

Ultrafiltration

Ultrafiltration is a membrane separation process similar to microfiltration and reverse osmosis. However, it differs in terms of the size of particles removed and its operation. Ultrafiltration operates at low pressures and is capable of removing suspended solids including fine particulates, colloids and high molecular weight dissolved materials.

Applications include:

- Surface water
- Borehole water
- Swimming pool water
- Recycling/reuse
- RO feed water
- Oil/water separation in emulsion
- Recovery of metal particles
- Regeneration of degreasing/cleaning solutions



Uflex™

Ultrafiltration Systems



Uflex™ ultrafiltration systems are skid-mounted, reliable and compact solutions for removing suspended solids, most bacteria and log4 viruses.

Flow rates :

- 4 to 24 m³/hr per skid
- 4 to 96 m³/hr for four skids in parallel.

Features & Benefits

- Fully automatic operation and backwash; minimum operator involvement
- Integrated controller; simplifies operation and maintenance
- Optimized flow:size ratio; space saving and efficient
- Modular design; extensible, flexible
- Controller and pumps are capable of running four skids in parallel
- Controller can be used to operate a feed pump fitted with a frequency converter (not included)
- Connection for CIP

Options

- Inlet control valve
- Backwash pump station
- Backwash tank

Applications

- Industrial process water
- Swimming pool water
- Borehole water
- Recycling/reuse

Related Services

Local after-sales service and support teams offer preventative and corrective maintenance programs to ensure the long-term, efficient operation of installed plant.

Hydrex® Chemicals

Hydrex® 4000 water treatment chemicals from Veolia Water Solutions & Technologies should be used for optimized operation.

Performance

Model		40/1-P	80/2-P	120/3-P	160/4-P
No of Elements		1	2	3	4
Membrane Area	m ²	40	80	120	160
Operating TMP	bar	0.5 – 1.0	0.5 – 1.0	0.5 – 1.0	0.5 – 1.0
Permeate Flow	m ³ /hr	4 - 8	8 – 12	12 – 16	16 - 24

Dimensions

Model		40/1-P	80/2-P	120/3-P	160/4-P
Height	mm	2243/2163*	2250/2170*	2276/2196*	2285/2205*
Depth	mm	795	795	795	795
Width	mm	1608	1617	2631	2653
Feed	DN	40	50	65	80
Permeate	DN	40	50	65	80
Drain	DN	40	50	65	80
Backwash Water	DN	40	50	65	80
Filling Line Backwash Water Tank	DN	32	32	32	32

* with / without legs

Feed Water Supply Quality

Max TSS	ppm	< 20
Particle Size	µm	< 200
Max System Pressure	bar	3 - 6
Max Operating Temperature	°C	40

Electrical Supply

All models 380/415V, 3 phases, 50Hz standard

For higher flow rate applications consult your local Veolia Water Solutions & Technologies company, details below.

Xtream™

Hollow Fiber Ultrafiltration



Xtream™ hollow fiber, fully automatic, cross-flow, ultrafiltration systems remove particulates, bacteria and pathogens, algae and colloids to produce water < 3 SDI.

Flow rates from **2 to 175 m³/hr.**

Features & Benefits

- Skid-mounted, standardized systems; short lead times, quick installation and start-up
- PVDF out-to-in membranes; excellent chemical resistance, high feed water tolerance
- MMI interface; better system operation, monitoring and control, user-friendly
- Programmable automatic backwash, integrated flush and clean
- Stainless steel basket filter with automatic backwash feature; membrane protection
- Trans-Membrane Pressure (TMP) is monitored and automated chemical enhanced backwash performed when required
- Periodic backwashing in both directions (up and down); thorough cleaning

Options

- Air scouring
- Wireless remote monitoring

Applications

- Industrial process water
- Potable water
- Wastewater recycling
- Seawater filtration

Related Services

Pre and post Xtream™ application design, engineering and equipment.

Local after-sales service and support teams offer preventative maintenance programs to ensure the long-term, efficient operation of installed plant.

Hydrex® Chemicals

Hydrex® 4000 water treatment chemicals from Veolia Water Solutions & Technologies should be used for optimized plant operation.

Performance & Dimensions

Model	Flow Rate at 25°C		Number of Membranes	Dimensions	Connections
	Min	Max		W*D*H	Feed, Product & Reject*
	m³/hr	m³/hr		m	DN
1-4	2.00	17.50	1/2/3/4	2.7 x 1.5 x 2.6	50/50/65/80
5-6	10.50	26.50	5/6	3.0 x 1.5 x 2.6	100/100
7-8	14.50	35.00	7/8	3.5 x 1.5 x 2.8	100/100
9-10	18.75	44.00	9/10	3.8 x 1.5 x 2.8	100/125
11-12	22.50	53.00	11/12	4.5 x 1.5 x 2.8	125/125
13-14	27.00	61.50	13/14	4.8 x 1.5 x 2.8	125/125
15-16	31.00	70.00	15/16	5.2 x 1.5 x 2.8	125/150
17-18	35.00	79.50	17/18	5.8 x 1.5 x 2.8	150/150
19-20	39.00	88.00	19/20	6.3 x 1.5 x 3.0	150/150
21-22	43.00	97.00	21/22	6.7 x 1.5 x 3.0	150/150
23-24	47.00	106.00	23/24	7.0 x 1.5 x 3.0	150/150
25-26	52.00	115.00	25/26	7.3 x 1.5 x 3.0	150/200
27-28	56.00	123.50	27/28	7.7 x 1.5 x 3.0	200/200
29-30	60.00	132.00	29/30	8.0 x 1.5 x 3.0	200/200
31-32	64.50	141.00	31/32	8.9 x 1.5 x 3.0	200/200
33-34	68.50	150.00	33/34	9.2 x 1.5 x 3.0	200/200
35-36	72.50	159.00	35/36	9.6 x 1.5 x 3.0	200/200
37-38	77.00	168.00	37/38	9.9 x 1.5 x 3.0	200/200
39-40	81.00	176.00	39/40	10.2 x 1.5 x 3.0	200/250

Recovery approx 87–95%

*Feed, product and reject connections are same size.

Material Specifications

Basket Filter Housing	SS
UF Module Case	PVC
Membrane material	PVDF
Back Wash Pump	SS 316
Low Pressure Piping	U-PVC
Control Cabinet	MS Powder Coated
Skid	PU Painted Carbon Steel

Instrumentation

Flow Indicator	Product and backwash
Pressure Switch	Feed and backwash
P Switch	Across UF

Feed Water Supply Quality

Operating pH Range	-	2 – 12
Maximum Feed Water Temperature	°C	4 – 40
Maximum Feed Water Chlorine	ppm	200

Electrical Supply

380 / 415/ 480 V, 50 / 60 Hz.

For higher flow rate applications consult your local Veolia Water Solutions & Technologies company, details below.