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MEMBRANE TECHNOLOGIES

Product Guide for Spiral-Wound RO & NF Elements



BWM	Brackish Water Membrane
FRM	Fouling Resistant Membrane
SWM	Seawater Membrane
UPWM	Ultra Pure Water Membrane
NFM	Nanofiltration Membrane
CRM	Chlorine Resistant Membrane

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BWM Brackish Water Membrane

Size	Model Name	Permeate Flow Rate(GPD)	Salt Rejection(%)	Effective Area(ft²)	Test Condition
16"	RE 16040-BE *	41,000	99.7	1,600	1
	RE 16040-BLR *	36,000	99.6	1,600	2
8"	RE 8040-BE *	10,500	99.7	400	1
	RE 8040-BE34	10,500	99.7	400	1
	RE 8040-BE440 *	11,500	99.7	440	1
	RE 8040-BN *	9,500	99.7	365	1
8"	RE 8040-BLF *	11,500	99.2	400	3
	RE 8040-BLN *	12,000	99.6	400	2
	RE 8040-BLN440 *	13,000	99.6	440	2
	RE 8040-BLR *	9,000	99.6	400	2
	RE 8040-BLR440 *	9,900	99.6	440	2
4"	RE 4040-BE	2,400	99.7	85	1
	RE 4040-BLF *	2,500	99.2	85	3
	RE 4040-BLN *	2,600	99.2	85	2
	RE 4040-BLR *	1,900	99.6	85	2
4"	RE 4021-BE	1,050	99.7	35	5
	RE 4021-BLN	1,050	99.2	35	6
2.5"	RE 2540-BE	800	99.7	27	1
	RE 2540-BLN	800	99.2	27	2
2.5"	RE 2521-BE	300	99.7	12	5
	RE 2521-BLN	300	99.2	12	6

※ TWM users can use identical grade BWM membrane models : TE → BE, TL → BLN, TLF → BLF

FRM Fouling Resistant Membrane

Size	Model Name	Permeate Flow Rate(GPD)	Salt Rejection(%)	Effective Area(ft²)	Test Condition
16"	RE 16040-FEn *	41,000	99.7	1,600	1
	RE 16040-FLR *	36,000	99.6	1,600	2
8"	RE 8040-FDn *	10,000	99.7	380	1
	RE 8040-FEn *	10,500	99.7	400	1
	RE 8040-FEn34	10,500	99.7	400	1
	RE 8040-FEn440 *	11,500	99.7	440	1
	RE 8040-FN *	9,500	99.7	365	1
8"	RE 8040-FL	9,000	99.0	400	2
	RE 8040-FL440	12,100	99.0	440	2
	RE 8040-FLR *	9,000	99.6	400	2
4"	RE 4040-FEn	2,400	99.7	85	1
	RE 4040-FL	2,400	99.0	85	2
	RE 4040-FLR	1,900	99.6	85	2

Updated July 1st 2011

Additional updates to product specifications may have been implemented after the release of this document
Regularly check our website at www.csmfilter.com for the latest product performance data.

SWM Seawater Membrane

Size	Model Name	Permeate Flow Rate(GPD)	Salt Rejection(%)	Effective Area(ft²)	Test Condition
16"	RE 16040-SHF *	36,000	99.70	1,600	4
	RE 16040-SHN *	24,600	99.75	1,600	4
8"	RE 8040-SHA400	7,500	99.75	400	4
	RE 8040-SHF *	9,000	99.70	370	4
	RE 8040-SHF400 *	9,700	99.70	400	4
	RE 8040-SHN *	6,000	99.75	370	4
	RE 8040-SHN400 *	6,500	99.75	400	4
4"	RE 4040-SHF	1,900	99.70	75	4
	RE 4040-SHN	1,200	99.75	75	4
2.5"	RE 2540-SHN	500	99.75	24	7

UPWM Ultra Pure Water Membrane

Size	Model Name	Permeate Flow Rate(GPD)	Salt Rejection(%)	IPA Rejection(%)	Effective Area(ft²)	Test Condition
8"	RE 8040 HUE	9,000	99.5	96.0	400	1
	RE 8040 HUE440	10,000	99.5	96.0	440	1
	RE 8040 UR	5,500	99.7	96.0	400	1
	RE 8040-UL	10,000	99.5	92.0	400	2
	RE 8040-UL440	11,000	99.5	92.0	440	2

※ IPA Rejection : IPA 1,000mg/L, Pressure 225 psig for UE & HUE/ 150 psig for UL Temperature 25C, pH 6.5~7, Recovery 8%

NFM Nanofiltration Membrane

Size	Model Name	Permeate Flow Rate(GPD)	Salt Rejection(%)	$MgSO_4$ Rejection(%)	$CaCl_2$ Rejection(%)	Effective Area(ft²)	Test Condition
8"	NE 8040-90 *	7,500	85~95	97.0	90~95	400	8
	NE 8040-70	7,000	40~70	97.0	45~70	400	8
4"	NE 4040-90 *	1,600	85~95	97.0	90~95	85	8
	NE 4040-70	1,500	40~70	97.0	45~70	85	8
2.5"	NE 2540-90	500	85~95	97.0	90~95	27	8
	NE 2540-70	450	40~70	97.0	45~70	27	8

※ $MgSO_4$ Rejection : $MgSO_4$ 2,000mg/L, Pressure 75 psig, Temperature 25C, pH 6.5~7, Recovery 15%
※ $CaCl_2$ Rejection : $CaCl_2$ 500mg/L, Pressure 75 psig, Temperature 25C, pH 6.5~7, Recovery 15%

CRM Chlorine Resistant Membrane

Size	Model Name	Permeate Flow Rate(GPD)	Salt Rejection(%)	Effective Area(ft²)	Test Condition
8"	RE 8040-CE *	8,500	99.5	400	1
4"	RE 4040-CE	1,900	99.5	85	1

Test Condition : Salt Rejection		
1	40" BW Standard	NaCl 2,000mg/L, Pressure 225 psig, Temperature 25C, pH 6.5~7, Recovery 15%
2	40" LP Standard	NaCl 1,500mg/L, Pressure 150 psig, Temperature 25C, pH 6.5~7, Recovery 15%
3	40" LP High Flux	NaCl 500mg/L, Pressure 100 psig, Temperature 25C, pH 6.5~7, Recovery 15%
4	40" SW Standard	NaCl 32,000mg/L, Pressure 800 psig, Temperature 25C, pH 6.5~7, Recovery 8%
5	21" BW Standard	NaCl 2,000mg/L, Pressure 150 psig, Temperature 25C, pH 6.5~7, Recovery 8%
6	21" LP Standard	NaCl 1,500mg/L, Pressure 150 psig, Temperature 25C, pH 6.5~7, Recovery 8%
7	21" SW Standard	NaCl 32,000mg/L, Pressure 800 psig, Temperature 25C, pH 6.5~7, Recovery 4%
8	NE Standard	NaCl 2,000mg/L, Pressure 75 psig, Temperature 25C, pH 6.5~7, Recovery 15%

NSF Element models marked with an asterisk (*) are certified by NSF to NSF/ANSI Standard 61

CSM® Global Coverage



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