



Alfa Laval Flat Sheet Microfiltration Membranes

MFG series

The range of polysulphone polymer microfiltration membranes from Alfa Laval covers various pore sizes and flux properties. The MFG membranes are based on a unique construction on polypropylene (PP) support material that provides optimum cleaning conditions.

Alfa Laval flat sheet membranes are available by the metre, as standard sheets (size 20 x 20 cm), and of course in Alfa Laval plate- and-frame configurations.

All components comply with EU Commission Directive 1935/2004/EC and FDA regulations (CFR), Title 21.

Designation	Characteristics	Pore size*
MFG 1	Polysulphone polymer	0.1 µm
MFG 2	Polysulphone polymer	0.2 µm

Membrane designation: Alfa Laval MFG 2

Alfa Laval MFG	=	Membrane type
2	=	Pore size code



Recommended operation limits:

Production	MFG
pH range (as if measured at 25°C (77°F))	1.5 - 12
Typical operating pressure, bar (psi)	1 - 3 (15 - 44)
Temperature, °C (°F)	5 - 75 (41 - 167)
Cleaning (2 - 4 hours per day)	
Pressure, bar (psi)	1 - 3 (15 - 44)
Temperature, °C (°F)	5 - 75 (41 - 167)
pH range (as if measured at 25°C (77°F))	1 - 13
NaOH, %	<0.3
Na-EDTA, %	<0.5
Mineral acid, %	<0.2
Citric acid, %	<1.0
Sanitation (1 hour per day)	
Treated hot water, at 0.2 bar, °C	90
Chlorine (ppm) at 50°C (122°F) and pH 10 - 11	<200
Hydrogen peroxide (ppm) at 25°C (77°F)	<1000

Note: The use of oxidation agents and similar chemicals might influence the membrane performance over time.

Standard Dimensions:

Membrane type	Standard sheets 20 x 20 cm	Alfa Laval Module M10	Alfa Laval Module M20	Alfa Laval Module M39
MFG 1	531058	531032	529745	531046
MFG 2	528950	531561	529746	529914

Other flat sheet sizes may be available – please contact Alfa Laval.

Note: It is recommended to use only 1-2 plates (2-4 off membrane sheet) in LabStak M20, when using microfiltration membranes in order to operate at low pressure.

Important information

New membranes must be cleaned prior to first use. The cleaning procedure should be in accordance with the instructions in the Alfa Laval cleaning description for the membrane type concerned. The customer is fully responsible for the effects that any incompatible chemicals may have on the membrane.

- After initial wetting, the membranes must be kept moist at all times.
- If the operating specifications provided in this product description are not strictly followed, the limited warranty will be null and void.
- To prevent biological growth during system shutdowns, Alfa Laval recommends that membranes should be immersed in a protective solution.
- Avoid permeate-side back pressure at all times.
- Alfa Laval recommends using original lock rings/strips for installation of the membrane sheet on the plates.

Operating guidelines

Avoid any abrupt pressure or cross-flow variations on the plate and frame module during start-up, shutdown, cleaning or other sequences, in order to prevent possible damage. Alfa Laval recommends the following start-up procedure from standstill to operating condition:

- The unpressurized plant should be refilled with water.
- Feed pressure should be gradually increased over a 30–60 second time scale.
- Before initiating cross-flow velocity across the plate and frame modules, the feed pressure should be maintained for 1-5 minutes.
- Cross-flow velocity at the set operating point should be gradually achieved over a period of 15–20 seconds.
- Temperature variations should be implemented gradually over a period of 3–5 minutes.

Alfa Laval reserves the right to change specifications without prior notification. ALFA LAVAL is a trademark registered and owned by Alfa Laval Corporate AB.

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How to contact Alfa Laval

Contact details for all countries are continually updated on our website. Please visit www.alfalaval.com to access the information direct.