

Hard Water Problems:

- Limescale deposits build up on boilers and heating elements reducing their efficiency and causing them to burn out more quickly.
- Boilers, dishwashers & washing machines using hard water need significantly more maintenance & cleaning.
- Limescale reduces the efficiency of cleaning chemicals and more material is required to do the same job.
- Limescale scum on surfaces is difficult to remove

The Solution:

The water passes through an ion exchange bed in a Penstar water softener which replaces the calcium and magnesium (hard) salts with soluble salts which will not form scale.

The bed is regenerated automatically by passing brine through the softener and the rejected washing and rinse water is discarded to waste.

PLEASE NOTE: The regeneration process introduces sodium and for health reasons we do not recommend that the softened water is used for drinking purposes.

Domestic Cabinet Softeners



The softener tank is fitted inside a cabinet which serves as a brine tank and provide a compact unit to fit in a kitchen cupboard.

The controller can be timed or metered.



Commercial and Industrial Softeners

A range of larger units with separate brine tank for higher flow applications

SIMPLEX or single column softeners are used for moderate water consumption with a steady demand.

They have the disadvantage of passing untreated water into the system during regeneration but this is normally set to take place during the night.



DUPLEX softeners use 2 columns of resin with one in service and one on stand-by after regeneration.

They offer a continuous supply of softened water.

Water Softener Specification

Domestic Cabinet Softeners



Size	817	735	835	1035
Volume (litres)	10	15	25	35
Capacity @ 300ppm CaCO ₃	1667	2500	4167	5833
Flowrate (litres/hour)	400	600	1000	1400

Commercial & Industrial Softeners



Simplex units

Size	835	1035	1044	1054	1354
Volume (litres)	20	30	40	50	75
Capacity @ 300ppm CaCO ₃	3300	5000	6670	8300	12500
Flowrate (litres/hour)	800	1200	1600	2000	3000
Standard systems use Autotrol valves and controllers but Siata valves are available on request					

Please contact Penstar for details of

Larger Simplex softeners

Duplex softeners

Any special requirement for water softener

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