



# Product Guideline Membrane Part

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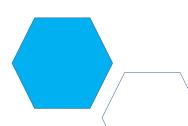




## **Company Introduction**

Origin Pure Environment Technology Co., Ltd. is a one stop filtration solutions professional manufacturer and supplier, committed to provide high quality filtration solution to meet worldwide customers various needs with good service, struggle for health, safety and environment friendly sustainable development.

Since 2015, Origin Pure Environment Technology specialized in better filtration solutions, supply good quality filters, membrane & housings to a diverse range of customers in water treatment, food & beverage, oil & chemicals, electronics, petrochemical, sea water desalination, power plant etc.



## **Outside-in PVDF Hollow Fiber UF Membrane Modules**

Origin Pure Super Hydrophilic PVDF Hollow Fiber membrane is produced by patent production, which leads to be small pore size, uniform hole distribution, high efficiency ratio and high bacteria remove.



#### Feature:

- UF membrane could remove bacteria, virus, organic substance, algae etc
- Hydrophilic PVDF hollow fiber membrane, stable chemical characteristic, anti-contaminant, easy to clean, long term lifespan;
- Outside-in flow have a widely turbidity, reduce pretreatment process
- Widely used for river water, mineral water, sea water desalination and industrial water treatment.



ltem	L1	L2	Α	В	С	D
UFO 40	1752mm	1528mm	195mm	164mm	DN32	160mm
UFO 55	1860mm	1630mm	135mm	180mm	DN50	225mm
UFO 80	2360mm	2130mm	135mm	180mm	DN50	225mm

Specification		UFP 40	UFP 55	UFP 80
	Element	Dia 160*1752	Dia 225*1860	Dia 225*2360
	Dimension mm			
	Surface Area m²	40	55	80
	Material		PVDF	
Data Base	Pore Size		0.03um	
	Fiber		0.7/1.3	
	Dimemsion			
	Cage material		UPVC	
	Seal material		ABS	
	Store material		Dry or Wet	
	Turbidity		<100	
	Work Pressure		0.1~0.3	
	Design Flux		35~135	
Operation	Flux mean	D	ead end/Cross Flow	
Data	Recycle time		20~60	
	Backwash mean		Air Water Wash	
	Backwash Time		2~3	
	Backwash		<0.25	
	Pressure			

#### **Order Information**

Model#	φDiameter	Membrane	Surface Area	Connection
UFP 40	160mm	PVDF	40 m²	Unions Joint
UFP 55	225mm	PVDF	55 m²	Victaulic Joint
UFP 80	225mm	PVDF	80 m²	Victaulic Joint

## **Reinforced PVDF Hollow Fiber MBR Membrane Modules**

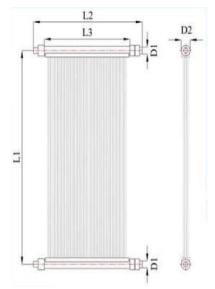
Origin Pure Super Reinforced PVDF Hollow Fiber membrane is produced by patent technology, which owns strengthen force upto 200N. Meanwhile, After special process, our membrane

is good for dry transportation in avoid of bacteria pollution issue.



- MBR used reinforced PVDF hollow Fiber membrane, anti-contamination, easy to wash and longer Lifespan
- MBR sealed by separated distribution, reasonable distance to ensure flow rate and reduce block risk by sludge;
- Patent MBR bottom sealing technology to avoid membrane broken



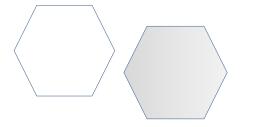


Item	L1	L2	L3	D1	D2
MBR 10	1025mm	620mm	480mm	DN20	50mm
MBR 15	1525mm	620mm	480mm	DN20	50mm
MBR 20	2025mm	620mm	480mm	DN20	50mm

Specification		MBR 10	MBR 15	MBR 20			
	Element	620*1025	620*1025	620*1025			
	Dimension mm						
	Surface Area m²	10	15	20			
Data Base	Material		Reinforced PVDF				
Dala base	Pore Size		0.05~0.1um				
	Fiber Dimemsion		1.0/2.2				
	Cage material		ABS				
	Seal material	Epoxy Resin					
	Store material		Dry or Wet				
	Operation		Vaccum Press				
	Work Pressure		-5~-50Kpa				
	Design Flux		10~25				
Operation	Flux mean	Perm	eate 8mins/Stop 2mi	ns			
Data	Recycle time		10mins				
	Backwash mean		Air Water Wash				
	Backwash Time		30~120sec				
	Backwash		60Кра				
	Pressure						

#### **Order Information**

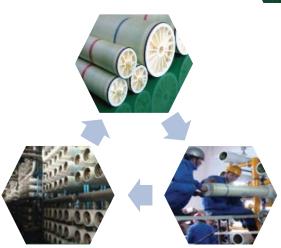
Model#	Length	Membrane	Surface Area	Connection
MBR-10	1.0m	Reinforced PVDF	10 m²	Screw Joint
MBR-15	1.5m	Reinforced PVDF	15 m²	Screw Joint
MBR-20	2.0m	Reinforced PVDF	20 m²	Screw Joint



## **RO Membrane Modules**

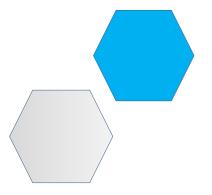
Origin Pure RO membrane has the properties of low-pressure operation, high permeate and excellent desalination and are applicable to desalination of brackish water and sea water. Besides, It is characterized by low operating pressure, low investment in equipment, excellent rejection rate and reliable performance





<b>Testing Conditions</b>		General-purposal	Seawater	Fouling Resistant RO
		Industrial RO	<b>Desalination RO</b>	
Testing Pressure		225psi(1.55Mpa)	800psi(5.5Mpa)	225psi(1.55Mpa)
Testing	Solution	25℃	25℃	25℃
Temperature				
Testing	Solution	2000ppm	32800ppm	2000ppm
Concentrat	tion (NaCl)			
pH Value	of Testing	7.5	7.5	7.5
Solution				
Single	Element	15%	8%	15%
Recovery				

		Stabl	Average	Workin	Testing Conditions		
		е	Permeat	g	Testing	Testing	Recover
Туре	Model	Rejec	е	Pressur	Pressu	Solution	у
		tion	GPD	e &	re	Concent	(%)
Ge	LPRO1-8	99.5	9600 (36.3)	Working under low	225		
nera	LPRO2-8	99.5	10500	pressure. Applicable		2000	15
ıl-pu	LPRO1-4	99.5	2400 (9.1)	to regular or high	(1.55)		
General-purpose Industrial RO	ULP21-80	99.0	11000	Working under ultra			
ie In	ULP32-80	99.5	10500	low pressure.	150	1500	15
dust	ULP11-40	98.0	2700 (10.2)	Applicable to	(1.03)		
rial F	ULP21-40	99.0	2400 (9.1)				
õ	ULP31-40	99.4	1900 (7.2)	reedwater with			
Se	SW21-80	99.7	5000 (18.9)	Working under high			
Seawa ter	SW22-80	99.7	6000 (22.7)	pressure. Applicable	800 (5.5)	32800	8
	SW21-40	99.5	1400 (5.3)	to seawater or quasi			
Fou	FR11-804			Working under low			
Fouling RO	0	99.5	9600 (36.3)	pressure.	225		
Res				Applicable to	(1.55)	2000	15
Resistant	FR11-404 0	99.5	2200 (8.3)	feedwater with	(1.55)		
				small content of			



### **Seawater Desalination RO Unit**

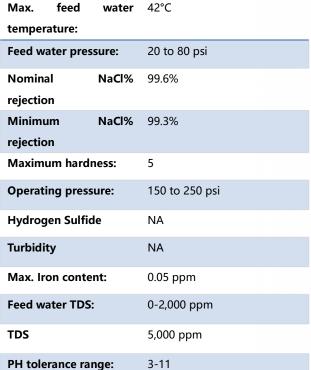
Origin Pure's Seawater Desalination Reverse Osmosis unit are a capable of removing salts and other substances for drinking water.

#### **Features**

- Powder coated carbon steel frame
- 4" Seawater desalination spiral wound membranes
- Heavy duty 5 micron sediment pre filter
- Corrosion resistant high pressure pump
- 380V/3Ph/50Hz power requirement
- Pre/post filter and pump pressure gauges
- FRP pressure vessels & Media filter
- Tagging and identification of instrumentation
- Heavy duty high pressure tubing
- Corrosion resistant high pressure throttling valve
- Pretreatment lockout
- Low pressure switch
- Product and reject flow meters
- Electric inlet solenoid valve









#### **Order Information**

Max. Silica tolerance:

Model#	Permeate	Membrane	Otv	Approx.	Dimensions
Wiouei#	Capacity	Membrane Qty		Weight	L*W*H
SRU-05	0.5m³/h	Dow 4' ' RO	4pcs	250kgs	2.0*1.2*1.9m
SRU-10	1.0m³/h	Dow 4' 'RO	8pcs	380kgs	2.5*1.3*1.9m
SRU-20	2.0m³/h	Dow 8' 'RO	4pcs	500kgs	3.0*1.5*2.0m

25 ppm @ 60% recovery

## **Case Study**



**Project:** UF80 series UF system unit

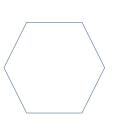
100m<sup>3</sup>/h

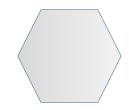
Located: China

**Application:** Power Plant

Details: 20pcs UF80 series replaced

with Dow system. **REPLACE CASE** 







1m³/h

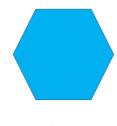
Located: China

**Application:** AirPort

**Details:** Sanitary RO unit with all

Stainless Steel spare parts

**REPLACE CASE** 



Project: Bottle Water RO System

Unit 20m3/h

**Located:** China

**Application:** Bottle Water Plant **Details:** 2 Classes RO system Unit

REPLACE CASE

