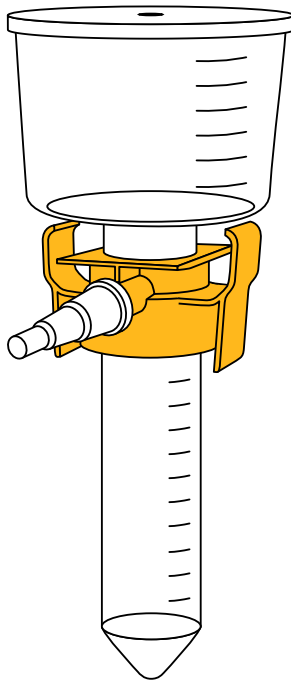


User Manual**Sartolab[®] RF 50**

Vacuum Filtration Unit | For Research Purposes Only





A PDF version of the User Manual is available on our website in English, German, French, Spanish, Italian, and Chinese:

www.sartorius.com/SartolabRFBTmanuals

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1 About this Manual

1.1 Scope

This manual is part of the product. This manual applies to the following versions of the product:

Product	Type
Sartolab® RF 50, 0.22 µm, PES, 24 units	180E01-----2
Sartolab® RF 50, 0.45 µm, PES, 24 units	180F01-----2

1.2 Symbols Used

1.2.1 Warnings in Operation Descriptions

NOTICE

Denotes a danger that can result in property damage if it is **not** avoided.

1.2.2 Other Symbols

- ▶ Required action: Describes actions that must be carried out.
- ▷ Result: Describes the result of the actions carried out.

2 Safety Instructions

2.2.1 General Function

The Sartolab® RF 50 vacuum filtration unit is designed for the vacuum filtration of cell culture media, biological fluids, and other aqueous solutions (see Chapter "8.5 Chemical Resistance", page 14 to check fluid suitability).

The product is suitable for the following filtration applications:

- Sartolab® RF 50, 0.22 µm, PES: For sterile filtration
- Sartolab® RF 50, 0.45 µm, PES: For clarifying filtration

The product is sterile and designed for single-use only. The product is designed for research purposes only.

The product must be connected to a vacuum source. The product can be connected to the vacuum source via a vacuum tube. The vacuum source must be compatible with the product (see Chapter "8.3 Filtration", page 13).

The product can be used in the Sartolab® MultiStation filtration unit. This enables simultaneous vacuum filtration of multiple samples.

The product must be in an upright position during vacuum filtration and be placed in a rack or the holder of the Sartolab® MultiStation.

The product is intended exclusively for use in accordance with these instructions. Any further use beyond this is considered **improper**.

If the product is **not** used properly: The product may be damaged. This can lead to unforeseeable personal injury or property damage.

Operating Conditions for the Product

The product may only be used for research purposes.

The product may only be used with the equipment and under the operating conditions described in the Technical Data section of this manual.

3 Product Description







3.1 Product Overview



Fig. 1: Sartolab® RF 50 (example)

Pos.	Name	Description
1	Funnel with lid	<ul style="list-style-type: none"> – Is intended to introduce the sample to be filtered; contains the membrane filter. – Removable.
2	Adapter	Connects the funnel to the collection tube vacuum-tight.
3	Collection tube	Collects the filtrate.
4	Tube connector	Used to connect a vacuum tube (if the product is used without the Sartolab® MultiStation filtration unit).
5	Screw cap	Seals the collection tube. This enables the filtrate to be stored in the collection tube.
6	Vacuum connection	Used for connecting the product to a vacuum source.

3.2 Product Symbols

Symbol	Description
Qty:	Quantity
	Order number
	Batch number
	Use by
	Sterilized through irradiation
	Single use
	Consult user manual

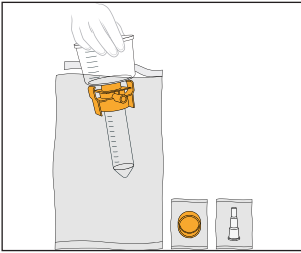
4 Scope of Delivery

Item	Quantity
Sartolab® RF 50, in individual sterile packaging	24
Tube connector, in individual sterile packaging	24
Screw cap, in individual sterile packaging	24
Quality certificate	1
User Manual	1

5 Usage

5.1 Unpacking

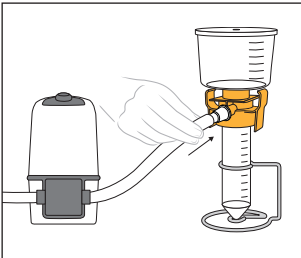
Procedure



- ▶ Carefully tear open the large pouch and remove the product.
- ▶ Leave the other components in their packaging until they are needed.

5.2 Preparing Filtration

Procedure



- ▶ Proceed as follows if the product is being used without the Sartolab® MultiStation filtration unit:
 - ▶ Place the product in a rack or holder for 50 ml centrifuge tubes.
 - ▶ Put the tube connector on the vacuum connection.
 - ▶ Connect the vacuum tube of the vacuum source to the tube connector.
- ▶ Proceed as follows if the product is being used with the Sartolab® MultiStation filtration unit: Place the product in the filtration unit (see operating instructions for Sartolab® MultiStation). Do **not** use the tube connector.

- ▶ Ensure that the funnel and collection tube are connected correctly to the adapter and that the connection is securely tightened.
- ▶ If required: Tighten the adapter by hand.

5.3 Performing Filtration

NOTICE

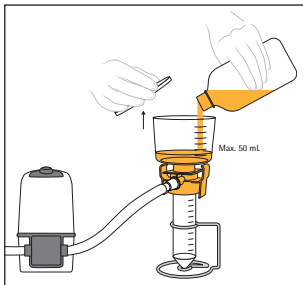
Fluids in the vacuum tube will cause damage!

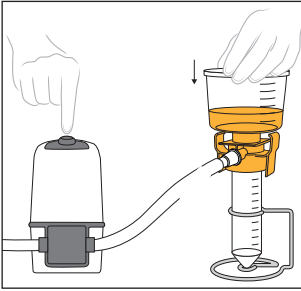
If there is too much fluid in the funnel, the fluid will leak into the vacuum tube. This can damage the vacuum source.

- ▶ When pouring in the sample to be filtered, ensure the maximum filling volume is not exceeded (see Chapter "8.3 Filtration", page 13).

Procedure

- ▶ Remove the dust cover and pour the sample to be filtered into the funnel.
- ▶ If diatomaceous earth is used as a filter aid for clarifying filtration: Follow the information in the associated manual.

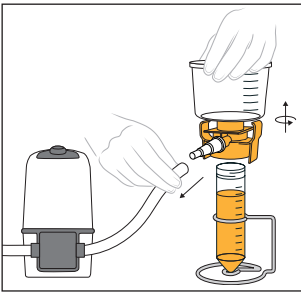




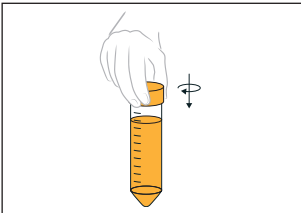
- ▶ Place the dust cover on the funnel.
- ▶ To start filtration: Apply a vacuum to the product (see instructions for the vacuum source or Sartolab® MultiStation filtration unit).

5.4 Ending Filtration

Procedure



- ▶ Disconnect the vacuum tube from the product.
- ▶ Unscrew the funnel with the adapter from the collection tube.
- ▶ Dispose of the funnel in accordance with local waste disposal regulations.



- ▶ If the filtrate is to be stored in the collection tube: Open the pouch containing the sterile screw cap and screw the cap onto the collection tube.

6 Storage and Shipping

6.1 Storage

Procedure

- ▶ Store the product in accordance with the storage conditions (see Chapter "8.4 Storage and Sterilization", page 13).

6.2 Returning the Product and Parts

Defective products or parts can be sent back to Sartorius. Returned products must be clean, decontaminated, and properly packed.

Products contaminated with hazardous materials, e.g., biological or chemical substances that pose a hazard to health, will **not** be accepted. The products must be decontaminated before being shipped.

Procedure

- ▶ Contact Sartorius Service for instructions on how to return products or parts (please refer to www.sartorius.com).

7 Disposal

7.1 Disposing

If the product has come into contact with hazardous substances: Steps must be taken to ensure proper decontamination and declaration. The operator of the product is responsible for adhering to local government regulations on the proper decontamination and declaration for transport and disposal.

Requirements

The product must be decontaminated.

Procedure

► Dispose of the product in accordance with local waste disposal regulations.

8 Technical Data

8.1 Size

	Unit	Value
Membrane filter		
Diameter	mm	58.5
Effective filtration surface	cm ²	21
Collection tube		
Volume	ml	50
Outer diameter	mm	29.5
Inner diameter	mm	27.48
Height	mm	115.5

8.2 Materials

	Unit	Value
Funnel and dust cover		Styrene acrylonitrile (SAN)
Membrane filter		Polyethersulfone
Collection tube		Polypropylene
Adapter, tube connector, screw cap		Polyethylene

8.3 Filtration

	Unit	Value
Operating pressure for vacuum source	mbar	-350 – -750
Dead volume	ml	1.2
Filtration capacity, maximum filling volume	ml	50

8.4 Storage and Sterilization

	Unit	Value
Storage temperature		
Product, before filtration, packaged		Room temperature
Collection tube, after filtration	°C	-80 – +100
Sterilization		
Sterilized by electron beam sterilization (beta irradiation) before delivery		
Product is not autoclavable		

8.5 Chemical Resistance

Suitable fluids

Aqueous solutions, e.g., cell culture media or biological fluids

Fluids and temperatures may impair the properties of the product, e.g., mechanical strength, color, appearance, and dimensional stability

It is not advisable to use the following fluids: Acids, aldehydes, aliphatic amines, aromatic amines, alkalis, esters, hydrocarbons, and ketones

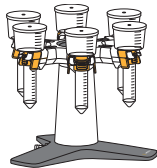
Alcohols may be suitable for some applications; we recommend testing the product with the solution before use.

9 Accessories and Consumables

9.1 Sartoclear Dynamics® Lab V50 Kits

Item number	Description	Quantity
SDLV-0050-01E0-2	Sartolab® RF 50, 0.22 µm, PES Contains 1 pouch of 1 g diatomaceous earth as filter aid per filtration unit (24 pouches)	24 units
SDLV-0050-02E0-2	Sartolab® RF 50, 0.22 µm, PES Contains 2 pouch of 1 g diatomaceous earth as filter aid per filtration unit (48 pouches)	24 units
SDLV-0050-01F0-2	Sartolab® RF 50, 0.45 µm, PES Contains 1 pouch of 1 g diatomaceous earth as filter aid per filtration unit (24 pouches)	24 units
SDLV-0050-02F0-2	Sartolab® RF 50, 0.45 µm, PES Contains 2 pouch of 1 g diatomaceous earth as filter aid per filtration unit (48 pouches)	24 units

9.2 Accessories for Simultaneous Filtration

	Item number	Description	Quantity
	SDLC01	Sartolab® MultiStation, filtration unit for simultaneous filtration of up to six samples	1 unit

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The information and figures contained in these instructions correspond to the version date specified below.

Sartorius reserves the right to make changes to the technology, features, specifications and design of the equipment without notice. Masculine or feminine forms are used to facilitate legibility in these instructions and always simultaneously denote the other gender as well.

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