



DATA SHEET

Ultrafiltration Treatment Plants

DUF



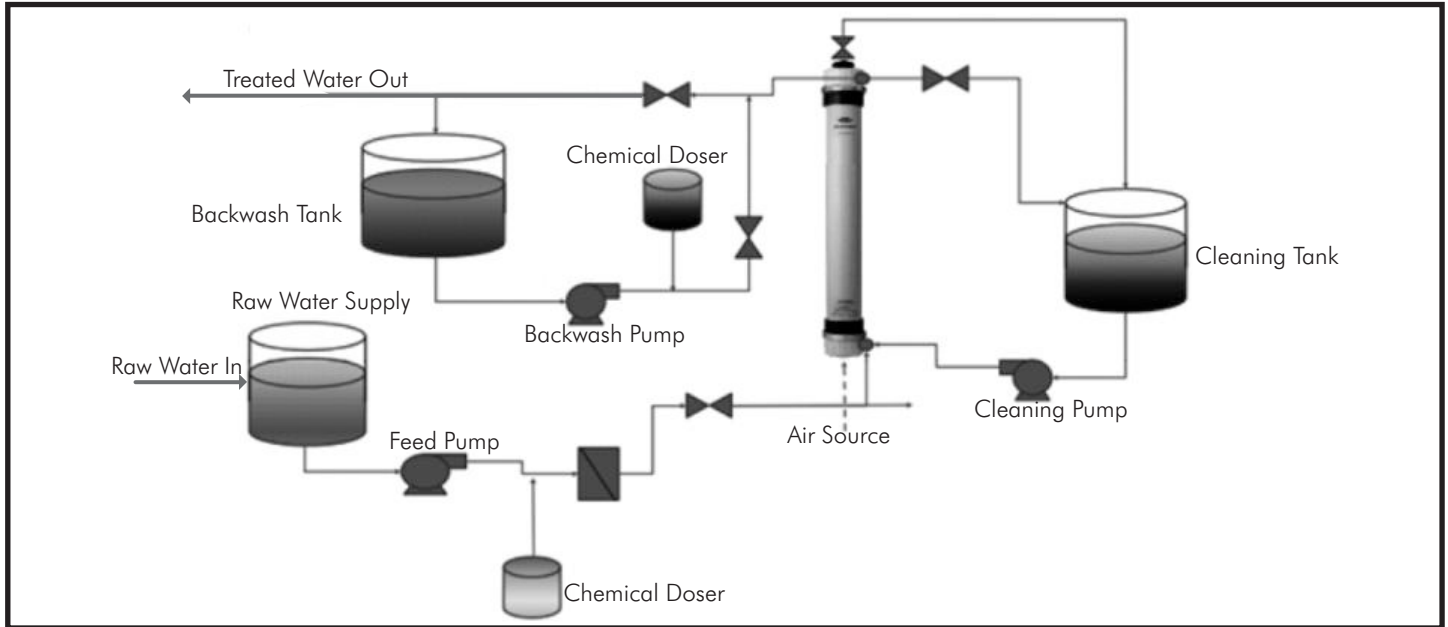
Ultra Filtration (UF) is a highly effective treatment process to clarify turbid and polluted water to a high quality potable condition. It uses a large number of small pore capillaries with an outside-in flow configuration and with pore sizes of about 0.02 micron will remove particles and high molecular 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 back washing, 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 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 Dayliff, 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

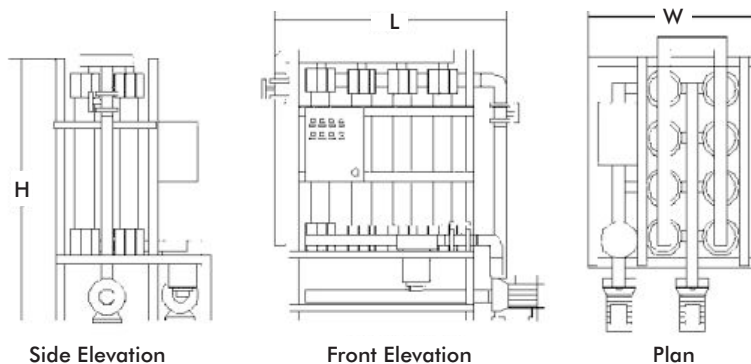
Operating pH Range: 5-10

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	DUF4	DUF5	DUF6
Flow	2m ³ /hr	4m ³ /hr	10m ³ /hr	12m ³ /hr	16m ³ /hr	20m ³ /hr
Modules	1	2	3	4	5	6
Module Type	2860		2880			
Feed Pump	Dayliff DB 2/50	Dayliff DB 4/40	Pedrollo F32/160A			
Backwash Pump	Dayliff DB 4/40	Dayliff DB 12/50	Pedrollo F50/160A			
Cleaning Pump	Davey JY350		Davey JXF211SS			
L	960		1670		2050	
W	650	960		1050		
H	2160		2660			
Weight	170	260	440	540	625	700



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KENYA Nairobi - Head Office Tel: (254 20) 698000 headoffice@dayliff.com Nairobi - Westlands Tel: (254 20) 4446116 westlands@dayliff.com Nairobi - Downtown Tel: (254 715 439 392 downtown@dayliff.com Eastleigh Tel: (254 711 079 845 eastleigh@dayliff.com Utawala Tel: (254 780 575745 utawala@dayliff.com Nairobi - Karen Tel: (254 20) 3883513 karen@dayliff.com Ongata Rongai Tel: (254 20) 2400146 ongatarongai@dayliff.com Kiambu Tel: (254 701 640 309 kiambu@dayliff.com	Thika Tel: (254 67) 2220084 thika@dayliff.com Kitengela Tel: (254 45) 3123094 kitengela@dayliff.com Machakos Tel: (254 44) 2021668 machakos@dayliff.com Kitui Tel: (254 701 683 289 kitui@dayliff.com Embu Tel: (254 780 455 512 embu@dayliff.com Meru Tel: (254 64) 3131033 meru@dayliff.com Nanyuki Tel: (254 62) 2030018 nanyuki@dayliff.com Garissa Tel: (254 46) 2102820 garissa@dayliff.com Malvasia Tel: (254 50) 2030510 malvasia@dayliff.com	Lodwar Tel: (254 724) 248602 lodwar@dayliff.com Eldoret Tel: (254 53) 2061306 eldoret@dayliff.com Nakuru Tel: (254 51) 2213248 nakuru@dayliff.com Narok Tel: (254 701 683 289 narok@dayliff.com Kakamega Tel: (254 58) 2031889 kakamega@dayliff.com Bungoma Tel: (254 740 048 514 bungoma@dayliff.com Kisumu Tel: (254 57) 2024763 kisumu@dayliff.com Kisii Tel: (254 58) 2030949 kisii@dayliff.com	KENYA COAST Mombasa - Main Office Tel: (254 20) 2040432 mombasa@dayliff.com Mombasa - Downtown Tel: (254 780 567 379 mombasadowntown@dayliff.com Malindi Tel: (254 42) 2120425 malindi@dayliff.com Diani Tel: (254 40) 3202181 diani@dayliff.com Lamu Tel: (254 20) 2651052/56 lamu@dayliff.com Nyali Tel: (254 20) 2443357 nyali@dayliff.com Voi Tel: (254 20) 2028284 voi@dayliff.com Mtwapa Tel: (254) 798 478 113 mtwapa@dayliff.com	UGANDA Kampala - Main Office Tel: (256 414) 3463378 kampala@dayliff.com Kampala - Nakasero Tel: (256 382) 734633 nakasero@dayliff.com Kampala - Shauri Moyo Tel: (256 414) 660 770 shauriyako@dayliff.com Gulu Tel: (256 471) 433041 gulu@dayliff.com Mbarara Tel: (256 753) 840 080 mbarara@dayliff.com Jinja Tel: (256 382) 001556 jinja@dayliff.com SOUTH SUDAN Juba Tel: (211 958) 197 070 juba@dayliff.com	TANZANIA Dar es Salaam - Main Office Tel: (255 22) 2112515/6 darsssalaam@dayliff.com Dar es Salaam - Kariakoo Tel: 2164867 kariakoo@dayliff.com Arusha Tel: (255 27) 2547317/8 arusha@dayliff.com Zanzibar Tel: (255 24) 224660/1 zanzibar@dayliff.com Mwanza Tel: (255 28) 254197/12 d&smwanza@dayliff.com Dodoma Tel: (255) 753 506 505 dodoma@dayliff.com	ZAMBIA Lusaka - Main Office Tel: (260 21) 288510/1 lusaka@dayliff.com Lusaka - ChaChaCha Tel: (260 21) 842350 Ndola Tel: (260 212) 610936/7 ndola@dayliff.com Kitwe Tel: (260 212) 221747/67 kitwe@dayliff.com Livingstone Tel: (260 213) 320002/234 livingstone@dayliff.com Solwezi Tel: (260 218) 821822 solwezi@dayliff.com	RWANDA Kigali Tel: (250) 252 504039 kigali@dayliff.com.rw Rubavu Tel: (250) 814 911999 rubavu@dayliff.com ETHIOPIA (Associate) Addis Ababa Tel: (251 11) 8159341/64 ethiopia@dayliff.com DR Congo Lubumbashi Tel: (243) 978 115412/ 852 758553 drc@dayliff.com
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