



# ULTRAFILTRATION STANDARD SYSTEMS

Compact solutions for  
superb water quality



## Product Flow Rate of 30 to 720 m<sup>3</sup>/h

Fluytec's **Ultrafiltration Systems** are based on outside-in flow configuration ultrafiltration modules, which allow for less plugging, higher solids loading, higher flow area and easy cleaning. The primary flow design is **dead-end filtration** which uses less energy and has a lower operating pressure than the concentrate bleed, therefore reducing operating costs. Our standard systems are designed for reliable, long term trouble free operation, with straight forward control.

## Standard Features

- Solutions for virtually all water and wastewater treatment applications, such as surface water, seawater, industrial wastewaters and secondary effluent wastewater.
- Factory programmed PLC and color Panel HMI, allowing simple and highly automated operation.
- Modular building-block design.
- System design to fit into ISO shipping containers.
- Compact footprint with flexible layout options.
- Simplified start up with minimal installation time.
- Reduced on-site construction costs with less interconnecting requirements.
- Quick delivery with complete engineering package.
- Full Operation & Maintenance Manual.
- Pneumatically actuated valves.

## Materials of Construction

**Welded Frame:** Painted and Blasting; Carbon Steel

**Dilute Piping:** PVC-U / PP

**Concentrate Piping:** PVC-U / PP

**Flanges:** DIN or ANSI

**Valves:** Plastic Coated Iron Cast (leading world brands and materials suitable for the fluid to be filtered)

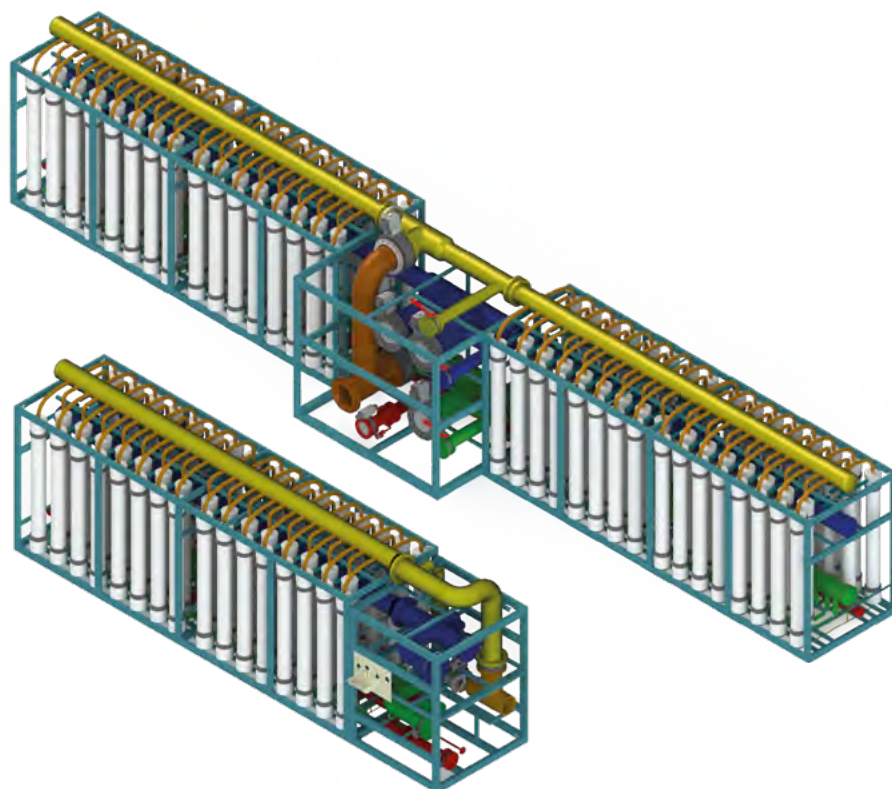
**Power Panel Control:** IP55 or higher upon request

## Instrumentation

**Flow:** Raw Water (Feed) / Optional

**Pressure:** Feed Inlet, Filtrate (Product) Outlet

**Turbidity:** Filtrate (Product) Outlet / Optional



Fluytec UF Skid FSUP-50.

## Feed Water Requirements

	Typical	Maximum
Turbidity, NTU	<50	300
TSS, mg/l	<50	100
TOC, mg/l	<10	40
COD, mg/l	<20	60
Cl <sub>2</sub> Continuous, mg/l	0.5	200
Oil/Grease, mg/l	0	<2
pH Continuous	6-9	2-11
Temperature	25	40°C Note: for continuous operation, maximum 35°C



## Operating Parameters

Filtrate (Product) SDI	≤ 2.5
Filtrate (Product) Turbidity	≤ 0.1 NTU
Recovery	90 - 95%
Temperature	1 to 40 °C
Max. Feed Pressure (@ 20 °C)	6 bar
Max. Operating TMP	2.10 bar
Estimated Power Consumption	< 0.1 kWh/m <sup>3</sup>
Input Voltage	400 VAC/3/50 Hz

## Quality Assurance

**Certification:** CE Marked

**Facility:** ISO 9001:2000

**Full Factory Acceptance Test (FAT)**  
completed on each system  
before shipment

## Options

- Stainless Steel and GRP frames.
- Removal of PLC and HMI, all wiring terminated at a IP55 Junction Box or higher upon request.
- Supply of UF Feed Pump.
- Supply of Backwash & CIP Systems.
- Supply of Fluytec's automated pre-screen.
- PE or GRP piping.



## Ultrafiltration Standard Systems

MODEL*	FSUP-6	FSUP-20	FSUP-50	FSUP-72	FSUP-136
General Information					
Number of UF Modules	6	20	50	72	136
Flow Rates					
Product Flow Nominal	33 m <sup>3</sup> /h 145 gpm	110 m <sup>3</sup> /h 485 gpm	275 m <sup>3</sup> /h 1,210 gpm	400 m <sup>3</sup> /h 1,760 gpm	750 m <sup>3</sup> /h 3,300 gpm
Feed Flow	32 m <sup>3</sup> /h 141 gpm	128.5 m <sup>3</sup> /h 566 gpm	257 m <sup>3</sup> /h 1,131 gpm	385 m <sup>3</sup> /h 1,695 gpm	769 m <sup>3</sup> /h 3,386 gpm
Waste Backwash Flow	1.5 m <sup>3</sup> /h 7 gpm	6.8 m <sup>3</sup> /h 30 gpm	13.6 m <sup>3</sup> /h 60 gpm	20 m <sup>3</sup> /h 88 gpm	39.4 m <sup>3</sup> /h 173 gpm
Waste Flush Forward Flow	0.4 m <sup>3</sup> /h 2 gpm	1.7 m <sup>3</sup> /h 8 gpm	3.4 m <sup>3</sup> /h 15 gpm	4.9 m <sup>3</sup> /h 22 gpm	9.9 m <sup>3</sup> /h 44 gpm
Dimensions					
Estimated System Dimensions** (Width x Length x Height)	1.7x1.9x2.3 m	1.7x3.0x2.5 m	1.9x7.4x3.1 m	1.9x9.7x3.2 m	1.9x17.8x3.4 m
Feed Inlet Piping	DN80	DN150	DN250	DN300	DN450
Product Outlet Piping	DN80	DN150	DN250	DN300	DN450
Backwash Inlet Piping	DN100	DN200	DN250	DN350	DN500
Backwash Outlet Piping	DN100	DN200	DN250	DN350	DN500
Forward Flush Outlet Piping	DN50	DN80	DN150	DN200	DN200

\* Additional models upon request.

\*\* Top header shipped loose to ease transport.

For other membrane brands, please contact Fluytec for advice.

Performance, flow rate per module, recovery and power consumption are dependent on inlet feed water quality and temperature.  
A projection must be completed for proper system design & for any performance guarantee to be provided.



Subject to change without notice.



#### Other products in this range:

- c-UF (Continuous Ultrafiltration Systems)
- i-UF (Integrated Ultrafiltration Systems)
- FTAUR series filters (Automatic Backwash Filters)
- ...



**Fluytec Solutions Worldwide**  
Visit our Website for more information

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