

Product Catalogue

A professional Membrane Manufacturer dedicating in customized solutions







About us

Zhejiang E-MEM New Material Technology Co., Ltd is a technology-oriented enterprise specializing in the R&D, manufacture and sales of membrane products. With the contribution of the first class Ph.D. led R&D team, advanced membrane production & spiral wound equipment and the leading manufacturer technology, the company has reached to outstanding level both domestically and internationally.

The company is located in the Yangtze River Delta Industrial Cooperation Zone in Huzhou, Zhejiang. The production base is covering 77,000 m footprint with annual production capacity of 10 million square meters of high-end desalination membrane materials such as seawater desalination Reverse Osmosis Membranes (RO) and Nanofiltration Membranes (NF), as well as 5 million square meters of Ultrafiltration Membranes (UF), MBR membranes, and other water treatment membrane materials.

The company has a full range of membrane products, including Residential Reverse Osmosis Membranes, high-end Industrial Reverse Osmosis Membranes (RO), Nanofiltration Membranes (NF), Pressurized-type Ultrafiltration Membranes (UF), Submerged Ultrafiltration membranes (TXP) and Membrane Bioreactors (MBR). Currently, E-MEM[®] membrane products are widely used in the residential, power, petroleum, chemical, municipal, and environmental protection fields, playing a vital role in seawater desalination, boiler feed water, drinking pure water production, domestic sewage, industrial wastewater zero discharge, and special separation processes in industries such as biomedicine, semiconductors, and lithium batteries.

The company has established a complete quality assurance system and certified with ISO9001 and ISO14001 certifications, obtained drinking water hygiene safety certification granted by the Zhejiang Provincial Health Commission and certification from the US National Sanitation Foundation (NSF). In addition, it has been awarded honors such as the Big and High' Industrial Project in Huzhou City and a major scientific research project enterprise in Changxing County. Furthermore, the "Development and Application of High-Selectivity Seawater Desalination Membrane" was awarded the 2022 Provincial Major "Leading Goose" R&D Project Plan by the Zhejiang Provincial Department of Science and Technology.

E-MEM always adheres to the concept of "Different Water, Different Membranes" for customized services, providing full-chain environmental one-stop services with the professional membrane treatment technology.

We look forward to working with you to achieve a win-win future!









提供定制化服务的专业分离膜制造商 PROFESSIONAL CUSTOMIZATION SERVICE OF MEMBRANE PRODUCTS



E-MEM Milestones



National High-tech Enterprise Recognition

Awarded Huzhou City-level R&D center.



Annual Production Capacity reached to 500m² Hollow Fiber Membranes & 1000 m² Rolled Membranes and Equipment

Won the first prize in Huzhou 5th Global High-Level Talent Entrepreneurship Competition (Nan Taihu A category)



Launched High-efficiency RO Membrane Sheets & Industrial RO Membrane Elements

Awarded the "Leading Goose" key R&D technology project by the Zhejiang Provincial Science and Technology Department

Started Construction of New Factory in Huzhou Covering 50,000 m² Awarded the "Big and High" industrial project in Huzhou City



EE-MEMLaunched GF20

Launched the third-generation composite membrane product GF20 series



Bringing continuous innovative solutions for municipal deep treatment



Entered Municipal Sector

Launched Energy-saving Membranes (EF)

MBR applied in the first 10,000 tons domestic sewage upgrading in Zhejiang Province; Expanded NF products to upgrade tap water

New breakthrough in energy and consumption savings for recycled water operation



2015

NSF Certified NSF.

Qualified supplier to the water purification field (Haier, Midea, etc.)



Entered International Markets

Joint venture in Egypt, Vietnam, India and Italy

Large-scale Application in Reclaimed Water Field

UF+RO membrane applied in printing & dyeing, paper-making industry



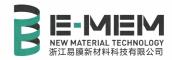
E-MEM Brand Building-up

RO/NF membrane mass production



Company Establishment

PP/PVDF UF membrane mass production ISO9001/ISO14001 Certification



HONOR QUALIFICATION





















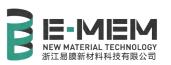












E-MEM®

Membrane Products

- Part 2 Industrial RO Membrane Element
- Part 3 Industrial NF Membrane Element
- Part 4 Pressurized UF Membrane Element
- Part 5 Submerged UF Membrane Element –TXP Series
- Part 6 Hollow Fibre MBR Element
- Part 7 Seawater Desalination RO Membrane Element

Part 1 Residential RO Membrane Element

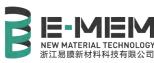
1.1 Performance Parameters

E-MEM® Residential RO Element Performance Parameters Table

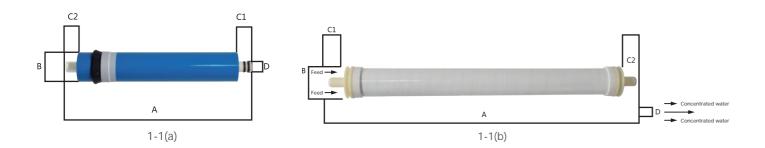
Model No.	Permeate Flow ±20% GPD(m³/d)	Stabilized Salt Rejection (%)	Active Membrane Area ft ² (m ²)	Testing Pressure psi (MPa)	Feed Solution Composition	
EM-RO-1812-75	75(0.28)	97.5	4.4 (0.41)	70(0.48)	250ppmNaCl	
EM-RO-1812-80	80(0.30)	97.5	5.0 (0.47)	70(0.48)	250ppmNaCl	
EM-RO-2012-15	0 150(0.57)	97.0	6.6 (0.62)	70(0.48)	250ppmNaCl	
EM-RO-2012-18	0 180(0.68)	97.0	7.8 (0.72)	70(0.48)	250ppmNaCl	
EM-RO-3012-30	0 300(1.14)	97.5	15.4(1.43)	90(0.62)	250ppmNaCl	
EM-RO-3012-40	0 400(1.51)	97.5	17.6(1.63)	90(0.62)	250ppmNaCl	
EM-RO-2521-ULI	P 300(1.14)	99.0	14.0(1.30)	150(1.03)	1000ppmNaCl	
EM-RO-2540-ULI	P 750(2.84)	99.0	30.0(2.80)	150(1.03)	1000ppmNaCl	
EM-RO-4021-ULI	P 950(3.61)	99.0	35.5(3.30)	150(1.03)	1000ppmNaCl	
		Other Testing	g Conditions			
Temperature (°C)			25.0 ± 1.0			
Feed Water pH 7.5 ±0.5						
Recovery Rate(%)) 8% ± 1.0 (EN	Л-RO-2 521-UL	P & EM-RO-4021-l	JLP), the rest is 1	15.0% ±	
Form	Dr	ry Membrane E	lements & Wet Me	mbrane Elemen	ts	

*The membrane sizes can be customized to meet different requirement





E-MEM® Residential RO Membrane Element Diagram



1.2 Specifications & Dimensions

E-MEM® Residential RO Membrane Element Specifications & Dimensions Table

Model No.	A(±2.0mm)	B(±1.0mm)	C1 (±1.0mm)	C2(±1.0mm)	D(±0.1mm)	Diagram
EM-RO-1812-75	298	44.5	22.0	22.0	17.0	1-1(a)
EM-RO-1812-80	298	44.5	22.0	38.0	17.0	1-1(a)
EM-RO-2012-150	298	48.0	22.0	22.0	17.0	1-1(a)
EM-RO-2012-180	298	48.0	22.0	22.0	17.0	1-1(a)
EM-RO-3012-300	298	76.0	22.0	12.0	17.0	1-1(a)
EM-RO-3012-400	298	76.0	22.0	12.0	17.0	1-1(a)
EM-RO-2521-ULP	533	61.0	30.2	30.2	19.1(outer)	1-1(b)
EM-RO-2540-ULP	1016	61.0	30.2	30.2	19.1(outer)	1-1(b)
EM-RO-4021-ULP	533	100.0	26.7	26.7	19.1(outer)	1-1(b)

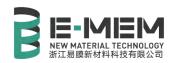
Part 2 Industrial RO Membrane Element

2.1 Performance Parameters

E-MEM[®] Industrial RO Membrane Performance Parameters Table

Model No.	Permeate Flow ±20% GPD(m³/d)	Stabilized Salt Rejection (%)	Active Membrane Area ft ² (m ²)	Testing Pressure psi (MPa)	Feed Solution Composition		
BW-4040	2400(9.1)	99.5	90.4(8.4)	225(1.55)	2000ppmNaCl		
BW-400	10500(39.7)	99.5	400(37.0)	225(1.55)	2000ppmNaCl		
LE-4040	2400(9.1)	99.0	90.4(8.4)	150(1.03)	1000ppmNaCl		
LE-400	10500(39.7)	99.0	400(37.0)	150(1.03)	1000ppmNaCl		
BW-400FR	10500(39.7)	99.5	400(37.0)	225(1.55)	2000ppmNaCl		
XLP-4040	2400(9.1)	98.0	90.4(8.4)	100(0.69)	500ppmNaCl		
XLP-8040	9500(36.1)	98.0	400(37.0)	100(0.69)	500ppmNaCl		
		Other Testin	g Conditions				
Temperature	(°C)		25.0±1.0				
Feed Water p	ЭН	7.5±0.5					
Recovery Ra	te(%)	15.0±1.0					
Form		Dry Membr	rane Elements & We	et Membrane Ele	ments		





2.2 Specifications & Dimensions

E-MEM® Industrial RO Membrane Element Specifications & Dimensions Table

Model No.	A(±2.0mm)	B(±1.0mm)	C(±0.1mm)	D(±0.1 mm)	Diagram
BW-4040	1016	100	19.1 (outer)	26.7	2-1(a)
LE-4040	1016	100	19.1 (outer)	26.7	2-1(a)
XLP-4040	1016	100	19.1 (outer)	26.7	2-1(a)
BW-400	1016	200	28.6		2-1(b)
LE-400	1016	200	28.6		2-1(b)
BW-400FR	1016	200	28.6		2-1(b)
XLP-8040	1016	200	28.6		2-1(b)

E-MEM® Industrial 4040 Membrane Element Dimension Diagram



E-MEM® Industrial 8040 Membrane Element Dimension Diagram



Part 3 Industrial NF Membrane Element

3.1 Performance Parameters

E-MEM® Industrial NF Membrane Element Performance Parameters Table

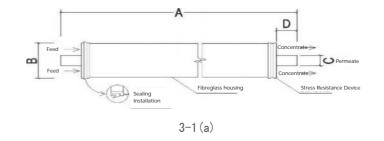
Model No.	FLux Flow ±20% GPD(m³/d)	Stabilized Salt Rejection (%)	Active Membrane Area ft ² (m ²)	Testing Pressure psi (MPa)	Feed Solution Composition
EM-NF-4040-R40-HR	2100(7.9)	98	90.4(8.4)	70(0.48)	2000ppmMgS0 ₄
EM-NF-4040-R40-HF	2700(10.2)	97	90.4(8.4)	70(0.48)	2000ppmMgS0 ₄
EM-NF-8040-R40-HR40	00 9245(35)	98	400(37.0)	70(0.48)	2000ppmMgS0 ₄
EM-NF-8040-R40-HF40	00 11880(45)	97	400(37.0)	70(0.48)	2000ppmMgS0 ₄
	Oth	er Testing Co	onditions		
Temperature (°C)	Feed Water pH	Recovery	Rate(%)	Form	
25.0 ± 1.0	7.5 ±0.5	15.0±1	.0 0.	Ory Membrane E Vet Membrane I	Elements & Elements

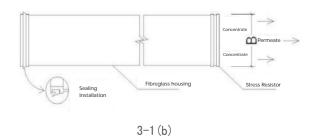
3.2 Specifications & Dimensions

E-MEM[®] Industrial NF Membrane Element Specifications & Dimensions Table

Model No.	A(±2.0mm)	B(±1.0mm)	C(±0.1mm)	D(±0.1mm)	Diagram
EM-NF-4040-R40-HR	1016	100	19.1(outer)	26.7	3-1(a)
EM-NF-4040-R40-HF	1016	100	19.1(outer)	26.7	3-1(a)
EM-NF-8040-R40-HR400	1016	200	28.6		3-1(b)
EM-NF-8040-R40-HF400	1016	200	28.6		3-1(b)

Industrial NF Membrane Element Dimension Diagram





PROFESSIONAL CUSTOMIZATION
SERVICE OF MEMBRANE PRODUCTS



Part 4 Pressurized UF Membrane Element

4.1 Overview

E-MEM Ultrafiltration Membrane (UF) applies patented hydrophilic modification technology and spinning process, providing customers with high-quality and reliable UF membrane products through high-standard and advanced production processes. E-MEM hollow fiber membranes feature excellent strength, uniform pore structure, low permeation resistance, and superior chemical corrosion resistance and anti-fouling capability.

Robustness & High Flow

- Patented spinning process and reinforced structure achieve a single-fiber breaking strength over 110N and a pressure resistance strength up to 0.6MPa
- The interpenetrating network structure reduces internal filtration resistance, and the uniform pore size distribution effectively ensures the filtration precision of the membrane

Durability & Anti-fouling Capability

- Made of PVDF membrane material; exhibits excellent resistance to chemical cleaning agents
- Hydrophilic modification ensures stable flow during wastewater operation and good recoverability

Pressurized UF Membrane Element Features



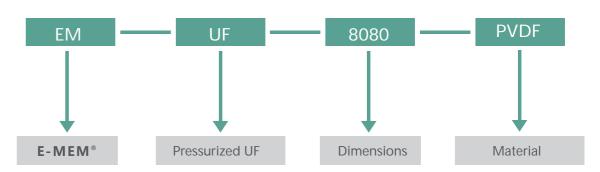
Highlights

- Able to withstand prolonged strong acid & alkali cleaning
- High membrane fiber strength, better adaption to harsh operating environments and stringent cleaning conditions
- High permeate flow
- Stable permeate water quality
- Large contaminant holding capacity, easy to clean, enhancing practical applicability
- Uniform membrane pore size for higher separation precision

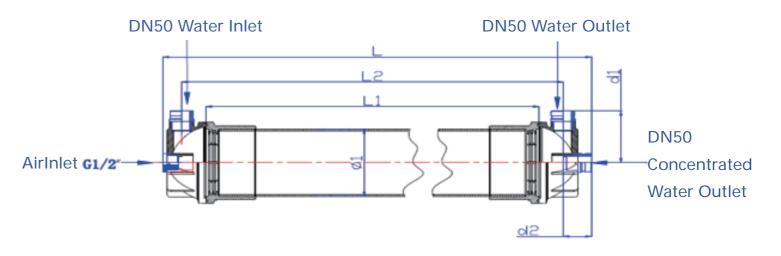
Pressurized UF Membrane Element Structural Design Features

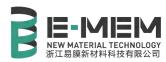
- High membrane packing density
- No need for additional support materials
- Negligible concentration polarization
- Better economic efficiency
- Suitable for various industrial applications, especially large-scale applications
- Effectively reducing footprint and component costs, facilitate more economical membrane system designs

Pressurized UF Membrane Element Nomenclature



E-MEM® Pressurized UF Membrane Element Dimension Diagram





4.2 Pressurized UF Membrane Dimensions

E-MEM Pressurized UF Membrane Element Dimension Table - UF Series

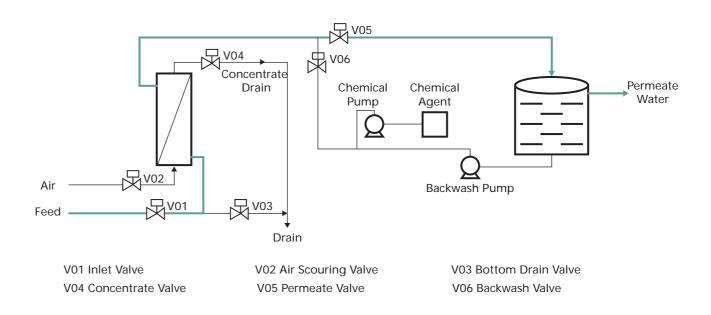
Model No.	L(mm)	L1(mm)	L2(mm)	d1(mm)	d2(mm)	Dia.Φ1 (mm)
EM-UF-8060-PVDF	1742.5±1.0	1496±1.0	1622±1.0	172.5±1.0	73±1.0	225±1.0
EM-UF-8080-PVDF	2242.5±1.0	1996±1.0	2122±1.0	172.5±1.0	73±1.0	225±1.0

4.3 Pressurized UF Membrane Element Specifications

E-MEM® Pressurized UF Membrane Element Spec Table

1 Membrane Fiber						
Membrane Material	PVDF	Type		External Pressure Hollow Fiber		
Fiber Inner/Outer Φ	0.7/1.4mm	Nominal	Pore Size	0.02 μm		
Tensile Strength	>110N					
2 Element Parameter						
Casing Material	UPVC	Caps N	/laterial	UPVC		
Clamp Material	304 Stainless Steel	Sealing Rir	ng Material	EPDM		
Connection Type	Coupling Connection	End Encapsulation Material		Epoxy Resin/Polyurethane		
Model No.	EM-UF-8060	O-PVDF	F-8080-PVDF			
Element Area	55m ²	!		75m²		
Weight(wet)	40kg			50kg		
	3 W	orking Condi	tions			
Operation Mode	Crossflow or Dead-End	Operation	Temperature	5-45°C		
Max.Inlet Pressure	<3 bar	Operation	n PH Range	2-11		
Max. Trans-Membrane Pressure	<2 bar	Max.Inlet F	Particle Size	300 µ m		
Max. Backwash Pressure	≤1.5 bar	Max.NaCl	O Tolerance	2000mg/L		
Feed Oil Content	< 3mg/l					
4 Permeate Water Quality						
Water Turbidity	≤0.15 NTU	Wate	r SDI	≤3		

Pressurized UF Membrane Element Standard Process Flow



E-MEM® Pressurized UF Membrane Element Design Guideline

Flux Design Guideline						
Feed Water	Inlet Turbidity(NTU)	Inlet Condition COD(mg/	Flux(L/m ² .hr)			
Underground Water	<1	< 5	50-60			
Tap Water	<1	< 5	50-60			
Surface Water	1-3	< 5	40-50			
Sea Water	< 5	< 5	40-60			
Municipal Sewage	< 5	< 50	35-45			
Dyeing,Printing & Paper-making	< 5	60-200	25-35			
Petrochemical	< 5	< 100	30-40			
Other Industrial Wastewater	< 5	< 50	30-40			



Part 5 Submerged UF Membrane – TXP Series

5.1 Overview

The submerged membrane filtration system utilizes open external pressure ultrafiltration membrane elements, completely submerged in the membrane tank. Water production is achieved through a combination of liquid level pressure difference and negative pressure suction by suction pumps, replacing traditional processes such as coagulation, sedimentation, and filtration. The system is widely used in areas such as drinking water safety, upgrading sewage treatment plants, river remediation, reclaimed water resources, industrial water reuse, and seawater desalination.

Highlights

Higher operational efficiency with lower costs

- Improves reuse rates, reducing wastewater discharge by up to 30%
- Reduces pressure reducing energy consumption by up to 35%
- Reduces cleaning frequency and chemical costs

Higher permeate efficiency with lower investment

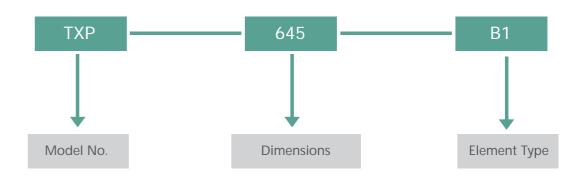
- Large permeate flux with up to 40% increase at same pressure
- Higher permeate efficiency with less UF membrane element
- Permeate efficiency with up to 120% increase same footprint
- Less maintenance & cleaning shutdown to ensure service time



AType

BType

Submerged UF TXP Series Nomenclature



Model Named with Element Diameter in inch & Membrane Area in Square Meter

Submerged Type TXP

Element Dimensions: Diameter 6 inch, Area 45 m²

TXP series element model: A for 1st Generation, B for 2nd Generation; Arabic numerals for membrane fiber outer diameter and type, No Arabic numerals means homogeneous membrane with 1.3mm outer diameter,1 for composite membrane with 1.6mm outer diameter, 2 for composite membrane with 2mm outer diameter

Flux Design Guideline						
Feed Water	Turbidity (NTU)	COD(mg/L)	Flux(L/m ² .hr)			
Underground Water	<1	< 5	30-35			
Tap Water	<1	< 5	30-35			
Surface Water	1~3	< 5	25-35			
Municipal Sewage	< 5	< 50	20-30			
Industrial Wastewater	< 5	60~200	18-25			



950

DN125

DN65

5.2 Submerged UF Membrane Element - TXP Specifications

E-MEM[®] Submerged UF Membrane Element TXP Series Spec Table

TXP Series Membrane Element						
Model No.	TXP-645-A	TXP-645-B1	TXP-645-B2			
	Membrane Fi	ber				
Membrane Material		PVDF				
Membrane Fiber Quantity	5800	4720	3780			
Active Membrane Surface Area (m²)		45				
Membrane Fiber Performance						
Inner/outer Diameter (mm)	0.7/1.3	0.7/1.4	1.1/2.0			
Pore Size (µm)	0.03	0.02	0.02			
Tensile Strength (N)	≥5	≥110	≥150			
VV	Working Conditions					
Max. Suction Filtration Pressure (kPa)		-80				
Max. Across Pressure Differential(kPa)		150				
Operation Temperature (°C)		5-45				
Operation pH Range		2—11				
Recommended pH Range		6—9				
Com	ponent Speci	fication				
Caps Material		UPVC				
Adhesive		Epoxy Resin				
Sealing Ring		EPDM				
Element Dimensions (mm)		φ160×2168L				
Dry Element Weight (kg)	15	18	20			
Element Weight after Draining (kg)	25	28	30			
Preservative Solution		Glycerol aqueous solution				

Submerged	UF Membran	e Element TXP	Rack Specifica	ation	
Model No.	TXP-645-B 0210	TXP-645-B 0216	TXP-645-B 0220	TXP-645-B 0224	
Treatment Capacity (m 3/d)	380~540	600~860	750~1100	900~1300	
Dimensions L×W×H (mm)	1570*450*2800	2230*450*2800	2670*450*2900	3200*450*2900	
Dry Weight (kg)	350	550	700	850	

Metal Hose Coupling at 2 ends Coupling at 2 ends Coupling at 2 ends

650

DN100

DN65

800

DN125

DN65

E-MEM® Submerged UF Membrane Element TXP Rack Diagram

450

DN80

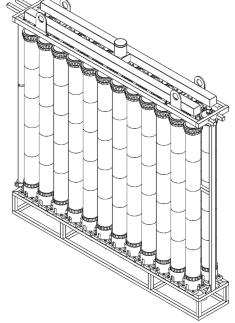
DN50

Wet Weight (kg)

Permeate Pipe Connection

Air Scouring Pipe Connection







Part 6 Hollow Fiber Membrane Bioreactor (MBR)

6.1 Overview

E-MEM MBR uses patented composite spinning technology to uniformly coat the support tube surface with a PVDF separation layer. By using hydrophilic modified PVDF membrane material and advanced spinning process control, specialized MBR hollow fiber composite membranes are produced with high flux, high separation precision, and excellent anti-fouling performance.

Efficient Solid-Liquid Separation & High Retention

- Better separation performance comparing to traditional sedimentation tanks
- Complete separate Reactor Hydraulic Retention Time
 & Sludge Retention Time

Higher Treatment Efficiency & Less Sludge

- Denitrification and Phosphorus Removal is available by changing operation mode
- Improves the degradation efficiency of refractory organic substances
- Theoretically achieves zero sludge discharge
- Reduces land occupation & saves construction investment

Hollow Fiber Membrane Bioreactor (MBR) Features



Highlights

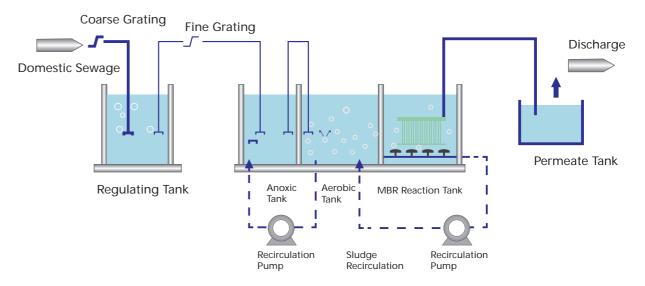
- PVDF material provides excellent chemical resistance and long service life
- Perfect pore structure and uniform pore size provides excellent separation performance
- Membrane fiber tensile strength over 150N and burst pressure exceeding 0.45MPa

Hollow Fiber Membrane Bioreactor (MBR) Structure Design Features



- Compact structure reducing footprint, simple mounting for easier application
- Energy-saving design with self developed aeration System for better cleaning
- Anti-corrosion & anti-rust 316 stainless steel frame
- Various product options for different requirement

E-MEM[®] Hollow Fiber Membrane Bioreactor (MBR) Element Standard Process Flow

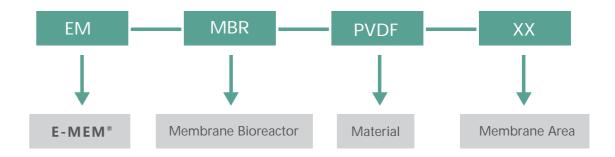


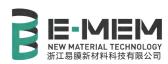
6.2 Hollow Fiber Membrane Bioreactor (MBR) Element Design Guideline

E-MEM[®] Hollow Fiber Membrane Bioreactor Element Design Guideline

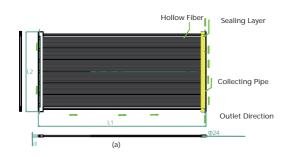
Wastewater Type	Recommended Flux L/m²·hr
Municipal Sewage	15-20
Dyeing, printing, & medical wastewater	8-14
General Industrial Wastewater	10-15
Municipal Integration Wastewater	12-15

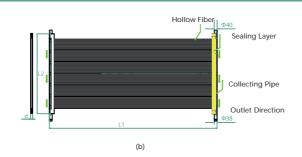
Hollow Fiber Membrane Bioreactor (MBR) Nomenclature





Hollow Fiber Membrane Bioreactor (MBR) Dimensions





L 1(mm)	L 2(mm)	d (mm)	Diagram
1000±2.0	1250±1.0	30±0.2	(a)
1200±2.0	1250±1.0	30±0.2	(a)
2000±2.0	1250±1.0	30±0.2	(a)
2400±2.0	1250±1.0	30±0.2	(a)
1200±2.0	840±1.0	50±0.2	(b)
2000±2.0	840±1.0	50±0.2	(b)
2400±2.0	840±1.0	50±0.2	(b)
	1000±2.0 1200±2.0 2000±2.0 2400±2.0 1200±2.0	1000±2.0 1250±1.0 1200±2.0 1250±1.0 2000±2.0 1250±1.0 2400±2.0 1250±1.0 1200±2.0 840±1.0 2000±2.0 840±1.0	1000 ± 2.0 1250 ± 1.0 30 ± 0.2 1200 ± 2.0 1250 ± 1.0 30 ± 0.2 2000 ± 2.0 1250 ± 1.0 30 ± 0.2 2400 ± 2.0 1250 ± 1.0 30 ± 0.2 1200 ± 2.0 840 ± 1.0 50 ± 0.2 2000 ± 2.0 840 ± 1.0 50 ± 0.2

E-MEM® Hollow Fiber Membrane Bioreactor (MBR) Element Spec Table

Model No.	Treatment Capacity Dimensions m³/d L×W×H (mm)		Weight (kg) Dry Wet Per		Pormoato Dino	Connection Permeate Pipe Air ScouringPipe Metal Hose		
EM-MBR-2020L	≥120	1550*1560*2000mm	500	600	DN50	DN65	4-hole flange & coupling at each side	
EM-MBR-2030L	≥180	2000*1560*2000mm	650	800	DN50	DN65	4-hole flange & coupling at each side	
EM-MBR-3040L	≥360	2500*1560*2800mm	1200	1400	DN80	DN100	4-hole flange & coupling at each side	
EM-MBR-3050L	≥450	3000*1600*2900mm	1500	1800	DN100	DN100	8-hole flange & coupling at each side	
EM-MBR-3540L	≥420	2500*1600*3200mm	1500	1700	DN80	DN100	4-hole flange & coupling at each side	
EM-MBR-20A30L	≥180	1690*1900*2310mm	650	800	DN50	DN65	4-hole flange & coupling at each side	
EM-MBR-20A40L	≥240	2040*1900*2310mm	850	1100	DN65	DN80	4-hole flange & coupling at each side	
EM-MBR-35A30L	≥370	1690*1900*3110mm	1100	1300	DN80	DN65	4-hole flange & coupling at each side	
EM-MBR-35A40L	≥420	2040*1900*3110mm	1500	1700	DN100	DN80	4-hole flange & coupling at each side	
EM-MBR-40A40L	≥480	2040*1900*3510mm	1600	2000	DN100	DN100	4-hole flange & coupling at each side	

6.3 Hollow Fiber Membrane Bioreactor (MBR) Element Specification

E-MEM® Hollow Fiber Membrane Bioreactor (MBR) Element Spec Table

		1 Membrane Fibe	r				
Membrane Material		PVDF/PET support tube	Membrane Type	Hollow Fiber			
Membrane Fiber Inne	er/outer Diameter	1.1/2.0mm	Fiber Pore	0.1um			
Tensile Strength		>150N	Bursting Strength	>0.45MPa			
2 Element Parameter							
Model No. E	M-MBR-PVDF-15	EM-MBR-PVDF-20	EM-MBR-PVDF-30	EM-MBR-PVDF-35			
Active Area m²	15	20	30	35			
Element Dimensions	1250×30×1000	1250×30×1200	1250×30×2000	1250×30×2400			
Water Collection	Single Ended	Dual Ended	Dual Ended	Dual Ended			
Casing Material	ABS	Encapsulation Material	Epoxy resir	n /polyurethane			
Collection Pipe	φ24	Supporting Tube Material	rial SUS316				
Model No.	EM-MBR-PVDF-20A	EM-MBR-PVDF-35A EM-MBR-PVDF-40A		R-PVDF-40A			
Active Area m³ 20		35 40		40			
Element Dimensions	840×50×1200	840×50×2000	840×	50×2500			
Water Collection Dual Ended		Dual Ended	Dua	I Ended			
Casing/Cap Material ABS		Encapsulation Material	terial Epoxy resin /polyurethane				
Collection Pipe	φ40						
3 Working Conditions							
Operation mode	Operation mode Submerged suction filtration		emperature	5-45° C			
Operation Pressure	Operation Pressure -5~-30KPa		oH Range	2-11			
Max.trans-membrane pressure differential	-50KPa	Filter (Cycle De	pends on water quality			
4 Permeate Water Quality							
Permeate Turbidity ≤0.5NTU		产水SI	DI 15	≤5			
Permeate Suspended Solids ≤1mg/L							



Part 7 Seawater Desalination (SW) Series

7.1 Performance Parameters

- High pressure 5.52Mpa
- Durability
- High Rejection
- Application: Seawater desalination, zero discharge of high-salinity wastewater, etc.

E-MEM[®] Seawater Desalination RO Membrane Element Performance Table

Model No.	Permeate Flow GPD (m ³ /d)	Element Diameter Inch	Stable Rejection Rate%	Active Membrane Areaft ² (m ²)	Minimum Rejection Rate %	Inlet Grating Thickness mil
SW-400HR	7385(28.0)	8	99.80	400(37.0)	99.50%	28
SW-400LE	8440(32.0)	8	99.75	400(37.0)	99.50%	28
SW-400LE-34i	8440(32.0)	8	99.75	400(37.0)	99.50%	34

Note: The permeate flow in above table is average permeate flow of a single element, which may with error of ±15%.

Testing Conditions:

Feed pressure: 5.52MPa Feed Temperature: 25°C

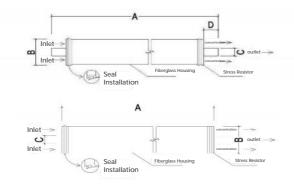
Feed Concentration: 32000mg/L NaCl

Recovery Rate: 8%

pH7.5±0.5

7.2 Specifications & Dimensions

Element Dimensions (mm)						
Length	4inch Type	8inch Type				
А	1016	1016				
В	100	200				
С	19.1(outer)	28.6				
D	26.7	/				



Working Conditions		Unit	
Maximum operation pressure		MPa	6.9
Maximum feed temperature		°C	40
Maximum SDI15			5
Feed free chlorine concentration		ppm	<0.1
	During continuous operation		3–10
Feed pH	During chemical washing		2–12
Maximum pressure drop of single element		MPa	0.10
Maying up food floor		GPM	75 (8inch)
Maximum feed flux			16 (4inch)

Notes:

- ①. The data and information provided by E-MEM in this catalog are derived from long-term experiments. We are confident that this data and information are accurate and reliable. Customers are requested to strictly follow the product's design, usage, and maintenance requirements and to retain relevant data records. E-MEM does not assume any responsibility for consequences arising from customers not using or maintaining the product according to the conditions provided in this catalog.
- ②.Shipment status: dry membrane elements do not contain a protective solution; Wet membrane elements are preserved using a 1.0% sodium bisulfite solution (with 10% propylene glycol antifreeze added in winter) and are vacuum packed.
- 3.Once wetted, dry membrane elements should always be kept moist. For wet membrane elements that are not used for an extended period, it is recommended to soak the elements in a protective solution containing 1.0% sodium bisulfite (food grade) prepared with RO permeate water to prevent microbial growth.
- ④. For the initial use of the membrane elements, it is recommended to first perform a low-pressure rinse for 15-25 minutes, followed by a high-pressure rinse for 60-90 minutes (with a permeate flow rate not less than 50% of the system's designed flow rate). The permeate and concentrate produced during the first hour of operation should be entirely discharged.
- ⑤. During storage and operation, the addition of any chemicals that could affect the membrane elements is prohibited. E-MEM will not assume any responsibility for any consequences arising from the use of such chemicals.



A/Industrial Area



Project Name: A New Energy Technology Company in Hubei

Deploy Time: Year 2023

Model No.: EM-UF-8080-PVDF+RO+NF Water Type: Industrial wastewater Treatment Capacity: 300,000 T/Yr



Project Name : Industrial water plant in Dafeng Development Zone

Deploy Time: December, 2017 Model No. : LE400FR Water Type: Industrial Wastewater Treatment Capacity: 8,000T/D



Project Name: A Textile Technology Company in Shaoxing

Deploy Time: Year 2019 Model No.: EI-UF-9080-PVDF

Water Type: Dyeing and Printing Wastewater

Treatment Capacity: 14,000T/D



Project Name: A Petrochemical Company in Ningbo

Deploy Time: Year 2020 Model No.: BW-400FR Water Type: Industrial Tap Water Treatment Capacity: 21,600T/D

Municipal MBR AREA/B



Project Name: The third phase MBR system project at a wastewater treatment plant in Liangzhu, Hangzhou

Deploy Time: Year 2015 Model No. : MBR

Treatment Capacity: 30,000T/D



Project Name: Upgrade and Technological Transformation Project of a

Electroplating Wastewater Resource Utilization Center

Deploy Time: Year 2020 Model No. : MBR

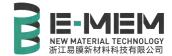
Treatment Capacity: 6,500T/D



Project Name: Emergency Treatment Design Project in Yixing City

Deploy Time : Year 2020 Model No. : MBR

Treatment Capacity: 15,000T/D



B/Municipal MBR Area



Project Name: Pingshan River Basin Comprehensive Water

Environment Improvement Project Deploy Time: Year 2018 Model No.: MBR

Water Type : Domestic Sewage Treatment Capacity: 68,000 T/D



Project Name: Water Purification Project in a Nanping, Fujian

Deploy Time: Year 2019 Model No. : MBR

Water Type: Domestic Sewage Treatment Capacity: 25,000T/D



Project Name: A sewage treatment plant in Bozhou District

Deploy Time: Year 2019 Model No. : MBR

Water Type: Industrial Wastewater Treatment Capacity: 4,000 T/D

Municipal MBR Area/B



Project Name: An emergency Pump Station Treatment Project in

Yuhang District

Deploy Time: Year 2018 Model No.: MBR

Water Type: Wastewater Treatment Capacity: 5,000T/D



Project Name: A water purification plant in Zhanjiang

Deploy Time: Year 2019 Model No. : MBR

Water Type: Domestic Sewage Treatment Capacity: 50,000T/D



Project Name: A wastewater treatment plant in Chengdu, Sichuan

Deploy Time : Year 2017 Model No. : MBR

Water Type: Domestic Sewage Treatment Capacity: 10,000 T/D



C/Municipal TXP Area



Project Name: A water treatment plant in Yuhang District

Deploy Time: Year 2017

Model No. : Submerged UF Membrane - TXP Treatment Capacity: 10,0000m ³/d

Municipal TXP Area/C



Project Name: A technical renovation project at a water plant in Yuhang District

Deploy Time: Year 2022 Model No. : EM-TXP645 Treatment Capacity: 139,000T/D



D/Special Membrane Separation



Project Name: Mother Liquid Recovery at a Pesticide Company

in Jiangsu Deploy Time: Year 2019 Model No.: NF-8040 Treatment Capacity: 400T/D



Project Name: A water quality improvement project in Anhui

Replace time: March, 2015 Model No.: NF/8040-R85 Water Type: Underground Water Treatment Capacity: 2,300 T/D



Project Name: Water Resource Utilization and Reuse Project in Shandong

Deploy Time: August, 2015 Model No.: NF/8040-R85

Water Type: Blending of recycled water, wastewater & RO concentrate

Treatment Capacity: 2,000T/D

Special Membrane Separation/D



Project Name: A Landfill Project in Zhejiang

*Recovery Rate≥85% * COD Removal Rate≥96%

*Low treated water color *NF system operation pressure 0.50Mpa

*NF system operation temperature:30-39°C

*Permeate Flow: 15t/h



Project Name: A refined salt resource utilization project

Deploy Time: Year 2020 Model No.: NF-8040 Treatment Capacity: 2,000 T/D



roject Name: A landfill project in Zhejiang *Recovery Rate > 96% (up to 98%)

*Treated water color 0

*Treated water met RO feed requirement

*NF system operation pressure 0.48-0.80Mpa

Project Application



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 Si' an Nanhua Mountain Industrial Zone (R&D and Production Center) B.Hangzhou E-MEM Location:
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