

Products specification may be updated continually,
 please contact us for any inquiry.
 Released in March 2019

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MEMBRANE PRODUCTS



Our products enhance your brand

Flat sheet MBR / **FMBR**

Spiral wound MBR / **SMBR**

Spacer Tube RO/NF **STRO / STNF**

Disc Tube RO/NF **DTRO / DTNF**

Flat sheet membrane



Company profile

RisingSun Membrane with location in Beijing China is a very professional membrane products' manufacturer for Microfiltration, Ultrafiltration, Nanofiltration, Reverse Osmosis, and Tubular Anode Cell. We are and will be always focusing on membrane R&D to meet customers' strict filtration needs. We can supply spiral-wound, flat, disc & tubular type. Till now, our membrane products have been widely used for wastewater, biotech fermentation, pharmaceuticals intermediates, dye and e-coat process etc.

We cooperate with so 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 raw material, carry out ISO 9001:2008 management, we can deliver more efficient membrane products for you.

We devote to

Supply integrated solution of membrane products for wastewater treatment.
Supply membrane products and process for liquid separation, concentration and clarification.

We positioning in

A professional manufacturer of membrane products used for waste water treatment.
A professional manufacturer of specialty membranes.
Offer specialty and common membrane R & D for membrane application companies.
Become a customer's unique product reserve base.



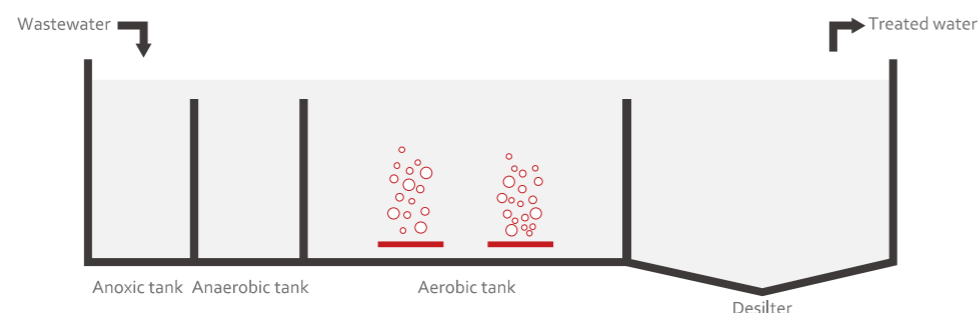
More excellent flat sheet MBR (FMBR)

Flat sheet MBR (FMBR)

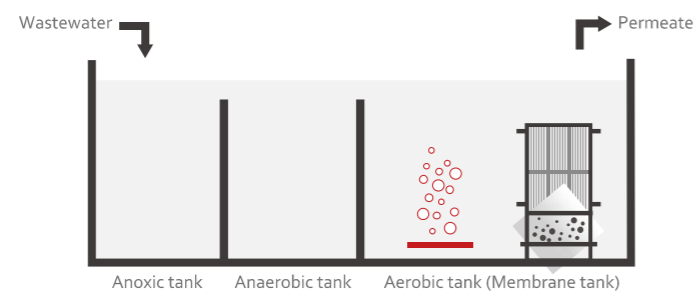
MBR Introduction

Membrane bioreactor (MBR) is the combination of a membrane process like microfiltration or ultrafiltration with a biological wastewater treatment process and the activated sludge process. It is now widely used for municipal and industrial wastewater treatment. This bioreactor possesses the advantages of membrane filtration and biological treatment technology. Membrane modules, which can replace the secondary sedimentation tank, are used to separate mud and water. The MBR process has obvious advantages compared with the traditional wastewater treatment technology.

Traditional wastewater treatment process



MBR Process



MBR Advantages

- Effluent high quality (low turbidity, low TSS) for regulatory or reuse purposes.
- Not reliant on input water MLSS.
- Longer activated sludge age and lower sludge disposal costs.
- Smaller footprint.
- Easy operation.

Flat sheet MBR (FMBR)

The difference between the MBR and Continuous Aeration System (CAS)

The water quality comparison of MBR and CAS

Description	Input water	Output water		
	Typical municipal wastewater	MBR	CAS	
TURBIDITY (NTU)	-	Membrane filtration process	< 1	5-20
SDI	-		< 3	> 5
TSS(mg/L)	100-300		< 1	10-30
BOD ₅ (mg/L)	300	Biological process	< 5	< 30
COD(mg/L)	600		< 30	< 100
NH ₃ -N(mg/L)	30		< 0.5	5-10
TN(mg/L)	40		< 15	> 25
TP(mg/L)	10-20		< 0.5	5-8

Note: The removal rate of BOD and COD is related with the biological treatment process.
 The removal rate of NH₃-N is different based on the degree of nitrification.
 The removal rate of TN is different based on the degree of denitrification.
 The removal of the phosphorus might need the chemical method.

The other comparisons of MBR and CAS

Description	MBR	CAS
Water quality	Directly reusable, higher than national standard	Meet national standard
Footprint	About 1/3-1/2 m ² /(m ³ .d-1)	About 1m ² /(m ³ .d-1)
Construction investment	RMB2000-2600/(m ³ .d-1)	RMB1500-2000/(m ³ .d-1)
Operation cost	RMB0.7-1.0 /m ³	< 0.7RMB/m ³ (Direct water discharge) < 1.0RMB/m ³ (Reclaimed water discharge)
Excess sludge	1/3-1/5 of CAS	Volume big, high processing cost
Operations management	Few devices, simple flow process, easy to automatically control, stable operation and remote control feasible	Many devices, complicate flow process, easy to break down and high operation cost
Water application	Reclaimed water and water for industrial use	Emission on standard

Flat sheet MBR (FMBR)

SUN[®] Flat sheet MBR benefits

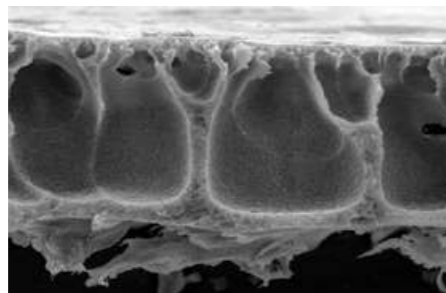
SUN[®] flat sheet membrane is made of PVDF, which has better chemical stability, fouling resistance and mechanical strength. With advanced membrane fabrication technology, we control the membrane pore size around 0.1 μm to get a higher water flux and water quality. The mortise and tenon structure is used in the support plate to get a more stable spacing without side panels. The support plate can be installed from top and installed from one side without the limits of the construction site conditions.

The mortise and tenon structure SUN[®] support plate



Laser engraving diamond flow path, coupled with special umbrella support structure, make the suction pressure distribution much better without diverting nonwoven fabrics. This structure reduces the risk of fouling and improves the water flow rate.

SUN[®] PVDF membrane electron micrograph

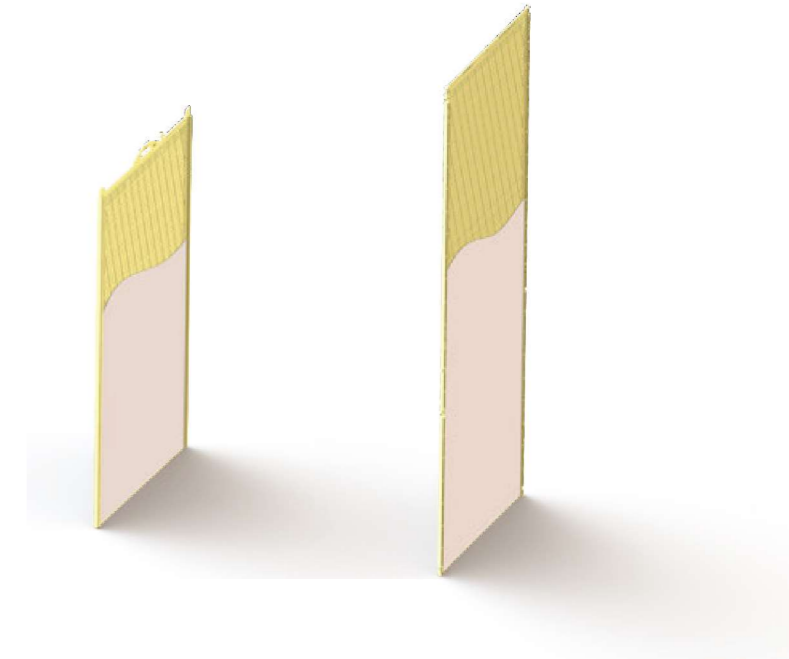


SUN[®] support plate flow channel for FMBR160



Flat sheet MBR (FMBR)

SUN[®] Flat sheet MBR element

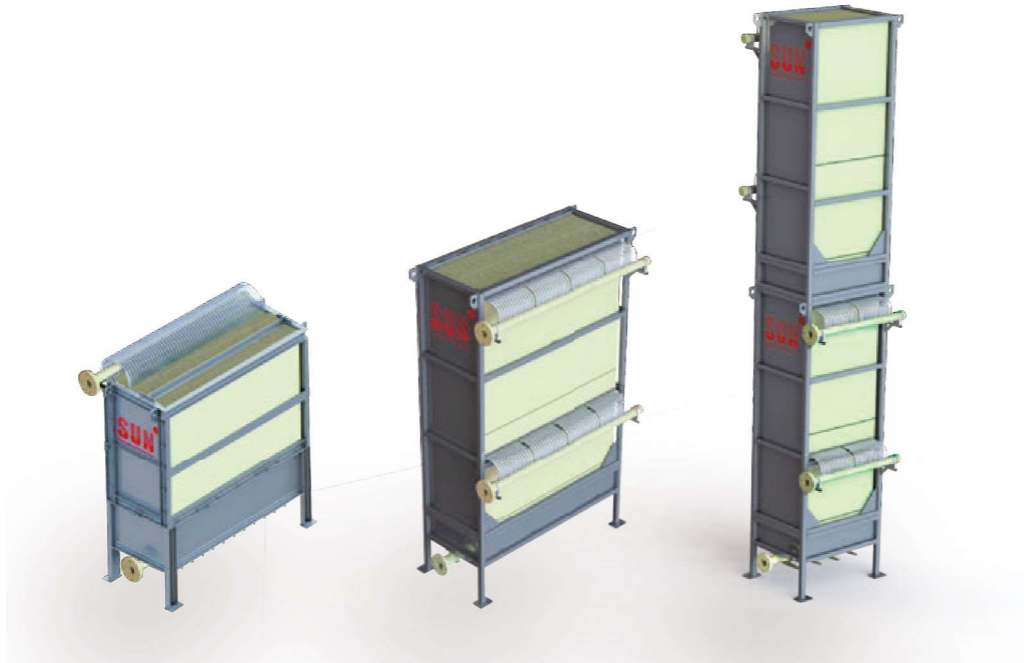


Items	Standard type	Long type
Model	FMBR80	FMBR160
Size (L×W×T) (mm)	1020×510×14	1810×512×14
Membrane effective area (m ²)	0.8	1.6
Weight (kg)	3	5
Permeate flux [l/(pc·d)]	320-550	640-1100
Membrane material	PVDF	PVDF
Membrane pore size(μm)	0.1	0.1
Plate material	ABS	ABS
Air flow rate [l/(min·pc)]	≥10	≥12
pH	3 ~ 12	3 ~ 12
Output turbidity (NTU)	< 1.0	< 1.0
Output SS (mg/l)	≤5	≤5
Chemical cleaning	~ 5,000mg/l NaClO	~ 5,000mg/l NaClO

Note: For different water quality, there will be a different water flow rate. So the user should fully test the membrane module. This parameter is tested at 25 °C, -10kPa suction vacuum conditions based on municipal wastewater.

Flat sheet MBR (FMBR)

SUN® Flat sheet MBR module



Items	FMBR80			
Model	FMBR80-50	FMBR80-125	FMBR80-250-2	FMBR80-250-4
Permeate flux(m ³ /d)	16-26	38-65	150-260	300-520
Plate qty. (pc)	50	125	500	1000
Membrane effective area (m ²)	40	100	400	800
Size (mm)(LxWxH)	820x600x1680	1885x600x1680	3720x600x2750	3720x600x4900
Air flow rate (L/min)	500	1250	3500	3500
Weight (kg)	120	230	900	1700

Items	FMBR160			
Model	FMBR160-50	FMBR160-125	FMBR160-125-2	FMBR160-150-2
Permeate flux(m ³ /d)	32-50	75-130	150-260	180-310
Plate qty. (pc)	50	125	250	300
Membrane effective area (m ²)	80	200	400	480
Size (mm)(LxWxH)	830x620x2550	1880x620x2550	1880x620x4500	2230x620x4500
Air flow rate (L/min)	600	1500	1750	2100
Weight (kg)	400	900	1700	2000

Note: We can provide a single membrane element and any size frame to meet customer's different requests.
Such as: FMBR80-175, FMBR80-200, FMBR80-200-2 (double deck), FMBR80-200-4 (four deck), FMBR160-200, FMBR160-200-2 (double deck) etc.



More innovative spiral wound MBR (SMBR)

Spiral wound MBR (SMBR)

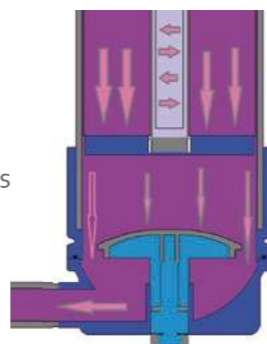
SMBR Introduction

SMBR is a submerged backwashable spiral membrane, which is used in the field of industrial wastewater and other processes. SMBR is an innovative product which can implement washing flow from the permeate carrier side with certain pressure. The open flow channels enable aggressive air scouring where bubbles "scrub" the membrane surface to clean. Submerged systems rely on centrifugal pumps to generate a slight vacuum pressure pulling water through the membrane barrier layer. At the same time, its backwashing frequency is the same as hollow fiber membrane.



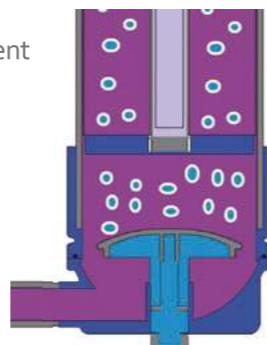
Features

- Air scour can decrease the pollutant deposition on membrane surface
- Open flow channels allows a lower pretreatment requirements
- Both submerged and split-type are acceptable with small footprint
- Frequent backwashing is allowable
- The equipment investments and energy costs are lower



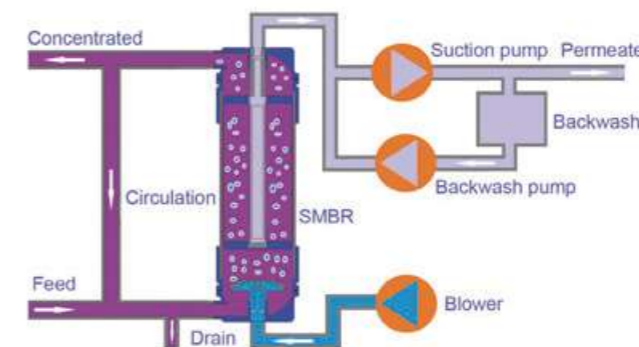
Applications

- | | |
|--------------------------------|----------------------------------|
| Industrial wastewater reuse | Secondary sedimentation effluent |
| RO pretreatment | Removal of heavy metals |
| Landfill leachate pretreatment | Process water |
| Domestic wastewater reuse | Recycled water |



Spiral wound MBR (SMBR)

SMBR Introduction



Comparison of SMBR and Hollow fiber membrane

Identical

- Frequent backwashing
- Lower feed requirement
- High recycle rate



Difference

- SMBR has lower energy costs
- SMBR has no risks of filament break
- SMBR has open channels to prevent solid deposition

Spiral wound MBR (SMBR)

SMBR-10040 Specifications

SMBR-10040 Membrane element

Items		Completed with vessel & caps	Membrane body only
			
Model		SP-SMBR-10040	SG-SMBR-10040
Membrane effective area(m ²)		23	23
Diameter (mm)		250	250
Membrane material		PVDF/PES	PVDF/PES
Membrane pore size(μm)		0.1	0.1
TMP range (bar)		0.1-0.7	0.1-0.7
Configuration		Split-type	Submerged
Operation Pressure	Positive(bar)	1.0	0.5
	Negative(bar)	0.7	0.7
Permeate flux (l/h)		400-1000	400-1000
pH (continuous)		2-11	2-11
pH (cleaning)		2-11.5	2-11.5
Air flow rate [l/(min·pc)]		100	100

SMBR-10040 Membrane module

Items	SP-SMBR-20	SP-SMBR-80	SP-SMBR-160
Element qty. (pc)	20	80	160
Membrane effective area(m ²)	460	1840	3680
Permeate flux(m ³ /h)	8-18	32-70	50-130
Size (mm)	3000×850×1900	3000×5800×1900	6060×2450×2600
Weight (kg)	700	2800	6000
Pipe material	PVC/SUS	PVC/SUS	PVC/SUS
Feed flux(m ³ /h)	10-22	38-80	60-150
Air flow rate[l/(min·module)]	2000	8000	16000



More plentiful spiral wound RO/NF (STRO/STNF)

Spacer Tube RO/NF (STRO/STNF)

STRO/STNF Introduction

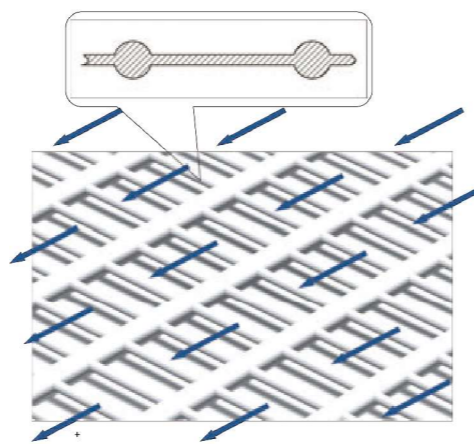
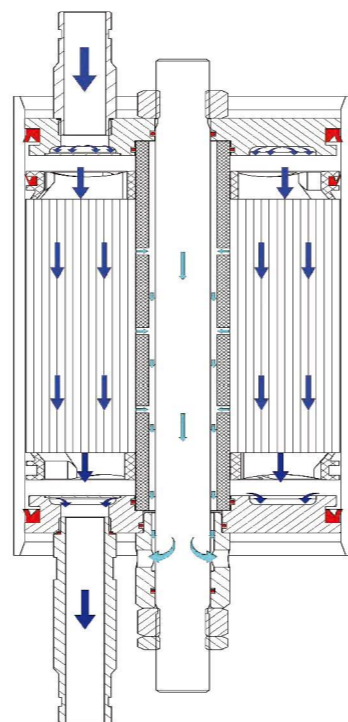
With the development of membrane technology industry, there are more and more special requirements to the performance of membrane products, such as lower feed water quality, higher pressure to increase concentration ratio, longer cleaning cycle and service life. As a result, the open channel type high pressure membrane arises at the historic moment.

Features

- High strength and high pressure integral design
- Open feed spacer enables low flow resistance and low concentration polarization
- Spiral wound structure with more membrane area

Applications

- Industrial wastewater
- High salts wastewater
- Spiral wound RO/NF concentrates

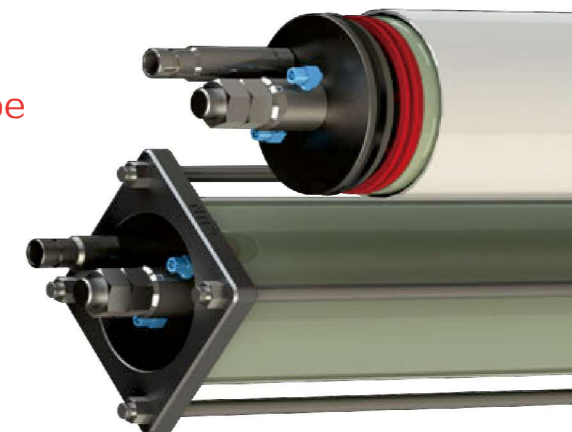


Spacer Tube RO/NF (STRO/STNF)

STRO/STNF Introduction

ST membrane module type

- High pressure type
- Super high pressure type



Comparison of different membrane construction

	DT	ST	SPIRAL
Construction	Disc tube	Special spiral	General spiral
Feed spacer construction	Open	Trapezoid open	Diamond
Feed spacer thickness (mm)	1.5	0.8-1.2	0.4-0.8
Membrane area (m ²)	0.45-9.4	25-29	25-41
Operation pressure (bar)	75-160	75-120	15-41
Pretreatment request	★★	★★★	★★★★★
Anti-pollution capacity	★★★★★	★★★★★	★★



Spacer Tube RO/NF (STRO/STNF)

STRO/STNF High pressure membrane element specification

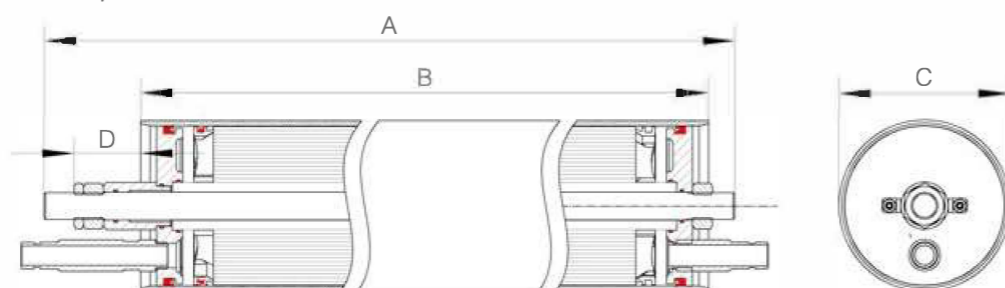
Type	STRO		STNF
	STRO3-8035	STRO5-8042	STNF2-8042
Membrane sheet type	RO3	RO5	NF2
Effective membrane area (m ²)	25	27	27
Construction *	Spiral Wound Element with GRP Outerwrap, Brine Seal		
Feed flux range (m ³ /h)	5.5-12		5.5-12
Recommend flux (m ³ /h)	10		10
Permeate flux ** (m ³ /d)	23	24	25
Stable rejection ** (%)	98.5	99.5	98.0
Minimum rejection (%)	97.5	99.0	96.0
Feed spacer	Special open type (Trapezoid)		
Element Dry Weight(kgs)	18	20	20
Max. element pressure drop (bar)	1.0		1.0
Max. operation pressure (bar)	90		90
Max. operation temperature (°C)	45		45
pH continuous operation	3-11		3-11
pH CIP	2-12		2-12
Chlorine tolerance (ppm)	≤0.1		≤0.1

* Brine seal to be installed in flow direction on the low pressure side/element outlet side.

** RO3 test condition: 2,000mg/l NaCl solution at 15.5bar applied pressure, 15% recovery, 25°C; RO5 test condition: 32,000mg/l NaCl solution at 55bar applied pressure, 8% recovery, 25°C; NF2 test condition: 2,000mg/l MgSO₄ solution at 7bar, 15% recovery, 25°C. There may have about ±15% change for individual module flow rate.

Performance specifications shown above are nominal values. Individual module permeate flow rate may vary based on inlet water condition.

Note: We could offer any membrane sheet to make ST membrane module, for example, STRO4-8035, STRO5-8035, STRO1-8042, STNF1-8042, etc.



Model	8035	8042
Total tie rod length A (mm)	1140	1355
Vessel length B (mm)	1000	1200
Vessel to top of frame D (mm)	85	85
Inlet & outlet connections (inch)	1 inch Victaulic	1 inch Victaulic
Permeate connection (mm)	2xG3/8"-90° elbow for 9mm hose	2xG3/8"-90° elbow for 9mm hose
Operation Pressure (bar)	75	90
Membrane module diameter C (mm)	216	220

Spacer Tube RO/NF (STRO/STNF)

STRO-H Super high pressure membrane element specification

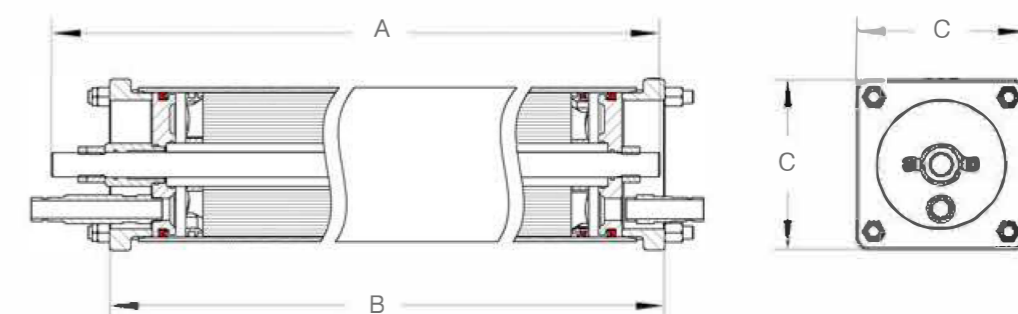
Type	STRO-H	
	STRO5-8042-H	STRO6-8042-H
Membrane sheet type	RO5	RO6
Effective membrane area (m ²)	27	
Construction *	Spiral Wound Element with GRP Outerwrap, Brine Seal	
Feed flux range (m ³ /h)	5.5-12	
Recommend flux (m ³ /h)	10	
Permeate flux ** (m ³ /d)	24	20
Stable rejection ** (%)	99.5	99.6
Minimum rejection (%)	99.0	99.0
Feed spacer	Special open type (Trapezoid)	
Element Dry Weight(kgs)	20	
Max. element pressure drop (bar)	1.0	
Max. operation pressure (bar)	120	
Max. operation temperature (°C)	45	
pH continuous operation	3-11	
pH CIP	2-12	
Chlorine tolerance (ppm)	≤0.1	

* Brine seal to be installed in flow direction on the low pressure side/element outlet side.

** RO5, RO6 test condition: 32,000mg/l NaCl solution at 55bar applied pressure, 8% recovery, 25°C, pH=8; There may have about ±15% change for individual module flow rate. Performance specifications shown above are nominal values. Individual module permeate flow rate may vary based on inlet water condition.

*** Liquid temperature should less than 30°C at 120bar pressure.

Note: We could offer any membrane sheet to make ST membrane module, for example, STRO4-8042-H, etc.



Model	STRO-8042-H
Total tie rod length A (mm)	1305
Flange interval B (mm)	1230
Flange width C (mm)	240
Inlet & outlet connections (inch)	1 inch Victaulic
Permeate connection (mm)	2 x G3/8"-90° elbow for 9mm hose

Spacer Tube RO/NF (STRO/STNF)

STRO-E Economy membrane element specification

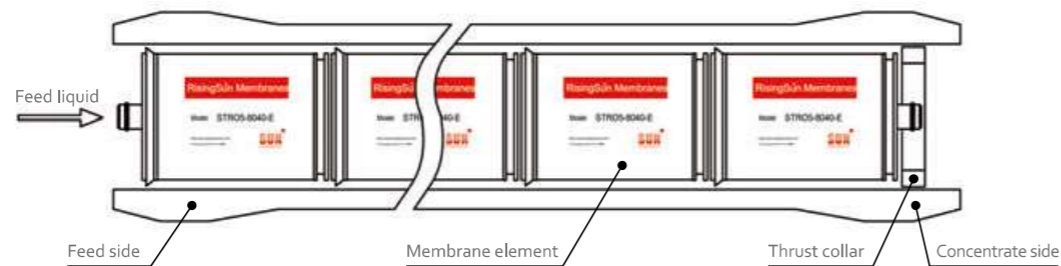
Type	STRO		
Model	STRO3-8040-E	STRO5-8040-E	STRO6-8040-E
Membrane sheet type	RO3	RO5	RO6
Effective membrane area (m ²)	27		
Feed flux range (m ³ /h)	5.5-12		
Recommend flux (m ³ /h)	10		
Permeate flux ** (m ³ /d)	25	24	20
Stable rejection ** (%)	98.5	99.5	99.6
Minimum rejection (%)	97.5	99.0	99.0
Feed spacer	Special open type (Trapezoid)		
Max. element pressure drop (bar)	1.0		
Max. operation pressure (bar)	90	120***	120***
Max. operation temperature (°C)	45		
pH continuous operation	3-11		
pH CIP	2-12		
Chlorine tolerance (ppm)	≤0.1		

Brine seal to be installed in flow direction on the low pressure side/element outlet side.
 ** RO3 test condition: 2,000mg/l NaCl solution at 15.5bar applied pressure, 15% recovery, 25°C; RO5, RO6 test condition: 32,000mg/l NaCl solution at 55bar applied pressure, 8% recovery, 25°C, pH=8; There may have about ±15% change for individual module flow rate. Performance specifications shown above are nominal values. Individual module permeate flow rate may vary based on inlet water condition.
 *** Liquid temperature should less than 30°C at 120bar pressure.



	A (mm)	B (mm)	C (mm)
STRO-E	1016	201	29 ID

STRO-E using diagram



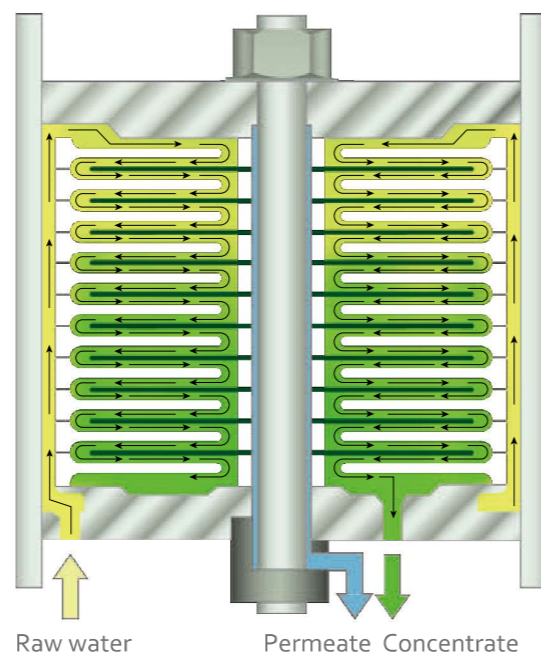
More inexpensive disc tube high pressure RO/NF (DTRO/DTNF)



Disc Tube RO/NF (DTRO/DTNF)

DTRO/DTNF Introduction

Our Disc Tube membrane module includes DTRO and DTNF by using different kinds of membrane sheet. The Disc Tube module consists of membrane stacks, which are housed in an 8inch high pressure vessel and assembled on a center tie rod and using stainless steel end flanges.



Features

- High strength design, up to 160bar operation pressure
- Open channel configuration enables low flow resistance and low concentration polarization
- Open channel reduced risks of clogging and crystallization
- High salt rejection and high recovery rates (up to 90%-95%)

Application fields

- Landfill leachate
- High concentration of industrial waste water
- Spiral wound RO/NF concentrates
- Industrial high salts water

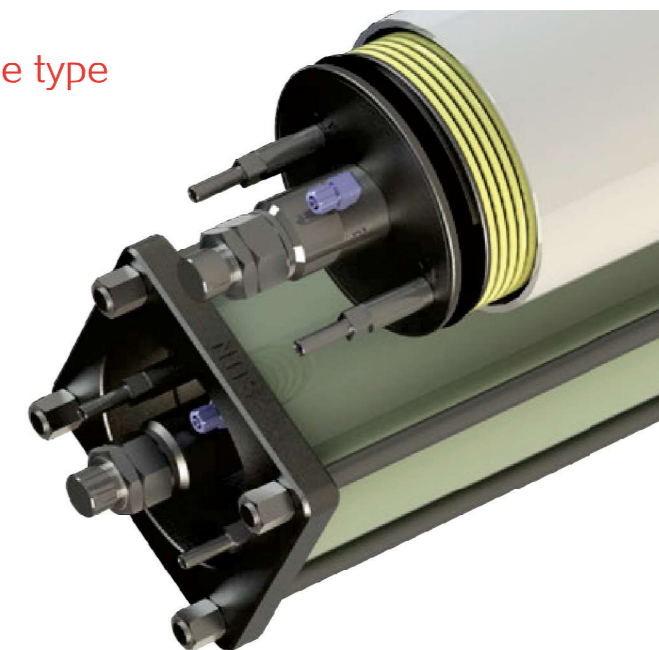


Disc Tube RO/NF (DTRO/DTNF)

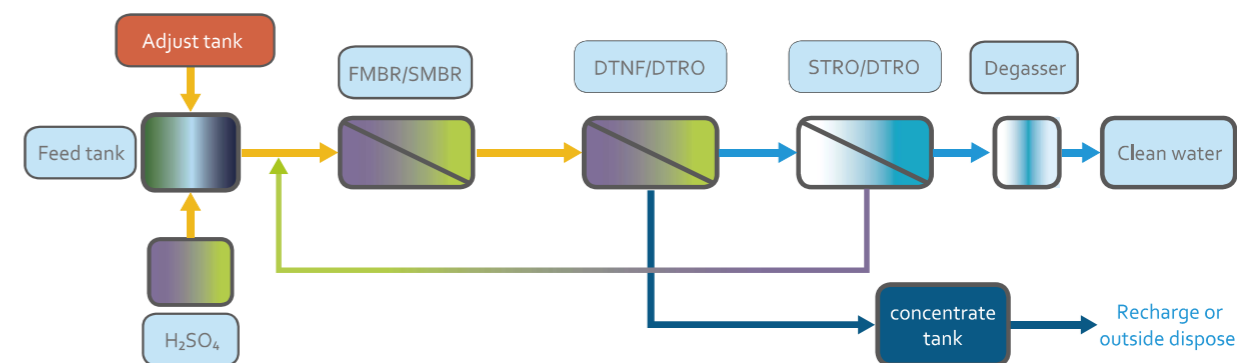
DTRO/DTNF Introduction

DT membrane module type

- General type
- High Pressure type



A typical process diagram

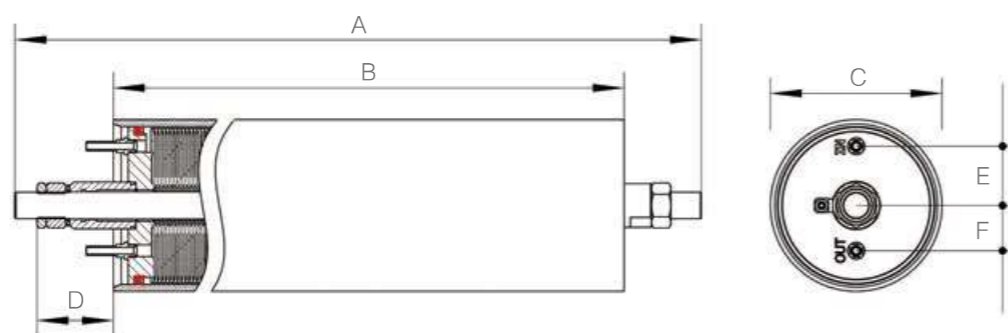


Disc Tube RO/NF (DTRO/DTNF)

DTRO/DTNF High pressure membrane module specification

Type	DTRO		DTNF
	Model	SP-DTRO3-8042	SP-DTRO5-8042
Membrane sheet model	RO3	RO5	NF2
Membrane cushion qty.	209	209	209
Membrane area (m ²)	>9.4	>9.4	>9.4
Feed flux range (L/H)	500-1200	500-1200	500-1200
Permeate flux ** (L/H)	420	400	450
Stable rejection ** (%)	98.5	99.5	98
Min. rejection (%)	97.5	99	96
Hydraulic disc material	ABS	ABS	ABS
Vessel material	FRP	FRP	FRP
Operation pressure (bar)	75	90	90
Max. element pressure drop (bar)	9	9	9
Max. operation temperature (°C)	40	40	40
Chlorine tolerance (ppm)	<0.1	<0.1	<0.1
pH continuous operation	3-11	3-11	3-11
Chemical cleaning pH@40°C	2-12	2-12	2-12

** RO3 test condition: 2,000mg/l NaCl solution at 15.5bar applied pressure, 25°C; RO5 test condition: 32,000mg/l NaCl solution at 55bar applied pressure, 25°C; NF2 test condition: 2,000mg/l MgSO₄ solution at 7bar, 25°C. Permeate flux and stable rejection may vary based on inlet water condition. There may have about ±20% change for individual module permeate flux.



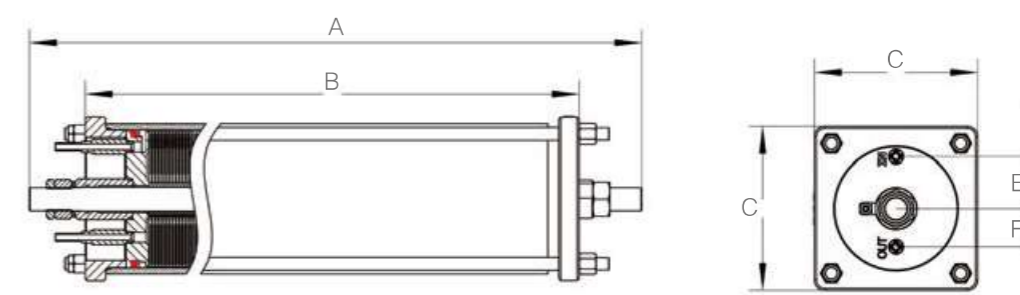
Operation Pressure (bar)	75	90
Total module length A (mm)	1400	1400
Vessel length B (mm)	1200	1200
Module diameter C (mm)	216	220
Vessel to top of frame D (mm)	73	73
Inlet to flange center distance E (mm)	76	76
Outlet to flange center distance F (mm)	56	56
Inlet & outlet connections diameter (mm)	12	12
Permeate connection (mm)	1 x G3/8"-90° elbow for 9mm hose	

Disc Tube RO/NF (DTRO/DTNF)

DTRO-H Super high pressure membrane module specification

Type	DTRO-H	
	Model	SP-DTRO5-8042-H
Membrane sheet model	RO5	RO6
Membrane cushion qty.	209	209
Membrane area (m ²)	>9.4	>9.4
Feed flux range (L/H)	500-1200	500-1200
Permeate flux ** (L/H)	400	320
Stable rejection ** (%)	99.5	99.6
Min. rejection (%)	99	99
Hydraulic disc material	ABS	ABS
Vessel material	FRP	FRP
Operation pressure (bar)	120	160
Max. element pressure drop (bar)	9	9
Max. operation temperature (°C)	40	40
Chlorine tolerance (ppm)	<0.1	<0.1
pH continuous operation	3-11	3-11
Chemical cleaning pH@40°C	2-12	2-12

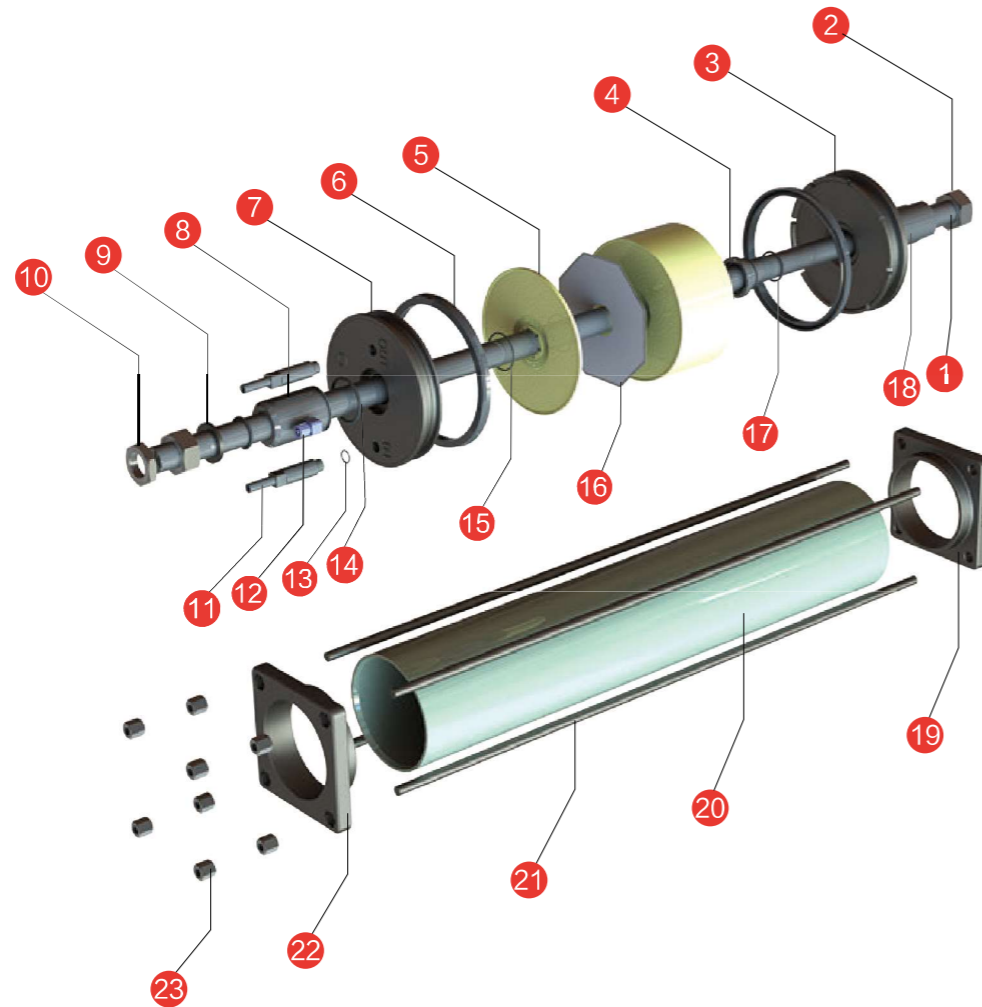
** RO5, RO6 test condition: 32,000mg/l NaCl solution at 55bar applied pressure, 25°C; Permeate flux and stable rejection may vary based on inlet water condition. There may have about ±20% change for individual module permeate flux.



Operation Pressure (bar)	120	160
Total module length A (mm)	1400	
Two flanges distance B (mm)	1225	
Flange width C (mm)	240	
Inlet to flange center distance E (mm)	76	
Outlet to flange center distance F (mm)	56	
Inlet & outlet connections diameter (mm)	12	
Permeate connection (mm)	1 x G3/8"-90° elbow for 9mm hose	

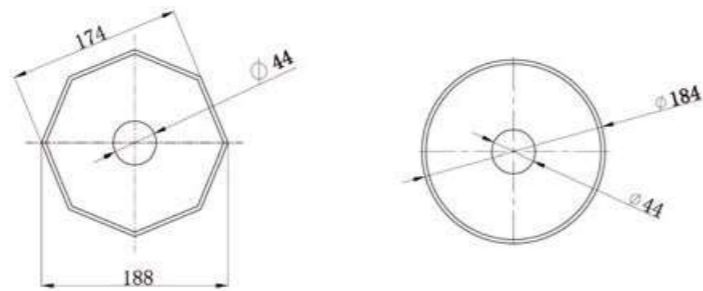
Disc Tube RO/NF (DTRO/DTNF)

DTRO/DTNF membrane module structure



Item	Name	Item	Name	Item	Name	Item	Name
1	Tie rod	7	End flange	13	O-ring 14-2	19	Reinforced top flange
2	Thick nut	8	Permeat collector	14	O-ring 52-4	20	Pressure vessel
3	Top flange	9	Tie rod gasket	15	O-ring 48-2	21	Reinforced rod
4	Seal bush	10	Half nut	16	Membrane cushion	22	Reinforced end flange
5	Hydraulic disc	11	Inlet/Outlet connection	17	O-ring 39-3	23	Reinforced nut
6	Lip seal	12	Permeate connector	18	Tie rod spacer		

DTRO membrane cushion dimensions



More options for membrane sheet

Flat sheet membrane

We offer UF, MF, NF, RO flat sheet membrane with various MWCO and chemical, and Ion Exchange Membrane sheet. All membrane derived from USA. High chemical stability, high separation efficiency, long service life, less membrane pollution.

Membrane materials

- 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 resistant

RO membrane	Stable Rejection (%)	Flux rate (LMH)	Replacement reference	Typical applications
RO1	99.5	45	BW30	Water treatment; Specific liquid concentration; Sea water desalination; Wastewater treatment; etc.
RO2	99.2	55	LE	
RO3	99.5	50	XFR	
RO4	99.4	42	SW30	
RO5	99.7	47	SW30ULE	
RO6	99.8	30	SW30HR	

RO1, RO3 test condition: 2,000ppm NaCl, 225psi(1.55MPa), 25 C ;
RO2 test condition: 2,000ppm NaCl, 150psi(1.03MPa), 25 C ;
RO4, RO5, RO6 test condition: 32,000ppm NaCl, 800psi(5.5MPa), 25 C .

NF membrane	Stable 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	55	NF	
NF3	≥97.0	70	NF270	
NF4	≥98.0	55	GE DL	
NF5	≥99.0	38	DK	
NF6	≥95.0	15	SeIRO MPS-34	
NF7	85.0-95.0	60	XN45	
NF8	60.0-85.0	65	UA60	

NF1-NF5, NF7, NF8 test condition: 2,000ppm MgSO4, 110psi(0.76MPa), 25 C ;
NF6 test condition: 2,000ppm MgSO4, 142psi(1.0MPa), 25 C .



Flat sheet membrane

UF membrane	Membrane material	MWCO (Dalton)	Flux rate (LMH) @ 25 C, 0.35MPa	Replacement reference	Typical applications		
UA001	PA	1,000	60*	GE	Color removal; Chondroitin sulfate concentration; Antibiotics, protein & polypeptide concentration; Enzyme concentration; WPC / WPI; Purification of antibiotics & vaccines; Recovery of whey protein, gelatin, enzyme; Electrocoat paint recovery; Cell harvesting or biomass; Beverage clarification; Pretreatment for RO/NF; etc.		
UA003		3,500	65*	GE GK			
UE001		1,000	15**	"MICRODYN NP030			
UE003	3,000	75**	NADIR" NP010				
UE005	5,000	100	KOCH HFK-328				
UE008	8,000	130	GE PT				
UE010	PES	10,000	150	GE GM			
UE020				20,000		200	KOCH HFK-131
UE030				30,000		240	GE PW
UE050	50,000	260	UP010				
US020	PS	20,000	280	UP020			
US050				50,000		350	PE020
UF100	PVDF	100,000	500	UH030			
UF500				500,000		400	UH050
UN010	PAN	10,000	150	PS20			
UN050				50,000	400	US100	
UN100				100,000	450	HFM-300	
UR030	RC	30,000	250	HFM-183			
UR100				100,000	350	PA50	
UC005	RC	5,000	150	PA200			
UC010				10,000	200	PA400	
UC050				50,000	350	ALFA LAVAL RC70PP	
					14529		
				STARIOUS	14539		
					14549		

* Test condition: 110psi(0.76MPa), 25 C ; ** Test condition: 142psi(1.0MPa), 25 C ;
Note: pH rang @ 25 C : (1)PES 0-14; (2)PS 1-14; (3)PVDF,PAN 1-12; (4)RC 3-8; (5)CA 3-8.

MF membrane	Membrane material	Pore size (µm)	Flux rate (LMH) @ 25 C, 0.35MPa	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 MBR	
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 IONAC MA-3475	
AE3			1.0	SYBRON 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.

Intellectual properties

RisingSun Membrane speed up the progress through continuous investment in membrane technology research and development to improve the performance of the current products and develop new products for emerging industries. At present, we have obtained a wide range of intellectual property rights and some membrane industrial certifications.

Trademark

RisingSun Membrane
SUN (picture)



On site application pictures



FMBR for municipal sewage



FMBR for industrial wastewater



SMBR for alkali wastewater



SMBR container for industrial wastewater



STRO for high salt water



DTRO for leachate wastewater



FMBR container for domestic wastewater



SMBR for industrial wastewater