



PFA membrane filters
for use with most speciality gases and
low vapor pressure gases

GASFENDER™ GSFNF (PFA) INLINE GAS FILTERS

PFA MEMBRANE FILTERS FOR MOST SPECIALITY GASES AND LOW VAPOR PRESSURE GASES

Cobetter's Gasfender™ GSFNF (PFA) Series in-line gas filters are compact, yet provide high flow and low pressure drop, making them ideal for a range of specialty gases, including those with low vapor pressure. These filters are also ideal for filtering vapor or inert carrier gases which deliver silicon or metal organic precursor material to deposition processes. The filters offer superior corrosion resistance and excellent chemical compatibility with a wide range of process gases and materials, while providing 0.003µm filtration.

FEATURE	BENEFIT
Electro-polished 316L stainless steel	Provides superior corrosion resistance
Pleated PTFE membrane and PFA support structure	High compatibility with nearly all speciality gases High flow rates & low pressure drops
Industry standard fittings and lengths for easy installation*	Easy installation into new and existing gas panels, gas cabinets, gas supply sticks, equipment, and tools.
Quality manufacturing	100% helium leak tested, 100% integrity tested, cleanroom manufactured and double-bagged packaged



MATERIALS AND SPECIFICATIONS

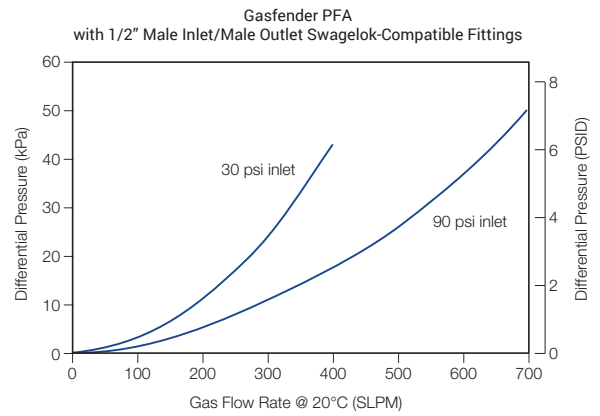
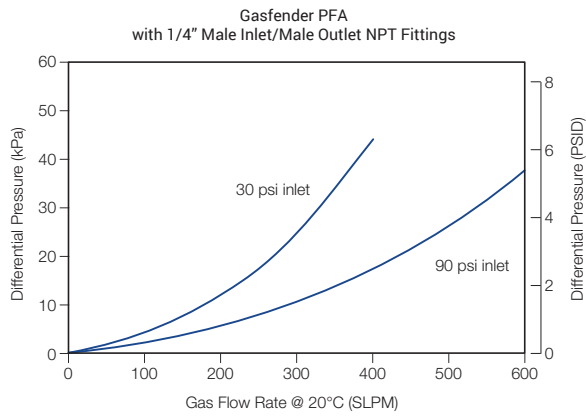
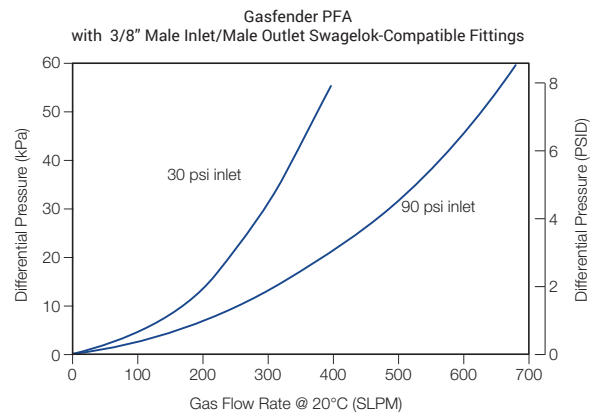
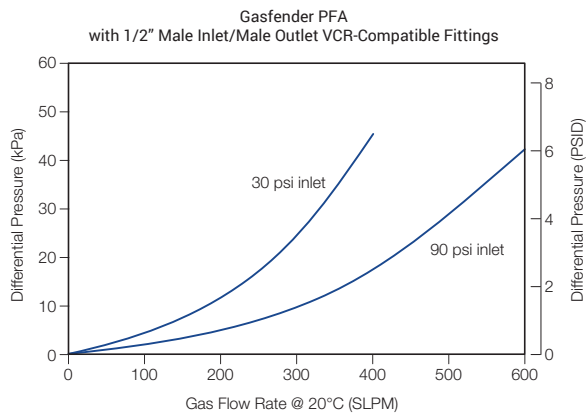
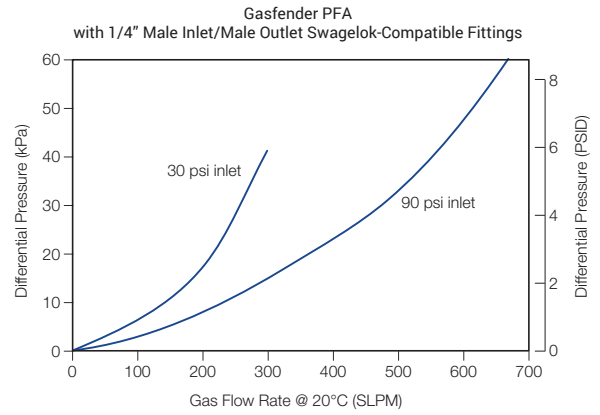
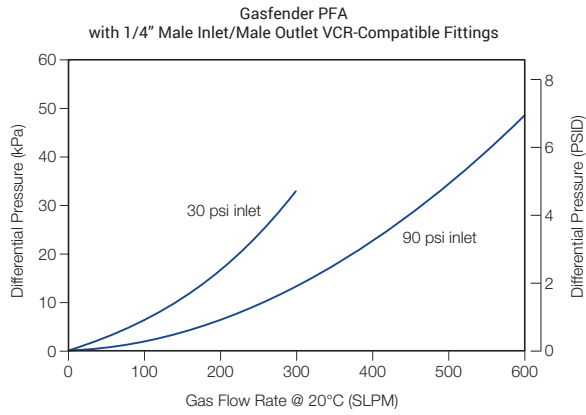
Filter media	PTFE
Media support	PFA
Filter area	700 cm ²
Internal O-ring	Encapsulated FKM
Filter housing	Electropolished 316L Stainless Steel
Internal surface finish	≤ 20 µin Ra
Removal rating	0.003 µm
Fittings	SW (Swagelok® compatible), Gasket Seal (VCR® compatible), or NPT
Fitting size*	1/4", 3/8", or 1/2"
Max. operating pressure	5.2 MPa (52 bar, 754 psi)
Max. differential pressure	Forward: 0.69 MPa (6.9 bar, 100 psi) at 21°C Reverse: 0.34 MPa (3.4 bar, 49 psi) at 21°C
Max. operating temperature	121°C
Leak rating - helium leak tested	10 ⁻⁶ Pa m ³ /s
Packaging (double-bagged with N2 purge)	Inner vacuum sealed PE bag; Outer Mylar (aluminized) bag

Typical Applications

- Gas panels
- Gas cabinets
- Gas supply sticks
- Speciality Gases
- Low Vapor Pressure Gases
- Carrier Gases

* See ordering information for specific lengths, fitting types, and sizes.

FLOW CURVES



ORDERING INFORMATION

Part Number	Accessory	Fittings	Inlet	Outlet	Overall Length
GSFNFM03SMM4L42	-	1/4" Swagelok Compatible	Male	Male	142.0 ±1.0 mm (5.59")
GSFNFM03SMM4L42-N	with nuts	1/4" Swagelok Compatible	Male	Male	142.0 ±1.0 mm (5.59")
GSFNFM03SMM4L06	-	1/4" Swagelok Compatible	Male	Male	106.0 ±1.0 mm (4.17")
GSFNFM03SMM6L49	-	3/8" Swagelok Compatible	Male	Male	149.0 ±1.0 mm (5.87")
GSFNFM03SMM6L49-N	with nuts	3/8" Swagelok Compatible	Male	Male	149.0 ±1.0 mm (5.87")
GSFNFM03SMM6L28-N	with nuts	3/8" Swagelok Compatible	Male	Male	128.0 ±1.0 mm (5.04")
GSFNFM03SMM8L49	-	1/2" Swagelok Compatible	Male	Male	149.0 ±1.0 mm (5.87")
GSFNFM03SMM8L49-N	with nuts	1/2" Swagelok Compatible	Male	Male	149.0 ±1.0 mm (5.87")
GSFNFM03SMM8L28-N	with nuts	1/2" Swagelok Compatible	Male	Male	128.0 ±1.0 mm (5.04")
GSFNFM03SMM810MML28	-	SW10MM Swagelok Compatible	Male	Male	149.0 ±1.0 mm (5.87")
GSFNFM03VMF4L42	-	1/4" Gasket Seal (VCR Compatible)	Male	Female	142.0 ±1.0 mm (5.59")
GSFNFM03VMM4L41	-	1/4" Gasket Seal (VCR Compatible)	Male	Male	141.0 ±1.0 mm (5.55")
GSFNFM03VMM4L28	-	1/4" Gasket Seal (VCR Compatible)	Male	Male	128.0 ±1.0 mm (5.04")
GSFNFM03VMM6L49	-	3/8" Gasket Seal (VCR Compatible)*	Male	Male	149.0 ±1.0 mm (5.87")
GSFNFM03VMM8L49	-	1/2" Gasket Seal (VCR Compatible)	Male	Male	149.0 ±1.0 mm (5.87")
GSFNFM03VMM6L28	-	3/8" Gasket Seal (VCR Compatible)*	Male	Male	128.0 ±1.0 mm (5.04")
GSFNFM03VMM8L28	-	1/2" Gasket Seal (VCR Compatible)	Male	Male	128.0 ±1.0 mm (5.04")
GSFNFM03VMF8L29N	with nuts	1/2" Gasket Seal (VCR Compatible)	Male	Female	129.0 ±1.0 mm (5.08")
GSFNFM03NMF4L42	-	1/4" NPT	Male	Female	142.0 ±1.0 mm (5.59")
GSFNFM03NFF4L33	-	1/4" NPT	Female	Female	133.0 ±1.0 mm (5.26")
GSFNFM03NFF4L42	-	1/4" NPT	Female	Female	142.0 ±1.0 mm (5.59")
GSFNFM03NMM4L42	-	1/4" NPT	Male	Male	142.0 ±1.0 mm (5.59")

*3/8" gasket seal fittings use 1/2" nuts. Please call your local Banner Industries representative if there are any questions.



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