

# LENNTECH

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Certified to NSF/ANSI 61

Certified to NSF Public Drinking Water Equipment Performance Guideline

# **DOW IntegraFlo™ Ultrafiltration Modules for Potable Use** Model DW102-1100

Features

DOW IntegraFlo™ DW102-1100 Ultrafiltration (UF) Modules are powered by Dow's high strength, engineered PVDF hollow fiber membranes with features and benefits including:

- Tested and Certified by NSF International under NSF/ANSI Standard 61 ensuring safe use in drinking water applications
- Tested and received NSF Public Drinking Water Equipment (PDWE)
   Certification with >6 LRV for Cryptosporidium/Giardia and >2
   LRV for viruses
- 102.5 m<sup>2</sup> of filtration area to facilitate substantial reduction of capital costs for larger systems
- 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 at lower packing density, reducing fouling and improving removal of solids
- Integrated lifting handles improve ergonomics during installation and maintenance

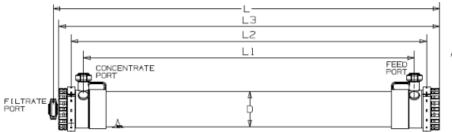
The DOW IntegraFlo DW102-1100 Module offers one of the largest membrane areas in the industry. It is an excellent choice for larger systems where it can contribute substantially to system savings by reducing fittings, frame materials, operating trains, valve stacks and overall system footprint.

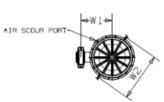
DOW IntegraFlo DW102-1100 Ultrafiltration Modules can be used on a wide variety of water sources, such as groundwater, surface water, and seawater to help produce safe drinking water.

### **Product Specifications**

			Membrane Area		Modul	e Volume	Weight (Empty/Shipping/Flooded)	
	Model	Part Number	m²	ft²	liters	gallons	` kg	lbs
	DW102-1100	00370545	102.5	1103	32	8.5	60/70/93	132/154/205

## Figure 1





#### → Dimensions<sup>1,2</sup>

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 <sup>3</sup>

#### 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	45 - 120 l/m <sup>2</sup> /hr	26 - 71 gfd				
Flow Range	4.6 - 12.3 m <sup>3</sup> /hr	20.1– 53.7 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 <sup>3</sup> /hr	12 scfm				
Max. Backwash TMP	2.5 bar	36 psi				
NaOCI (max)		2,000 mg/L				
TSS (max)	100 mg/L 300 NTU					
Turbidity (max)						
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. Refer to the Dow Ultrafiltration Module Limited Warranty for more detail.

To help 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**

NSF/ANSI 61 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.

#### **DOW™ Ultrafiltration**

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info@lenntech.com www.lenntech.com Tel. +31-152-610-900 Fax +31-152-616-289 **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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