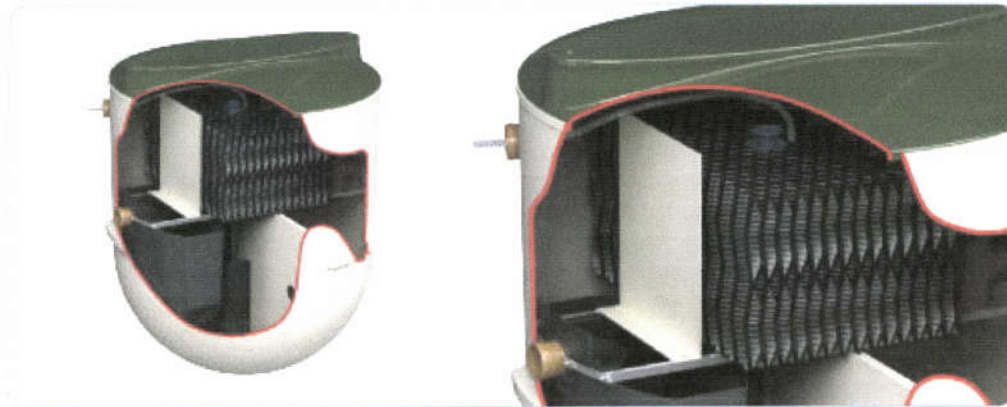


Klargester Biotec™ 1-4

Package Sewage Treatment Plants for Residential Applications



The Biotec sewage treatment plant is one of the products that pioneered package treatment plant technology and remains one of the most popular sewage treatment plant in the UK & Ireland.

It is ideal for locations where discharge is to sub-surface irrigation, or to a suitable watercourse (where approved by the Regulator), and where a septic tank will not meet the required standards.



Certificated to European Standard EN-12566

In 2005, the Biotec™ underwent 40 weeks of stringent testing to assess its treatment efficiency to comply with the European Standard for small treatment plants.

After delivering consistently high levels of pollution removal under varying loads and conditions, Biotec™ was awarded its Performance Certificate

Only products that hold an EN-12566 certificate are approved for an exemption from a permit to discharge under the new EPP2 environmental legislation.

For more information and a downloadable guide on EPP2 and off-mains regulations, [click here](#) or contact us.

Application

Klargester packaged sewage treatment systems are available in a range of sizes – from a 2 bedroomed house up to a population of 300.

This webpage covers the small Biotec™ which is used for developments with up to 25 people.

- Individual houses
- Small developments
- Offices and commercial properties
- Upgrading existing septic tanks

[For details of our larger capacity Biotec™ please click here](#)

Features and Benefits

- No mechanical or electrical components within the plant - low running and maintenance costs.
- Low level visibility with a lockable child-proof pedestrian duty cover - safe for children and pets.
- Controlled ventilation - minimises risk of odour nuisance.
- Variety of package options - suits all requirements and needs.

Specification

	Daily flow (m ³ /day)	BOD load (kg/day)	Wt empty approx. (kg)	Outside dia. (m)	Depth (m)
Biotec™-1	1.2	0.36	195	1.9	2.2
Biotec™-1 IPS	1.2	0.36	220	1.9	2.2
Biotec™- 2	2.4	0.72	217	1.9	2.7
Biotec™- 2 IPS	2.4	0.72	260	1.9	2.7
Biotec™- 3	3.6	1.10	445	2.7	2.6
Biotec™- 3 IPS	3.6	1.10	471	2.7	2.6
Biotec™- 4	5.0	1.50	470	2.7	2.6
Biotec™- 4 IPS	5.0	1.50	495	2.7	2.6

	Inlet invert (m)	Inlet invert to base (m)	Outlet invert (m)	Motor rating (watts)
Biotec™-1	1.0*	1.2	1.100	60
Biotec™-1 IPS	1.0*	1.2	0.605	60
Biotec™- 2	1.0*	1.7	1.100	60
Biotec™- 2 IPS	1.0*	1.7	0.605	60
Biotec™- 3	1.0*	1.6	1.100	150
Biotec™- 3 IPS	1.0*	1.6	0.605	150
Biotec™- 4	1.0*	1.6	1.100	150

	Inlet invert (m)	Inlet invert to base (m)	Outlet invert (m)	Motor rating (watts)
Biotec™- 4 IPS	1.0*	1.6	0.655	150

There are two depths of inlet in the range 1.0m and 1.5m.

*For further assistance and advice on selecting the appropriate **Biotec™** system please contact Kingspan Environmental Technical Sales on 01296 633000 who will be pleased to help.*

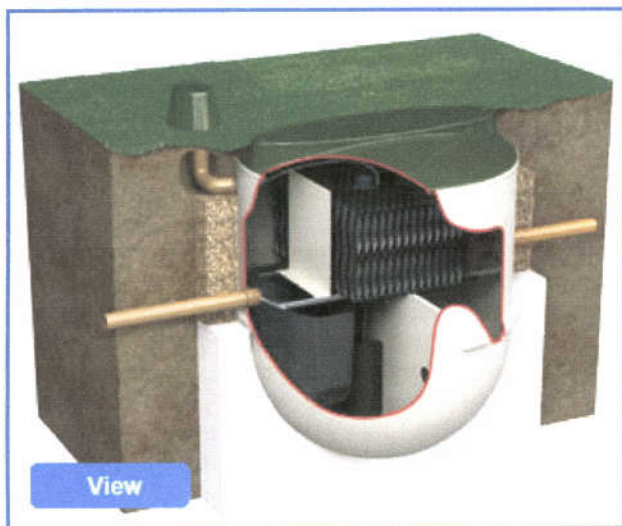
We can arrange for one of our local Area Managers to visit your site to advise on model selection and legislation. We can also recommend specialist installers if requested. This advice service is supplied free of charge.

How Biotec™ works

The Biotec™ sewage treatment plant uses the well-proven aerobic biological process. Treatment is a three-stage process.

- Coarse solids are filtered and retained for gradual breakdown.
- The resulting liquid is continuously distributed over a plastic suspended filter by an integral lift, powered by a remotely sited blower.
- The solids are allowed to settle and under normal domestic conditions, treated water of 20mg/l BOD, 30mg/l S.S., 20mg/l Ammonia can be achieved.

How Biotec is installed



The unit is normally installed in the ground with the cover flush to the surface. It can protrude above ground level if required by site levels.

- A **Biotec™** should preferably be sited no closer than 7m from the nearest house.
- The plant should be surrounded by concrete and seated on a concrete base.
- The blower housing can be located anywhere within a 13m radius of the system for easy and convenient access.

Easy Maintenance

Biotec™ is designed for low-cost and easy maintenance.

- Under normal usage your **Biotec™** will require periodic emptying.
- Klargester offers a full post installation inspection and after sales service.

Complete monitoring and control



Complete monitoring and control

Kingspan Environmental's high-tech control panel features a new alarm and digital read-out display, providing the homeowner with an immediate alert should any problem occur.

Supplied as standard throughout the Kingspan Environmental range, the control panel is able to communicate the nature of any fault, including loss of pressure* from the air blower, pump failure*, or power failure. The display will inform the householder, or maintenance representative on site via a digital display and fault code. The system also features a highly visible external beacon (optional) as a primary warning.

The alarm can also communicate directly to the company's service centre, enabling the service engineer to prioritise the fault and determine what parts to bring.

** Optional sensor fitments*

Dispersal

Subject to the relevant authorities consent, the plant discharge can be to a watercourse or, provided the soil percolation test is satisfactory, to a ground soakaway.

Advice

The information in this sales literature is by necessity, brief. For further technical literature or assistance on sizing please contact Kingspan Environmental.

Sample Chambers

When a treatment plant discharges into a watercourse, it is a regulatory requirement to have a sampling point so that the effluent quality can be periodically checked by regulatory bodies.

Available to suit all outlet depths of our standard ranges, a Kingspan Environmental sample chamber provides the solution, enabling both quick installation and easy access for accurate and convenient effluent testing.

Dispersal

Subject to the relevant authorities consent, the plant discharge can be to a watercourse or, provided the soil percolation test is satisfactory, to a ground soakaway. For further information on rules and regulations [click here](#)

What is a Reed Bed?

A reed bed is a filtration process used in conjunction with a Klargester BioDisc® treatment plant to further enhance the quality of the effluent migrating into a drainage field or surrounding watercourse.

[View](#)



Case study

A treatment plant serving a 3-bedroom farmhouse



The client approached Klargester to discuss the options for replacing a failing brick Septic Tank. Key criteria were to reduce frequency of tank-emptying visits and to use existing soakaway without the risk of blockage. Major concern was also to reduce pollution of surrounding streams and watercourses.

[View](#)

Contact us

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