



Water Treatment

Carbon and Media Cartridges

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Water Treatment Cartridge Technology

The control of specific dissolved contaminants is essential in a range of applications, from manufacturing make-up water to point of use. Filerder has a variety of technologies which together protect processes, equipment and improve personal wellbeing.

Ion Exchange Technology

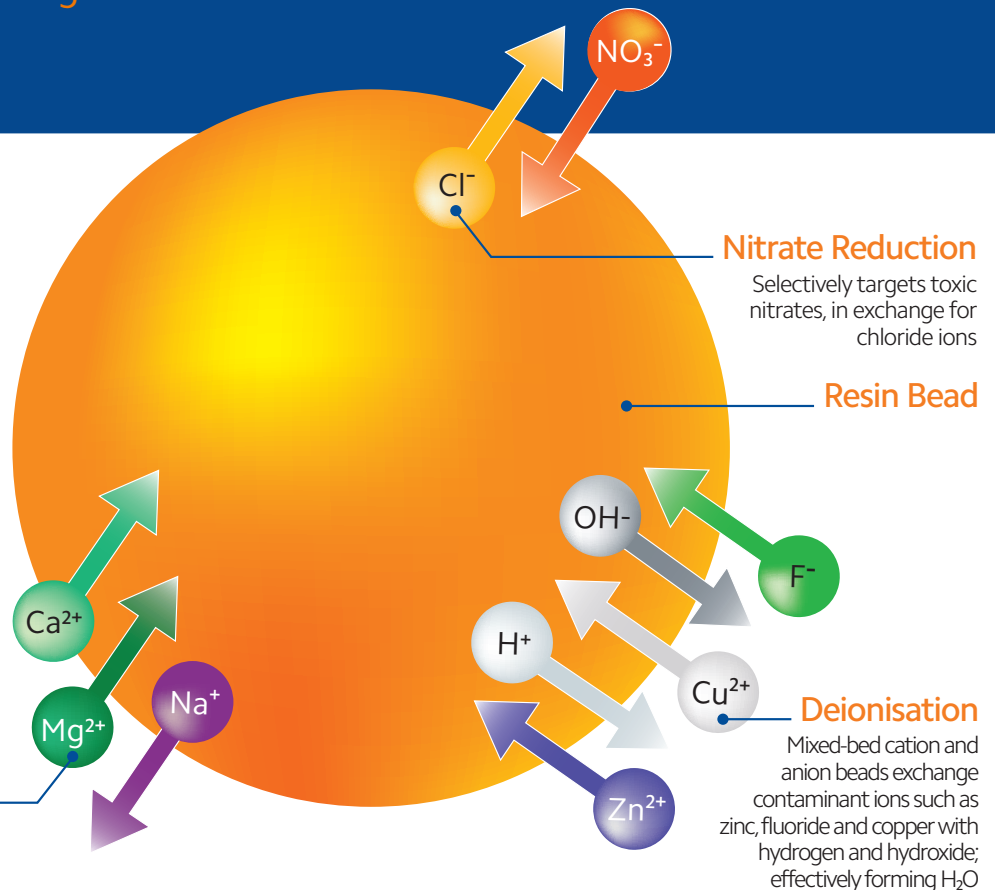
There are two primary methods of water treatment, in which resin beads are employed to achieve ion exchange and ultimately, purified water.

In the first, resin beads will exchange either positive ions (cations) or negative ions (anions) to achieve purified water, as illustrated by softening or nitrate reduction.

In contrast, mixed-bed resin will remove both positive and negatively charged ions in exchange for water forming molecules, as in the example of deionisation.

Softening

Cation based resin exchanges calcium and magnesium for sodium ions



Water Treatment Solutions

Softening Resin has been developed to reduce deposit-forming minerals, such as calcium and magnesium, protecting varied equipment including steam ovens, commercial boilers and reverse osmosis systems. **Deionisation (DI)** is the process typically employed as the final polishing stage in a water treatment system. DI resin reduces dissolved ions, thus creating a source of pure deionised water suitable for pharmaceutical, printed circuit board

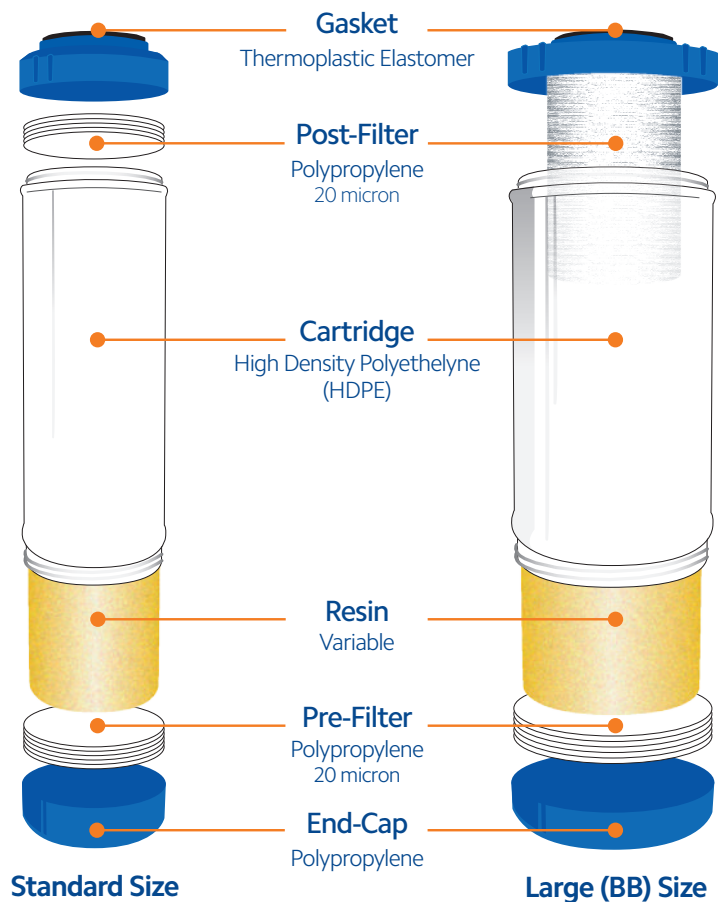
and other critical applications. **Heavy Metals** can have harmful effects on health as well as interfering with sensitive manufacturing processes. Heavy metal reduction resin specifically targets these contaminants, effectively reducing levels to meet drinking water standards. **Nitrate Removal** is essential in rural or agricultural areas, and considered a serious health problem for infants and the elderly. The selective anion resin reduces nitrate levels by exchanging them for harmless chloride

ions, meeting drinking water standards. **Iron Reduction** can be applied to drinking water applications. The proprietary media used specifically targets dissolved iron to improve taste and prevent orange-brown stains in sinks, toilets and other plumbing fixtures. **Scale Inhibiting** crystals are an alternative solution to ion-exchange treatment, preventing hardness forming ions from precipitating and the build-up of deposits on sanitary ware, food service equipment and drink vending machines.

“Fieder sells over **1,000 tons** of resin per annum capable of treating more than **1 billion** litres of water.”

SPECTRUM Resin Cartridge Construction

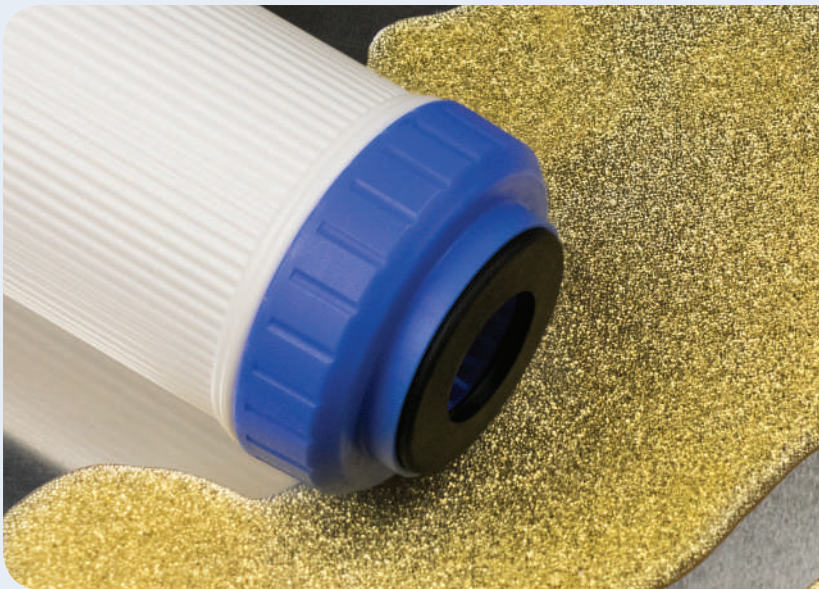
The range of SPECTRUM water treatment cartridges use a specially designed shell, which both integrates the necessary pre-filtration and maximises fluid distribution through the resin bed by using longitudinal flow to increase contact time.



Flexible Configurations

Designed predominantly to be used within plastic filter housings, water treatment cartridges can be combined with SPECTRUM EFHS housing systems to provide a comprehensive solution to varying water challenges. Options range from single to triple housing systems and size options from 10" slimline to 20"BB. When using colour change PRDI cartridges, Pentair clear plastic housings should be used.





Ion-X Softening

SRSO

The SRSO effectively reduces calcium and magnesium hardness levels in feed water, preventing scaling that causes premature failure and increased energy costs in equipment, such as small commercial boilers and steam ovens. Large capacity cartridges can be utilised to lower total hardness levels in closed loop systems to acceptable levels.

Key Features

- High capacity softening resin
- Excellent resistance to mechanical degradation ensures low pressure drop

Typical Applications

- Small boiler feed
- Heat exchangers
- Steam ovens
- Closed loops

Media Type

Strong acid cation gel-type (Na⁺ Form)

Media Compliance

WRAS BS6920
 FDA Compliant Materials
 European ResAP (2004) 3

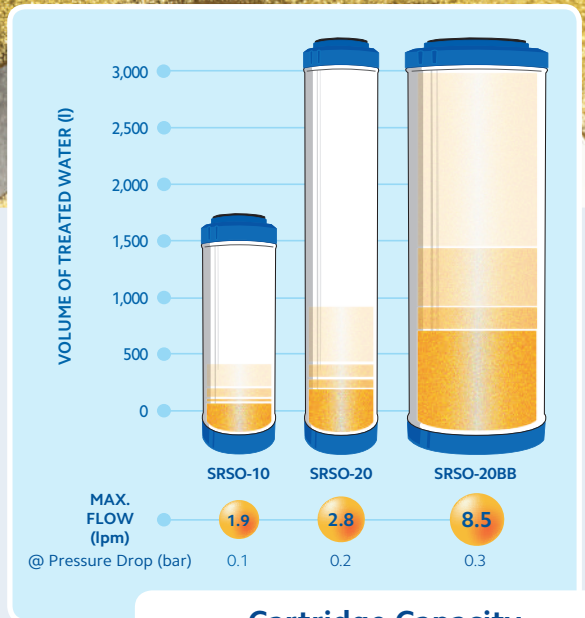
Configurations

Length (")

10	20
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Diameter

Standard	Large = BB
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Cartridge Capacity

Water Hardness (CaCo ₃)	Volume of Treated Water (l)		
	SRSO-10	SRSO-20	SRSO-20BB
100	480	970	2,920
200	240	480	1,460
300	160	320	970
400	120	240	730

Specification

Operating Temperature Range
 4-38°C

Max. Operating Pressure
 5.5 bar

Max. Differential Pressure
 1.0 bar

Part Number, Box Quantity & Weight

Code	Length	Box Qty	Box Weight (kg)
SRSO	10	9	7
	20	9	15
	20BB	4	16

e.g. SRSO-20BB