

## SF – WATER SOFTENERS

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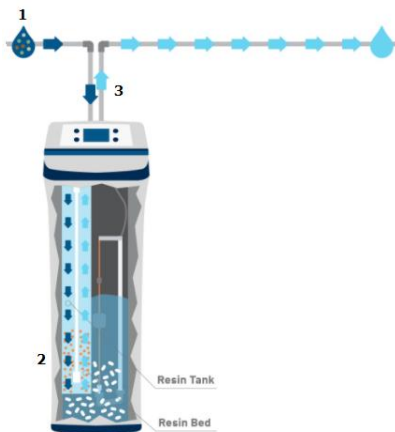
### INDUSTRIAL

#### Description

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Water is considered as **Hard Water** if it contains dissolved compounds of higher levels of calcium and magnesium. Hard water may cause two main problems;

- ⊕ Hard water may cause 'scale' to form on various areas such as the inside of pipes, water heaters, calorifiers, boilers, laundries, kitchen and baths. The calcium and magnesium precipitates out of the water and it forms a build-up of hardness scale. The scale does not conduct heat well and it also reduces the flow through pipes. Eventually, pipes and other equipment can become completely blocked.
- ⊕ Hardness causes the development of an insoluble sticky precipitate in water, thus preventing the soap's ability to lather. Since soap is widely utilised for washing and showering purposes, hard water makes the wash or shower less productive. For instance in laundries, more soap will be required that adds in the operating costs.



TUA Engineering provides a solution to hard water for residential purposes by implementing a **Water softener**;

**STEP 1:** Hard Water Enters the Water softener.

**STEP 2:** During normal operation, the calcium and magnesium ions are retained within the softener by the softening resin. During the regeneration process, the sodium ions in the resin bed attract the hard water minerals, resulting in the removal of the hardness compounds.

**STEP 3:** Soft Water is distributed around your piping and Systems.

#### Application

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The size of the model that best suit your needs depends entirely on the hardness of the water and the volume of water consumed per day. In order to define which model applies, TUA Engineering specialists must test the water where the softener will be installed and advice you on the model that is appropriate to fulfil the necessary requirements.

#### Notes

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- ⊕ Our Standard models come with Pentair Autotrol Valves.
- ⊕ Other Valves including **SAITA™**, **FLECK™**, and **ERIE™** are also available upon request.
- ⊕ 60L vessels or smaller are pre-loaded with resin, larger vessels have to be loaded on site by client.
- ⊕ Other sizes of softeners are found in the Models Table are available by request, up to a maximum mean capacity of 12,000 m<sup>3</sup>F<sup>0</sup> per vessel (with GRP vessels).

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### INDUSTRIAL

#### MODELS

Cabinet Type		Capacity m <sup>3</sup> F <sup>o</sup>	Control	Connection	Standard Valve Model	Dimensions (mm) L X W X H	Salt Tank (L)
Model	Description						
SFC008T *	8L Cabinet	40-50	T	¾" with Mixer	Autotrol 255/740	240 X 435 X 440	N/A
SFC021T*	21L Cabinet	100-120	T	¾" with Mixer	Autotrol 255/740	320 X 500 X 1140	N/A
Model	Description	Capacity m <sup>3</sup> F <sup>o</sup>	Control	Connection	Standard Valve Model	Dimensions (mm) GRP Vessel – D X H	Salt Tank (L)
SFS033V	33L Simplex	160-210	V	1"	Autotrol 255/760	250 X 1100	140
SFS060V	60L Simplex	300-380	V	1"	Autotrol 255/760	330 X 1370	140
SFS100V	100L Simplex	500-650	V	1"	Autotrol 278/760	400 X 1320	340
SFS170V	170L Simplex	850-1020	V	1" or 1 ¼ "	Autotrol Magnum	460 X 1650	460
SFS220V	220L Simplex	1100-1320	V	1" or 1 ¼ "	Autotrol Magnum	530 X 1575	670
Model	Description	Capacity m <sup>3</sup> F <sup>o</sup> /Vessel	Control	Connection	Standard Valve Model	Dimensions (mm) GRP Vessel – D X H	Salt Tank (L)
SFD60V	60 + 60L Duplex	300 -380	V	1"	Autotrol 255/764	330 X 1370	140
SFD100V	100 + 100L Duplex	500 -650	V	1"	Autotrol 278/764	400 X 1320	340
SFD170V	170 + 170L Duplex	850 – 1020	V	1" or 1 ¼ "	Autotrol Magnum	460 X 1650	460
SFD220V	220 + 220L Duplex	1100- 1320	V	1" or 1 ¼ "	Autotrol Magnum	530 X 1575	670

⊕ T – Time, V – Volumetric

⊕ \* Normally available in stock