

# REVERSE OSMOSIS MEMBRANE

## ERO 2.5", 4" & 8" (HIGH PRODUCTION)

### Performance

Product Code	LPH (m <sup>3</sup> /day)	Avg Rejection (%) at 10.3 bar	Size (")	Active Area (ft <sup>2</sup> )
ERO-2521	47 (1.1)	99	2.4 x 21	14
ERO-2540	118 (2.8)	99	2.4 x 40	30
ERO-4021	189 (4.5)	99	3.9 x 21	36
ERO-4040	410 (9.8)	99	3.9 x 40	90
ERO-8040	1609 (38.9)	99	7.95 x 40	365
ERO-8040-HF	1767 (42.4)	99	7.95 x 40	400

#### Note:

1. Permeate flow and rejection based on feedwater of 1500 ppm NaCl, 15% recovery (2540, 4040, 8040); 8% recovery (2521, 4021) and 25°C at the specified applied pressure.
2. Minimum salt rejection 97.5%
3. Permeate flows for individual membranes may vary ±20%



### Technical Data

Maximum Operating Temperature °C (°F)	45 (113)
Minimum Operating Temperature °C (°F)	4 (39)
Maximum Operating Pressure bar (psi)	41 (595)
Minimum Operating Pressure bar (psi)	6 (87)
Recommended Operating Pressure bar (psi)	10.3 (150)
Maximum Feed Flow Rate LPM	2.5" = 22
	4" = 60
	8" = 280
Minimum Feed Flow Rate LPM	2.5" = 6
	4" = 15
	8" = 85
Maximum Recommended Recovery (%)	35
pH Range, Continuous Operation	3-10
pH Range, Short Term Cleaning	2-12
Maximum Feed Silt Density Index (SDI)	5.5
Chlorine Tolerance (Total Exposure 2000 mg/l - hours) (mg/l)	<0.1
Maximum Feed Water Turbidity (NTU)	<1

### Materials of Construction

Permeate Tube:	ABS
Feed Channel Spacer:	Polypropylene
Membrane:	Polyamide Thin-Film Composite
Permeate Collection Material:	Polyethylene Terephthalate (PET)
Anti-Telescoping Device (ATD):	ABS
Outer Wrap:	Fibreglass
Brine Seal:	Buna-N
Interconnector:	ABS
Interconnector O-rings:	Buna-N

### Construction Notes

1. Multi-layered polyamide thin-film composite membrane, spiral wound with feed channel spacer and collection material around a perforated collection tube.
2. Fouling resistant coating added to membrane flatsheet to create a more neutral surface charge.

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## Permeate Production Temperature Correction

The feedwater temperature will have an effect on the amount of water a membrane element can produce. The table below shows the approximate permeate production of each membrane at different feedwater temperatures.

Corrected Permeate Flow LPH					
Product Code	Water Temperature °C				
	4	10	16	21	25
ERO-2521	23	28	35	42	47
ERO-2540	57	71	86	104	118
ERO-4021	91	114	138	167	189
ERO-4040	197	246	299	361	410
ERO-8040	772	965	1174	1416	1609
ERO-8040-HF	848	1060	1290	1555	1767

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## Suitable Housings

SMH - SP - 2521 - 3/8  
SMH - SP - 2540 - 3/8  
SMH - SP - 2540 - 3/8  
SMH - SP - 4040 - 1/2  
SMH - FRP - 2521  
SMH - FRP - 2540  
SMH - FRP - 4021 - 1/2 - 1/2  
SMH - FRP - 4040 - 1/2 - 3/4  
(and most industry membrane housings)