



DATA SHEET

Ultrafiltration Treatment Plants

DUF



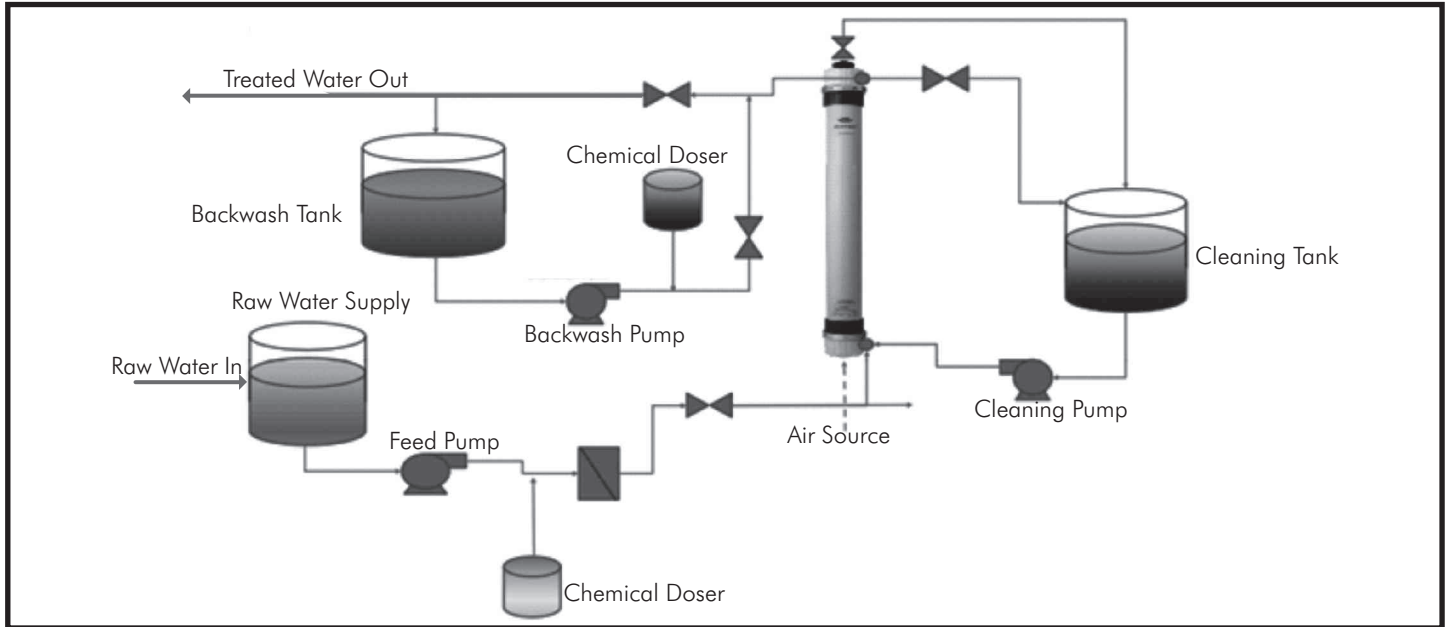
Ultra Filtration (UF) is a highly effective treatment process to clarify turbid and polluted water to a high quality potable condition. It uses a large number of small bore capillaries with an outside-in flow configuration and with pore sizes of about 0.02 micron will remove particles and high molecular weight substances, colloidal materials and organic and inorganic polymeric particles. It is therefore particularly suitable for the treatment of polluted surface waters from dams, rivers, reservoirs etc as well as waste water recovery. The process will not remove dissolved solids including sodium, calcium and chlorides and so is less suited to the treatment of ground water with high salt levels. Ultra filtration is a full flow recovery process and contaminants are removed by air scouring and backwashing, periodically with a chemical cleaning agent, the process being fully automated using solenoid valves. The heart of the system is the pressurised UF module and various system sizes can be provided by combining modules in parallel.

Systems are frame mounted and supplied as complete units with all necessary accessories and controls for simple integration with the flow process. They offer the following features:-

- High efficiency GE or DOW ultra filtration membranes.
- Fully automated plant operation including normal filtration cycle, 2 backwash cycles, rinse and forward flush cycles as well as providing various alarms in case of system malfunction. The various cycles are controlled by an integral PLC controller.
- High efficiency Davey or Pedrollo feed, backwash and cleaning pumps
- Integrated cleaning, air scour and backwash systems and two chemical dosers for chlorine and a cleaning agent
- System monitoring instruments including inlet and outlet flow meters and pressure gauges.
- 150 micron pre-filter.
- Skid mounted for simple installation.

Dayliff Ultra Filtration Systems provide a high performance, high efficiency treatment process that produces fully potable water without chemical additions. The process uses low energy consumption and provides consistent quality without frequent operational intervention. Due to the efficiency of the membranes it also offers considerable economies over conventional systems and is the ideal solution where ever pure, portable water is required.

SYSTEM CONFIGURATION



OPERATING PARAMETERS

Operating Pressure: Ranges between 0.5 Bar and 3 Bar depending on raw water quality and temperature

Maximum Operating Trans Membrane Pressure: 2.1 Bar

Max Operating Temp: 40°C

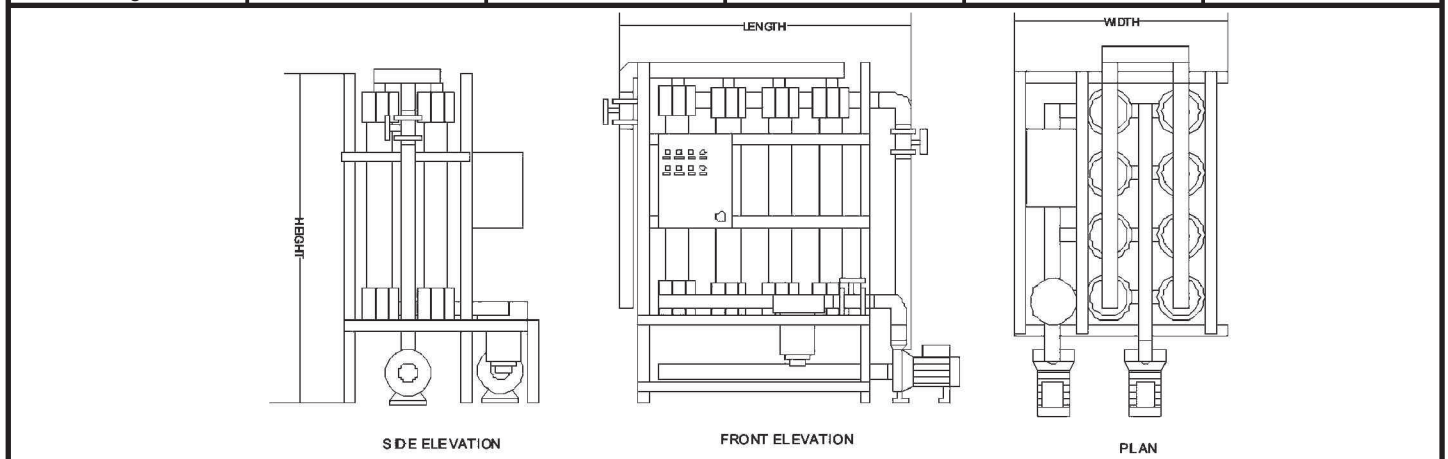
Operating pH Range: 5 - 10

Raw Water Quality: Up to 100 mg/l TSS (300 NTU). A raw water analysis should be provided to establish the extent of pre-treatment necessary.

Recovery Range: 70-98% depending on raw water quality.

SYSTEM DATA

Model	DUF1	DUF2	DUF3	DUF6	DUF8
Maximum Flow	2m ³ /hr	4m ³ /hr	8m ³ /hr	12m ³ /hr	20m ³ /hr
Modules	1	2	3	6	8
Feed Pump	Pedrollo CPM150	Pedrollo CPM170	Davey DF 6220	Davey DF 6230	Davey DF 6230
Back Wash Pump	Pedrollo CPM150	Pedrollo CPM170	Davey DF 6220	Davey DF 6230	Davey DF 6230
Cleaning Pump	Pedrollo CPM150	Pedrollo CPM150	Pedrollo CPM150	Grundfos CM 10-2A	Grundfos CM 10-2A
Length	1.2	1.2	1.5	1.5	1.8
Width	0.8	0.8	0.8	1.0	1.0
Height	2.4	2.4	2.4	2.4	2.4



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