

UF modules are used for pre-treatment of sea water osmosis systems, wastewater recycling Project and enables conventional biologic and chemical treatment water to feed reverse osmosis systems.



Moreover UF systems are used successfully for sea water treatment, food sector and beverage process, natural drinking water factories, removing bacteria and disinfection of water projects. It constitutes pivots of systems of special design of wastewater recycling and processing of recycling of water origin MBR.

Chlorine dosage method is the most applied method for removing microbiological pollution in drinking water. Its impacts are really much but although not %100 efficient on microorganisms. Some of microorganisms with spor which can resist to disinfectants can be kept only with Ultrafiltration membranes. This is also mean that membranes pore diameter which is using in Ultrafiltration systems is smaller than microorganisms diameter so can safely provide as %100 water treatment. In addition, Organic substances react with chlorine compounds in water and creates THM' (trihalometans) and this THM's effect on human structure is known as toxic and that can cause disease. Ultrafiltration don't cause any additives in water, don't produce waste, any unwanted oxidative substances that is the most important advantage of it.



MODEL	TOTAL MEMBRANE AREA m²	OPERATING TIME (min)	BW TIME (sec)	FLOW RATE			MODULES	
				FEED @ 2,5 bar	NET PRODUCTION	BW@3bar	NUMBER	SURFACE AREA (m2/pc) 0,9 mm Fiber
WELL WATER MODEL								
AQUALINE UF 160	60	50	60	5	4,5	13,8	1	60
AQUALINE UF 260	120	50	60	10	9	27,6	2	60
AQUALINE UF 360	180	50	60	15	13,5	41,4	3	60
AQUALINE UF 460	240	50	60	20	18	55,2	4	60
AQUALINE UF 560	300	50	60	25	22,5	69	5	60
AQUALINE UF 660	360	50	60	30	27	82,8	6	60
AQUALINE UF 760	420	50	60	35,5	32	96,6	7	60
AQUALINE UF 860	480	50	60	40,6	36,5	110,4	8	60
AQUALINE UF 960	540	50	60	45,6	41	124,2	9	60
AQUALINE UF 1060	600	50	60	50	45	138	10	60
Above design is for 15 NTU turbidity and 3 mg/L DOC well water. Pump capacity changes depending on turbidity value. Management, BW, dosege time will be re- viewed when system is put into use acording to water analysis. For system design, 1000 uS/cm conductivity, 250 mg/CaCO3 alkalinity and 20° are assumed.								
SEA WATER MODEL								
AQUALINE UF 160	60	30	55	4,6	3,8	13,8	1	60
AQUALINE UF 260	120	30	55	9,1	7,6	27,6	2	60
AQUALINE UF 360	180	30	55	13,7	11,4	41,4	3	60
AQUALINE UF 460	240	30	55	18	15	55,2	4	60
AQUALINE UF 560	300	30	55	22,2	18,5	69	5	60
AQUALINE UF 660	360	30	55	26,5	22	82,8	6	60
AQUALINE UF 760	420	30	55	31,3	26	96,6	7	60
AQUALINE UF 860	480	30	55	36	30	110,4	8	60
AQUALINE UF 960	540	30	55	40,6	33,8	124,2	9	60
AQUALINE UF 1060	600	30	55	45	37,5	138	10	60
Above design is for 20 NTU turbidity and 4 mg/L DOC sea water. Pump capacity changes depending on turbidity value. Management, BW, dosege time will be reviewed when system is put into use according to water analysis. For system design, 70000 uS/cm conductivity, 250 mg/CaCO3 alkalinity and 20° are assumed. Daily 2 acid and 2 chlorine CEB are projected.								
RIVER, LAKE WATER MODEL								
AQUALINE UF 160	60	40	55	4,6	4	13,8	1	60
AQUALINE UF 260	120	40	55	9,2	8	27,6	2	60
AQUALINE UF 360	180	40	55	13,7	12	41,4	3	60
AQUALINE UF 460	240	40	55	19,4	17	55,2	4	60
AQUALINE UF 560	300	40	55	23,9	21	69	5	60
AQUALINE UF 660	360	40	55	28,5	25	82,8	6	60
AQUALINE UF 760	420	40	55	33,1	29	96,6	7	60
AQUALINE UF 860	480	40	55	38,5	33,5	110,4	8	60
AQUALINE UF 960	540	40	55	43,3	38	124,2	9	60
AQUALINE UF 1060	600	40	55	47,9	42	138	10	60
Above design is for 15 NTU turbidity and 4 mg/L DOC river, lake water. Pump capacity changes depending on turbidity value. Management, BW, dosege time will be reviewed when system is put into use according to water analysis. For system design, 1500 uS/cm conductivity, 250 mg/CaCO3 alkalinity and 20° are assumed. In 18 hours, 1 caustic and 1 acid CEB are projected.								
• In all designs, SS<50mg/L is assumed and 0,9 mm fiber is used. • Before UF unit, 300 micron sensitivite filtration will be done.								