

LUV-MEM MEMBRANE FILTRATION

Microfiltration and Ultrafiltration with KLEANSEP™ ceramic modules

Inorganic (ceramic) membrane materials have already been used successfully since the mid 'eighties for the filtration and separation of liquid media. They have established themselves in many areas and applications. They represent an important link in the process chain, more particularly, when they can act through their specific material properties.



Material properties of the modules








- Temperature resistance up to 150°C possible
- High transmembrane pressures possible
- pH range from 0 – 14
- High chemical stability to acids and alkalis
- Different gasket materials are available (NBR, EPDM, FPM, SILICONE)
- Different housing materials can be used (316L, 316Ti, Duplex, Hastelloy, others feasible)
- Module with up to 69 m² active membrane surface area

Applications

- Food filtration
 - Protein fractionation
 - Milk sterilisation
- Chemical applications
 - Dyestuff production/separation
 - Separation of catalysts
 - Cell separation
- Wastewater treatment
 - Separation of oil/water emulsions
 - Processing of cooling lubricants

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Possible membrane configurations – KLEANSEP™

	Channel diameter (mm)	Membrane area	Length (mm)	External diameter (mm)	Number of channels	Code
	6	0.16	1,178	25	7	BX
	5	0.2	1,178	25	8	BE
	4.5	0.2	1,178	25	12	BD
	3.5	0.25	1,178	25	19	BW
	2.8	0.34	1,178	25	31	BH
	2.2	0.5	1,178	25	55	BC
	2	0.45	1,178	25	61	BS

Cut-offs of the membranes

Microfiltration [μm]: 1.0; 0.8; 0.45; 0.2; 0.1

Ultrafiltration [kD]: 300; 150; 50; 15

Nanofiltration [kD]: 5; 1

Cooperation/Manufacturer

The membranes are manufactured in France by the Alsys company and are very well-known and established under the name of **Orelis/KLEANSEP™**. **Orelis** is one of the leading manufacturers of ceramic membrane elements and operates all over the world with its products. Corresponding experience but also pilot plants and test centres are hence available for support in the application.

Lehmann&Voss&Co. represents these products in Germany and the surrounding regions.

