

ULTRAFILTRATION STANDARD SYSTEMS



# 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

Valves: Plastic Coated Iron Cast

Power Panel Control: IP55

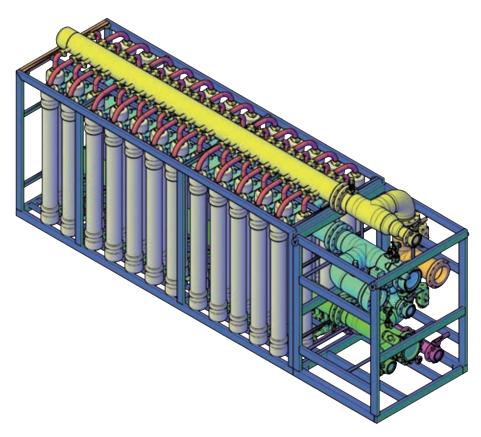
#### Instrumentation

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/I	< 10	40
COD, mg/I		60
Cl <sub>2</sub> Continuous, mg/l	0.5	200
Oil/Grease, mg/l	0	< 2
pH Continuous	6-9	2-11
Temperature, °C	25	40

### **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/m³	
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.
- Supply of UF Feed Pump.
- Supply of Backwash & CIP Systems.
- Supply of Fuytec's automated pre-screen.
- PE or GRP piping.

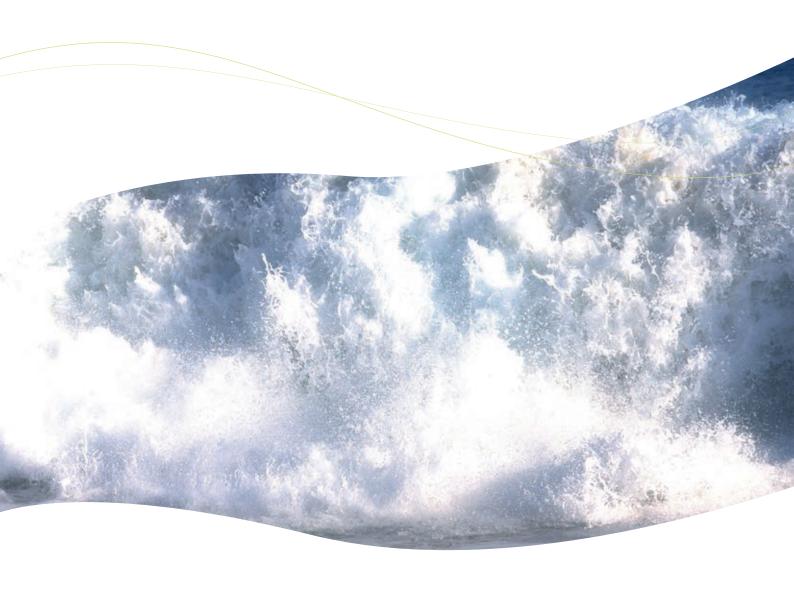


# Ultrafiltration Standard Systems

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 m³/h 145 gpm	110 m³/h 485 gpm	275 m³/h 1,210 gpm	400 m³/h 1,760 gpm	750 m³/h 3,300 gpm		
Feed Flow	32 m³/h 141 gpm	128.5 m³/h 566 gpm	257 m³/h 1,131 gpm	385 m³/h 1,695 gpm	769 m³/h 3,386 gpm		
Waste Backwash Flow	1.5 m³/h 7 gpm	6.8 m³/h 30 gpm	13.6 m³/h 60 gpm	20 m³/h 88 gpm	39.4 m³/h 173 gpm		
Waste Flush Forward Flow	0.4 m³/h 2 gpm	1.7 m³/h 8 gpm	3.4 m³/h 15 gpm	4.9 m³/h 22 gpm	9.9 m³/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		

<sup>\*</sup> Top header shipped loose to ease transport.

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.



- Other products in this range:

  FTAUR series filters (Automatic Backwash Filters)

  FTP series cartridge filters (GRP)



