membranium
RM Nanotech

nanoRO

Extra low pressure reverse osmosis membrane elements for brackish water desalination
KCH Series

Product Description

Membrane material	Composite polyamide
Membrane type	ORM33K
Design	Spiral wound
Features	Fiberglass shell (-C) or shrink film-wrapped (-F)

Specification

Model	Flow*		Rejection	Area		Spacer	
	l/hr	GPD	normal** / minimal***	m2	ft2	mm	mil
KCH 4040-C	410	2600	99,1/98,3	8.6	93	0,66	26
KCH 4040-C-DRY	410	2600	99,1/98,0	8.6	93	0,66	26
KCH 4040-F	410	2600	99,1/98,3	8.6	93	0,66	26
KCH 4040-F-DRY	410	2600	99,1/98,0	8.6	93	0,66	26

* *Test conditions: test solution of NaCl 500 mg/l, P=0.7 MPa, T=25°C, pH=7,5. Recovery -15%t*

* *Flow of each single element in a batch may vary for +/-15%*

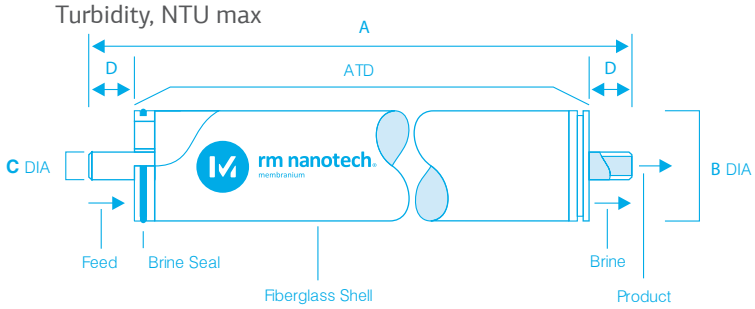
** *Nominal rejection is reached after 48 hours of continuous operation on test solution*

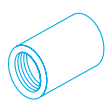
*** *Minimal rejection of a new element after 20 minutes' test on test solution*

Operating conditions

Recommended operation pressure, MPa	0,6-0,9
Maximum operation pressure, MPa	
Glass fiber/tape overwrap	4,1/2,1
Maximum pressure drop, MPa	0,1
Operation temperature, °C [1)]	4-45
pH at continuous operation at T<35°C	2-11
pH at continuous operation at T<45°C	3-10,5
Chemical cleaning, temperature, °C	T<45 T<35 T<25
CIP pH (short time operation)	2-11 1-11.5 1-12
Free chlorine content, mg/l max	0,1
Maximum feed flow, m3/hr	3,6
Concentrate/permeate ratio on each element, min	5:1
SDI (15 minutes test), max	5
Turbidity, NTU max	1

1) *During continuous work with pH over 10 the temperature must not exceed 35°C*





Interconnector supplied with each element

Model	A mm	B mm	B' (ATD) mm	C mm	D mm	Weight kg
KCH 4040-C	1016	101,6	100,3	19,1	26,7	4,5
KCH 4040-C-DRY	1016	101,6	100,3	19,1	26,7	4
KCH 4040-F	1016	101,6	100,3	19,1	26,7	3,6
KCH 4040-F-DRY	1016	101,6	100,3	19,1	26,7	3,1