

■ Sartolab® P20 and Sartolab® P20 Plus

Sterile Filtration of Sample Volumes of Up to 5 Liters



Using Sartolab® P20 or Sartolab® P20 Plus in Available Systems

Systems with Luer Lock Connectors

Sartolab® units with a luer lock inlet fit directly onto the corresponding connectors of tubing from peristaltic pumps. This configuration can also be used with luer lock syringes.



Systems with Tubing

If the liquid to be filtered will be pumped through open tubing from a pressure tank or a peristaltic pump, then a Sartolab® unit with a hose nipple inlet is required. The stepwise increase in diameter of the nipple, from 6 mm to 12 mm, makes it suitable for a wide range of tubing.

Application

The Sartolab® P20 is a ready-to-use pressure filtration unit for sterile filtration of media and aqueous solutions in batches ranging from 100 mL to 5 L. For media that contain sera and difficult-to-filter solutions, a Sartolab® P20 Plus unit with an incorporated prefilter is also available.

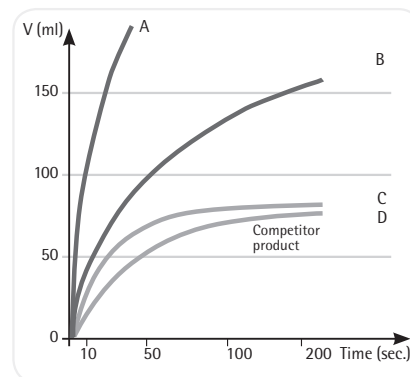
Security

The effectiveness of every batch of 0.2 µm cellulose acetate membranes for sterile filtration is confirmed by bacteria challenge tests (HIMA) using *Brevundimonas diminuta*. Only biosafe

material is used in the filtration units; they have been proven non-toxic by passing the USP plastics test for toxicity. Tests with MRC-5 human lung cells on cellulose acetate membranes and glass fiber prefilters showed no cytotoxic effects. Finished units are also tested for their sterile filtration capability and for housing and membrane integrity.

Fast Filtration

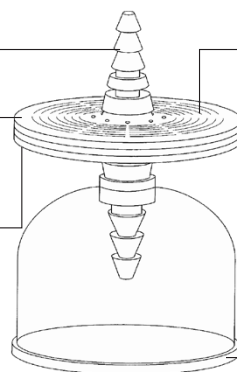
The combination of a large filtration area (20 cm²) and the optimal design of the filter support guarantees high flow rates with high total throughputs. Automatic venting of any trapped air through the PTFE membrane-protected vent ports ensures that the entire filter surface is used for effective filtration.



Choice of inlet connector, hose nipple or luer lock

With or without binder-free glass fiber prefilter

Polycarbonate housing and surfactant-free cellulose acetate membrane filter



20 cm² filter area, optimal flow path and automatic venting

Outlet side with protective filling bell

Specifications

Technical Specifications for Sartolab® P20 and Sartolab® P20 Plus Units with SFCA Membrane and PTFE Venting

Properties	Description	
	Sartolab® P20 18052 18053	Sartolab® P20 Plus 18056 18058
Filter material	SFCA, type 12587, 0.2 µm pore size and PTFE	SFCA, type 12587 0.2 µm pore size plus GF, 100% free of binding agents and PTFE
Housing material	Polycarbonate	Polycarbonate
Color code	Transparent	Transparent
Filter diameter	64 mm	64 mm
Connector inlet	Female luer lock or stepped hose nipple with 6 mm to 12 mm outer diameter	Female luer lock or stepped hose nipple with 6 mm to 12 mm outer diameter
Connector outlet	Hose nipple	Hose nipple
Filling bell	Yes	Yes
Filtration area	20 cm ²	20 cm ²
Hold-up volume before bubble point	1 mL	Approx 1.5 mL
Housing burst pressure	> 5 bar 72.5 psi	> 5 bar 72.5 psi
Bubble point	≥ 3.2 bar 46.4 psi	≥ 3.2 bar 46.4 psi
Max. recommended inlet pressure	3 bar 43.5 psi	3 bar 43.5 psi
Flow rate for water	≥ 250 mL/min at Δp = 1 bar 14.5 psi	≥ 250 mL/min at Δp = 1 bar 14.5 psi
Filtration range	100 mL to max. 5 L	100 mL to max. 10 L
pH-range	4–8	4–8
Non-specific protein adsorption	No loss of protein detectable (filtration of γ globulin, method acc. to Bradford)	< 80 µg/cm ² (filtration of γ globulin, method acc. to Bradford)
Sterilization	EO sterilization	EO sterilization
Biosafety	Class VI Plastics Test	Class VI Plastics Test
Operating instructions	Directions for use included in each box	Directions for use included in each box

Technical Specifications for Sartolab® P20 and Sartolab® P20 Plus Units with PES Membrane

	Sartolab® P20 18075	Sartolab® P20 Plus 18068	Sartolab® P 20 Plus 18076
Filter material	PES, type 15407 MI 0.2 µm pore size	PES, 0.45 µm pore size plus GF, 100% free of binding agents	PES, 0.45 µm pore size plus GF, 100% free of binding agents
Housing material	Polycarbonate	Polycarbonate	Polycarbonate
Color code	Transparent	Transparent	Transparent
Filter diameter	61 mm	61 mm	61 mm
Connector inlet	Female luer lock or stepped hose nipple	Female luer lock or stepped hose nipple	Stepped hose nipple
Connector outlet	with 6 mm to 12 mm outer diameter Hose nipple	with 6 mm to 12 mm outer diameter Hose nipple	with 6 mm to 12 mm outer diameter Hose nipple
Filling bell	No	Yes	No
Filtration area	20 cm ²	20 cm ²	20 cm ²
Hold-up volume before bubble point	1 mL	Approx 1.5 mL	1 mL
Housing burst pressure	> 5 bar 72.5 psi	> 5 bar 72.5 psi	> 5 bar 72.5 psi

Properties	Description		
	Sartolab® P20 Plus 18068	Sartolab® P20 18075	Sartolab® P 20 Plus 18076
Bubble point	≥ 3.2 bar 46.4 psi	≥ 3.2 bar 46.4 psi	≥ 3.2 bar 46.4 psi
Max. recommended inlet pressure	3 bar 43.5 psi	3 bar 43.5 psi	3 bar 43.5 psi
Flow rate for water	400 mL/min at Δp = 1 bar 14.5 psi	400 mL/min at Δp = 1 bar 14.5 psi	> 600 mL/min at Δp = 1 bar 14.5 psi
Filtration range	100 mL – max. 10 L	100 mL – max. 5 L	100 mL – max. 5 L
pH range	1 to 8	1 to 8	1 to 8
Non-specific protein adsorption	< 80 µg/cm ² (filtration of γ globulin, method acc. to Bradford)	No loss of protein detectable (filtration of γ globulin, method acc. to Bradford)	No loss of protein detectable (filtration of γ globulin, method acc. to Bradford)
Sterilization	EO sterilization	EO sterilization	–
Biosafety	Class VI Plastics Test	Class VI Plastics Test	Class VI Plastics Test
Operating instructions	Directions for use included in each box	Directions for use included in each box	Directions for use included in each box

Ordering Information

Type	Membrane	Housing	Pore Size	Inlet	Outlet	Sterile	Qty./Pkg.	Order No.
Sartolab® P20								
	SFCA	PC	0.2 µm	Hose Barb	Hose Barb	Yes	10	18052-----D
	SFCA	PC	0.2 µm	Luer Lock	Hose Barb	Yes	10	18053-----D
	PES	PC	0.2 µm	Luer Lock	Hose Barb	Yes	10	18075-----D ¹
Sartolab® P20 Plus								
	SFCA + GF	PC	0.2 µm	Hose Barb	Hose Barb	Yes	10	18056-----D
	SFCA + GF	PC	0.2 µm	Luer Lock	Hose Barb	Yes	10	18058-----D
	PES + GF	PC	0.2 µm	Luer Lock	Hose Barb	Yes	10	18068-----D
	PES + GF	PC	0.45 µm	Hose Barb	Hose Barb	No	100	18076-----N ¹
	GF*	PC	n.a.	Luer Lock	Hose Barb	No	10	18072-----D ¹

SFCA – Cellulose Acetate, PES – Polyethersulfone, GF – Glass Fiber Prefilter, PC – Polycarbonate

GF* – Glass Fiber Filter only

¹ without filling bell



Wolf Laboratories Limited

www.wolflabs.co.uk

Tel: 01759 301142

Fax: 01759 301143

sales@wolflabs.co.uk



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