

Poliflo W-GP



Introduction

The Poliflo - GP is an absolute rated pleated glass fibre filter cartridge that can be used as both a prefilter and a final filter. Extensive research and testing of diverse glass fibre media has demonstrated the risk of progressive breakdown and fibre release into the filtrate. Poliflo - GP has been designed to safeguard products by employing a high efficiency melt blown polypropylene layer downstream of the glass fibre media, whilst still offering the benefits of glass fibre media.

Applications

- Prefiltration to extend the life of sterilising membrane filters
- Final filtration for clarifying/brightening
- Bioburden reduction
- Low clean pressure drop applications
- Colloidal reduction in some systems
- Process and DI water systems
- Cosmetics
- Food and beverages
- Pharmaceuticals and bioprocessing
- Fine chemicals
- Air and gas filtration

Benefits

- Excellent fine particle removal due to adsorption and depth filtration mechanisms
- Low clean pressure drop and high flow rates - provides excellent performance
- Exceptionally high void volume - high dirt holding

Pleated Glass Fibre Cartridge Filters

Range

Poliflo - GP cartridges are available as single or multiple module units of 5, 10, 20, 30 and 40 inches, in a range of three particle retention ratings: 0.5, 0.8 and 1.0 microns absolute - Beta 5000 (99.98% efficiency).

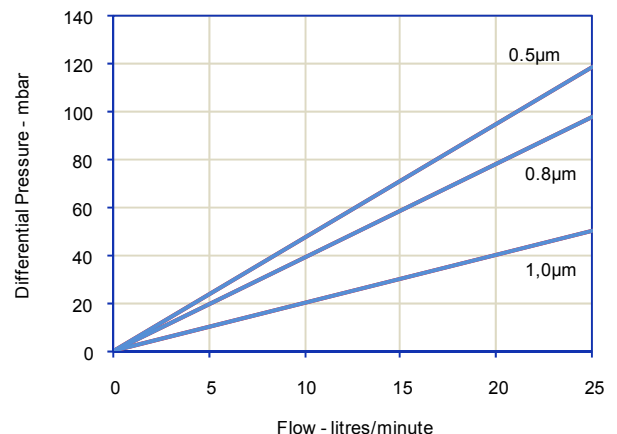
Designed for use in filter housings and as direct replacements for existing cartridges, Poliflo - GP are available with end fittings to suit most hardware installations without modification.

Performance

Test Conditions

Typical Clean Water Flow Rate - Based on a 250mm (10") single module housing exhibiting the differential pressure characteristics indicated above, for solutions with a viscosity of 1 centipoise.

Other Solutions - For solutions with a viscosity greater than 1 centipoise, divide the indicated flow rate by the viscosity in centipoise.



Specifications

Materials of Manufacture

Filter Medium	Borosilicate glass fibre with FDA approved binder and melt blown polypropylene. Downstream laminated polypropylene filter layers is calendered for protection against fibre release
Upstream Irrigation	Spun bonded polypropylene
Downstream Drainage	Spun bonded polypropylene
Inner Core	Polypropylene
Outer Support	Polypropylene
End Fitting	Polypropylene
Construction	Thermal welding

Cartridges Dimensions (Nominal)

Diameter:	70 mm (2.8")	
Length:	1 Module (Short)	125 mm (5")
	1 Module	250 mm (10")
	2 Modules	510 mm (20")
	3 Modules	760 mm (30")
	4 Modules	1020 mm (40")

Effective Filtration Area

Absolute Particle Retention	EFA
Rating (Beta 5000)	(Each 250mm Module)
0.5 micron	0.4m ² (4.4ft ²)
0.8 micron	0.4m ² (4.4ft ²)
1.0 micron	0.4m ² (4.4ft ²)

Gaskets and O-rings

Ethylene Propylene, PTFE Encapsulated, Silicone, Viton, Nitrile, or Polypropylene Felt

Cartridge Treatment

Standard	Clean, without further treatment
Flushed	Flushed with pyrogen free water
Rinsed	Ultra-clean, pulse flushed to give a system resistivity of 18MΩ.cm

Maximum Differential Pressure

Normal Flow Direction		
at	20°C (68°F)	5 bar (72lb/in ²)
	80°C (176°F)	4 bar (58lb/in ²)
	100°C (212°F)	3 bar (44lb/in ²)
	120°C (248°F)	1.8 bar (26lb/in ²)

Reverse Flow Direction

at	20°C (68°F)	2.1 bar (30lb/in ²)
	80°C (176°F)	1.0 bar (15lb/in ²)
	100°C (212°F)	0.5 bar (7lb/in ²)

Maximum Temperature

60°C (140°F) Maximum continuous

Sterilisation

In-situ steam sterilised or autoclaved up to 125°C (257°F). Poliflo-GP cartridges are compatible with a wide range of sanitising agents.

Biological Safety

All polypropylene materials are FDA approved to 21 CFR 177 - 1520. FDA approved acrylic binder. Conforms to USP Plastics, Class 6.

Quality Assurance

The manufacture of Poliflo-GP cartridges is subject to rigorous quality assurance procedures and carried out under controlled environmental conditions,

Envirogen Group is quality assessed to ISO 9001 covering all aspects of design, manufacture and quality control.

Cartridges part numbering guide

WGP 40 01 7 S X X											
Code	Nominal Length	Code	Absolute Pore Rating	Code	End Fitting	Code	Seal Material	Code	Version	Code	Additional Option
05	125 mm (5")	A5	0,5 µ	0	DOE	E	EPDM	S	Std Hard Cage		Pharmaceutical Grade
10	250 mm (10")	A8	0.8 µ	3	COD.3	S	SILICONE			P	
20	510 mm (20")	01	1 µ	7	COD.7	N	NITRILE				
30	760 mm (30")			8	COD.8	V	VITON				
40	1020 mm (40")			9	COD.9	P	PTFE				
				X	SPECIAL		PTFE				
						G	ENCAPSULED SILICONE				
						X	SPECIAL				

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