

The perfect benchtop filtration solution for process development and small-scale filtration applications. Low fouling continuous filtration where the filter is kept clean by vibration shear.

The retentate chamber and the membrane element vibrates horizontally while the patented Vibro™ technology makes the media inside the retentate chamber stationary. The relative vibration of media and membrane creates turbulence on the membrane surface and thereby keeps the fouling layer at a minimum.

The clear plastic of the retentate chamber gives excellent visibility of the membrane during operation and cleaning. A groundbreaking feature that makes it possible to visually follow fouling build-up and membrane cleaning processes.

The Vibro™-LE is exceptional for gaining insight into filtration processes, for selecting the right membranes and for filtering the most demanding media with continuous membrane filtration. The ability to work with small samples makes it the perfect tool for process development in biotech, pharma, food etc.

The Vibro™-LE can be operated as continuous filtration with a feed pump or as batch filtration where no feed pump is necessary. This means that valuable samples can be filtered extremely gentle without any damage from pump shear.

The Vibro™-LE is fully drainable of both retentate and permeate. No sample is lost during filtration.

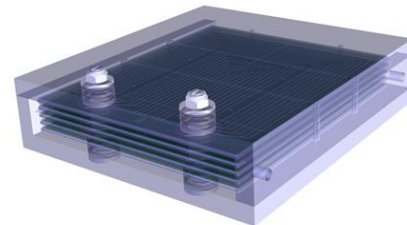
Due to the open design of the 0,35 m² Free Flow Plate™ membrane element, the Vibro™-LE can handle very difficult samples with high viscosity, high mass loadings and even high particulates.

A mix pump can be attached to the retentate chamber if you work with difficult feeds. The mix pump creates a slow flow in the retentate and prevents fouling.

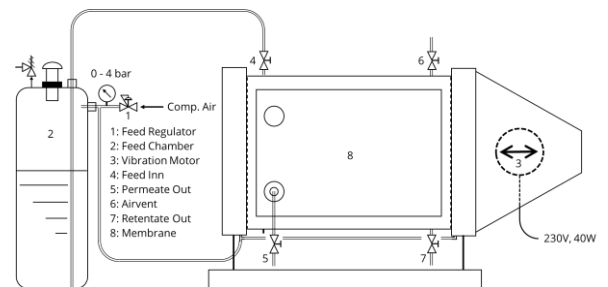
The Vibro™-LE system can be cleaned-in-place with your preferred CIP chemicals and cleaning conditions.



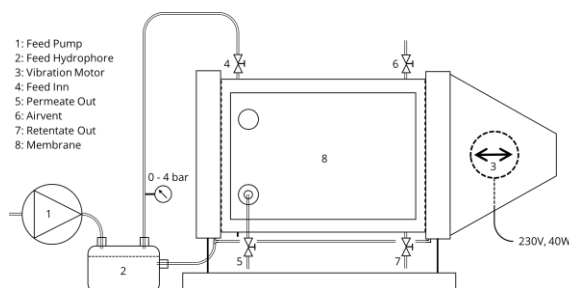
Vibro™-LE with the standard batch feed system



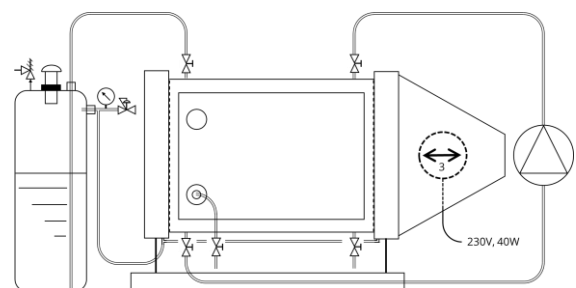
0,35 m² Free Flow Plate™ Laboratory Element (HPL) mounted in retentate chamber



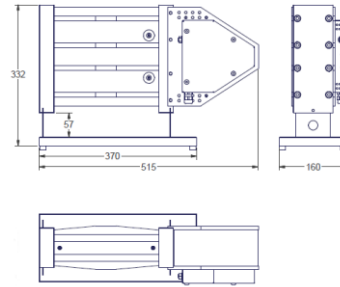
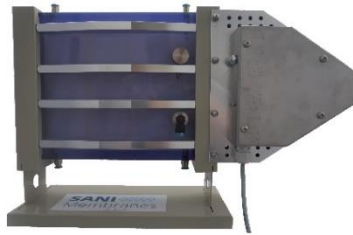
Example of a batch Vibro™-LE set-up - The gentlest filtration possible



Example of a continuous Vibro™-LE set-up



Example of a batch Vibro™-LE set-up with a mix pump - for highly viscous feed



Vibro™-LE Data	
Weight	10 kg
Dimensions (L x W x H)	515 mm x 160 mm x 332 mm
Membrane	0,35 m ² HPL element
Internal Retentate volume	500 ml, Fully drainable
Internal Permeate volume	50 ml, Fully drainable
Operating Pressure	0-4 bar
Temperature Range	5-85°C
Power Consumption	240V, 40W excl. feed system
Noise Level	50-65 dBA

Vibro™-LE Accessories and Spare Parts	
HPL membrane element with your membrane of choice	HPL membrane element delivered mounted retentate chamber with permeate outlets
Standard Batch Feed System	9L Stainless Steel tank with feed pressure regulator and all necessary fittings and tubing's
Standard Continuous Feed System	Feed pump and Feed Chamber (hydrophore) with all necessary fittings and tubing's
Mix Pump System	Mix Pump with all necessary fittings and tubing's
Rubber Gasket Set	2 Rubber gaskets for the Air Cushions
Ballon Rubber Gasket Set for operation under 1 bar	2 Balloon rubber gaskets for the Air Cushions and 2 plugs for the Air Cushion Inlets
O-ring / Gasket Set for the permeate outlets	8 gaskets 16 big O-rings and 4 small O-rings for the permeate outlets
Leaf Spring Set	2 polymer leaf springs

Free Flow Plate™ Laboratory Element (HPL) Data	
Generic Design	Free Flow Plate™. Fused Polypropylenes
Membrane Type	Most organic membranes (MF, UF, and other filter types)
Membrane Area	0,35 m ²
Dimensions (L x W x H)	242 mm x 30 mm x 202 mm
Viscosity Range, Apparent	1-1000 cP (e.g. Cream Cheese+)
Temperature Range	5-85°C
pH Range	0-14

Free Flow Plate™ Laboratory Element (HPL) Standard Membranes		
Membrane type	Cut-off	Membrane Material
UF	5 kDa	PES
UF	5 kDa	PESH
UF	30 kDa	PESH
UF	100 kDa	PVDF
UF	300 kDa	PES
UF	400 kDa	PAN
MF	800 kDa / 0,08 µm	PVDF
MF	0,2 µm	PVDF
MF/Filter	1 µm	PET (Woven)
MF/Filter	5 µm	PET (Woven)
MF/Filter	10 µm	PET (Woven)

The HPL can be equipped with your membrane of choice. SANI Membranes have a line of standard MF and UF membranes from Synder, Microdyn-Nadir and others on stock. Most commercially available membranes can however also be used with the HPL. Please, do not hesitate to contact us with your membrane wishes.