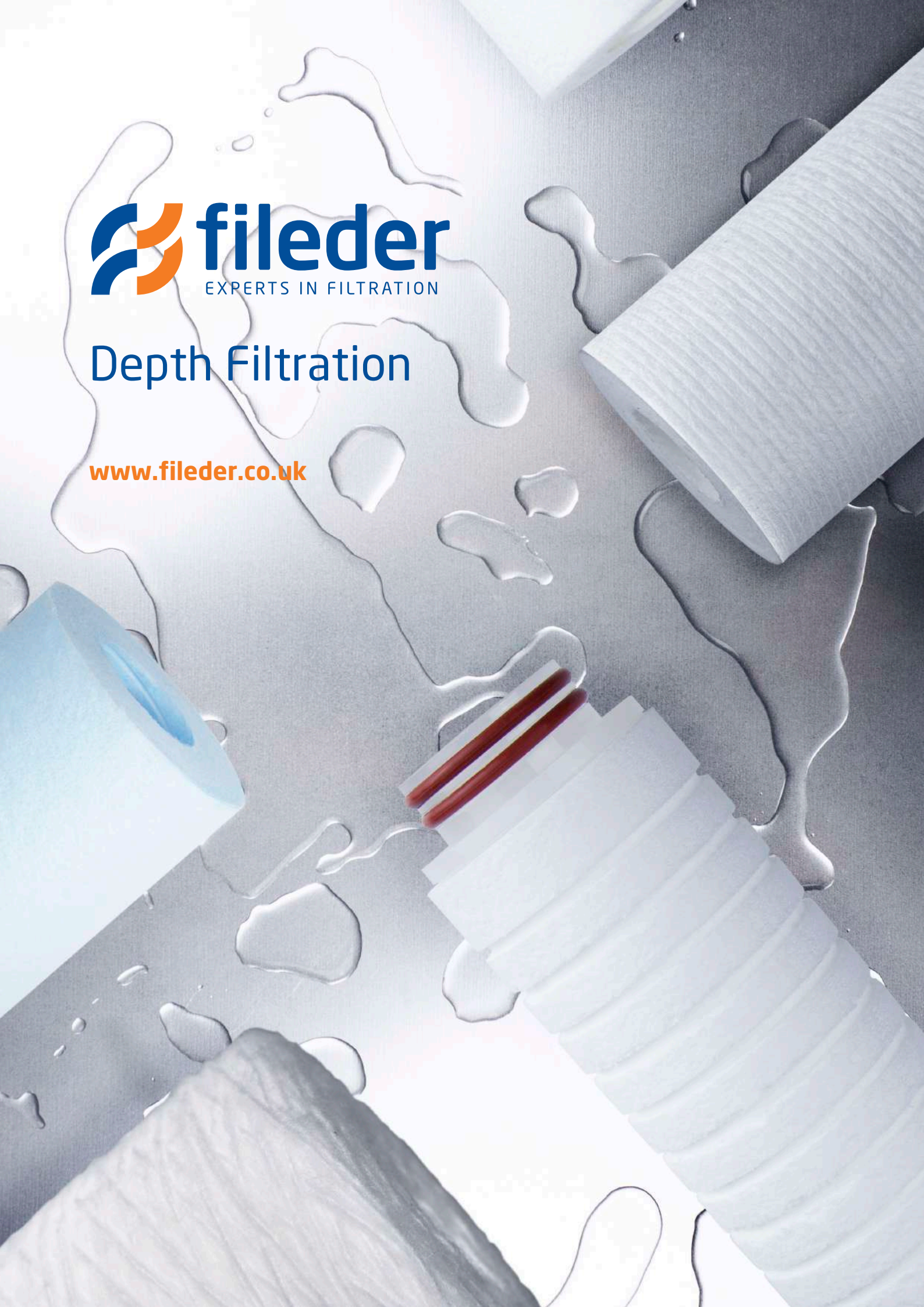

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EXPERTS IN FILTRATION

Depth Filtration

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suez
PENTAIR
SPECTRUM

fileder

EXPERTS IN FILTRATION

Depth Filtration

Effective at removing a broad range of particulate, depth cartridges are typically used to provide economic, consistent and efficient batch, pre and final filtration.

SPECTRUM PENTAIR SUEZ JNC Filter AXEON

Contents

Depth Filtration Portfolio

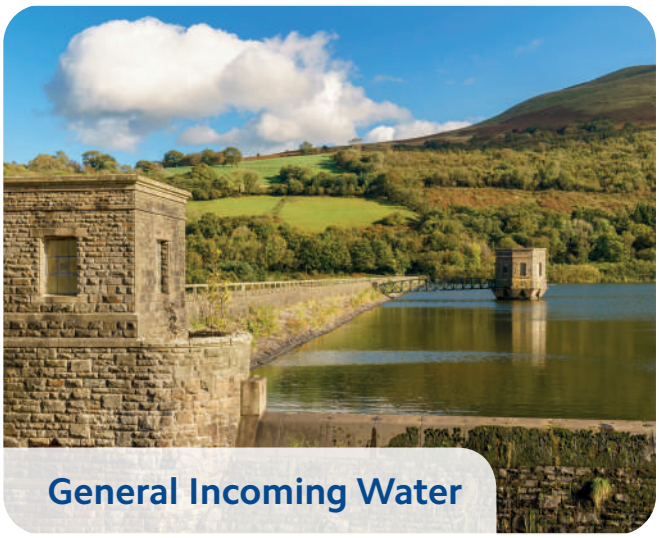
Acknowledgments:
Viton® is a registered trademark of The Chemours Company FC, LLC
Micro-Klean™ is a registered trademark of 3M
ProBond™ (Fulflo®) is a registered trademark of Parker Hannifin Corporation, Parker Intangibles, LLC

Typical Applications

The most popular choice for general incoming water, depth cartridges provide excellent dirt-holding capacity and a greater level of filtration accuracy over alternative technologies, such as bag filters. Depth has traditionally been a simple, low cost solution for wide range particle reduction, more recently complex technologies have enabled more targeted removal within specific applications.

Although used extensively for general particulate removal, many cartridges have also been developed using modified materials and advanced techniques for improved temperature resistance, chemical compatibility, precise filtration for exact classification as well as bespoke solutions for challenging applications.

Adhesives



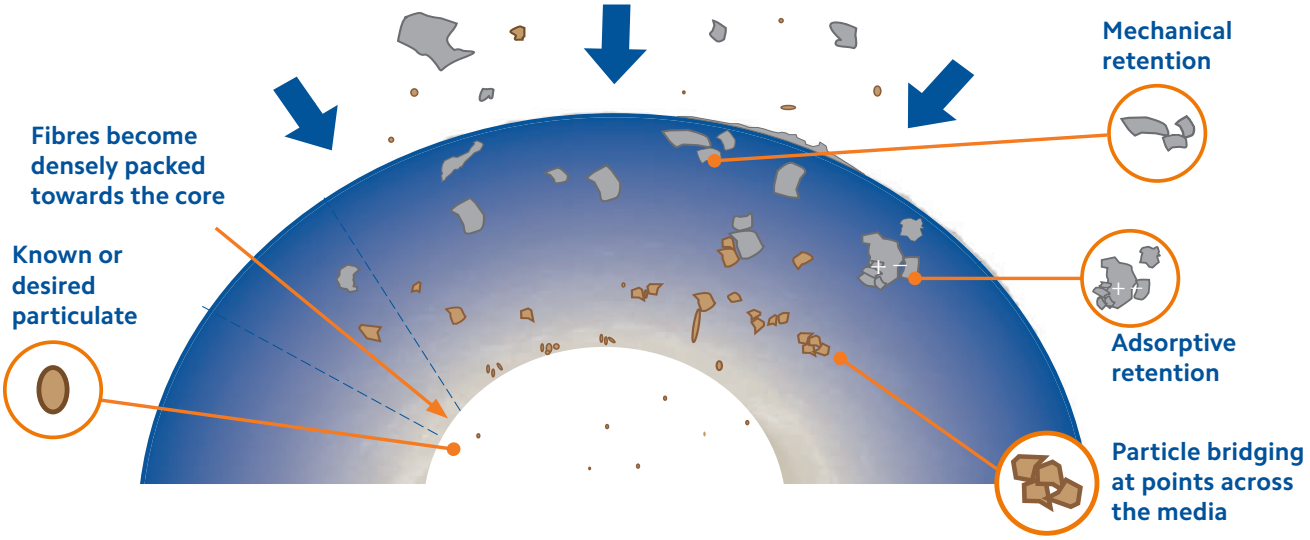
General Incoming Water

Paints and Inks

What is Depth Filtration?

Successfully used in a variety of applications, depth filtration utilises a thick layer of media to effectively trap and retain various particulate. Commonly specified as the first stage of a filtration cascade, more advanced manufacturing techniques have now developed depth cartridges suited to improving downstream filtration.

Cross-Section of a Depth Cartridge



How do Depth Filters Work?

As liquid from the inlet is sent twisting and turning on a tortuous path through the filter cartridge, particles become caught in the densely packed fibres of a depth filter - this sieving or interception is known as mechanical retention. With the introduction of graded-depth filtration, a broad range of particulate can be captured across the entirety of the depth media.

From outside to in, the media fibres become densely packed with larger particulate captured first, allowing smaller particles to be progressively intercepted. As well as the physical interception, fibres also naturally attract particles via Van de Waals force. This adhesion process is known as adsorptive retention.

Typical Applications

Depth filtration offers a myriad of solutions to suit many applications:

- Incoming water
- Pre-RO
- General pre-filtration
- Particulate removal
- High temperatures
- Aggressive solvents
- Food grade compatibility
- High viscosity liquids
- Adhesives
- Paints and inks

Technology Developments

For over 50 years, string wound cartridges have been used as a basic form of filtration. Development in manufacturing processes and technologies have resulted in more advanced cartridges with improved performance characteristics and capabilities.

1 Million+

Supply Capabilities

Each year Fileder supplies the equivalent of more than 1 million 10" depth cartridges

Spun Bonded Fibres

Advanced range of solutions for efficient prefiltration or particulate classification

- The most popular option for sediment reduction
- More precise filtration over wound technology
- Particulate is retained throughout the depth of the filter media
- Increased void volume (available space for particulate to be retained) maximises dirt holding capacity
- Suitable for applications from batch process to drinking water

Wound String Fibres

Ideal for high temperature and chemical compatibility applications

- Tried and tested technology
- Cost effective particulate filtration
- Multiple options of filter media and core material
- Suitable for high temperature and aggressive chemicals
- Wide micron rating options from 0.5 to 150 micron

Specialist Materials

Ideal for high viscosity and high temperature applications

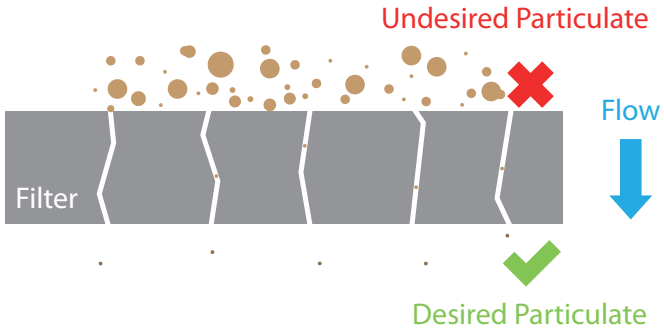
- Specially designed for more challenging applications
- Technologies applied to overcome high viscosity processes
- Products for superior performance in paint and ink applications
- Cartridges infused with antibacterial additives

Industry Terms Explained

The filtration industry and its associated technical terms can sometimes be misleading or confusing, with different manufacturers using various testing parameters and terminology to promote certain elements of their products performance. Fileder have compiled a list of technical jargon typically used within the industry to help explain filter performance, benefits and key features.

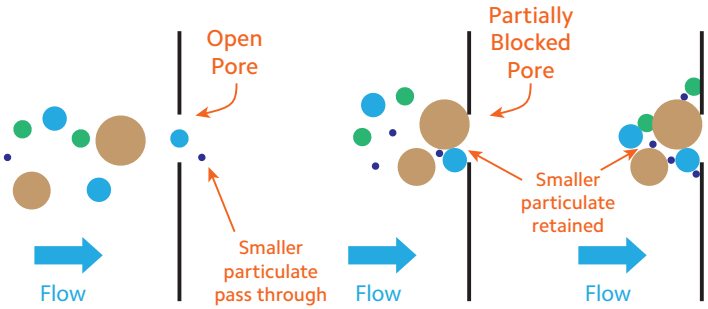
Classification

This process, sometimes referred to as 'sharp-cut off', removes the targeted contaminants whilst retaining smaller desirable or acceptable particles such as colour, flavour and odour, which are critical to the final product.



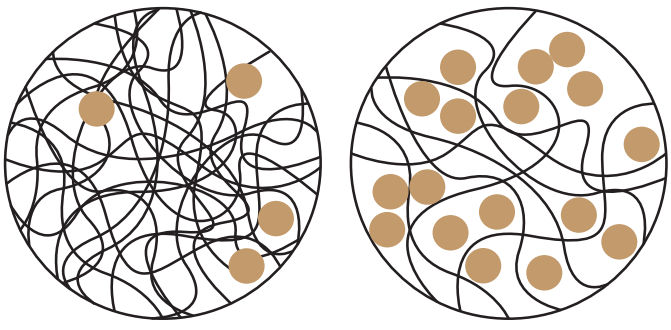
Micron Rating Creep

As a filter cartridge is used, the pores within the filter matrix become partially or completely blocked by the retained particulate. This means that particulate smaller than the micron rating of the cartridge can sometimes be filtered from the incoming fluid. Specialised cartridges, such as the CP2, are designed with an advanced fibre matrix to reduce the effects of micron rating creep.



Void Volume & Void Volume

Maximising the available internal space for retained particulate, whilst maintaining cartridge strength and efficiency, is the key to producing an effective filter cartridge. Modern manufacturing techniques use extremely fine fibres resulting in lightweight construction to optimise the void volume of the cartridge, increasing its dirt holding capacity and therefore effectively increasing its service life.



Low Void Volume

High Void Volume

Beta Ratio Explained

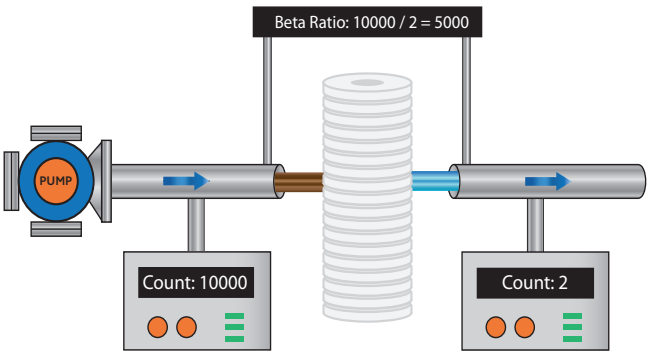
The table below shows the relationship between beta ratio and filter efficiency:

Upstream Contaminant Concentration (mg/l)	Downstream Contaminant Concentration (mg/l)	Beta Ratio	Filter Removal Efficiency (%)
10000	1000	10	90
	500	20	95
	100	100	99
	10	1000	99.9
	2	5000	99.98

e.g. upstream ÷ downstream = beta ratio
10000 ÷ 10 = 1000

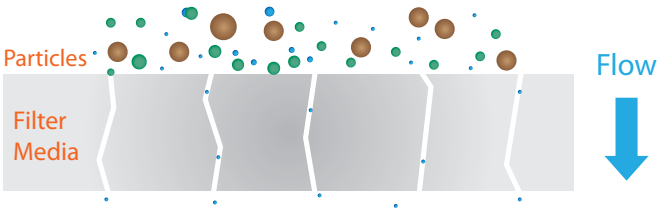
Beta Ratio

Bringing a standardised method to determine filter efficiency, beta ratio testing, typically used for high efficiency cartridges, measures controlled contaminant such as AC fine test dust at a specific micron size both upstream and downstream of a filter element. The beta ratio is calculated by dividing the number of particulate recorded on the upstream side of the filter by the number of particulate recorded downstream. The higher the beta ratio, the more efficient the cartridge at that micron rating.

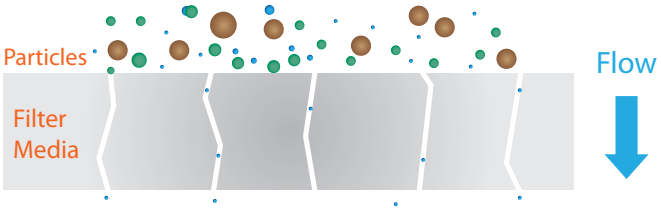


Nominal Efficiency Rating

Nominal rating describes the ability of a filter to remove particulate at the stated micron size and above e.g. 80% at 10 micron. For improved classification and particle reduction **high efficiency** cartridges remove at least 95% of contaminate. There is no standardised method to determine the nominal rating of a filter, therefore some manufacturers will not state their products efficiency or will use larger particulate to increase the value. **To make product comparison and selection as simple as possible, Fileder list the particle removal efficiency of each filter at its given micron rating.**



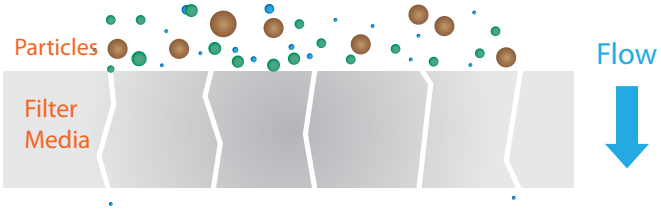
Nominal Efficiency Filtration
60-95% Removal



High Efficiency Filtration
95-99.8% Removal

Absolute Efficiency Rating

The absolute rating of a filter describes the diameter of the largest particle that would pass through the filter under laboratory conditions. In the filtration industry it is typically used to describe a filter with an efficiency of 99.9% or above at a specific micron size, e.g. 99.9% at 1 micron. Absolute rated filters are recommended for use in more critical applications and processes where known filtrate quality is essential.



Absolute Efficiency Filtration
≥99.9% Removal

How to Select Your Depth Filter

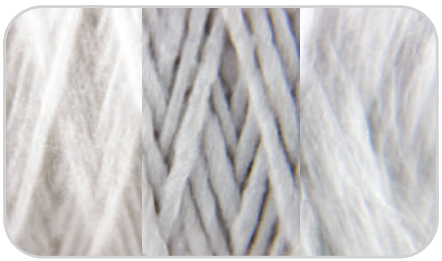
Four simple steps are all it takes to select a depth filter.

1 Technology Options

Select the filtration technology suitable to your application.

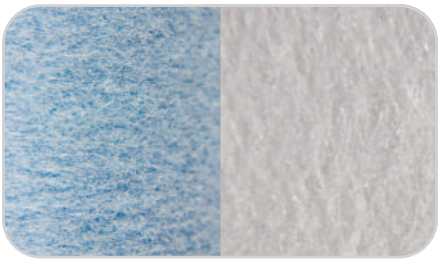
1. Spun Technology

Spun-bonded technologies available across varying media, grades and sizes.



2. Wound Technology

Tried and tested filtration, for high temperature and chemical compatibility.



3. Speciality Technologies

Innovative designs for effective filtration in more challenging applications.

2 Micron & Media

Select the cartridge media based on required performance and liquid suitability.

3 Length

Choose the cartridge length based on the required diameter and flow.

4 End-Cap

Select end-caps where suitable. As standard, cartridges do not have end-caps.

Economic Spun Polypropylene
Broad application capability
1-150 µm 65°C pg.16

Standard Spun Polypropylene
WRAS approved food grade cartridge
1-50 µm 65°C pg.14

Premier Spun Polypropylene
WRAS approved, high dirt holding with end-cap options
1-50 µm 71°C pg.10

Spun High Efficiency
High efficiency water filtration
1-10 µm 65°C pg.12

Z.Plex Absolute Polypropylene
Absolute water filtration
0.5-30 µm 82°C pg.32

Spun Nylon
Aggressive solvent applications
1-20 µm 120°C pg.24

Wound Polypropylene
General particulate removal e.g. sand, silt and rust
0.5-150 µm 65°C pg.26

Wound Cotton
Degreasing and electroplating cleaning baths
1-100 µm 80-120°C pg.28

Wound Glass Fibre
High temperature oil applications
1-100 µm 400°C pg.30

Antimicrobial - Silver Impregnated Spun Polypropylene
Inhibits microorganism growth
5 µm 65°C pg.22

CP2 - Bicomponent Polypropylene
High viscosity liquids, such as adhesives, resins, paints and inks
1-350 µm 80°C pg.18

4⅞" Up to 15 LPM	30" Up to 45 LPM
9⅞" Up to 15 LPM	40" Up to 60 LPM
20" Up to 30 LPM	

4⅞"* Up to 15 LPM	40" Up to 60 LPM
9⅞" Up to 15 LPM	9¾" BB Up to 15 LPM
20" Up to 30 LPM	20" BB Up to 30 LPM
30" Up to 45 LPM	* SSP Only

9⅞" Up to 10 LPM	30" Up to 30 LPM
20" Up to 20 LPM	40" Up to 40 LPM

9⅞" Up to 10 LPM	30" Up to 30 LPM
20" Up to 20 LPM	40" Up to 40 LPM

9⅞" Up to 15 LPM	30" Up to 45 LPM
20" Up to 30 LPM	40" Up to 60 LPM

4⅞" Up to 7.5 LPM	40" Up to 60 LPM
10" Up to 15 LPM	
20" Up to 30 LPM	10" BB Up to 15 LPM
30" Up to 45 LPM	20" BB Up to 30 LPM

10" Up to 15 LPM	30" Up to 45 LPM
20" Up to 30 LPM	40" Up to 60 LPM

9⅞" Up to 15 LPM	40" Up to 60 LPM
20" Up to 30 LPM	9¾" BB Up to 15 LPM
30" Up to 45 LPM	20" BB Up to 30 LPM

9¾" Up to 15 LPM	29¼" Up to 45 LPM
10" Up to 15 LPM	30" Up to 45 LPM
19½" Up to 30 LPM	39" Up to 60 LPM
20" Up to 30 LPM	40" Up to 60 LPM


DOE - Double Open End


A - Open End


E - 222
M - 224


F - 226


H - Fin


S - Closed End


K - Self Spring

SPECTRUM

WRAS APPROVED MATERIAL

TruDepth Premier Spun Polypropylene

1-50 micron

With higher efficiency and a longer service life than both the Economic and Standard spun, the PSP is the most versatile and adept cartridge in the TruDepth range. The deep grooved construction significantly increases the surface area, maximising the dirt holding capacity of the cartridge whilst the integral support core increases pressure and temperature operating conditions. Available with a range of end-caps for added seal security and operator ease for fitting in multi-round housings.

Key Features

- Deep-grooved finish for highest surface area and lowest pressure drop
- End-cap options for secure sealing
- A 4mm thick polypropylene core increases strength and temperature performance

Typical Applications

- Food and Beverage
- Chemical manufacture
- Incoming water

Specification

Efficiency
85%

Max. Operating Temperature
71°C

Max. Operating Pressure Differential
2.5 bar at 21°C

Materials of Construction

Filter Media
Polypropylene

Core
Polypropylene

End-cap (Optional)
Polypropylene

Seal
Silicone (as standard, when end-caps specified)

Compliance

WRAS Approved Materials
FDA Compliant Materials
BS6920 Approved Materials
Regulation (EC) 1935/2004
Regulation (EU) No10/2011

Configurations

Micron (µm)

1	5	10	20	50

Length (")

9¾	9⅞	20	30	40

End-cap (refer to page 9)

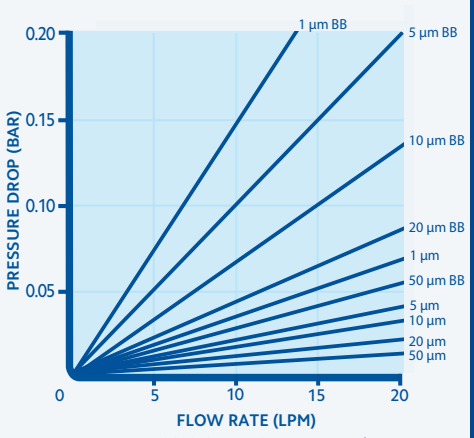
EH	ES	FH	MH	MS	XK

Seal

S = Silicone	E = EPDM	V = Viton®

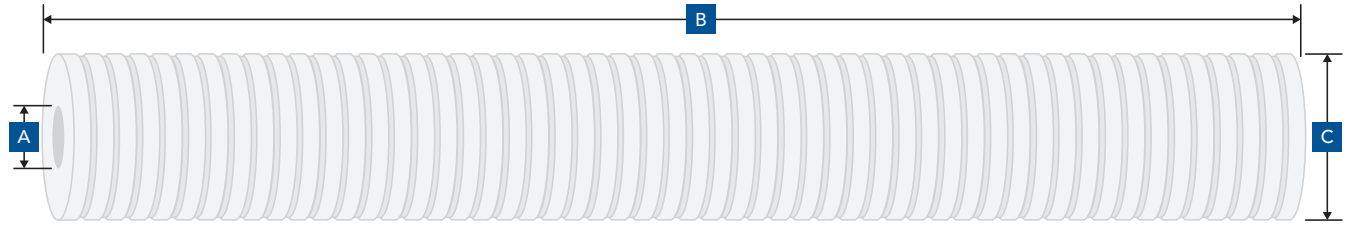
Diameter

Standard	Large = BB



Water at 20°C. 9⅞" or 9¾" BB cartridge.

Dimensions & Packaging



	Dimensions (mm)						
	A	B					C
Length (")		Blank	EH/MH	ES/ MS	FH	XK	
9⅞	28	250	317	278	322	310	63
20	28	508	575	536	580	568	63
30	28	762	829	790	834	822	63
40	28	1016	1083	1044	1088	1076	63
9¾BB	30	248	-	-	-	-	115
20BB	30	508	-	-	-	-	115

Packaging	
Box Qty	Box Weight (kg)
15	4
15	8
15	12
15	16
4	2
4	4

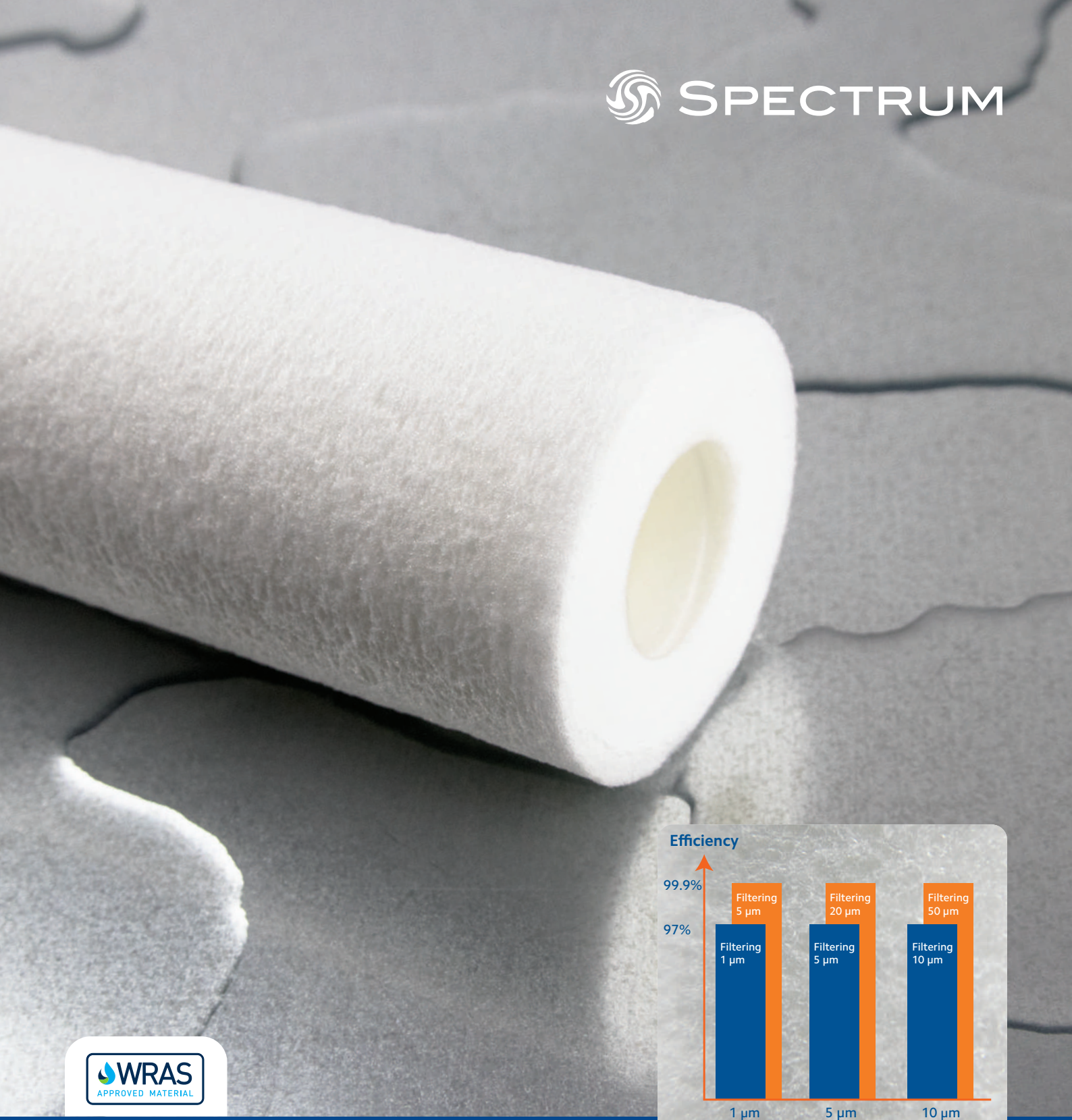
Part Number

Code		Micron		Length	End-cap	Seal
PSP	–	1, 5, 10, 20, 50	–	9⅞, 20, 30, 40	Blank	Blank
					EH, ES, FH, MH, MS, XK	S, E, V
				9¾BB, 20BB	Blank	Blank

e.g. PSP-5-40EHS

(V) Viton® is a registered trademark of The Chemours Company FC, LLC

SPECTRUM



WRAS APPROVED MATERIAL

TruDepth High Efficiency Spun

1-10 micron

The new SSP97 from SPECTRUM, delivers exceptional 97% efficiency, with a low clear pressure drop at an affordable price. Finer fibres used in the construction create a more accurate level of filtration, whilst maintaining a high dirt holding capacity.

The SSP97 with its melt-bonded exterior minimises any fibre migration, whilst its single, one piece, graded density and thermally bonded fibre construction made from 100% polypropylene introduces no binders, lubricants, or other additives in its manufacture.

Key Features

- High efficiency filtration at an affordable price
- Graded density construction, manufactured from 100% polypropylene

Typical Applications

- Food and Beverage
- Chemical

Specification

Efficiency
97%

Max. Operating Temperature
65°C

Max. Operating Pressure Differential
2 bar at 21°C

Materials of Construction

Filter Media
Polypropylene

Seal
Silicone (as standard, when end-caps specified)

End-cap (Optional)
Polypropylene

Compliance

WRAS Approved Materials
FDA Compliant Materials
Regulation (EC) 1935/2004
Regulation (EU) No10/2011

Configurations

Micron (µm)

1	5	10

Length (")

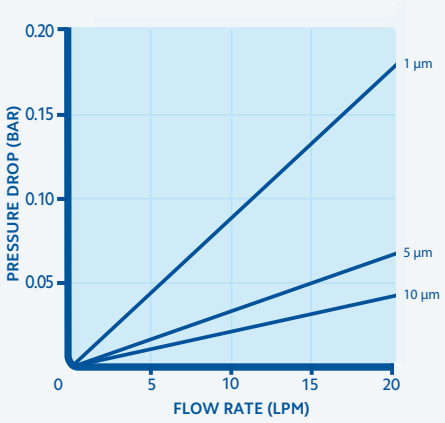
9⅞	20	30	40

End-cap (refer to page 9)

EH	ES	FH	MH	MS	XK

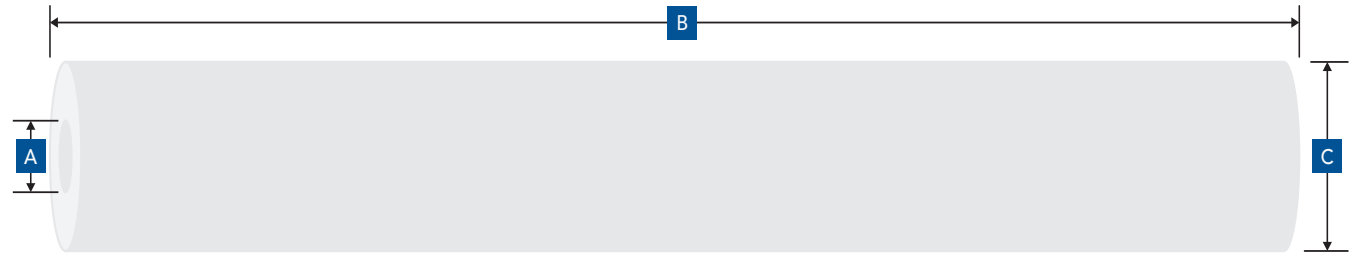
Seal

S = Silicone	E = EPDM	V = Viton®



Water at 20°C. 9⅞" cartridge.

Dimensions & Packaging



	Dimensions (mm)						
	A	B					C
Length (")		Blank	EH / MH	ES / MS	FH	XK	
9⅞	28	250	317	278	322	310	63
20	28	508	575	536	580	568	63
30	28	762	829	790	834	822	63
40	28	1016	1083	1044	1088	1076	63

Packaging	
Box Qty	Box Weight (kg)
15	4
15	8
15	12
15	16

Part Number

Code		Micron		Length	End-cap	Seal
SSP97	–	1, 5, 10	–	9⅞, 20, 30, 40	Blank	Blank
					EH, ES, FH, MH, MS, XK	S, E, V

e.g. SSP97-5-20

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SPECTRUM

WRAS APPROVED MATERIAL

TruDepth Standard Spun Polypropylene

1-50 micron

Boasting WRAS approval over the ESP, the TruDepth Standard is the best value option for general particulate reduction. With a recognisable mini-grooved construction, the SSP has a higher surface area and enhanced dirt holding capacity over the TruDepth Economic cartridge (ESP). Also available in large diameter configurations , the SSP-BB cartridges offer even higher dirt loading potential with greater flow rate capability.

Key Features

- Unique mini-grooved construction for enhanced dirt holding
- Strong self-supporting matrix
- Best value, certified, general use cartridge option

Typical Applications

- Pre-RO water treatment
- Food and Beverage pre-filtration
- Public water supply

Specification

Efficiency
80%

Max. Operating Temperature
65°C

Max. Operating Pressure Differential
2 bar at 21°C

Materials of Construction

Filter Media
Polypropylene

Compliance

WRAS Approved Material
FDA Compliant Material
BS6920 Approved Material
Regulation (EC) 1935/2004
Regulation (EU) No10/2011

Configurations

Micron (µm)

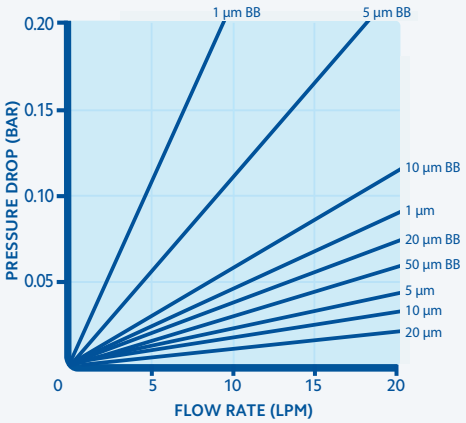
1	5	10	20	50

Length (")

4⅞	9¾	9⅞	20	30	40

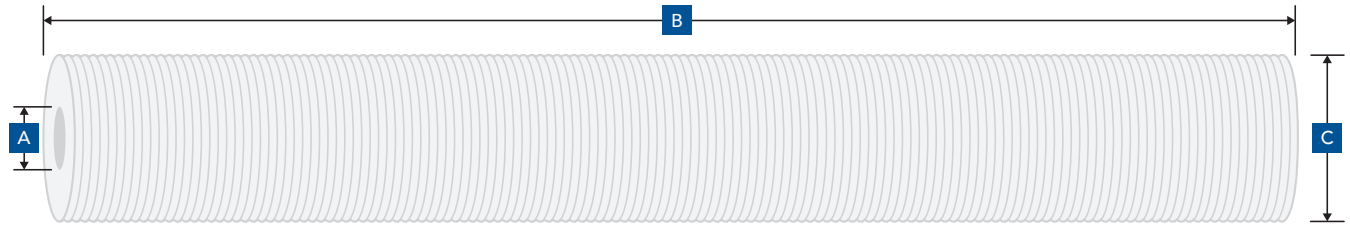
Diameter

Standard	Large = BB



Water at 20°C. 9⅞" or 9¾" BB cartridge.

Dimensions & Packaging



	Dimensions (mm)		
Length (")	A	B	C
4⅞	28	124	63
9⅞	28	250	63
20	28	508	63
30	28	762	63
40	28	1016	63
9¾BB	30	248	115
20BB	30	508	115

Packaging	
Box Qty	Box Weight (kg)
48	4
24	4
24	8
15	8
15	10
4	3
4	6

Part Number

Code	Micron	Length
SSP	1, 5, 10, 20	4⅞, 9⅞, 20, 30, 40
	1, 5, 10, 20, 50	9¾BB, 20BB

e.g. SSP-10-20BB

TruDepth Economic Spun Polypropylene

1-150 micron

The lowest cost spun-bonded cartridge in the SPECTRUM range, the TruDepth Economic cartridge is ideally suited for batch processes where repeated change-out is required. With a graded density construction, this entry level cartridge is excellent at preventing premature blinding of other filtration systems further downstream.

Key Features

- Graded density construction for broad range of particle size removal
- Lowest price option without compromising on quality
- Thermally bonded matrix ensures a strong structural integrity preventing fibre migration

Typical Applications

- General incoming water filtration
- Nozzle and pump protection
- Entry level batch process filtration

Specification

Efficiency
70%

Max. Operating Temperature
65°C

Max. Operating Pressure Differential
2 bar at 21°C

Materials of Construction

Filter Media
Polypropylene

Compliance

FDA Compliant Material
Regulation (EC) 1935/2004
Regulation (EU) No10/2011

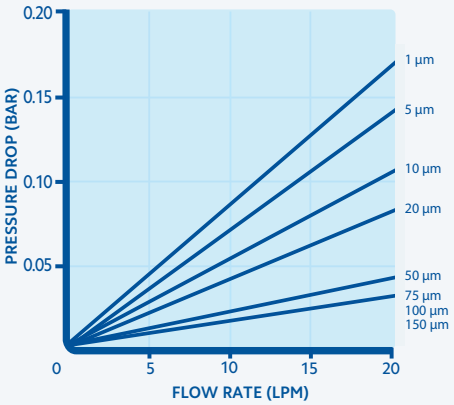
Configurations

Micron (µm)

1	5	10	20	50	75	100	150

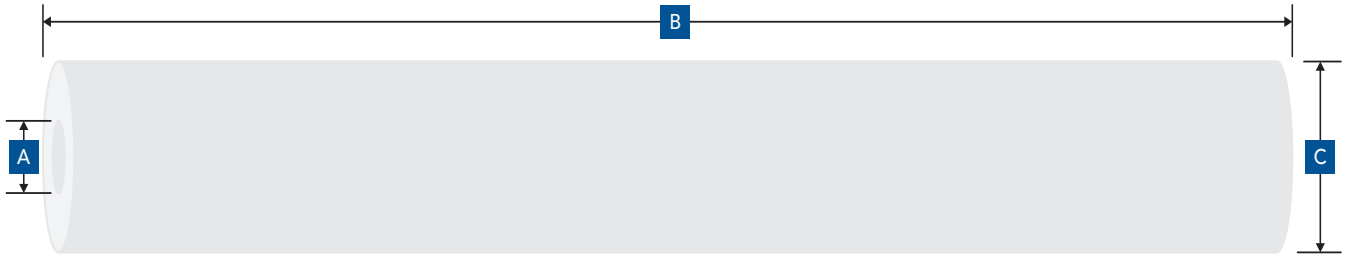
Length (")

4⅞	9⅞	20	30	40



Water at 20°C. 9⅞" cartridge.

Dimensions & Packaging



	Dimensions (mm)		
Length (")	A	B	C
4⅞	28	124	63
9⅞	28	250	63
20	28	508	63
30	28	762	63
40	28	1016	63

Packaging	
Box Qty	Box Weight (kg)
48	4
24	4
24	8
15	8
15	10

Part Number

Code	Micron	Length
ESP	1, 5, 10, 20, 50, 75, 100, 150	4⅞, 9⅞, 20, 30, 40

e.g. ESP-1-97/8

CP2

1-350 micron

Setting a new benchmark in adhesive, paint, ink and other viscous fluid applications, the CP2's bicomponent polypropylene structure provides accurate particulate classification, whereby unwanted contaminants are consistently removed by the cartridge and desirable characteristics can pass through. The rigid self-supporting matrix, prevents the release of previously trapped particles, morphing of gels and the phenomenon of micron rating creep, even under high differential pressures.

Key Features

- Thermally-bonded bicomponent fibre construction ensures no fibre release
- Consistent performance throughout filter life at the given micron size
- Silicone-free construction

Typical Applications

- High viscosity liquids, such as adhesives and resins
- Paints, inks and emulsions
- Solvents and surfactants

Specification

Efficiency
85%

Max. Operating Temperature
80°C

Max. Operating Differential Pressure
5.5 bar at 20°C

Materials of Construction

Filter Media
Bicomponent polypropylene fibres

Compliance

Food Compliant (EU)
No. 10/2011

Configurations

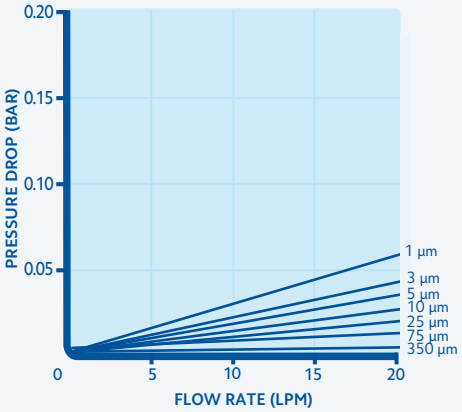
Micron (µm)

01 = 1	03 = 3	05 = 5	10	25	50
75	100	200	350		

Length (")

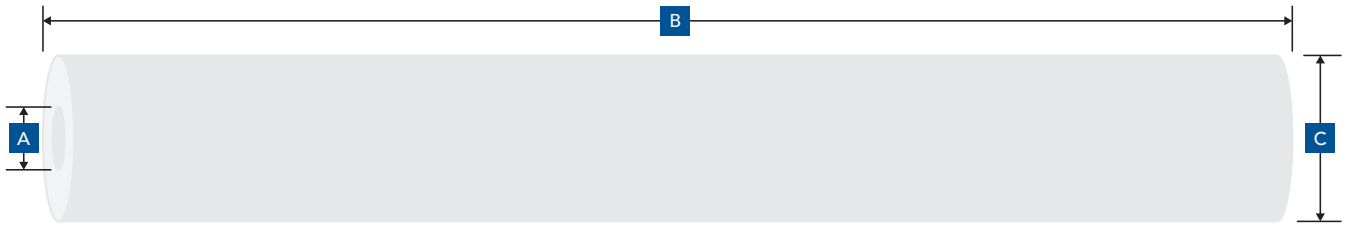
248 = 9¾	254 = 10	496 = 19½	508 = 20
743 = 29¼	762 = 30	991 = 39	1016 = 40

End-cap options available. Contact Fileder for details.



Water at 20°C. 10" cartridge.

Dimensions & Packaging



	Dimensions (mm)		
Length (")	A	B	C
9¾	30	248	62
10	30	254	62
19½	30	496	62
20	30	508	62
29¼	30	743	62
30	30	762	62
39	30	991	62
40	30	1016	62

Packaging	
Box Qty	Box Weight (kg)
50	8
50	8
25	8
25	8
25	12
25	12
25	16
25	16

Part Number

Code		Micron Code		Diameter (mm)			Length (mm)
				Inner		Outer	
CP2	–	01, 03, 05, 10, 25, 50, 75, 100, 200, 350	–	30	*	62	*	248, 254, 496, 508, 743, 762, 991, 1016

e.g. CP2-25-30*62 *248

Typical Applications of the CP2

Adhesives & Resins

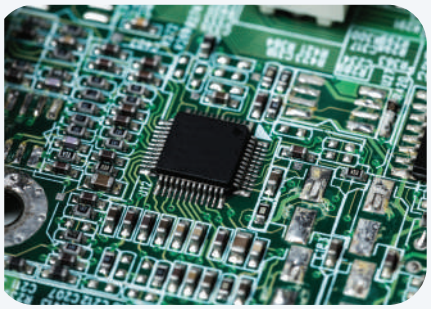
The robust construction of the CP2, enables the cartridge to operate reliably under high differential pressures in highly viscous applications.

Paints & Inks

Consistent and reliable filtration delivering repeatable results across paints, lacquers, inks, oils and varnishes.

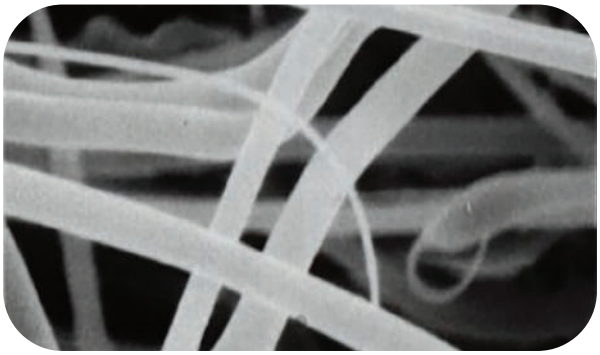
Electronics

The surfactant-free finish results in a cleaner cartridge, with a quick rinse-up required for multiple electronic pure water applications.



Technological Advancements

The new CP2 cartridge has some impressive structural and finishing technologies to create a more efficient and consistently accurate filtration solution, compared to older technologies.



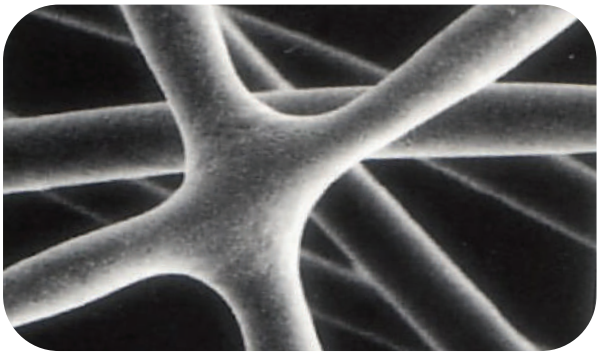
Old Technology

Structure

The older, unbonded structure causes the free movement of fibres, which then results in increased media migration and push through of previously trapped particles.

Fibre Diameter

An inconsistent fibre diameter construction decreases the cartridge's ability to offer precise classification.



New Technology

Bicomponent 3D Matrix

Only bicomponent polypropylene fibres, developed and patented by JNC, are used. Each contact point of the fibres is thermally bonded to form a rigid three dimensional fibre matrix that has uniform porosity and a high tolerance for pressure. This technology allows for longer service life and higher throughputs.

Surfactant Free

The initial start up and filtering of liquids is more efficient as unnecessary pre-production flushing delays are avoided since a spin finish is not used.

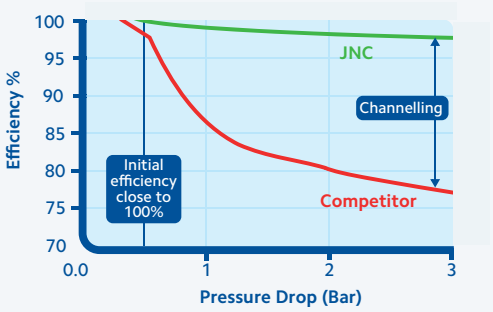
Fibre Diameter

The diameter of the structural fibres is changed for every grade, and the grades are clearly differentiated from a nominal filtration size of 1 µm to 350 µm.

Specifications of the CP2

The CP2 delivers clear benefits due to the bonded nodes, fine fibre diameter and uniform graded porosity. Forming a rigid structure that is capable of removing oversized contaminants, agglomerates and deformable gels the CP2 allows classification of particulate; separating the unwanted contaminants from the desired particles.

Consistency under Pressure



Typically, as pores become blocked and flow finds alternative paths, pressure drop increases. This increase in ΔP can cause channelling and distortion.

The CP2, with its nodally fused structure, resists high pressures to maintain integrity for consistent filtration preventing the release of previously trapped contaminants, push through of gels and rating creep.

Comparison Chart*

Use the table below to easily identify the CP2 product for your application. To make product selection as simple as possible, the table highlights common industry filters against the corresponding CP2.

Grade	CP2 Nominal µm	ProBond™ Nominal µm	Micro-Klean™ Nominal µm
CP2-01	1	-	1
CP2-03	3	-	3
CP2-05	5	2	5
CP2-10	10	5	10
CP2-25	25	10	25
CP2-50	50	25	50
CP2-75	75	50	-
CP2-100	100	-	75
CP2-200	200	75	100
CP2-350	350	125	125

* Specifications are for general guidance only and application parameters must be checked for suitability.

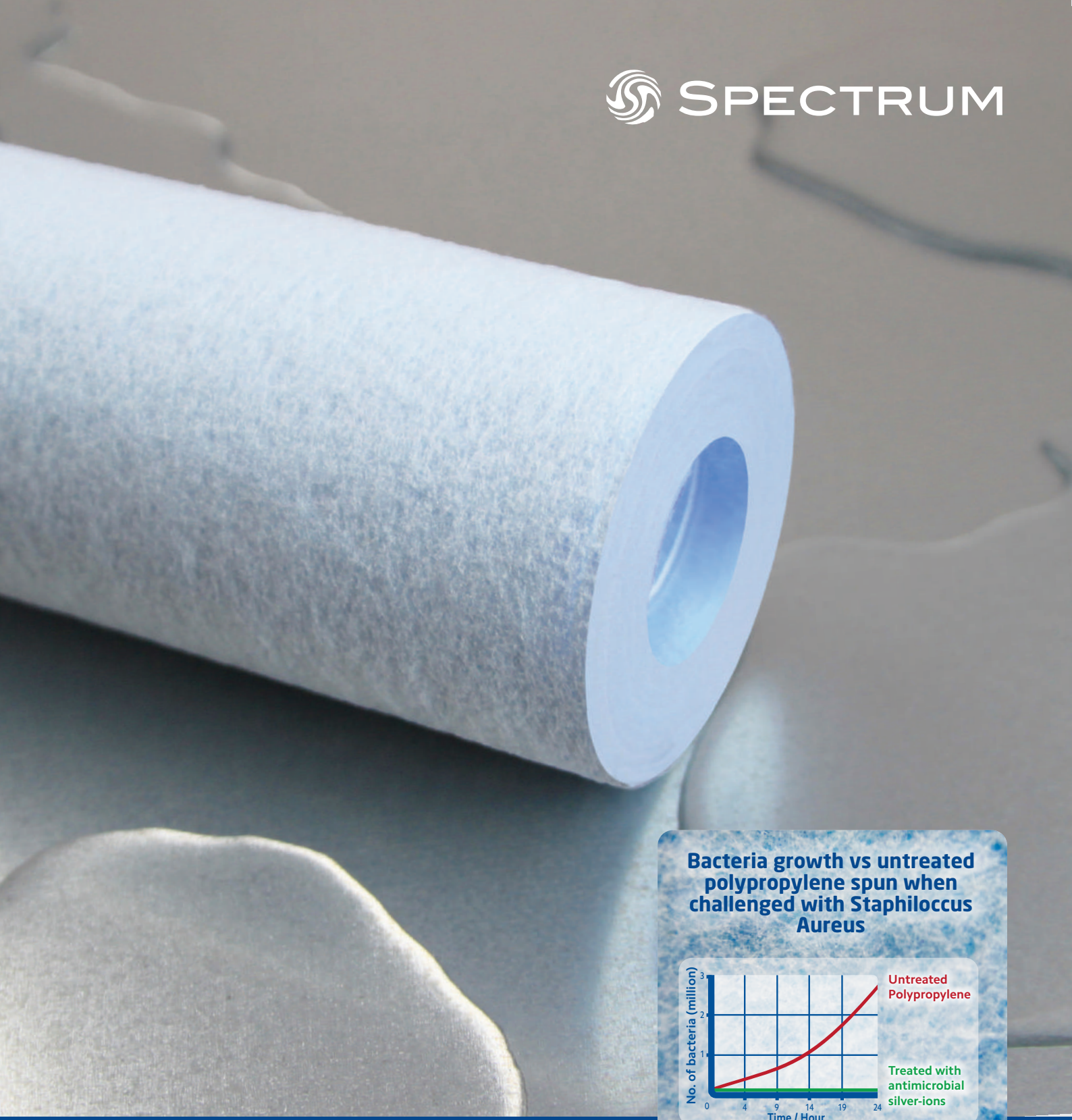
Viscosity

One of the biggest factors affecting the configuration of filtration equipment is the viscosity of the filtrate, i.e. the higher the viscosity, the slower the flow and the larger the system requirement. For filtrate other than water, divide the flow rate by the factors shown.

e.g. Filtering printer's ink with a viscosity of 2000 cP at 50 lpm, would require equipment capable of filtering water at 625 lpm.
(50 lpm ÷ 0.08 = 625 lpm)

Viscosity (cP)	Conversion Factor	Viscosity (cP)	Conversion Factor
1	1	1,500	.11
100	.85	2,000	.08
200	.58	4,000	.05
400	.35	6,000	.035
600	.25	8,000	.026
800	.17	10,000	.021
1,000	.16		

SPECTRUM



Bacteria growth vs untreated polypropylene spun when challenged with Staphiloccus Aureus

TruDepth Antimicrobial Spun

5 micron

Inhibiting the growth of trapped bacteria and microbes within the filter, the specialist antimicrobial spun depth cartridge prevents premature blocking from biofilm, the occurrence of unpleasant smells and the potential of unsightly water stains by utilising silver ions with antimicrobial properties. Primarily used in private water supplies such as boreholes and well water, the AMS is also an excellent safe guard for more critical pre-filtration applications such as pre-UV treatment.

Key Features

- Added active ingredient that resists and inhibits bacterial growth
- Effective graded particulate reduction and high dirt holding capacity

Typical Applications

- Borehole and well water
- Protecting water pumps
- Private water supply

Specification

Efficiency
90%

Max. Operating Temperature
65°C

Max. Operating Pressure Differential
2.5 bar at 21°C

Materials of Construction

Filter Media
Polypropylene (with antibacterial ingredient)

Compliance

FDA Compliant Material

Configurations

Micron (µm)

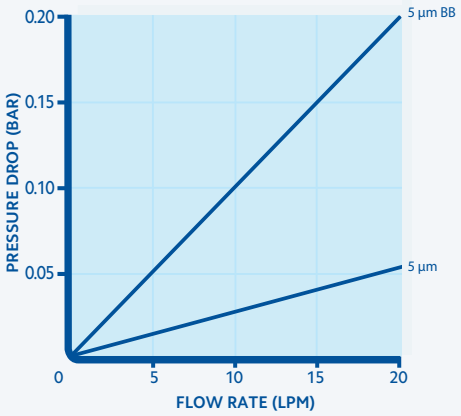
5

Length (")

9¾	9⅞	20	30	40

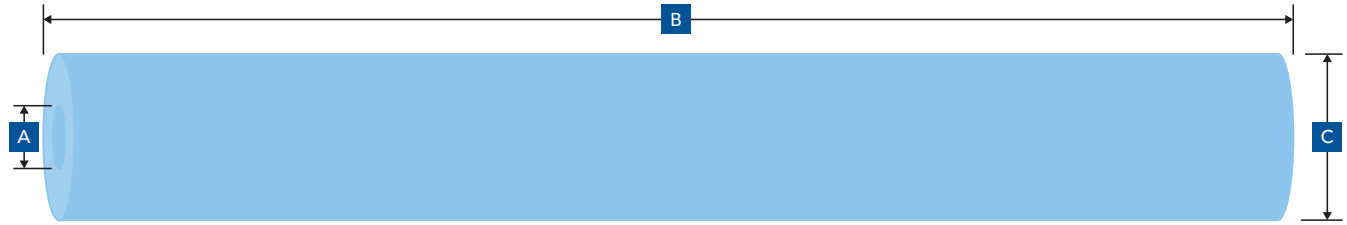
Diameter

Standard	Large = BB



Water at 20°C. 9⅞" or 9⅞"BB cartridge.

Dimensions & Packaging



	Dimensions (mm)		
Length (")	A	B	C
9⅞	28	250	63
20	28	508	63
30	28	762	63
40	28	1016	63
9¾BB	30	254	115
20BB	30	508	115

Packaging	
Box Qty	Box Weight (kg)
24	4
24	8
15	8
15	10
4	3
4	6

Part Number

Code		Micron		Length
AMS	–	5	–	9⅞, 20, 30, 40
				9¾BB, 20BB

e.g. AMS-5-97/8

TruDepth Spun Nylon

1-20 micron

Specifically designed for use with solvents and hydrocarbons or when polypropylene is not compatible with the incoming fluid, the SSN is constructed using thermally fused nylon microfibres. With a rigid filter matrix and self-supporting structure, the SPECTRUM spun nylon cartridge is suitable for applications operating at temperatures as high as 120°C, offering excellent particulate efficiency in more challenging applications.

Key Features

- Suitable for an extensive range of chemical and solvent compatibility applications
- High temperature capability due to a rigid filter matrix and self-supporting structure

Typical Applications

- Filtration of fine chemicals and solvents
- Hydraulic fluids
- Plating solutions
- High efficiency filtration on hot water loop systems

Specification

Efficiency
90%

Max. Operating Temperature
120°C

Max. Operating Pressure Differential
2.5 bar at 21°C

Materials of Construction

Filter Media
Nylon

Seal
Silicone (as standard, when end-caps specified)

End-cap (Optional)
Polypropylene

Compliance

FDA Compliant Materials

Configurations

Micron (µm)

1	5	10	20

Length (")

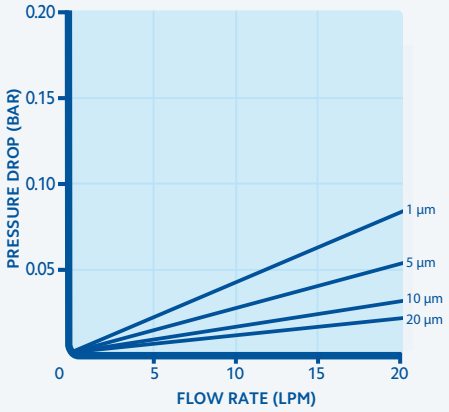
9⅞	20	30	40

End-cap (refer to page 9)

EH	ES	FH	MH	MS	XK

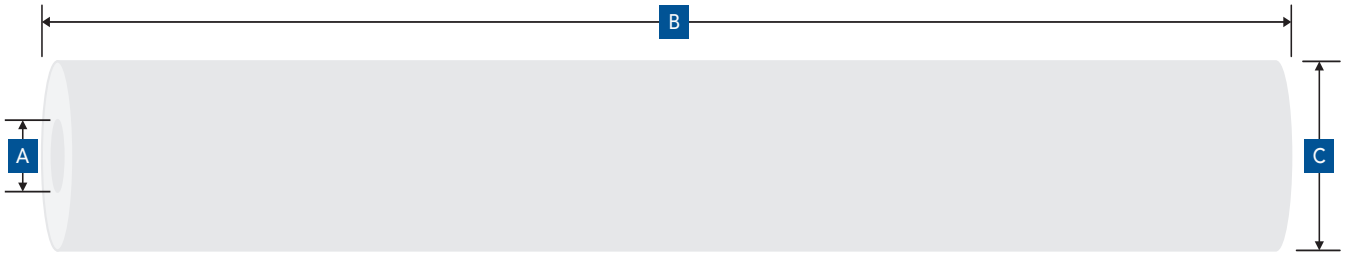
Seal

S = Silicone	E = EPDM	V = Viton®



Water at 20°C. 9⅞" cartridge.

Dimensions & Packaging



	Dimensions (mm)						
	A	B					C
Length (")		Blank	EH/MH	ES/ MS	FH	XK	
9⅞	28	250	317	278	322	310	63
20	28	508	575	536	580	568	63
30	28	762	829	790	834	822	63
40	28	1016	1083	1044	1088	1076	63

Packaging	
Box Qty	Box Weight (kg)
24	5
24	10
15	10
15	15

Part Number

Code		Micron		Length	End-cap	Seal
SSN	–	1, 5, 10, 20	–	9⅞, 20, 30, 40	EH, ES, FH, MH, MS, XK	S, E, V

e.g. SSN-5-30

(V) Viton® is a registered trademark of The Chemours Company FC, LLC

Wound Polypropylene

0.5-150 micron

The most popular wound cartridge media by far, the SPECTRUM wound polypropylene offers broad chemical compatibility and good temperature resistance at low cost. With over 50 years proven experience and in a variety of micron sizes, across standard and large diameters, the SWP provides a basic filtration solution perfectly suited for first-stage and general particulate reduction. Whilst newer spun technologies offer higher efficiency and longer life cartridges, wounds still exceed filtration standards in many applications.

Key Features

- Tried and tested with over 50 years of experience
- Broad chemical compatibility
- Constructed using FDA compliant materials

Typical Applications

- General particulate filtration
- Sand, silt and rust removal
- Batch process

Specification

Efficiency
65%

Max. Operating Temperature
65°C

Max. Operating Pressure Differential
2 bar at 21°C

Materials of Construction

Filter Media
Polypropylene

Core
Polypropylene

Compliance

FDA Compliant Material
Regulation (EC) 1935/2004
Regulation (EU) No10/2011

Configurations

Micron (µm)

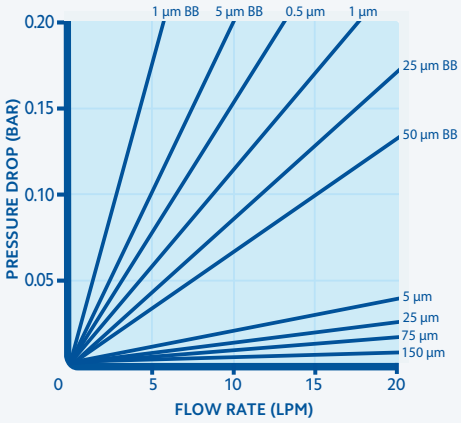
0.5	1	5	10	25	50	75
100	150					

Length (")

4⅞	10	20	30	40

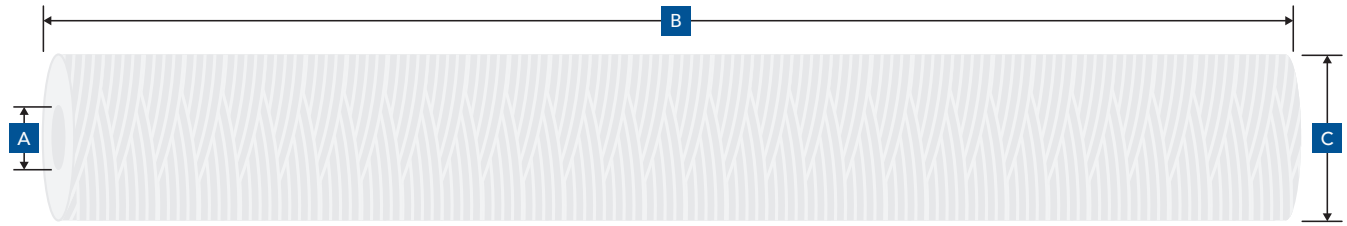
Diameter

Standard	Large = BB



Water at 20°C. 10" or 10" BB cartridge.

Dimensions & Packaging



	Dimension (mm)		
Length (")	A	B	C
4⅞	28	124	63
10	28	254	63
20	28	508	63
30	28	762	63
40	28	1016	63
10BB	30	254	115
20BB	30	508	115

Packaging	
Box Qty	Box Weight (kg)
48	5
24	6
24	12
9	7
9	9
4	3.5
4	7

Part Number

Code	Micron	Length
SWP	0.5, 1, 5, 10, 25, 50, 75, 100, 150	4⅞, 10, 20, 30, 40
	1, 5, 10, 25, 50, 75, 100	10BB, 20BB

e.g. SWP-25-10

Wound Cotton

1-100 micron

For applications with a higher operating temperature or where polypropylene is incompatible with the feed solution, the SWC cartridge provides graded particulate reduction and is supplied as standard with a stainless steel core for added strength.

Due to the natural absorption properties of the cotton media, the SWC exhibits the ability to remove and retain dispersed oil making it suitable for use in degreasing applications.

Key Features

- Stainless steel core for added support
- Good chemical compatibility

Typical Applications

- Degreasing and solvent based filtration
- Electroplating cleaning baths
- Hydrocarbon reduction

Specification

Efficiency
65%

Max. Operating Temperature
80°C (Polypropylene core)
120°C (304L Stainless Steel core)

Max. Operating Pressure Differential
1.4 bar at 80°C (Polypropylene Core)
1.4 bar at 120°C (Stainless Steel Core)

Materials of Construction

Filter Media
Bleached Cotton

Core
304L Stainless Steel (as standard)
Polypropylene

Compliance

FDA Compliant Material

Configurations

Micron (µm)

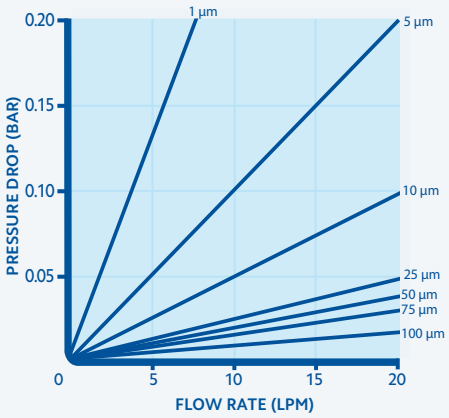
1	5	10	25	50	75	100

Length (")

10	20	30	40

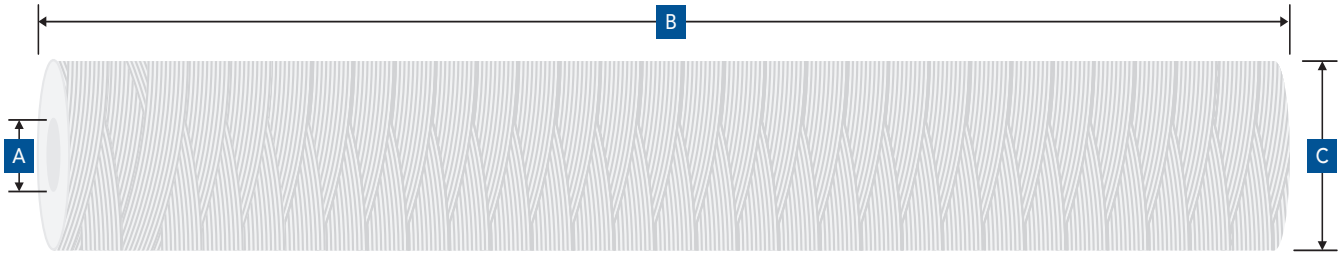
Core

Blank =Stainless Steel	P = Polypropylene



Water at 20°C.10" cartridge.

Dimensions & Packaging



	Dimensions (mm)		
Length (")	A	B	C
10	28	254	63
20	28	508	63
30	28	762	63
40	28	1016	63

Packaging	
Box Qty	Box Weight (kg)
24	7
24	13
9	8
9	11

Part Number

Code	Micron	Length	Core
SWC	1, 5, 10, 25, 50, 75, 100	10, 20, 30, 40	(Stainless Steel)
		10	P (Polypropylene)

e.g. SWC-5-10

Wound Glass Fibre

1-100 micron

The primary choice across the whole range of cartridges for effective filtration in very high temperature applications, the glass fibre media with a stainless steel core suits applications up to 400°C. Media migration is significantly reduced by the internal voile layer which controls fibre release downstream from the cartridge. The SWF has excellent compatibility when filtering strong oxidising agents, as well as acids and is often used to filter oils when heated to reduce viscosity.

Key Features

- Temperatures up to 400°C
- Excellent chemical compatibility
- Stainless steel core for added strength at high temperatures

Typical Applications

- Oxidising agents
- Acids
- High temperature oil applications

Specification

Efficiency
75%

Max. Operating Temperature
400°C

Max. Operating Pressure Differential
1.4 bar at 400°C

Materials of Construction

Filter Media
Glass Fibre
Glass Fibre woven tape voile

Core
304L Stainless Steel

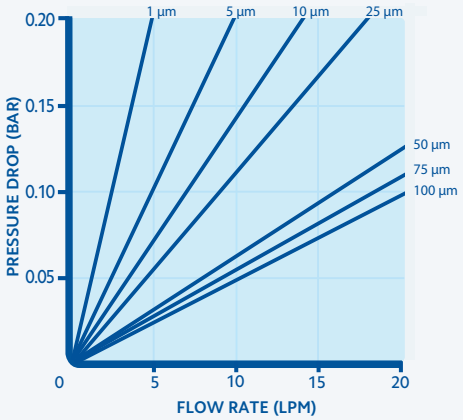
Configurations

Micron (µm)

1	5	10	25	50	75	100

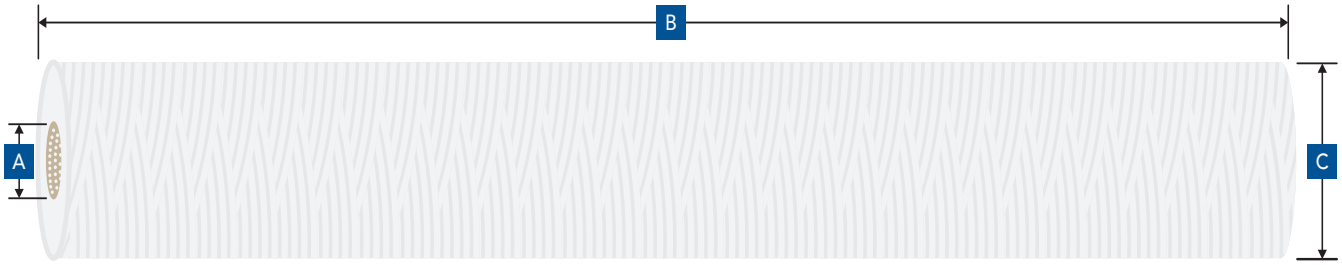
Length (")

10	20	30	40



Water at 20°C. 10" cartridge.

Dimensions & Packaging



	Dimensions (mm)		
Length (")	A	B	C
10	28	254	63
20	28	508	63
30	28	762	63
40	28	1016	63

Packaging	
Box Qty	Box Weight (kg)
24	9
24	17
9	11
9	15

Part Number

Code		Micron		Length
SWF	−	1, 5, 10, 25, 50, 75, 100	−	10, 20, 30, 40

e.g. SWF-10-40

Meets the stringent requirements of NSF 53.*

Approved by DWI for use within the municipal drinking water sector*

** DWI specified cartridges only*

Z.Plex Absolute Polypropylene

0.5-30 micron

Absolute rated, the ABS.ZA spun-bonded cartridge, offers exceptional efficiency and effective classification, where unwanted particles are retained by the media while desired particles are able to pass through. The patented filter matrix utilising finer fibres optimises void volume whilst maintaining structural integrity, dramatically increasing the dirt holding capacity when compared with first generation spun cartridges. Every cartridge is supplied with O-rings or gaskets to ensure a secure seal is achieved for finer levels of filtration.

Key Features

- Engineered for absolute filtration
- 3D matrix construction ensures high dirt holding and temperature tolerance
- High purity materials ensure low rinse time

Typical Applications

- Ultrapure water (18 megohm)
- Food and Beverage
- Chemical production
- SDI reduction pre-RO
- Municipal Drinking Water

Specification

Efficiency
99.9%

Max. Operating Temperature
82°C

Max. Operating Pressure Differential
4.1 bar at 30°C

Materials of Construction

Filter Media
Polypropylene

Core
Polypropylene

End-cap
Polypropylene

Seal
Silicone (as standard)
EPDM (DWI cartridge)

Compliance

FDA Compliant Materials
DWI Regulation 31 Approved*
NSF 53 Compliant*
NSF/ANSI 61 Certified
Regulation (EC) 1935/2004
Regulation (EU) No10/2011

Configurations

Micron (µm)

95 = 0.5	01 = 1	03 = 3	05 = 5
10	20	30	

Length (")

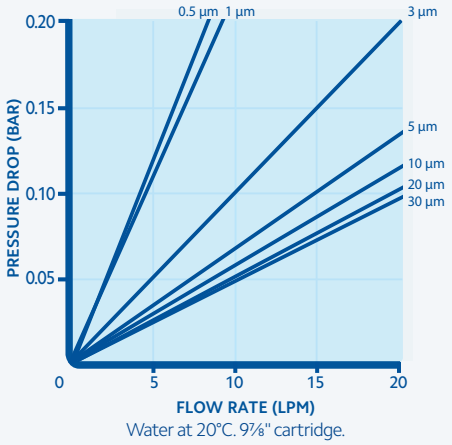
9⅞	20	30	40

End-cap (refer to page 9)

AA	EH	ES	FH	FS	MH	XK

Seal

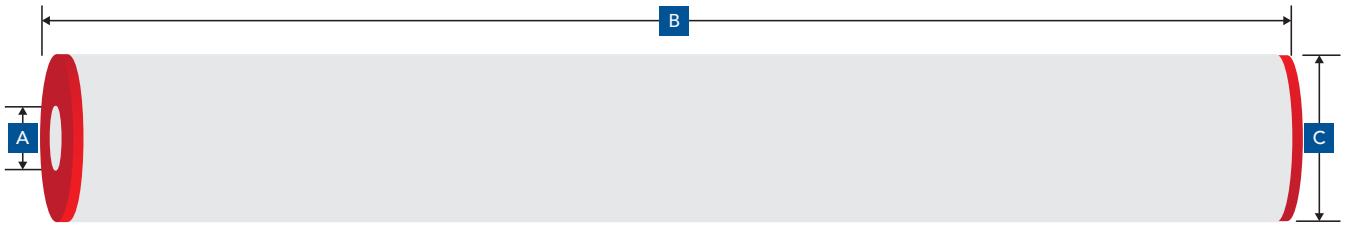
S = Silicone	E = EPDM	V = Viton®



Water at 20°C. 9⅞" cartridge.

* on DWI specfied cartridges

Dimensions & Packaging



	Dimensions (mm)							
	A	B						C
Length (")		AA	EH/MH	ES	FH	FS	XK	
9⅞	25	251	318	279	323	284	311	64
20	25	508	575	536	580	541	568	64
30	25	762	829	790	834	795	822	64
40	25	1016	1083	1044	1088	1049	1076	64

Packaging	
Box Qty	Box Weight (kg)
6	3
6	6
6	9
6	12

Part Number

Code	Micron Code		Length	End-cap	Seal		Approval
ABS.ZA	95, 01, 03, 05, 10, 20, 30	–	9⅞, 20, 30, 40	AA, EH, ES, FH, FS, MH, XK	S, E, V		-
	1, 5	–	30, 40	MH, EH	E	–	DWI

e.g. ABS.ZA95-30ESS

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Product Brochures

- Pleated Filtration
- Depth Filtration
- Stainless Steel Cartridges
- High Flow Filtration
- Water Treatment - Carbon & Media Cartridges
- Filter Housings
- Bag Filtration
- Pure Water Membranes
- Pressure Vessels & Media
- Water Softening & Conditioning
- UV Systems
- Food Service
- Filtration & Water Treatment Rental
- Installation & Servicing

Application Brochures

- Solutions for Surface Finishing
- Solutions for Hospitals
- Solutions for Beverage Production
- Solutions for the Coatings Industry
- Solutions for Bacteria and Parasites
- Solutions for Cosmetics and Toiletries
- Filtration for Municipal Water with DWI
- Solutions for Cryptosporidium Protection
- Solutions for Chemical Production

Contact us

Fileder Filter Systems Ltd
20/20 Business Park
Maidstone, Kent
ME16 0LS

Phone: 01622 691886
Fax: 01622 621932
Email: info@fileder.co.uk
Website: www.fileder.co.uk