

Aerex® Cartridge Filters

For sterile gas filtration in fermentation processes.

Aerex® cartridge filters contain 0.2 µm hydrophobic polytetrafluoroethylene (PTFE) membrane that enables robust, economical gas sterilization in fermentation processes. These filters provide high flow rates and throughput and contribute to clean processes due to their non-fiber releasing properties.



Benefits

- Robust, economical gas sterilization
- Unparalleled thermal and hydraulic stress resistance
- Validated to withstand multiple sterilization cycles

Typical Applications

- Sterile tank venting
- Fermentation air applications
- Autoclave air inlet and outlets

Cost effective durability

Aerex® cartridges provide high flow rates with minimal differential pressure, while retaining bacteria and virus aerosol. These robust cartridges can be steamed-in-place up to 200 times, or for a continuous 165 hours. Each Aerex® cartridge filter is integrity tested during the manufacturing process.

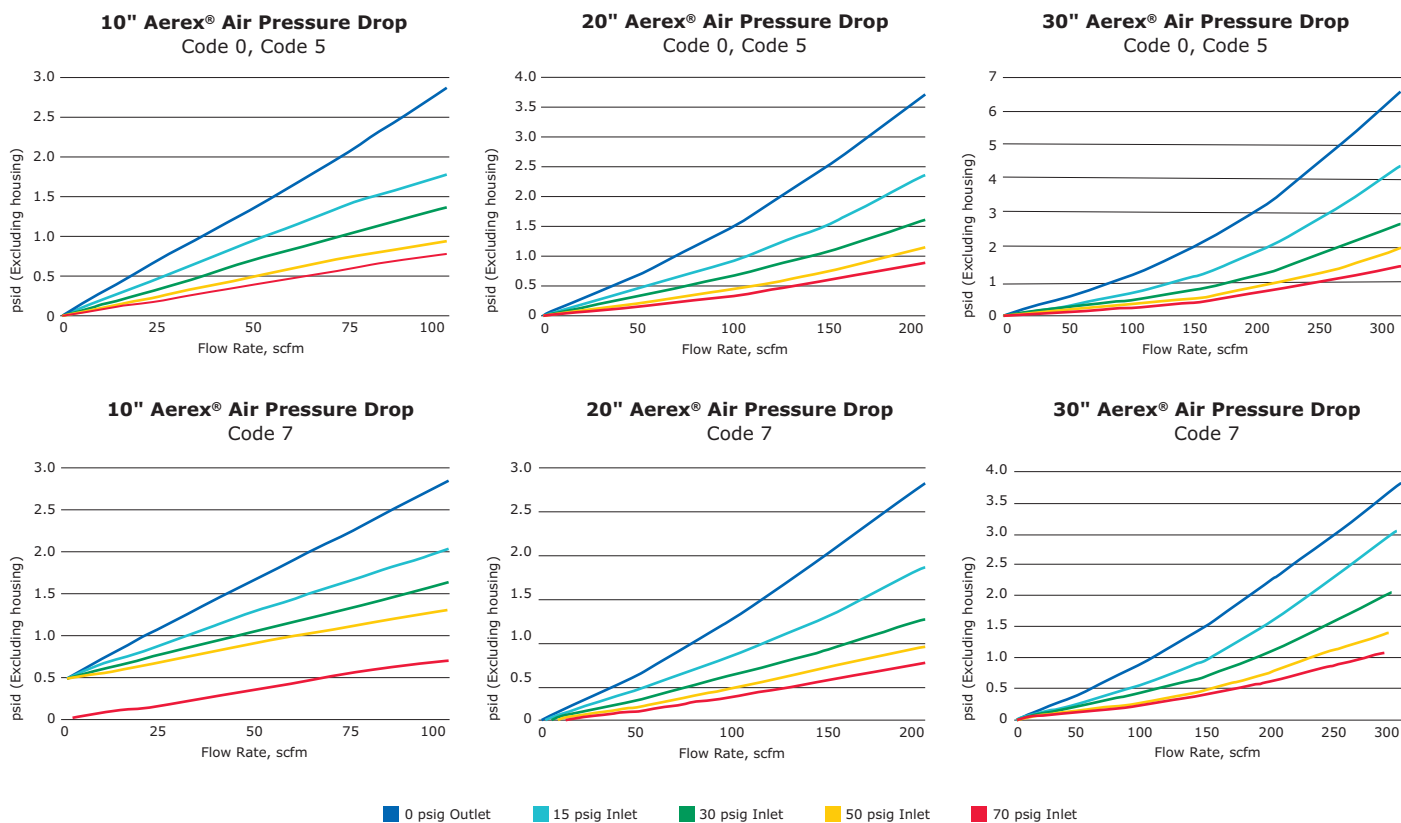
Specifications

		Per 10-inch Cartridge
Nominal Dimensions	Maximum length	25 cm (10 in.)
	Outside diameter	7.0 cm (2.7 in.)
Filtration Area		0.65 m ² (7.0 ft ²)
Materials of Construction	Filter media	Hydrophobic polytetrafluoroethylene (PTFE)
	Supports	Polypropylene
	Structural components	Polypropylene
	O-rings	Silicone
	Outer support ring	Stainless Steel
Maximum Differential Pressure	Forward	6.9 bar (100 psid) at 25°C, 1.8 bar (25 psid) at 80°C 345 mbar (5 psid) at 145°C
	Reverse	5.2 bar (75 psid) at 25°C intermittent
Bubble Point at 23°C		≥ 900 mbar (13 psig) in 60/40 IPA/water
Air Diffusion		Through a 70/30 IPA/water wet membrane at ambient room at 965 mbar (14 psig) nitrogen: ≤ 15 cc/min nitrogen through a 60/40 IPA/water wet membrane at 690 mbar (10 psig) at ambient temperature
HydroCorr™ Test		≤ 0.40 mL/min at 1380 mbar (20 psig)
Gravimetric Extractables		After autoclaving and a 24 hour soak in 70/30 IPA water at controlled room temperature: ≤ 35 mg
Bacterial Endotoxin		Aqueous extraction contains < 0.5 EU/mL as determined by the Limulus Amebocyte Lysate (LAL) Test.
Sterilization		May be steam sterilized 150 times (forward) and 50 times (reverse) for 30 minutes at 145°C.
Quality Management System		This product was manufactured in a facility whose Quality Management System is approved by an accredited registering body to the appropriate ISO 9001 Quality Management System Standard.
Non-Fiber Releasing		Aerex® membrane meets the criteria for a “non-fiber releasing” filter as defined in 21 CFR 210.3 (b) (6).
Component Material Toxicity		Component materials were tested and meet the criteria of USP <88> Reactivity Tests for Class VI Plastics. Aerex® filters are non-toxic per the USP <88> Safety Test.
Viral Retention		Rated for aerosol retention of a total challenge of 10 ⁸ –10 ¹⁰ plaque forming units of φX-174 virus particles at 50 SCFM per 10-inch cartridge.
Bacterial Aerosol Growth		Retains <i>Brevundimonas diminuta</i> liquid aerosol for 21 days at a minimum challenge of 10 ⁷ CFU/cm ² .

Regulatory Compliance

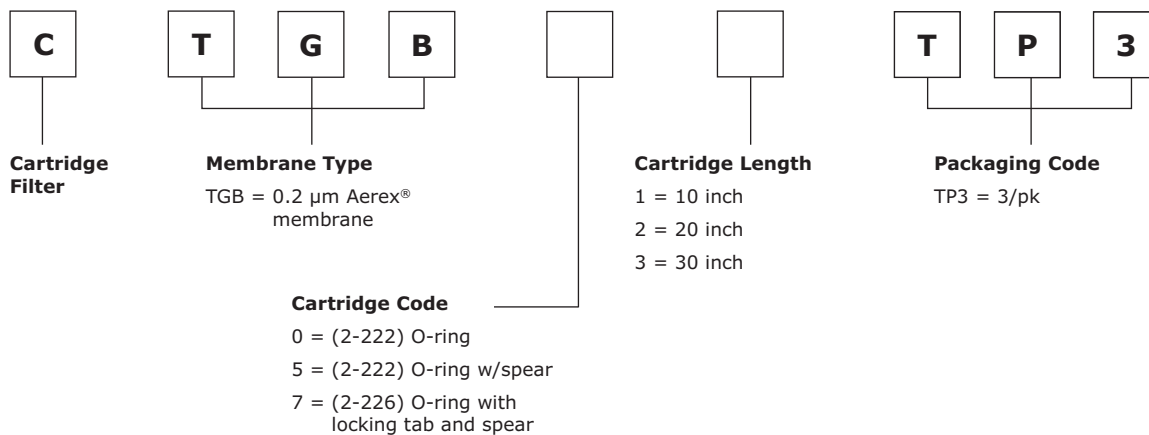
Aerex® filters are designed, developed and manufactured in accordance with a Quality Management System approved by an accredited registering body to an ISO® 9001 Quality Systems Standard. Each filter is shipped with a Certificate of Quality. Each cartridge is integrity tested during manufacturing and is supported with a comprehensive Validation Guide for compliance with regulatory requirements. For traceability and easy identification, each filter is labeled with the product name, lot number and serial number.

Air Flow Rate and Pressure Drop – Cartridge Filters



Ordering Information

Cartridge Filters



Merck KGaA
Frankfurter Strasse 250
64293 Darmstadt, Germany

To Place an Order or Receive Technical Assistance

Please visit
[MerckMillipore.com/contactPS](https://www.MerckMillipore.com/contactPS)

For additional information, please visit
[MerckMillipore.com](https://www.MerckMillipore.com)

