



PURE WATER

TREATMENT PLANTS



Dayliff Pure Water treatment plants are specially designed for the production of totally pure water from the majority of natural or municipal sources, typical applications being bottled water production, institutional and commercial food processing facilities and manufacturing facilities requiring pure water in the production process. They eliminate most conditions of impurity including sediment, unappetizing taste or odour, and the most serious of all, bacteriological contamination, the treated water output being to the highest consumption standards.

Utilising six stages of treatment the plants use no chemicals, are simple to operate, provide consistent pure water without any maintenance other than routine cleaning and cartridge replacement, cost very little to run and are extremely good value. Two standard designs are offered rated at 1000 litres/hr and 2000 litres/hr outputs and plants are supplied complete with the treatment components as well as necessary ancillary accessories all frame mounted to provide a complete, easily installed unit. Though the main application is for bottled water production, the plants are also suitable for in-line filtration for a distributed supply and also bespoke plants can be designed and manufactured to suit specialized treatment requirements.

With benefits of simplicity, economy and, most importantly, effectiveness, Dayliff Pure Water treatment plants are the ideal solution for the production of totally pure water from the majority of semi-treated water sources.

APPLICATION

Dayliff Pure Water Treatment Plants are designed to purify sweet, low conductivity, soft and neutral raw waters as is typically provided from low turbidity natural and semi-treated municipal sources. They do not treat for dissolved trace elements, including salinity, or change hardness levels or pH.

Prior analysis of the raw water to assess its suitability to this treatment process is important as there are some conditions for which it will not provide WHO standard potable water.

THE TREATMENT PROCESS

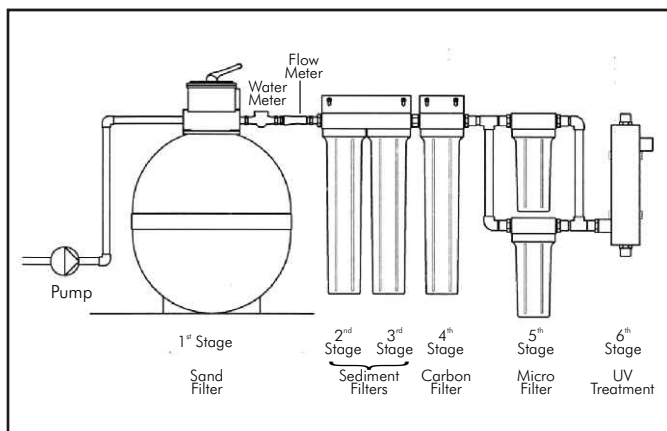
1st Stage - Sand Filtration: Raw water is passed through a low-rate inert silica sand filter to remove sludge and large particles.

2nd & 3rd Stage - Cartridge Filtration: The process water is passed in series through two progressively finer polypropylene yarn element filter cartridges of 5 and 1 micron mesh sizes to remove most suspended solids.

4th Stage - Carbon Filtration: After sediment removal the process water is passed through an acid washed coconut shell based activated carbon filter for the removal of trace chlorine, organic chemicals, insecticides, pesticides and herbicides as well as unpleasant taste and odours.

5th Stage Micro Filtration: This stage provides micro filtration to 0.2 micron using a polypropylene pleated cartridge removing any remaining suspended particles as well as most bacteria.

6th Stage - Ultra Violet Disinfection: The final step in the treatment process is disinfection using an Ultra Violet sterilizer. Ultra-Violet kills all known bacteria and provides totally disinfected water.



Schematic layout of the Treatment Process

EQUIPMENT SPECIFICATION

Sand Filter: Dayliff DX 500 pressure sand filter incorporating a six position multiport valve for backwashing and filter control.

Cartridge Housings: Cartridges are housed in So~Safe polypropylene filter bodies incorporating simple screwed housings for cartridge removal and push buttons for air bleed.

UV Unit: Dayliff UV 1000 purifier incorporating a fabricated stainless steel chamber with a quartz sleeve enclosing a 25W UV germicidal lamp and a built in regulator to prevent flow exceeding the rated amount.

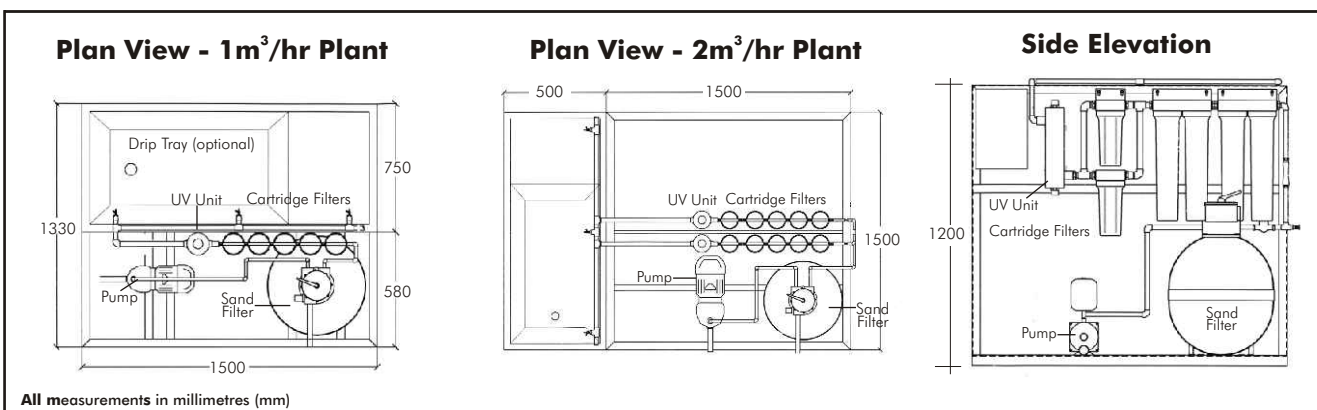
Booster Pump: Davey automatic pressure pump close coupled to a 0.3kW electric motor. The pump will provide 2m³/hr at 1.5Bar and 1m³/hr at 2.5Bar and is pressure controlled to operate on demand.

Control Panel: Provides all electrical control functions including incoming isolator, pump and light MCB, operating hours meter and indicator lights for the pump and UV lamp operation. A pump control relay is provided to prevent plant operation if the UV lamp is not working.

Monitoring Equipment: To measure plant output a flow meter and a recording water meter are provided. A pressure gauge is also included on the sand filter to monitor system pressure.

Mounting: All components are frame mounted and a GRP drip tray with 3No tap outlets is provided for bottling applications which is not included with plants installed for non-bottling ones. All necessary fittings including uPVC piping, ball valves, electric wiring and switches are provided from the raw water inlet and no other items are necessary for installation other than a 5Amp single phase power supply.

The equipment described applies to 1000 litre/hr plants. 2000 litre/hr plants utilise the same sand filter, pump and accessories, though include two sets of cartridge filter sets and UV units mounted in parallel.



All measurements in millimetres (mm)

NB. Contents herein are not warranted. The right is reserved to amend specifications without notice.

AVAILABLE FROM

AW22A-12/05

D&S DAVIS & SHIRTLIFF
know H₂Ow through experience
www.dayliff.com

KENYA

NAIROBI - HEAD OFFICE
TEL: (254 20) 558335, 536901, FAX: 557617
d&s@dayliff.com
WESTLANDS
TEL: (254 20) 4446011, 4446016, FAX: 4442568
westlands@dayliff.com
ELDORET
TEL: (254 53) 2061306, FAX: 2062335
d&s@eld.dayliff.com
KISUMU
TEL: (254 57) 2024763, FAX: 2023103
d&s@ksm.dayliff.com

MOMBASA
TEL: (254 41) 2490861, 2492626, FAX: 2490868
d&s@mso.dayliff.com
NAKURU
TEL: (254 51) 2213248, 2213146, FAX: 2212956
d&s@nkr.dayliff.com

UGANDA

KAMPALA
TEL: (256 41) 346337/8, FAX: 346335
d&s@ug.dayliff.com

TANZANIA

DAR ES SALAAM
TEL: (255 22) 2112515/6, FAX: 2112513
office@tz.dayliff.com

ARUSHA
TEL: (255 25) 2502517/8, FAX: 2502516
office@ars.tz.dayliff.com

ZANZIBAR
TEL: (255 24) 2234660/1, FAX: 2234664
office@znz.dayliff.com

ZAMBIA

LUSAKA
TEL: (260 1) 288010/11, FAX: (01) 288010
lusaka@zm.dayliff.com

KITWE
TEL: (260 2) 221747, TEL/FAX: 221767
kitwe@zm.dayliff.com

RWANDA

KIGALI
TEL: (250) 504033/9
sales@dayliff.co.rw