

BioDisc®



OF EXPERTISE

WASTEWATER SOLUTIONS

PREMIUM SEWAGE TREATMENT PLANT FOR COMMERCIAL APPLICATIONS FROM THE MARKET LEADERS IN WASTEWATER TREATMENT.





60 YEARS OF EXPERTISE

Kingspan Klargester

For over 60 years, Kingspan Klargester has designed and manufactured innovative ways to effectively treat, pump and separate wastewater. We pioneered the patented RBC (Rotational Biological Contactor) BioDisc wastewater treatment system - leading change in our sector and setting industry standards around the world for commercial wastewater treatment.

As established global market leaders, we offer a diverse range of innovative and 100% compliant wastewater treatment solutions for commercial, industrial and domestic applications. We give you relevant advice and support throughout the wastewater treatment purchasing process based on our in-depth local knowledge and expertise.



The Wastewater Management Experts

Kingspan Klargester are the wastewater management experts with over 60 years of innovation and knowledge. Our mission is to design and manufacture premium tried and tested wastewater management solutions on a global scale for the leisure, public, hospitality, transport and other commercial sectors whilst offering one of the largest and most technologically advanced wastewater ranges available.

Operating in 85 countries worldwide, we offer a global distribution network backed by experienced sales and technical teams. Our technical support teams provide focused customer service from delivery scheduling to consultancy and installation guidance. We give you the confidence of support over the lifetime of the product and beyond.

85
COUNTRIES
WORLDWIDE

BioDisc® COMMERCIAL



Kingspan Klargester BioDisc BD-BL wastewater treatment plant

The Kingspan Klargester BioDisc BD-BL sewage treatment range benefits from a wealth of industry experience and knowledge that allowed us to bring to market the first Rotational Biological Contactor treatment system over 40 years ago.

Our tried and tested technology offers robust and efficient wastewater treatment solutions across a wide range of commercial applications, including hospitality, retail, municipalities, transport and industry.

Stricter environmental standards and building control regulations have placed a greater responsibility on specifiers to ensure the correct sewage treatment plant is chosen. The Kingspan Klargester BioDisc BD-BL will meet those demands whilst also offering the lowest commercial sewage treatment running and maintenance costs, compared to other models in its class.

Each Kingspan Klargester Commercial BioDisc provides an engineered package solution to meet a wide range of applications and discharge qualities and is designed to ensure 100% compliance with industry requirements across commercial sectors- including national and international regulations such as BS EN12255 and EN12566-1 (up to 50 PE) and EN12255 (over 50PE).

The aim of BioDisc Commercial is simple - quality product and quality customer service for total peace of mind.



EXPERTISE

With over 60 years' experience delivering high performance and reliable commercial wastewater treatment systems worldwide, you can trust Kingspan Klargester.

LOW RUNNING COSTS

BioDisc® is one of the only premium sewage treatment systems in the world to use the patented Rotating Biological Contactor technology. Our highly efficient system ensures one of the lowest continual running and maintenance costs on the market.

BESPOKE TECHNICAL SUPPORT

Our 60 years of manufacturing expertise and experience allows us to provide top-level technical support throughout all types of commercial projects. From initial site assessment, design and review services, installation and delivery - we pride ourselves on quality customer care from start to finish.

BioDisc®

A TOTAL DESIGN SOLUTION

WORLD CLASS
DESIGN ADVICE
& ENGINEERING
EXPERTISE

TRUST KINGSpan KLARGESTER
FOR YOUR COMMERCIAL
WASTEWATER PROJECT



OVER
60 YEARS'
EXPERIENCE



LATEST
DESIGN
TECHNOLOGY



STEP-BY-STEP
SUPPORT



100%
COMPLIANT



COMMISSIONING
SERVICE AND
MAINTENANCE



KINGSPAN KLARGESTER
Expertise, reliability and trust



The unique design of the Kingspan Klargester Commercial BioDisc BD-BL range proves our engineers are well versed in the demands of water technologies. We bring the best solutions to you- no matter what the commercial challenge or ground conditions.

60

OVER 60 YEARS' EXPERIENCE

Our experienced design consultants and engineers are well versed in the demands and requirements of water technologies and their application to different commercial challenges and ground conditions. We bring the best solutions to you.



LATEST DESIGN TECHNOLOGY

Our high-quality designs and working drawings are produced by experienced engineers using AutoCad SolidWorks. These include 3-D drainage layouts, product sizing and specifications that can be integrated into your unique site plan.



STEP-BY-STEP SUPPORT

Kingspan Klargester use a rigorous support process that covers everything from system sizing, product selection and system design to calculations, manufacturing and installation.



100% COMPLIANT

Our in-house engineering service department advises on: water management, design, product integration with building regulations, code compliance and installation practices to meet the most demanding effluent qualities, flow rates and discharge consents:

- National and European standards
- ISO 9001 and ISO 14001 compliant
- SAB assessment requirements
- CE marked



COMMISSIONING, SERVICE AND MAINTENANCE

Our professional designers and technical experts tailor systems to any specification to create a best fit solution. Our systems are installed quickly, run easily and are covered by extended warranties. We offer full commissioning and service plans to ensure smooth running over the lifetime of your system and beyond.

BioDisc®

TRUSTED, HIGH PERFORMANCE WASTEWATER SOLUTIONS FOR ALL COMMERCIAL APPLICATIONS



KEY BENEFITS:

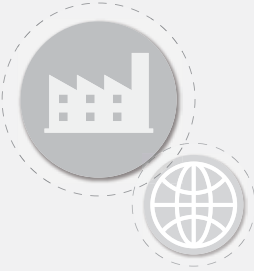
- Lowest running costs on the market
- Delivered direct on site
- Noise-free
- Fully removable lid for easy de-sludging

SUITABLE FOR A RANGE OF APPLICATIONS:

-  Hospitality
-  Leisure
-  Retail
-  Municipality



KINGSPAN KLARGESTER
Expertise, reliability and trust



KEY FEATURES

The unique design of the Kingspan Klargester Commercial BioDisc BD-BL range has a proven track record for high-quality performance, superior reliability and low operational costs. Each system is delivered direct to your site and ready to install, giving you added peace of mind.

Key features include:

SAMPLE CHAMBERS

Kingspan Klargester sample chambers provide quick installation and an easy access solution for accurate effluent testing- they are available to suit all outlet depths of our standard range.

SAFETY FEATURES

- Low profile lockable covers
- Fully removable covers simplify de-sludging without the need for restricted access provision- a requirement of the Confined Spaces Regulations 1997
- Full platform access to motor and bearings
- Secure lockable control panel
- Integrated loss of rotation alarm (offered on all BioDiscs from BD-BL).

CONTROL PANEL

Plants are supplied with either a single phase or three phase direct-drive motor. The control panel features an included inversion device (BH-BL models only) which converts single phase power to three phase.

DIRECT DRIVE

Kingspan Klargester Commercial BioDiscs (models BH-BL models only) feature a direct-drive motor fixed directly to the disc shaft, eliminating the need for a chain or belt drive and simplifying maintenance.

TWO-PART SHAFT

By supporting the rotor in four places rather than two, the load and wear on the shaft and bearings is reduced. Each shaft also features long-life bearings with automatic grease capsules requiring annual replacement. (Two part shaft offered only on BioDisc BH-BL models).

ROTOR DESIGN

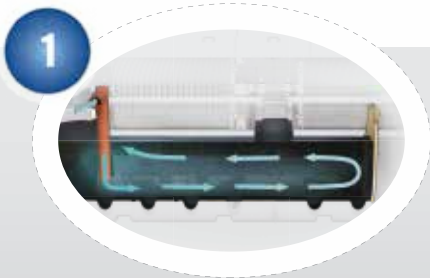
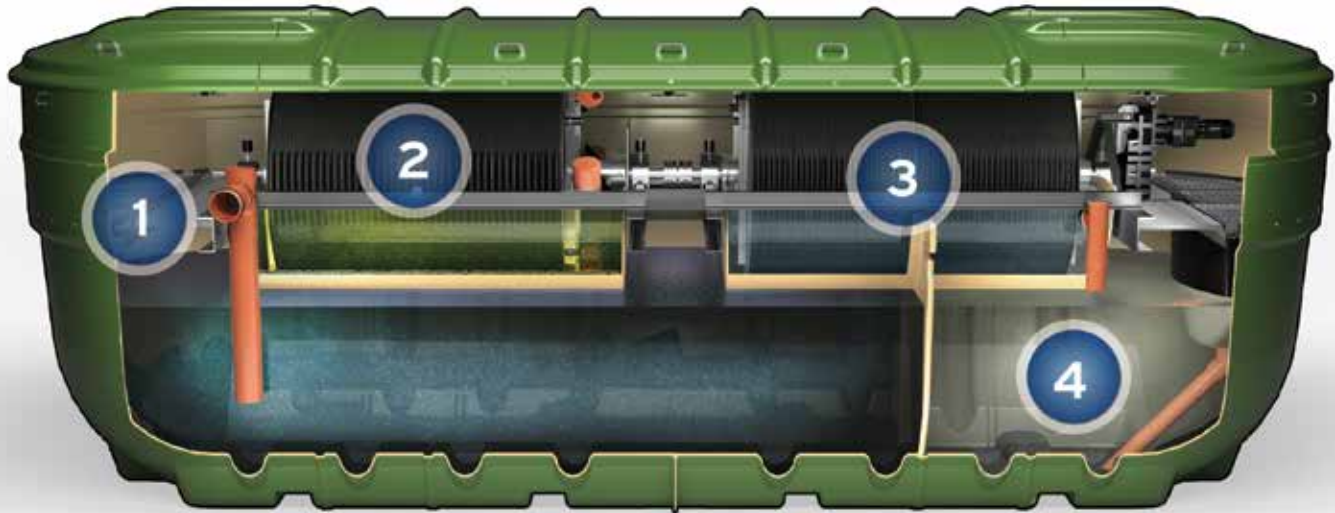
The new Kingspan range includes the well-established Klargester rotor design which is compact, structurally sound and built for long life. It reduces the need for maintenance associated with sectional bolted assemblies.

MONOCOQUE CASING

All Kingspan Klargester BioDisc® casings provide: lightweight, structurally strong GRP construction; integrated steel cradle providing a stable component platform; pre-engineered quality for exceptional performance and elimination of on-site assembly; full length ports for easy desludging; various invert depths, with only 150mm head loss; variable desludging cycles.

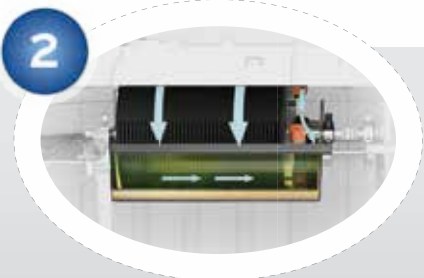


The Rotational Biological Contactor (RBC) is central to the operation of each Kingspan Klargester Biodisc®. It supports a biologically active film or biomass onto which aerobic micro-organisms, naturally found in sewage, become established. Natural breakdown of sewage can then occur as described below.



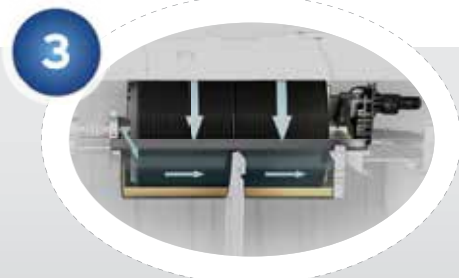
PRIMARY SETTLEMENT TANK

Wastewater and sewage flows into the primary settlement tank where the large solids are retained for future removal. Liquid level in the Primary Settlement Tank is allowed to fluctuate to absorb incoming flow surges.



FIRST STAGE BIOLOGICAL TREATMENT

The liquor and fine solids then flow into Biological Treatment Zone 1 where the first stage of treatment occurs. Unique managed flow system ensures peak performance by smoothing variable loads.



SECOND STAGE BIOLOGICAL TREATMENT

The liquor is then fed forward at a controlled rate into Biological Treatment Zone 2 for further cleaning. This process ensures the whole media area available is utilised ensuring maximum efficiency.



FINAL SETTLEMENT TANK

The clean liquid passes into the final settlement tank where it can be discharged to ground or water course. Additionally in the Final Settlement Tank, any fine humus is returned via the sludge return pump to ensure optimum treatment efficiency.

Unit size	BE	BF	BG	BH	BJ	BK	BL	BM
Daily BOD Load (KG)	2.1	3	4.5	4.2	6	7.5	9	13.5
Daily Flow DWF (m3)	5.3	7.5	11.3	10.5	15	18.8	22.5	33.75
Width (mm)	2450	2450	2450	2455	2455	2455	2455	2605
Inlet Invert depth (mm)	600	600	600	600/1000	600/1000	600/1000	600/1000	600/1000
Depth below inlet invert (mm)	1825	1820	1820	1790	1790	1790	1790	1790
Outlet Invert Depth (mm)	685	700	700	750/1150	750/1150	750/1150	750/1150	750/1150
Overall Height (mm)	2825	2825	2875	2830/3230	2830/3230	2830/3230	2830/3230	2838/3288
Height to rim of cover (mm)	2485	2485	2485	2490/2890	2490/2890	2490/2890	2490/2890	2561
Empty Weight (kg)	1200	1315	1660	3000/3020	3100/3120	3200/3220	3300/3320	3500/3610
Standard Power Supply	1 phase	1 phase	1 phase	3 phase	3 phase	3 phase	3 phase	3 phase
Optional Power Supply	3 phase	3 phase	3 phase	1 phase	1 phase	1 phase	1 phase	1 phase
Motor Rating - 1phase/3phase (watts)	75/60	120	180	250	250	370	370	550
Full load current 1 phase (amps)	1.1	1.26	1.7	1.95	1.95	2.35	2.35	2.9‡
Full load current 3 phase (amps)	0.35	0.42	0.63	0.88	0.88	1.35	1.35	1.54‡
Sludge Return Pump Rating (watts)	-	-	250	250	250	250	250	250
Sludge return pump (amps)			1.9	1.9	1.9	1.9	1.9	1.9

‡ is variable speed inverter driven so max current in frequency range

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.

BioDisc from Kingspan Klargester

For further technical information and videos on the BioDisc treatment plant visit our website at [kingspanklargester.com](https://www.kingspanklargester.com)



CUSTOMER SUPPORT

We stand by the quality and performance of Kingspan Klargester products and our support doesn't stop once your tank is installed. We're on standby 24/7 with guidance on servicing and maintenance and offer tailored warranty options. Our trained professional support team is only a phone call away.

Peace of mind with extended warranty options

We offer an extended and tailored warranty on your sewage treatment plant to suit your needs and budget. This cost effective package offers the benefits of scheduled maintenance inspections to ensure your system performs at optimum levels at all times.

Customer support when you need it

Our friendly local customer service team are on hand with professional advice. We operate a dedicated helpline on 01296 633 000 and a support email address for our commercial customers on klargester@kingspan.com

Service and maintenance

Regular tank maintenance is recommended to ensure optimal performance of any system. Email our expert Commercial Servicing Team on klargester@kingspan.com or call 01296 633 000.



REQUEST
A SITE VISIT
FROM OUR
EXPERT TEAMS

klargester@kingspan.com
01296 633 000

Contact your expert local Kingspan Klargester team today

Our experienced local Kingspan Klargester product experts are on hand with professional advice on all aspects of your sewage treatment system, including sizing and installation.

Book your no obligations site assessment from the global experts in wastewater treatment, Kingspan Klargester. Contact us today on **+44 (0) 1296 633 000**. You can also book your visit online at **[Kingspanklargester.com](https://www.kingspanklargester.com)**



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