

# Bioflo PT Plus

- Intrinsically Hydrophobic PTFE membrane
- Highly effective enhanced filtering area
- Repeatedly steamable in situ or in an autoclave
- Integrity testable
- Bio-Safety per USP-Plastics
- Validation Guide available on request



Bioflo PT Plus filter element is specifically designed for the sterilising filtration of hot air up that feeds the reactors in aerobic fermentation processes.

The filter media is a hydrophobic expanded PTFE membrane pleated with a specific Polyaramid non-woven support resisting to continuous operating high temperature. The design optimises the flow distribution between the filter media and the internal core in order to exploit the full area of the cartridge generating higher throughput and increases service life.

Bioflo PT Plus is manufactured in a controlled environment and each cartridge is integrity tested and is validated for bacterial retention correlated to the microbiological challenge test.

The retention is checked on regular sampling. PH grade is supplied with Certification of quality reporting the serial number in the box.

## Materials of Construction

Filter media	PTFE expanded membrane
Upstream supports	NOMEX <sup>®</sup>
Downstream supports	NOMEX <sup>®</sup>
Internal Core	Polypropylene
External Cage	Polypropylene
End caps/Adapters	Polypropylene

## Bio Safety

Filter media and components pass USP biological reactivity and chemical-physical tests for Class VI plastics

Specific for PH grade: the filter meets USP “water for injection” requirements for particle release the effluent is non-pyrogenic per USP bacterial endotoxins (<0,25 EU/ml).

## Quality Standards

Produced under a certified Quality System to guarantee traceability of manufacturing records and integrity testing results.

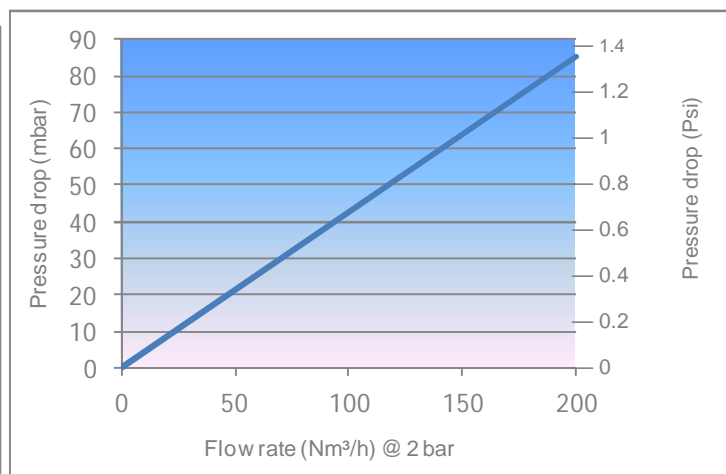
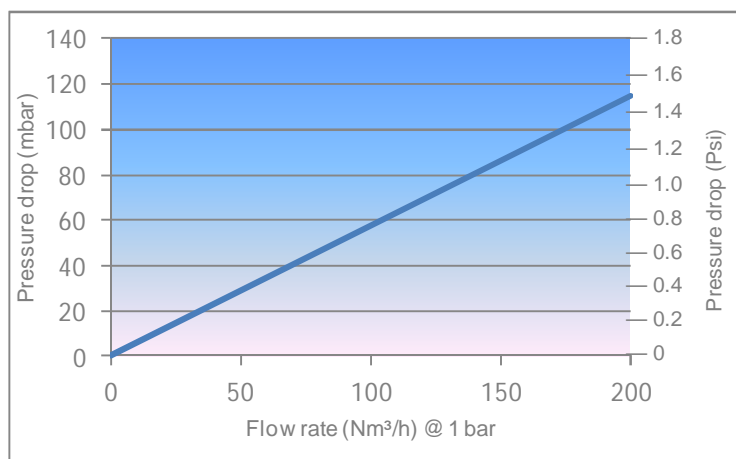
## Operating Conditions

- Maximum continuous temperature of 221°F (105°C)
- Maximum cumulative time of steam sterilisation is 160 cycles of 30 minutes at 140°C
- Sanitisation with chemicals - can be sanitised by standard chemical agents
- Regenerability is 2% NaOH solution at room temperature
- Maximum differential pressure is 73psi at 77°F (5 bar at 25°C)
- Recommended change out differential pressure is 29psi at 77°F (2.0 bar at 25°C)

ABSOLUTE FILTRATION RATING		BACTERIAL RETENTION >10 <sup>7</sup> CFU/cm <sup>2</sup> (1)	ACCEPTABLE LIMIT FOR DIFFUSION FLOW TEST FOR 10" CARTRIDGE (2)
IN LIQUID	IN DRY GAS		
0.2µm	< 0.01µm	Brevundimonas diminuta in liquid	≤17 ml/min @ 11.6 psi (0.8 bar)

Note: 1 - BACTERIAL RETENTION TEST as per ASTM F838-05.  
 2 - The integrity is verified by DIFFUSION TEST using an aqueous solution of isopropyl alcohol (IPA 60/40 V/V) as wetting agent.

## Air Flow Rate for 10" Cartridge



## Ordering Guide

Name	Micron Rating	Nominal Length	End Cap Type	Seal Type	Special
Bioflo PT Plus	0.2µm	10"	03	E - EPDM	PH - Biological Grade Non pyrogenic
		20"	04-DOE	S - Silicone	
		30"	07		
		40"	08		
			28		

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