

Certified up to 95%  
efficient to European  
Performance Standards

# BioDisc® BA-BC

High Performance Package Sewage Treatment Plants  
for Residential Applications



[klargester.com](http://klargester.com)

**Klargester**

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**For domestic dwellings without access to mains drainage, the Klargestar BioDisc® 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 water course where approved by the Regulator, and where a septic tank will not meet the required standards.**

**CE Certified to European Standard EN 12566 - Part 3 - Annexe B - Performance Tests**

In 2005, the BioDisc® underwent 40 weeks of stringent testing to assess its treatment efficiency as part of Klargestar's commitment to meet the new European Standard for small treatment plants.

After delivering exceptionally high levels of pollution removal (95%) under varying loads and conditions, the BioDisc® was awarded its Performance Certificate. The test report also highlighted:

- BioDisc® operates without noise or odour
- Maintenance requirements are low with good access
- No technical or mechanical faults
- Low power consumption at 1.3kw/d - approx 10-14 pence per day\*
- Low sludge build up and large storage capacity

## Designed for Quality, Reliability and Peace of Mind

Klargester has pioneered the development of packaged treatment plant with many thousands of successful installations worldwide. BioDisc® is robustly constructed from corrosion free materials, designed and manufactured in accordance with BS 6297 and has been awarded British and Irish Board of Agrément Certification (for BA, BA-X and BB sizes only). Klargestar is an accredited company under BS EN ISO 9001:2000 quality management systems. Klargestar offer a range of alarm systems to alert the end user to mechanical failure. The installation of such, will be mandatory under EN 12566-3 from July 2008.

## Unique Design

BioDisc® is the only packaged sewage treatment plant utilising Rotating Biological Contactor technology for small domestic applications. This process offers inherent cost and performance benefits with a low Carbon footprint.

## Assured Performance

The Klargestar BioDisc® is a high performance package treatment plant which, in normal domestic situations, will produce effluent qualities of better than 15mg/l BOD, 25mg/l SS and 15mg/l ammonia.

## Low Running Costs

BioDisc® has the lowest running and maintenance costs of any packaged treatment plant in its class. The single home unit requires an annual de-sludge only, the motor rating is 50 watts and routine mechanical maintenance is minimal.

## Low Lifetime Costs

Lowest running costs combined with the quality and durability of the equipment - particularly the drive motor which has a considerably longer service life than the pumps and blowers fitted to competitive units - all add up to a significantly lower lifetime cost for BioDisc®.

## Process Stability

BioDisc® is recognised for its process performance. This is further enhanced by Klargestar's unique Managed Flow System, which ensures optimum performance by smoothing peak flows and buffering biological loads over the whole working day.

## Dispersal

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

## Low Profile Covers

Access for service and maintenance is provided via a durable, unobtrusive cover at ground level.

## Standard Invert Options

Three standard drain invert level options are available from stock to match the site topography and where applicable, minimise the excavation depth. BA, BA-X and BB BioDisc® are available with an integral pump to move effluent from point of treatment if site level demands.

## Hiab Off-loading

Klargester can provide on-site mechanical off-loading, if required.

## Quick and Easy to Install

Supplied as a complete palletised unit with lifting and lowering fixings, the BioDisc® is ready for installation on a suitably prepared site. The unit should be stabilised in concrete and the back fill completed with concrete.

We can provide an installation service through our network of Certified Installers and full details are provided in our comprehensive installation instructions covering all site conditions. Additional technical information sheets are available on the BioDisc® process, siting, installation, effluent disposal and other specific topics. Please contact Klargestar for further information.

## Nationwide Availability

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



\* BA model BioDisc® - prices subject to local supplier.

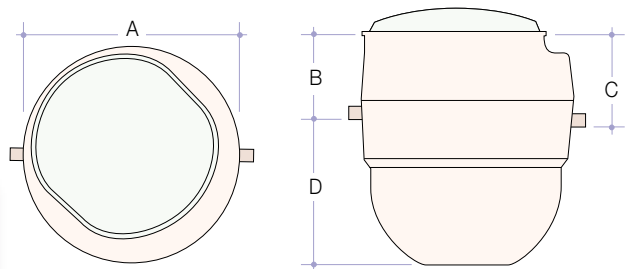
Unit Size	Single House		Multiple Houses	
	BA	BA-X	BB	BC
Population Equivalent	1 House, Max. 6	1 House, Max. 9	2 house, Max. 12	3/4 House, Max. 18
Overall Diameter (A) mm	1995	1995	1995	2450
Standard Drain Invert Inlet (B) mm	750*	750*	750*	600†
Standard Outlet (C) mm	835	835	835	685
Depth from Invert to Base (D) mm	1400	1400	1400	1820
Pipework Diameter (mm)	110	110	110	110
Sludge Storage Period (approx)	12 months	9 months	6 months	7 months
Standard Power Supply	Single phase	Single phase	Single phase	Single phase
Motor Rating	50W	50W	50W	75W
Weight (tonnes) standard units	0.388	0.418	0.418	0.600

Applications which include waste disposal units will require special sizing. Please consult Klargester.

\* Optional invert depths of 450mm and 1250mm are available.

† Optional invert depth of 1100mm is available.

\*\* Optional integral pump available in BA, BA-X and BB models



## How BioDisc® Works

Central to the operation of each BioDisc® is the Rotating Biological Contactor (RBC), which supports a biologically active film or Biomass on to which aerobic micro-organisms, naturally found in sewage, become established. Natural breakdown of sewage can then occur as described below.

## The Breakdown Process

Waste water and sewage flows into the primary settlement zone ① where solids are settled out and retained.

This accumulated sludge should be drawn out periodically.

Partially clarified liquor containing fine suspended solids flows upwards into the first stage Biozone ② for breaking down by micro-organisms on the RBC. Suspended solids return to the primary settlement zone and the liquor is transferred to the second stage Biozone ③ for further treatment.

Any solids remaining are settled out in the final settlement tank ④. The quality of the resultant liquor allows discharge close to or into a water course.

## Rotating Biological Contactor (RBC)

The RBC comprises banks of vacuum formed polypropylene media supported by a steel shaft. This is slowly rotated by a low energy consumption electric motor and drive assembly.

**Note:** BioDisc® is designed to deal with normal domestic sewage. If your application involves combined drainage or the sewage is likely to contain unusual substances, please consult Klargester.

## 12 Month Warranty

A full initial 12 month warranty covering all mechanical and electrical components against malfunction accompanies every BioDisc® installed and maintained in accordance with the manufacturer's instructions, provided the unit has not been subjected to damage or abuse.

# Klargester Off-Mains Solutions

- BioDisc® Sewage Treatment Plants
- AirFlow Sewage Treatment Plants
- Sigma SuperSeptic Sewage Treatment Plants
- HillMaster Package Pump Systems
- Pumpstor24 Pumping Systems
- Septic Tanks
- Attenuation Systems
- Cesspools
- Grease & Silt Traps
- Oil/Water Separators
- Silage Effluent Tanks
- Reed Beds
- Rainwater Harvesting
- Garden Watering Systems



## Certified Installers

Strategically located throughout the UK, Klargester Certified Installers are appointed following rigorous selection procedures which assess their installation expertise, reputation and financial status.

These performance criteria, together with their design skills and knowledge of Klargester products are also reviewed on an annual basis to ensure that the highest levels of professionalism are maintained.

## Klargester Service

Klargester have a dedicated service division providing maintenance for waste water treatment products. Factory trained engineers are available for site visits as part of a planned maintenance contact or on an 'on-call' basis.

## Unique Customer Care

Klargester offers a unique and comprehensive care package both before and after supply. Throughout the UK, our team of service engineers is always on hand to ensure that Klargester products provide their owners with a long and cost-effective life. Call our Customer Care Department for further information.

## Larger Applications

Klargester also manufactures a range of BioDisc® plant to cater for larger applications such as residential developments, caravan sites and hotels.

As specialists in waste water treatment we are able to provide solutions for many different applications. Please contact us for further information.

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



## Klargester Environmental

Head Office: College Road North, Aston Clinton, Aylesbury, Buckinghamshire HP22 5EW  
Tel: +44 (0) 1296 633000 Sales Office Tel: +44 (0) 1296 633033 email: [uksales@klargester.co.uk](mailto:uksales@klargester.co.uk)  
Klargester Scotland: Tel: +44 (0) 1355 248484  
Klargester Ireland: NI Tel: +44 (0) 28 302 66799 ROI Tel: +353 (0) 48 302 66799 email: [info@klargester.ie](mailto:info@klargester.ie)  
[klargester.com](http://klargester.com)