

SW18 System

Applications

Food & Extract Sector

- Protein fractionation & concentration
- Extract fractionation & concentration
- Hydrolysate fractionation & concentration
- Sugar fractionation & concentration
- De-alcoholization of beer and wine
- Soya milk de-bittering

Bio-Pharmaceutical Sector

- Fermentation broth clarification
- Enzyme & protein concentration
- Peptide concentration & de-salting
- API purification & concentration
- Oligosaccharide purification & concentration
- Solvent recovery or exchange

Natural Oils Sector

- De-waxing
- De-colourization
- Purification
- Concentration
- Oil/water separation

Aroma and Colorant Sector

- Herbal extract fractionation & concentration
- Natural colour purification & concentration
- Aroma sterilization
- Aroma concentration
- Evaporator condensate treatment

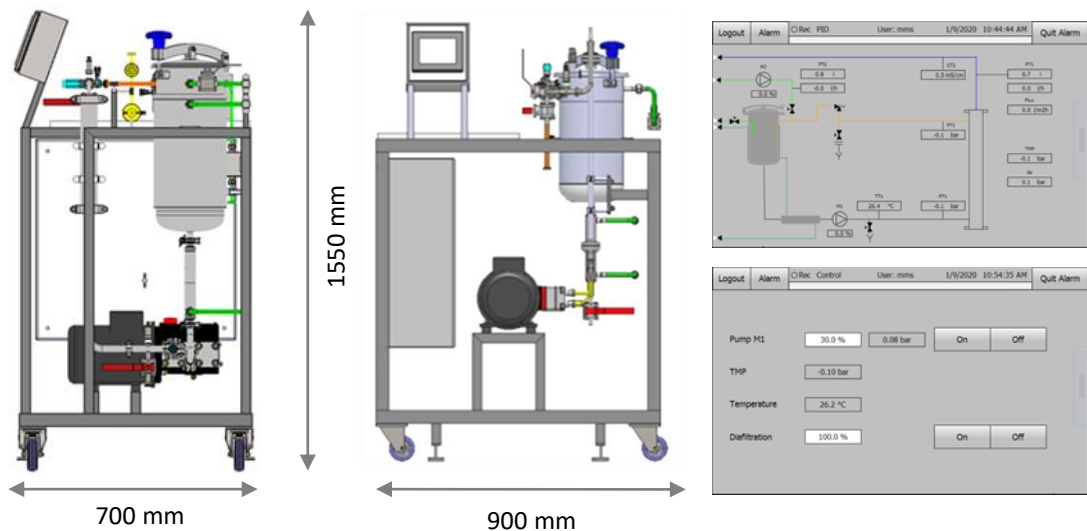
Chemical Sector

- Acid/caustic recovery
- Catalyst separation
- Solvent exchange & recovery
- Polymer purification & concentration
- Condensate water purification

Biofuels Sector

- Organic acid clarification & purification
- Organic acid concentration
- Sugar clarification & concentration
- Ethanol purification
- Condensate water recovery

For a specific application not listed above ask our specialists at info@mmsx.com



SW18 System

Specifications

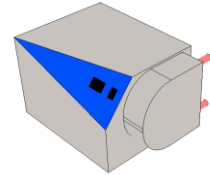
Operation Mode	Batch operation, manually controlled
Intended use	Liquid food products and aqueous solutions
Membrane type	Spiral wound module 1812 (other membranes types available)
Membrane area	~0.2 - 0.3 m ² per spiral wound module 1812
Feed requirements	Particle size < 100 µm (for spiral wound)
Feed tank	10 l with lid and jacket
System dead volume	0.8 - 1.2 l (depending on system configuration)
Heat exchanger	Multitube (~0.02 m ²) and tank jacket (~0.15 m ²)
Working pressure	1 - 40 bar (1 - 60 bar optional)
Working temperature	5 - 80 °C (limitations due to membrane possible, heating/cooling water required)
Crossflow	~200 - 600 l/h
Installed power	1.5 kW (400/50Hz)
Space requirement	900 x 700 x 1550 mm (L x W x H)
Weight	~120 kg
Frame	Stainless steel (304), on wheels
Tubing	All tubing and fittings of material 316L
Seals & O-Rings	EPDM, FKM and PTFE
Components	All steel components in contact with product are made of 316L if not otherwise stated
Instruments	<ul style="list-style-type: none"> 2 Pressure transducers (0 - 50 bar) 1 Temperature transducer (0 - 100 °C) 1 Permeate flow transducer (0.5 - 180 l/h) (magnetic)
HMI	1 Touch panel for process control including USB port for data logging

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Options

Diafiltration Kit

A peristaltic pump and a flow transducer (magnetic) are integrated into the control system for continuous diafiltration.



Loop Flowmeter

Additional flow transducer (magnetic) in the circulation loop.



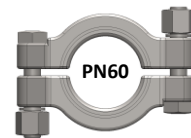
Permeate Conductivity Sensor

Additional conductivity sensor to measure permeate quality during production or CIP.



High Pressure Kit - PN60

System components allow for an operating pressure up to 60 bar.



Additional Membrane Types

- Triple spiral wound
- Ceramic kit
- Triple ceramic kit
- Hollow fibre kit
- Tubular kit



Membrane Cut-Offs

Wide range of pore sizes and cut-offs available:

- Microfiltration (0.1 – 1.4 μm)
- Ultrafiltration (1 – 250 kDa)
- Nanofiltration (100 – 1000 Da)
- Reverse Osmosis

