

GasPro™ TEM-1400

All-Fluoropolymer
In-Line Filter



GasPro™ TEM-1400 Series filters are designed for 3 nm particle retention up to flow rates of 75 scfm and temperatures of 150°C (302°F).

A PTFE Membrane and all-fluoropolymer support structure is enclosed in a 316L stainless steel electro-polished welded housing. Final assembly is purged with filtered nitrogen for initial cleanliness.

Applications

- High-flow ultra-high purity inert and speciality gases.
- Semiconductor, TFT flat panel display, silicon wafer manufacturing, photovoltaic/solar process gases.

** In CDA and other facility gas filtration applications, flow, temperature, particle challenge, and other differences unique to each system, can affect overall filtration performance, and may affect the useful filtration period for each filter.*

In elevated CDA temperatures (100-130°C / 212-266°F), recommended filter change-out is one year after installation. Between 131-150°C / 286-302°F, the maximum recommended change-out is 6 months after installation. Filter lifetime can vary due to flow, particle challenge and other differences which are unique to each system, so it is up to the user to verify product life within their system process.

Features and Benefits

- **Filtration rating**

Our porous PTFE filters provide efficient 3nm particle retention.

- **Construction**

An ePTFE membrane (0.45 m² / 4.8 ft²) with a polypropylene support structure is enclosed within a stainless steel 316L housing for excellent flow and chemical resistance. A standard Viton® o-ring is used (other o-rings may be available upon request).

- **Electro-polished housing**

The filter assemblies have a <10Ra electro-polished 316L stainless steel housing to prevent corrosion and particle build up on interior surfaces.

- **Maximum differential pressure / temperature forward:**

80 psid (5.5 bar) @ 75°F (24°C)
55 psid (3.8 bar) @ 167°F (75°C)
30 psid (2.0 bar) @ 257°F (125°C)
15 psid (1.0 bar) @ 300°F (150°C)

- **Maximum operating pressure**

17.2 bar (250 psig)

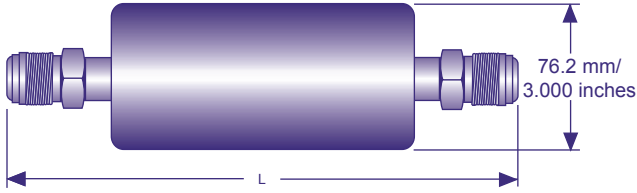
- **100% helium leak tested**

All units tested to 1x10⁻⁹ atm cc/second

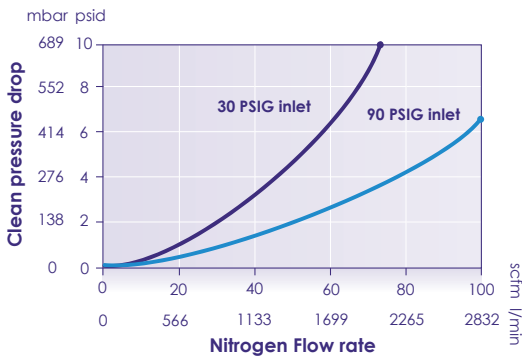
- **Out of package cleanliness**

Our GasPro™ TEM-1400 filters are cleaned and packaged in a cleanroom with organic free handling for out-of-package, particle free, and chemical free cleanliness. Final assembly is purged with filtered nitrogen for initial cleanliness. Additional preconditioning is optional.

Specifications



Gas flow rate vs Pressure drop



TEM-1400 Part Numbers and Ordering Information

Part number	Inlet/outlet fittings	Filter media/housing	Other materials*	Length (L)
TEM-1411-12	3/4" compression inlet/outlet	PTFE / 316L stainless steel	All fluoropolymer/ FEP encapsulated Viton*	8.20" (208.3 mm)
TEM-1414-8	1/2" female face seal inlet/outlet			10.14" (257.6 mm)
TEM-1415-8	1/2" male face seal inlet/outlet			8.86" (225.0 mm)
TEM-1415-12	3/4" male face seal inlet/outlet			8.86" (225.0 mm)
TEM-1415-16	1.0" male face seal inlet/outlet			8.86" (225.0 mm)
TEM-1450-8	1/2" butt weld inlet/outlet			11.61" (294.9 mm)
TEM-1450-12	3/4" butt weld inlet/outlet			11.61" (294.9 mm)
TEM-1450-16	1.0" butt weld inlet/outlet			9.14" (232.2 mm)

Not all fittings, lengths, and part numbers are shown on the chart. Please contact your Porvair representative or an approved Porvair distributor for special length and fitting options.