



MEMBRANE TECHNOLOGY FOR

# CHEMICAL APPLICATIONS





# MEMBRANE FILTRATION FOR



## MMS Filtration Solutions for the Chemical Industry

For more than 25 years MMS has developed membrane solutions for several industries, including the chemical industry. We apply the latest membrane filtration technology to enable our customers to clarify, fractionate or concentrate their liquid solutions.

MMS membrane systems meet the highest design, safety and construction standards, and our systems are used in a wide range of applications in the chemical industry. We work closely with our customers to fully meet their expectations for function and documentation.

Demanding applications include, for example, the treatment of organic acids, which can be clarified by ultrafiltration, purified with downstream nanofiltration, and concentrated with reverse osmosis.

Versatile membrane technology is also used in: treatment and recovery of inorganic salts, recycling of solvents, recovery and recycling of lacquers and paints, cleaning agents or macromolecules.

### Membrane Filtration — a Scalable Technology

MMS filtration systems allow our customers to treat volumes ranging from a few liters to several 100s of cubic meters in a scalable manner.

MMS systems are modular in design based on a standard building block of skid-mounted units. From a few liters we can scale your process.

Our fleet of rental units and wet lab in Zurich is the perfect platform for our customers to test and scale their applications.



### From Target Compound Concentration to Water and Solvent Reuse

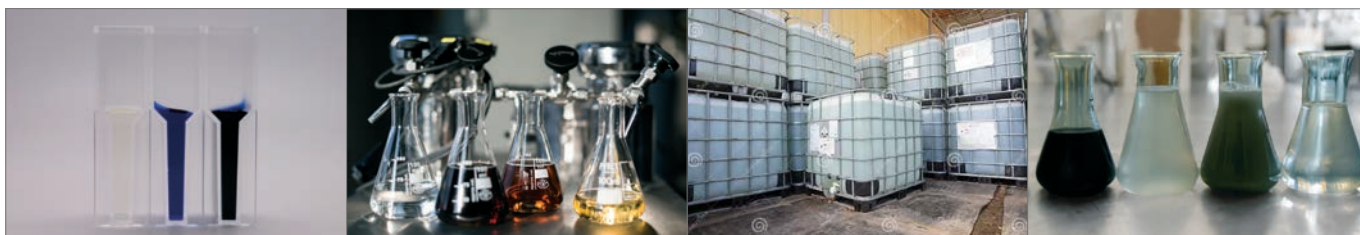
Water reuse from condensate water, spent paint, spend wash water with toxins and contaminants can be treated with membrane filtration to reduce your water or solvent footprint.

Clarification and purification of your product with membrane filtration offers a low energy and low CAPEX solution to your factory.

Contact our membrane specialists and learn what our technology can do for your process.

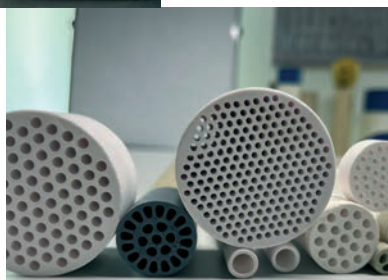
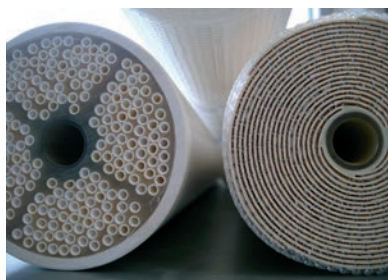


# CHEMICAL APPLICATIONS



## The Right Membrane for Your Application

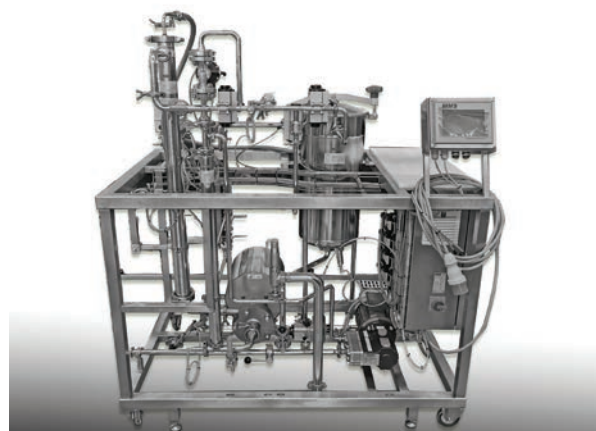
MMS works with all types of membrane materials and module configurations. Polymeric, ceramic, or stainless steel membranes — we will support our customers in selecting the right membrane for your process.



## Pilot Systems & Process Development

Over the last 25 years MMS has developed a comprehensive range of pilot systems for purchase and rent to allow our customers to test our solutions.

MMS supports our customers with process development, through a dedicated membrane laboratory in Zurich or on-site whilst we train you on our pilot units. Please refer to our leaflets on Lab & Pilot Systems and Process Development Service for more information.



## Chemical Industry Membrane Filtration Applications

APPLICATION	PROCESS	BENEFITS
Inorganic salt concentration	RO	Low CAPEX and OPEX solution
CIP caustic and acid reuse	NF	Reduces water and chemical costs in your factory
Condensate reuse	RO	Recovers water or solvent to reduce utility costs
Water-based paint dewatering	RO	Reduces transport costs and re-use water
Oil/water separation	UF	Hydrophilic membranes allow for ideal oil/water separation
Alcohol purification	NF	Removes contaminants without phase exchange
Organic acid clarification and concentration	UF/NF/RO	Allows for scalable clarification, purification and concentration
Recycling of solvents	NF	Removes contaminants without phase exchange





## Why choose MMS

- We offer solutions and guidance for all stages from development through pilot trials to full-scale systems.
- We understand the technology and processes and match them to your needs and requirements.
- We have more than 25 years of experience.
- We are open to new ideas and opportunities.
- We are easy to communicate with in all respects.
- We innovate based on customer challenges and cross-industry experience.
- We are independent and do not represent any specific manufacturers

## CONTACT US

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