



sartorius stedim  
biotech

Midisart<sup>®</sup> 2000  
The ready-to-use filter for  
sterilizing gases and venting



DOMINI

turning science into solutions

# Midisart® 2000. The sterilizing filter with impressive performance and total handling ease.

Midisart® 2000 filtration units are ideal tools in biotechnology, the pharmaceutical industry, research institutes and anywhere you need sterile vents, bioisolation or sterile air and gases.

Midisarts® are excellent for

- sterile venting of filling vessels and fermentation carboys, including culture vessels and CO<sub>2</sub> incubators (6 to 120 liters)
- venting of holding tanks for sterile, distilled water and liquid culture media
- autoclave venting
- in-line sterilization of and particulate removal from air and gases, such as sterilization of air for small fermenters

Midisart® 2000 filtration units have been specially designed for maximum handling ease and safety. Tapered hose barbs ensure a simple and secure hold for 6- to 12-mm inner diameter tubing. Other connector types such as a small hose barb (for tubings with 4–12 mm inner diameter), 1/8" NPT thread and TriClamp are also available.



Midisart® is lightweight – only 20 g – so it will not weigh down or kink tubing.

## User benefits:

### 1. Maximum handling ease

- Midisart® 2000 comes individually packaged and presterilized – it's ready to connect!

### 2. Extra reliability and safety

- Midisart® 2000 is integrity testable and delivers reproducible results.
- The membrane is reinforced with polypropylene gauze, giving the Midisart® unit added stability and making it pressure resistant up to 3 bar (approx. 44 psi).
- Midisart® 2000 entirely eliminates moisture breakthrough because of its inherently hydrophobic PTFE material.
- In addition, Midisart® is biosafe because all materials of construction meet the requirements of the current USP Plastics Class VI testing.
- Midisart® 2000 units easily withstand at least 20 autoclaving cycles with no loss in performance. The convenient Memory Discs supplied with each Midisart® 2000 in UPN-coded boxes enable you to keep track of the number of autoclaving cycles by marking or clipping off each cycle. This feature is key in complying with GLP and ISO standards for traceable documentation.

### 3. Quality control certificate

- Each unit is automatically tested 100% for housing and membrane sealing during manufacture as part of our zero-defect quality control testing.
- The lot number and the individual unit number are imprinted on the top part of each Midisart® 2000 housing to ensure complete traceability.

Midisart® 2000 units are visually inspected before they are packaged. In addition to 100% leak testing, random samples taken from each lot undergo the following tests to

assure compliance with Sartorius Stedim Biotech stringent in-house quality assurance standards:

- Housing burst pressure test
- Pressure-hold test
- Bubble point test
- Pyrogen test
- Sterile filtration capability
- Flow rate test
- Sterility test

## Performance

- With a diameter measuring just 64 mm, Midisart® incorporates a filter area of 20 cm<sup>2</sup>, which means that it is "packed" with high flow rate performance power!
- Midisarts® multiply filtration performance in more ways than one. They can be autoclaved at least 20 times at 134°C!

## Chemical compatibility

The materials used in Midisart® (PTFE and polypropylene) give it excellent compatibility with the solvents and other chemicals listed below:

- Acetic acid (concentrated), acetone, acetonitrile
- n-butanol
- Cellosolve (ethyl), chloroform
- Diethylacetamide, dimethyl formamide, dimethyl sulfoxide, dioxane
- Ethanol, ethyl acetate, ethylene glycol
- Freon TF
- Gasoline
- 1 N hydrochloric acid, hexane
- Isobutanol, isopropanol
- Methanol, methylene chloride, methyl ethyl ether, methyl ethyl ketone
- Sodium hydroxide (5%)
- Pentane
- Tetrahydrofuran, toluene, trichloroacetic acid, trichloroethane
- Water
- Xylene

However, its compatibility can be affected by various factors, such as temperature, concentration, composition, etc. We therefore recommend that you perform a trial filtration run to test whether Midisart® is compatible with the particular medium you wish to filter.

Midisart® 2000 can also be used to filter aqueous solutions. In this case, it must be first wetted with alcohol to overcome the membrane's hydrophobicity.

### Technical specifications

Filter material	PTFE – reinforced with polypropylene gauze	
Housing material	Polypropylene	
Filtration area	20 cm <sup>2</sup>	
Housing diameter	64 mm	
Priming volume	Approx. 3 ml	
Maximum operating pressure	300 kPa (3 bar = 44 psi)	
Water penetration point (breakthrough)	0.2 µm – approx. 400 kPa (4 bar = 58 psi) 0.45 µm – approx. 300 kPa (3 bar = ~ 44 psi)	
Max. autoclaving temperature	134°C	
Max. autoclave cycles	60	
Hold-up volume	Before the bubble point approx. 1.0 ml After the bubble point approx. 0.5 ml	
Biosafety	USP Plastics Class VI	
Bubble point with isopropanol (60%)	0.45 µm	≥ 0.9 bar (~13.1 psi)
	0.2 µm	≥ 1.1 bar (~16 psi)
Flow rate for air at Δp = 0.1 bar (1.45 psi) (1 bar = 100 kPa = 14.5 psi)	0.2 µm pore size	5.0 l/min
	0.45 µm pore size	8.5 l/min

### Order information

Order numbers	Pore size	Membrane	Connectors E A	Pieces/Case	Sterile
17804 E	0.45 µm	PTFE	Hose Barb   Hose Barb	12	Yes
17804 G	0.45 µm	PTFE	Hose Barb   Hose Barb	25	Yes
17804 NPE	0.45 µm	PTFE	1/8"   1/8" NPT	12	Yes
17804 NPG	0.45 µm	PTFE	1/8"   1/8" NPT	25	Yes
17805 E	0.2 µm	PTFE	Hose Barb   Hose Barb	12	Yes
17805 G	0.2 µm	PTFE	Hose Barb   Hose Barb	25	Yes
17805 NPE	0.2 µm	PTFE	1/8"   1/8" NPT	12	Yes
17805 NPG	0.2 µm	PTFE	1/8"   1/8" NPT	25	Yes
17805 UPN	0.2 µm	PTFE	Hose Barb   Hose Barb	100	No
17805 UPQ	0.2 µm	PTFE	Hose Barb   Hose Barb	500	No
17809 UNN	0.2 µm	PTFE	1/8"   1/8" NPT	100	No
17812 UNN	0.2 µm	PTFE	1/8"   Hose Barb	100	No
17805 TCN	0.2 µm	PTFE	TriClamp   TriClamp	100	No
17877 UPN	0.2 µm	PTFE	small Hose Barb   small Hose Barb	100	No



Standard Hose Barb



Small Hose Barb



1/8" NPT Thread



TriClamp

In the interest of further development of Sartorius Stedim Biotech products, we reserve the right to make changes without notice.

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