

# AsahiKASEI

## MICROZA™

ASAHI KASEI's hollow fiber Microza™ membrane filters are employed in water treatment and for separation and purification in a variety of industries including electronics, municipal water, wastewater, power generation, automotive, pharmaceutical, food, chemical,

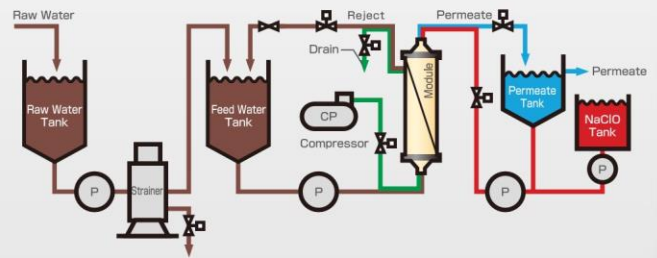
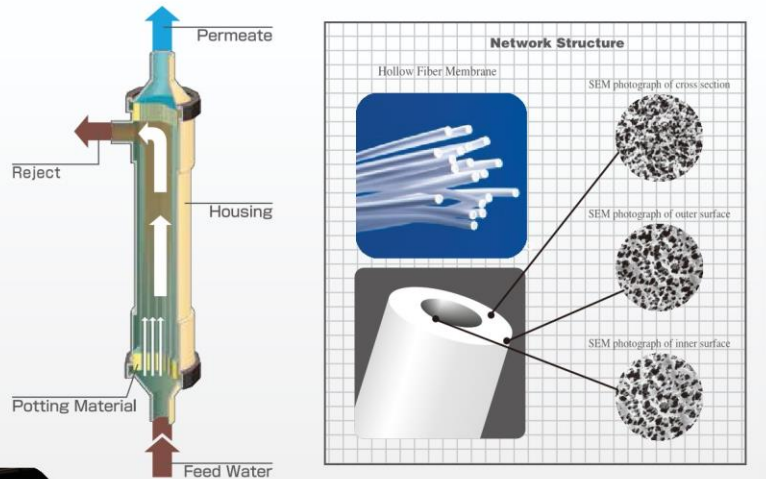
and environment related fields. As a most advanced hollow fiber membrane filtration technology, Microza™ products are contributing to environmental protection and energy conservation in a global market

### UNA Series

- PVDF with high bonding network structure
- Long operating life
- Precise separation characteristics
- Applicable for raw water with high turbidity

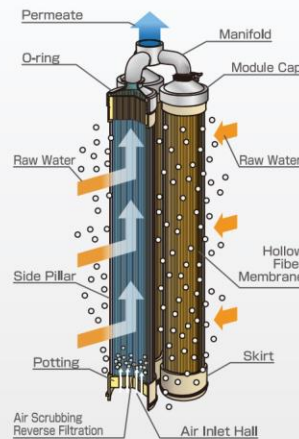
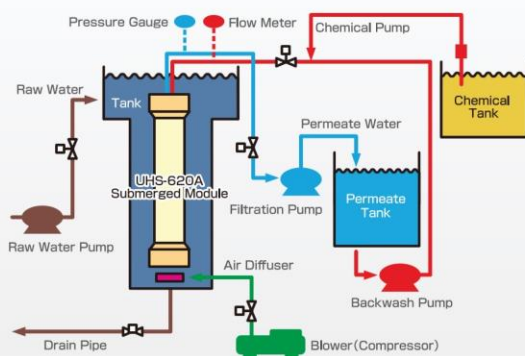
### Applications

- Various water treatment processes
- Treatment of sewage and wastewater
- Pretreatment of RO/NF
- Purification of Seawater
- Treatment of condensate and recycled water



### UHS Series

- PVDF membrane with the most advanced high bonding network
- Small footprint and high recovery rate suitable for large-scale water purifying plants
- Capable of treating highly turbid raw water



### Applications

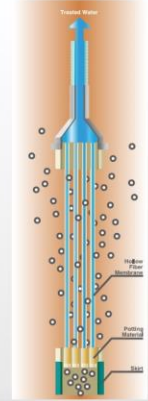
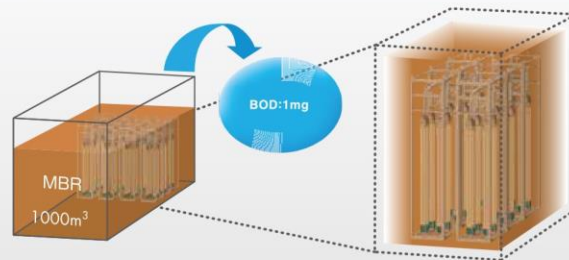
- Various water treatment processes
- Reclamation of secondary sewage, wastewater and landfill leachate etc.
- Recycle of highly turbid backwash water from sand filter, membrane filter etc.
- Pretreatment of RO/NF

## MUNC-3 Series (MBR; Membrane Bioreactor)

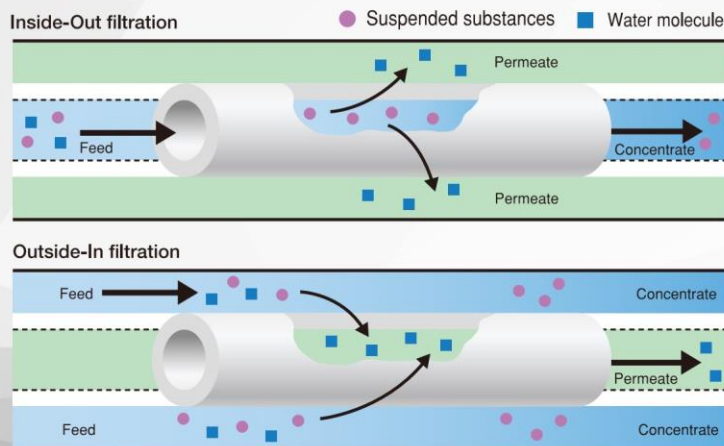
- Low operating cost / Stable operation
- High reliability membrane
- Compact design / Easy maintenance

### Applications

- Sewage
- Food industries
- Electronic industries
- Chemical industries
- Livestock breeding



## Inside-Out and Outside-In filtration modes



A high cross - flow velocity over the membrane surface prevents membrane fouling. This makes inside - out filtration suitable for concentration and purification of highly concentrated solutions.

Utilizing the larger area of the outer surface of the membrane fiber, the filtration load per unit area may be reduced. Additionally, a physical cleaning technique such as "air - scrubbing" may be utilized. These features makes this mode of operation well suited for high volume water clarification

## Specification of Microza

Module Type			Pressure Type		Submerged Type	MBR
			UNA-620A	UNA-620AB	UHS-620A	MUNC-620A3
Membrane	Material	Unit	HB-PVDF : High-bonding Network Structured Poly Vinylidene Fluoride			
	Surface Area (Outer Surface)	m <sup>2</sup>	50	65	50	33.3
	Normal Pore Size	µm	0.1		0.08	0.1
Operating Condition	Filtration Mode		Outside-in			
	Maximum Transmembrane Pressure (TMP)	kPa	300	200	-80	-60
	Maximum Operating Temperature	°C	40			
	pH Range		1-10 for raw water filtration 1-14 <sup>(1)</sup> for chemical cleaning			
	Designed Flux <sup>(2)</sup>	m <sup>3</sup> /hr	2-10	2-5.2	2-8	0.2-1.0
Material	Cartridge-head, Skirt		ABS : Acrylonitrile Butadiene Styrene			
	Potting Material		PU : Polyurethane			
Module Type	Dimensions	mm	2,338Lx165ø	2,338Lx165ø	2,164Lx167ø	2,264Lx175ø

(1) The pH range to apply depends on the chemical used. Refer to the operation manual for further information.

(2) Design flux varies depending on feed wastewater quality or system design basis. Customers are requested to consult with Asahi Kasei Corporation.