



Process Membrane Manufacturer

中国梦·瑞阳膜

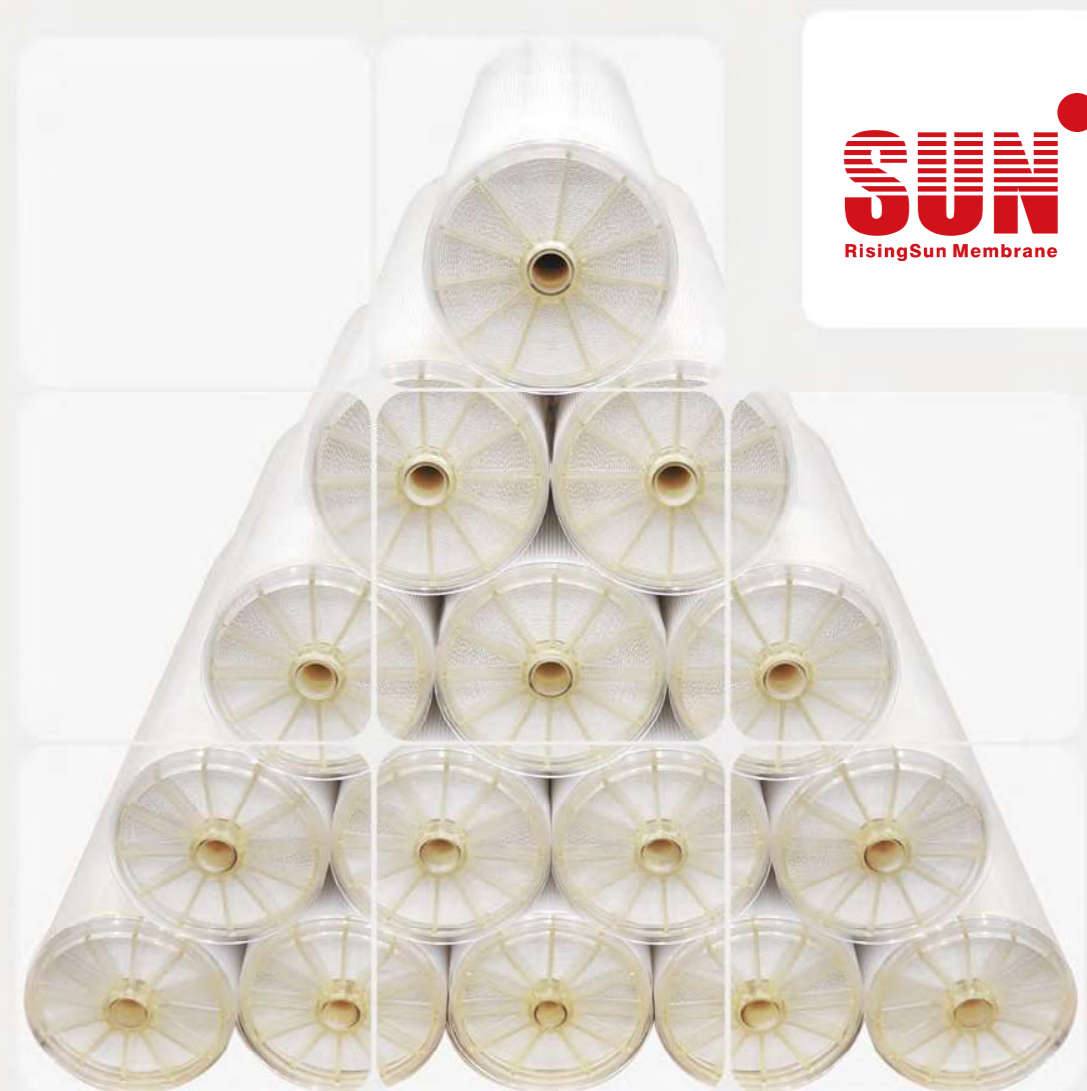
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MEMBRANE PRODUCTS

RISINGSUN MEMBRANE TECHNOLOGY (BEIJING) CO., LTD.



Meeting your filtration need is our goal

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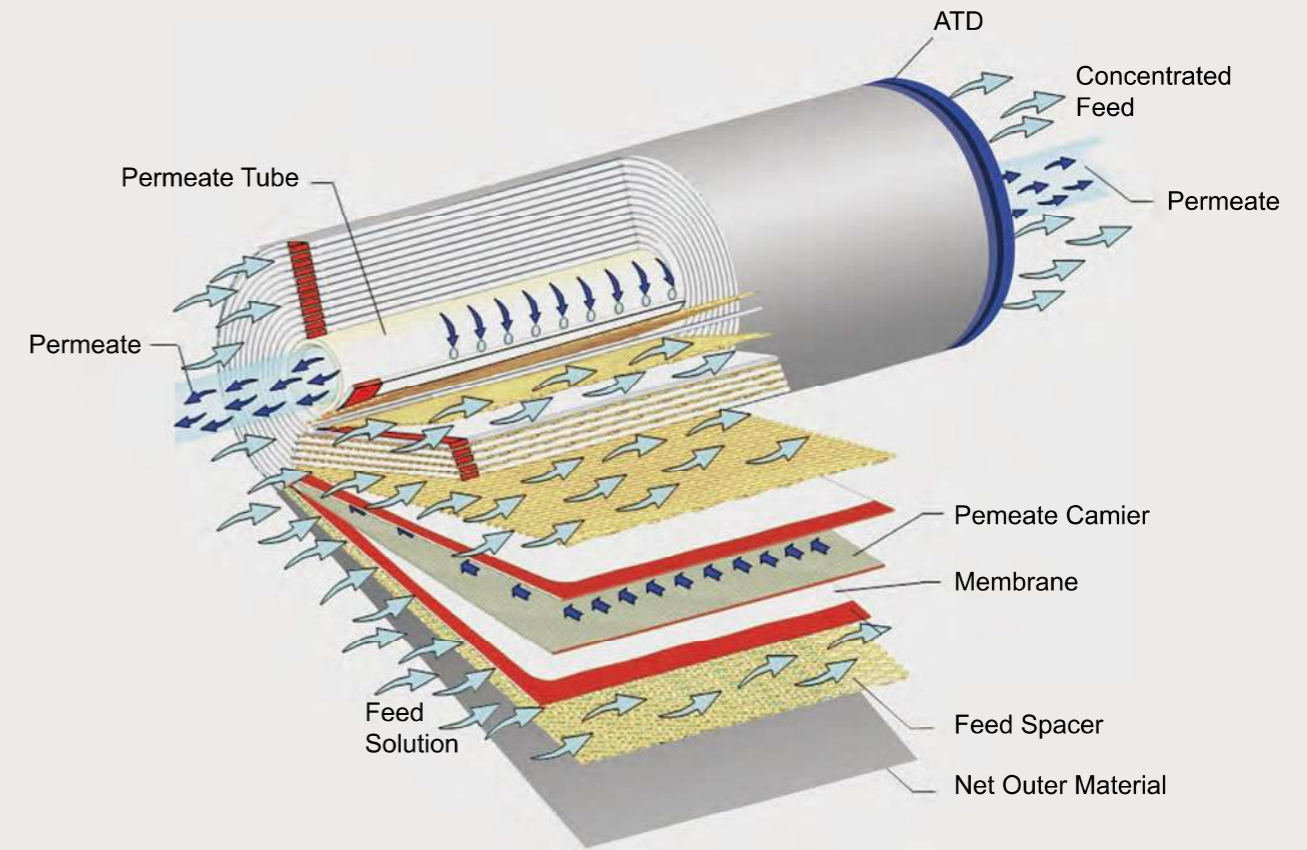
COMPANY PROFILE

RisingSun Membrane with location in Beijing China is a professional membrane products' manufacturer for Microfiltration, Ultrafiltration, Nanofiltration, Reverse Osmosis, and Tubular Anode Cell. We are and will be always focusing on membrane research and development to meet customers' strict filtration needs. We can supply spiral-wound, flat & tubular type. Besides, we are active for specialty membrane development for Wastewater treatment, Biotech fermentation, Pharmaceuticals intermediates, Dye and E-coat process.

We cooperated with many steady customers worldwide. To meet customers' requirements, we are not only supply membrane products, but also membrane process design, system consultant service. Our key employees have more than a decade experience in membrane production and applications.

By means of introducing automatic production equipment, advanced membrane technology and membrane material, carry out ISO 9001:2008 management, we guarantee consistent high products quality.

We devote to supply membrane products for liquid separation, concentration and clarification.



RisingSun Membrane, customize your exclusive membrane products

Membrane Characteristics	Feed Spacer	Outer Material	Permeate Tube	ATD	Products Size
<ul style="list-style-type: none"> >Reverse Osmosis >Nanofiltration >Ultrafiltration >Microfiltration 	<ul style="list-style-type: none"> >Diamond >Parallel >Corrugated 13mil, 17mil, 20mil, 26mil, 28mil, 31mil, 46mil, 65mil, 80mil, 120mil 	<ul style="list-style-type: none"> >Sanitary Net >Glassfiber >PVC 	<ul style="list-style-type: none"> >ABS >PVC >SUS >PSU 	<ul style="list-style-type: none"> >ABS >PSU >SUS >FLANGE >NO ATD 	<ul style="list-style-type: none"> >2.5inch >4.0inch >6.0inch >8.0inch >10.0inch





SPIRAL UF MEMBRANE

UF membranes are characterized by their molecular weight cut-off between 1,000-200,000 Dalton usually. Ultrafiltration is a pressure-driven membrane process being capable of separating solution components on the basis of molecular size and shape. Under an applied pressure difference across an ultrafiltration membrane, solvent and small solute species pass through the membrane and are collected as permeate while larger solute species are retained by the membrane and recovered as a concentrated retentate.



We supply spiral UF membrane with a wide variety of membrane material and MWCO. They have a compact design and an optimum surface area to volume ratio. The feed channel height can be varied by the thickness of the feed spacer material (from 13 to 120 mil). This helps to adapt the viscosity or the solids content of the liquid. This design feature leads to excellent hydrodynamics in combination with low energy demand. To meet some specialty applications, acid/caustic resistant, fouling resistant or high temperature membrane products are available.

Sanitary Type for Pharmaceutical, Biotech and Food Process

Glass Fiber Type for General Industrial Applications

Decoding of the product code: **S S- U E 010 -6338 -G1 XX**

Configuration	Outer Wrap	Membrane Type	Membrane Material	MWCO	Size	Feed Spacer	Internal Code
SPIRAL	SANITARY NET GLASS FIBER	Ultrafiltration	E=PES	001 1000Da	2319 2.3"×19"	A=13mil	F=31mil
			S=PS	005 5000Da	2540 2.5"×40"	B=17mil	G=46mil
			F=PVDF	010 10,000Da	3838 3.8"×38"	C=20mil	H=65mil
			N=PAN	020 20,000Da	6338 6.3"× 38"	D=26mil	I=80mil
			C=CELLULOSE	030 30,000Da	8040 8.0"× 40"	E=28mil	J=120mil
			R=REGENERATED CELLULOSE	.....	.....
			See page 15-16		See page 19	1=Diamond 2=Parallel 3=Corrugated	

1mil=0.0254mm

REPLACEMENTS REFERENCE

RisingSun Products	Replacements
SG-UE001-4040-F1	GE GE4040F30
SG-UE001-8040-G2	GE GE8040F50
SG-UE003-4040-F1	GE GK4040F30
SG-UE003-4040-G2	GE GK4040F50
SG-UE003-8040-F1	GE GK8040F30
SG-UE003-8040-G2	GE GK8040F50
SS-UE005-3838	KOCH 3838 HFK-328
SS-UE005-6338	KOCH 6338 HFK-328
SS-UE005-8038	KOCH 8038 HFK-328
SS-UE005-8338	KOCH 8338 HFK-328
SG-UE005-8040-F1	GE PT8040F30

RisingSun Products	Replacements
SG-UE008-4040	GE GM4040F
SG-UE008-8040	GE GM8040F
SG-UE010-4040	GE PW4040F
SG-UE010-8040	GE PW8040F
SS-UE010-6338	KOCH 6338 HFK-131
SS-UE010-8038	KOCH 8038 HFK-131
SS-UE010-8338	KOCH 8338 HFK-131
SS-UE010-8338	NADIR DS-UP010-8338
SS-UE020-8338	NADIR DS-UP020-8338
SS-UE030-8338	NADIR DS-UH030-8338
SS-UE050-8338	NADIR DS-UH050-8338

APPLICATION

- >Clarification/concentration for fermentation broth in pharmaceutical and biotech industry
- >Concentration for whey protein, gelatin, carrageenan, chondroitin sulfate
- >Pretreatment of industry water
- >Clarification of juice and wine
- >Oil/water separation
- >Acid/caustic recycling

ADVANTAGES

- >High thermal and chemical resistance
- >Imported high quality raw material
- >Sanitary design without dead space, high resistance to fouling
- >Simple and economic module replacement
- >Various choices of module dimensions
- >High packing density



SPIRAL MF MEMBRANE

MF membrane usually serves as a pre-treatment for other separation processes such as ultrafiltration. The typical particle size used for MF membrane ranges from about 0.1 to 1 μm . In terms of approximate molecular weight these membranes can prevent particles such as suspended solids, bacteria, and other macromolecules colloids, and pass through water, inorganic salt, monovalent species and small colloids. Compare to ultrafiltration, MF systems operate at relatively low pressures about 0.3-7 bar.



APPLICATION

- >Clarification for fermentation broth in pharmaceutical and biotechnology industry
- >Removal of suspended solids
- >Pretreatment of RO/NF
- >MBR industry

ADVANTAGES

- >High thermal and chemical resistance
- >Imported high quality raw material
- >Sanitary design without dead space, high resistance to fouling
- >Simple and economic module replacement
- >Various choices of module dimensions
- >High packing density

We supply spiral MF membrane with different membrane material and pore size. They have a compact design and an optimum surface area to volume ratio. The feed channel height can be varied by the thickness of the feed spacer material (from 13 to 120 mil). This helps to adapt the viscosity or the solids content of the liquid. This design feature leads to excellent hydrodynamics in combination with low energy demand. To meet some specialty applications, acid/caustic resistant, fouling resistant or high temperature membrane products are available.

Sanitary Type for Pharmaceutical, Biotech and Food Process

Glass Fiber Type for General Industrial Applications

Decoding of the product code: **S S- M F 005 -6338 -H1 XX**

Configuration	Outer Wrap	Membrane Type	Membrane Material	Membrane Pore Size	Size	Feed Spacer		Internal Code
SPIRAL	SANITARY NET GLASS FIBER	Microfiltration	F=PVDF	005 0.05um 010 0.10um	2319 2.3"×19" 3838 3.8"×38"	A=13mil B=17mil	F=31mil G=46mil	may be omitted
			E=PES	022 0.22um 045 0.45um	8338 8.3"× 38" 8040 8.0"× 40"	C=20mil D=26mil E=28mil	H=65mil I=80mil J=120mil	
See page 15-16					See page 19	1=Diamond 2=Parallel 3=Corrugated		

1mil=0.0254mm

REPLACEMENTS REFERENCE

RisingSun Products	Replacements
SS-ME010-3838	KOCH 3838 MFK-618
SS-ME010-6338	KOCH 6338 MFK-619
SS-ME010-8338	KOCH 8338 MFK-620
SG-MF022-4040-F1	GE JX4040F30
SG-MF022-4040-G1	GE JX4040F50
SG-MF022-8040-F1	GE JX8040F30
SG-MF022-8040-G1	GE JX8040F50
SG-MF022-8040	NADIR GY-MV020-8040
SG-ME005-8040	NADIR GY-MP005-8040



SPIRAL NF

NF membrane has a molecular weight cut-off between 200-800 Dalton usually. It is generally targeted to remove only divalent and larger ions. Monovalent ions such as sodium and chloride will pass through a nanofiltration membrane, therefore many of its uses involve groundwater softening, de-salting of the process stream. NF membrane is also becoming more widely used in food processing applications such as dairy, for simultaneous concentration and partial (monovalent ion)demineralization. NF membrane operation press is around 3.5-30 bar. Membrane chemistry: Polyamide, Sulfonate PES, Sulfonate PS.



We supply spiral NF membrane with a precise MWCO. They have a compact design and an optimum surface area to volume ratio. The feed channel height can be varied by the thickness of the feed spacer material (from 13 to 120 mil). This helps to adapt the viscosity or the solids content of the liquid. This design feature leads to excellent hydrodynamics in combination with low energy demand. To meet some specialty applications, acid/caustic resistant, fouling resistant or high temperature membrane products are available.

Sanitary Type for Pharmaceutical, Biotech and Food Process

Glass Fiber Type for General Industrial Applications

Decoding of the product code: **S S- NF2- 8040- G2 XX**

Configuration	Outer Wrap	Membrane Type	Size	Feed Spacer		Internal Code
SPIRAL	SANITARY NET GLASS FIBER	NF1	2319 2.3"×19"	A=13mil	F=31mil	may be omitted
		NF2	2540 2.5"×40"	B=17mil	G=46mil	
		NF3	3838 3.8"×38"	C=20mil	H=65mil	
		.....	6338 6.3"× 38"	D=26mil	I=80mil
		.....	8040 8.0"× 40"	E=28mil	J=120mil
		See page 15-16	See page 19	1=Diamond 2=Parallel 3=Corrugated		

1mil=0.0254mm

REPLACEMENTS REFERENCE

RisingSun Products	Replacements
SG-NF1-2540	NF90-2540
SG-NF1-4040	ESNA1-4040
SG-NF1-8040	NF90-400
SS-NF2-3838-F1	NF245-3838/30-FF
SS-NF2-3840-F1	NF245-3840/30-FF
SS-NF2-8040	NF245-390-FF
SG-NF3-4040	NF270-4040
SG-NF3-8040	ESNA1-K1
SS-NF7-4040	GE HL4040F
SS-NF7-8040	GE HL8040F

RisingSun Products	Replacements
SG-NF4-2540-F1	GE DL2540F30
SG-NF4-2540-G2	GE DL2540F50
SG-NF4-4040-F1	GE DL4040F30
SG-NF4-4040-G2	GE DL4040F50
SG-NF4-8040-F1	GE DL8040F30
SG-NF4-8040-G2	GE DL8040F50
SG-NF5-2540-F1	GE DK2540F1072
SG-NF5-2540-G2	GE DK2540F1073
SG-NF5-4040-F1	GE DK4040F1020, Stinger
SG-NF5-4040-G2	GE DK4040F1021, Stinger
SG-NF5-8040-F1	GE DK8040F1001
SG-NF5-8040-G2	GE DK8040F1002

APPLICATION

- >Water softening
- >Precious metal recovery
- >Concentration of protein, amino acid, vitamin in food, beverage and pharmaceutical industry
- >Acid/caustic recycling
- >Dye color removal
- >Heavy metal separation of waste water

ADVANTAGES

- >Imported high quality raw material, high flux, chemical resistance
- >Precise MWCO
- >Sanitary design without dead space, high fouling resistant
- >Simple and economic module replacement
- >Various choices of module dimensions
- >High packing density



SPIRAL RO MEMBRANE

RO membrane can remove many types of molecules and ions bigger than 0.0001um from solutions, and allow smaller components of the solution (typically water) to pass freely. One of its common applications is seawater desalination, in which pure water is produced from a highly saline feed stream. Membrane material: Polyamide; Special composite membrane



We supply reverse osmosis membrane elements with standard, low and extra low pressure for water treatment as well as for sea water purification by using high quality imported RO membrane sheet. The feed channel height can be varied by the thickness of the feed spacer material (from 13 to 120 mil). This helps to adapt the viscosity or the solids content of the liquid. This design feature leads to excellent hydrodynamics in combination with low energy demand. To meet some specialty applications, heat sanitizable, sanitary, fouling resistant or high temperature membrane products are available.

Sanitary Type for Pharmaceutical, Biotech and Food Process

Glass Fiber Type for General Industrial Applications, and Water Purification

Decoding of the product code: S G- RO1- 8040- F1 XX

Configuration	Outer Wrap	Membrane Type	Size	Feed Spacer		Internal Code
SPIRAL	SANITARY NET GLASS FIBER	RO1	3838 3.8"×38"	A=13mil	F=31mil	may be omitted
		RO2	4040 4.0"×40"	B=17mil	G=46mil	
		RO3	8338 8.3"× 38"	C=20mil	H=65mil	
		.....	8040 8.0"× 4.0"	D=26mil	I=80mil	
		.....	.....	E=28mil	J=120mil	
		See page 15-16	See page 19	1=Diamond 2=Parallel 3=Corrugated		

1mil=0.0254mm

APPLICATION

- >Desalting of various liquid
- >Ultrapure water production in pharmaceutical, biotech industry
- >Whey concentration in dairy industry
- >Sea water purification
- >Boiler feed water at power stations
- >Home & commercial drinking machine

ADVANTAGES

- >High flux, low energy consumption and long life
- >Imported high quality raw material
- >Simple and economic module replacement
- >Various choices of module dimensions

REPLACEMENTS REFERENCE

RisingSun Products	Replacements
SS-RO1-3838-F1	RO-3838/30-FF
SS-RO1-3840-F1	RO-3840/30-FF
SS-RO1-4040	RO-4040-FF
SS-RO1-4040H	SANRO HS-4
SS-RO1-8040	RO-390-FF
SS-RO1-8040H	SANRO HS-B

RisingSun Products	Replacements
SG-RO1-2540	BW30-2540
SG-RO1-4040	CPA2-4040
SG-RO2-4040	ESPA1-4040
SG-RO3-4040	ESPA4-4040
SG-RO1-8040	CPA3-LD



FLAT SHEET MEMBRANE

We offer UF/MF/NF/RO flat sheet membrane with various MWCO and Ion Exchange Membrane. All membrane derived from USA.

Membrane material

- Polyether sulfone (PES)
- Polysulfone (PS)
- Polyvinylidene fluoride (PVDF)
- Polyacrylonitrile (PAN)
- Polyamide (PA)
- Cellulose (CA)
- Regenerated cellulose (RC)

Benefits

- High thermal and chemical resistance
- Precise MWCO
- High flux capacity
- Fouling resistant
- Long service life
- Acid/caustic resistant
- High temperature resistance

RO membrane	Rejection (%)	Flux rate (LMH)	Replacement reference	Typical applications
RO1	99.5	45	BW30	Water treatment; Specific liquid concentration; Sea water desalination; Landfill leachate; Wastewater treatment, etc.
RO2	99.2	55	LE	
RO3	99.0	50	XLE	
RO4	99.4	42	SW30	
RO5	99.7	47	SW30ULE	
RO6	99.7	30	SW30HR	

Testing condition: RO1: 2000ppm NaCl, 225psi(1.55MPa), 25°C ;
RO2: 2000ppm NaCl, 150psi(1.03MPa), 25°C ; RO3: 500ppm NaCl, 100psi(0.69MPa), 25°C ;
RO4,RO5,RO6: 32000ppm NaCl, 800psi(5.5MPa), 25°C.

NF membrane	Rejection (%)	Flux rate (LMH)	Replacement reference	Typical applications	
NF1	≥ 99.0	43	NF90	Soft water; Acid and caustic recovery; Precious–metals recovery; Dye concentration, desalination; Whey desalination; Antibiotic concentration; Polysaccharide desalination; BOD/COD removal, etc.	
NF2	≥ 99.0	42	NF245		
NF3	≥ 97.0	55	NF270		
NF4	92.0–95.0	50	GE		DL
NF5	≥ 98.5	38			DK
NF6	≥ 99.5	60	KOCH		SelRO MPS–34
NF7	85.0–95.0	60			XN45
NF8	60.0–85.0	65			UA60

Testing condition: NF1–NF3: 2000 ppm MgSO₄, 70psi(0.48MPa), 25°C ;
NF4,NF5,NF7,NF8: 2000 ppm MgSO₄, 110psi(0.76MPa), 25°C ;
NF6: 2000 ppm, 142psi(1.0 MPa), 25°C ;



UF membrane	Membrane material	MWCO (Dalton)	Flux rate(LMH) @25°C ,0.35MPa	Replacement reference		Typical applications
UA001	PA	1,000	60*	GE	GE	
UA003		3,500	65*		GK	
UE001	PES	1,000	40 **	MICRODYN	NP030	
UE003		3,000	200 **		NADIR	NP010
UE005		5000	100	KOCH	HFK–328	
UE008		8000	130	GE	PT	
				GE	GM	
UE010		10,000	150	KOCH	HFK–131	
				GE	PW	
				UP010		
UE020		20,000	200	UP020		
				PE20		
UE030	30,000	240	UH030			
UE050	50,000	260	UH050			
US020	PS	20,000	280	PS20		
US050		50,000	350	US100		
UF050	PVDF	50,000	400	KOCH	HFM–100	
UF100		100,000	500		HFM–300	
UN010	PAN	10,000	150	PA50		
UN050		50,000	400	PA200		
UN100		100,000	450	PA400		
UR030	RC	30,000	250	ALFA LAVAL RC70PP		
UR100		100,000	350			
UC005	CA	5,000	150	STARIOUS	14529	
UC010		10,000	200		14539	
UC050		50,000	350		14549	

* Testing condition: 0.76MPa, 25°C ;
** Testing condition: 4.0MPa, 25°C ;
pH range @25°C: (1)PES 0–14;(2)PS 1–14;(3)PVDF,PAN 1–12;(4)RC 1–11;(5)CA 3–9.

MF membrane	Membrane material	Pore size (µm)	Flux rate(LMH) @25°C ,0.1MPa	Replacement reference	Typical applications
ME005	PES	0.05	>280	MICRODYN NADIR MP005	MBR Industry; Biotech/Pharmaceutical; Microbial Removal; Protein Separation; Antibiotic Clarification; Enzyme Clarification; Pretreatment for RO/NF, etc.
ME010		0.10	>320	KOCH MFK–603	
MF010	PVDF	0.10	>500	TORAY	
MF022		0.22	>1000	KUBOTA	
MF045		0.45	>1500		

Ion Exchange Membrane	Membrane character	Functional group	Exchange capacity meq/g	Replacement reference		Typical applications
AE1	Anion Exchange	Quaternary Ammonium	1.0 ± 0.1	MI	AMI–7001		The anode & cathode electrocoating process; EDI, etc.
AE2			0.9	LANXESS SYBRON	IONAC MA–3475	
AE3			1.0		IONAC MA–7500	
CE1	Cation Exchange	Sulfonic Acids	1.6 ± 0.1	MI	CMI–7000	
CE2			1.4	LANXESS SYBRON	IONAC MC–3470	

1.The above data may vary but will be no more than 15% below the value shown; Products specifications may vary as design revisions take place.
2.The standard width of membrane sheet is 40inch, sample is available.

COMPANY QUALIFICATION



RisingSun Membrane picks up the pace through continuous investment in membrane technology research and development to improve the performance of the original products and develop new industry products. At present, we have received a wide range of intellectual property rights and industrial certifications.

Trademark
RisingSun Membrane
SUN (picture)



PATENT NO: 5743414



PATENT NO: 5737034



PATENT NO: 5753820



PATENT NO: 5870293



PATENT NO:5742354



PATENT NO: 4775194



PATENT NO: 4545079



PATENT NO: 4786313



PATENT NO: 1846354



PATENT NO: 4671308



PATENT NO: 4766844



PATENT NO: 4899381

ELEMENTS DIMENSION & MEMBRANE AREA



Model	Membrane Element Dimension			Feed Spacer VS Membrane Area			
	Diameter (B) (mm)	Length (A) (mm)	Tube (C) (ID/OD mm)	F(31mil) (m ²)	G(46mil) (m ²)	H(65mil) (m ²)	I(80mil) (m ²)
1812	44.5	298	17(OD)	0.4	0.3	N/A	N/A
1812*	44.5	305	16(ID)	0.4	0.3	N/A	N/A
2319*	59.0	489	16(ID)	1.0	0.8	0.6	0.5
2521	61.0	533	19(OD)	1.3	0.9	0.7	0.6
2540	61.0	1016	19(OD)	2.6	1.9	1.6	1.3
2540*	61.0	1016	19(OD)	2.5	1.8	1.5	1.2
3838	96.0	966	21(ID)	7.3	5.6	3.9	3.7
4020	99.0	508	16(ID)	3.2	2.5	N/A	N/A
4040	99.0	1016	19(OD)	6.8	4.9	4.3	3.6
4040*	99.0	1016	19(OD)	8.4	6.7	5.0	3.9
4040	99.0	1016	16(ID)	7.2	5.2	4.5	3.8
4040*	99.0	1016	16(ID)	8.9	7.1	5.3	4.1
4338*	109.0	966	21(ID)	9.5	7.8	5.8	4.5
5640	142.0	1016	33(ID)	15.0	11.5	N/A	N/A
6338*	160.0	966	29(ID)	20.0	15.9	13.8	10.8
7640	190.0	1016	33(ID)	27.0	20.8	N/A	N/A
7940*	200.0	1016	29(ID)	34.0	25.0	20.0	17.5
8038*	200.0	966	29(ID)	34.0	25.0	20.0	17.5
8040	200.0	1016		33.0	24.0	19.5	17.0
8040*	200.0	1016		34.0	25.0	20.0	17.5
8338*	210.0	966		37.0	31.0	24.0	20.0
8340	210.0	1016		36.0	30.0	23.0	19.5
8340*	210.0	1016		37.0	31.0	24.0	20.0
10338*	260.0	966	29(ID)	60.0	46.0	35.0	30.0

* Sanitary net 1mil=0.0254mm

