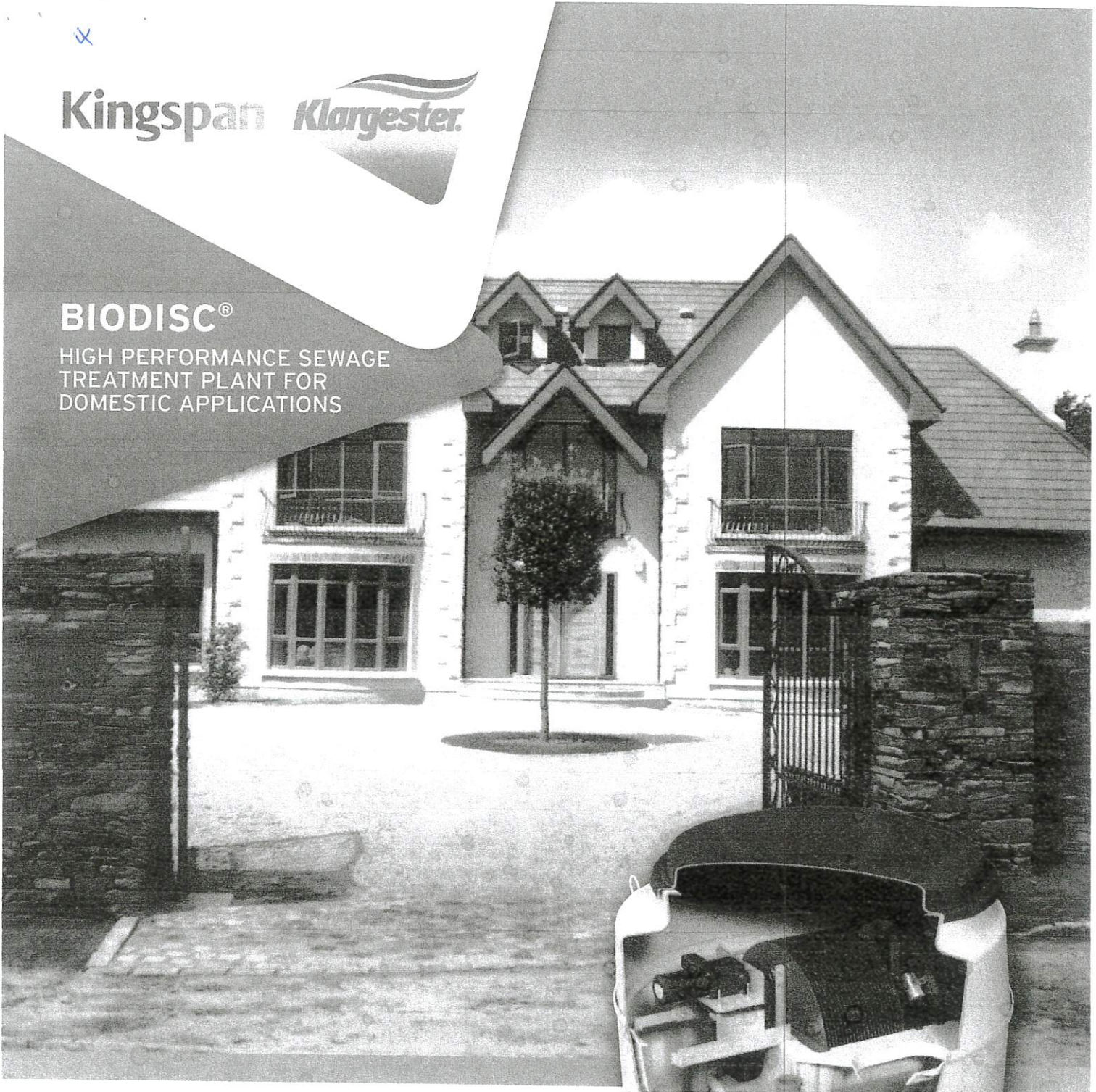




Kingspan *Klargester.*

BIODISC®

HIGH PERFORMANCE SEWAGE
TREATMENT PLANT FOR
DOMESTIC APPLICATIONS



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Kingspan.
Environmental

BioDisc®

HIGH PERFORMANCE SEWAGE TREATMENT PLANT FOR DOMESTIC APPLICATIONS

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 watercourse where approved by the Regulator, and where a septic tank will not meet the required standards.

CERTIFICATED TO EUROPEAN STANDARD EN-12566

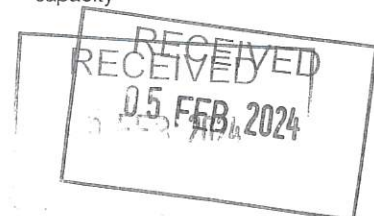
In 2005, the Klargestar BioDisc® underwent 40 weeks of stringent testing to assess its treatment efficiency to comply with the European Standard for small treatment plants.

After delivering exceptionally high levels of pollution removal (95%) under varying loads and conditions, the Klargestar BioDisc® 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.

The test report also highlighted:

- Klargestar 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



* Applies to BA model BioDisc®
– prices subject to local supplier.

DESIGNED FOR QUALITY, RELIABILITY AND PEACE OF MIND

Klargester has pioneered the development of packaged treatment plant with many thousands of successful installations worldwide. The Klargestar BioDisc® is robustly constructed from corrosion resistant materials, manufactured and performance tested in accordance with BS EN-12566.

Klargester is an accredited company under 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 required under BS EN-12566.



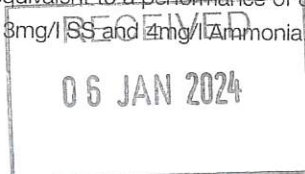
UNIQUE DESIGN

The Klargestar 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

During the EN-12566 certification testing, the Klargestar gravity BioDisc® demonstrated an efficiency rating equivalent to a performance of 8mg/l BOD, 13mg/l SS and 4mg/l Ammonia.



Get in touch for a **FREE** professional site visit and a representative will contact you within 5 working days to arrange a visit.

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This certificated performance was based on the BioDisc® being correctly sized and maintained.



LOW RUNNING COSTS

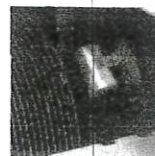
Klargester BioDisc® has very low running costs. An important design

feature of BioDisc® is the drive motor which runs virtually silently, has low power consumption and a significantly greater design life expectancy than a typical compressor.

The robust design of the drive motor means that there is minimal fall-off in performance as the component ages.

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 the Klargestar BioDisc®.



PROCESS STABILITY

The Klargestar BioDisc® is recognised for its process performance.

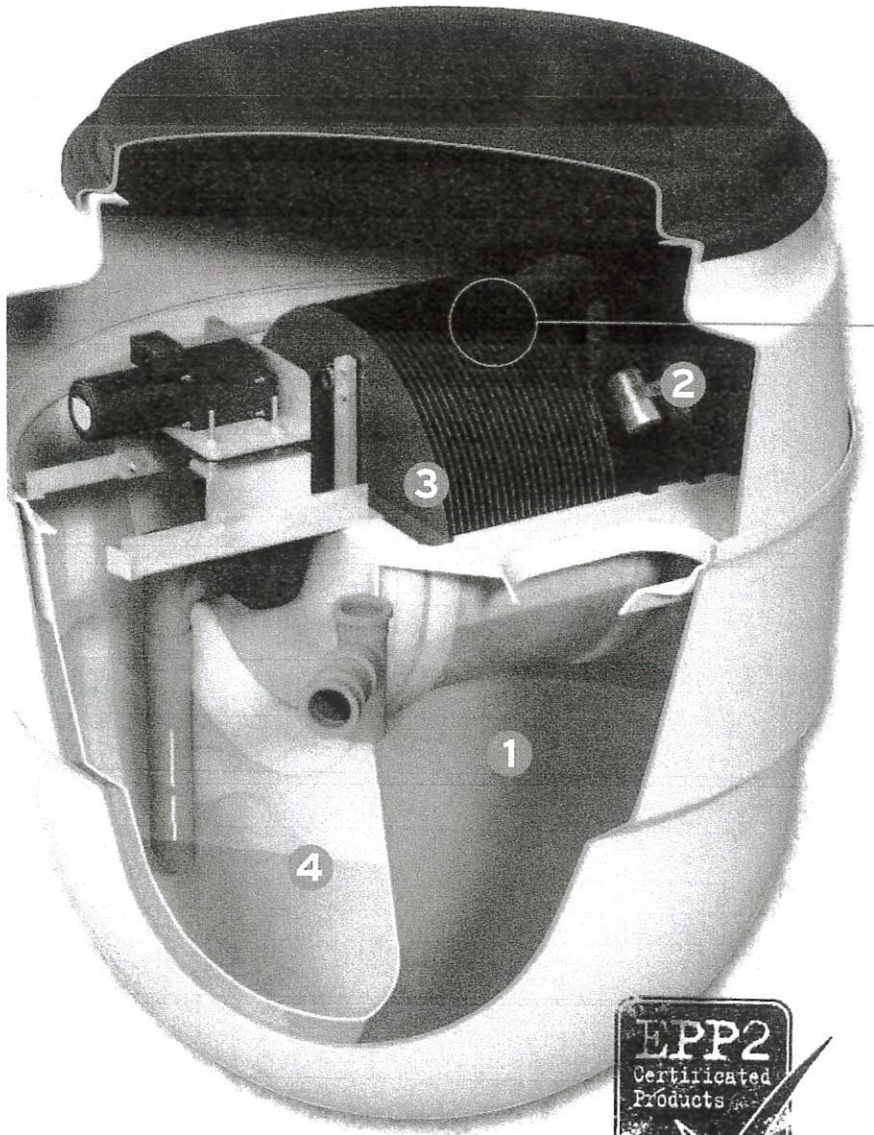
This is further enhanced by its unique Managed Flow System, which ensures optimum performance by smoothing peak flows and buffering biological loads over the whole working day.



LOW PROFILE COVERS

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

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DISPERSAL

Subject to relevant authorities consent and site conditions, the plant discharge can be a watercourse or to a drainage field.

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. The Klargester BA, BA-X and BB BioDisc® are available with an integral pump to move effluent from point of treatment if site level demands.

NATIONWIDE AVAILABILITY

Klargester products can be sourced from your local builder's merchant or through local pollution control specialists.

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HOW THE KLARGESTER BIODISC® WORKS

Central to the operation of each Klargester 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

Wastewater 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 resulting very high quality effluent can be discharged to a watercourse.

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: The Klargester BioDisc® is designed to deal with normal domestic sewage. If the sewage is likely to contain unusual substances, please consult Klargester.

BioDisc®

HIGH PERFORMANCE SEWAGE TREATMENT PLANT FOR DOMESTIC APPLICATIONS

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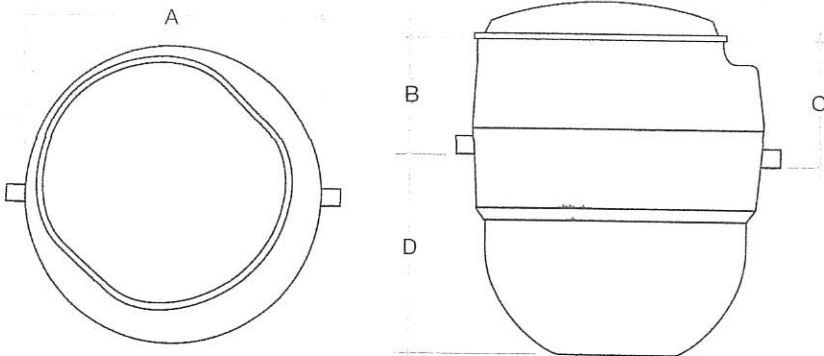
UNIT SIZE	SINGLE HOUSE		MULTIPLE HOUSES	
	BA	BA-X	BB	BC
POPULATION EQUIVALENT	1 HOUSE, UP TO 4 BEDROOMS	1 HOUSE UP TO 7 BEDROOMS	2 HOUSES UP TO 8 BEDROOMS	3 HOUSES UP TO 12 BEDROOMS
OVERALL DIAMETER / WIDTH (A) mm	1995	1995	1995	2450
STANDARD DRAIN INVERT INLET (B) mm	750*	750*	750*	600†
STANDARD OUTLET (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	0.650

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

BIODISC® BA, BA-X, BB AND BC



SIZING YOUR TREATMENT PLANT

The above table is a general guide to selecting the correct Klargester BioDisc® for your property but, with many variables to consider, it is essential to obtain an accurate assessment.

We are pleased to offer professional advice by adhering to British Water's sizing criteria published in their guidance booklet 'Flows and Loads'. By following this best-practice, Klargester will ensure you are installing the most suitable BioDisc® model to serve your needs.

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HIAB OFF-LOADING

Klargester can provide on-site mechanical off-loading if required (subject to location), please enquire.

QUICK AND EASY TO INSTALL

Supplied as a complete palletised unit with lifting and lowering fixings, the Klargester BioDisc® is ready for installation on a suitably prepared site.

Full installation details are provided in our comprehensive user instructions. Additional technical information sheets are available, covering the BioDisc® process, siting, installation, effluent disposal and other specific topics. Please contact Klargester for further information.

GROUND CONDITIONS

BioDisc® is suitable for installation in both 'wet' or 'dry' ground conditions. On 'wet sites' (where the water table is above the bottom of the tank excavation, or the area is liable to flooding), the BioDisc® should be mounted and backfilled with concrete.

For 'dry sites' (where the soil is free-draining and groundwater lies below the excavation), the unit can be backfilled with pea-shingle or equivalent.

ACCREDITED INSTALLER NETWORK

We can provide an installation service through our network of Accredited Installers.



Located across the UK, these drainage professionals will ensure correct installation of your wastewater system.

Full details and contacts are available on our website:
www.klargester.com/installers