

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<br>normal**/<br>minimal*** | Area |     | Spacer |     |
|-----------------|-------|--------|--------------------------------------|------|-----|--------|-----|
|                 | m3/hr | GPD    |                                      | m2   | ft2 | mm     | mil |
| KCH 8040-C      | 1,95  | 12 400 | 99,1/98,3                            | 41   | 440 | 0,66   | 26  |
| KCH 8040-C3     | 1,6   | 10 500 | 99,1/98,3                            | 35   | 375 | 0,86   | 34  |
| KCH 8040-C-DRY  | 1,95  | 12 400 | 99,1/98,0                            | 41   | 440 | 0,66   | 26  |
| KCH 8040-C3-DRY | 1,6   | 10 500 | 99,1/98,0                            | 35   | 375 | 0,86   | 34  |
| KCH 8040-F      | 1,95  | 12 400 | 99,1/98,3                            | 41   | 440 | 0,66   | 26  |
| KCH 8040-F3     | 1,6   | 10 500 | 99,1/98,3                            | 35   | 375 | 0,86   | 34  |
| KCH 8040-F-DRY  | 1,95  | 12 400 | 99,1/98,0                            | 41   | 440 | 0,66   | 26  |
| KCH 8040-F3-DRY | 1,6   | 10 500 | 99,1/98,0                            | 35   | 375 | 0,86   | 34  |

**\***

Test conditions:  
test solution of NaCl  
500 mg/l, P=0,7 MPa,  
T=25 °C, pH=7,5.  
Recovery -15%

**\***

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

**\*\*\***

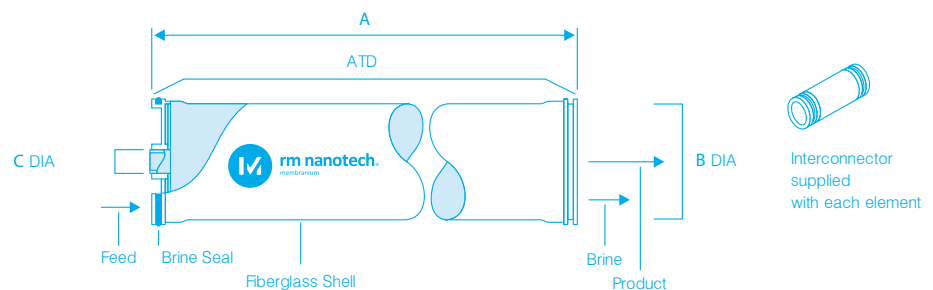
Minimal rejection  
of a new element  
after 20 minutes' test  
on test solution

**1)**

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

## Operating conditions

|   |                  |
|---|------------------|
| Recommended operation pressure, MPa             | 0,6-0,9          |
| Maximum operation pressure, MPa                 | 4,1/2,1          |
| Maximum pressure drop, MPa                      | 0,07             |
| 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                        | 17               |
| Concentrate/permeate ratio on each element, min | 5:1              |
| SDI (15 minutes test), max                      | 5                |
| Turbidity, NTU max                              | 1                |



| Model           | A mm | B mm | B' (ATD) mm | C mm | Weight kg |
|-----------------|------|------|-------------|------|-----------|
| KCH 8040-C (3)  | 1016 | 203  | 200         | 28,6 | 15,5      |
| KCH 8040-C3-DRY | 1016 | 203  | 200         | 28,6 | 14,7      |
| KCH 8040-F (3)  | 1016 | 203  | 200         | 28,6 | 14        |
| KCH 8040-F3-DRY | 1016 | 203  | 200         | 28,6 | 13,2      |