



Sartolab[®] P

The new way for
reliable sterile filtration
of tissue culture media

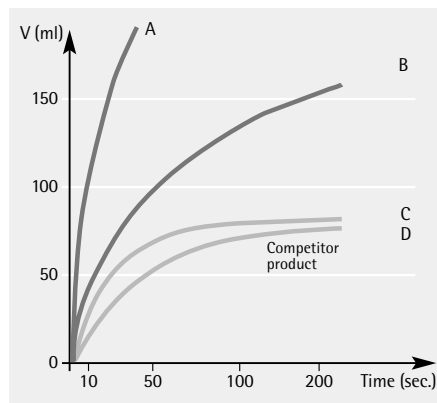
Sartolab® P 20 and Sartolab® P 20 Plus

Application and product description



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.

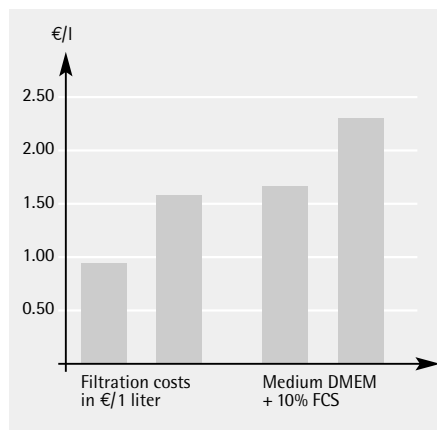


Application

The new 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.

Economy

Sartolab-P20 units feature an excellent price | performance ratio. The glass fiber prefilter in Sartolab-P20 Plus units often enables the total throughput to be doubled. Both types can be used in an available system with a peristaltic pump, so no extra investment is required.



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.

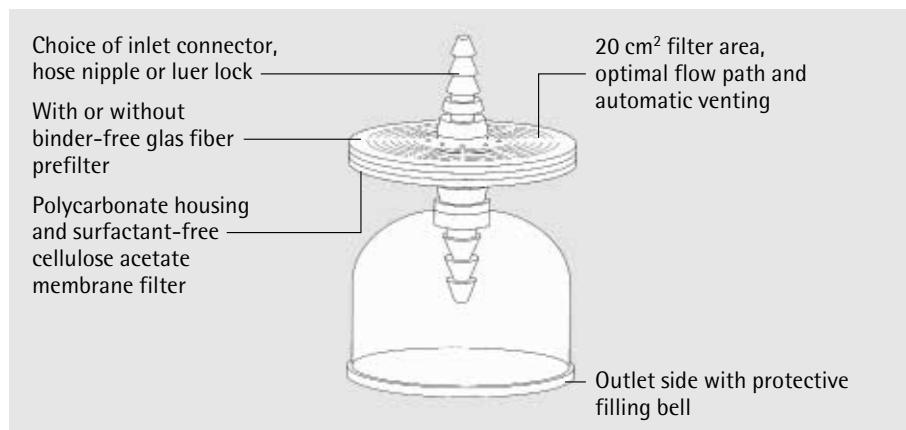
Product description

Sartolab P20 and Sartolab P20 Plus are ready-to-connect, single-use filtration units.

A surfactant-free cellulose acetate membrane with very low unspecific protein binding is welded into the polypropylene housing. Sartolab-P20 Plus contains an additional 100% binder-free glass fiber prefilter on the cellulose acetate membrane.

Vent ports on the inlet side of the housing are protected against liquid passage by a hydrophobic PTFE membrane.

The units are available with either a hose nipple or a luer lock as an inlet connector and with a filling bell on the outlet side.



Sartolab® P20 and Sartolab® P20 plus Complete systems

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.

The complete Sartorius system with a diaphragm pump and luer lock units

This system consists of a Sartolab P20 or Sartolab P20 Plus unit and a diaphragm pump with a tubing set.

The pump is adjusted to 2.5 bar maximum pressure as supplied, delivering a nominal pumping rate of 650 ml/min for water. The priming rate with a Sartolab P20 unit or Sartolab P20 Plus attached is approx. 300 ml/min at full pumping capacity.

The tubing material is silicone. A sinker is fitted on the tubing end, which is placed in the liquid to be filtered so that the tubing remains immersed.

An adapter is slipped onto the tubing end, which is then fitted to the Sartolab unit for a pressure-resistant connection.

The pump diaphragm, stainless steel sinker, adapter, and tubing are all resistant to 1 N NaOH.

Specifications and order numbers

	Sartolab P20	Sartolab P20 plus
Housing material	Polycarbonate	Polycarbonate
Filter material	Surfactant-free cellulose acetate 0.2 µm pore size	Surfactant-free cellulose acetate 0.2 µm pore size, glass fiber, 100% free of binding agents
Filter diameter	62 mm	62 mm
Filtration area	20 cm ²	20 cm ²
Hold-up volume before bubble point	1 ml	Approx. 1.5 ml
Connector: inlet	Female luer lock or stepped hose nipple with 6–12 mm outer diameter	Female luer lock or stepped hose nipple with 6–12 mm outer diameter
Connector: outlet	Hose nipple (see above)	Hose nipple (see above)
Flow direction	Unidirectional	Unidirectional
Housing burst pressure	>5 bar 72 psi	>5 bar 72 psi
Bubble point	≥3,2 bar 46 psi	≥3,2 bar 46 psi
Max. recommended inlet pressure	3 bar 43 psi	3 bar 43 psi
Flow rate for water at Δp = 1 bar 14.5 psi	300 ml/min	300 ml/min
Filtration range	100 ml – max. 5 l	100 ml – max. 10 l
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)

Order numbers (box of 10)

Inlet connector: luer lock	With filling bell 18053 D	With filling bell 18058 D
Inlet connector: hose nipple	With filling bell 18052 D	With filling bell 18056 D



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