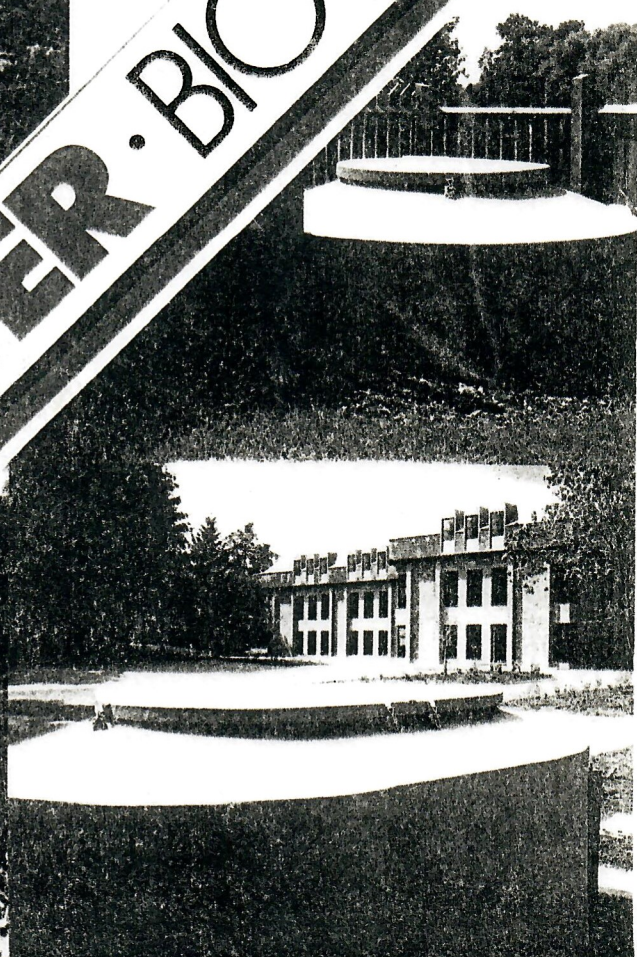


The Miniclere and Bioclere sewage treatment systems have been developed in a range of sizes to suit the single household and communities of up to 150 people. They can be used to relieve existing biologically overloaded plant and to eliminate the frequent emptying necessary in many cesspool installations.

- Manufactured in the UK.
- Supplied and serviced by a national distributor network.

CLEARWATER · BIOCLERE



ROUTINE MAINTENANCE

FREQUENCY

WEEKLY.

PRIMARY TANK

N/A

BIOCLERE

1. Check Green light only, which should be lit continuously on the control panel.
2. Check and clear distributor openings over the filter media if necessary.

FREQUENCY

3 MONTHLY

PRIMARY TANK

- 1 Check the inlet and outlet dip pipes of the primary tank system to ensure they are not blocked in any way. Clear any debris that may be present.
- 2 Check the depth of the scum crust in the primary tanks. It should not be allowed to exceed 200 mm depth otherwise there will be a danger of carry over to the Bioclere sump. Remove any large accumulations.
- 3 By probing with a suitable pole check the level of settled sludge in the primary tank. The sludge level should not be allowed to reach any higher than one metre below the liquid surface. If necessary desludge.

BIOCLERE

- 1 Check irrigation pump operation.
- 2 Clean distributor during pumping if biofilm thickness exceeds 10mm
- 3 Check clarity and odour of the final effluent
- 4 Turn switch located on clock timer to ON position and check secondary sludge return pump is working. See sewage treatment plant layout for location of pump and discharge point of sludge return pipe.
- 5 If floc level excessive in final effluent where it discharges into stream or ditch, desludge Bioclere sump and refill with fresh water.
- 6 Clean fly screen, remove any debris obstructing air flow. Ensure screen is refitted.

FREQUENCY

6 MONTHLY

PRIMARY TANK

- 1 Desludge the primary tank. This is most conveniently achieved by using a conventional tanker vehicle. The suction hose should be lowered through the manhole and from time to time during the desludging operation it is advantageous to manoeuvre it to different positions on the tank bottom.

GENERAL DESCRIPTION AND FUNCTION OF THE PLANT.

The Bioclere unit is a small sewage treatment plant utilising the natural process of biological oxidation to purify the waste water.

All bioclere units should be preceded by a correctly designed primary tank, serving as the settlement and solids digestion phase of the process.

The sump beneath the Bioclere filter model serves as the irrigation pump well and the final clarification zone..

Liquid effluent passing forward for treatment after the primary settlement of solids, enters the irrigation pump well, where it is lifted by the submersible irrigation pump to discharge, via the top distributor on to the surface of the filter media. After passing through the filter media the treated effluent passes into an intermediate zone in the dual baffle for recirculation of passing to the final clarification zone prior to discharge. During periods of low flow, treated effluent is recirculated through the filter media to maintain a consistent irrigation rate and optimised filter performance.

INTRODUCTION

The Clearwater Bioclere Treatment Plant is a three stage system comprising primary settlement, biological treatment and final clarification. The design concept is based upon considerable experience that has been accumulated in the field of water pollution control.

Provided that the simple maintenance procedures detailed in this manual are carried out, the plant will give trouble free service over a long period of time.

The plant will operate most efficiently if attention is paid to the following points:-

Ensure that the influent to the plant does not exceed the maximum design load.

Avoid admitting strong acids, alkalis, chemicals, oil and grease into the sewage system. This may occur when strong oxidising disinfectants are used particularly in kitchen and sanitary facilities. Normal amounts used in wash down will be accepted but gross discharge of undiluted disinfectants will adversely effect the plant.

Prevent any explosive material or slow decomposing material from entering the installation.

RESPONSIBILITY

The owner of the sewage plant is entirely responsible for the operation and performance of the plant.

The client is reminded that the existence of a service agreement does not transfer the responsibility of the general maintenance which should be conducted in accordance with the operation manual for the equipment installed.

Soakaways, drains and emptying of primary tanks remain the responsibility of the client and any damage to the installation due to the influx of surface water, or the backing up of soakaways or drains, is not covered by a service agreement.

SETTING UP PROCEDURES

Below are listed some points that should be followed to ensure trouble free operation of the plant.

IRRIGATION PUMP

The pump is suspended in the centre tube and attached to the distributor unit by means of a ridged delivery pipe, to ensure correct operation of the pump the delivery pipe should be adjusted to allow the pump to be fully submerged at all times. If the sump is desludged the integral float will insure that the pump will not run dry.

SSR PUMP

As with the irrigation pump, the SSR pump is suspended by a ridged pipe.

For efficient operation adjust the pipe length to ensure the impeller end of the pump is approximately 100mm from the base of the desludge tube.

SSR PUMP ELECTRICAL INSTALLATION

The pump cable should be fitted with a waterproof 3 pin plug. This mates with a 3 pin waterproof socket which is connected via a gland, through the desludge pipe to the junction box. To ensure ease of loading/removal of pump sufficient length of cable must be provided to ensure removal of the plug/socket assembly before removal of the pump.

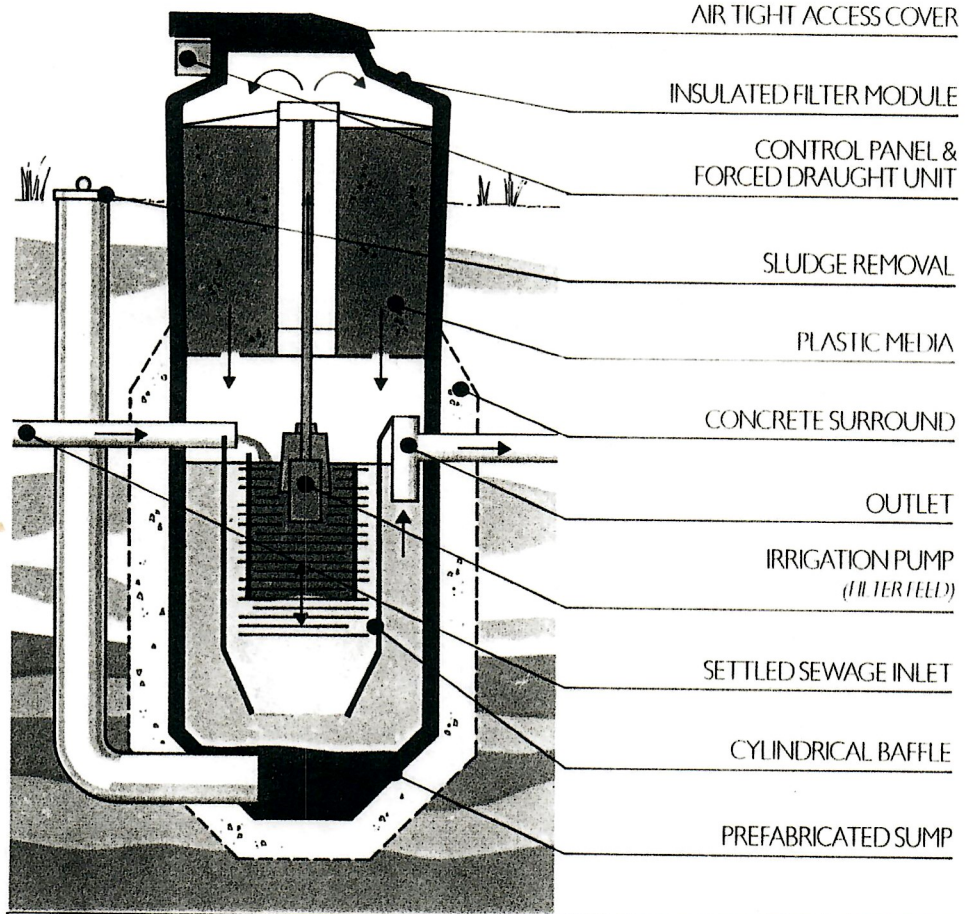
Technical Information

The British-made Bioclere system is designed as a completely sealed unit to ensure a consistently high standard of final effluent suitable for discharge into a stream or soakaway. It also incorporates a dosing system to overcome the problems associated with fluctuation in polluting load. The system is quiet and free from odour or insect nuisance, enabling it to be sited close to property. Units can be installed 'in series' where large seasonal variations in flow are common, such as camping sites, hotels, restaurants and marinas.

The Bioclere unit is totally prefabricated and supplied complete with sump direct to your site for simple, rapid installation by a Clearwater distributor or local builder.



Existing, structurally sound cesspits or septic tanks can often be used as part of the primary treatment phase of the process, thus reducing capital cost. Alternatively, prefabricated tanks can be provided. Running costs are low and energy usage minimal.



The table quotes the numbers served in a domestic situation, where a high quality effluent is required for discharge into an approved water course. For sub soil discharge and non-domestic applications considerably larger numbers can be accommodated. Clearwater can advise on individual applications.

Model Type	Population Equivalent
Miniclere	5
Bioclere A	10
B	17
C	25
D	35
E	50
<u>F</u>	<u>75</u>
G	85
H	110
I	130
J	150



Type F installed
75 person

Bioclere is a registered trademark of

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CLEARWATER

WATER AND EFFLUENT TREATMENT SYSTEMS

RIVERWAY ESTATE, PORTSMOUTH ROAD, GUILDFORD, SURREY GU3 1LZ, ENGLAND

TELEPHONE: (0483) 33831 TELEFAX: CLEARW G 859356 FAX: (0483) 34888

PLANT SHUT DOWN:-

TEMPORARY ABSENCE OF POPULATION

During temporary absence of population up to 3 months no special action is required. The plant should NOT be switched off.

ABSENCE OVER 3 MONTHS

In the event of absence over 3 months the plant should be taken out of service as follows:-

- 1 Remove excess sludges from the primary tank (re fill with fresh water)
- 2 Remove excess sludges from Bioclere sump (refill with fresh water).
- 3 Switch off unit at mains isolator.

RE COMMISSIONING.

- 1 Check Bioclere sump is full with fresh water
- 2 Switch on Bioclere power supply and irrigation pump.