OSMO ASIA PACIFIC LTD.

SPECIFICATION

NANOFILTRATION ELEMENTS
OAP-NF SERIES

Applications:

- Dye removal / Concentration
- Sodium Chloride Diafiltration
- Waste Water Reuse
- Various Separations

The Nanofiltration membrane elements are "Thin Film Composite" with an approximate molecular weight cut-off of 150-300 Daltons for uncharged organic molecules.

Divalent and multivalent ions are mainly rejected by the membrane elements while monovalents are weakly rejected, depending on their concentration and composition in the feed water.

Any monovalent ions passing through the membrane elements do not contribute to the osmotic pressure; therefore Nanofiltration membrane systems operate at a feed pressure below the one of the Reverse Osmosis.

This element features a fiberglass or a net outer-wrap and a standard choice of feed spacers.

Product Specifications:

With Fiberglass Outer-wrap

Model	Feed Spacer (Mil)	Active Area (sq.ft.)	Permeate Flow M^3/H (gpm)	$MgSO_4$ Rejection (%)
OAP-NF4040F-28	28	90	0.44 (1.94)	98
OAP-NF4040F-34	34	80	0.44 (1.94)	98
OAP-NF8040F-28	28	360	1.60 (7.04)	98
OAP-NF8040F-34	34	325	1.60 (7.04)	98

With Net Outer-wrap

Model	Feed Spacer (Mil)	Active Area (sq.ft.)	Permeate Flow M^3/H (gpm)	$MgSO_4$ Rejection (%)
OAP-NF4040N-28	28	90	0.44 (1.94)	98
OAP-NF4040N-34	34	80	0.44 (1.94)	98
OAP-NF8040N-28	28	360	1.60 (7.04)	98
OAP-NF8040N-34	34	325	1.60 (7.04)	98

Note: *Specification are based on a 2,000 mg/l $MgSO_4$ solution at 7 bar (100 psig) net pressure, 25°C (77°F), 15% recovery, after 24 hours. Individual element flux may vary ±25%*

Operating Limits:

- Typical Operating Pressure : 7 to 28 bar (100 to 400 psi)
- Maximum Pressure : 41 bar (600 psi)
- Maximum Temperature : 50°C (122°F)
- Recommended Operating pH : 2 to 11
- Cleaning pH Range : 1 to 12
- Chlorine Tolerance : 1,000 ppm-hours
  (De-chlorination recommended)

OAP-NF SERIES

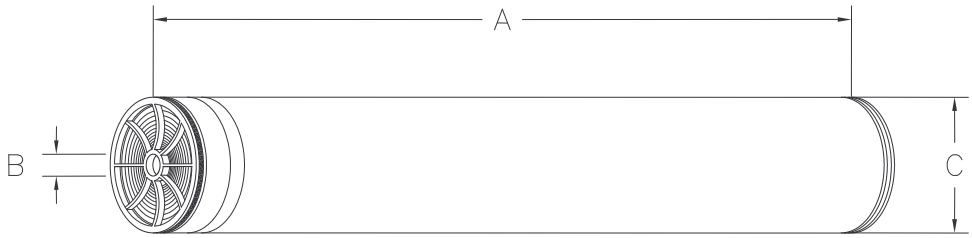
General Instruction:

- Keep elements in initial packaging till it's use
- If operating limits and guidelines given in this bulletin are not strictly followed, the limited warranty will be null and void
- Customer is fully responsible for any effects of incompatible substances on elements
- Avoid static permeate back pressure at all times

Recommended Differential Pressure (ΔP) per pressure vessel in a system (28 mil spacer):

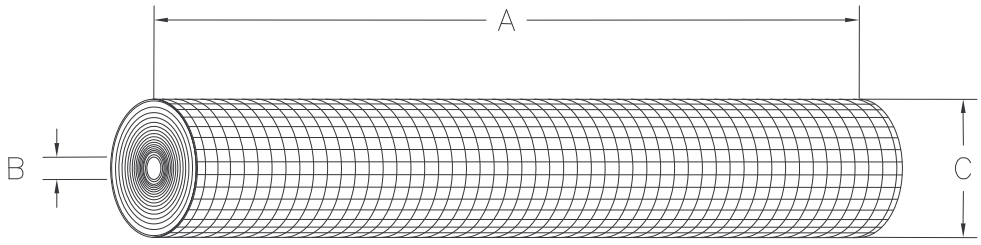
Differential pressure	Element quantity / pressure vessel					
(ΔP) & Recovery / vessel	1	2	3	4	5	6
(ΔP) Bar (psi)	0.7 (10)	1.4 (20)	2.1 (30)	2.6 (38)	3.1 (45)	3.5 (50)
% Recovery	15	25	35	45	53	55

Elements Weight & Dimension (Fiberglass Outer-wrap)



Model	Dimensions – Inches (mm)			Weight
	A	B	C	Kg (lbs)
OAP-NF4040F	40 (1016)	0.625 (15.9)	3.88 (98.6)	5.5 (12)
OAP-NF8040F	40 (1016)	1.125 (28.6)	7.88 (200)	14.5 (32)

Elements Weight & Dimension (Net Outer-wrap)



Model	Dimensions – Inches (mm)			Weight
	A	B	C	Kg (lbs)
OAP-NF4040N	40 (1016)	0.625 (15.9)	3.98 (1010)	5.5 (12)
OAP-NF8040N	40 (1016)	1.187 (30.1)	7.95 (2019)	14.5 (32)

For More Information:

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