

# DAIRY FILTRATION MEMBRANE



*Meet Your Filtration Need Is Our Goal.*

## Who we are?

RisingSun Membrane, based in Beijing, China, is a professional manufacturer of RO, NF, UF, and MF membrane elements, providing high-quality separation solutions for dairy production.

We focus on membrane R&D to meet strict customer filtration needs. Beyond supplying membrane products, we also offer process design and system consulting. Our key employees have over a decade of experience in membrane production and applications.

## Our advantage

We have proven products that have been operated across the Dairy industry for many years. Our sanitary membrane products have been used for a great number of dairy systems all over the world. By means of introducing automatic production equipment, advanced membrane technology and the best quality raw material, carry out ISO 9001:2015 management, we guarantee consistent high quality.





Meet Your Filtration Need Is Our Goal.

## How can we serve you in dairy?

Our engineers are all well-versed in dairy specific separation and filtration challenges, and have developed high level membrane technologies suited to commercial applications.

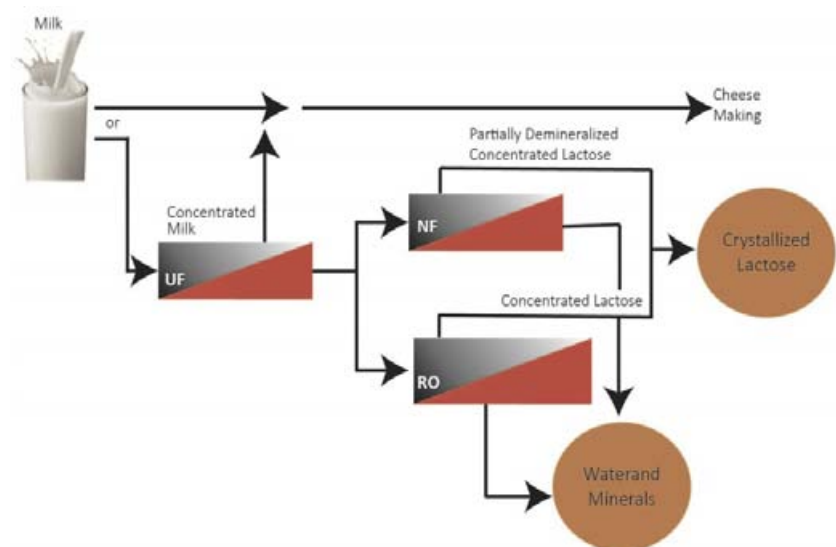


## Milk processing

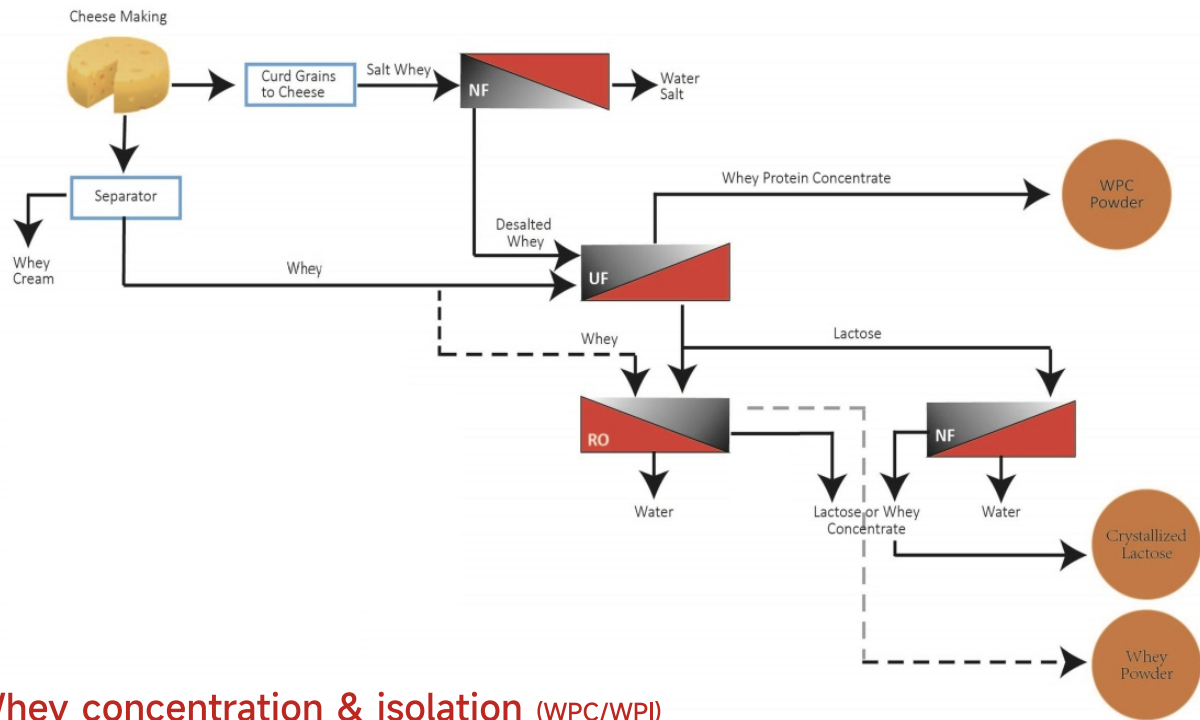
Microfiltration, Ultrafiltration and Reverse Osmosis membranes are used to concentrate, standardize and / or remove certain components from whole and skim milk. UF concentrates can be used for cheese, yogurt and MPC production or in combination with microfiltration to produce MPIs. RO is used to concentrate UF permeates for lactose recovery or polishing of NF permeate after lactose concentration and de-ashing or to reduce volume for transport or save energy in front of evaporation. RisingSun's range of MF, UF, NF and RO products offers a solution for every application in milk processing.

## Membrane for milk process

Membranes can be used to concentrate milk prior to the cheese making process. UF increases plant throughput, allowing for the production of more pounds of cheese per day. Permeate from the UF step can be further processed with RO and NF membranes to produce a concentrated stream for the production of lactose and permeate powder.



### Membrane for whey process



### Whey concentration & isolation (WPC/WPI)

The nutritional and technological value of whey proteins has only been recognized within last several years and has changed whey into a high value raw material. After cheese making the resultant whey can be concentrated using membranes, providing a protein enriched stream ahead of the evaporation and drying process. Ultrafiltration is the standard process for the production of 35 to 90% of whey protein concentrate. RO can be used downstream to concentrate the UF permeate to produce lactose or permeate powder. When producing cheeses that generate significant volumes of salt whey, a nanofiltration step can be added to partially desalt the stream, thus increasing the volume of recoverable whey solids. Partially desalted whey can then supplement the primary whey stream and be sent to the UF system for protein concentration prior to evaporation and drying. RisingSun's range of MF, UF, NF and RO membranes help to concentrate, isolate and fractionate whey proteins from milk or cheese whey to the targeted composition.

Reverse Osmosis



Ultrafiltration



Nanofiltration



Microfiltration





Meet Your Filtration Need Is Our Goal.

### What membranes can we offer?

#### RO and NF Sanitary Spiral Membrane

Applications	Membrane Type	Membrane Material	Membrane MWCO
-Milk, Whey, Lactose, Permeate Concentration; -Polishing	RO1	Polyamide	<100 Dalton
-Desalting and Concentration of Whey Proteins and Lactose -Whey Concentration -High Solids Concentration -De ashing	NF2	Polyamide	200-300 Dalton
-Acid and Caustic Recovery	NF6	Composite	300-500 Dalton

#### UF and MF Sanitary Spiral Membrane

Applications	Membrane Type	Membrane Material	Membrane MWCO/Pore size
-Milk and Whey Proteins Concentration / Isolation	UE005 UE010 UE020	PES	5,000 Dalton 10,000 Dalton 20,000 Dalton
-Cheese Brine Clarification	UE010 UF050	PES PVDF	10,000 Dalton 50,000 Dalton
-Whey Defatting and Microbial removal -Casein Concentration -Native Whey, Casein Separation	ME010	PES	0.1 Micron
Brine Clarification	ME010 MF010 MF020	PES PVDF PVDF	0.1 Micron 0.1 Micron 0.2 Micron

All the models listed above are among our best-selling standard products. We also have the capability to meet customized requirements, such as high-temperature-resistant membranes. For dimensions, we can supply modules ranging in diameter from 2.5 inches to 8.3 inches.



Products specification may be updated continually,  
please contact us for any inquiry.  
Released in March 2024

Company Name: RisingSun Membrane Technology (Beijing) Co., Ltd.  
Add: Building 2, Shunren Road No.51, Linhe Industrial Zone, Shunyi District, Beijing, China  
Post Code: 101300    Tel: 86-10-89496869-829    Fax: 86-10-89496839  
E-mail: [info@risingsunmem.com](mailto:info@risingsunmem.com)    Website: [www.risingsunmem.com](http://www.risingsunmem.com)