

## Dairy 5K-Pht UF Membrane

### Product Description

**Membrane material:** PES

**MWCO:** 5000D

**Outer wrap:** Net

**Application:** Protein removal

**Spacer:** 31/46/65/80 mil

**Feature:** Conform to 3A Standard

### Product Specifications

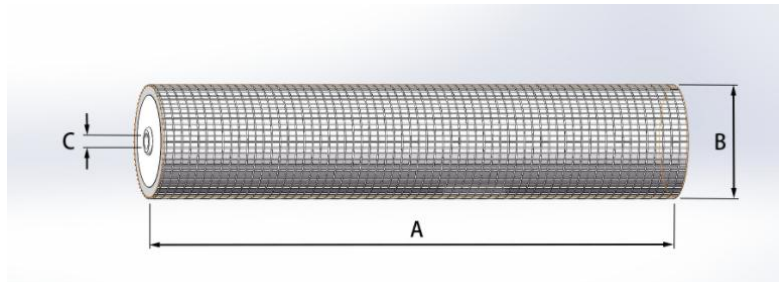
| Model | Spacer (mil) | Membrane area (ft <sup>2</sup> /m <sup>2</sup> ) | Outer wrap |
|-------|--------------|--|------------|
| 3838  | 31           | 75 (7.0)   | Net        |
|       | 46           | 60 (5.6)   |            |
| 6338  | 31           | 205 (19)   | Net        |
|       | 46           | 165 (15.3)                                       |            |
|       | 65           | 125 (11.6)                                       |            |
|       | 80           | 100 (9.3)  |            |
| 8038  | 31           | 310 (32.5)                                       | Net        |
|       | 46           | 260 (24.2)                                       |            |
|       | 65           | 210 (19.5)                                       |            |
|       | 80           | 170 (15.8)                                       |            |
| 8338  | 31           | 410 (38.1)                                       | Net        |
|       | 46           | 319 (29.6)                                       |            |
|       | 65           | 243 (22.6)                                       |            |
|       | 80           | 213 (19.8)                                       |            |

Remark: Special ATD is required for each membrane.

# Operating and Design Information

|                                   |                              |
|-----------------------------------|------------------------------|
| <b>Typical Operating Pressure</b> | 80-135psi                    |
| <b>Maximum Operating Pressure</b> | 200psi                       |
| <b>Maximum Temperature</b>        | Continuous Operation: 85°C   |
|                                   | Chemical Cleaning(CIP): 85°C |
| <b>Allowable pH</b>               | Continuous Operation: 2-10   |
|                                   | Chemical Cleaning(CIP): 1-13 |
| <b>Maximum Pressure Drop</b>      | <15psi                       |
| <b>Chlorine Tolerance</b>         | <200ppm                      |

# Nominal Dimensions



| Products                            | Dimensions-(in/mm) |           |              |
|-------------------------------------|--------------------|-----------|--------------|
|                                     | A                  | B         | C            |
| Dairy5K-Pht-3838-31/46/-C-0830      | 38 (965)           | 3.8 (97)  | 0.83 (21)    |
| Dairy5K-Pht-6338-31/46/65/80-C-1139 | 38 (965)           | 6.3 (160) | 1.139 (28.9) |
| Dairy5K-Pht-8038-31/46/65/80-C-1139 | 38 (965)           | 7.9 (200) | 1.139 (28.9) |
| Dairy5K-Pht-8338-31/46/65/80-C-1139 | 38 (965)           | 8.3(211)  | 1.139 (28.9) |

## Dairy 10K-Pht UF Membrane

### Product Description

**Membrane material:** PES

**MWCO:** 10000D

**Outer wrap:** Net

**Application:** Protein removal

**Spacer:** 31/46/65/80 mil

**Feature:** Conform to 3A Standard

### Product Specifications

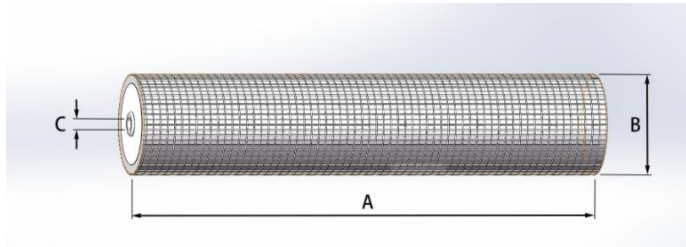
| Model | Spacer (mil) | Membrane area (ft <sup>2</sup> /m <sup>2</sup> ) | Outer wrap |
|-------|--------------|--|------------|
| 3838  | 31           | 75 (7.0)   | Net        |
|       | 46           | 60 (5.6)   |            |
|       | 65           | 45 (4.2)   |            |
|       | 80           | 37 (3.4)   |            |
| 6338  | 31           | 205 (19)   | Net        |
|       | 46           | 165 (15.3)                                       |            |
|       | 65           | 125 (11.6)                                       |            |
|       | 80           | 100 (9.3)  |            |
| 8038  | 31           | 310 (32.5)                                       | Net        |
|       | 46           | 260 (24.2)                                       |            |
|       | 65           | 210 (19.5)                                       |            |
|       | 80           | 170 (15.8)                                       |            |
| 8338  | 31           | 410 (38.1)                                       | Net        |
|       | 46           | 319 (29.6)                                       |            |
|       | 65           | 243 (22.6)                                       |            |
|       | 80           | 213 (19.8)                                       |            |

Remark: Special ATD is required for each membrane.

# Operating and Design Information

|                                   |                              |
|-----------------------------------|------------------------------|
| <b>Typical Operating Pressure</b> | 80-135psi                    |
| <b>Maximum Operating Pressure</b> | 200psi                       |
| <b>Maximum Temperature</b>        | Continuous Operation: 85°C   |
|                                   | Chemical Cleaning(CIP): 85°C |
| <b>Allowable pH</b>               | Continuous Operation: 2-10   |
|                                   | Chemical Cleaning(CIP): 1-13 |
| <b>Maximum Pressure Drop</b>      | <15psi                       |
| <b>Chlorine Tolerance</b>         | <200ppm                      |

# Nominal Dimensions



| <b>Products</b>                    | <b>Dimensions-(in/mm)</b> |           |              |
|------------------------------------|---------------------------|-----------|--------------|
|                                    | <b>A</b>                  | <b>B</b>  | <b>C</b>     |
| Dairy10K-Pht-3838-31/46/65/80-0830 | 38 (965)                  | 3.8 (97)  | 0.83 (21)    |
| Dairy10K-Pht-6338-31/46/65/80-1139 | 38 (965)                  | 6.3 (160) | 1.139 (28.9) |
| Dairy10K-Pht-8038-31/46/65/80-1139 | 38 (965)                  | 7.9 (200) | 1.139 (28.9) |
| Dairy10K-Pht-8338-31/46/65/80-1139 | 38 (965)                  | 8.3(211)  | 1.139 (28.9) |

## Important information

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- New spiral membranes must be cleaned prior to first use. The cleaning procedure should be in accordance with the instructions provided in the HMCT cleaning description for the spiral membrane concerned.
  - The customer is fully responsible for the effects that any incompatible chemicals may have on the spiral membranes.
  - After initial wetting, the spiral membranes must be kept moist at all times.
  - If the operating specifications provided in this product description are not strictly followed, the limited warranty will be null and void.
  - To prevent biological growth during system shutdowns, HMCT recommends that spiral membranes should be immersed in a protective solution.
  - Avoid permeate-side back pressure at all times.
  - HMCT recommends using a rigid stainless steel ATD end device at the housing outlet end.
  - HMCT recommends that the inner diameter of the housing should be approx. 2 mm (0.08" ) bigger than the outer diameter of the spiral membrane.
  - For storage conditions, please see Storage document.
  - For warranties, please see spiral membrane warranty document.
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## Operating guidelines

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HMCT recommends the following start-up procedure from standstill to operating condition:

- The unpressurized plant should be refilled with water.
  - Feed pressure should be gradually increased over a 30 – 60 second time scale.
  - Before initiating cross-flow at high permeate flux condition (start-up with high-temperature water) the set feed pressure should be maintained for 5 – 10 minutes.
  - Cross-flow velocity at the set operating point should be gradually achieved over a period of 15 – 20 seconds.
  - Temperature variations should be implemented gradually over a period of 3 – 5 minutes.
  - Avoid any abrupt pressure or cross-flow variations on the membranes during start-up, shutdown, cleaning or other sequences in order to prevent possible damage.
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