. Req. Duration (min.)	22	22	22	22	22	22	22	22	22	22	22	
Rinse	Flow Rate (gpm)	23.9	28.6	39.8	50.9	63.6	79.5	95.4	106.5	116.1	132.5	159.1	190.8	
	Min. Req. Duration (min.)	17	17	17	17	17	17	17	17	17	17	17		
Resin	Volume (lit)	375	450	625	800	1000	1250	1500	1675	1825	2075	2500	3000	
Brine 10% NaCl Solution	NaCl (kg)	56	68	94	120	150	188	225	251	274	313	375	450	
Height (Cap top)	(mm)	2,320	2,250	2,530	2,600	2,700	2,700	2,830	2,930	2,930	3,030	3,150	3,300	
Total Height (H)	(mm)	2,450	2,400	2,650	2,750	2,800	2,800	2,950	3,050	3,050	3,150	3,300	3,450	
Occupied Space	(mm x mm)	1300 x 890	1380 x 1000	1510 x 1050	1600 x 1150	1770 x 1240	1900 x 1360	2230 x 1470	2280 x 1500	2330 x 1560	2380 x 1610	2480 x 1710	2580 x 1810	
Total Pressure Drop	(Type, in.)	8	10	10	10	16	16	16	16	16	16	16		

1 in = 25.3995 mm; 1 ft = 12 in = 0.3048m  
 1 lb = 7000 grain = 0.4536 kg  
 1 gal = 4.546 l (brit.) = 3.785 l (am) = 0.16 cu.ft.  
 1 bar = 14.504 psi = 0.984 atm = 100 kpa  
 1 atm = 1.013 bar; 1 kg/cm = 14.233 lb/sq in (psi)  
 All Specifications are subject to change without notice.

