SRP Membranes
SR PARYAVARAN · A DIVISION

PRODUCT CATALOGUE

SRP 8040 SERIES

# SRP 8040 SERIES

THE MEMBRANE OF THE FUTURE

## High Quality Reverse Osmosis Membranes

Brackish water, fouling-resistant, ultra-low-pressure and seawater elements in the 8-inch size.



01 SERIES OVERVIEW

# SRP 8040 Series
# reverse osmosis elements

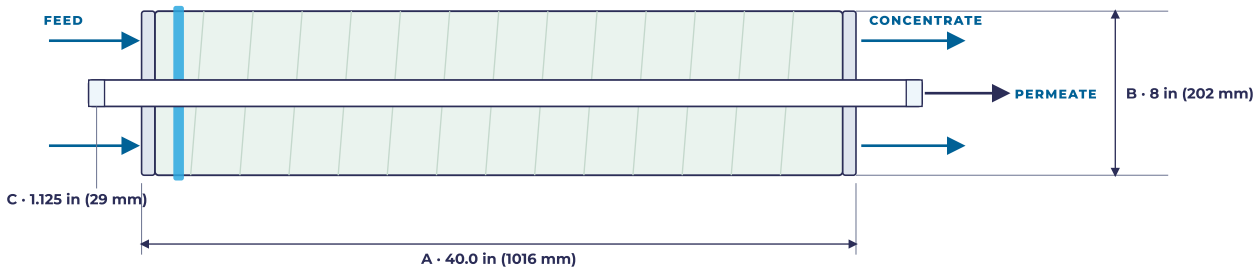
Four spiral-wound polyamide thin-film composite elements share one 8-inch format, 40 inches long with 400 ft² (37.2 m²) of active area. Choose by feed water: brackish, fouling-prone, low-pressure or seawater.

| ELEMENT | Area (ft²) | Area (m²) | Thickness (mil) | Flow (gpd) | Flow (m³/d) | Salt rejection (%) |
|---|---|---|---|---|---|---|
| SRP BW 8040 | 400 | 37.2 | 34 | 10,000 | 37.9 | 99.6 |
| SRP BW 8040 FR | 400 | 37.2 | 34 | 10,000 | 37.9 | 99.6 |
| SRP ULP 8040 | 400 | 37.2 | 34 | 10,000 | 37.9 | 99.5 |
| SRP SW 8040 | 400 | 37.2 | 34 | 7,500 | 28.4 | 99.85 |

Test conditions: BW, BW FR and SW at 2,000 ppm NaCl and 225 psi (1.55 MPa); ULP at 1,500 ppm NaCl and 150 psi (1.03 MPa). All at 25 °C (77 °F), pH 7.5 and 15% recovery. Rejection is the stabilised figure. Flow of individual elements may vary by ±15%, and minimum salt rejection is 99.0%. Active area is guaranteed ±5%.

02 ELEMENT DIMENSIONS

ELEMENT DRAWING · COMMON TO EVERY MODEL




Spiral-wound element, side view. Not to scale across sizes.

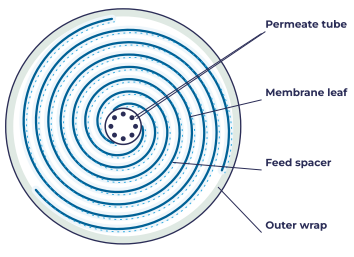
A · LENGTH
**40.0 in (1016 mm)**

B · DIAMETER
**8 in (202 mm)**

C · TUBE
**1.125 in (29 mm)**

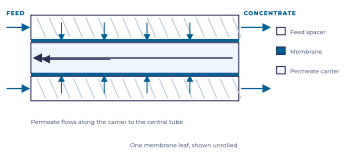
03 HOW THE ELEMENT WORKS

CROSS-SECTION




End view of the spiral-wound element

MEMBRANE LEAF






03 MODEL

# SRP BW 8040

SRP BW Membrane Element is primarily used in desalination of brackish water. This series features low operating pressure, high permeate flow and rejection. It has high performance in rejecting soluble salt, TOC and SiO2, and can be widely applied in pure water production in electricity and electronic industries.

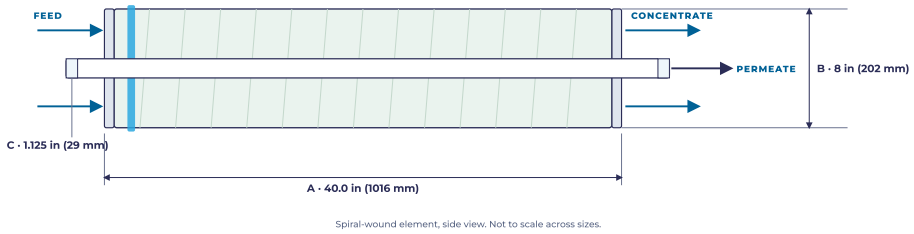
**Product type:** spiral-wound element with polyamide thin-film composite membrane.



| RO MEMBRANE ELEMENT | Area (ft²) | Area (m²) | Thickness (mil) | Flow (gpd) | Flow (m³/d) | Stabilised salt rejection |
|---|---|---|---|---|---|---|
| SRP BW 8040 | 400 | 37.2 | 34 | 10,000 | 37.9 | 99.6% |

1. Values are normalized to the following conditions: 2,000 ppm NaCl, 225 psi (1.55 MPa), 77°F (25°C), pH 7.5, 15% recovery.
2. Permeate flows for individual elements may vary ± 15%.
3. Minimum salt rejection is 99.0%.
4. Stabilized salt rejection is generally achieved within 24 – 48 hours of continuous use, depending upon feedwater characteristics and operating conditions.
5. Product specifications may vary slightly as improvements are implemented.
6. Active area guaranteed ± 5%. Active area as stated by us is not comparable to the nominal membrane area figure often stated by some element suppliers.

## DIMENSIONS




Spiral-wound element, side view. Not to scale across sizes.

Refer to our design guidelines for multiple-element systems. Element to fit nominal 8-inch I.D. pressure vessel.

| OPERATING CONDITION | |
|---|---|
| Maximum operating temperature (a, b) | **113 °F (45 °C)** |
| Maximum operating pressure (b) | **600 psig (41 bar)** |
| Maximum element pressure drop | **15 psig (1.0 bar)** |
| pH range, continuous operation (a) | **2 – 11** |
| pH range, short-term cleaning, 30 min (c) | **1 – 13** |
| Maximum feed silt density index | **SDI 5** |
| Free chlorine tolerance (d) | **< 0.1 ppm** |

## NOTES

a. Maximum temperature for continuous operation above pH 10 is 95 °F (35 °C).
b. Consult your representative for advice on applications above 95 °F (35 °C).
c. Refer to the cleaning guidelines for more information.
d. Free chlorine and other oxidising agents can cause premature membrane failure. Remove residual free chlorine by pretreatment before the membrane.

04 MODEL

# SRP BW 8040 FR

SRP BW FR Membrane Element utilizes a specialized manufacturing technique that improves the hydrophilicity, electric charge and roughness of its surface, reducing the breeding and adsorption of pollutants and microbes on the membrane surface.

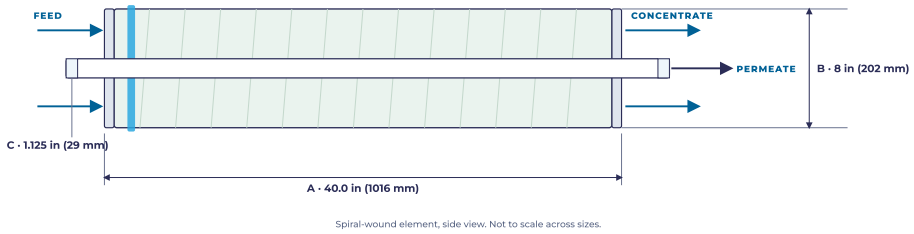
**Product type:** spiral-wound element with polyamide thin-film composite membrane.



| RO MEMBRANE ELEMENT | Area ($ft^2$) | Area ($m^2$) | Thickness (mil) | Flow (gpd) | Flow ($m^3/d$) | Stabilised salt rejection |
|---|---|---|---|---|---|---|
| SRP BW 8040 FR | 400 | 37.2 | 34 | 10,000 | 37.9 | 99.6% |

1. Values are normalized to the following conditions: 2,000 ppm NaCl, 225 psi (1.55 MPa), 77°F (25°C), pH 7.5, 15% recovery.
2. Permeate flows for individual elements may vary ± 15%.
3. Minimum salt rejection is 99.0%.
4. Stabilized salt rejection is generally achieved within 24 – 48 hours of continuous use, depending upon feedwater characteristics and operating conditions.
5. Product specifications may vary slightly as improvements are implemented.
6. Active area guaranteed ± 5%. Active area as stated by us is not comparable to the nominal membrane area figure often stated by some element suppliers.

## DIMENSIONS




Spiral-wound element, side view. Not to scale across sizes.

Refer to our design guidelines for multiple-element systems. Element to fit nominal 8-inch I.D. pressure vessel.

| OPERATING CONDITION | |
|---|---|
| Maximum operating temperature (a, b) | **113 °F (45 °C)** |
| Maximum operating pressure (b) | **600 psig (41 bar)** |
| Maximum element pressure drop | **15 psig (1.0 bar)** |
| pH range, continuous operation (a) | **2 – 11** |
| pH range, short-term cleaning, 30 min (c) | **1 – 13** |
| Maximum feed silt density index | **SDI 5** |
| Free chlorine tolerance (d) | **< 0.1 ppm** |

## NOTES

a. Maximum temperature for continuous operation above pH 10 is 95 °F (35 °C).
b. Consult your representative for advice on applications above 95 °F (35 °C).
c. Refer to the cleaning guidelines for more information.
d. Free chlorine and other oxidising agents can cause premature membrane failure. Remove residual free chlorine by pretreatment before the membrane.

05 MODEL

# SRP ULP 8040

SRP ULP Membrane Element can work with ultra-low pressure to reach a water flux and rejection rate that can rival its common low-pressure counterpart.

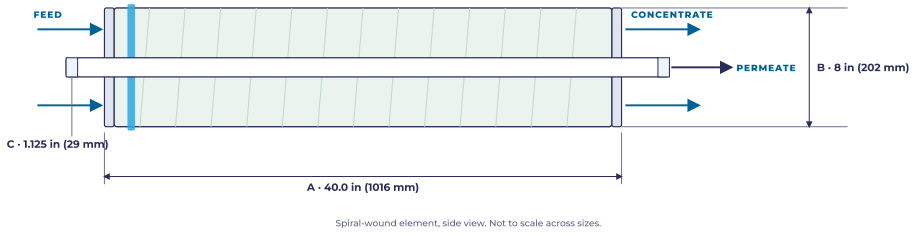
**Product type:** spiral-wound element with polyamide thin-film composite membrane.



| RO MEMBRANE ELEMENT | Area (ft²) | Area (m²) | Thickness (mil) | Flow (gpd) | Flow (m³/d) | Stabilised salt rejection |
|---|---|---|---|---|---|---|
| SRP ULP 8040 | 400 | 37.2 | 34 | 10,000 | 37.9 | 99.5% |

1. Values are normalized to the following conditions: 1,500 ppm NaCl, 150 psi (1.03 MPa), 77°F (25°C), pH 7.5, 15% recovery.
2. Permeate flows for individual elements may vary ± 15%.
3. Minimum salt rejection is 99.0%.
4. Stabilized salt rejection is generally achieved within 24 – 48 hours of continuous use, depending upon feedwater characteristics and operating conditions.
5. Product specifications may vary slightly as improvements are implemented.
6. Active area guaranteed ± 5%. Active area as stated by us is not comparable to the nominal membrane area figure often stated by some element suppliers.

## DIMENSIONS




Spiral-wound element, side view. Not to scale across sizes.

Refer to our design guidelines for multiple-element systems. Element to fit nominal 8-inch I.D. pressure vessel.

| OPERATING CONDITION | |
|---|---|
| Maximum operating temperature (a, b) | **113 °F (45 °C)** |
| Maximum operating pressure (b) | **600 psig (41 bar)** |
| Maximum element pressure drop | **15 psig (1.0 bar)** |
| pH range, continuous operation (a) | **2 – 11** |
| pH range, short-term cleaning, 30 min (c) | **1 – 13** |
| Maximum feed silt density index | **SDI 5** |
| Free chlorine tolerance (d) | **< 0.1 ppm** |

## NOTES

a. Maximum temperature for continuous operation above pH 10 is 95 °F (35 °C).
b. Consult your representative for advice on applications above 95 °F (35 °C).
c. Refer to the cleaning guidelines for more information.
d. Free chlorine and other oxidising agents can cause premature membrane failure. Remove residual free chlorine by pretreatment before the membrane.

06 MODEL

# SRP SW 8040

SRP SW Membrane is used for sea water desalination. It can improve permeate flow by optimizing membrane element structure. It has the features of high rejection rate, stable performance, low operating cost and small equipment investment. It can be used to obtain qualified drinking water from seawater.

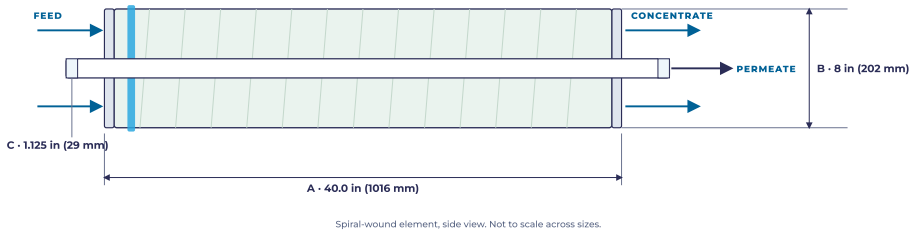
**Product type:** spiral-wound element with polyamide thin-film composite membrane.



| RO MEMBRANE ELEMENT | Area (ft²) | Area (m²) | Thickness (mil) | Flow (gpd) | Flow (m³/d) | Stabilised salt rejection |
|---|---|---|---|---|---|---|
| SRP SW 8040 | 400 | 37.2 | 34 | 7,500 | 28.4 | 99.85% |

1. Values are normalized to the following conditions: 2,000 ppm NaCl, 225 psi (1.55 MPa), 77°F (25°C), pH 7.5, 15% recovery.
2. Permeate flows for individual elements may vary ± 15%.
3. Minimum salt rejection is 99.0%.
4. Stabilized salt rejection is generally achieved within 24 – 48 hours of continuous use, depending upon feedwater characteristics and operating conditions.
5. Product specifications may vary slightly as improvements are implemented.
6. Active area guaranteed ± 5%. Active area as stated by us is not comparable to the nominal membrane area figure often stated by some element suppliers.

## DIMENSIONS




Spiral-wound element, side view. Not to scale across sizes.

Refer to our design guidelines for multiple-element systems. Element to fit nominal 8-inch I.D. pressure vessel.

| OPERATING CONDITION | |
|---|---|
| Maximum operating temperature (a, b) | **113 °F (45 °C)** |
| Maximum operating pressure (b) | **600 psig (41 bar)** |
| Maximum element pressure drop | **15 psig (1.0 bar)** |
| pH range, continuous operation (a) | **2 – 11** |
| pH range, short-term cleaning, 30 min (c) | **1 – 13** |
| Maximum feed silt density index | **SDI 5** |
| Free chlorine tolerance (d) | **< 0.1 ppm** |

## NOTES

a. Maximum temperature for continuous operation above pH 10 is 95 °F (35 °C).
b. Consult your representative for advice on applications above 95 °F (35 °C).
c. Refer to the cleaning guidelines for more information.
d. Free chlorine and other oxidising agents can cause premature membrane failure. Remove residual free chlorine by pretreatment before the membrane.

07 SALIENT FEATURES

# Four 8040 elements, one format

Pick the element by feed water and pressure. Every 8040 model shares one size, so elements are interchangeable in the same vessel.

### BW 8040

Brackish water element with low operating pressure, high permeate flow and high rejection of soluble salt, TOC and $SiO_2$. 99.6% stabilised rejection.

### BW FR 8040

A surface treatment improves hydrophilicity, charge and roughness, which reduces the build-up of pollutants and microbes on the membrane. 99.6% stabilised rejection.

### ULP 8040

Works at ultra-low pressure, with a flux and rejection that rival common low-pressure elements. 99.5% stabilised rejection.

### SW 8040

For seawater desalination, with high rejection, stable performance, low operating cost and small equipment investment. 99.85% stabilised rejection.

08 APPLICATIONS

1 **Brackish water desalination**
BW and BW FR elements bring down dissolved salts, TOC and $SiO_2$.

2 **Seawater desalination**
SW elements produce qualified drinking water from seawater.

3 **High-purity water**
Pure water production for the electricity and electronics industries.

4 **Process water treatment**
4040 elements suit water purification and process water in industry.

5 **Energy-efficient treatment**
ULP elements deliver high flow at ultra-low operating pressure.

09 WHY SRP

- Low operating pressure with high permeate flow.
- Supplied by the same company that builds the treatment system.
- High rejection of salts, TOC and silica.









SRP Membranes

REMEMBER THE FUTURE

## Specify SRP 8040 Series for your RO plant

New build, retrofit or membrane replacement. Share your flow, feed water and layout, and we will recommend the product, configuration and design.


**EMAIL**
crm@srpepl.com

**PHONE**
+91 98759 55948
+91 98759 55949

**WEB**
www.srpmembranes.com



**Head Office**
70, Industrial Area, Phase-I, Panchkula, Haryana, India-134113

**International Office**
Saif Office Q1-06-026/B, P.O. Box 513994, Sharjah – U.A.E.