

*(Other models not on this list may meet the criteria.
Contact DWS for details on verifications for units not listed.)*

Manufacturer	Model	Log ₁₀ Removal Credit			Maximum Flux (gfd @ 20°C)	Maximum TMP (psi @ 20°C)	Maximum Flow/Module (gpm)	Minimum Applied DIT Pressure, P _{test} ^B (psi)	Date Verified
		Crypto.	Giardia	Virus ^A					
DuPont (formerly Dow)	XUSV-5203	3.5	3.5	0	60	30	23	30	2010 Feb
	SFD-2880XP	4.0	4.0	0	70	24	41	19	2010 Dec ^C
	SFD-2860XP	4.0	4.0	0	62	30	26	19	2010 Dec
	DW102-1100	4.0	4.0	0	70	30	50.2	30.25	2013 Jan ^C
Veolia (formerly GE, Zenon, Suez)	ZeeWeed 500C	4.0	4.0	0	60	12	10.4 @ 250-ft ² /mod	10.29 @ 3 psi BP	2013 Oct
	ZeeWeed 500D	4.0	4.0	0	60	12	18.3 @ 440-ft ² /mod	10.29 @ 3 psi BP	2013 Oct
	ZeeWeed 1000 V3	4.0	4.0	0	30	13	17	10 @ 2.7 psi BP	2009 July
	ZeeWeed 1000 V4	4.0	4.0	0	60	13	17.4 @ 550-ft ² /mod	10 @ 2.7 psi BP	2013 Oct
DuPont inge (formerly BASF)	dizzer XL 0.9 MB 60 W	4.0	4.0	0	105	22	47 @ 645-ft ² /mod	17.5 @ 3 psi BP	2015 Sept ^C
	dizzer XL 0.9 MB 70 WT	4.0	4.0	0	105	22	55	17.8 @ 3.3 psi BP	2015 Sept ^C
	dizzer XL 0.9 MB 80 WT	4.0	4.0	0	105	22	55	17.8 @ 3.3 psi BP	70 WT equiv.
Trojan Water Technologies - Aria Filtra™ (formerly Pall)	UNA-620A	4.0	4.0	0	120	35	45 @ 538.2-ft ² /mod	17.5 @ 3 psi BP	2010 Feb
	USV-6203	4.0	4.0	0	120	35	45 @ 538.2-ft ² /mod	17.5 @ 3 psi BP	2010 Feb
	XUSV-5203	4.0	4.0	0	120	35	33 @ 398-ft ² /mod	17.5 @ 3 psi BP	2010 Feb
Scinor	SMT 600-P50	4.0	4.0	0	120	43.5	45 @ 538.2-ft ² /mod	21	2015 June ^C
	SMT 600-P80	4.0	4.0	0	120	43.5	72 @ 861.1-ft ² /mod	21	P50 equivalent
	SMT 600-S26	4.0	4.0	0	106	11	23.5 @ 280-ft ² /mod	15.9	2016 June ^C

^A Virus removal credits are not available in Oregon due to lack of a direct integrity test for virus-sized particles. All approvals and removal credits are subject to change should information indicate the model is not capable of meeting regulatory requirements.

^B DIT = Direct Integrity Test. Minimum applied DIT pressure (P_{test}) may be higher than listed here if the maximum backpressure (BP_{max}) is above what is stated in table. In general $P_{test} = (0.193 \times K \times \sigma \times \cos\theta) + BP_{max}$. If $K = 1$, $\sigma = 74.9$ dynes/cm & $\theta = 0^\circ$, the P_{test} equation reduces to: $P_{test} = 14.5 + BP_{max}$. P_{test} is the minimum ending test pressure. Starting test pressures will likely be higher to ensure the minimum ending test pressure is met throughout the DIT.

^C Verification via NSF 'Public Drinking Water Equipment Performance'

Alternative Treatment Technology Units Meeting Challenge Study Criteria

Oregon Administrative Rule 333-061-0050(4)(c)(I)
Oregon Health Authority, Drinking Water Services (DWS)
» MEMBRANE FILTERS «

*(Other units not on this list may meet the criteria.
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Manufacturer	Model	Log ₁₀ Removal Credit			Maximum Flux (gfd @ 20°C)	Maximum TMP (psi @ 20°C)	Maximum Flow/Module (gpm @ 20°C)	Minimum Static DIT Pressure, P _{test} ^B (psi)	Date Verified
		Crypto.	Giardia	Virus ^A					
Seccua	Phoenix Virex Pro	4.0	4.0	0	47	72	42	22	2010 Aug
		4.0	4.0	0	47	45	2.13	22	2010 Oct
DuPont (formerly Evoqua Water Technologies & Siemens)	Memcor [®] S10N	4.0	4.0	0	80	22	14.2	11.4	2015 May
	Memcor [®] S10N V2	4.0	4.0	0	155	22	32.5	16.6	2025 Sept
	Memcor [®] S10V	4.0	4.0	0	80	17.4	16.7	11.4 ^D	2010 Nov
	Memcor [®] L10N	4.0	4.0	0	155	22	24.8	14	2012 Sept ^C
	Memcor [®] L20N	4.0	4.0	0	155	22	40.4	15	2012 Sept ^C
	Memcor [®] M10C	4.0	4.0	0	50	22	13	16.5 ^E	2019 March
Toray Industries, Inc	Torayfil HFS-2020	4.0	4.0	0	87	29	47 @ 775-ft ² /mod	18 @ 3.5 psi BP	2012 Mar
	HFU-2020N	4.0	4.0	0	100	29	53.8 @ 775-ft ² /mod	18.12 @ 3.62 psi BP	2016 Mar
	HFU-2020AN	4.0	4.0	0	120	29	64.58 @ 775-ft ² /mod	17.48 @ 2.98 psi BP	2023 Mar
	HFUG-2020AN	4.0	4.0	0	120	29	80.75 @ 969-ft ² /mod	17.48 @ 2.98 psi BP	2019 Nov
	HFU-2020HN	4.0	4.0	0	100	29	53.8 @ 775-ft ² /mod	18.12 @ 3.62 psi BP	2020 Oct ^F
Polymem (aka Clean Membranes)	UF100XL PVDF Neophil	4.0	4.0	0	60	21.8	2.7	16.1	2017 May
	UF80 PVDF Neophil	4.0	4.0	0	60	21.8	18.9	16.1	100XL equiv.
	UF80G PVDF Neophil	4.0	4.0	0	60	21.8	32.4	17.4	2019 Jan
	UF120 PVDF Neophil	4.0	4.0	0	60	21.8	51.2	16.1	100XL equiv.
	UF240 PVDF Neophil	4.0	4.0	0	60	21.8	240.5	17.4	UF80G equiv.
	Polymem UF 120S2	4.0	4.0	0	27	21	48	16.3	2009 Aug

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^C Verification via NSF 'Public Drinking Water Equipment Performance'

^D Revised 22 March 2016 assuming contact angle of 50 degrees and backpressure of 2 psi.

^E Assumes 2 psi backpressure and a contact angle of zero (0) degrees.

^F The Toray HFU-2020HN verification is based on the challenge study for the HFU-2020N. The modules are identical with the exception of a reinforced inlet that allows the 2020HN to accommodate a higher feed pressure of up to 6 bar, while the 2020N is rated for a max feed pressure of 3 bar.



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		Crypto.	Giardia	Virus ^A					
Hydranautics Nitto Group Company	HYDRAcap® Max 40	4.0	4.0	0	120	30	46.7	Calculate ^C	2019 Apr ^D
	HYDRAcap® Max 60	4.0	4.0	0	120	30	70	Calculate ^C	Max 40 equiv.
	HYDRAcap® Max 80	4.0	4.0	0	120	30	94.2	Calculate ^C	Max 40 equiv.
	HYDRAcap® AM 2.5	4.0	4.0	0	120	30	44.9	Calculate ^C	Max 40 equiv.
Pentair (aka X-Flow B.V.)	XF40C	4.0	4.0	0	73.5	43	22 @ 430.6-ft ² /mod	14.9 @ 0.4 psi BP	2021 Dec ^D

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^C The minimum static pressure for DITs must be calculated using 15.1 psi plus the back pressure on the lowest elevation of exposed fiber (based on Standard 419 results).

^D Verification via NSF 'Public Drinking Water Equipment Performance' Standard 419 (2015)