

Membrane Solutions for the Lab

Tools enabling Innovation

MMS
Membrane Systems



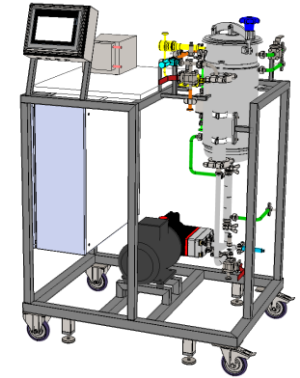
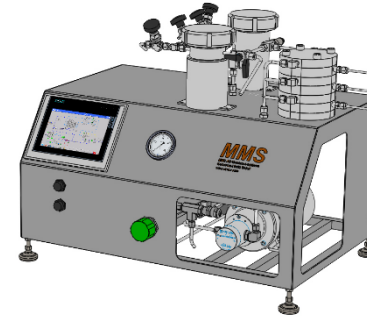
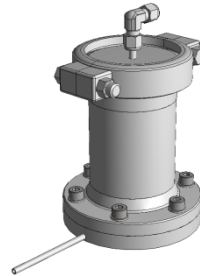
FS: Flat sheet

SW: Spiral wound

Cer: Ceramic

HF: Hollow fibre

Tub: Tubular



System	Mem HPLC	Mem Tester	Triple System	SW18
Operation mode	Batch	Batch	Batch	Batch
Membrane type	FS	FS	FS	SW, optional Cer/HF/Tub/FS
Feed volume	50 – 300 ml	50 – 300 ml	200 – 800 ml	2 – 20 l
Dead volume	5 ml	10 ml	50 ml	0.8 – 1.0 l
Pressure rating	40 bar (60 bar optional)	40 bar	40 bar (60 bar optional)	40 bar (60 bar optional)
Pressure Source	HPLC pump	Compressed N ₂	Compressed N ₂	Pressure/circulation pump
Crossflow source	HPLC pump	Magnetic stirrer	Circulation pump	Pressure/circulation pump
Heat exchanger	n/a (external tank)	n/a	Tank with jacket	Tank with jacket & multitube
Diafiltration	n/a (only manual)	n/a (only manual)	Optional with N ₂ and DF tank	Optional with DF pump
Data logging	n/a	n/a	SD card or USB	SD card or USB

Membrane Solutions for the Pilot Plant

Tools enabling Innovation

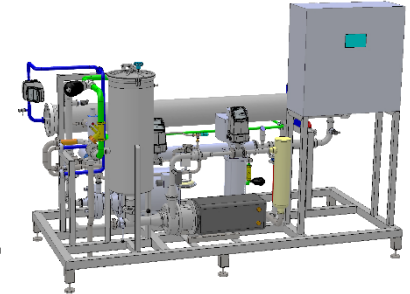
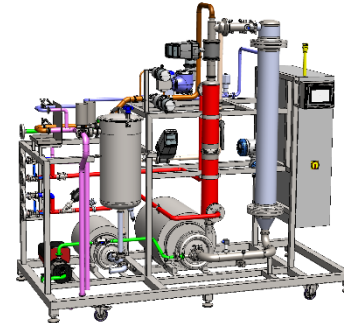
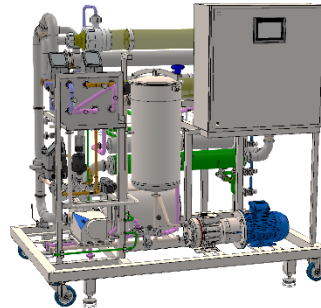
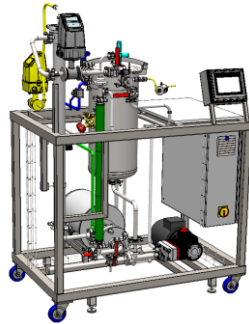


SW: Spiral wound

Cer: Ceramic

HF: Hollow fibre

Tub: Tubular



System	SW25	SW40	HFC7 (low pressure)	SW80
Operation mode	Batch, optional continuous	Batch, optional continuous	Batch, optional continuous	Batch, optional continuous
Automation	Manual valve/pump control, optional semi-automatic	Manual valve/pump control, optional semi-automatic	Semi-automatic	Semi-automatic
Membrane type	SW, optional Cer/HF/Tub	SW, optional Cer/HF/Tub	Cer/HF, optional SW	SW, optional Cer/HF/Tub
Feed volume	20 – 200 l	200 – 1 000 l	200 – 1 000 l	500 – 10000 l
Dead volume	3 – 5 l	15 – 40 l	20 – 40 l	20 – 60 l
Pressure rating	40 bar (60 bar optional)	40 bar (60 bar optional)	6 bar	40 bar (60 bar optional)
Pressure source	Pressure pump	Pressure pump	Pressure pump	Pressure pump
Crossflow source	Circulation pump	Circulation pump	Circulation pump	Circulation pump
Heat exchanger	Multitube + on/off valve	Multitube + on/off valve	Multitube + on/off valve	Multitube + on/off valve
Auto. diafiltration	Optional with DF pump	Optional with DF pump	Optional with DF pump	Optional with DF pump
Data logging	SD card or USB	SD card or USB	SD card or USB	SD card or USB