



PROCLEAR GP Filters

- Liquid filters
- glass microfibre / polypropylene

PROCLEAR GP filters combine glass microfibre and polypropylene media to provide maximum protection to downstream filter membranes and equipment.

Dirt holding capacity is maximized through use of a graded density media making PROCLEAR GP cartridge filters an economical and reliable choice for prefiltration.

PROCLEAR GP filters have low extractable levels and are suitable for bioburden reduction and fine prefiltration of pharmaceutical fluids and are ideal for high contamination applications.

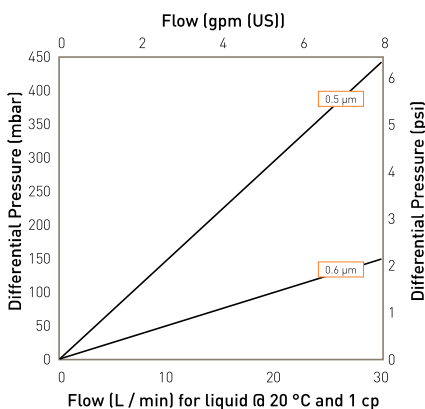
Features and Benefits

- Dual layer media or increased capacity and assurance
- Maximizes retention for protection of downstream membranes
- Ideal for difficult to filter solutions
- MURUS and DEMICAPs can be gamma-irradiated and autoclaved

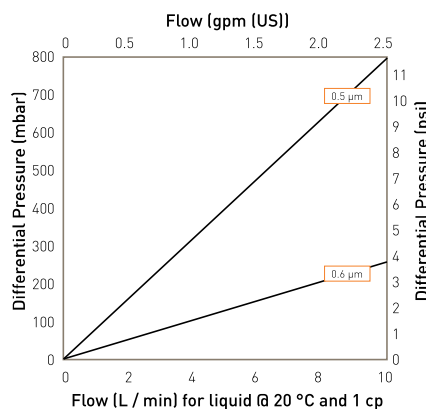


Note: PROCLEAR and DEMICAP are registered trademarks of Parker Hannifin Corporation.

Performance Characteristics



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



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

10" size (250 mm) Cartridge

B size (65 mm) Cartridge and Capsule

Specifications

Materials of Construction

- Filtration Media: Glass Microfibre / Polypropylene
- Upstream Support: Polypropylene
- Downstream Support: Polypropylene

Filter Cartridges

- Inner Support Core: Polypropylene
- Outer Protection Cage: Polypropylene
- End Caps: Polypropylene
- End Caps Insert: 316L Stainless Steel

*Not available in B & L endcap variants

MURUS Disposable Filter Capsules

- Core: Polypropylene
- Sleeve: Polypropylene
- End Caps Insert: 316L Stainless Steel
- Standard o-rings/gaskets: Silicone
- Capsule Body: Polypropylene
- Capsules Vent Seals: Silicone

DEMICAP Filter Capsules

- Core: Polypropylene
- Sleeve: Polypropylene
- Capsule Body: Polypropylene
- Capsules Vent Seals: Silicone

Syringe Filters

- Body: Polypropylene

Recommended Operating Conditions

Filter Cartridges

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	1.5	21.7

MURUS Disposable Filter Capsules

Up to 25 °C (77 °F) @ 5.5 barg (79.7 psig)

Up to 60 °C (140 °F) @ 2.8 barg (40.6 psig)

Parker Hannifin certify that this product complies with the current European Council Pressure Equipment Directive (PED) - Sound Engineering Practice (SEP). This product is intended for use with Group 1 & 2 Dangerous and Harmless Liquids and Group 2 Harmless Gases at the operating conditions stated in this document. The Pressure Equipment Directive mandates that category SEP product cannot bear the CE mark.

DEMICAP Filter Capsules

Up to 40 °C (104 °F) at line pressures up to 5.0 barg (72 psig).

Effective Filtration Area (EFA)

10" (250 mm):	0.34 m ²	(3.7 ft ²)
K Size:	0.16 m ²	(1.7 ft ²)
A Size:	0.12 m ²	(1.3 ft ²)
B Size:	0.06 m ²	(0.6 ft ²)
E Size:	0.03 m ²	(0.3 ft ²)
Syringe ø50 mm:	14.50 cm ²	(2.25 in ²)

Sterilization

	Autoclave		Steam-in-Place	
	Cycles	Temp	Cycles	Temp
			(30 min.)	
Cartridges	10	130 °C (266 °F)	10	121 °C (249.8 °F)
MURUS	5	130 °C (266 °F)	-	-
DEMICAP	10	130 °C (266 °F)	-	-
Syringe	1	130 °C (266 °F)	-	-

PROCLEAR GP filter cartridges can be sanitized with hot water at up to 90 °C (194 °F) and are compatible with a wide range of chemicals.

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

Biological Safety

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

Quality Standards

Pharmaceutical grade products are manufactured in accordance with cGMP, 100% flushed with pharmaceutical grade purified water.

Gamma-Irradiation

PROCLEAR GP MURUS & DEMICAP disposable filters can be gamma-irradiated up to a maximum dosage of 40 kGy.

Performance Characteristics

TOC / Conductivity

The filtrate quality from a 10" (250 mm) PROCLEAR GP conforms to the requirements of current USP <643> (TOC) and USP <645> (conductivity) within the first 200 ml flush of purified water.

Oxidizable Substances

PROCLEAR GP filter cartridges meet current USP and EP quality standards for sterile purified water for oxidizable substances following a <1 litre water flush.

Endotoxins

Aqueous extracts from the 10" (250 mm) PROCLEAR GP contain < 0.25 EU / ml when tested in accordance with the Limulus Amoebocyte Lysate test.

Non-Volatile Extractables (NVE)

Total NVEs extracted in the first 5 litre flush of purified water for a 10" (250 mm) cartridge are <10 mg.

Total NVEs extracted in the first 5 litre flush of purified water for an A size 7.9" (200 mm) DEMICAP capsule are <5 mg.

Pharmaceutical Validation

A full validation guide is available upon request from Laboratory Services Group (LSG).

Ordering Information

Cartridges

PCGP - -

Code Length (Nominal)	Code Micron	Code Endcap (10")	Code Variant	Code O-rings
B* 2.5" (65 mm) A* 5" (125 mm) K 5" (125 mm) 1 10" (250 mm) 2 20" (500 mm) 3 30" (750 mm) 4 40" (1000 mm)	95 0.5 µm 96 0.6 µm Ratings based on efficiencies of > or = 99.98% using internal test procedure SOP018 based on ASTM F795-88 1993	B* dh DOE C BF / 226 Bayonet Fin / 222 D Flat Top / 222 E Recess / 222 H UF Retrofit J SOE (no o-ring) L* dh DOE N Internal 213 R BF / 222 Bayonet Code Endcap (Demi) T TRUESEAL Y Demi Stub Z Demi A & B Std	P Pharmaceutical	E EPDM P PTFE Encapsulated Silicone S Silicone V Viton

* Supplied in packs of 3.
* EPDM gaskets supplied as standard

MURUS Capsules

PLGP - - - -

Code Length (Nominal)	Code Micron	Code Inlet Connection	Code Outlet Connection	Code Variant	Code Grade	Code Design	Code O-rings
K 5" (125 mm) 1 10" (250 mm) 2 20" (500 mm) 3 30" (750 mm)	95 0.5 µm 96 0.6 µm Ratings based on efficiencies of > or = 99.98% using internal test procedure SOP018 based on ASTM F795-88 1993	A 3/4" Tri-Clamp B 1 1/2" Tri-Clamp D 1" Hosebarb T 1" Tri-Clamp H 1/2" Hosebarb	A 3/4" Tri-Clamp B 1 1/2" Tri-Clamp D 1" Hosebarb T 1" Tri-Clamp H 1/2" Hosebarb	P Pharmaceutical	N Non-sterile S Pre-sterilized γ (>25 kGy)	L In-Line T* T-Port M** Streamline Valves	E EPDM P PTFE Encapsulated Silicone S Silicone V Viton

*Only available with a 1" Tri-Clamp
** Not available with a 1" or 1.5" Tri-Clamp fittings

DEMICA Capsules

PEGP - - - -

Code Length (Nominal)	Code Micron	Code Inlet Connection	Code Outlet Connection	Code Variant	Code Grade	Code Pack N°	Code Accessory
E 4.4" (113 mm) B 5.5" (140 mm) A 7.9" (200 mm)	95 0.5 µm 96 0.6 µm Ratings based on efficiencies of > or = 99.98% using internal test procedure SOP018 based on ASTM F795-88 1993	T 1" Tri-Clamp N 1/2" NPT Male H 1/2" Hosebarb G Stepped Hosebarb M 1/4" NPT Male V 3/8" NPT Female	T 1" Tri-Clamp N 1/2" NPT Male H 1/2" Hosebarb G Stepped Hosebarb M 1/4" NPT Male V 3/8" NPT Female	P Pharmaceutical	N Non-sterile S Pre-sterilized γ (>25 kGy)	3 Pack of 3	FB Filling Bell E & B-Size G & H connections only

Syringe Filters

PSGP - - -

Code Diameter	Code Micron	Code Inlet Connection	Code Outlet Connection	Code Variant	Code Grade	Code Options	Code Pack N°
050 50 mm	95 0.5 µm 96 0.6 µm	F Female Luer Lock G Stepped Hosebarb	F Female Luer Lock G Stepped Hosebarb	P Pharmaceutical	N Non-sterile	S Standard	025 25 per box