



## DOW™ Ultrafiltration Modules

Model SFP-2860, SFD 2860, SFP-2880 and SFD-2880

### Features

DOW™ Ultrafiltration (UF) modules are made from high mechanical strength, PVDF hollow fiber membranes. The modules provide excellent performance and industry leading membrane area. These modules have the following properties and characteristics:

- 0.03 µm nominal pore diameter for removal of bacteria, viruses, and particulates including colloids to protect downstream processes such as RO
- PVDF polymeric hollow fibers for high mechanical strength and chemical resistance providing long membrane life and reliable operation.
- Hydrophilic PVDF fibers for easy cleaning and wettability that help maintain long term performance
- Outside-In flow configuration allowing a wide range of solids in the feed water minimizing the need for pretreatment processes and reducing the backwash volume compared to Inside-Out configurations U-PVC housing, helping to eliminate the need for costly pressure vessels

The 2860 which is shorter in length is recommended for smaller systems and where building height is of concern. The 2880 has higher membrane area for the same footprint offering a more economical design.

DOW Ultrafiltration Modules can be used for a wide variety of treatment applications such as surface water, seawater, and industrial and municipal wastewaters.

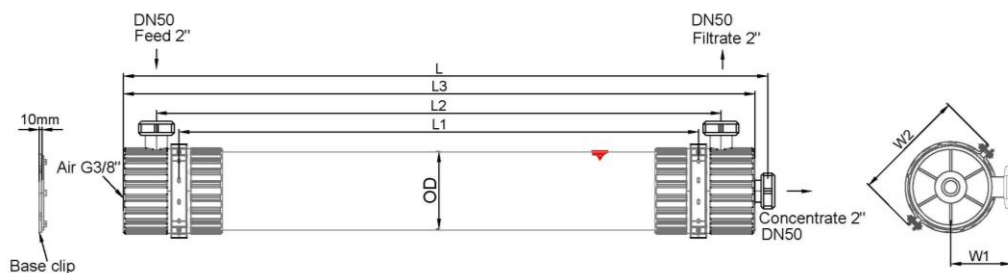


### Product Specifications

| Product  | Type                                  | Membrane Area  |                 | Hold-Up Volume |         | Weight (empty/water filled) |         |
|----------|---------------------------------------|----------------|-----------------|----------------|---------|-----------------------------|---------|
|          |                                       | m <sup>2</sup> | ft <sup>2</sup> | liters         | gallons | kg                          | lbs     |
| SFP-2860 | Industrial                            | 51             | 549             | 35             | 9.3     | 48/83                       | 106/183 |
| SFD-2860 | NSF/ANSI 61<br>Drinking Water         | 51             | 549             | 35             | 9.3     | 48/83                       | 106/183 |
| SFP-2880 | Industrial                            | 77             | 829             | 39             | 10.3    | 61/100                      | 135/220 |
| SFD-2880 | NSF/ANSI 61 and 419<br>Drinking Water | 77             | 829             | 39             | 10.3    | 61/100                      | 135/220 |

**Figure 1**

SFP-2860, SFD-2860, SFP-2880, and SFD-2880 (8-inch diameter)



| Product               | Units     | Length   |      |          |          | Diameter<br>D | Width |      |
|-----------------------|-----------|----------|------|----------|----------|---------------|-------|------|
|                       |           | L        | L1   | L2       | L3       |               | W1    | W2   |
| SFP-2860 and SFD-2860 | SI (mm)   | 1860±3   | 1500 | 1630±3   | 1820±3   | 225           | 180   | 342  |
|                       | US (inch) | 73.2±0.1 | 59.1 | 64.2±0.1 | 71.7±0.1 | 8.9           | 7.1   | 13.5 |
| SFP-2880 and SFD-2880 | SI (mm)   | 2360±3   | 2000 | 2130±3   | 2320±3   | 225           | 180   | 342  |
|                       | US (inch) | 92.9±0.1 | 78.7 | 83.9±0.1 | 91.3±0.1 | 8.9           | 7.1   | 13.5 |

**Operating Limits**

|                                      | SI Units                     | US Units       |
|--------------------------------------|------------------------------|----------------|
| Filtrate Flux (25°C)                 | 40 – 90 l/m <sup>2</sup> hr  | 24 – 53 gfd    |
| Flow Range Per Module <sup>1</sup>   | 2.0 – 6.9 m <sup>3</sup> /hr | 8.8 – 30.4 gpm |
| Temperature                          | 1 – 40°C                     | 34 – 104°F     |
| Maximum Inlet Module Pressure (20°C) | 6.25 bar                     | 90.65 psi      |
| Maximum Inlet Module Pressure (40°C) | 4.75 bar                     | 68.89 psi      |
| Maximum Operating TMP                | 2.1 bar                      | 30.5 psi       |
| Maximum Operating Air Scour Flow     | 12 nm <sup>3</sup> /hr       | 7.1 scfm       |
| Maximum Backwash Pressure            | 2.5 bar                      | 36 psi         |
| Operating pH                         | 2 – 11                       |                |
| Maximum NaOCl                        | 2,000 mg/L                   |                |
| Maximum Particle Size                | 300 μ                        |                |
| Flow Configuration                   | Outside in, dead end flow    |                |
| Expected Filtrate Turbidity          | ≤ 0.1 NTU                    |                |
| Expected Filtrate SDI                | ≤ 2.5                        |                |

<sup>1</sup> Flow range represents DOW™ Ultrafiltration SFP-2860, SFD-2860, SFP-2880, and SFP-2880 Modules for filtrate flux range shown

**Important Information**

Proper start-up of an ultrafiltration system is essential to prepare the membranes for operating service and to prevent membrane damage. Following the proper start-up sequence also helps ensure that system operating parameters conform to design specifications so that system water quality and productivity goals can be achieved.

Before initiating system start-up procedures, membrane pretreatment, installation of the membrane modules, instrument calibration and other system checks should be completed.

Please refer to the [DOW UF Product Manual](#).

## Operation Guidelines

Avoid any abrupt pressure variations during start-up, shutdown, cleaning or other sequences to prevent possible membrane damage. Flush the ultrafiltration system to remove shipping solution prior to start-up. Remove residual air from the system prior to start-up. Manually start the equipment. Depending on the application, filtrate obtained from initial operations should be discarded.

Please refer to the [DOW™ UF Product Manual](#).

## General Information

- If operating limits and guidelines given in this bulletin are not strictly followed, the limited warranty will be null and void.
- To control biological growth during extended system shutdowns, it is recommended that storage solution be injected into the membrane modules.

Please refer to the [DOW UF Product Manual](#) and Technical Service Bulletins.

## Regulatory Note

NSF/ANSI 61 and 419 certified drinking water modules require specific conditioning procedures prior to producing potable water. Please refer to the product technical manual flushing section for specific procedures. Drinking water modules may be subjected to additional regulatory restrictions in some countries. Please check local regulatory guidelines and application status before use and sales.

## Product Stewardship

Dow has a fundamental concern for all who make, distribute, and use its products, and for the environment in which we live. This concern is the basis for our product stewardship philosophy by which we assess the safety, health, and environmental information on our products and then take appropriate steps to protect employee and public health and our environment. The success of our product stewardship program rests with each and every individual involved with Dow products - from the initial concept and research, to manufacture, use, sale, disposal, and recycle of each product.

## Customer Notice

Dow strongly encourages its customers to review both their manufacturing processes and their applications of Dow products from the standpoint of human health and environmental quality to ensure that Dow products are not used in ways for which they are not intended or tested. Dow personnel are available to answer your questions and to provide reasonable technical support. Dow product literature, including safety data sheets, should be consulted prior to use of Dow products. Current safety data sheets are available from Dow.

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Notice: The use of this product in and of itself does not necessarily guarantee the removal of cysts and pathogens from water. Effective cyst and pathogen reduction is dependent on the complete system design and on the operation and maintenance of the system.

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