Canature

Your One-stop Water Treatment Solution Provider

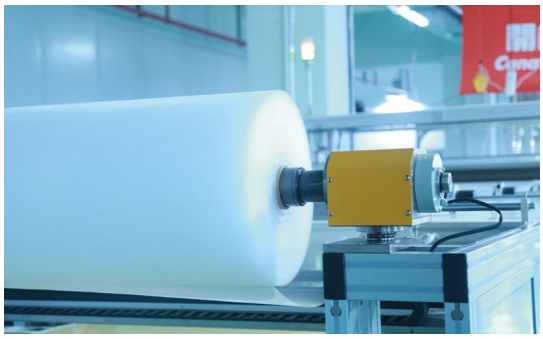
MERINSA

TU ASESOR EN TRATAMIENTO DE AGUA

# Industrial RO Membrane

Canature Industrial RO membranes Production and Developing plan started from 2020, which leaded by a PH.D professional team who has rich experience in industrial water treatment field. With the investment of production machines and testing equipment, the Industrial production capacity is ready.


Canature will mainly provide Brackish Water and Seawater Desalination membrane element. Brackish water series membrane elements featured with low pressure operation, high water yield and good desalination, suitable for high-purity water equipment in electronic and electric power industries. Seawater desalination membrane element has the characteristics of low pressure, good desalination performance and stability, suitable for seawater and high concentration brackish water treatment.

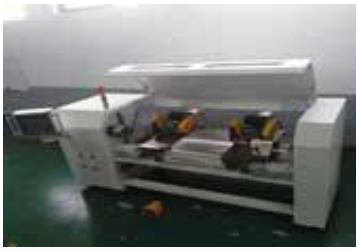


## Product specifications

Example of product type model specification:

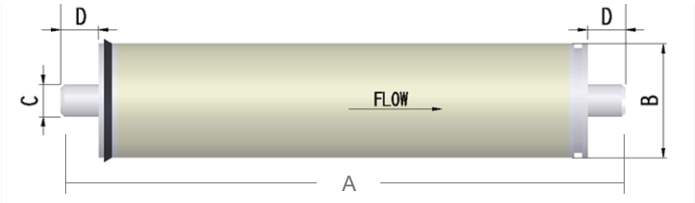
**SW 30- 8040 FR**

- FR: Fouling Resistance
  - LP: Low Pressure
  - ULP: Ultra Low Pressure
  - XLP: Extremely Low Pressure
- Length of membrane element, 40 inches
- OD of membrane element, 8.0 inches
- 30: Domestic Membrane Sheet
  - 60: Imported Membrane Sheet
- SW: Seawater Desalination
  - BW: Backish Water



Our professional industrial RO membrane element manufacturing capabilities and excellent research and development capabilities will keep providing customers with the best products and services.

## Membrane Element Figure




## Membrane Elements Dimensions

| Model | A | B | C | D | Tolerance |
|---|---|---|---|---|---|
| 8040 | 40"(1016mm) | 7.9"(200mm) | 1.125"(28.6mm) | 1.05"(26.7mm) | 1.0mm |
| 4040 | 40"(1016mm) | 3.9"(100mm) | 0.75"(19mm) | 1.05"(26.7mm) | 1.0mm |
| 4021 | 21"(533.4mm) | 3.9"(100mm) | 0.75"(19mm) | 1.05"(26.7mm) | 1.0mm |
| 2540 | 40"(1016mm) | 2.4"(61mm) | 0.75"(19mm) | 1.19"(30.2mm) | 1.0mm |
| 2521 | 21"(533.4mm) | 2.4"(61mm) | 0.75"(19mm) | 1.19"(30.2mm) | 1.0mm |

## Typical Product Performance

| Product Series | Product model | | Stabilized Salt Rejection(%) | Average Permeate GPD(m3/d) | Test Condition | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | NaCl (ppm) | Pressure (psi) | PH | Recovery (%) |
| BW | Domestic Series | BW 30-8040FR | 99.5 | 10500(39.7) | 2000 | 225 | 7±0.5 | 15 |
| | | BW 30-8040LP | 99.5 | 10500(39.7) | 2000 | 225 | 7±0.5 | 15 |
| | | BW 30-8040ULP | 99.5 | 10500(39.7) | 1500 | 150 | 7±0.5 | 15 |
| | | BW 30-8040XLP | 99.0 | 9000(34.0) | 500 | 100 | 7±0.5 | 15 |
| | | BW 30-4040FR | 99.5 | 2200(8.3) | 2000 | 225 | 7±0.5 | 15 |
| | | BW 30-4040LP | 99.5 | 2400(9.1) | 2000 | 225 | 7±0.5 | 15 |
| | | BW 30-4040ULP | 99.3 | 2400(9.1) | 1500 | 150 | 7±0.5 | 15 |
| | | BW 30-4040XLP | 99.0 | 2400(9.1) | 500 | 100 | 7±0.5 | 15 |
| | Imported Series | BW 60-8040FR | 99.7 | 10500(39.7) | 2000 | 225 | 7±0.5 | 15 |
| | | BW 60-8040LP | 99.6 | 10500(39.7) | 2000 | 225 | 7±0.5 | 15 |
| | | BW 60-8040ULP | 99.6 | 10500(39.7) | 2000 | 150 | 7±0.5 | 15 |
| | | BW 60-8040XLP | 99.5 | 11500(43.5) | 2000 | 125 | 7±0.5 | 15 |
| | | BW 60-4040FR | 99.7 | 2400(9.1) | 2000 | 225 | 7±0.5 | 15 |
| | | BW 60-4040LP | 99.6 | 2600(9.8) | 2000 | 225 | 7±0.5 | 15 |
| | | BW 60-4040ULP | 99.5 | 2500(9.4) | 2000 | 150 | 7±0.5 | 15 |
| | | BW 60-4040XLP | 99.5 | 2800(10.5) | 500 | 100 | 7±0.5 | 15 |
| SW | Imported Series | SW 60-8040 | 99.8 | 9000(34.1) | 32000 | 800 | 8 | 8 |
| | | SW 60-4040 | 99.7 | 2000(7.6) | 32000 | 800 | 8 | 8 |
| | | SW 60-4021 | 99.5 | 750(2.8) | 32000 | 800 | 8 | 4 |
| | | SW 60-2540 | 99.5 | 600(2.3) | 32000 | 800 | 8 | 8 |
| | | SW 60-2521 | 99.5 | 270(1.0) | 32000 | 800 | 8 | 4 |

Note: Water yield for warranty evalution may vary ±15%.

## Operating Limits

Membrane Type……..Polyamide Thin-Film Composite
Maximum Operating Temperature……..…..113°F(45°C)
Maximum Operating Pressure……..……600psi(41bar)
Maximum Pressure Drop……..……..15psi(1.0bar)
Maximum Pressure Drop for Individual Element……..…...15psi (0.1Mpa)
pH Range, Continuous Operation[a]…….. 3-10
pH Range, Short-term Operation(30 min)[b]……2-12
Maximum Feed Silt Density Index (SDI)…….....SDI 5
Free Chlorine Tolerance……...……...……..…..＜0.1ppm

a. Maximum temperature for continuous operation above pH 10 is 95°F(35°C);

b. Under certain conditions, the presence of free chlorine and other oxidizing agents will cause premature membrane failure. Since oxidation damage is not covered under warranty, Canature recommends removing residual free chlorine by pretreatment prior to membrane exposure.

## Product Package

RO membrane elements are vacuum packaging with polyethylene bag and have corresponding mark.

## Product Transportation and Storage

- Do not add any influential chemical agent to membrane element during storage.
- Membrane elements storage place must be cool and dry, and without direct sunlight.
- The temperature range must be 0-40°C during transportation and storage.
- Strictly prohibit throwing the package during transportation.

## Attentions

- Each membrane element passed test and did store treatment by 1.0%sodium hydrogen sulfite( will add 10% propylene glycol anti-freezing solution in the winter), vacuum package, then packed by carton. In order to avoid microbial growth, we suggest soaking the element and using the protective liquid including 1.0% sodium hydrogen sulfite (which is from RO membrane).
- When the element is first used, the first tank permeating from RO membrane element should be discarded.
- Do not add any influential chemical agent to membrane element during operation.