



TORAY

Introducing **TORAYFIL™**

NEW TIPS HFUG-2020AN HIGH SURFACE AREA PVDF HOLLOW-FIBER MEMBRANE MODULE

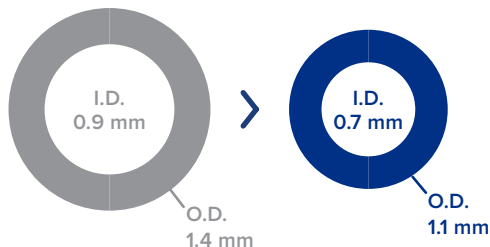
ENHANCED FIBER TECHNOLOGY

Toray has developed and applied thinner membrane fibers that allow higher packing density (and more productivity) per module while maintaining the same durable membrane characteristics found in Toray PVDF membrane material.

Hollow-fiber membrane pore diameters

HFU

HFUG



MEMBRANE AREA INCREASED BY
25% 72 m² >> 90 m²
PER MODULE

Enhanced fiber, Improved productivity,

Hassle-free retrofit!

(of existing TORAYFIL HFU modules)

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TORAY INDUSTRIES, INC.

MC-MB2HFUG-1808

TORAYFIL™ Pressurized Hollow-fiber Membrane Module Specifications

Module Part Number		HFUG-2020AN	HFU-2020AN
Nominal pore size μm		0.01	
Outer Membrane Surface Area m^2 (ft ²)		90 (969)	72 (775)
Maximum Feed Water Flow m^3/h (gpm)		15 (66)	12 (53)
Maximum Backwash Flow m^3/h (gpm)		16.8 (74)	13.5 (59)
Maximum Air Flow Nm^3/h (scfm)		9 (5.3)	9 (5.3)
Filtration Method		Pressure type / Outside to inside / Dead-end	
Dimensions	Diameter mm (in)	216 (8.5)	
	Length mm (ft)	2,160 (7.087)	
Weight kg (lbs)	Full of water	92 (203)	
	After draining	49 (108)	
Materials	Membrane	PVDF (Polyvinylidene fluoride)	
	Casing / Protective Cylinder	PVC (Polyvinylchloride)	
	Potting	Epoxy resin	
Cap & Nut (housing)		Integrated	
Connection	Top	Housing joints 80A	
	Bottom	Housing joints 80A	
	Side	Housing joints 65A	
Maximum inlet pressure kPa (psi)		300 (44)	
Maximum backwash pressure kPa (psi)		300 (44)	
Normal operating trans-membrane pressure kPa (psi)		0–200 (0–29)	
Operating temperature range $^{\circ}\text{C}$ ($^{\circ}\text{F}$)		0–40 $^{\circ}\text{C}$ (32–104 $^{\circ}\text{F}$)	
pH range	During filtration	1–10	
	During cleaning	0–12	

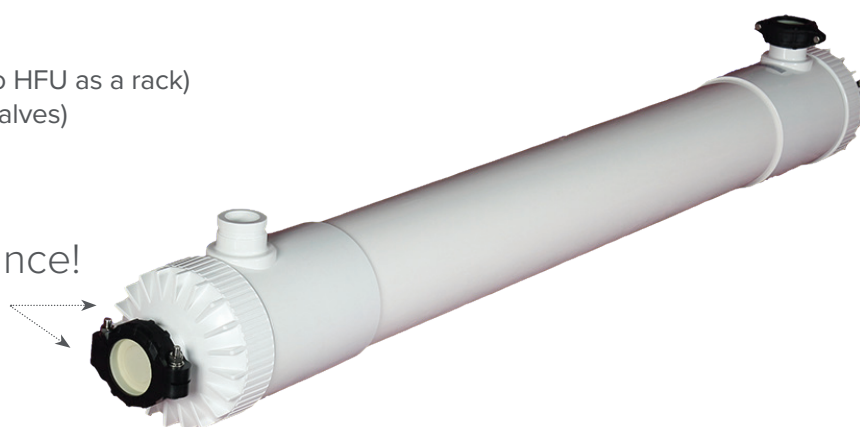
Specifications subject to change without notice

KEY BENEFITS

1. 30% smaller footprint design (compared to HFU as a rack)
2. 10% initial cost reduction (less pipes and valves)
3. Increased flow capacity

HFU"G" for gigantic performance!

Cap & nut for new AN-type are integrated into the housing



TORAY Innovation by Chemistry

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