



BROCHURE

DUPLEX WATER SOFTENERS

COMMERCIAL SYSTEMS

ADVANTAGES OF DUPLEX WATER SOFTENERS

Duplex softeners function similar to simplex units, except that they consist of two resin columns where one is in service and the second is in standby.

The flow of water to service is metered and when the first column reaches exhaustion, the control valve automatically switches the service flow to the second column and then regenerates the first column. It is then put on standby until required again for service.

In this way, a duplex softener is capable of giving a continuous 24 hour supply of softened water.

Duplex softeners are therefore ideal for sites with large variations in water demand and for applications where a continuous and uninterrupted supply of soft water is essential.

Regeneration is programmed to occur at a time when there is no or lower demand (typically during the night).

The cycle can be programmed to occur according to water hardness and the volume of water used between cycles.

Regeneration can also be made manually as and when required.

Duplex softeners normally regenerate when the duty vessel becomes saturated with scale. The standby tank immediately goes online while the previous online tank regenerates. When sizing a duplex system softeners are normally sized to go 12 hours between needing to regenerate.

This softener is supplied partially assembled for shipping. Some assembly will be required. All components and instructions will be supplied.



SPECIFICATIONS

SOFTENER SIZING

Model	DWS50	DWS75	DWS100	DWS150	DWS200	DWS250
Resin Volume (Litres)	50	75	100	150	200	250
Service Flow (m ³ /hr)	1" 2.0	3.0	5.0	6.0	8.0	-
	1.5" -	-	-	-	-	10
Vessel Type	1054	1354	1465	1665	1865	2162
Brine Tank Volume (Litres)	100	140	140	200	350	500
Salt Used per Regen (kg)	7.5	11.25	15	22.5	30	37.50

CAPACITY TABLE

Model	DWS50	DWS75	DWS100	DWS150	DWS200	DWS250
Resin Volume (Litres)	50	75	100	150	200	250
Capacity at 100 ppm (m ³)	25.0	37.50	50.00	75.00	100.00	125.00
Capacity at 150 ppm (m ³)	16.75	25.125	33.50	50.25	66.66	83.75
Capacity at 200 ppm (m ³)	12.50	18.750	25.00	37.50	50.00	62.50
Capacity at 250 ppm (m ³)	10.0	15.0	20.0	30.0	40.0	50.0
Capacity at 300 ppm (m ³)	8.30	12.525	16.70	25.05	33.33	41.75
Capacity at 350 ppm (m ³)	7.10	10.75	14.30	21.50	28.57	35.75
Capacity at 400 ppm (m ³)	6.25	9.375	12.50	18.75	25.00	31.25

VALVE

Softener control valves are sized and specified according to the flow rate of the application.

The inlet and outlet connection ports generally range between 3/4" and 3" for standard control valves with flow rates up to 50m³ per hour.

Steady demand applications are suitable for either timer control or volume control via in-built metering.

MAINTENANCE

Automatic water softeners need a supply of appropriate salt to make the required brine for regeneration purposes.

Salt is most commonly supplied in 25kg bags of either granular or tablet type.

This type of salt is manufactured specifically for water softening purposes and has a very high purity level.

Other types of salt should not be used due to the levels of impurity or additives.

The only attention required from the user is to check on a regular basis that the level of salt in the brine tank is kept topped up to ensure a saturated brine solution is available for regeneration.

Although softeners are very reliable, as with any other piece of essential plant, routine servicing is strongly recommended. This will ensure many years of reliable service from the plant.



Routine professional servicing by our experienced service team is also strongly recommended, for peace of mind and continued operational performance.

WHY CHOOSE CELTIC WATER SOLUTIONS



UNMATCHED EXPERTISE

We bring in a wealth of experience to get through any water treatment job. Proudly Ireland's No. 1 water treatment company.



TRUSTED BY 50,000+ CUSTOMERS

Over the course of 20 years, we've earned a reputation as a trusted & reliable source of all water treatment needs.



NATIONWIDE COVERAGE

With an active presence in all the counties, you can get prompt & proactive service when you buy from us. We're just a call away!



PROFESIONAL INSTALLATION

Professional installation from qualified & experienced technicians ensures the product is customized as per your need & space.

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We here in Thermo King Galway began using Celtic Water Solutions two years ago for all our water treatment needs, including water softeners, water coolers, water testing, etc.

Thermo King have just installed a new Ecoat painting system which was a \$3,000,000 dollar project. The water treatment part of this project was carried out by Celtic Water Solutions, this was a big part of the project and had to be overseen by E.P.A.

We are quite happy to continue doing business with this company into the future.

Gerry Gannon

Maintenance Co-Ordinator





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