

GasPro™ TEM-1100

Ultra-High Flow
All-Fluoropolymer
In-Line Filter



GasPro™ TEM-1100 Series filters are designed for 3 nm particle retention up to flow rates of 300 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

- General and process inert facilities gases for semiconductor, flat panel display and other high-purity applications.
- Gases used for critical flat panel processes, including substrate annealing.
- Clean-dry air for critical processes, including front opening unified pod (FOUP) cleaning and photolithography.

** 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.*

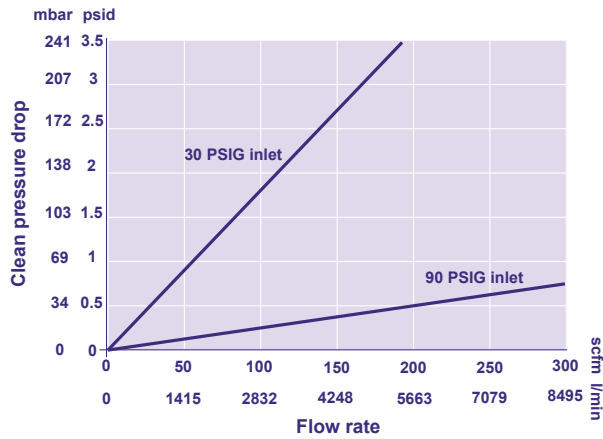
In elevated CDA temperatures (100-130°C / 212-266°F), recommended filter change-out is one year after installation. Between 131-150°C / 286-302°F, the maximum recommended change-out is 6 months after installation. Filter lifetime can vary due to flow, particle challenge and other differences which are 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 (2.73 m² / 29.4 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 15Ra 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-1100 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-1100 Part Numbers and Ordering Information

Part number	Inlet/outlet fittings	Filter media/housing	Other materials*	Length (L)
TEM-1115-16	1.0" male face seal inlet/outlet	PTFE / 316L stainless steel	All fluoropolymer /FEP encapsulated Viton	35.43" (899.9 mm)
TEM-1128-24	1.5" FNPT inlet/outlet			34.0" (864 mm)
TEM-1150-24	1.5" tube stub inlet/outlet			37.25" (946.2 mm)
TEM-1160-24	1.5" Tri-Clamp ends			35.0" (889 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.