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Free professional site visit with friendly support and advice.
helpingyou@klargester.com
to make the right decision
or call 01296 633033

Klargester

MEDIAN RANGE



Biotec™

PACKAGE SEWAGE TREATMENT PLANT FOR DOMESTIC APPLICATIONS

Part of Kingspan Environmental

Biotec™

PACKAGE SEWAGE TREATMENT PLANT FOR DOMESTIC APPLICATIONS

Get in touch for a **FREE** professional site visit and a representative will contact you within 5 working days to arrange a visit.
helpingyou@klargester.com
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Quality, reliability and peace of mind.

For domestic dwellings without access to mains drainage, the Klargester Biotec™ provides a reliable, efficient and environmentally safe solution to your sewage disposal needs.

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.



ask.klargester.com

Klargester packaged sewage treatment systems are available in a range of sizes – from a 2 bedroomed house up to a population of 350.

This brochure 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

APPROVALS & ACCREDITATION

Klargester has long recognised the demand by customers for products endorsed with European certification and BS EN ISO 9002 quality assurance.

As a leading European manufacturer Klargester has been instrumental in forging new environmental standards both for the UK and Europe. In this regard Klargester is proud to have received the new BS14001 environmental standard.

At all times you can be assured that the specification of Klargester products will provide value for money, durability, quality and reliability - first time, all the time.

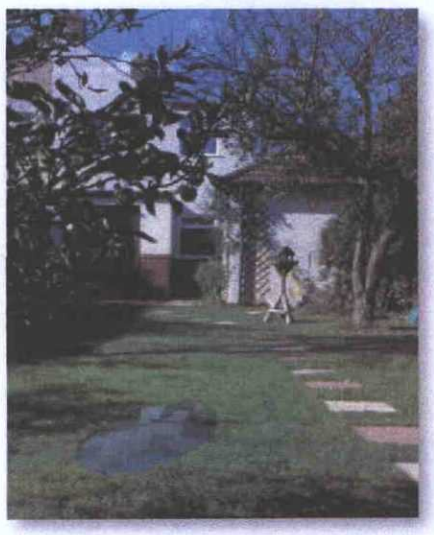
CERTIFICATED TO EUROPEAN STANDARD EN-12566

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 on EPP2 and off-mains regulations, visit our website or contact us.





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FEATURES & 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.

NATIONWIDE AVAILABILITY

Klargester products can be sourced from your local builders merchant or pollution control specialists.

SELECTING THE CORRECT BIOTEC™ FOR YOUR NEEDS

There are two options to choose from within our range of small Biotec: the standard gravity version and the Integral Pump model (IPS). There are also a number of size options in each.

The following information will help you decide which model and size you need.

1. The size of treatment plant you require.

- **Biotec™-1**: average house
- **Biotec™-2**: large house or 2 average houses
- **Biotec™-3**: 3 houses
- **Biotec™-4**: 4/5 houses

2. The depth of inlet you require (known as the drainage invert).

This is the distance between your sewage drain pipe and ground level (or how deep your drains are).

Measure the depth from ground level to your underground sewage drainpipe. The measurement will help you determine which of the two sizes you require*.

	DAILY FLOW (m^3/day)	BOD LOAD (kg/day)	WT EMPTY APPROX. (kg)	OUTSIDE DIA. (m)	DEPTH (m)	INLET INVERT (m)	INLET INVERT TO BASE (m)	OUTLET INVERT (m)	MOTOR RATING (watts)
BIOTEC™-1	1.2	0.36	195	1.9	2.2	1.0*	1.2	1.100	60
BIOTEC™-1 IPS	1.2	0.36	220	1.9	2.2	1.0*	1.2	0.605	60
BIOTEC™-2	2.4	0.72	217	1.9	2.7	1.0*	1.7	1.100	60
BIOTEC™-2 IPS	2.4	0.72	260	1.9	2.7	1.0*	1.7	0.605	60
BIOTEC™-3	3.6	1.10	445	2.7	2.6	1.0*	1.6	1.100	150
BIOTEC™-3 IPS	3.6	1.10	471	2.7	2.6	1.0*	1.6	0.605	150
BIOTEC™-4	5.0	1.50	470	2.7	2.6	1.0*	1.6	1.100	150
BIOTEC™-4 IPS	5.0	1.50	495	2.7	2.6	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 Klargester 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.

Biotec™

PACKAGE SEWAGE TREATMENT PLANT FOR DOMESTIC APPLICATIONS

3. How should you dispose of the wastewater?

When your sewage has been treated the resulting water needs to be released to a soakaway area or is clean enough to go into a watercourse.

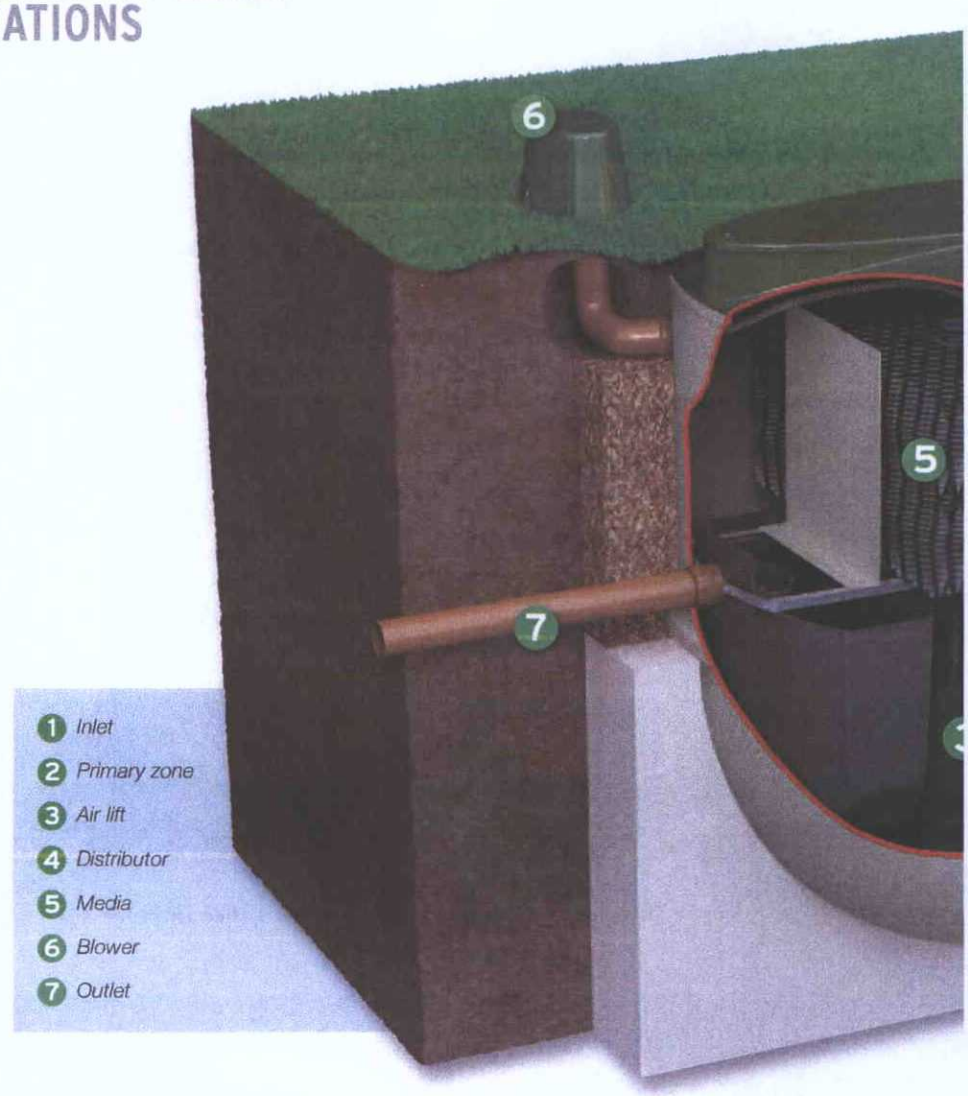
Klargester can give advice on how to obtain the relevant authorising consent.

4. Do you need a 'Gravity' or 'IPS' unit?

You may find that your soakaway area/watercourse area is some distance away from the outlet pipe where the Biotec™ releases the treated water. If this is the case, you may need to use a model which has the ability to pump treated water. These are our Integral Pump models (IPS).

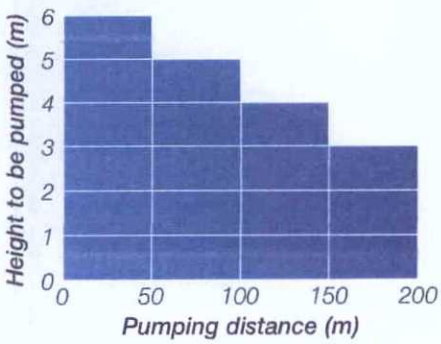


Integral Pump System



HOW FAR CAN THE TREATED WATER BE PUMPED IF USING AN IPS BIOTEC™?

Single Pump System
(50mm OD MDPE Pipe)



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.

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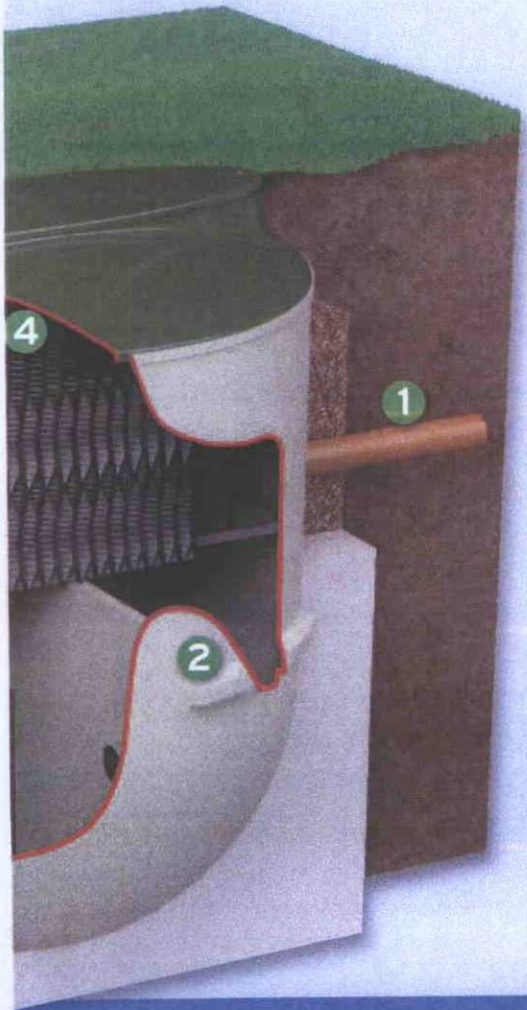

COMPLETE MONITORING AND CONTROL

Klargester'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 Klargester range, the control panel communicates the nature of any fault, including loss of pressure* from the air blower, pump failure*, or power failure. The display informs 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.

** Optional sensor fitments.*

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 Klargester 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.



CONTROL PANEL AND EXTERNAL BEACON



SAMPLE CHAMBERS

Like any mechanical device, Biotec™ requires a level of care and maintenance to deliver optimum performance and a lifetime of service. But once your system is installed and operating, its continual operation is something you probably won't want to think about.

That's where we can help too.

The Biotec™ Bond is an extended warranty package designed to give you total peace of mind. For a fixed monthly fee our in-house service division will monitor and maintain your unit through regular maintenance inspections.

We take care of it all: scheduled servicing, annual inspection, alarm call-outs... and in the unlikely situation that parts need replacing, then we cover that too – all at no additional cost.

For full details simply give us a call, or discover more online at:

www.klargester.com/bond

ENJOY TOTAL CARE WITH THE BIOTEC™ BOND





BIOTEC™ 5 YEAR WARRANTY

PROFESSIONAL INSTALLERS

Klargester Accredited Installers

Experience shows that correct installation is a prerequisite for the long-lasting and successful operation of any wastewater treatment product.



This is why using an installer with the experience and expertise to install your product is highly recommended.

Services include :

- Site survey to establish ground conditions and soil types
- Advice on system design and product selection
- Assistance on gaining environmental consents and building approvals
- Tank and drainage system installation
- Connection to discharge point and electrical networks
- Waste emptying and disposal

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Discover more about the Accredited Installers and locate your local expert online.

www.klargester.com/installers

CARE & MAINTENANCE

Kingspan Environmental Service

Who better to look after your treatment plant than the people who designed and built it?

Kingspan Environmental have a dedicated service division providing maintenance for wastewater products.

Factory trained engineers are available for site visits as part of a planned maintenance contract or on a one-off call out basis.

To find out more about protecting your investment and ensuring peace of mind, call us on:

0844 846 0500

or visit us online:

www.kingspanenvservice.com



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Environmental : Service

Klargester
DOMESTIC SEWAGE SOLUTIONS



BIODISC®
DOMESTIC SEWAGE TREATMENT PLANTS



HILLMASTER
PACKAGED PUMP STATIONS



REED BEDS



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BELOW GROUND STORAGE TANKS

KingspanWater
RAINWATER HARVESTING SOLUTIONS



INTEGRATED RAINWATER HARVESTING SYSTEMS



GARDEN WATERING SYSTEMS

Klargester

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Visit our website **www.klargester.com**, or our company website **www.kingspanenv.com**

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Part of Kingspan. Environmental

BSI UKAS QUALITY MANAGEMENT 003

Certificate No. FM 563603

BSI UKAS MANAGEMENT SYSTEMS HEALTH AND SAFETY 005

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BRITISH WATER

UK GREEN BUILDING COUNCIL

FSC MIX Paper from responsible sources FSC® C015655

In keeping with Company policy of continuing research and development and in order to offer our clients the most advanced products, Kingspan Environmental reserves the right to alter specifications and drawings without prior notice.

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