

# BioFicient

## BIOFICIENT

DOMESTIC SEWAGE TREATMENT PLANT OFFERING  
HIGH PERFORMANCE AND EFFICIENT TECHNOLOGY  
FROM THE EXPERTS IN WASTEWATER TREATMENT

OVER  
60  
YEARS  
OF EXPERTISE







# KINGSPAN KLARGESTER, WASTEWATER MANAGEMENT EXPERTS

## Kingspan Klargester

With over 60 years' experience in wastewater treatment solutions worldwide, Kingspan Klargester are here to help you make the correct wastewater system choice for your home with a fully integrated, no hassle wastewater treatment package tailored to your home's individual needs.

## Introducing BioFicient

The Kingspan Klargester BioFicient treatment plant provides a reliable and effective solution for domestic applications without access to mains drainage. Suitable for homes with up to 30 people, the BioFicient is manufactured from high quality Polyethylene and GRP and uses the latest treatment technology to deliver a high level of water discharge quality. A new Integral Pump Discharge option is now available for the BioFicient 1-4 range.



BioFicient 2  
Integral Pump Model

BioFicient 1  
Integral Pump Model

# BioFicient

## BioFicient offers the following benefits for the homeowner:

- BioFicient is suitable for shallow dig requirements, with minimal visual impact.
- Easy to install, requiring only a small digger due to its lightweight and unique design features, saving on-site time and expenses.
- Designed and manufactured by Kingspan Klargester, BioFicient is fully compliant, tested and approved to BS EN 12566-3.

## BioFicient Benefits

It's designed to the highest standards, with the following features:

- Suitable for shallow dig installations
- Robust and lightweight
- Easy and affordable installation
- High performance, efficient treatment technology
- Low power consumption
- Minimum visual impact
- An extension neck is available to allow for deeper installation on difficult sites
- Our modern design means that access for desludging is easier through the wide neck
- New Integral pump option available for the BioFicient 1-4 range
- BioFicient comes fully supplied with control panel, externally sited air blower and loss of pressure alarms as standard



## EXPERTISE

- › Kingspan provide you with the confidence that comes from a world leading wastewater brand. We offer expert guidance on choosing the correct wastewater treatment solution, right through to aftersales service and maintenance.

## RELIABILITY

- › Our wastewater solutions use tried and tested technologies. Our reliable performance products are hassle free for ultimate peace of mind.

## TRUST

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

REQUEST  
A FREE SITE  
VISIT FROM OUR  
EXPERT TEAM.

klargester@kingspan.com  
+44 (0) 1296 633 000



# BioFicient

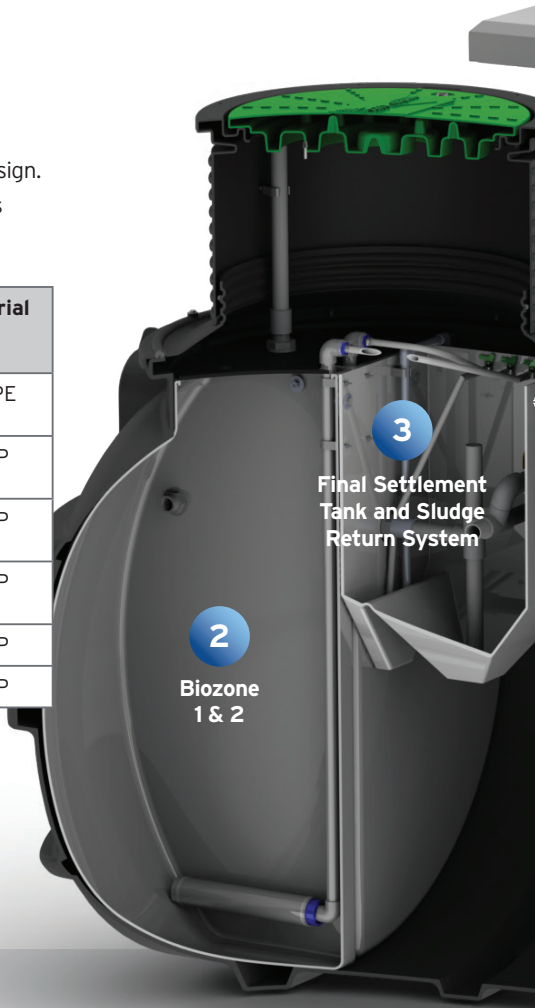
## HOW IT WORKS

BioFicient unit is a new generation of package sewage treatment plant developed to treat domestic sewage waste in a simple and compact system comprising three treatment zones within a 'uni-tank' design. The moving aerated media process used is a compact development of the traditional biological process and provides a more effective and complete means of sewage treatment.

Model	Population Equivalent	Overall Diameter (mm)	Length (mm)	Inlet Invert (mm)	Outlet Invert (mm)	Material
BioFicient 1	6	1540	2500	800*	Gravity 600-1600 IPS 555-1555	MDPE
BioFicient 2	8	1425	3760	500-1500	Gravity 600-1600 IPS 320	GRP
BioFicient 3	10	1425	3760	500-1500	Gravity 600-1600 IPS 320	GRP
BioFicient 4	15	1920	3230	500-1500	Gravity 600-1600 IPS 320	GRP
BioFicient 5	20	1920	4390	500-1500	600-1600	GRP
BioFicient 6	30	1920	6220	500-1500	600-1600	GRP

\*500-1500 available by trimming or adding necks

BioFicient sewage treatment system is available in variety of sizes for all types of domestic applications. Various inlet and outlet options are available to choose from. Our expert team will guide you through the correct choice and size of system for your home, after we carry out our free comprehensive site assessment.



### Step 1

Raw sewage gravitates to the unit where it is received in the primary settlement zone. Here, gross solids and other social debris settle to the bottom of the tank where they remain until the tank requires desludging. Settled sewage is displaced from primary zone and enters the first of two sequential moving aerated media reactors.

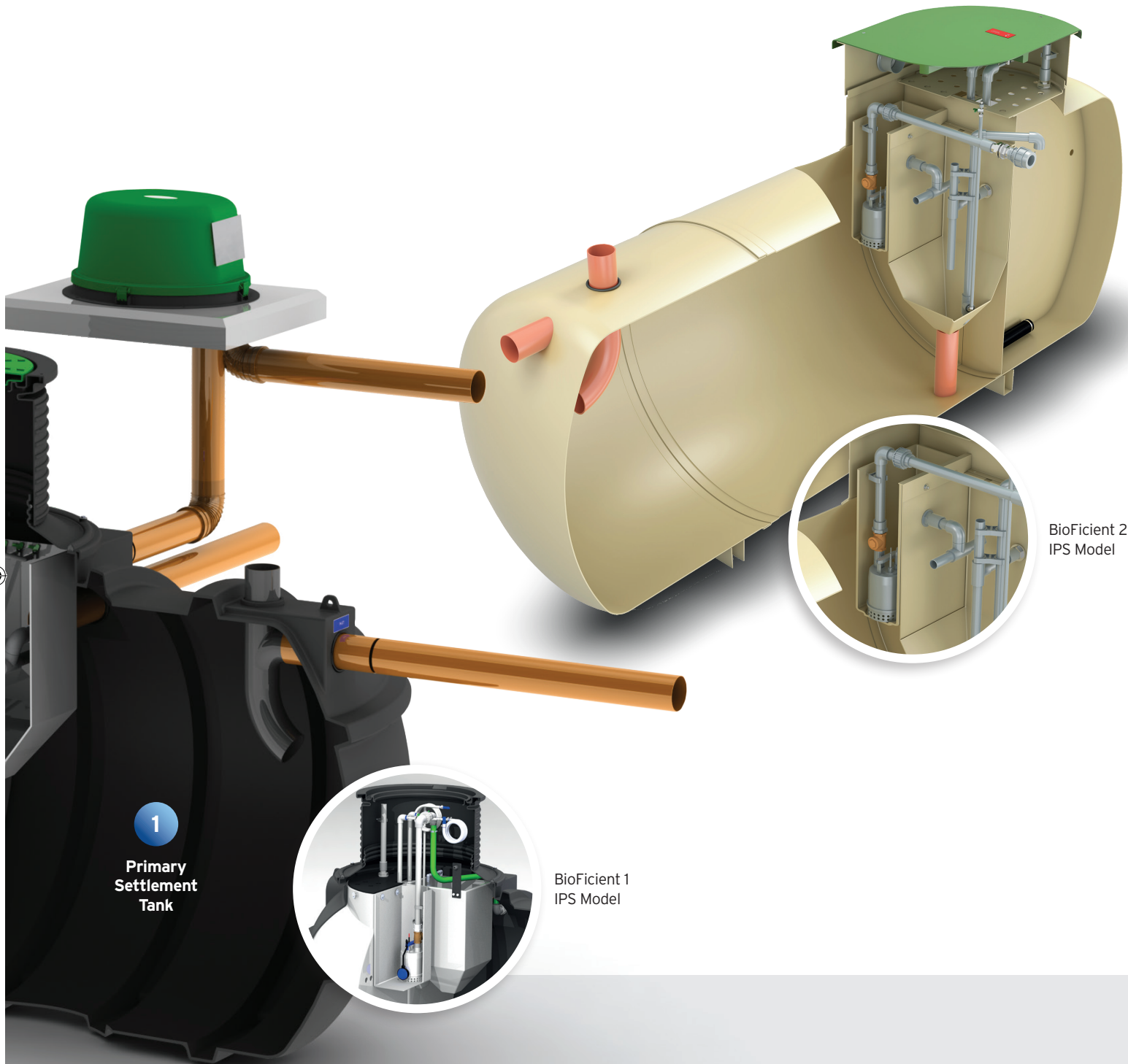
### Step 2

Solids are broken down by air agitated media in the Biozone. Media and liquid circulation in the Biozone is achieved through the use of a compressor and diffuser, which introduces fresh air into each compartment. The liquor is constantly re-circulated and contacts the moving media and as it does so, it is purified by the micro organisms growing on the surface of the media and within the moving liquor. Excess growth of biomass is shed as solid particles into the liquor.





KINGSPAN KLARGESTER  
EXPERTISE, RELIABILITY  
AND TRUST



BioFicient 2  
IPS Model

BioFicient 1  
IPS Model

### Step 3

The final settlement tank is where humus solids settle to form sludge. At preset intervals, portions of the sludge and liquor are returned to the primary tank for additional treatment.

### BioFicient from Kingspan Klargester

For further technical information and videos on the BioFicient treatment plant visit our website at [kingspanklargester.com](http://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 or bond 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. Contact our sales office on +44 (0) 1296 633 000 or use our support email address [klargester@kingspan.com](mailto:klargester@kingspan.com)

## Service and maintenance

Regular tank maintenance is recommended to ensure optimal performance of any system. When your tank is due to be serviced, our local installers are on hand to help.



**REQUEST  
A FREE SITE  
VISIT FROM OUR  
EXPERT TEAM.**

[klargester@kingspan.com](mailto:klargester@kingspan.com)  
+44 (0) 1296 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](http://kingspanklargester.com)







# BioFicient



## UK

College Road North,  
Aston Clinton,  
Aylesbury,  
Buckinghamshire  
HP22 5EW  
Tel: +44 (0) 1296 633000  
Email: [klargest@kingspan.com](mailto:klargest@kingspan.com)  
Web: [www.kingspanklargest.com](http://www.kingspanklargest.com)

## Ireland

Unit 1a, Derryboy Road,  
Carnbane Business Park,  
Newry, Co. Down,  
BT35 6QH  
Tel: +44 (0) 28 3026 6799  
Email: [klargestinfo@kingspan.com](mailto:klargestinfo@kingspan.com)  
Web: [www.kingspanklargest.com/ie](http://www.kingspanklargest.com/ie)



**GB:** 0333 240 6868  
**NI:** 028 3836 4600  
**ROI:** 048 3836 4600  
Email: [helpingyou@kingspan.com](mailto:helpingyou@kingspan.com)  
Web: [www.kingspanenviro.com/service](http://www.kingspanenviro.com/service)

## Norway

Skiveien 42,  
1410 Kolbotn  
Tel: 22021920  
Email: [klargesterno@kingspan.com](mailto:klargesterno@kingspan.com)  
Web: [www.kingspanklargest.com/no](http://www.kingspanklargest.com/no)

## Germany

Siemensstr. 12, 63263 Neu-Isenburg  
Tel: +49 (0) 6102 36867 00  
Email: [klargesterde@kingspan.com](mailto:klargesterde@kingspan.com)  
Web: [www.kingspanklargest.com/de](http://www.kingspanklargest.com/de)

## Poland

Ul. Topolowa 5  
69-090 Rokietnica  
Tel: +48 (0) 61 814 4400  
Email: [klargesterp@kingspan.com](mailto:klargesterp@kingspan.com)  
Web: [www.kingspanklargest.com/pl](http://www.kingspanklargest.com/pl)

