



sartorius

Vivaflow[®] 50 | 50R | 200

Unique, "Plug & Play" Laboratory
Crossflow Devices

Benefits

- Easy to Operate Using a Standard Pump
- Unique Volume Range from 0.1 l to 5 l
- Fast Concentration
- High Recoveries



Product Information

Vivaflow[®] crossflow devices have been designed for use in research and are ideal for concentration and diafiltration of aqueous samples with volumes ranging from 100 ml to 5 l. They achieve concentrations of 10-fold to 50 fold, depending on the initial sample volume.

Plug and Play Convenience

The clear Vivaflow[®] housing allows visual monitoring of the sample at all times. The devices are easy to set up and need only a standard peristaltic pump to operate.

Our Vivaflow[®] range offers the right crossflow device for every concentration need:

Vivaflow[®] 50 is a disposable, modular crossflow device, which can be easily scaled up to 6 units that run both in parallel and in series. Designed as unique interlocking modules, the units are conveniently connected in the required number on an aluminum stand according to the scaleup level required. Vivaflow[®] 50 saves regeneration time and is the economical choice for concentration and buffer exchange of 0.1 ml to 3 l samples containing proteins, viruses and nanoparticles.

Vivaflow[®] 50R is a reusable crossflow device featuring a unique, low-binding regenerated cellulose membrane, Hydrosart[®]. Therefore, it is the ideal choice for concentrating expensive samples like viruses and antibodies. Vivaflow[®] 50R can be scaled up with one additional unit to increase the flow speed for concentrating initial sample volumes of up to 1 l.

Vivaflow[®] 200, like Vivaflow[®] 50R, is a reusable crossflow device, but is available in a choice of membranes: Hydrosart[®] and PES. This device is perfect for concentrating expensive samples like viruses and antibodies. Vivaflow[®] 200 can be scaled up with one additional unit to increase the flow speed for concentrating initial sample volumes of up to 5 l.

Applications

Vivaflow[®] devices lend themselves to a multitude of different concentration applications whenever larger volumes of sample need to be concentrated in a lab environment.

Typical applications and areas of use include the following:

- Antibody | recombinant protein concentration | diafiltration in biopharma research
- Concentration of small production lots of proteins for diagnostic purposes
- Concentration of viruses from cell culture supernatants or of environmental samples
- Nanoparticle concentration

Vivaflow[®] Working Principle

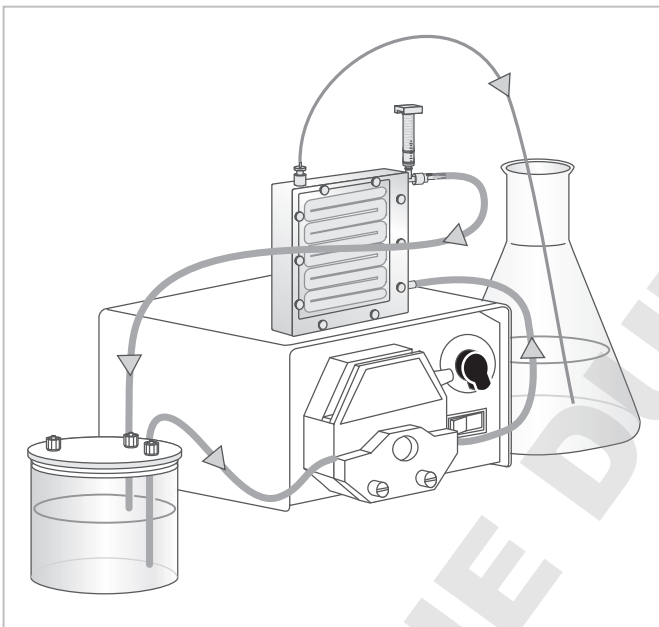


Diagram 1: Operating Vivaflow[®] cassettes

Guide to Selecting the Right Vivaflow[®] Device

| Sample Volume [l] | Vivaflow [®] 50 No. of Units | Vivaflow [®] 50R No. of Units | Vivaflow [®] 200 No. of Units |
|-------------------|--|---|---|
| 0.1–0.25 | 1 | 1 | NR |
| 0.25–0.5 | 1–2 | 1–2 | NR |
| 0.5–1 | 2 | 2 | 1 |
| 1–2 | 3–4 | NR | 1 |
| 2–3 | 4–6 | NR | 2 |
| 3–4 | NR | NR | 2 |
| 4–5 | NR | NR | 2 |

NR: Not Recommended

Table 1: Overview of the optimal operating volumes for the various Vivaflow[®] systems

Summary

Sartorius offers a complete range of Vivaflow[®] crossflow devices for scientists and lab technicians who need to reliably concentrate or rebuffer and | or diafilter aqueous samples with initial volumes of up to 5 l. Unlike other crossflow cassettes on the market, Vivaflow[®] is a dedicated laboratory product that meets the demand for ease of use without requiring any additional non-standard instrumentation. Just a standard laboratory peristaltic pump is all that is needed to operate Vivaflow[®] units.

Vivaflow[®] cassettes are crossflow devices that contain an ultrafiltration membrane and are operated by using a standard peristaltic pump to recirculate a sample through them. The thin-channel, flip-flow recirculation path geometry of all Vivaflow[®] modules provides high crossflow velocities with minimum pump speed requirements of 200 – 400 ml/min. A special flow restrictor at the outlet tubing readily generates back pressure in each cassette, resulting in the concentration of the sample and separation of sample constituents as the sample flows across the membrane. While the sample is recirculated by the pump, the filtrate is collected in a separate vessel. Concentration can be stopped anytime the desired volume is achieved.

A single 50 cm² module typically reduces 500 ml to 15 ml in less than 50 min. Virtually total recovery of the concentrate is achieved with a single rinse.

Operating Conditions for Vivaflow[®] 50, 50R and Vivaflow[®] 200

| | |
|-------------------------------------|-----------------|
| Pump flow | 200–400 ml/min |
| Maximum pressure | 4 bar (60 psi) |
| Pressure drop across inlet outlet | 0.5 bar (7 psi) |
| Maximum temperature | 60°C |

Diafiltration with Vivaflow® Devices

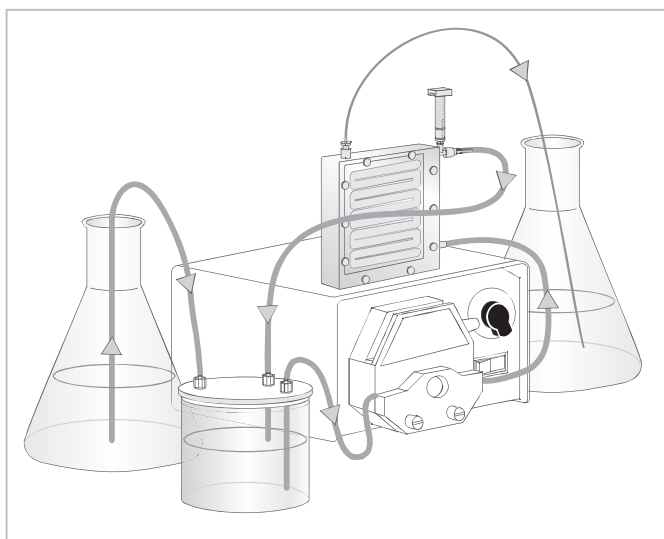


Diagram 2: Diafiltration with Vivaflow®

Convenient Diafiltration with Vivaflow®

Vivaflow® crossflow devices are ideal not only for sample concentration. They are just as easy to use for buffer exchange and/or diafiltration.

The diafiltration reservoir (order number VFA006) makes both the concentration step and the subsequent diafiltration step exceptionally convenient. The sample is concentrated using the diafiltration reservoir to hold a sample. When the requested concentration has been achieved, a tube leading into an additional buffer vessel will transfer new buffer into the system as the filtration run continues. The sample concentration and volume remain constant because buffer is gradually exchanged with the volume in the new vessel.

Technical Data

| | Vivaflow® 50 | Vivaflow® 50R | Vivaflow® 200 |
|----------------------------------|----------------------------|----------------------------|----------------------------|
| Materials of construction | | | |
| Main housing | Polycarbonate | Acrylic | Acrylic |
| Flow channel | TPX (PMP) | Acrylic | Acrylic |
| Membrane support | TPX (PMP) | Polypropylene | Polypropylene |
| Membrane seals and O rings | Silicone | Silicone | Silicone |
| Pressure indicator | Polypropylene, SS** spring | Polypropylene, SS** spring | Polypropylene, SS** spring |
| Flow restrictor | Polypropylene | Polypropylene | Polypropylene |
| Fittings | Nylon | Nylon | Nylon |
| Tubing | PVC (medical grade) | PVC (medical grade) | PVC (medical grade) |
| Dimensions | | | |
| Overall L H W | 107 84 25 mm | 100 100 24 mm | 126 138 38 mm |
| Channel W H | 15 mm 0.3 mm | 7.5 0.4 mm | 10 mm 0.4 mm |
| Active membrane area | 50 cm ² | 50 cm ² | 200 cm ² |
| Unrecoverable concentrate | 1.5 ml | 1.7 ml | 5.3 ml |
| Hold-up volume (module) | | | |
| Min. recirculation volume | < 10 ml | 10 ml | < 20 ml |
| Non-recoverable hold-up | < 0.5 ml | < 0.5 ml | < 1 ml |
| Operating Conditions | | | |
| Pump flow rate | 200–400 ml/min | 200–400 ml/min | 200–400 ml/min |
| Maximum pressure | 3 bar (45 psi) | 3 bar (45 psi)* | 3 bar (45 psi)* |
| Maximum temperature | 60°C | 60°C | 60°C |
| Non-recoverable hold-up | < 0.5 ml | < 0.5 ml | < 1 ml |

* Pressure drop across inlet | outlet 0.5 bar (7 psi)

** SS= Stainless steel

Operating Several Vivaflow® Devices for Higher Concentration Speed and Throughput

Vivaflow® 50

Vivaflow® 50 cassettes are modular devices that can easily be scaled up to six devices in order to increase the maximum throughput within challenging timelines. Accelerated speed and throughput in all Vivaflow® devices completely depend on, and are proportional, to their membrane area, as demonstrated in Diagram 3.

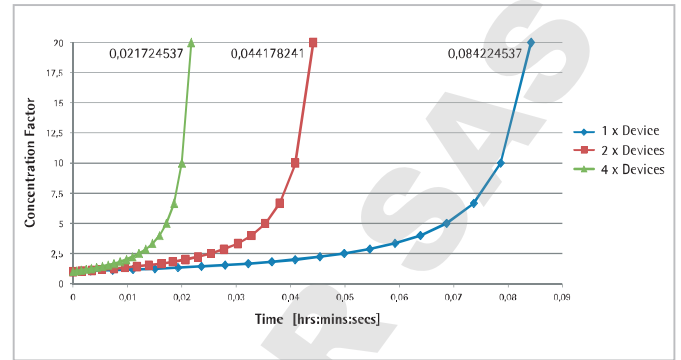


Diagram 3: Accurate scaleup of Vivaflow® 50, as shown here for one to four units

Setting Up Multiple Vivaflow® Cassettes

Vivaflow® 50

The membrane area is easy to expand by attaching several Vivaflow® 50 units featuring a unique interlocking mechanism. Up to three devices can be stacked, thus increasing the throughput in series. When more than three devices are connected, two separate stacks must be used. As a result, these devices operate both in parallel and in series.

However, this does not have any effect on the performance of the Vivaflow® 50 devices, as this configuration ensure that flow remains completely proportional to the membrane surface area. Diagram 4 and Table 2 provide an overview on how to scale up Vivaflow® 50 along with the accessories required.

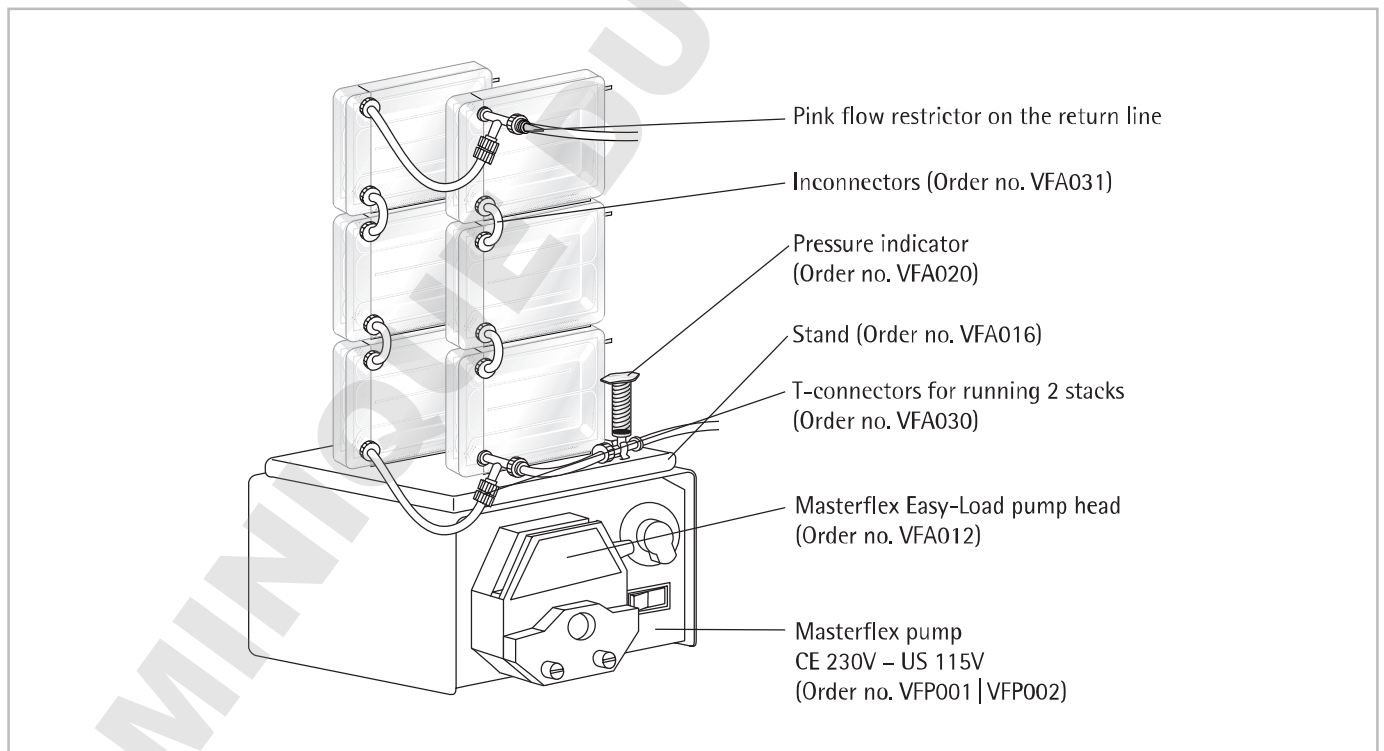


Diagram 4: System components for setting up multiple Vivaflow® 50 cassettes

Choosing the components for operating 1 to 6 Vivaflow[®] 50 units

| | Order No. | 1 VF 50 | 2 VF 50 | 3 VF50 | 4 VF50 | 5 VF50 | 6 VF50 |
|--|----------------|----------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|--|
| Masterflex pump | FP001 VFP002 | 1 | 1 | 1 | 1 | 1 | 1 |
| Masterflex Easy-Load pump head size 16 | VFA012 | 1 | 1 | 1 | 1 | 1 | 1 |
| Pressure indicator | VFA020 | optional | 1 | 1 | 1 | 1 | 1 |
| Interconnectors | VFA031 | – | (1)* Available in the package | (2)* Available in the package | (2)* Available in the package | (3)* Available in the package | 4 (3) Available in the package – Additional VFA031 needed |
| T-connector | VFA030 | – | – | – | 1 pkg.** | 1 pkg.** | 1 pkg.** |
| Vivaflow [®] 50 stand | VFA016 | optional | 1 | 1 | 1 | 1 | 1 |
| Diafiltration reservoir | VFA006 | optional | optional | optional | optional | optional | optional |
| Operating mode | | Single | Serial | Serial | Serial and parallel | Serial and parallel | Serial and parallel |

* No additional purchase is necessary. One series interconnector is included in a package of two Vivaflow[®] 50 devices.

** One package of T-connectors contains two T-connectors.

Table 2: System components for setting up multiple Vivaflow[®] 50 cassettes

Choosing the components for operating 2 Vivaflow[®] 50R or 2 Vivaflow[®] 200 units

| | Order No. | 1 VF 50R | 2 VF 50R | 1 VF200 | 2 VF200 |
|--|-----------------|----------------------|----------------------|----------------------|----------------------|
| Masterflex pump | VFP001 VFP002 | 1 | 1 | 1 | 1 |
| Masterflex Easy-Load pump head size 16 | VFA012 | 1 | 1 | 1 | – |
| Masterflex Easy-Load pump head size 15 | VFA013 | – | – | – | 1 |
| Pressure indicator | VFA020 | Available in package | Available in package | Available in package | Available in package |
| Y-connector | VFA005 | – | – | – | 1 |
| T-connector | VFA030 | – | 1 | – | – |
| Diafiltration reservoir | VFA006 | optional | optional | optional | – |
| Operation mode | | Single | Series | Series | Series |

Table 3: System components for setting up 2 Vivaflow[®] 50R and 2 Vivaflow[®] 200 cassettes

Vivaflow[®] 50R and Vivaflow[®] 200

The throughput for Vivaflow[®] 50R and Vivaflow[®] 200 can be increased and the filtration time reduced by adding another unit to the setup. Table 3 shows the additional components required for scaling up either system.

Diagram 5 and diagram 6 sketch the setting of two Vivaflow[®] 50R and two Vivaflow[®] 200, showing all necessary accessories and connectors.

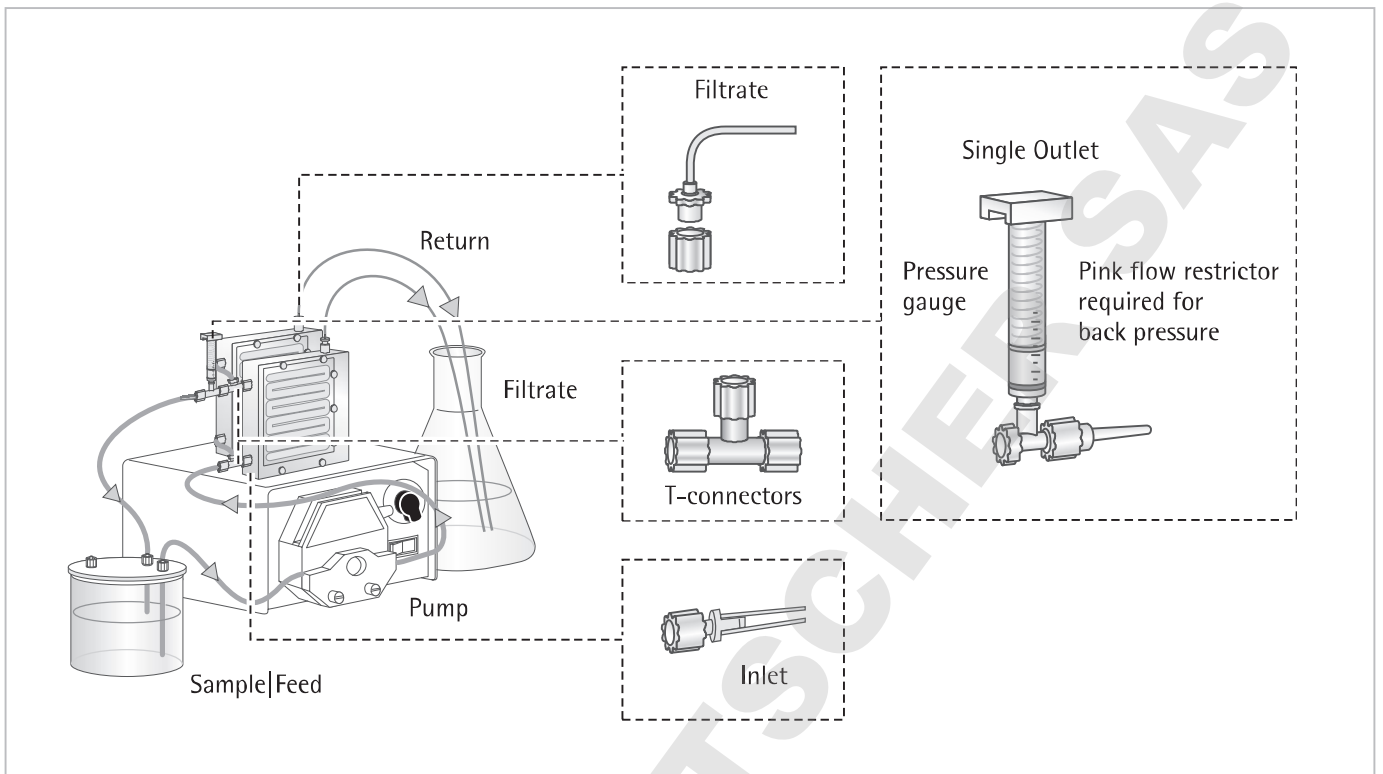


Diagram 5: Setting up two Vivaflow[®] 50R devices

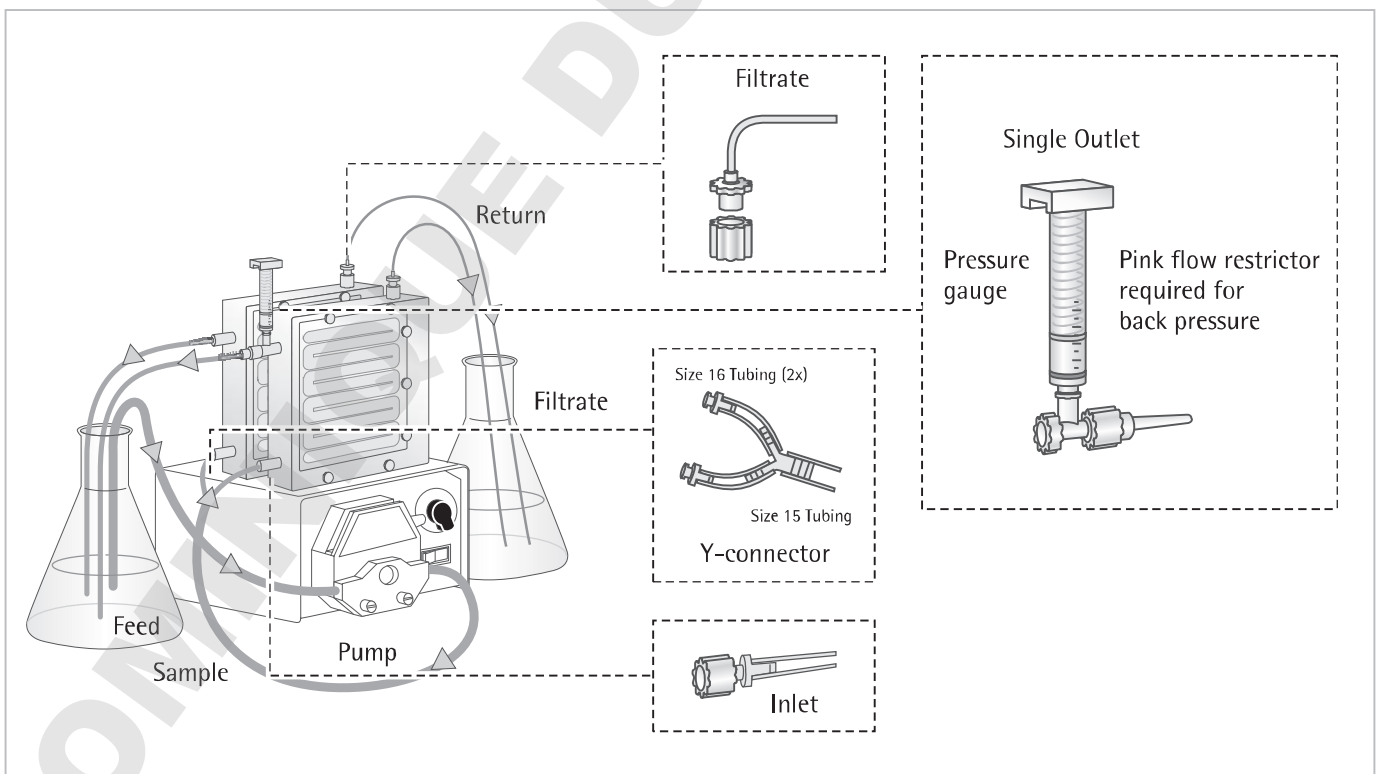


Diagram 6: Setting up two Vivaflow[®] 200 devices

Performance Characteristics for Vivaflow® 50

| | Time needed to achieve a 20-fold concentration (in minutes) at 3 bar (45 psi) inlet pressure, 20°C | | | |
|--|--|--------------------------|----------------------|-------------|
| | Single Device | Three Devices | Solute Recovery in % | |
| | 250 ml Initial Vol. in Min. | 1 l Initial Vol. in Min. | Direct | 10 ml Rinse |
| BSA 1.0 mg/ml (66,000 MW) | | | | |
| 5,000 MWCO PES | 34 | 49 | 96% | > 99% |
| 10,000 MWCO PES | 22 | 32 | 94% | > 99% |
| 30,000 MWCO PES | 22 | 32 | 92% | 99% |
| 50,000 MWCO PES | 20 | 29 | 92% | 98% |
| γ Globulins 1.0 mg/ml | | | | |
| 100,000 MWCO PES | 43 | 62 | 92% | 98% |
| 100,000 MWCO RC | 40 | 58 | 92% | 98% |
| Yeast, 1.0 mg/ml (<i>S. cerevisiae</i>) | | | | |
| 0.2 μm PES | 33 | 47 | 92% | 98% |

Performance Characteristics for Vivaflow® 50R

| | Time to concentrate up to 20x (min) at 3.0 bar inlet 2.5 bar outlet pressure, 20°C | | | |
|---|--|--------------|---------------|-------------|
| | Initial Volume | Average Flux | Recovery in % | |
| | 250 ml | ml/min | Direct | 25 ml Rinse |
| Lysozyme, 0.25 mg/ml (14,000 MW) | | | | |
| 5,000 MWCO Hydrosart® | 70 | 3.4 | 96% | 98% |
| 10,000 MWCO Hydrosart® | 23 | 10.3 | 94% | 96% |
| BSA 1.0 mg/ml (66,000 MW) | | | | |
| 10,000 MWCO Hydrosart® | 24 | 9.9 | 98% | > 99% |
| 30,000 MWCO Hydrosart® | 15 | 15.8 | 97% | > 99% |
| γ Globulins 1.0 mg/ml (150,000 MW) | | | | |
| 100,000 MWCO Hydrosart® | 46 | 5.2 | 97% | > 99% |
| Initial volume 1 liter (one Vivaflow® 50R at 3 bar) 10,000 MWCO Hydrosart® | | | | |
| BSA 1.0 mg/ml | 95 | 10.0 | 98% | > 99% |
| Initial volume 1 liter (two Vivaflow® 50R in parallel at 3 bar) 10,000 MWCO Hydrosart® | | | | |
| BSA 1.0 mg/ml | 48 | 19.8 | 98% | > 99% |

Performance Characteristics for Vivaflow® 200

| | Time to achieve a 20-fold concentration (in minutes) at 3 bar (45 psi) inlet pressure, 20°C | | | |
|---|---|------------------------|-------------------------|-------------|
| | Initial Volume 1 liter | Average Flux ml/min | Recovery in % Direct | 25 ml Rinse |
| Lysozyme, 0.25 mg/ml (14,000 MW) | | | | |
| 2,000 MWCO Hydrosart® | 160 | 6 | 97% | > 99% |
| 3,000 MWCO PES | 180 | 5 | 97% | > 99% |
| BSA 1.0 mg/ml (66,000 MW) | | | | |
| 5,000 MWCO PES | 29 | 33 | 98% | > 99% |
| 5,000 MWCO Hydrosart® | 70 | 14 | 98% | > 99% |
| 10,000 MWCO PES | 23 | 41 | 96% | > 99% |
| 10,000 MWCO Hydrosart® | 35 | 27 | 98% | > 99% |
| 30,000 MWCO PES | 25 | 38 | 96% | 99% |
| 30,000 MWCO Hydrosart® | 20 | 48 | 96% | > 99% |
| 50,000 MWCO PES | 22 | 43 | 96% | 98% |
| γ Globulins 1.0 mg/ml (average 160,000 MW) | | | | |
| 100,000 MWCO PES | 54 | 18 | 96% | 99% |
| 100,000 MWCO Hydrosart ^c | 45 | 21 | 96% | 99% |
| Yeast, 1.0 mg/ml (<i>S. cerevisiae</i>) | | | | |
| 0.2 μm PES | 11 | 86 | 92% | 98% |
| Dilute solute concentration, initial volume 1 liter at 3 bar, 10,000 MWCO PES | | | | |
| BSA 0.001 mg/ml | 18 | 52 | 90% | 98% |
| BSA 0.01 mg/ml | 20 | 47 | 92% | 98% |
| BSA 0.1 mg/ml | 21 | 45 | 94% | 99% |
| Start volume 5 liters (two Vivaflow® 200 in parallel at 3 bar) 10,000 MWCO PES | | | | |
| BSA 1.0 mg/ml (66,000 MW) | 67 | 70 | 97% | > 99% |

Ordering Information

| | Quantity | Order No. |
|--|----------|-----------|
| Vivaflow® 50 include filtrate tube, size 16 peristaltic tubing, flow restrictor and fittings and 1 × series interconnector | | |
| 3,000 MWCO (PES) | 2 | VF05P9 |
| 5,000 MWCO (PES) | 2 | VF05P1 |
| 10,000 MWCO (PES) | 2 | VF05P0 |
| 30,000 MWCO (PES) | 2 | VF05P2 |
| 50,000 MWCO (PES) | 2 | VF05P3 |
| 100,000 MWCO (PES) | 2 | VF05P4 |
| 0.2 µm (PES) | 2 | VF05P7 |
| 100,000 MWCO (RC) | 2 | VF05C4 |
| Vivaflow® 50 complete system comprises | | |
| Pump (240 V), Easy-Load pump head (size 16), tubing, 500 ml sample diafiltration reservoir, module stand, pressure indicator, T connectors, series interconnectors | 1 | VFS502 |
| Pump (115 V), Easy-Load pump head (size 16), tubing, 500 ml sample diafiltration reservoir, module stand, pressure indicator, T-connectors, series interconnectors | 1 | VFS504 |
| Vivaflow® 50R modules include pressure indicator, flow restrictor and size 16 PVC peristaltic tubing and fittings | | |
| 5,000 MWCO Hydrosart® | 1 | VF05H1 |
| 10,000 MWCO Hydrosart® | 1 | VF05H0 |
| 30,000 MWCO Hydrosart® | 1 | VF05H2 |
| 100,000 MWCO Hydrosart® | 1 | VF05H4 |
| Vivaflow® 200 modules include pressure indicator, flow restrictor and size 16 PVC peristaltic tubing and fittings | | |
| 3,000 MWCO PES | 1 | VF20P9 |
| 5,000 MWCO PES | 1 | VF20P1 |
| 10,000 MWCO PES | 1 | VF20P0 |
| 30,000 MWCO PES | 1 | VF20P2 |
| 50,000 MWCO PES | 1 | VF20P3 |
| 100,000 MWCO PES | 1 | VF20P4 |
| 0.2 µm PES | 1 | VF20P7 |
| 2,000 MWCO Hydrosart® | 1 | VF20H9 |
| 5,000 MWCO Hydrosart® | 1 | VF20H1 |
| 10,000 MWCO Hydrosart® | 1 | VF20H0 |
| 30,000 MWCO Hydrosart® | 1 | VF20H2 |
| 100,000 MWCO Hydrosart® | 1 | VF20C4 |

| | Quantity | Order No. |
|--|----------|-----------|
| Vivaflow[®] 50R 200 complete system comprises | | |
| Pump (240 V), Easy-Load pump head (size 16), tubing, 500 ml sample diafiltration reservoir | 1 | VFS202 |
| Pump (115 V), Easy-Load pump head (size 16), tubing, 500 ml sample diafiltration reservoir | 1 | VFS204 |
| Vivaflow[®] accessories | | |
| Masterflex Economy Drive variable speed peristaltic pump (230 V) | | VFP001 |
| Masterflex Economy Drive variable speed peristaltic pump (115 V) | | VFP002 |
| 500 ml sample and/or diafiltration reservoir | | VFA006 |
| Masterflex Easy-Load pump head – size 15 | | VFA013 |
| Masterflex Easy-Load pump head – size 16 | | VFA012 |
| Vivaflow [®] 50 stand | | VFA016 |
| Pressure indicator (1–3 bar) | | VFA020 |
| Vivaflow[®] 50 accessories for operating > 2 devices | | |
| T-connectors for running 2 stacks | 2 | VFA030 |
| Series interconnectors | 6 | VFA031 |
| Pressure indicator (1–3 bar) | 1 | VFA020 |
| Vivaflow[®] 50R accessories for operation of two modules | | |
| T-connector | 2 | VFA030 |
| Vivaflow[®] 200 accessories for operating two modules | | |
| Y-connector (size 15 to 2 × size 16, Luer fittings) | 1 | VFA005 |
| Masterflex Easy-Load pump head – size 15 | 1 | VFA013 |

For a complete set of accessories, please see our website or our Lab Filtration catalogue.

DOMINIQUE DUTSCHER SAS

Sales and Service Contacts

For further contacts, visit www.sartorius.com

Europe

Germany

Sartorius Lab Instruments
GmbH & Co. KG
Weender Landstrasse 94-108
37075 Goettingen

Phone +49.551.308.0
Fax +49.551.308.3289

France Et Suisse Romande

Sartorius France
2, rue Antoine Laurent de Lavoisier
ZA de la Gaudriée
91410 Dourdan

Phone +33.1.70.62.50.00
Fax +33.1.64.59.76.39

Austria

Sartorius Austria GmbH
Modecenterstrasse 22
1030 Vienna

Phone +43.1.7965760.0
Fax +43.1.7965760.24

Belgium

Sartorius Belgium N.V.
Rue Colonel Bourg 105
1030 Bruxelles

Phone +32.2.756.06.90
Fax +32.2.481.84.11

Finland & Baltics

Sartorius Biohit Liquid Handling Oy
Laippatie 1
00880 Helsinki

Phone +358.9.755.951
Fax +358.9.755.95.200

Hungary

Sartorius Hungária Kft.
Kagyló u. 5.
2092 Budakeszi

Phone +3623.457.227
Fax +3623.457.147

Ireland

Sartorius Ireland Ltd.
Unit 41, The Business Centre
Stadium Business Park
Ballycoolin Road
Dublin 11

Phone +353.1.8089050
Fax +353.1.8089388

Italy

Sartorius Italy S.r.l.
Viale A. Casati, 4
20835 Muggiò (MB)

Phone +39.039.4659.1
Fax +39.039.4659.88

Netherlands

Sartorius Netherlands B.V.

Phone +31.30.60.53.001
Fax +31.30.60.52.917

info.netherlands@sartorius.com

Poland

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

Phone +48.61.6473830
Fax +48.61.6473839

Russian Federation

LLC "Sartorius RUS"
Uralskaya str. 4, Lit. B
199155 St. Petersburg

Phone +7.812.327.53.27
Fax +7.812.327.53.23

Spain Et Portugal

Sartorius Spain, S.A.
Avda. de la Industria, 32
Edificio PAYMA
28108 Alcobendas (Madrid)

Phone Spain +34.902.123.367
Phone Portugal +351.800.855.800
Fax Spain +34.91.358.96.23
Fax Portugal +351.800.855.799

Switzerland

Sartorius Mechatronics Switzerland AG
Ringstrasse 24a
8317 Tagelswangen (ZH)

Phone +41.44.746.50.00
Fax +41.44.746.50.50

U.K.

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

Phone +44.1372.737159
Fax +44.1372.726171

Ukraine

LLC "Biohit"
Post Box 440 "B"
01001 Kiev, Ukraine

Phone +380.44.411.4918
Fax +380.50.623.3162

Americas

USA

Sartorius Corporation
5 Orville Drive, Suite 200
Bohemia, NY 11716

Phone +1.631.254.4249
Toll-free +1.800.635.2906
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
Avenida Senador Vergueiro 2962
São Bernardo do Campo
CEP 09600-000 - SP- Brasil

Phone +55.11.4362.8900
Fax +55.11.4362.8901

Canada

Sartorius Canada Inc.
2179 Dunwin Drive #4
Mississauga, ON L5L 1X2

Phone +1.905.569.7977
Toll-Free +1.800.668.4234
Fax +1.905.569.7021

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

Peru

Sartorius Peru S.A.C.
Av. Emilio Cavenecia 264 San Isidro
15073 Lima, Perú

Phone +51.1.441 0158
Fax +51.1.422 6100

Asia | Pacific

Australia

Sartorius 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 (Shanghai) Trading Co., Ltd.
3rd Floor, North Wing, Tower 1
No. 4560 Jinke Road
Zhangjiang Hi-Tech Park
Pudong District
Shanghai 201210, P.R. China

Phone +86.21.6878.2300
Fax +86.21.6878.2882

Hong Kong

Sartorius Hong Kong Ltd.
Unit 1012, Lu Plaza
2 Wing Yip Street
Kwun Tong
Kowloon, Hong Kong

Phone +852.2774.2678
Fax +852.2766.3526

India

Sartorius Weighing India Pvt. Ltd.
#69/2-69/3, NH 48, Jakkasandra,
Nelamangala Tq
562 123 Bangalore, India

Phone +91.80.4350.5250
Fax +91.80.4350.5253

Japan

Sartorius Japan K.K.
4th Fl., Daiwa Shinagawa North Bldg.
8-11, Kita-Shinagawa 1-chome
Shinagawa-ku, Tokyo, 140-0001 Japan

Phone +81.3.3740.5408
Fax +81.3.3740.5406

Malaysia

Sartorius Malaysia Sdn. Bhd
Lot L3-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 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 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

Thailand

Sartorius (Thailand) Co. Ltd.
129 Rama 9 Road,
Huaykwang
Bangkok 10310

Phone +66.2643.8361-6
Fax +66.2643.8367



◀ www.sartorius.com