

SHUIYI Procycle® Ultra-low-pressure RO Membrane

PCRO-8040/4040

Product Description

Shuiyi Procycle® series is an energy-saving type reverse osmosis membrane specially developed for the recycling of polluting water sources, which has the characteristics of low operating pressure and easy to clean, it could be widely used in the treatment of surface water, dyeing wastewater and paper-making wastewater.



Products Features

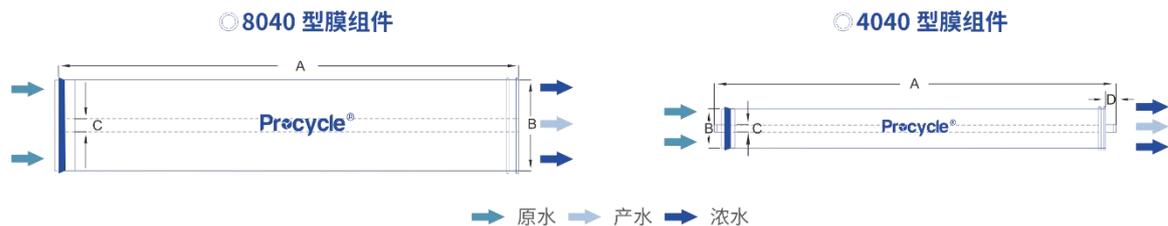
➤ **Low energy consumption**

To ensure the high desalination and water production, the operating pressure is about 70-85% of the conventional composite membrane , reduce the cost and increase efficiency.

➤ **Anti-pollution**

By virtue of a optimized hydrophilic coating, operate stably under the water containing hydrophobic organic matter and colloidal contamination. Using a wider inlet grid (34mil), make it easier to clean.

Product Specification



Model	A	B	C	D
	mm (in)	mm (in)	mm (in)	mm (in)
PCRO-8040	1016 (40)	201 (7.9)	29 (1.125)	—
PCRO-4040	1016 (40)	96 (3.8)	19 (0.75)	27 (1.05)

Packing Specification

Model	External Dimension (mm)	Dry weight (kg)	Wet weight (kg)
PCRO-8040	1080*210*210	13	15
PCRO-4040	1090*110*120	4	4.5

Remarks:

1. The standard membrane module include inlet seal ring and a connection adapter
2. The wet weight depends on the water membrane module, and the error is ± 1.5 kg.

Products Performance

Item		Model	Parameter	
			PCRO-8040	PCRO-4040
Element Parameter	Material of Membrane	Aromatic polyamide		
	Structure	Spiral would		
	Effective Membrane Area (m ²)	37	7.1	
	Spacer Thickness (mil)	34		
Performance (1)	Standard Test Solution	1500 mg/L NaCl		
	Operating Pressure (MPa)	1.05		
	Test Temperature (°C)	25		
	Recovery 回收率	15%		
	pH	6.5 ~ 7.0		
	Permeate Flow Rate ⁽²⁾ (m ³ /d) /GPD	46/12000	9/2400	
	Rejection Rate (%)	>99.0%		
Application Limits	Max. Operation Pressure (MPa) /psi	4.1/600		
	Max. Feed Flow (m ³ /h) /GPM	17/75	3.6/16	
	Feed Temperature (°C)	5 ~ 45		
	Feed pH Range	3 ~ 11		
	Cleaning Temperature Range	1 ~ 13 ⁽³⁾		
	Max. Feed Turbidity	1.0		
	Max. Feed SDI ₁₅	5		
	Residual Chlorine Control (mg/L)	< 0.1		
Max. Pressure Drop of Single Element (psi)	15			

Note: (1) The performance parameters are measured after 30 minutes of stable operation of

system ;

- (2) Water production deviation ranges is $\pm 15\%$
- (3) The recommended temperature of chemical cleaning is $\leq 30^{\circ}\text{C}$. The pH value could not exceed the range of 2.0 -12.0 when temperature is much higher than 30°C .

IMPORTANT INFORMATION:

- Correct start-up is very important for the stable operation of reverse osmosis system. When RO system restart after debugging or long-time shutdown, every equipment, meter and inlet water quality need to be checked and adjusted to ensure all condition can meet the designed value. Please refer to the product manual for specific operation steps and precautions
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- To prevent the membrane products from being scratched by hard particles, reliable $5\mu\text{m}$ cartridge filter without backwash need to be applied on water inlet.
- The producing side pressure of the membrane should not be higher than the feed side pressure at any time, the static pressure must be lower than 5 psi.
- Membrane module must be operated in the condition regulated by product manual. Any faulty design and use will be considered as a waiver of quality assurance in the absence of a written commitment or notice from Shuiyi.

The data presented above are all tested, which are true and reliable. However, due to the different application condition and testing method, the listed data is not warranted. There is no disputed liability of Shuiyi Membrane Technology Development Co., Ltd., when the operating data is different to the listed data in this document. Therefore, the users should have a detailed understanding of our products on the basis of the actual application condition.