



PREPOR GP Filter Cartridges

- liquid filters
- glass microfibre / polypropylene

PREPOR GP is a new prefilter that combines the strength of polypropylene with the microbial retention of glass fibre for demanding applications such as long term exposure to steam, high differential pressures or aggressive chemicals.

The combined media will also provide a significant microbial reduction that makes PREPOR GP equally suitable for bioburden reductions in pharmaceutical liquids as well as offering excellent protection to sterilising grade membrane cartridges. By using graded density media, PREPOR GP has a higher voids volume (95%) and greater dirt holding capacity than surface filtration membranes which means that filtration costs are reduced without affecting the product quality. PREPOR GP can also provide excellent prefiltration to membrane filters in proteinaceous and high contamination applications by extending the life of the membrane cartridge and hence reducing filtration costs.

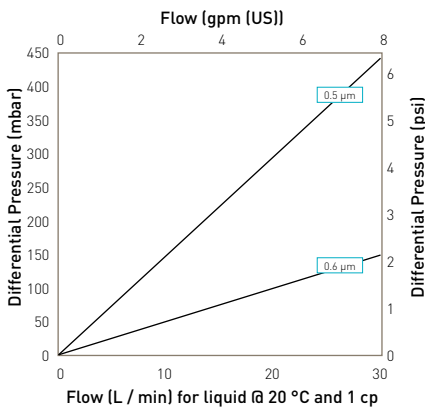
Features and Benefits

- Combined media for microbial retention and mechanical strength
- Graded density media gives increased dirt holding capacity
- Suitable for bioburden reduction and fine prefiltration
- Pleated construction with rigid core and sleeve



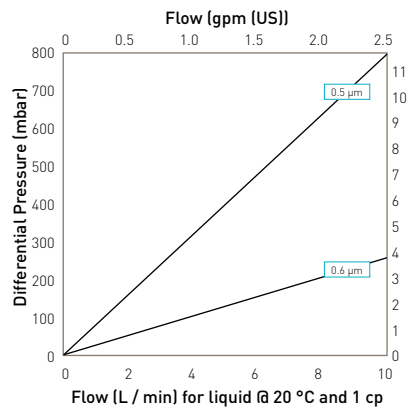
Note: PREPOR is a registered trademark of Parker domnick hunter

Performance Characteristics



For K size for a given flow rate multiply 10" size differential pressure by 2

10" size (250 mm) filters



For A size for a given flow rate divide B size differential pressure by 2
For E size for a given flow rate multiply B size differential pressure by 2

B size (125 mm) filters

Specifications

Materials of Construction

- Filtration Media: Glass Microfibre / Polypropylene
- Upstream Support: Polypropylene
- Downstream Support: Polypropylene
- Inner Support Core: Polypropylene
- Outer Protection Cage: Polypropylene
- End Caps: Polypropylene
- End Cap Insert (if applicable): 316L Stainless Steel
- Standard o-rings/gaskets: Silicone / EPDM
- Capsule Body: Polypropylene
- Capsule Vent Seals: Silicone

Food and Biological Safety

Materials conform to the relevant requirements of 21CFR Part 177, EC1935 / 2004 and current USP Plastics Class VI - 121 °C and ISO10993 equivalents.

Recommended Operating Conditions

Up to 70 °C (158 °F) continuous operating temperature and higher short-term temperatures during CIP to the following limits:

Temperature °C	Temperature °F	Max. Forward dP (bar)	Max. Forward dP (psi)
20	68	5.0	72.5
40	104	4.0	58.0
60	140	3.0	43.5
80	176	2.0	29.0
90	194	1.0	14.5
>100 (steam)	>212 (steam)	0.3	4.0

Capsules may be operated up to a temperature of 40 °C (104 °F) at line pressures up to 5.0 barg (72.51 psig) for liquids and 4.0 barg (58.01 psig) in air / gas.

Effective Filtration Area (EFA)

10" (250 mm) 0.37 m² (3.9 ft²)

Cleaning and Sterilisation

PREPOR GP cartridges can be repeatedly steam sterilised in situ or autoclaved at up to 121 °C (249.8 °F). They can be sanitised with hot water at up to 90 °C (194 °F) and are compatible with a wide range of chemicals. Capsules can be repeatedly autoclaved up to 130 °C (266 °F).

For detailed operational procedures and advice on cleaning and sterilisation, please contact the Technical Support Group through your usual Parker domnick hunter contact.

Retention Characteristics

The retention characteristics of PREPOR GP have been determined by a combination of controlled laboratory tests and in-use monitoring for a number of organisms. Bacterial challenge testing is carried out to methods specified in ASTM F838-05.

Organism	Approx. Cell Size (µm)*	Typical Titre Reduction			
		0.5	0.6	1.0	1.5
<i>Serratia marcescens</i>	0.5 - 0.8 x 0.9 - 2.0	10 ⁶	10 ³	-	-
<i>Denococcus oenos</i>	0.5 - 0.7 x 0.7 - 1.2	10 ⁶	10 ³	-	-
<i>Escherichia coli</i>	1.1 - 1.5 x 2.0 - 6.0	10 ⁶	10 ³	-	-
<i>Saccharomyces cerevisiae</i>	1.0 (spherical buds)	10 ⁷	10 ⁶	10 ⁴	10 ³

Recommended Rinse Volume

Prior to use - 20 litres per 10" (250 mm) filter cartridge.

Ordering Information

Cartridges

ZCGP [] - [] [] [] []

Code	Length (Nominal)	Code	Micron	Code	Endcap (10")	Code	Variant	Code	O-rings
B	2.5" (65 mm)	.50	0.5 µm	B	dh DOE	E	Electronics	E	EPDM
A	5" (125 mm)	.60	0.6 µm	C	BF / 226 Bayonet	S	Steam Sterilisable	P	PTFE
K	5" (125 mm)	.80	0.8 µm	G	M-0			S	Silicone
1	10" (250 mm)	1.0	1.0 µm	R	S-28			V	Viton
2	20" (500 mm)	1.5	1.5 µm						
3	30" (750 mm)								
4	40" (1000 mm)								

Capsules

ZEGP [] - [] [] [] - [] []

Code	Length (Nominal)	Code	Micron	Code	Inlet Connection	Code	Outlet Connection	Code	Grade	Code	Pack N°
E	4.4" (113 mm)	.50	0.5 µm	T	1" Tri-Clamp	T	1" Tri-Clamp	N	Non-Sterile	3	Pack of 3
B	5.5" (140 mm)	.60	0.6 µm	N	1/2" NPT Male	N	1/2" NPT Male				
A	7.9" (200 mm)	.80	0.8 µm	H	1/2" Hosebarb	H	1/2" Hosebarb				
		1.0	1.0 µm	G	Stepped Hosebarb	G	Stepped Hosebarb				
		1.5	1.5 µm	M	1/4" NPT Male	M	1/4" NPT Male				
				V	3/8" NPT Female	V	3/8" NPT Female				

Parker domnick hunter has a continuous policy of product development and although the Company reserves the right to change specifications, it attempts to keep customers informed of any alterations. This publication is for general information only and customers are requested to contact our Process Filtration Sales Department for detailed information and advice on a products suitability for specific applications. All products are sold subject to the company's Standard conditions of sale.

* Approx. values as in Holt, J.G., Krieg, N.R., Sneath, P.H.A., Staley, J.T., Williams, S.T., 1994. *Bergey's Manual of Determinative Bacteriology*, Ninth Edition, Williams & Wilkins.
 * Kurzmann, C.P., Fell, J.W., 1998 *The Yeasts. A Taxonomic Study*. Elsevier Science Publisher BV, Amsterdam, The Netherlands.