DOW IntegraFlo™ Ultrafiltration Modules

Model IW74-1100, DW74-1100, IW102-1100, and DW102-1100

Features

DOW IntegraFlo™ Ultrafiltration (UF) Modules are powered by Dow's high strength, engineered PVDF hollow fiber membranes with feature and benefits including:

- The IntegraFlo modules are tested and certified by NSF International under NSF/ANSI Standard 61 ensuring safe use in drinking water applications
- 0.03 µm pore size which facilitates reduction of most common bacteria, viruses, and particulates, with filtrate SDI <2.5
- PVDF fibers free of macro voids which offer excellent break resistance, chemical and fouling resistance; which facilitates extended membrane life and consistent long term performance
- Outside-in flow configuration which facilitates operation in higher TSS feed waters, while maintaining reliable system performance and producing high quality filtrate
- Streamlined PVC housing allows room for more fibers with less packing density limiting fouling and improving removal of suspended solids
- Integrated lifting handles improve ergonomics during installation and maintenance
- The IntegraFlo DW-102 is tested and certified by NSF/ANSI Standard 419 for Public Drinking Water Equipment.

The DOW IntegraFlo IW/DW102-1100 Module offers one of the largest membrane areas in the industry. It is an excellent 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. The DOW IntegraFlo DW74-1100 Module offers one of the largest membrane areas in the industry in a shorter module format. It is an excellent choice for containerized system designs where its large filtration area and short height can contribute substantially to system savings.

DOW IntegraFlo™ Ultrafiltration Modules can be used on a wide variety of water sources, such as industrial and municipal wastewaters, groundwater, surface water, and seawater.

Product Specifications

Product	Type	Membrane Area		Weight (empty/shipping/flooded)		Module Volume	
		m^2	ft^2	kg	lbs	liters	gallons
IW74-1100	NSF/ANSI 61	74	797	49/56/76	108/123/168	28	7.4
DW74-1100	NSF/ANSI 61	74	797	49/56/76	108/123/168	28	7.4
IW102-1100	NSF/ANSI 61	102.5	1103	60/70/93	132/154/205	32	8.5
DW102-1100	NSF/ANSI 61 and 419	102.5	1103	60/70/93	132/154/205	32	8.5

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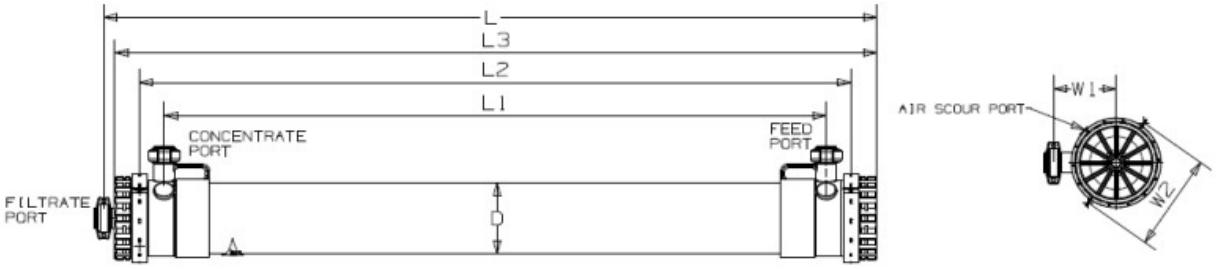
Figure 1



Product	Units[1,2]	Length				Diameter	Width		
		L	L1	L2	L3 (Reference)	D	W1	W2	Connections
IW&DW74-1100	SI (mm)	1780 ± 4.5	1442 ± 1.5	1593 ± 3.0	1747	219	190	297	50 DN Coupler G 3/8" Air[3]
	US (inch)	70.1 ± 0.2	56.8 ± 0.06	62.7 ± 0.1	68.8	8.6	7.5	11.7	
IW&DW102-1100	SI (mm)	2359 ± 4.5	2021 ± 1.5	2172 ± 3.0	2326	219	190	297	
	US (inch)	92.9 ± 0.2	79.6 ± 0.06	85.5 ± 0.1	91.6	8.6	7.5	11.7	

1. Base clip NOT included in module length. Refer to product installation drawing (IFLO-1002) for additional details. Refer to assembly drawing (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 6.3×10^{-5} mm/mm °C (3.5×10^{-5} inch/inch °F).
3. For air supply using low pressure, the air scour connection can be made to order with a 1½" NPT female port.

Operating Limits

	SI Units	US Units
Filtrate Flux (25ºC)	40-90 l / m² / hr	24 - 53 gfd
Temperature	1-40ºC	34 - 104ºF
Maximum Inlet Module Pressure (20ºC)	5 bar	73 psi
Maximum Operating TMP	2.1 bar	30.5 psi
Maximum Operating Air Scour Flow	15 Nm³/hr	9 scfm
Maximum Backwash Pressure	2.5 bar	36 psi
Operating pH	2 – 11	
Maximum NaOCl	2,000 mg/L	
Maximum Particle Size	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 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. Target a filtrate flow of 60% of design during initial operations. 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.

DOW™ Ultrafiltration
For more information, call the Dow Water & Process Solutions business:
North America: 1-800-447-4369
Latin America: (+55) 11-5188-9222
Europe: +800-3-694-6367
Italy: +800-783-825
South Africa: +0800 99 5078
Pacific: +800 7776 7776
China: +400 889-0789
www.dowwaterandprocess.com