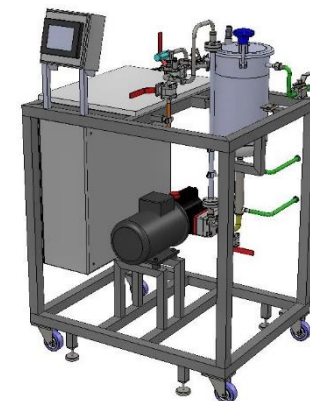
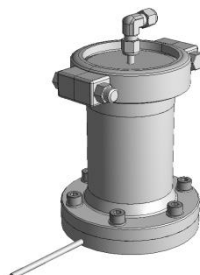


Laboratory and Pilot Membrane Solutions

Tools enabling Innovation

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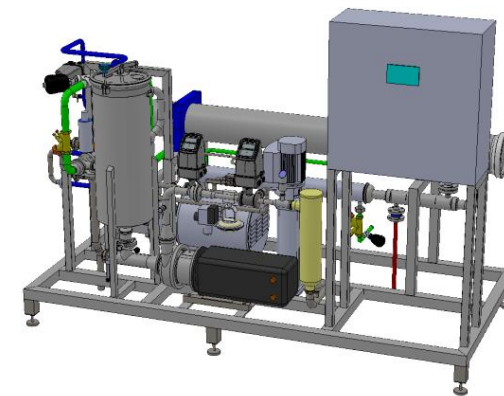
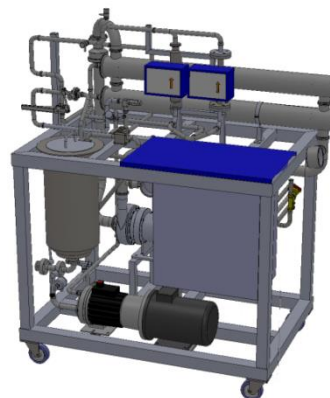
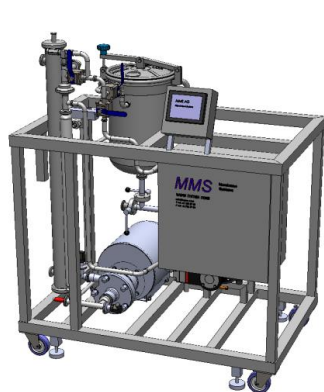


System	Mem HPLC	Mem Tester	Triple System	SW18
Membrane and Module Types	Polymer (flat sheet disc)	Polymer (flat sheet disc) Ceramic (disc)	Polymer (flat sheet disc) Ceramic (disc)	Spiral wound modules 1812 Hollow fibre modules 1" Ceramic elements Ø 10 mm Tubular on request
Membrane Area	28 cm ²	28 cm ²	28 – 84 cm ²	0.3 m ² (spiral wound)
Feed Volume	50 – 300 ml	50 – 300 ml	200 – 700 ml	2 – 20 l
Dead Volume	5 ml	10 ml	50 ml	0.5 – 0.8 l
Pressure Rating	40 bar (60 bar optional)	40 bar (60 bar optional)	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
Key Features	<ul style="list-style-type: none"> ➤ Plugs into any HPLC device ➤ Crossflow filtration unit ➤ Wide range of membranes 	<ul style="list-style-type: none"> ➤ Crossflow by magnetic stirrer ➤ Unique design for low volume operation ➤ Wide range of membranes 	<ul style="list-style-type: none"> ➤ HMI & data logging ➤ Rapid screening of 1 – 3 membranes simultaneously ➤ Speed control for variable crossflow velocity ➤ Jacketed tank 	<ul style="list-style-type: none"> ➤ HMI & data logging ➤ Speed control for variable crossflow velocity ➤ Multitube heat exchanger ➤ For all membrane types

Membrane Solutions for the Pilot Plant

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System	SW25	SW40	SW80
Membrane and Module Types	Spiral wound modules 2540 / 2538 Hollow fibre modules 3" Ceramic elements Ø 25 mm Tubular modules on request	Spiral wound modules 3840 / 3838 Hollow fibre modules 4 – 6" Ceramic – various modules / elements Tubular modules on request	Spiral wound modules 8038 Hollow fibre modules 6" Ceramic – various modules / elements Tubular modules on request
Membrane Area	1.7 – 2.2 m ² (spiral wound)	3.5 – 7 m ² (spiral wound)	16 – 34 m ² (spiral wound)
Feed Volume	10 – 100 l	200 – 1 000 l	500 – 10 000 l
Dead Volume	3 – 4 l	12 – 15 l	60 – 80 l
Pressure Rating	40 bar (60 bar optional)	40 bar (60 bar optional)	40 bar (60 bar optional)
Pressure Source	High pressure pump	High pressure pump	High pressure pump
Crossflow Source	Circulation pump	Circulation pump	Circulation pump
Key Features	<ul style="list-style-type: none"> ➤ HMI & data logging ➤ Speed control for variable crossflow velocity ➤ Multitube heat exchanger ➤ For all membrane types 	<ul style="list-style-type: none"> ➤ HMI & data logging ➤ Speed control for variable crossflow velocity ➤ Multitube heat exchanger ➤ For all membrane types 	<ul style="list-style-type: none"> ➤ HMI & data logging ➤ Speed control for variable crossflow velocity ➤ Multitube heat exchanger ➤ For all membrane types ➤ Suitable for continuous production