

## GL Module

Outside-in, Dead end type

PVDF Hollow Fiber Membrane Module



### 1 High water permeability

- Unique asymmetric membrane structure enables 3 times higher pure water permeability compared to Kuraray's existing module.
- It enables to reduce required module number for the full scale plant at lower filtration pressure.

### 2 Applicable to high SS

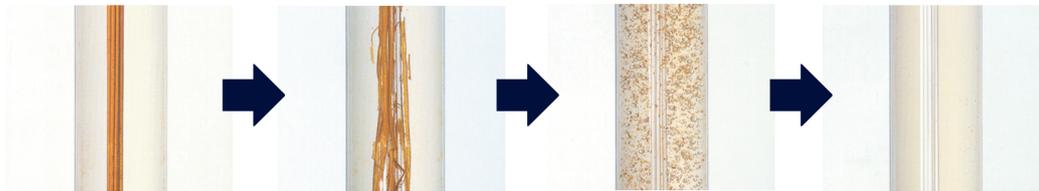
- Unique module structures with free standing membrane and center distributor enhance particle discharge from the module.
- Robust air scrubbing from bottom side and top side enables to remove particles from entire module.

### 3 High water recovery

- Air backwashing technology without filtrate water achieve higher water recovery compared to conventional backwashing.
- The system requires small footprint for the installation.



### Physical Cleaning Procedure



SS attaches to the membrane surface.

Attached SS is exfoliated with pressurized air.

SS is scrubbed off with air bubbles

Membrane surface is cleaned, and the performance recovers.

### Applications

- Drinking water
- Ground water, lake water, river water, and industrial water purification
- Pretreatment for RO and NF membrane module
- Process wastewater recycling in semiconductor industry
- Municipal and industrial wastewater recycling

### Industries

- Semiconductor and electronics
- Food and beverage
- Municipal drinking water
- Chemical



Air backwash



Features of the module

Videos on Youtube

## Specifications

Product name		GL Module	
Module model		GL-0101-S4 (US02-125)	GL-0101-S6L (US02-125)
Housing model		GLH-S4	GLH-S6L
Element model		GLE-0101(US02-125)	
Specification	Filtration type	Outside-in, dead end filtration	
	Nominal pore size	0.02 μm	
	Effective membrane surface area	40 m <sup>2</sup> (431 ft <sup>2</sup> )	
	Dimensions (Diameter x Height)	Φ207 mm x 1,421 mm (Φ8.15 in x 55.94 in)	
	Holdup volume	30 L (114 US fluid gallon)	
	Weight	Empty: 31 kg (68 lbs), Water filled: 61 kg (134 lbs)	
Material	Element	Hollow fiber membrane	Hydrophilic PVDF <sup>*1</sup>
		Potting material	Polyurethane
		Sheath	ABS
		Center distributor	ABS
		Net	Polyethylene
		O-ring / Packing	EPDM
	Housing	SUS304	SUS316L
Preservative	NaClO solution <sup>*2</sup>		
Operating conditions	Maximum operating pressure of water	0.5 MPa (73 psi)	
	Maximum operating pressure of air	0.19 (28 psi)	
	Allowable transmembrane pressure	Preferred: 0.15 MPa (22 psi) <sup>*3</sup> , Maximum: 0.3 MPa (44 psi)	
	Maximum temperature	40 °C (104 °F) <sup>*4</sup>	
	pH range	1 to 11 <sup>*5</sup>	

\*1: Polyvinylidene fluoride (PVDF) mixed with hydrophilic resin

\*2: The concentration of the NaClO solution is as follows;

Element: 25 mg/L, Module: 5 mg/L

\*3: Chemical cleaning at transmembrane pressure exceeding 0.15 MPa (22 psi) may not be effective.

For more details, please contact us.

\*4: For operation near maximum temperature, we recommend installing the optional element supporter. For more details, please contact us.

\*5: pH can exceed the above range during chemical cleaning. For more details, please contact us.

### List of nozzles

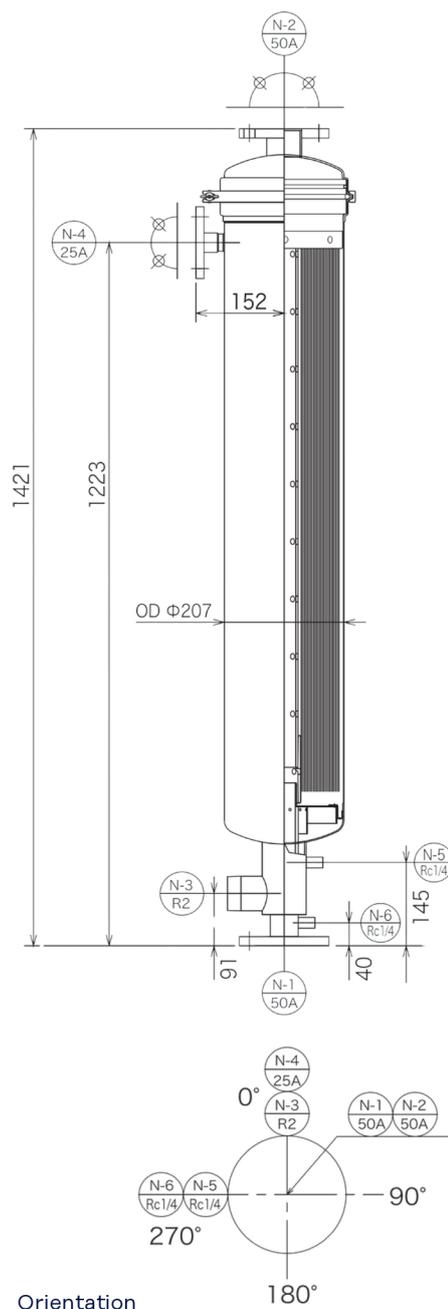
No.	Size	Name
N-1	10K-50	Feed inlet
N-2	10K-50	Filtrate outlet
N-3	R2	Drain outlet
N-4	10K-25	Air vent
N-5	Rc 1/4	Air inlet to the air diffuser
N-6	Rc 1/4	Air inlet to the center distributor

## Certifications

- Certified by NSF International under NSF/ANSI/CAN 61
- GL-0101-S4 (US02-125) is certificated by AMST (The Association of Membrane Separation Technology of Japan) for Drinking Water Use.
- Compliance with Positive List System in Food Sanitation Act in Japan

## Notes

1. Specifications and the type of the element and the housing may be changed without prior notice.
2. Applications and basic data (in-house data) specified in this catalog are standard examples. These depend on the influent to be treated, operating conditions and circumstances. Contact us before usage.
3. The nozzles shown in the above drawing are those conforming JIS.



Manufacturer

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Distributor