

**DOW IntegraFlo™ Ultrafiltration Modules**

Model IW102-1100

**Features**

DOW IntegraFlo™ IW102-1100 Ultrafiltration (UF) modules are powered by Dow's high strength, engineered PVDF hollow fiber membranes with features and benefits including:

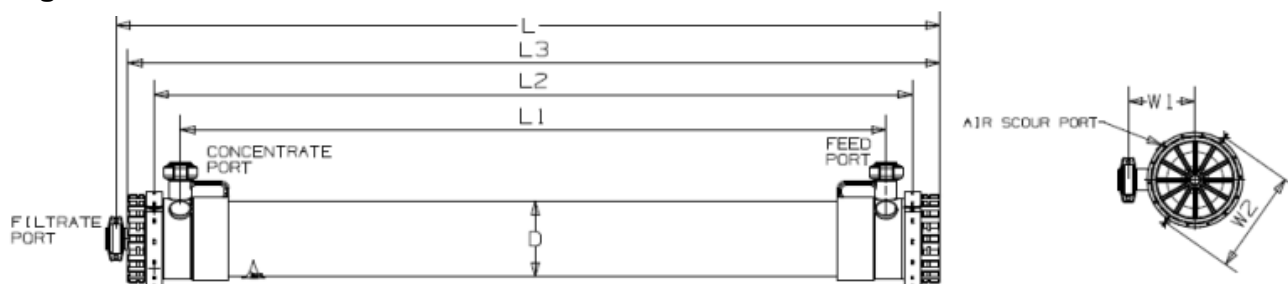
- 102.5 m² of filtration area to enable substantial reduction of capital costs for larger systems
- 0.03 µm pore size which enables removal of bacteria, viruses, and particulates; Up to 6 log removal of bacteria, up to a 2.5 log removal of viruses, and <2.5 SDI filtrate quality
- PVDF fibers free of macro voids which offer excellent break resistance, chemical and fouling resistance; which allows for extended membrane life and consistent long term performance
- Outside-In flow configuration which allows for higher TSS feed waters, while maintaining reliable system performance and producing high quality filtrate
- Streamlined integrated PVC housing that eliminates non value added parts to make room for more fibers, while reducing fiber packing density at module extremities and improving removal of suspended solids to limit module fouling
- Integrated lifting handles improve ergonomics during installation and maintenance
- Potting design eliminates gaskets between filtrate and concentrate compartments reducing maintenance requirements and streamlines fiber repair in the unlikely event of fiber breakage.

The Dow IntegraFlo™ IW102-1100 module offers one of the largest membrane areas in the industry. It is an ideal choice for larger systems where it can contribute substantially to system savings by reducing fittings, frame materials, operating trains, valve stacks and overall system footprint.

DOW IntegraFlo™ IW102-1100 Ultrafiltration Modules can be used for a variety of treatment applications including surface water, seawater pretreatment, industrial wastewaters, and secondary effluent wastewater.

Product Specifications

Model	Part Number	Membrane Area		Module Volume		Weight (Empty/Shipping/Flooded)	
		m ²	ft ²	liters	gallons	kg	lbs
IW102-1100	370546	102.5	1103	32	8.5	60/70/93	132/154/205

Figure 1**Dimensions^{1,2}**

Units	L	L1	L2	L3 (Reference)	D	W1	W2	Connections
SI (mm)	2359 ± 4.5	2021 ± 1.5	2172 ± 3.0	2326	219	190	297	50 DN Coupler
US (inch)	92.9 ± 0.2	79.6 ± 0.06	85.5 ± 0.1	91.6	8.6	7.5	11.7	G 3/8" Air ³

Notes:

1. Base clip NOT included in module length. Refer to product installation drawing (drawing No.: IFLO-1002) for additional details. Refer to assembly drawing (drawing No.: IFLO-1001) for Dow's for scope of supply.
2. The tolerances shown above do not include thermal expansion. The thermal expansion coefficient of PVC is 6.3 x 10⁻⁵ mm/mm °C (3.5 x 10⁻⁵ inch/inch °F).
3. For air supply using low pressure air supply the air scour connection can be made to order with a 1½" NPT female port.

Operating Parameters

	SI units	US units
Filtrate Flux @ 25°C	40 - 120 l/m ² /hr	24 - 70 gfd
Flow Range	4.1 – 12.3 m ³ /hr	18.1 – 54.2 gpm
pH, Operating		2 - 11
pH, Cleaning		2 - 12
Temperature	1 - 40°C	34 - 104°F
Max. Inlet Module Pressure (@ 20°C)	5 bar	73 psi
Max. Operating TMP	2.1 bar	30 psi
Max. Operating Air Scour Flow	20 Nm ³ /hr	12 scfm
Max. Backwash TMP	2.5 bar	36 psi
NaOCl (max)		2,000 mg/L
TSS (max)		100 mg/L
Turbidity (max)		300 NTU
Particle Size (max)		300 µm
Flow Configuration		Outside In, Dead End Flow
Expected Filtrate Turbidity		≤ 0.1 NTU
Expected Filtrate SDI		≤ 2.5

Important Information

Proper start-up of a UF 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 product technical manual.

Operation Guidelines

Avoid any abrupt pressure variations during start-up, shutdown, cleaning or other sequences to prevent possible membrane damage. Flush the UF system to remove shipping solution prior to start up. Remove residual air from the system prior to start up. Manually start the equipment. Target a permeate flow of 60% of design during initial operations. Depending on the application, filtrate obtained from initial operations should be discarded. Please refer to the product technical 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 prevent biological growth during system shutdowns, it is recommended that storage solution be injected into the membrane modules. Please refer to the product technical manual.

Regulatory Note

Modules intended for use in potable water may be subjected to additional regulatory requirements. Check local regulatory guidelines and application status before use and sale.

DOW™ Ultrafiltration

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NOTICE: The use of this product 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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