



Water Treatment

Carbon and Media Cartridges

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Water Treatment Carbon & Media Cartridges

Targeting a complex range of contaminants from disinfectants, such as chlorine and chloramine, to iron, hardness and heavy metals; carbon and media cartridges provide protection for process equipment and personal wellbeing.



SPECTRUM



PENTAIR



SUEZ



Nitto
HYDRANAUTICS
Nitto Group Company



AXEON
WATER TECHNOLOGIES



Contents

Typical Applications.....	3
The Challenges to Clean Water	4
Carbon Technology.....	6

Carbon Portfolio

870 Carbon Block, Premier (PCB)	8
870 Carbon Block, Standard (SCB)	10
870 Carbon Block, Economic (ECB).....	12
CB-5 Carbon Block - <i>Entry level carbon</i>	14
CFB-Plus - Fibredyne - <i>Dual purpose sediment carbon</i>	16
FloPlus™ - Fibredyne - <i>Cyst reduction</i>	18
CFB-PB10 - Fibredyne - <i>Lead reduction</i>	20
C-155 - Fibredyne - <i>Electroplating</i>	22
870 Carbon Block (SCB-S) - <i>Multi-round housings</i>	24
870 Carbon (SCW) <i>Economic 'C1' alternative</i>	26
OilOut99 (SRIF) - <i>Oil reduction</i>	28

Water Treatment Portfolio

Water Treatment Cartridge Technology	30
Ion-X SRSO - <i>Softening</i>	33
Ion-X SRDI - <i>Deionising</i>	34
Ion-X PRDI - <i>Colour Change Deionising</i>	35
Ion-X SRNI - <i>Nitrate Reduction</i>	36
Ion-X SRHM - <i>Heavy Metal Reduction</i>	37
PCC - <i>Scale Inhibiting</i>	38
RFFE - <i>Iron Reduction</i>	40

Typical Applications

From chloramine reduction for increased Epo efficacy in renal dialysis, to toxic heavy metal removal, such as lead in drinking water; carbon and water treatment cartridges are a reliable solution to significant water quality challenges across hundreds of applications.

Removing chlorine, chloramines and organics; alongside targeting specific ions such as calcium, magnesium and iron, are but a few reasons to use water treatment technologies. The following pages detail a range of lesser known contaminants and efficient, cost effective solutions for equipment protection; healthier, better tasting water and specialist water quality requirements.



Reverse Osmosis Membrane Protection



Drinking Water



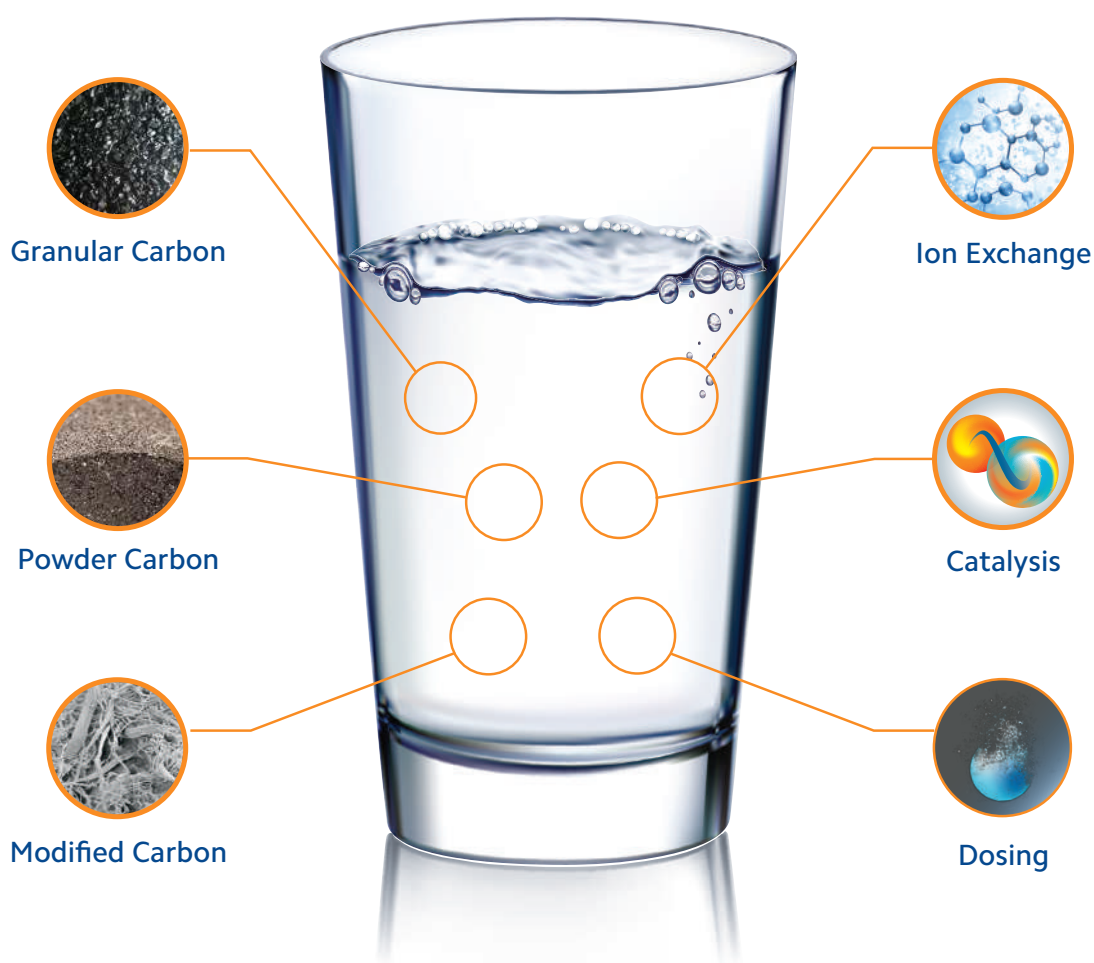
Renal Dialysis

The Challenges to Clean Water

The scope of water contaminants is numerous, so for ease we have constructed a simple process to identify your problem and find its solution.

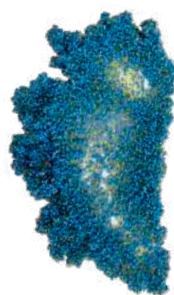
Technological Solutions - Your Route to Clean Water

Use our quick and easy guide, opposite, to identify the target contaminant, its undesirable symptoms and effects, then simply follow the page numbers to the product(s) that will put you on the path to clean water. Filerder's methods of contaminant reduction are listed below—carbon type (left) and water treatment (right).



Carbon Block

Carbon cartridges have been developed to both improve contaminant reduction and ease-of-use. The raw carbon media is typically extruded into block form, however modern manufacturing techniques are now producing new hybrid technologies combining the benefits of sediment reduction with the natural dissolved contaminant adsorption of carbon media.

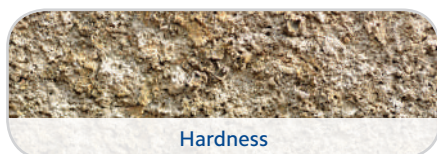
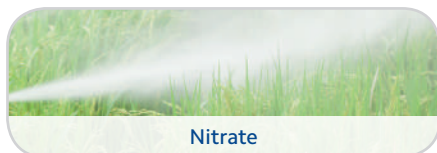
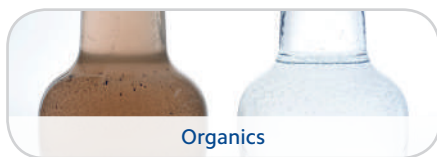


Water Treatment

Water treatment cartridges are primarily used to remove specific unwanted contaminants from incoming water sources. For the protection of appliances from hardness scaling or the removal of harmful nitrates from drinking water, these cartridges employ resin beads across various ion exchange or dosing techniques to offer a simple yet effective solution to common water quality issues.

Contaminants

Undesirable impurities to be removed



Effects

Typical symptoms and consequences of the contaminant

Chloramine

- Chloramine reduction improves patient wellbeing and reduces dialysate EPO consumption
- Toxic to fish

Chlorine

- Poor taste
- Attacks RO membranes

Organics

- Contaminates metal finishing processes
- Colour and cloudiness
- Poor taste and odour

Total Dissolved Solids

- Calcium deposits (spot-free rinse)
- Deposits and stains on surfaces
- High conductivity

Heavy Metals

- Contamination of critical processes
- Heavy metal poisoning

Iron

- Brown/orange staining
- Poor taste
- Reduces RO and UV system performance

Nitrate

- 'Nitrate shock' of marine life
- Toxic to infants in high concentrations

Oil

- Coating and staining of equipment
- Poor taste and odour

Hardness

- Long term damage to equipment
- Scale deposits on surfaces
- Higher energy costs

Solution & Direction

Identify your solution and turn directly to the [page number\(s\)](#) below



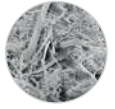
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8-11



12-15
24-25



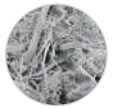
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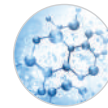
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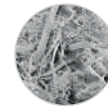
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18-23
26-28



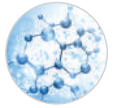
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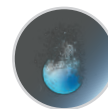
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37



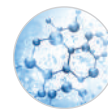
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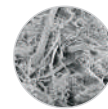
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40-41



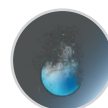
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28-29



33



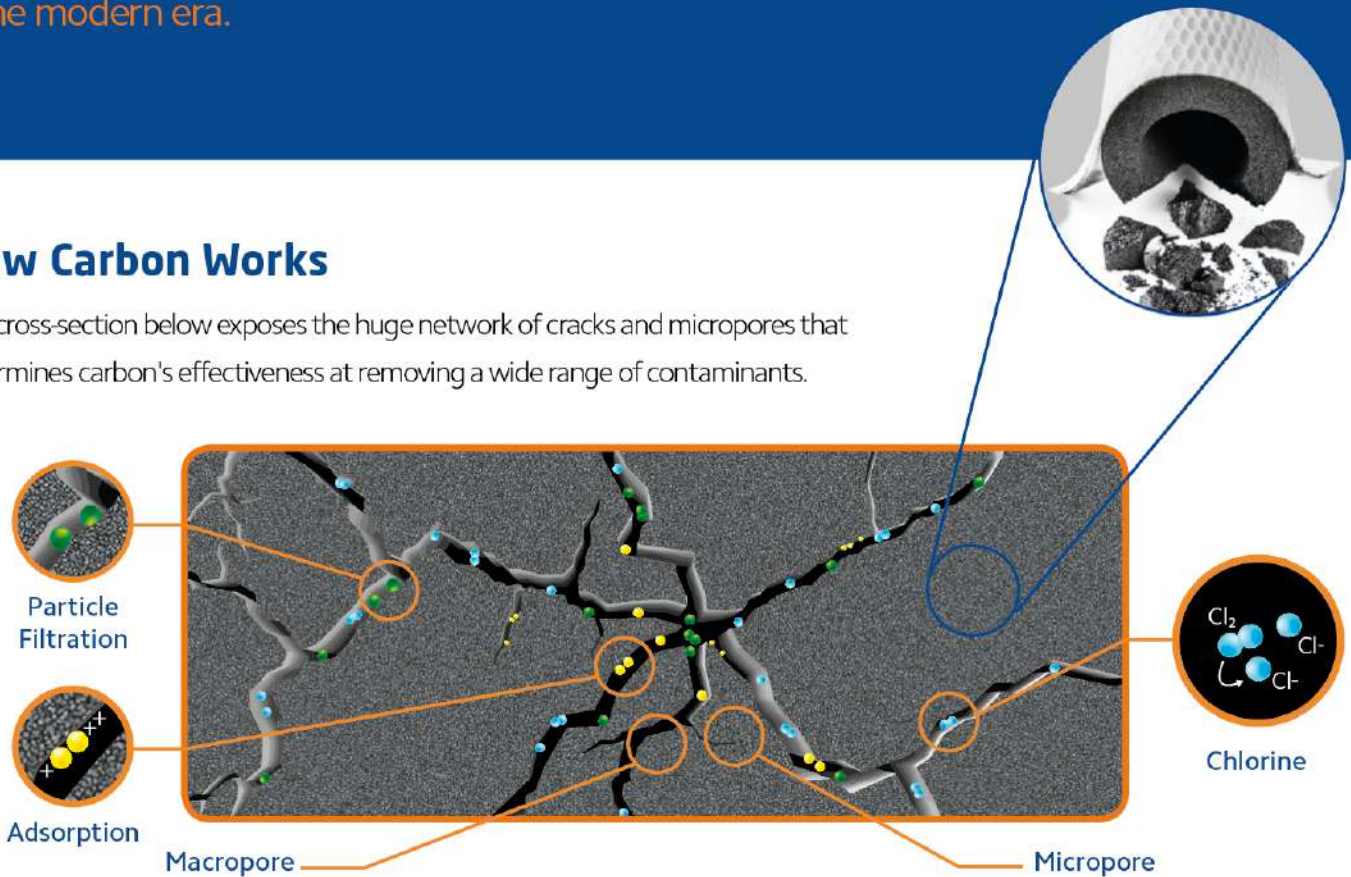
38-39

Carbon Technology

Utilised for several hundred years, carbon is considered one of the oldest means of water purification. Although impossible to trace the exact date and time, there is evidence of its usage and importance throughout history, from the ancient world to the modern era.

How Carbon Works

The cross-section below exposes the huge network of cracks and micropores that determines carbon's effectiveness at removing a wide range of contaminants.



Particle Filtration

Sediment and Suspended Solids

Every carbon block cartridge has a given micron rating to indicate the physical size of suspended particulate that can be removed by the cartridge. To prevent premature sediment blockage before the chlorine capacity of the carbon has been exhausted, pre-filtration, such as the SPECTRUM SSP or PSP, is recommended to prolong the life of the cartridge.

Adsorption

Organics and Heavy Metals

Carbon is a naturally adsorptive media, removing dissolved contaminants from a solution. When heated to 870°C, during the activation process, millions of tiny micropores are created throughout the structure of the cartridge, attracting large organic molecules and heavy metals to the surface.

Chemical Reaction

Chlorine and Chloramine

Through chemical interactions with the activated carbon, reactive chlorine molecules are converted to less reactive chloride ions. Chloramine can also be removed through this process although the reaction occurs at a much slower rate. Specialty cartridges such as the SPECTRUM PCB have been specifically designed to effectively target chloramine.

Carbon Flow Rate

The longer water comes into contact with carbon, generally the more effective the treatment process will be, whether removing organics, heavy metals, chlorine or chloramine. Even a small increase over the recommended flowrate can cause dramatic decreases in carbon treatment's effectiveness. Therefore it is imperative to size a carbon treatment system properly, ensuring that the flowrate allows enough contact time to remove the undesired contaminants. The recommended flowrate for each cartridge is shown on the product page (as illustrated, right).

				@ Flow Rate (LPM)
 Specifications				3.8
Max. Operating Temp. 52°C				7.6
Max. Operating Pressure 2.5 bar				7.6
SCB Properties				
in (in)	Chlorine Reduction (L) @ 0.2ppm	Pressure Drop (bar)	@	Flow Rate (LPM)
113.750		0.3		3.8
227.500		0.3		7.6
356.850		0.4		7.6
713.700		0.4		15.1
Chlorine capacity using 2mg/L free available chlorine at 0.5mg/L breakthrough				

Carbon's Effectiveness at Removing...

Excellent

Chloramine
Chlorine
Dyes
Glycols
Herbicides
Hydrogen Peroxide
Insecticides
Iodine

Odours
Oil-dissolved
PCBs
Pesticides
Sodium Hypochlorite
Taste
THMs

Good

Organic Acids
Organic Salts
Potassium Permanganate
Solvents
Sulphonated Oils
Tannins

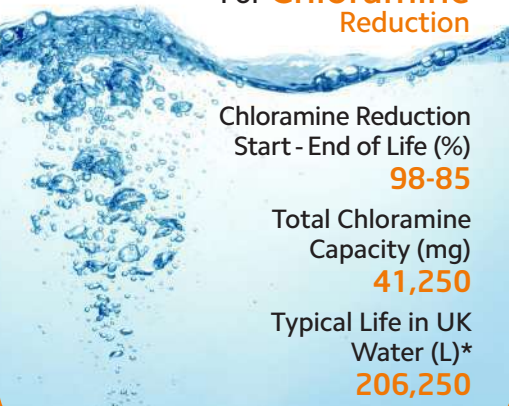
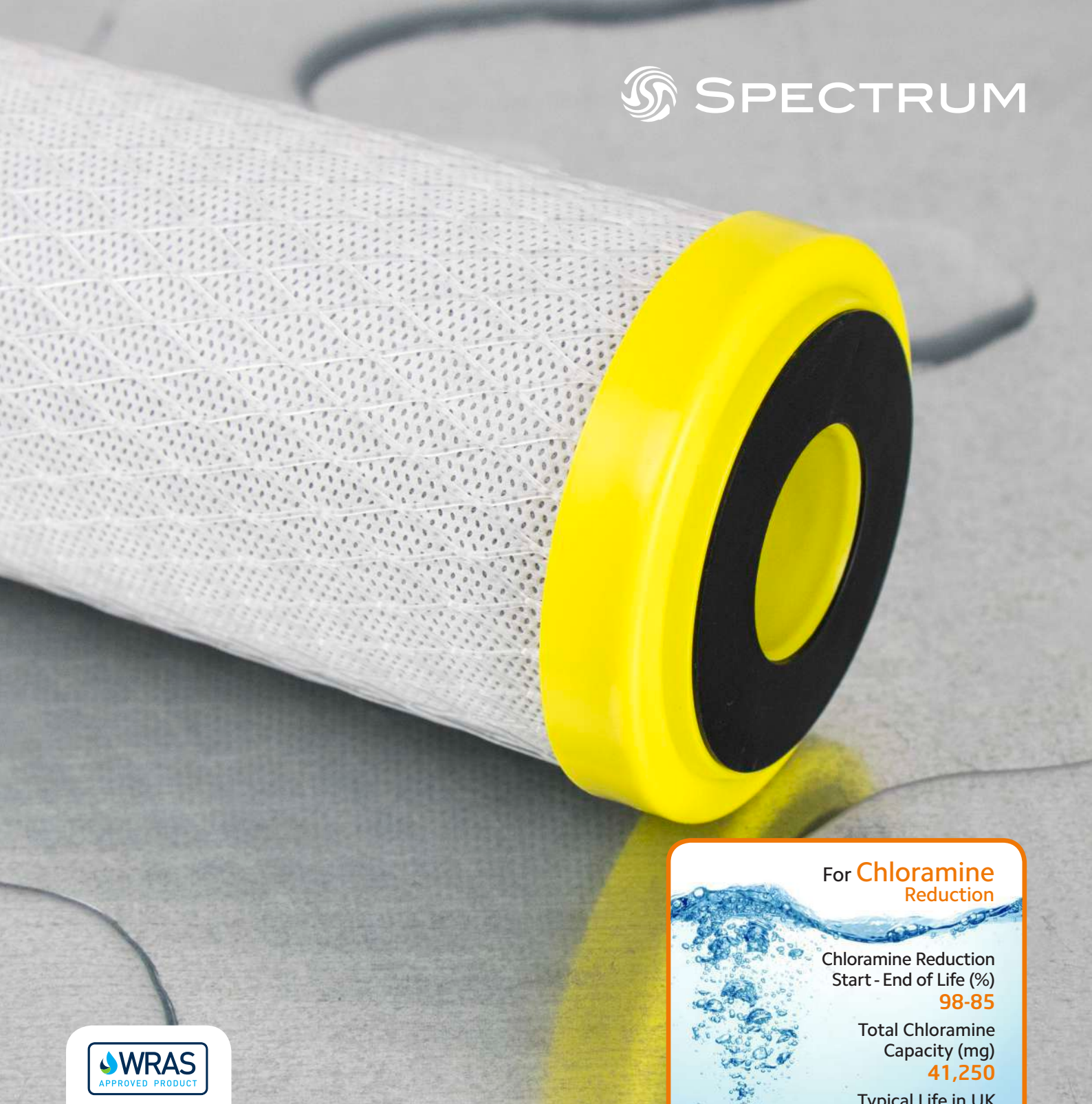
Fair

Acetic Acid
Detergents
Heavy Metals
Hydrogen Sulfide
Plating Wastes
Soap

Carbon Cartridge Construction

From raw material, through to activation and end product.





For **Chloramine**
Reduction

Chloramine Reduction
Start - End of Life (%)
98-85

Total Chloramine
Capacity (mg)
41,250

Typical Life in UK
Water (L)*
206,250

Performance based on 10" cartridge. * Life in UK water based on free chloramine concentration of 0.2mg/l.

870 Carbon Block - Premier Ultimate Chloramine Reduction

The SPECTRUM PCB is specifically formulated for effective chloramine control and the only cartridge to offer this feature within the range. Having been manufactured within a five-stage process, this exceptional catalytic activated carbon cartridge offers up to 10 times the capacity of the SCB. Essential for use in public water supplies where

chloramine has been added as the disinfecting agent of choice, the PCB will typically be found within applications including aquatics and renal dialysis. Rated at one micron, pre-filtration from the SPECTRUM TruDepth range, such as the PSP at five micron, is recommended to maximise service life and prevent premature blocking.

Key Features

- Ultra porous, modified powder activated carbon, exceptional at targeting chloramine
- Chlorine capacity up to 10x higher than the SCB
- Reduces the risk of haemolytic anaemia
- 1µm filtration level to remove fine sediment (5µm pre-filtration, i.e. SPECTRUM PSP recommended to extend life)
- Long service life for chlorine reduction

Typical Applications

- Hydroponics
- Renal dialysis
- Public drinking water supply
- Aquatics



Configurations

Micron (µm)

1

Length (")

9¾ 20 30 40

Diameter

Standard Large = BB



Compliance

WRAS Approved
FDA Compliant Materials
NSF/ANSI 42 Certified Materials



Materials of Construction

Carbon Type
Catalytic Activated
Coconut Carbon

Netting
Polypropylene

End-cap
Polypropylene

Gasket
EPDM

Wrap
Polypropylene



Specification

Max. Operating Temperature
52°C

Max. Operating Pressure Differential
2.5 bar

PCB Properties

Length (")	Chloramine Reduction (L) *	Chlorine Reduction (L) @ 2mg/l **	Chlorine Reduction (L) @ 0.2mg/l ***	Pressure Drop (Bar) @	Flow Rate (LPM)
9¾	15,000	190,000	1,662,500	0.3	1.9
20	30,000	380,000	3,325,000	0.3	3.8
30	45,000	570,000	4,987,500	0.3	7.6
40	60,000	760,000	6,650,000	0.3	11.4
9¾BB	50,000	950,000	8,312,500	0.4	7.6
20BB	100,000	1,900,000	16,625,000	0.4	15.2

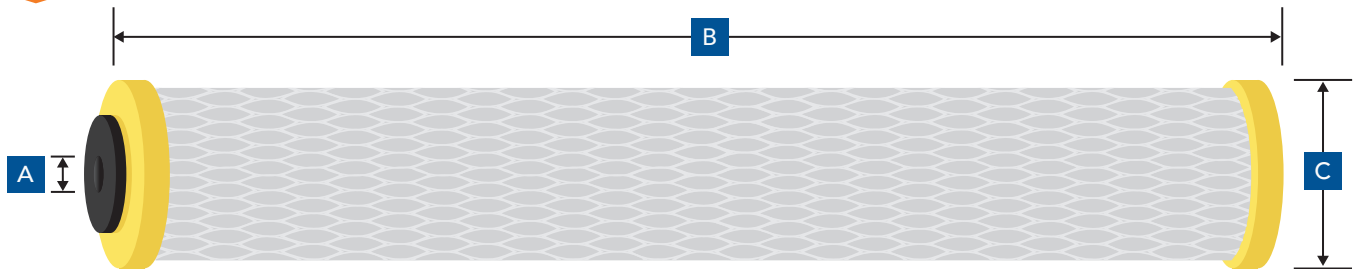
*Chloramine capacity using 3mg/l free available chlorine at 0.5mg/l breakthrough

**Chlorine capacity using 2mg/l free available chlorine at 0.5mg/l breakthrough

***Calculated chlorine capacity using 0.2mg/l free available chlorine at 0.05mg/l breakthrough



Dimensions & Packaging



Length (")	Dimensions (mm)		
	A	B	C
9¾	28	248	66
20	28	508	66
30	28	762	66
40	28	1016	66
9¾BB	28	248	115
20BB	28	508	115

Packaging	
Box Qty	Box Weight (kg)
15	7
15	14
9	13
9	17
4	6
4	12

Part Number

Code	Micron	Length
PCB	1	9¾, 20, 30, 40
		9¾BB, 20BB

e.g. PCB-1-30



For **Chlorine**
and **Organics**

Chlorine Reduction
Start - End of Life (%)
95-75

Total Chlorine
Capacity (mg)
22,750

Typical Life in UK
Water (L)*
113,750

870 Carbon Block - Standard

The Go-To Carbon Block

Widely used and favoured for drinking water treatment and beverage production where chloramines are not present; the SCB is formulated from low ash content, microporous coconut carbon that targets VOCs and THMs. Acid wash during the production process and low fine content give

excellent rinse-up times as well as regulating pH and taste. The SCB also gives improved flowrate and lower pressure drop than the PCB, reducing the size of the housing required, making it a firm favourite for drinking water, pre-RO and applications where end product consumption is a consideration.

Performance based on 10" cartridge. *Life in UK water based on free chlorine concentration of 0.2mg/l.

Key Features

- Extruded under high pressure, eliminating the need for overuse of binders, increasing flow and dirt holding capabilities
- Highly porous, lightweight, clean and tight microporous structure effective at reducing chlorine, taste and odour contaminants
- Pre-washed, eliminating carbon fines
- 75% minimum free chlorine reduction ensures the SCB's superiority over the ECB

Typical Applications

- Drinking water
- VOC and THM reduction
- RO protection



Configurations

Micron (µm)

5

Length (")

9¾

20

Diameter

Standard

Large = BB



Compliance

WRAS Approved



Materials of Construction

Carbon Type

Catalytic Activated coconut carbon

Netting

Polyethelyne

End-cap

Polypropylene

Gasket

EPDM

Wrap

Polypropylene



Specification

Max. Operating Temperature

52°C

Max. Operating Pressure Differential

2.5 bar

SCB Properties

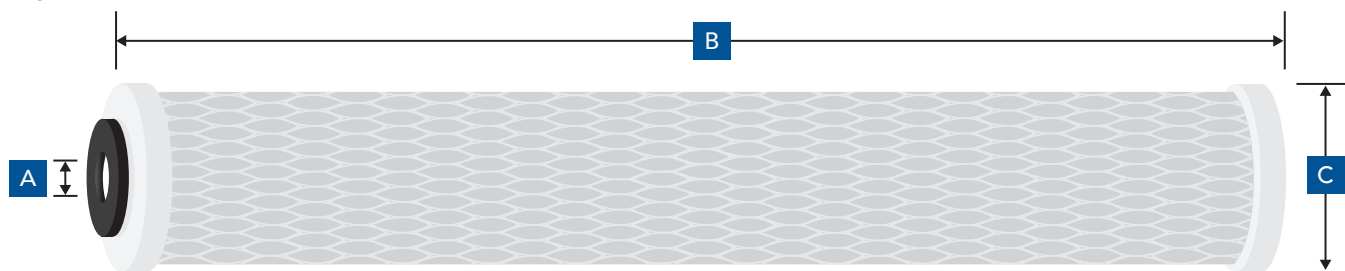
Length (")	Chlorine Reduction (L) @ 2mg/l *	Chlorine Reduction (L) @ 0.2mg/l **	Pressure Drop (Bar) @	Flow Rate (LPM)
9¾	13,000	113,750	0.3	3.8
20	26,000	227,500	0.3	7.6
9¾BB	59,500	520,625	0.4	7.6
20BB	119,000	1,041,250	0.4	15.1

*Chlorine capacity using 2mg/l free available chlorine at 0.5mg/l breakthrough

**Calculated chlorine capacity using 0.2mg/l free available chlorine at 0.05mg/l breakthrough



Dimensions & Packaging



Length (")	Dimensions (mm)		
	A	B	C
9¾	28	248	71
20	28	508	71
9¾BB	28	248	115
20BB	28	508	115

Packaging	
Box Qty	Box Weight (kg)
15	8
15	16
4	7
4	14

Part Number

Code	Micron	Length
SCB	5	9¾, 20
		9¾BB, 20BB

e.g. SCB-5-20





For **Chlorine**
and **Organics**

Chlorine Reduction
Start - End of Life (%)
95-60

Total Chlorine
Capacity (mg)
9,600

Typical Life in UK
Water (L)*
48,000

870 Carbon Block - Economic Batch Process Applications

Suited to the industrial sector, the lower capacity ECB suits batch process, where a longer service life is not required. For 2019, the carbon formulation has been upgraded, significantly improving chlorine removal efficiency to 60% from 35%, serving for a more reliable and dependable economic block. Manufactured using acid washed bituminous

carbon, a highly microporous structure targets larger organic molecules such as benzene. This ensures the removal of ash and reduces rinse-up fines often found with non-acid washed bituminous carbon. Available in 3 micron sizes, the ECB offers flexibility to suit different applications where sediment could plug the carbon before service life is achieved.

Performance based on 10" cartridge. *Life in UK water based on free chlorine concentration of 0.2mg/l.

Key Features

- Upgraded for 2019, new formula ECB with chlorine reduction efficiency levels of 60%
- Robust, due to high binder content
- The highest micron size available in the economic range prevents blinding of cartridge

Typical Applications

- Low capacity industrial batch processes
- Small RO applications where cost is of primary consideration

* Bituminous carbon is not suitable for drinking water. For an alternative, please refer to the WRAS approved SCB on page 10



Configurations

Micron (µm)

1	5	10
---	---	----

Length (")

9¾	20
----	----

Diameter

Standard	Large = BB
----------	------------



Materials of Construction

Carbon Type

Acid washed bituminous

Netting

Polyethylene

End-cap

Polypropylene

Gasket

EPDM

Wrap

Polypropylene



Specification

Max. Operating Temperature

52°C

Max. Operating Pressure Differential

2.5 bar

ECB Properties

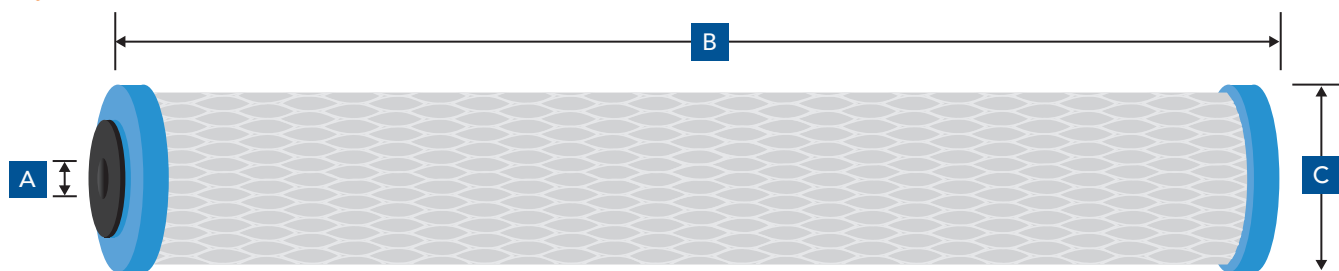
Length (")	Chlorine Reduction (L) @ 2mg/l *	Chlorine Reduction (L) @ 0.2mg/l **	Pressure Drop (Bar) @ Flow Rate (LPM) (Performance based on 5µm cartridge)
9¾	6,000	48,000	0.4 @ 3.8
20	12,000	96,000	0.4 @ 7.6
9¾BB	27,400	219,200	0.5 @ 7.6
20BB	54,900	439,200	0.5 @ 15.1

*Chlorine capacity using 2mg/l free available chlorine at 0.8mg/l breakthrough

**Calculated chlorine capacity using 0.2mg/l free available chlorine at 0.08mg/l breakthrough



Dimensions & Packaging



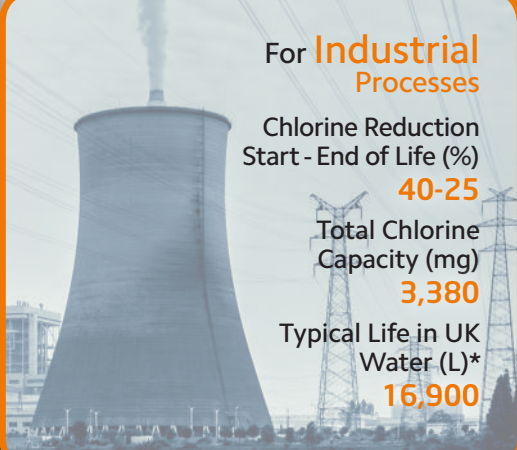
Dimensions (mm)			
Length (")	A	B	C
9¾	28	248	66
20	28	508	66
9¾BB	28	248	115
20BB	28	508	115

Packaging	
Box Qty	Box Weight (kg)
15	8
15	12
4	7
4	14

Part Number

Code	Micron	Length
ECB	1, 5, 10	9¾, 20
		9¾BB, 20BB

e.g. ECB-1-20BB



For **Industrial Processes**

Chlorine Reduction
Start - End of Life (%)
40-25

Total Chlorine
Capacity (mg)
3,380

Typical Life in UK
Water (L)*
16,900

Performance based on 10" cartridge. *Life in UK water based on free chlorine concentration of 0.2mg/l.

CB Carbon Block

Industrial Grade & Economical

The honest answer to a solely price driven market, the SPECTRUM CB prioritises cost at the sacrifice of chlorine capacity. Specifically designed for industrial batch process

applications, where the full capacity of the cartridge is not used, the CB's high binder content results in a strong cartridge with moderate chlorine reduction efficiency.

Key Features

- Entry level, most economic carbon block in the range
- For use where cost is the primary consideration over chlorine capacity and life
- Giving a dependable alternative to an array of inferior imports

Typical Applications

- Industrial batch processes
- Dye, solvent and detergent reduction
- Please note, bituminous carbon is not suitable for drinking water. For an alternative, please refer to the WRAS approved SCB on page 10.



Configurations

Micron (µm)

1	5	10
---	---	----

Length (")

9¾	20
----	----

Diameter

Standard	Large = BB
----------	------------



Materials of Construction

Carbon Type

Acid washed bituminous

Netting

Polyethylene

End-cap

Polypropylene

Gasket

EPDM

Wrap

Polypropylene



Specification

Max. Operating Temperature

52°C

Max. Operating Pressure Differential

2.5 bar

CB Properties

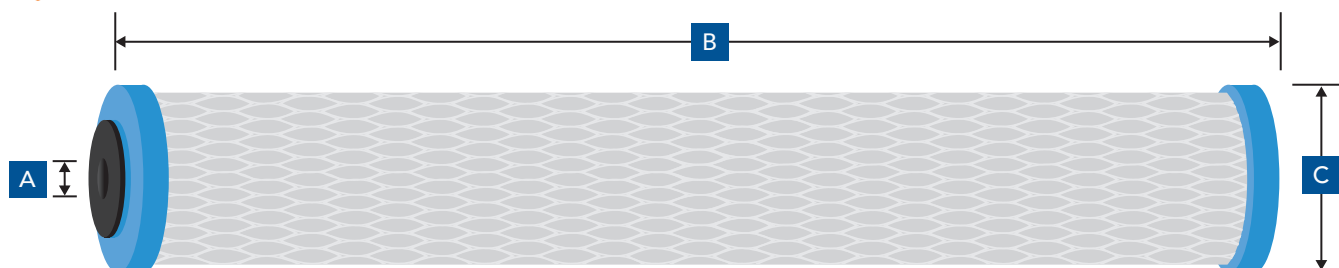
Length (")	Chlorine Reduction (L) @ 2mg/l *	Chlorine Reduction (L) @ 0.2mg/l **	Pressure Drop (Bar) @	Flow Rate (LPM) (Performance based on 5µm cartridge)
9¾	5,200	16,900	0.4	3.8
20	10,400	33,800	0.4	7.6
9¾BB	23,800	77,350	0.5	7.6
20BB	47,600	154,700	0.5	15.1

*Chlorine capacity using 2mg/l free available chlorine at 1.5mg/l breakthrough

**Calculated chlorine capacity using 0.2mg/l free available chlorine at 0.15mg/l breakthrough



Dimensions & Packaging



Dimensions (mm)			
Length (")	A	B	C
9¾	28	248	66
20	28	508	66
9¾BB	28	248	115
20BB	28	508	115

Packaging	
Box Qty	Box Weight (kg)
15	8
15	12
4	7
4	14

Part Number

Code	Micron	Length
CB	1, 5, 10	9¾, 20
		9¾BB, 20BB

e.g. CB-5-9¾/4



Performance based on 10" cartridge. *Life in UK water based on free chlorine concentration of 0.2mg/l.

CFB-Plus - Fibredyne

The Most Popular Fibredyne

The latest in carbon technology, Pentair Fibredyne stands for best of both worlds: a range of cartridges that combine activated carbon technology with depth filtration. This allows all the benefits of activated carbon with minimum pressure drop, thanks to using powdered

activated carbon embedded in a polyethylene matrix. With premium chlorine, taste and odour reduction, the CFB-Plus is a versatile cartridge, with the highest sediment reduction promoting a long life and the ideal, trusted choice for residential, commercial or industrial applications.

Key Features

- Fibredyne technology enables one-stage chlorine and sediment removal, promoting ease of use
- Unique post-filtration layer eliminates fine release downstream
- Over 75% reduction in pressure drop over carbon block

Typical Applications

- Domestic and general water supply
- Incoming water for breweries



Configurations

Micron (µm)

5

Length (")

10=9¾

20

30

Diameter

Standard

Large = BB



Compliance

NSF/ANSI 42 Certified



Materials of Construction

Carbon Type

Bonded Powder Activated Coconut Carbon

Netting

Polyethylene

End-cap

Polypropylene

Gasket

Santoprene



Specification

Max. Operating Temperature

82°C

Max. Operating Pressure Differential

1.5 bar

CFB-Plus Properties

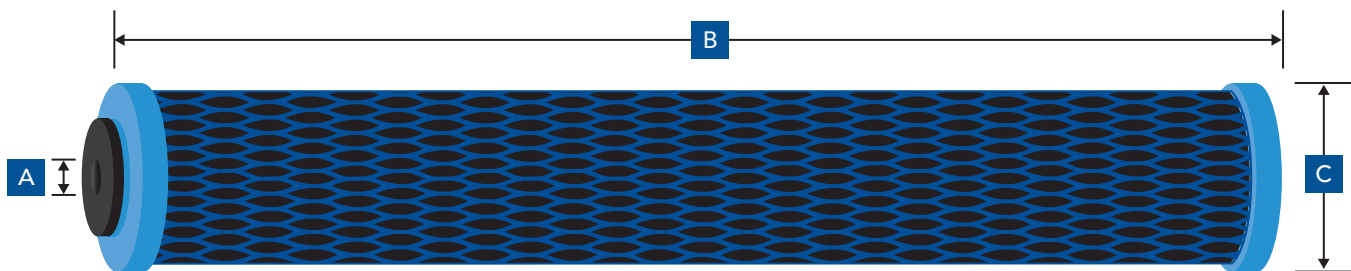
Length (")	Chlorine Reduction (L) @ 2mg/l *	Chlorine Reduction (L) @ 0.2mg/l **	Pressure Drop (Bar) @	Flow Rate (LPM)
10	37,800	330,750	0.11	3.8
20	75,700	662,375	0.11	7.6
30	113,500	993,125	0.11	11.4
10BB	94,600	827,750	0.17	7.6
20BB	189,000	1,653,750	0.17	15.1

*Chlorine capacity using 2mg/l free available chlorine at 0.5mg/l breakthrough

**Calculated chlorine capacity using 0.2mg/l free available chlorine at 0.05mg/l breakthrough



Dimensions & Packaging



Length (")	Dimensions (mm)		
	A	B	C
10	28	248	73
20	28	508	73
30	28	762	73
10BB	28	248	118
20BB	28	508	118

Packaging	
Box Qty	Box Weight (kg)
12	3
12	6
12	10
6	4
6	8

Part Number

Code	Length
CFB-Plus	10, 20, 30
	10BB, 20BB

e.g. CFB-Plus20BB





For Giardia Cysts
Chlorine Reduction Start - End of Life (%)
98-75
Total Chlorine Capacity (mg)
66,150
Typical Life in UK Water (L)*
330,750

Performance based on 10" cartridge. *Life in UK water based on free chlorine concentration of 0.2mg/l.

FloPlus™ - Fibredyne

Outstanding *Cryptosporidium* and *Giardia* Cyst Protection

With NSF/ANSI certified cyst, chlorine and sediment reduction, the FloPlus is one of the leading cartridges in its field. The FloPlus utilises Fibredyne media with a 0.5 micron rating that has a low pressure drop and flows

like a 10 micron. Whilst Fibredyne media is effective at targeting sediment and the FloPlus can be used as a stand-alone solution, a 5 micron pre-filter is recommended to maximise life and performance of this cartridge.

Key Features

- Certified for reduction of *Cryptosporidium* and *Giardia* Cysts
- Flow rate and pressure drop of a 10µm block, efficiency of a 0.5µm cartridge

Typical Applications

- Borehole and private water supply
- Designated drinking water outlets



Configurations

Micron (µm)
0.5

Length (")
10=9¾ 20

Diameter
Standard Large = BB



Compliance

NSF/ANSI Standard 53 Certified



Materials of Construction

Carbon Type
Bonded Powder
Activated Carbon

Netting
Polyethylene

End-cap
Polypropylene

Gasket
Santoprene



Specification

Max. Operating Temperature
82°C

Max. Operating Pressure Differential
1.8 bar

FloPlus™ Properties

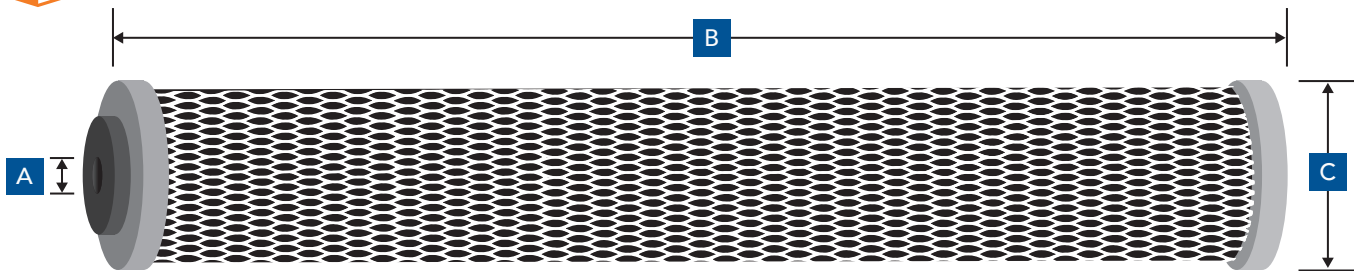
Length (")	Chlorine Reduction (L) @ 2mg/l *	Chlorine Reduction (L) @ 0.2mg/l **	Pressure Drop (Bar) @	Flow Rate (LPM)
10	37,800	330,750	0.14	3.8
20	75,700	662,375	0.14	7.6
10BB	94,600	827,750	0.28	7.6
20BB	189,000	1,653,750	0.28	15.2

*Chlorine capacity using 2mg/l free available chlorine at 0.5mg/l breakthrough

**Calculated chlorine capacity using 0.2mg/l free available chlorine at 0.05mg/l breakthrough



Dimensions & Packaging



Dimensions (mm)			
Length (")	A	B	C
10	25	248	73
20	25	508	73
10BB	28	248	118
20BB	28	508	118

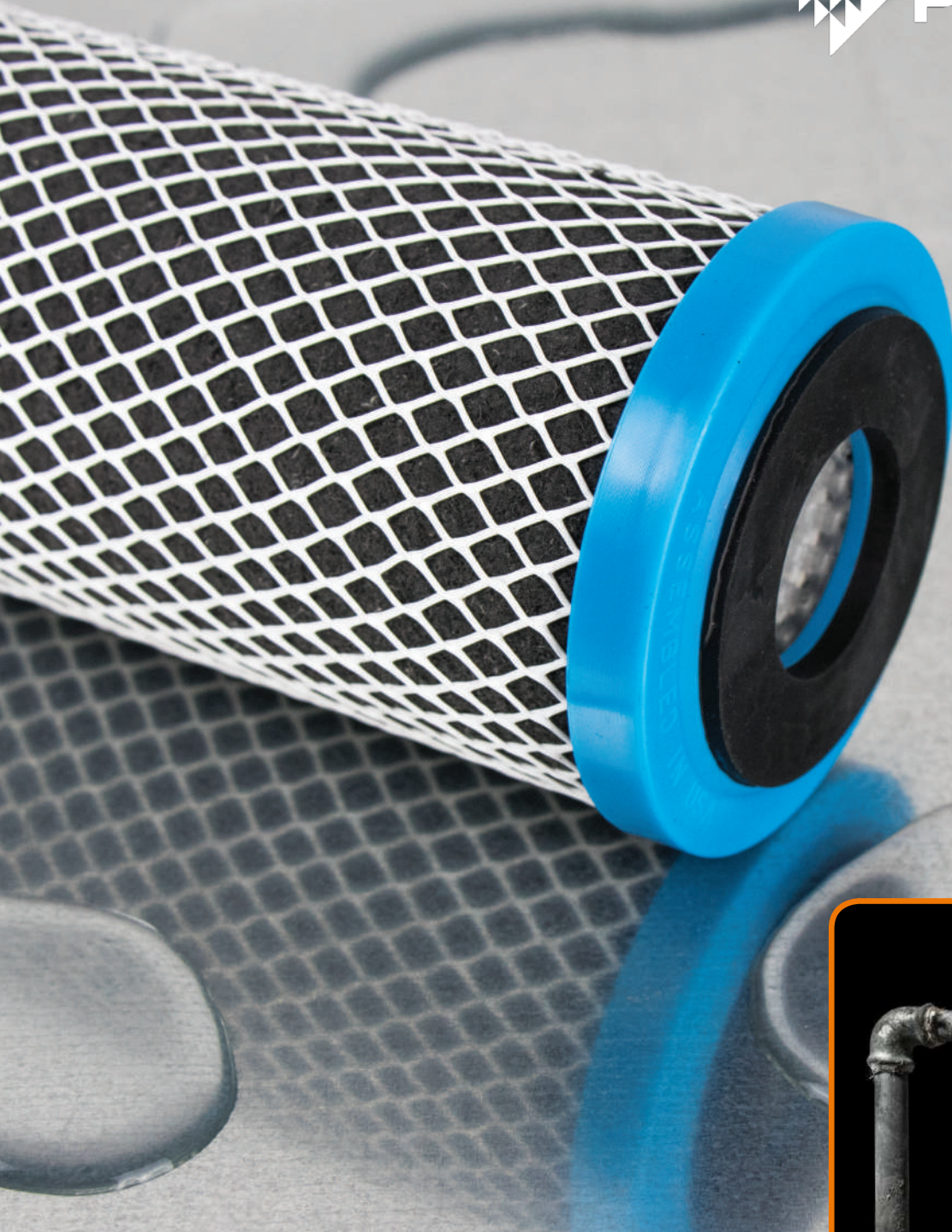
Packaging	
Box Qty	Box Weight (kg)
12	3
12	6
12	4
6	8

Part Number

Code	Length
FloPlus	10, 20
	10BB, 20BB

e.g. FloPlus-10





Performance based on 10" cartridge.

CFB-PB10 - Fibredyne

Lead Reduction Capabilities of 7,600 Litres

The only cartridge in the range to target lead reduction. The CFB-PB10 reduces lead to World Health Organisation levels of 10ppb whilst providing all the other features of the Fibredyne range. The initial

pressure drop is higher than other cartridges in the range so five micron pre-filtration is recommended. The CFB-PB10 is typically found in applications where there is lead piping in soft water areas or from borehole feeds.

Key Features

- The CFB-PB10 will not release fines into the effluent stream after initial flushing due to a unique post-filtration layer that is fused to the Fibredyne media
- * Please note, with a 0.5µm nominal rating, 5µm pre-filtration is recommended to ensure the full chlorine and lead capacity of the cartridge can be achieved

Typical Applications

- POU drinking water from borehole feed
- Drinking water, in aged pipework and closed loop systems



Configurations

Micron (µm)

0.5

Length (")

10 = 9/4

Diameter

Standard



Compliance

NSF/ANSI 42 Certified



Materials of Construction

Carbon Type

Bonded Powder Activated
Coconut Carbon

Netting

Polyethylene

End-cap

Polypropylene

Gasket

Santoprene



Specification

Max. Operating Temperature

82°C

Max. Operating Pressure Differential

2 bar

CFB-PB10 Properties

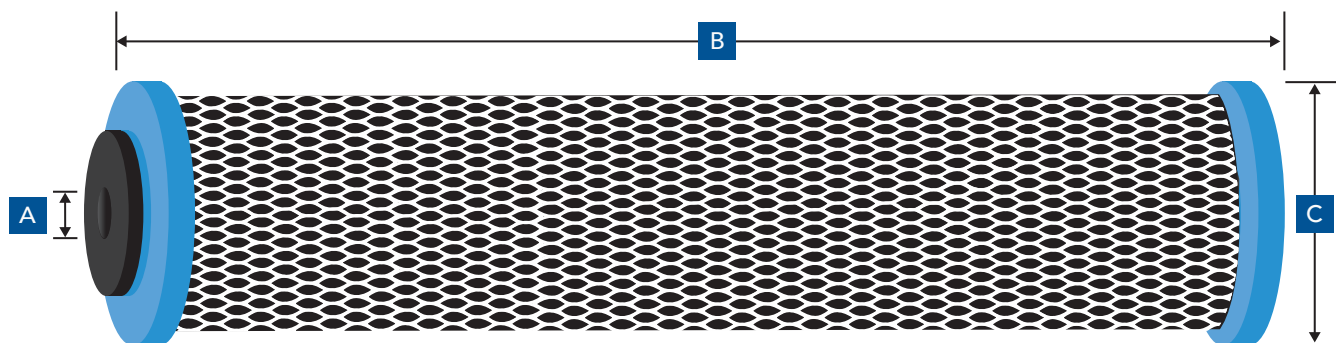
Length (")	Chlorine Reduction (L) @ 2mg/l *	Chlorine Reduction (L) @ 0.2mg/l **	Pressure Drop (Bar) @	Flow Rate (LPM)
10	18,927	165,611	0.6	3.8

*Chlorine capacity using 2mg/l free available chlorine at 0.5mg/l breakthrough

**Calculated chlorine capacity using 0.2mg/l free available chlorine at 0.05mg/l breakthrough



Dimensions & Packaging



Dimensions (mm)			
Length (")	A	B	C
10	28	248	73

Packaging	
Box Qty	Box Weight (kg)
12	4

Part Number

Code	Length
CFB-PB	10

i.e. CFB-PB10





C-155 - Fibredyne

The Primary Carbon for Electroplaters

A specialised cartridge for electroplating applications, the C-155 represents the best possible technology available for the marketplace. The bonded PAC used in the Fibredyne C-155 excels in removing organics and particulate and ensures sulphur is not leached into the plating bath, along with a post filtration layer preventing carbon fines after

initial flushing. The C-155 prevents pitted deposits, haze, clouds and discolouration to provide a bright electroplating finish. Building on the same technology as the discontinued ELPC cartridge, the C-155 has a reduced diameter allowing simple retrofitting to a much wider range of standard housings within the finishing industry.

Key Features

- Ultra clean, highly purified carbon prevents sulphur leaching
- Resistant to chemical breakdown in acidic and non-alkaline solutions
- Gaskets permanently moulded onto end-caps to ease filter cartridge changeout
- 67mm diameter to suit standard industry housings
- Lower pressure drop over the life of the cartridge due to its unique modified structure
- Highly efficient nominally rated cartridge 92%+ efficient sediment reduction

Typical Applications

- Surface finishing
- Essential in electroplating applications where organic and particulate removal is necessary



Configurations

Micron (µm)

10

Length (")

10 = 9¾ 20 30 40

Diameter

67mm



Materials of Construction

Carbon Type

Bonded Powder
Activated Carbon

Netting

Polyethylene

End-cap

Polypropylene

Gasket

Santoprene



Specification

Max. Operating Temperature

82°C

Max. Operating Pressure Differential

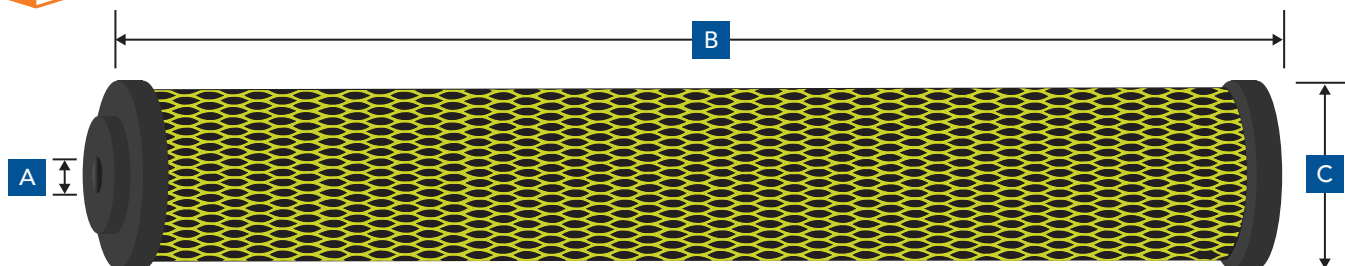
2 bar

C-155 Properties

Length (")	Pressure Drop (Bar)	@	Flow Rate (LPM)
10	0.14		3.8
20	0.14		7.6
30	0.14		11.4
40	0.14		15.1



Dimensions & Packaging



Dimensions (mm)			
Length (")	A	B	C
10	27	248	67
20	27	508	67
30	27	762	67
40	27	1016	67

Packaging	
Box Qty	Box Weight (kg)
30	7
30	14
30	21
12	12

Part Number

Code	Length	Code
C-155X	10, 20, 30, 40	T

e.g. C-155X20T



870 Carbon Block SCB-S

222/Fin End-Capped for Multi-Round Housings

The narrow diameter SCB-S with its secure 222 double O-ring connection has been designed for multi-round housings and specific use in beverage and drinking water applications where a more positive seal is required. Constructed from the same carbon formulation as the SCB, this microporous coconut

carbon targets VOCs and THMs. Acid washed during the production process and low fine content gives excellent rinse-up times as well as regulating pH and taste. Designed to seal securely into the Standard (SFH) and Premier (PFH) Inox multi-round housings, available in 3 to 36 round configurations.



For Multi-Round Housings

Chlorine Reduction
Start - End of Life (%)
95-75

Total Chlorine
Capacity (mg)
21,000

Typical Life in UK
Water (L)*
105,000

Performance based on 10" cartridge.
*Life in UK water based on free chlorine concentration of 0.2mg/l.

Key Features

- Simple installation with a 222 double O-ring connection for greater security
- Highly porous, lightweight, clean and tight microporous structure effective at reducing chlorine, taste and odour contaminants
- Pre-washed, reducing carbon fines
- At a minimum 75% chlorine efficiency, the SCB-S is designed for effective chlorine reduction in high flow applications

Typical Applications

- Drinking water
- VOC and THM reduction



Configurations

Micron (µm)

5

Length (")

10 20 30 40

Diameter

66 mm



Compliance

WRAS Approved



Materials of Construction

Carbon Type

Powder activated coconut carbon

Netting

Polyethylene

End-cap

Polypropylene

O-Rings

EPDM



Specification

Max. Operating Temperature

52°C

Max. Operating Pressure Differential

2.5 bar

SCB-S Properties

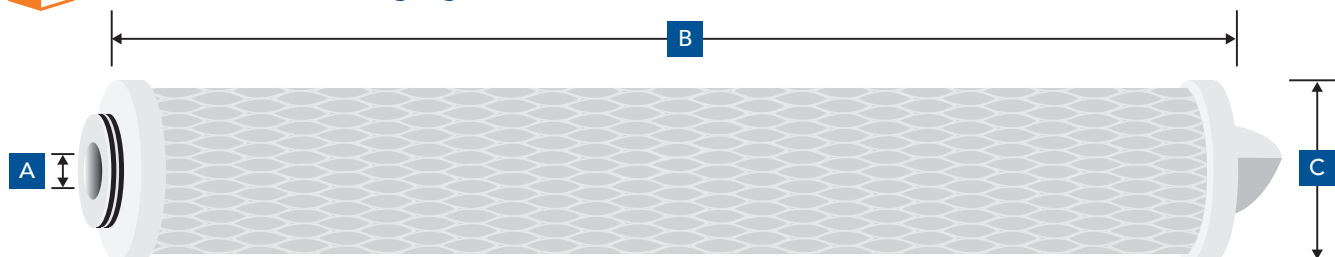
Length (")	Chlorine Reduction (L) @ 2mg/l *	Chlorine Reduction (L) @ 0.2mg/l **	Pressure Drop (Bar) @	Flow Rate (LPM)
10	12,000	105,000	0.3	3.8
20	24,000	210,000	0.3	7.6
30	36,000	315,000	0.3	7.6
40	48,000	420,000	0.3	15.1

*Chlorine capacity using 2mg/l free available chlorine at 0.5mg/l breakthrough

**Calculated chlorine capacity using 0.2mg/l free available chlorine at 0.05mg/l breakthrough



Dimensions & Packaging



Dimensions (mm)			
Length (")	A	B	C
10	28	310	66
20	28	560	66
30	28	810	66
40	28	1,060	66

Packaging	
Box Qty	Box Weight (kg)
9	4
9	8
9	12
9	16

Part Number

Code	Micron	Length	End-cap Seal
SCB-S	5	10, 20, 30, 40	EHE

e.g. SCB-S-5-EHE




For **Chlorine**
and **Organics**

Chlorine Reduction
Start - End of Life (%)
95-75

Total Chlorine
Capacity (mg)
16,625

Typical Life in UK
Water (L)*
83,125

870 Carbon Wrap - SCW

Traditional Dual-Purpose Carbon

Developed as the direct replacement to the Pentair C1, the SPECTRUM SCW is adept at removing high levels of sediment and contaminants. Employing traditional carbon wrap technology to reduce odours, remove chlorine, water

pigmentation and other volatile organic compounds, the SCW combines the advantages of a high-dirt loading depth cartridge and adsorption capabilities of granular activated carbon; an ideal combination to treat drinking water.

Performance based on 10" cartridge. *Life in UK water based on free chlorine concentration of 0.2mg/l.

Key Features

- Dual sediment and chlorine reduction
- Low pressure drop
- 5µm nominal rating hence pre-filtration is generally not required

Typical Applications

- Drinking water
- General purpose chlorine taste and odour reduction



Configurations

Micron (µm)

5

Length (")

9¾

20

Diameter

Standard

Large = BB



Materials of Construction

Carbon Type

Carbon Impregnated
Cellulose

Netting

Polyethylene

End-cap

Vinyl Plastisol

Core

Polypropylene



Specification

Max. Operating Temperature
60°C

Max. Operating Pressure Differential
2 bar

SCW Properties

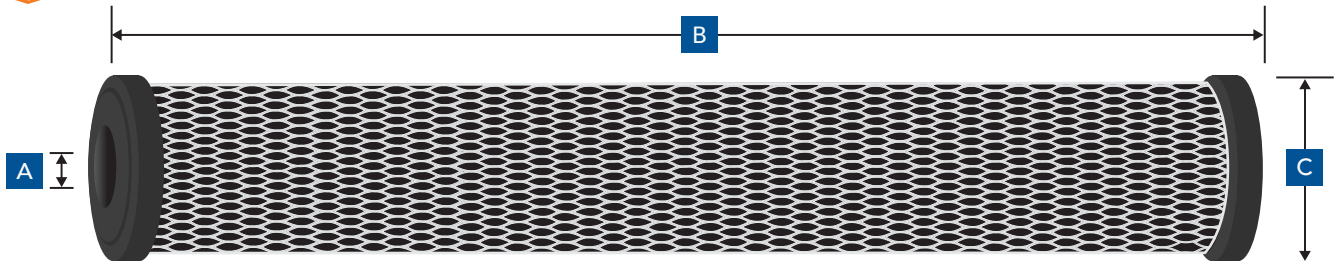
Length (")	Chlorine Reduction (L) @ 2mg/l *	Chlorine Reduction (L) @ 0.2mg/l **	Pressure Drop (Bar) @	Flow Rate (LPM)
9¾	9,500	83,125	0.2	3.8
20	19,000	166,250	0.2	7.6
9¾BB	17,000	148,750	0.2	7.6
20BB	34,000	297,500	0.2	15.1

*Chlorine capacity using 2mg/l free available chlorine at 0.5mg/l breakthrough

**Calculated chlorine capacity using 0.2mg/l free available chlorine at 0.05mg/l breakthrough



Dimensions & Packaging



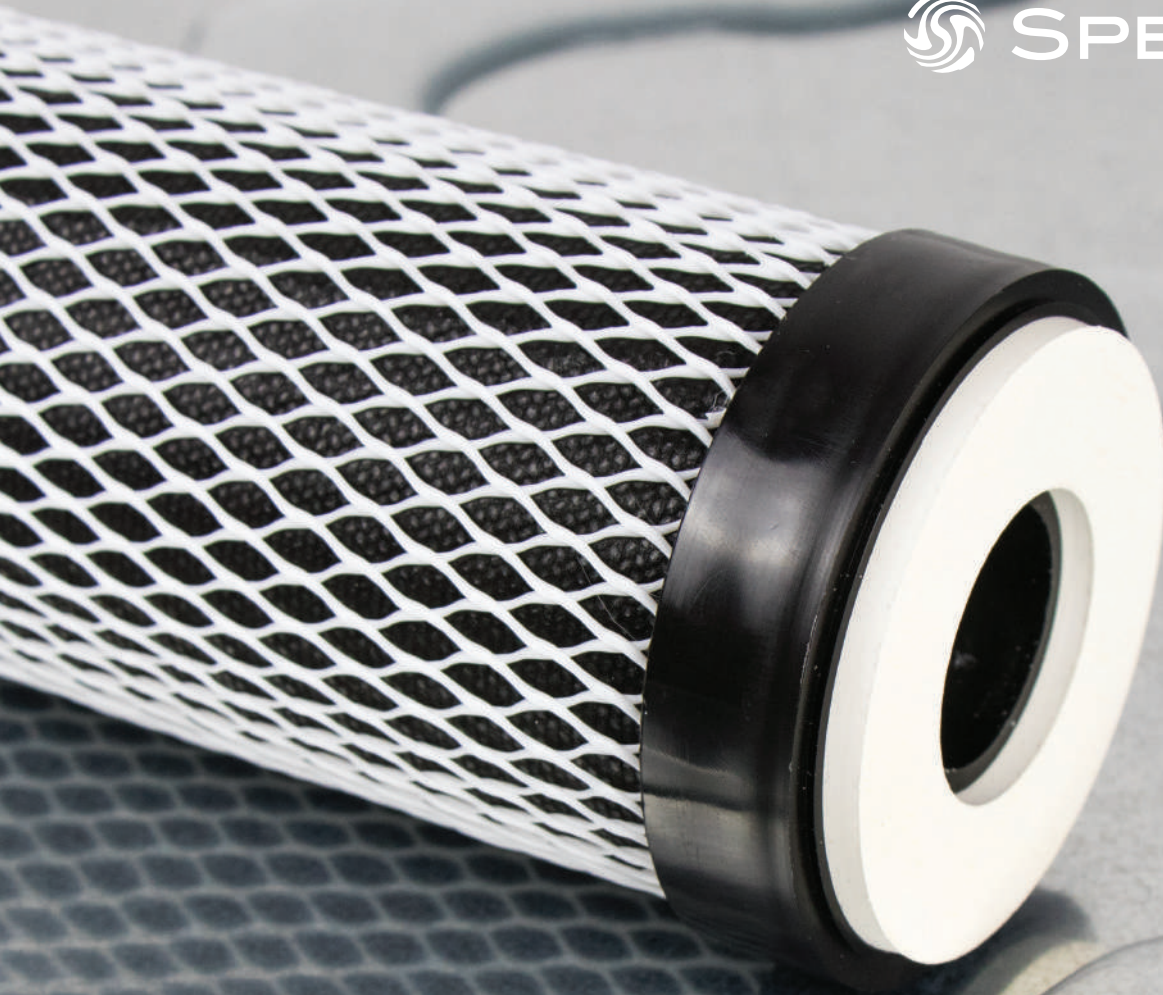
Length (")	Dimensions (mm)		
	A	B	C
9¾	28	248	65
20	28	508	65
9¾BB	28	248	115
20BB	28	508	115

Packaging	
Box Qty	Box Weight (kg)
15	4
15	6
4	4
4	7

Part Number

Code	Micron	Length
SCW	5	9¾, 20
		9¾BB, 20BB

e.g. SCW-5-20



OilOut-99

Specialised for Hydrocarbon Reduction

Suitable for the polishing of trace hydrocarbons, the OilOut-99 is capable of absorbing up to three times its own weight before changeout is required. Designed to remove up to 99% of dispersed hydrocarbons, the SPECTRUM SRIF is suited to applications where the inlet contamination is below

500mg/l, such as surface run off water, CNC machine coolant and bilge separators. The OilOut-99 achieves best results as a polishing phase after primary oil removal technologies or in a double-pass system and is effective at removing a range of contaminants, including mineral oils and BTEX hydrocarbons.



*Average oil removal per 10" cartridge

Key Features

- Immediately absorbs hydrocarbons retaining up to 3x its own weight
- No release of hydrocarbons and extremely low pressure drop when saturated
- Cost effective hydrocarbon removal at high flow rates *
- 25µm rating, used solely for oil reduction

Typical Applications

- Surface run off water
- CNC coolant
- Bilge water treatment
- Engineering waste water



Configurations

Micron (µm)

25

Length (")

9¾

20

30

40

Diameter

Standard

Large = BB

* With a complex range of oils and hydrocarbons, including emulsified and dissolved, it is always recommended that a small scale trial is conducted to validate cartridge performance.



Materials of Construction

Carbon Type

Resin Impregnated Felt

Netting

Polyethylene

Core

Polypropylene

Wrap

Polypropylene

End-caps

Polypropylene

Gasket

Buna-N



Specification

Max. Operating Temperature

70°C

Max. Operating Pressure Differential

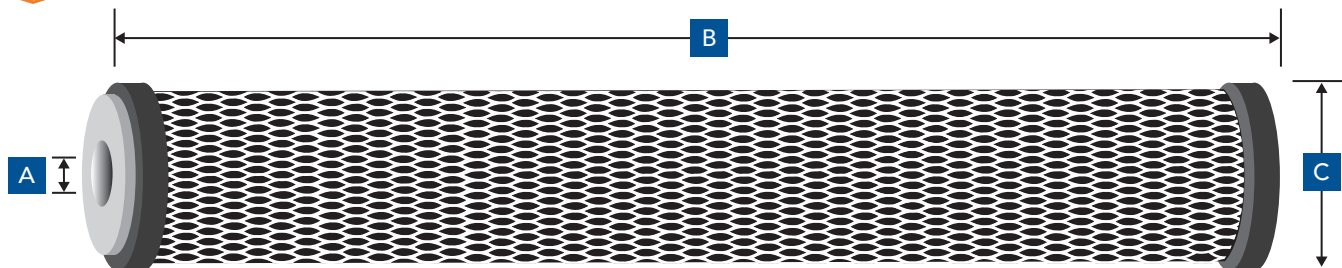
1.4 bar

OilOut-99 Properties

Length (")	Average Oil Removal (g)	Pressure Drop (Bar)	@	Flow Rate (LPM)
9¾	375	0.11		20
20	750	0.11		40
30	1,125	0.11		60
40	1,500	0.11		80
9¾BB	1,500	0.08		20
20BB	3,000	0.08		40



Dimensions & Packaging



Length (")	Dimensions (mm)		
	A	B	C
9¾	26	248	70
20	26	508	70
30	26	762	70
40	26	1016	70
9¾BB	26	248	117
20BB	26	508	117

Packaging	
Box Qty	Box Weight (kg)
15	4
15	7
15	10
15	13
4	3
4	6

Part Number

Code	Length
SRIF	9¾, 20, 30, 40
	9¾BB, 20BB

e.g. SRIF-40

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

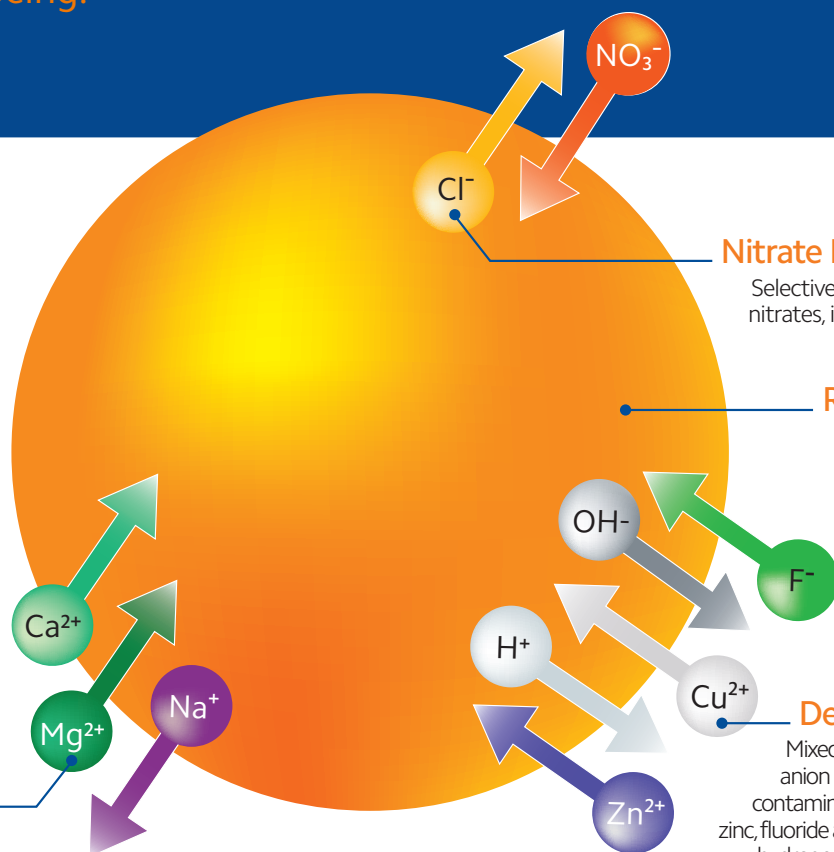
Nitrate Reduction

Selectively targets toxic nitrates, in exchange for chloride ions

Resin Bead

Deionisation

Mixed-bed cation and anion beads exchange contaminant ions such as zinc, fluoride and copper with hydrogen and hydroxide; effectively forming H₂O



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

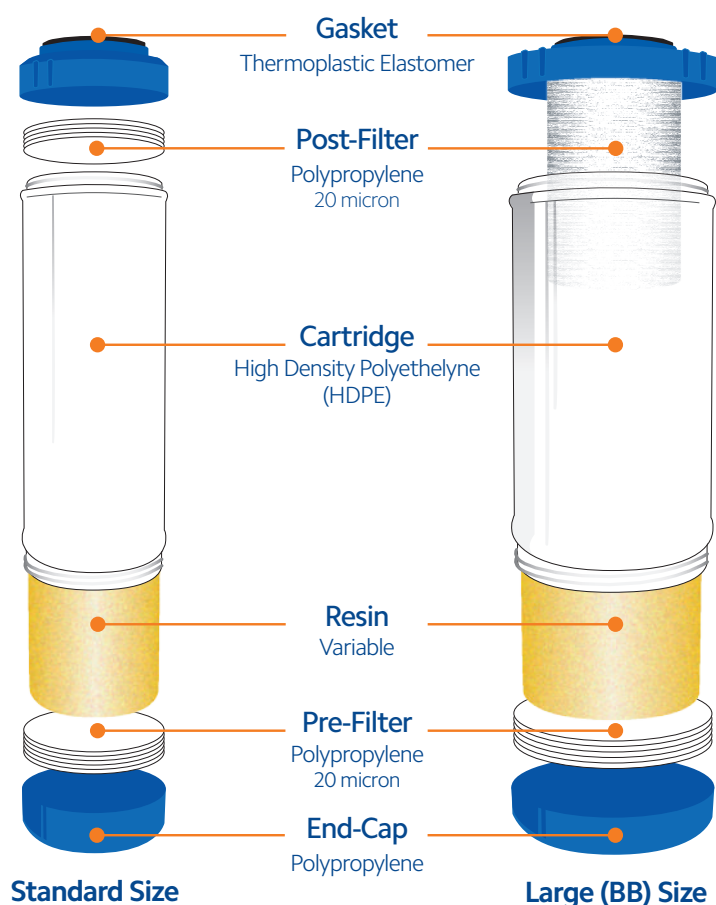
and other critical applications. **Heavy Metals** can have harmful effects on health as well as interfering with sensitive manufacturing processes. Heavy metal reduction resin specifically targets these contaminants, effectively reducing levels to meet drinking water standards. **Nitrate Removal** is 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.

“Filerder 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.





Water Treatment Cartridge Range

Fileder's range of water treatment cartridges provide a simple solution to the complex process of reducing dissolved contaminants. With flow rates from 0.1 to 23 litres per minute across the range and intended for use in single round plastic housings,

this range offers simple yet effective solutions to common water quality issues; including protecting equipment from hardness scaling, extending service life, enhancing the aesthetics of incoming water or removing harmful nitrates.

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 (")

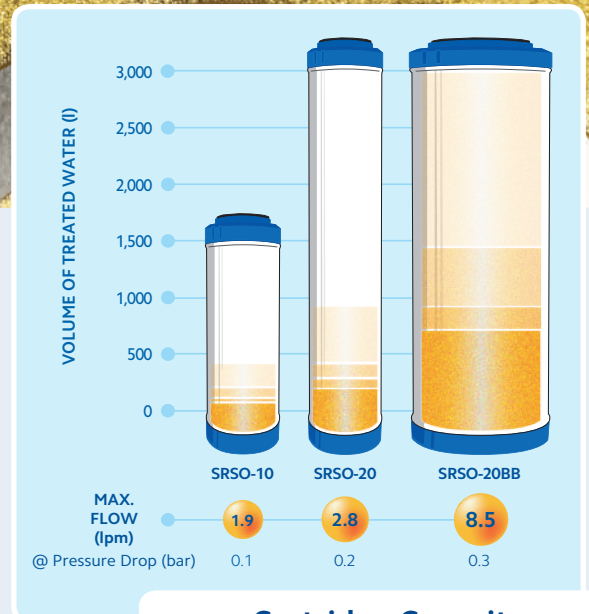
10

20

Diameter

Standard

Large = BB



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



Ion-X Deionising SRDI

The SRDI excels in the production of high purity water with average conductivity levels of 0.1µS/cm. The SRDI can be used in conjunction with a sediment pre-filter to deliver small batches of DI water straight from the tap. Where demand increases, the SRDI can be situated post-RO for the polishing of permeate water.

Key Features

- Produces high purity, silica free water for low volume applications fed directly from mains
- Cost effective solution in batch pure water processes post RO

Typical Applications

- Glass wash
- Dental
- Autoclave
- Post RO polishing

Media Type

55% Strong acid cation gel-type (H⁺ Form)
45% Strong base anion gel-type (OH⁻ Form)

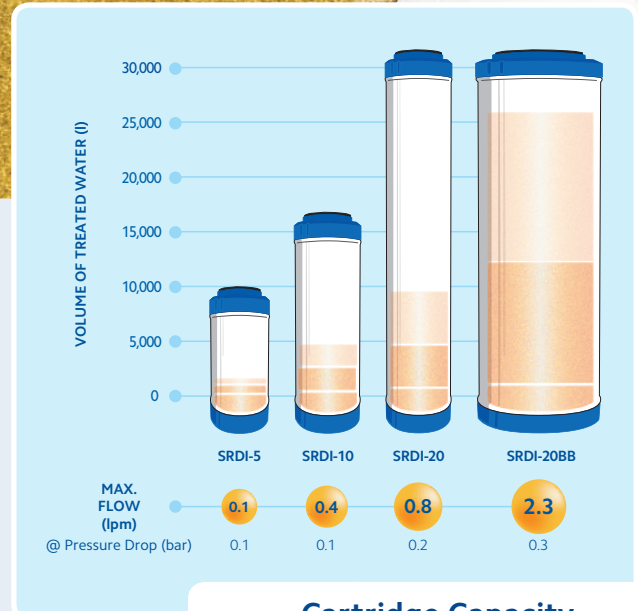
Configurations

Length (")

5 10 20

Diameter

Standard Large = BB



Cartridge Capacity

Total Dissolved Solids (mg/l)	Volume of Treated Water (l)			
	SRDI-10	SRDI-20	SRDI-20	SRDI-20BB
RO Permeate, 5mg/l	1,200	4,800	9,400	23,500
RO Permeate, 10mg/l	600	2,400	4,700	11,750
Mains Water, 300mg/l	20	80	180	400

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)
SRDI	5	18	7
	10	9	7
	20	9	15
	20BB	4	16

e.g. SRDI-5

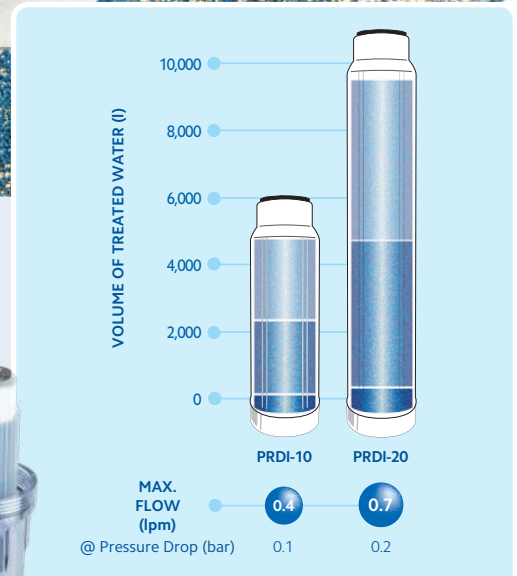


Ion-X Colour Change Deionising PRDI

The PRDI offers exactly the same performance as the SRDI with added benefit of colour change indication to highlight resin exhaustion. Used as a standalone system to produce small batches of pure water, the PRDI is also the perfect performance indicator when used post large volume pressure vessels.



The PRDI paired with Pentair clear bowl filter housing



Key Features

- Resin changes from blue to brown to indicate exhaustion
- Provides water with a typical conductivity of 0.1µS/cm

Typical Applications

- Pharmaceutical
- Laboratory
- Dental
- Autoclave
- Post RO polishing

Media Type

60% Strong acid cation gel-type (H⁺ Form)
40% Strong base anion gel-type (OH⁻ Form)

Configurations

Length (")

10 20

Diameter

Standard

Cartridge Capacity

Total Dissolved Solids (mg/l)	Volume of Treated Water (l)	
	PRDI-10	PRDI-20
RO Permeate, 5mg/l	4,800	9,400
RO Permeate, 10mg/l	2,400	4,700
Mains Water, 300mg/l	80	160

* Pressure drop by cartridge size:
10" - 0.1 bar; 20" - 0.2 bar.

Specification

Operating Temperature Range

4-38°C

Max. Operating Pressure

5.5 bar

Max. Differential Pressure

1.0 bar

Part Number, Box Quantity & Weight

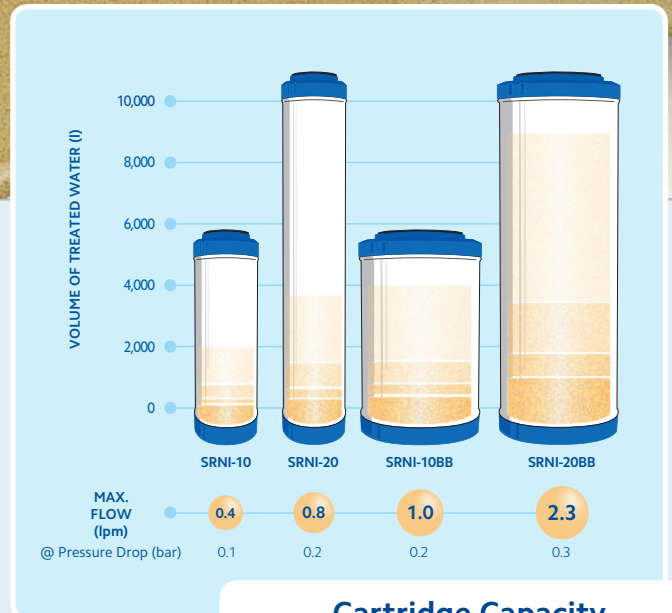
Code	Length	Box Qty	Box Weight (kg)
PRDI	10	9	7
	20	9	15

e.g. PRDI-20

Ion-X Nitrate Reduction

SRNI

Nitrate often reaches surface and groundwater by runoff from agricultural activities, such as usage in fertiliser. SRNI cartridges can reduce toxic nitrate levels below WHO limits of 50mg/L, exchanging harmful nitrates for chloride ions.



Key Features

- Typical nitrate reduction levels of over 95%
- Retains nitrate ions even in water with high sulphate levels

Media Compliance

NSF/ANSI-61
WRAS BS6920

Typical Applications

- Private water supply
- Aquatics

Media Type

Strong base anion macroporous type (Cl⁻ Form)

Configurations

Length (")

10

20

Diameter

Standard

Large = BB

Specification

Operating Temperature Range
4-38°C

Max. Operating Pressure
5.5 bar

Max. Differential Pressure
1.0 bar

Cartridge Capacity

Nitrate (mg/l)	Volume of Treated Water (l)			
	SRNI-10	SRNI-20	SRNI-10BB	SRNI-20BB
10	2,000	3,875	4,000	9,075
25	800	1,550	1,600	3,630
50	400	775	800	1,815
75	267	517	533	1,210

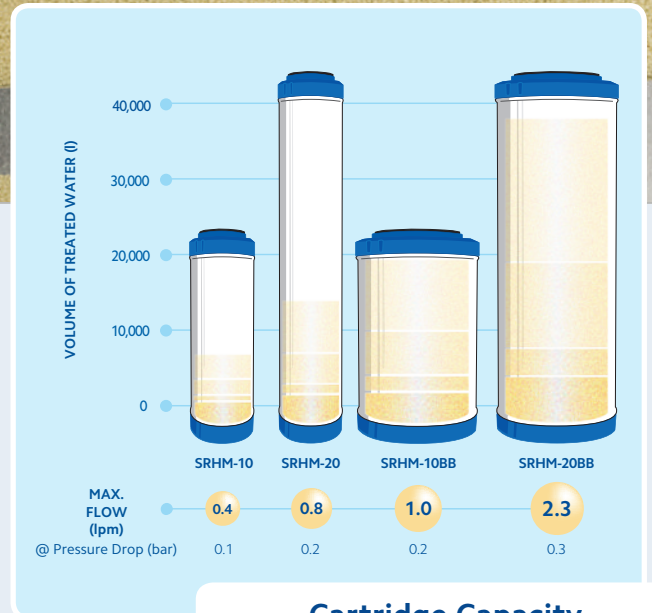
Part Number, Box Quantity & Weight

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

e.g. SRNI-10BB

Ion-X Heavy Metal Reduction SRHM

Delivering excellent selectivity of heavy metals including zinc, mercury and copper from potable water supplies, the SRHM also provides water softening properties without the sodium dosing usually found with exclusive softening cartridges. The SRHM can be combined with other filtration and treatment products for a comprehensive solution.



Key Features

- Simple and proficient reduction of heavy metals
- Reduces toxic and alkaline earth metals
- For use in drinking water applications

Typical Applications

- Pharmaceutical make-up water
- Aquatics

Media Type

Weak Acid Cation Macroporous Type (H⁺Form)

Media Compliance

WRAS BS6920
European ResAP (2004) 3

Configurations

Length (")

10

20

Diameter

Standard

Large = BB

Cartridge Capacity

Heavy Metals (mg/l)	Volume of Treated Water (l)			
	SRHM-10	SRHM-20	SRHM-10BB	SRHM-20BB
10	6,800	14,000	19,600	38,000
25	3,400	7,000	9,800	19,000
50	1,360	2,800	3,920	7,600
75	680	1,400	1,960	3,800

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)
SRHM	10	9	7
	20	9	15
	10BB	4	7
	20BB	4	16

e.g. SRHM-10



Scale Inhibiting

PCC

An alternative technology to ion exchange, the PCC series contains hexametaphosphate crystals which slowly dissolve, sequestering hardness contaminants and reducing the risk of limescale build up. Available in three different configurations, the PCC can be tailored for use in a variety of applications where scale is an issue.

PCC-106

For use with DOE Cartridges

Designed for smaller applications and in conjunction with other filtration equipment, the PCC-106 is an insert element placed into the central core of DOE (double open-ended) cartridges. Perfectly designed for use with radial flow sediment and carbon cartridges, the PCC-106 uses hexametaphosphate media to prevent hardness forming ions from

PCC-2-18

To fit Standard and Slimline Housings

Hexametaphosphate media used within PCC-2-18 cartridges separates hardness particles and forms a protective coating on surfaces, preventing scaling and accumulation; safeguarding against typical acid/alkaline contaminants that affect corrosion of water equipment and pipework. In a traditional 10" double open-ended configuration, the PCC-2-18 is designed for use in both standard and slimline filter housings.



Treatment Illustrated

Dissolving hexametaphosphate crystals treat water throughout each cartridge.

- **PCC-106** Feedwater flows through the carbon cartridge to permeate the dissolving crystals
- **PCC-2-18** The flow feeds from the base of the cartridge and through dissolving hexametaphosphate crystals
- **PCC-1** Feedwater flows across the top of the cartridge, drawing dissolved crystals into the outlet stream

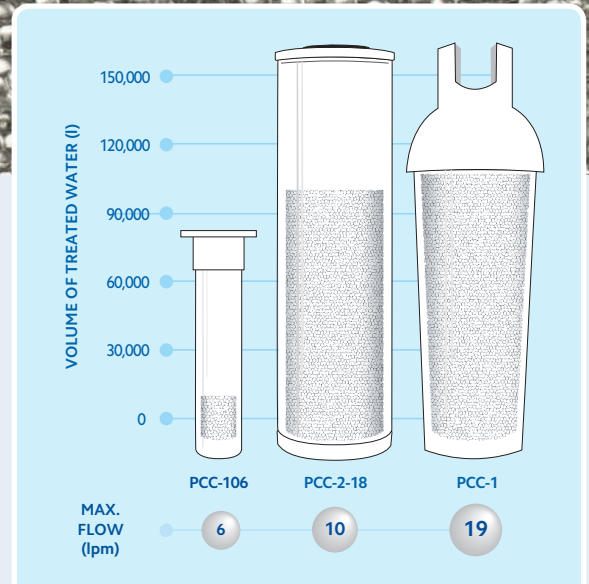
Blue arrows = feed; orange arrows = treatment water.



PCC-1

For use with ¾" Housings

This bypass feeder configuration contains the highest amount of hexametaphosphate in the range, providing extended service life and the capability to treat flow rates up to 19 litres per minute. The design of the PCC-1 allows scale inhibiting crystals to slowly dissolve into the feed stream, dosing the water to treat scale, corrosion and iron staining.



Key Features

- Effective protection from scale, corrosion and rust
- Alternative to ion exchange technology
- 3 unique designs to suit multiple applications

Typical Applications

- Coffee machines
- Food service equipment
- Private water scale treatment

Media Type

FDA approved hexametaphosphate crystals

Configurations

Length (")

6	10
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Media Weight (oz)

PCC-106 = 1.4	PCC-2-18 = 18.5	PCC-1 = 24
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Specification

Operating Temperature Range
4-38°C

Max. Hardness
250mg/l CaCO₃

Cartridge Capacity

Volume of Treated Water (l)		
PCC-106	PCC-2-18	PCC-1
7,125	85,500	114,000

Part Number, Box Quantity & Weight

Code	Box Qty	Box Weight (kg)
PCC-106	24	1
PCC-2-18	6	5
PCC-1	6	5

Iron Reduction

RFFE

RFFE cartridges combat offensive taste and staining of taps, sinks, clothes and plumbing usually associated with iron and manganese, with typical reduction levels of up to 90%. The RFFE should be part of a three-stage system, including a SPECTRUM AMS pre-filter and a CFB-Plus Carbon post filter, trapping precipitated iron post RFFE treatment.

Key Features

- Reduces the possibility of damage to pipework
- Large diameter configurations for higher flow rates

Typical Applications

- Borehole
- Private water supply
- Pre-existing contaminated pipework

Media Type

Manganese activated zeolite



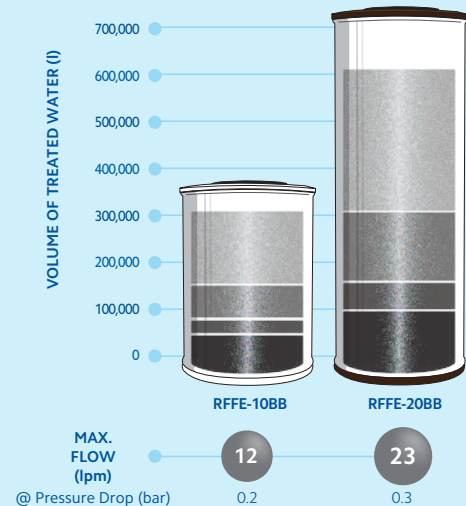
Configurations

Length (")

10 20

Diameter

Large = BB



Cartridge Capacity

Iron (mg/l)	Volume of Treated Water (l)	
	RFFE-10BB	RFFE-20BB
0.5	302,800	605,600
1	151,400	302,800
2	75,700	151,400
3	49,200	98,400



Specification

Operating Temperature Range: 4-52°C

Max. Operating Parameters:

Iron 3mg/l	Hydrogen Sulphide None
Silica 100 mg/l	Iron Bacteria None
Manganese 1mg/l	Minimum PH 7

Part Number, Box Quantity & Weight

Code	Length	Box Qty	Box Weight (kg)
RFFE	10	8	13
	20	4	15

e.g. RFFE-10BB



RFFE Setup

Forming part of a three stage system.



EFHS-PK-3-10-1LD



AMS-5-93/4BB

RFFE10-BB

CFB-Plus10BB



EFHS-PK-3-20-1LD



AMS-5-20BB

RFFE20-BB

CFB-Plus20BB

AMS Pre-Filter

A SPECTRUM AMS filter provides effective sediment filtration whereby a silver ion antimicrobial additive inhibits the growth of bacteria and microbes within the filter, whilst also preventing premature blocking of the RFFE cartridge from bio film build up. Where water supplies are chlorinated or anti-microbial properties are not required, a SPECTRUM PSP sediment filter can be chosen as an alternative option.

RFFE Cartridge

RFFE cartridges solve the complex issue of iron and manganese reducing dissolved iron from water, eliminating offensive taste and staining of taps, sinks and plumbing. Typical reduction levels are 70-90% and the RFFE is safe for drinking water applications. It is recommended that the RFFE is part of a three stage filter solution within a SPECTRUM EFHS housing system.

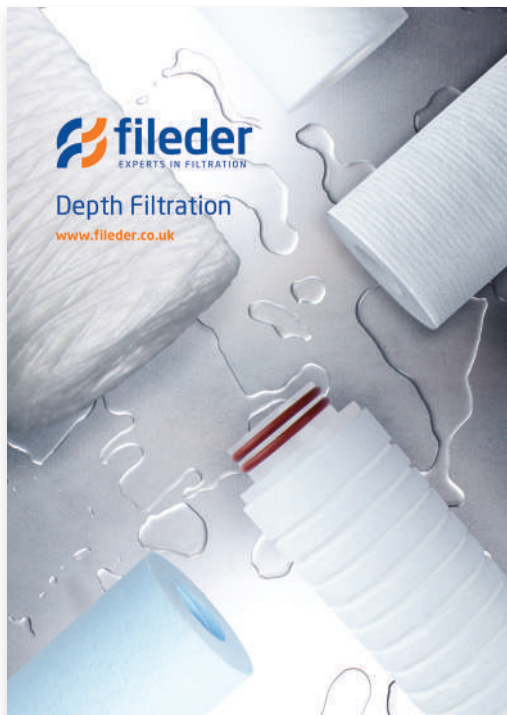
CFB-Plus Post-Filter

A fibredyne carbon cartridge, such as the Pentair CFB-Plus, should be used post RFFE to trap any remaining precipitates. The dual purposed sediment and chlorine cartridge filters particulate whilst also improving chlorine, taste and odour.

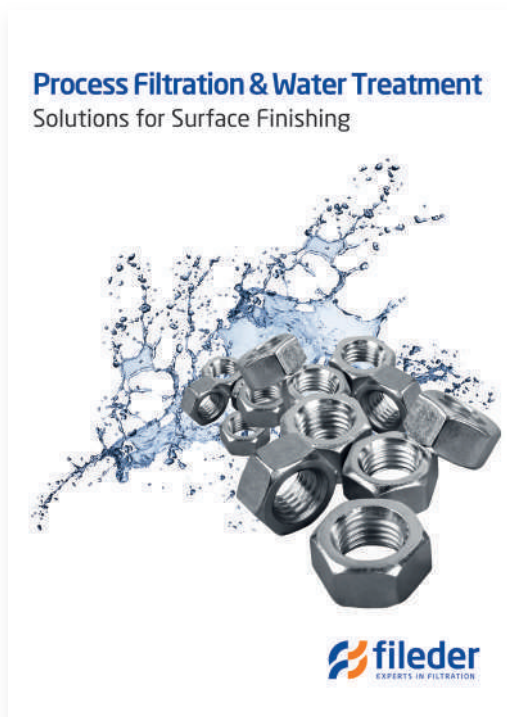
Flow Rate & Lifespan

Lifespan data provided is based upon Pentair internal testing with an RFFE-20BB.

Iron Level (mg/l)	Maximum Flow Rate (LPM)	Capacity	Approximate Life of System Based on average household use (days)		
			One Person 280 (LPD)	Two People 475 (LPD)	Four People 950 (LPD)
3	11	98,400	416	208	104
2	15	151,400	640	320	160
1	19	302,800	1,280	640	320
0.5	23	605,600	2,560	1,280	640



	Reverse Osmosis Components
	Stainless Steel Filter Housings
	Plastic Filter Housings
	Carbon and Water Treatment Cartridges
	Reverse Osmosis Systems
	Pressure Vessels & Media
	High Flow Filtration
	Water Softeners
	Stainless Steel Cartridges
	UV Systems
	Food Service
	Large Diameter Filtration
	Filtration & Water Treatment Rental
	Installation & Servicing



	Solutions for Bacteria and Parasites
	Solutions for Hospitals
	Solutions for Beverage Production
	Solutions for Food and Dairy Production
	Solutions for Chemical Production
	Solutions for Microelectronics
	Solutions for Buildings and Facilities Management
	Solutions for Cosmetics and Toiletries

The Filerder Markets



Everyday Life



Food & Beverage



Industrial



Life Sciences



Export

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