



WATER SOFTENERS

DAVEY®

DAVEY®

Softener

With Technology by Kinetico
 Kinetico



Davey® Kinetico® Water Softeners

Model Numbers: MACH2020cHF, MACH2025s
MACH2060s, MACH2060s OD

Davey's Kinetico water softeners are a hard working non-electric design offering continuous supply of soft water using a twin tank system.

APPLICATIONS

Ideal for supplying soft water to :-

- make cleaning easier
- make clothes and hair softer
- reduce scale in pipes and appliances

WHY CHOOSE THE DAVEY KINETICO WATER SOFTENERS?

NON ELECTRIC

Only Davey Kinetico uses the kinetic energy of moving water to power its system instead of electricity – thanks to the patented turbine. So you'll never have to worry about costly repairs or higher electricity bills.

24/7

Our twin tank design allows our system to backwash without ever going offline, for round the clock operation. You'll never be interrupted or inconvenienced by regeneration.

METERED REGENERATION

Based on your water hardness, the system measures water use to accurately determine when it's time to regenerate with clock like precision, resulting in up to 20% less waste water and up to 40% savings in salt. Your softener automatically adjusts to your water use patterns.

SOFT WATER RINSE

Uses only soft conditioned water to clean the media, which extends the life of the system.




COUNTER CURRENT REGENERATION

Unlike most other systems, ours regenerates in counter-current mode, a more even and efficient use of resin beads, resulting in less waste water, less salt use and a longer lasting system.

DEPEND ON
DAVEY

WATER PRODUCTS

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SPECIFICATIONS				
				
MODEL	MACH2020cHF	MACH2025s	MACH2060s	
INLET WATER QUALITY				
Pressure Range	1.0-8.6 Bar	1.0-8.6 Bar	1.0-8.6 Bar	
Temperature Range	2 - 49°C	2 - 49°C	2 - 49°C	
pH Range	5 - 10 SU	5 - 10 SU	5 - 10 SU	
Free Chlorine Cl ₂ (Max.)	2.0mg/l	2.0mg/l	2.0mg/l	
Hardness as CaCO ₃ (Max.)	342mg/l	428mg/l	1,129mg/l	
Iron	0	2ppm	6ppm	
OPERATING SPECIFICATIONS				
Flow Range	(1.0 - 2.1 Bar) 32 - 51 lpm	(1.0 - 2.1 Bar) 30 - 45 lpm	(1.0 - 2.1 Bar) 44 - 68 lpm	
Flow Configuration	Alternating	Alternating	Alternating	
Dimensions (w x d x h)	210 x 457 x 483mm	432 x 210 x 584mm	432 x 210 x 1,168mm	
Operating Weight	38.6kg	55kg	91kg	
Shipping Weight	20.4kg	36kg	64kg	
SYSTEM COMPONENTS				
Media Vessel Quantity	2	2	2	
Size	152 x 330mm	203 x 432mm	203 x 1,016mm	
Media Vessel Construction	Fibreglass Wrapped Engineered Plastic	Fibreglass Wrapped Engineered Plastic	Fibreglass Wrapped Engineered Plastic	
Empty Bed Volume	4.5 litres	11.3 litres	29.4 litres	
Media Type	Uniform Bead Cation Resin	Non Solvent Cation Resin	Non Solvent Cation Resin	
Media Volume	4.5 litres	8.5 litres	19.8 litres	
Bed Depth	330mm	305mm	635mm	
Free Board	0mm	127mm	381mm	
Riser Tube	25mm ABS	25mm ABS	25mm ABS	
Distributor Upper	0.23mm Slots, GFN Basket	0.36mm Slots, ABS Basket	0.36mm Slots, ABS Basket	
Distributor Lower	0.23mm Slots, Stainless Steel Flat Plate	0.23mm Slots, Stainless Steel Flat Plate	0.23mm Slots, Stainless Steel Flat Plate	
Under bedding	None	None	None	
Regeneration Control	Non-electric Use Meter	Non-electric Use Meter	Non-electric Use Meter	
Regeneration Type	Counter Current	Counter Current	Counter Current	
Meter Type	0.2-26.5 lpm Polypropylene Turbine	1.1-95.6 lpm Polypropylene Turbine	1.1-94.6 lpm Polypropylene Turbine	
CONNECTIONS				
Inlet / Outlet Connections	25mm Custom Adapter and Bracket	25mm Custom Adapter and Bracket	32mm Custom Adapter and E-clip	
Drain Connection	13mm Tube	13mm Tube	13mm Tube	
Brine Line Connection	10mm Tube	10mm Tube	10mm Tube	
Power	None	None	None	
BRINE TANK OPTIONS				
Tank Description (inches)	Incorporated into unit	12 x 40	18 x 35	12 x 40
Brine Tank Part Number	N/A	7202	7983	1479B
Tank Height	483mm	508mm	889mm	1,016mm
Tank Footprint	457 x 229mm	305 x 406mm	457mm	304mm
Material	ABS	HDPE	HDPE	HDPE
Salt Capacity	10.0kg blocks	22.7kg	113.4kg	47kg
REGENERATION SPECIFICATIONS				
Regeneration Volume	19 litres	72 litres	132 litres	
Regeneration Time	11 minutes	29 minutes	45 minutes	
Backwash Flow Control	2.6 lpm	7.6 lpm	7.6 lpm	
Brine Refill Flow Control	1.1 lpm	1.5 lpm	1.5 lpm	



MACH2060s OD
INLET WATER QUALITY
1.0-8.6 Bar
2 - 49°C
5 - 10 SU
2.0mg/l
513mg/l
6ppm
OPERATING SPECIFICATIONS
(1.0 – 2.1 Bar) 78 - 114 lpm
Overdrive
432 x 210 x 1,168mm
91kg
64kg
SYSTEM COMPONENTS
2
203 x 1,016mm
Fibreglass Wrapped Polyethylene
29.4 litres
Non Solvent Cation Resin
19.8 litres
635mm
381mm
25mm ABS
0.36mm Slots, ABS Basket
0.23mm Slots, Stainless Steel Flat Plate
None
Non-electric Use Meter
Counter Current
2.8-151.4 lpm Polypropylene Turbine
CONNECTIONS
32mm Custom Adapter and E-clip
13mm Tube
10mm Tube
None
BRINE TANK OPTIONS
18 x 35
7983
889mm
457mm
HDPE
113.4kg
REGENERATION SPECIFICATIONS
132 litres
45 minutes
7.6 lpm
1.5 lpm

OPERATING PROFILE

The softener can remove hardness to less than 9 mg/l when operated in accordance with the operating instructions. The system comprises two tanks. This duplex configuration operates with one tank on-line during service.

During regeneration cycles, one tank provides water to service and to the regenerating tank. An internal water meter initiates system regeneration. The water meter measures the processed volume and can be adjusted based on water hardness to be treated. Service flow is down-flow and regeneration flow is up-flow.

REGENERATION CONTROL VALVE

The regeneration control valve is mounted on top of the media tank, and manufactured from non-corrosive materials. A control valve provides service and regeneration control for two media tanks. Inlet and outlet ports accept a quick connect, double o-ring sealed adapter. Interconnection between tanks is made through the regeneration valve with a quick connect adapter. The control valve operates using a minimum inlet pressure of 1 Bar. Pressure is used to drive all valve functions. No electric hook-up is required. The control valve incorporates four operational cycles: service, brine draw, slow rinse, and a combined fast rinse and brine refill. The brine cycle is up-flow, opposite the service flow, providing a counter current regeneration (opposite for MACH2020cHF). The control valve contains a fixed orifice eductor nozzle and self-adjusting backwash flow control. The control valve will prevent the bypass of hard water to service during the regeneration cycle.

MEDIA TANKS

The tanks are designed for a maximum working pressure of 8.6 Bar and hydrostatically tested at 20.7 Bar. Tanks are made of engineered plastic with a 63.5mm threaded top opening. The tanks are NSF approved. The upper distribution system is a slot design. The lower distribution system is a flat plate design. Distributors will provide even flow of regeneration water and the collection of processed water.

CONDITIONING MEDIA

Each softener includes non solvent cation resin (except MACH2020cHF with a uniform cation bed) having a minimum exchange capacity of 18 g/l when regenerated with 240.3g/l.

BRINE SYSTEM

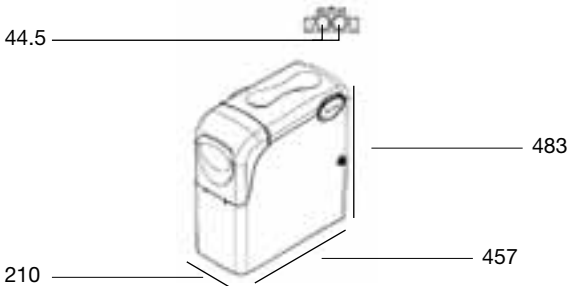
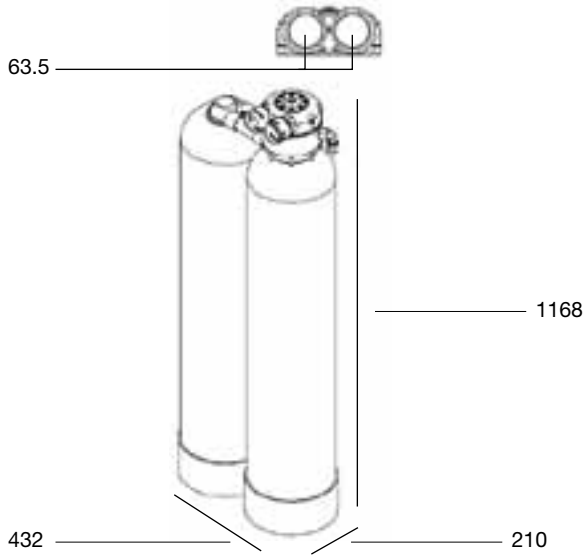
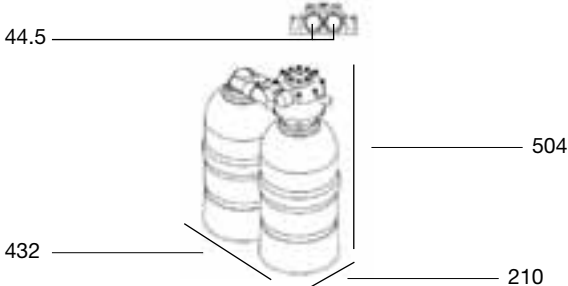
The combination salt storage and brine production tank is manufactured of corrosion-resistant plastic. The brine tank has a chamber to house the brine valve assembly. The brine float assembly allows for adjustable salt settings and provides for a shut-off to the brine refill. The brine tank includes a safety overflow connection to be plumbed to a suitable drain.



DISC SELECTION (Compensated hardness**) – Disc 4 Fitted													
Model	Regeneration setting	Hardness capacity	Efficiency	Dosing	Meter Disc	1	2	3	4	5	6	7	8
2020cHF	0.22kg*	90g	400g/kg	50g/l		34	68	86	120	154	188	222	257
2020cHF	0.34kg*	121g	360g/kg	75g/l		34	86	120	171	222	257	308	342
Litres processed before regeneration						2207	1105	734	553	443	367	314	276
Max continuous flow to storage						Not recommended for flow to storage							
2025s	0.45Kg	260g	580g/kg	53g/l		68	137	205					
2025s	0.6Kg*	320g	530g/kg	70g/l		86	188	274	359	428			
Litres processed before regeneration						2771	1385	924	396	553	Not recommended		
Max continuous flow to storage						30	23	15	11	9	Not recommended		
2060s	1.2kg*	809g	674g/kg	63g/l		137	257	376	479	581	684	770	855
2060s	1.6kg	948g	592g/kg	82g/l		154	308	462	581	701	821	923	1026
2060s	1.8kg*	1.024kg	568g/kg	91g/l		171	325	479	616	752	872	975	1077
2060s	2.0kg	1.013kg	506g/kg	101g/l		188	342	496	650	787	906	1026	1129
Litres processed before regeneration						4743	2373	1582	1185	950	791	687	594
Max continuous flow to storage						44	26	17	13	10	8	7	6
2060s OD	1.2kg*	809g	674g/kg	63g/l		51	103	154	188	239	291	325	376
2060s OD	1.8kg*	1.024kg	568g/kg	91g/l		68	120	188	257	308	359	428	479
2060s OD	2.0kg	1.013kg	506g/kg	101g/l		6	137	208	274	325	393	445	513
Litres processed before regeneration						12000	6000	4000	3000	2400	2000	1715	1500
Max continuous flow to storage						79	66	44	33	26	22	19	16

*Certified by NSF and/or WQA

**Compensated hardness in mg/l = (Hardness + 51 x Fe in mg/l)

DIMENSIONS (mm)	
<p>MACH2020cHF</p> 	<p>MACH2060S and MACH2060S OD</p> 
<p>MACH2025S</p> 	



DAVEY
WATER PRODUCTS

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This literature is not a complete guide to product usage. Further information is available from your Davey dealer, Davey Customer Service Centre and from the relevant product Installation and Operating Instructions. This data sheet must be read in conjunction with the relevant product Installation and Operating Instructions and all applicable statutory requirements. Product specifications may change without notice.

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