

Data Sheet

Aervent®-50 Capsule Filters

For small-scale sterile gas filtration

Aervent®-50 sterilizing-grade filters are designed for critical small-scale gas line and air venting applications. The hydrophobic Aervent® PTFE membrane provides high flow rates and throughput, low extractables and particle shedding, and broad chemical compatibility. These filters are 100% integrity tested during manufacture to guarantee filter integrity and sterility assurance.



Typical Applications

The Aervent®-50 hydrophobic filter will remove particles and microorganisms greater than 0.2 µm from gases and liquids. Aervent®-50 filters will sterilize air or gas streams in:

Venting

- Bioreactor inlet and outlet filtration
- Filling vessels
- Carboys
- Autoclaves
- Transfer vessels

Gas Filtration

- Filling machines
- Utilities
- Fermentation
- Moisture-free gas supply lines
- Particulate removal

Features

The PTFE membrane-based gas filter:

- Can be integrity tested using HydroCorr™ test
- Is validated for bacterial retention in liquids
- Is validated for multiple autoclave cycles
- Offers high flow rates

Regulatory Compliance

Aervent®-50 filters are designed, developed and manufactured in accordance with a Quality Management System approved by an accredited registering body to an ISO® 9001 and ISO® 14001 Quality Systems Standard. Every filter is integrity tested during manufacture to guarantee sterility assurance, and is supported with a comprehensive Validation Guide for compliance with regulatory requirements. Using fully-qualified manufacturing processes and controls, every Aervent®-50 filter is integrity tested prior to packaging.

A Certificate of Quality, available for each filter lot, certifies that Aervent®-50 filters meet quality assurance lot release criteria. Each Aervent®-50 unit is engraved with its catalogue number, lot number and serial number.

Superior Performance

- Aervent®-50 filters are a reliable and economical solution to your filtration needs.
- Every unit is qualified for 10 autoclave cycles at 130°C for 30 minutes.
- The hydrophobic membrane is bidirectionally supported in a lightweight housing.
- Aervent®-50 filters are easily integrity testable.
- Aervent®-50 filters are available in various inlet and outlet combinations eliminating the need for adaptors, clamps and tubings ensuring quick connectivity to suit your application.

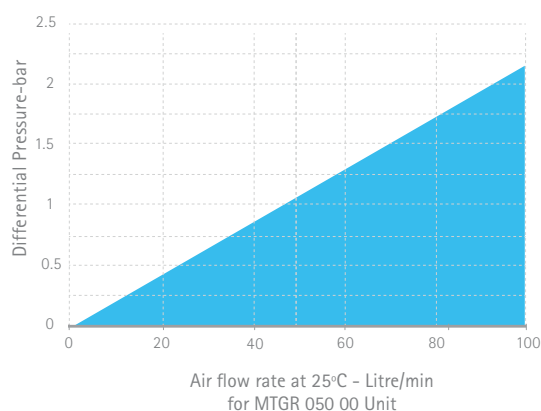


Figure 1.
Typical air flow rates

Specifications

Aervent®-50 Filters	
Filtration Area, m ² (cm ²)	0.00196 m ² (19.6 cm ²)
Materials of Construction	
Filter Structural Components	Polypropylene housing; hydrophobic PTFE membrane
Maximum Inlet Pressure, bar (psid)	4.1 bar (60 psid) @ 25 °C
Maximum Differential Pressure, bar (psid)	2 bar (30 psid) @ 25 °C
Hydrocorr™ Test	≤ 0.03 mL/min @ 2.6 bar (38 psi)
Bubble Point	≥ 1100 mbar (16 psi) in 60% isopropanol 40% water at 25°C
Bacterial Retention	Quantitative retention of 10 ⁷ CFU/cm ² <i>Brevundimonas diminuta</i> (ATCC® 19146) per ASTM® F838 methodology
Bacterial Endotoxin	Aqueous extraction contains < 20 EU/unit as determined by the Limulus Amebocyte Lysate (LAL) Test
Autoclave Stability	Qualified for 10 times at 130 °C for 30 minutes, at 1.7 bar (25 psi); not in-line steam sterilizable
Toxicity	Component materials meet the requirements of the USP Class VI Biological Test for Plastics. Aervent®-50 filters also meet the requirements of the USP Safety Test
Gravimetric Extractables	≤ 1 mg per unit after a 24 hour soak in 70/30 Isopropanol at ambient temperature
Good Manufacturing Practices	These products are manufactured in a facility, which adheres to Good Manufacturing Practices.

Integritest® Manifold for Parallel Integrity Testing

As a complement to the Aervent®-50 and Opticap® XL 50 filter, we also offer the Integritest® Manifold that can be used with up to 10 filters to perform fast, reliable integrity testing in parallel. This manifold can be used with Opticap® XL 50 and Aervent®-50 filters to improve your efficiency when performing integrity tests such as HydroCorr™ test (resistance to water intrusion) and/or Bubble point using an automated integrity tester.

The Integritest® Manifold is designed to offer a high degree of integrity test robustness while improving your testing efficiency. This manifold provides flexibility while maintaining ease of use with the following features:

- Easy connectivity (TC compatibility and Luer Adaptors)
- Hydrocorr™ test friendly
- Easy to drain, fast setup
- Easy air blow down of filters
- Leak free, easy to clean and sterilize
- Stainless steel welded construction; compatible with IPA
- Vertical design with minimal footprint and no moving parts

Integritest® Manifold.



Ordering Information

Description	Connections, Inlet/Outlet	Diameter, cm (in)	Length, cm (in)	Catalogue No.
Aervent®-50 filters, 100/Pk				
	Hosebarb for 4 to 9.5 mm I.D. flexible tubing and Female Luer slip	6.2 (2.4)	7.1 (2.8)	MTGR05000
	19 mm (3/4 in.) Sanitary Flange	6.2 (2.4)	5.5 (2.16)	MTGR15000
	One side: 19 mm (3/4 in.) Sanitary Flange. Other side: Hosebarb for 4 to 9.5 mm I.D. flexible tubing and Female Luer slip	6.2 (2.4)	6.3 (2.48)	MTGR25000
	One side: 1/8 in. NPTM. Other side: Hosebarb for 6.5 to 9.5 mm I.D. flexible tubing	6.2 (2.4)	5.3 (2.1)	MTGR65000
	1/8 in. NPTM	6.2 (2.4)	5.7 (2.24)	MTGR75000
	Hosebarb for 6.5 to 9.5 mm I.D. flexible tubing	6.2 (2.4)	7.2 (2.84)	MTGR85000
Aervent®-50 filters, 10/Pk				
	Hosebarb for 4 to 9.5 mm I.D. flexible tubing and Female Luer slip	6.2 (2.4)	7.1 (2.8)	MTGR05010
	19 mm (3/4 in.) Sanitary Flange	6.2 (2.4)	5.5 (2.16)	MTGR15010
	One side: 1/8 in. NPTM. Other side: Hosebarb for 4 to 9.5 mm I.D. flexible tubing and Female Luer slip	6.2 (2.4)	6.4 (2.52)	MTGR55010
	One side: 1/8 in. NPTM. Other side: Hosebarb for 6.5 to 9.5 mm I.D. flexible tubing	6.2 (2.4)	5.3 (2.1)	MTGR65010
	1/8 in. NPTM	6.2 (2.4)	5.7 (2.24)	MTGR75010
	Hosebarb for 6.5 to 9.5 mm I.D. flexible tubing	6.2 (2.4)	7.2 (2.84)	MTGR85010
Accessories				3538200WB
ClickClamps® Clamps (2 pack)				3538200WB
Integritest® Manifold for Parallel Integrity Testing				P93795



To place an order or receive technical assistance

In Europe, please call Customer Service:

France: 0825 045 645

Germany: 069-86798021

Italy: 848 845 645

Spain: 901 516 645 Option 1

Switzerland: 0848 645 645

United Kingdom: 0870 900 4645

For other countries across Europe,
please call: +44 (0) 115 943 0840

Or visit: www.merckmillipore.com/offices

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