



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.

## Sales and Service Contacts

For further contacts, visit [www.sartorius-stedim.com](http://www.sartorius-stedim.com)

### Europe

#### Germany

Sartorius Stedim Biotech GmbH  
August-Spindler-Strasse 11  
37079 Goettingen

Phone +49.551.308.0  
Fax +49.551.308.3289

[www.sartorius-stedim.com](http://www.sartorius-stedim.com)

Sartorius Stedim Systems GmbH  
Robert-Bosch-Strasse 5-7  
34302 Guxhagen

Phone +49.5665.407.0  
Fax +49.5665.407.2200

#### France

Sartorius Stedim Biotech S.A.  
ZI Les Paluds  
Avenue de Jouques - CS 91051  
13781 Aubagne Cedex

Phone +33.442.845600  
Fax +33.442.845619

Sartorius Stedim France SAS  
ZI Les Paluds  
Avenue de Jouques - CS 71058  
13781 Aubagne Cedex

Phone +33.442.845600  
Fax +33.442.846545

#### Austria

Sartorius Stedim Austria GmbH  
Franzosengraben 12  
1030 Vienna

Phone +43.1.7965763.18  
Fax +43.1.796576344

#### Belgium

Sartorius Stedim Belgium N.V.  
Leuvensesteenweg, 248/B  
1800 Vilvoorde

Phone +32.2.756.06.80  
Fax +32.2.756.06.81

#### Hungary

Sartorius Stedim Hungária Kft.  
Kagyló u. 5  
2092 Budakeszi

Phone +36.23.457.227  
Fax +36.23.457.147

#### Italy

Sartorius Stedim Italy S.p.A.  
Via dell'Antella, 76/A  
50012 Antella-Bagno a Ripoli (FI)

Phone +39.055.63.40.41  
Fax +39.055.63.40.526

#### Netherlands

Sartorius Stedim Netherlands B.V.  
Edisonbaan 24  
3439 MN Nieuwegein

Phone +31.30.6025080  
Fax +31.30.6025099

#### Poland

Sartorius Stedim Poland Sp. z o.o.  
ul. Wrzesinska 70  
62-025 Kostrzyn

Phone +48.61.647.38.40  
Fax +48.61.879.25.04

#### Russian Federation

LLC "Sartorius ICR" and LLC "Biohit"  
Uralskaya str. 4, Lit. B  
199155, Saint-Petersburg

Phone +7.812.327.5.327  
Fax +7.812.327.5.323

#### Scandinavia

Sartorius Stedim Nordic A/S  
Hoerskaetten 6D, 1.  
2630 Taastrup, Denmark

Phone +45.7023.4400  
Fax +45.4630.4030

#### Spain

Sartorius Stedim Spain SA  
C/Isabel Colbrand 10,  
Oficina 70  
Poligono Industrial de Fuencarral  
28050 Madrid

Phone +34.90.2110935  
Fax +34.91.3589623

#### Switzerland

Sartorius Stedim Switzerland AG  
Ringstrasse 24 a  
8317 Tagelswangen

Phone +41.52.354.36.36  
Fax +41.52.354.36.46

#### U.K.

Sartorius Stedim UK Ltd.  
Longmead Business Centre  
Blenheim Road, Epsom  
Surrey KT19 9 QQ

Phone +44.1372.737159  
Fax +44.1372.726171

### America

#### USA

Sartorius Stedim North America Inc.  
5 Orville Drive, Suite 200  
Bohemia, NY 11716

Toll-Free +1.800.368.7178  
Fax +1.631.254.4253

#### Argentina

Sartorius Argentina S.A.  
Int. A. Ávalos 4251  
B1605ECS Munro  
Buenos Aires

Phone +54.11.4721.0505  
Fax +54.11.4762.2333

#### Brazil

Sartorius do Brasil Ltda  
Av. Dom Pedro I, 241  
Bairro Vila Pires  
Santo André  
São Paulo  
Cep 09110-001

Phone +55.11.4451.6226  
Fax +55.11.4451.4369

#### Mexico

Sartorius de México S.A. de C.V.  
Circuito Circunvalación Poniente  
No. 149  
Ciudad Satélite  
53100, Estado de México  
México

Phone +52.5555.62.1102  
Fax +52.5555.62.2942

### Asia | Pacific

#### Australia

Sartorius Stedim Australia Pty. Ltd.  
Unit 5, 7-11 Rodeo Drive  
Dandenong South Vic 3175

Phone +61.3.8762.1800  
Fax +61.3.8762.1828

#### China

Sartorius Stedim Biotech (Beijing) Co. Ltd.  
Airport Industrial Zone B  
No. 33 Yu'an Road  
Beijing 101300, Shunyi District

Phone +86.10.80426516  
Fax +86.10.80426580

Sartorius Stedim Biotech (Beijing) Co. Ltd.  
Shanghai Branch office  
Room 618, Tower 1, German Centre,  
Shanghai, PRC., 201203

Phone +86.21.28986393  
Fax +86.21.28986392.11

Sartorius Stedim Biotech (Beijing) Co. Ltd.  
Guangzhou representative office  
Room 704, Broadway Plaza,  
No. 233-234 Dong Feng West Road  
Guangzhou 510180

Phone +86.20.8351.7921  
Fax +86.20.8351.7931

#### India

Sartorius Stedim India Pvt. Ltd.  
#69/2-69/3, Jakkasandra  
Kunigal Road, Nelamangala Tq  
Bangalore - 562 123

Phone +91.80.4350.5248  
Fax +91.80.4350.5253

#### Japan

Sartorius Stedim Japan K.K.  
Kiba Park Bldg  
5-11-13 Kiba  
Koto-ku  
Tokyo 135-0042

Phone +81.3.5639.9981  
Fax +81.3.5639.9983

#### Malaysia

Sartorius Stedim Malaysia Sdn. Bhd.  
Lot 13-F-3B, Enterprise 4  
Technology Park Malaysia  
Bukit Jalil  
57000 Kuala Lumpur, Malaysia

Phone +60.3.8996.0622  
Fax +60.3.8996.0755

#### Singapore

Sartorius Stedim Singapore Pte. Ltd.  
1 Science Park Road,  
The Capricorn, #05-08A,  
Singapore Science Park II  
Singapore 117528

Phone +65.6872.3966  
Fax +65.6778.2494

#### South Korea

Sartorius Korea Biotech Co., Ltd.  
8th Floor, Solid Space B/D,  
PanGyoYeok-Ro 220, Bundang-Gu  
SeongNam-Si, GyeongGi-Do, 463-400

Phone +82.31.622.5700  
Fax +82.31.622.5799



◀ [www.sartorius-stedim.com](http://www.sartorius-stedim.com)