

SHANDONG ZHAOJIN MOTIAN CO.,LTD.

**INNOVATIVE MEMBRANE TECHNOLOGY,
REGERATE WATER CIVILIZATION!**

Shangdong Zhaojin Motian Co.,Ltd.

Company Profile

**Established: May 1988 (The first membrane maker of china.
top 500 enterprises of China)**

Location: No.280 Guoda Road, Zhaoyuan city, Shangdong PRO, China

Paid-in capital: \$ 13.4mil

Employees: 500

Net Sales: 20.6mil. (Consolidated as of Dec.31 2013 1 \$=6.1RMB)

**Product lines: MF、UF、MBR membrane, water treatment
engineering .water treatment equipment.**



Development Organization and Production Facilities

Motian has TIPS and NIPS method's of manufacturing lines with comprehensive production facilities. The annual production capability is 5,000,000 m².

Motian has a world-class laboratory. Research & Development is instrumental to developing and improving our product materials, capabilities, and technologies to the highest standards world-wide.



Laboratory

Quality control and international certificate

Our client satisfaction is paramount, we ensure all of our products are certified/tested and accurate prior to shipping, this ensures the highest quality product direct from our factory.

Motian has acquired ISO 9001(1998), ISO14001, 18001(2001) certificates. Now Motian is in application for AMST-001 of Japan membrane association and NSF/ANSI-61 of USA.

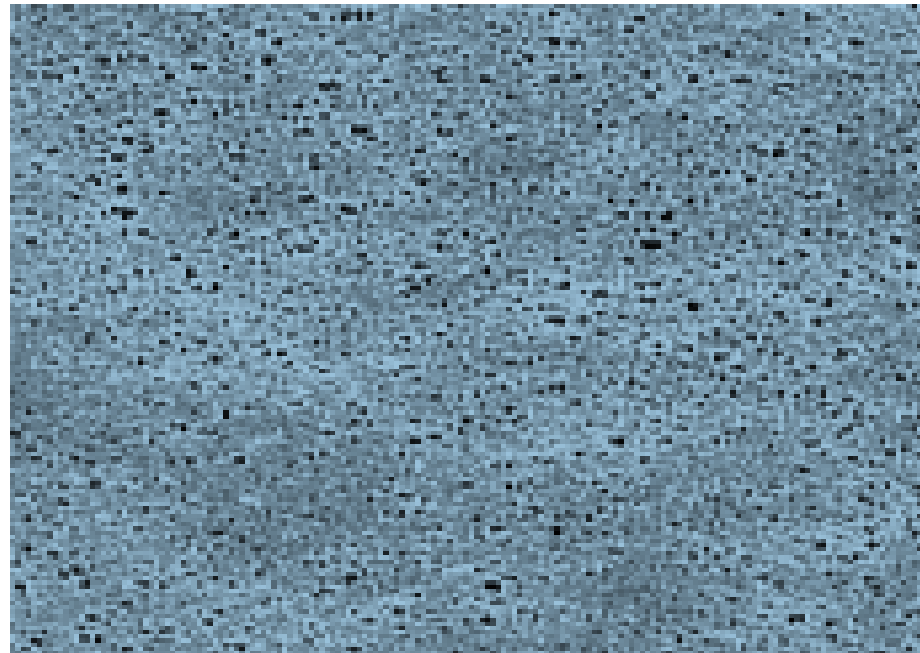


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Motian's PVDF hollow fiber

Motian's PVDF hollow fiber can maintain PVDF material's excellent properties, such as resistance to oxidation and fouling, also by Motian's latest unique technology, it can improve the Flux, resistance to chemicals & mechanical strength.

The photograph of SEM (outer surface)



Motian PVDF series UF module



**8 inch
UF3OA200**

**6 inch
UF3OB160**

**4 inch
UF3OB90**

Motian PVDF series UF module features

◆ High Permeate flux

High permeate flux is achieved using Motian's unique technology with exceptionally high permeability.

◆ Applicable for raw water with high turbidity

Direct treatment for raw water with high turbidity is obtainable, owing to its unique structure of module for easy discharge of solids, highly efficient flux maintenance method of simultaneous reverse filtration and air scrubbing.

◆ Long operating life

Hollow fiber membranes manufactured with Motion's proprietary technology provide superb mechanical strength and chemical resistance.

Specifications of PVDF membrane UF module

Module Type			UF30A200	UF30B160	UF30B90
Membrane	Material		PVDF		
	Surface Area(Outer Surface)	m ²	60	30	10
	Nominal pore size	um	0.1		
Operating Conditions	Filtration Mode		Outside-in		
	Maximum Inlet Pressure	Kpa	300		
	Maximum Trans membrane Pressure	Kpa	150		
	Temperature Range	℃	5-45		
	pH Range(normal)		1-10(Above specified pH range may be exceeded during chemical cleaning)		
	Design Flux	m ³ / (m ² · Hr)	60-120(Design flux varies depending on feed water quality and system design. Please consult Zhaojin Motian for details)		
Materials	Housing		UPVC		
	Potting Material		Polyurethane + Epoxy		
Module Dimensions		mm	Φ 200×1940L	Φ 160×1350L	Φ 90×1148L

Applications

- ◆ **Various water treatment processes**
drinking water, process water, various cleaning water
- ◆ **Treatment of sewage and wastewater**
advanced treatment of sewage, recovery of industrial wastewater, treatment of landfill leachate
- ◆ **Pretreatment of RO/NF**
desalination for sea water, UPW production process. etc
- ◆ **Treatment of condensate and recycled water**
(boiler, heat exchanger ,swimming pool's)

Installation Example (Recycled industrial wastewater in Japan)

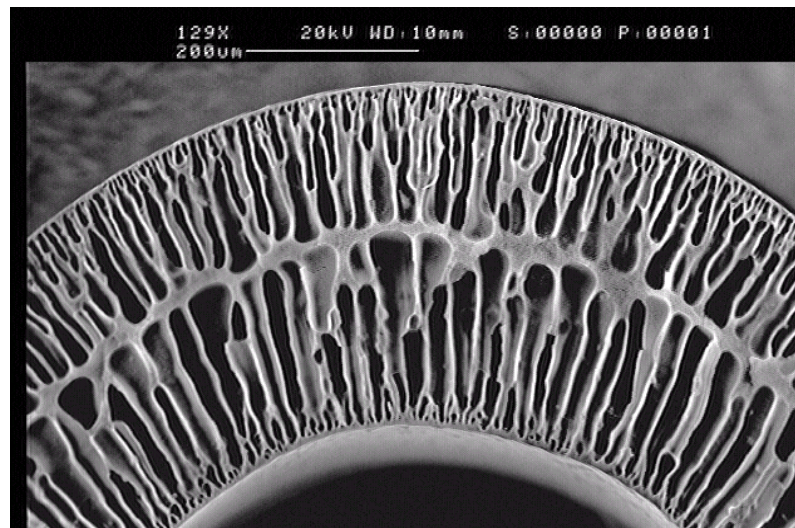


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Motian's PS hollow fiber

Motian's PS hollow fiber, has permanent hydrophilic modification, it has excellent mechanical strength hydrophilic, chemical resistance (especially to acid & alkali's).

SEM photograph (cross section)



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Motian PS series UF module



Motian's PS series UF module features

◆ Precise separation characteristics

MWCO is 67000, 10000 & 6000 it can remove bacteria & color completely .

◆ Excellent for the pharmaceutical and food industry's

Excellent biocompatibilities and can remove low molecular martial and low molecular protein's.

◆ Long operating life

Hollow fiber membranes manufacture with Motian's proprietary technology provides superb mechanical strength and chemical resistance.

Specifications of PS membrane UF module

Type	UF1OB90-P	UF1OB90-G	UF1IB90	UF1IB160	UF1IA200	UF1IA225	UF1IA250	UF1IA315S	UF1IA315L
Membrane Fiber I.D.	0.2mm		1.0mm						
Effective membrane area(m ²)	18	18	5	20	40	45	50	55	80
Module dimensions(mm)	Φ90×1148			Φ160×1350	Φ200×1940	Φ225×1745	Φ250×1475	Φ315×1302	Φ315×1821
MWCO(Dal)	6000	20000	67000						
Initial water flux rate per module (25℃、0.1Mpa)	300L/Hr	400L/Hr	800L/Hr	3200L/Hr	6400L/Hr	7200L/Hr	8000L/Hr	8800L/Hr	12800L/Hr
Max.operating pressure	Feed pressure	0.3Mpa							
	Trans membrane pressure	0.15Mpa							
temperture range	5-45℃								
pH range(normal)	2-13(Above specified pH range may be exceeded during chemical cleaning)								

Applications

- ◆ Various water treatment (well water、drinking water、food juice factory process water、Livestock breeding water .etc)
- ◆ Production of germ-free water
- ◆ Drug manufacturing: removal of Pyrogenic substances
- ◆ Enzyme and protein products : concentration and purification
- ◆ Fermentation processes: bacteria removal and purification
- ◆ Food products: purification(bacteria removal, protein removal),concentration(wine .etc)
- ◆ Colloidal suspensions: concentration and purification
- ◆ Electrodeposition paint recovery

Installation Example (Production of bacteria-free water in China)



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Motian's MBR membrane

Based on the technology of Motian's PVDF hollow fiber, a newly-developed submerged-type module (PVDF with PET braid), offers stable performance in treating highly turbid raw water.

sample picture



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Motian MBR module features

◆ Capable of treating highly turbid raw water

Motian's MBR membrane offers stable performance in treating highly turbid raw water. also ensures stable operation for wide fluctuations of raw water quality (from 10 to 100 NTU).

◆ High Flux and durability

By improving the technology of Motian's PVDF hollow fiber, to achieve high flux, with superb mechanical strength and chemical resistance to ensure durability.

Specifications of MBR module

Module Type			FPA2000	FPAI3
Membrane	Material		Modified PVDF (polymer/PET braid)	PVDF
	Surface Area Size (Outer Surface)	m²	18	14
	Nominal Pore Size	um	0.1-0.2	
Operating condition	Filtration Mode		Outside-in	
	Maximum Vacuum Pressure	Mpa	0.05	
	Maxing Operating Temperature		45	
	PH Range	°C	1-11 (Normal range)	
	Design Flux	m²/d	3-12	
Materials	Skirt		ABS	
	Potting Material		Polyurethane	
Module Dimensions		mm	568×45×2000	568×45×1260

Application

- ◆ Various water treatment processes (drinking water, process water ,various cleaning water, etc.)
- ◆ Reclamation of secondary sewage ,wastewater, landfill leachate, etc.
- ◆ Recycle of highly turbid backwash water from sand filter, membrane filter, etc .
- ◆ Pretreatment of RO/NF.

Installation Example



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Additional water treatment Equipment Solutions

Motian also manufactures and offers activated carbon filters ,sand filters, Ion exchangers & Ro systems to compliment our range of UF,MF membrane facilities.



Activated carbon filter



Sand filter
exchanger



Ro system



Thank you!

**We hope to establish a mutual
business relationship with you.**



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