Kingspan Klargester

# SEPTIC TANKS

## FOR THE COLLECTION SETTLEMENT OF DOMESTIC SEWAGE

**Let us help!**
Free professional site visit with friendly support and advice.
**klargester@kingspan.com**
to make the right decision
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60 YEARS OF Expertise & Innovation
1955–2015

ARUN DISTRICT COUNCIL A/32/20/PL

# Septic Tanks

## FOR THE COLLECTION AND SETTLEMENT OF DOMESTIC SEWAGE

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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A septic tank provides a traditional solution to sewage disposal needs for domestic dwellings without access to mains drainage.

Sewage enters the septic tank into a settlement chamber, allowing solid waste (sludge) to sink and liquid to rise to the surface. This surface liquid makes contact with oxygen and the organic matter starts to breakdown biologically.

This liquid still contains sewage but in small enough particles to be carried through the discharge outlet and into the ground (soakaway).

### WHY DO I NEED A SEPTIC TANK?

Basic septic tanks only partially treat sewage and discharge effluent of low quality. Many authorities in the UK prohibit their use.

In all instances a Sewage Treatment Plant should be considered as the first option.

Septic tanks may be installed, subject to consent, in applications where:

- Soil is of suitable porosity.
- Installation complies with Building Regulations (Approved Document H).
- The installation will not contaminate any ditch, stream or other watercourse.

### WHAT PRODUCTS ARE AVAILABLE?

If you are not connected to mains drainage you have three options:

- The **Kingspan Klargester Alpha range** of septic tanks only provides settlement for sewage solids. The liquid overflow requires further biological treatment in a suitably designed, correctly situated drainage field.
- **The Kingspan Klargester Gamma and Sigma** shallow dig septic tanks will drastically reduce the time and cost of a septic tank installation.
- A full sewage treatment plant with integral biological treatment technology produces far superior treated effluent - see the **Kingspan Klargester BioDisc®, Biotec™, Bioficient** ranges.

Any product installation is dependent on obtaining regulatory approvals.

### SOIL POROSITY

To establish the overall length of a drain run needed, a soil porosity test is required. The following procedure should be adopted:

- Excavate a hole 300mm square by 300mm deep below the proposed invert level of the land drain.
- Fill hole with water to a depth of 300mm and allow to drain away overnight.
- Refill to a depth of 300mm and observe the time taken to drain from 75% full to 25% full level (i.e a depth of 150mm). Divide this time by 150mm. The answer gives the average time in seconds (Vp) required for the water to drop 1mm.

Repeat this exercise two more times with at least two trial holes. Calculate the average time.

Drainage field disposal should only be used on test values (Vp) between 15 and 100. Where a Vp value falls outside these limits, our technical team can advise.

For detailed calculations of the drainage field, please contact the Kingspan Klargester technical sales team on 01296 633000 or email info@klargester.com.

# TYPICAL INSTALLATION

## Kingspan Alpha Septic Tank

Klargester **Alpha** tanks provide a reliable and economic solution for homes not connected to mains drainage. Alpha tanks are manufactured from composite GRP – light, chemically resistant and watertight.

## Gamma Septic Tank

Kingspan Klargester designed and manufactured an efficient and reliable septic tank suitable for shallow dig installation with an efficiency rating of 99.97% - industry benchmark.

## Sigma Shallow Dig Septic Tank

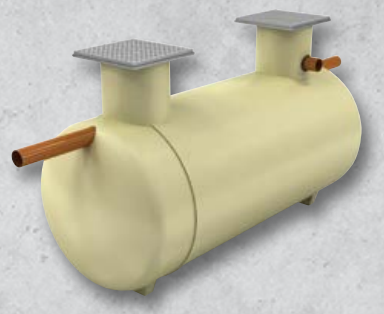
The **Sigma** shallow dig septic tank is designed to reduce both installation time and cost. Manufactured from GRP, the tank is easy to handle and install, requiring less backfill material and less soil disposal.

## SIGMA SHALLOW DIG SEPTIC TANK

The **Sigma** shallow dig septic tank is available in various sizes suitable for properties with dig height restrictions.

| MODEL REFERENCE | CAPACITY (litres) | No. PEOPLE (150l/head/day) | DIAMETER (mm) | LENGTH (mm) | STANDARD INVERT HEIGHT (mm) |
|---|---|---|---|---|---|
| STH028 | 2800 | 5 | 1225 | 2955 | 500 |
| STH038 | 3800 | 12 | 1225 | 3895 | 500 |
| STH057 | 5700 | 24 | 1425 | 4275 | 500 |
| STH071 | 7150 | 34 | 1920 | 3225 | 500 |
| STH091 | 9150 | 47 | 1920 | 3960 | 500 |

- Robust and simple to install
- Less excavation costs, less soil disposal and less backfill material
- Made from composite GRP – strong, light, chemically resistant and watertight
- EN-12566 Part 1 approved and 99.7% efficient



SIGMA SHALLOW DIG SEPTIC TANK

## GAMMA SEPTIC TANK

**Gamma** Septic Tank is a reliable and efficient septic tank suitable for shallow dig applications.

| MODEL REFERENCE | CAPACITY (litres) | STANDARD OVERALL HEIGHT (MM) | STANDARD INLET INVERT (MM) | STANDARD OUTLET INVERT (MM) | LENGTH (MM) | WIDTH (MM) |
|---|---|---|---|---|---|---|
| GST027 | 2700 | 1755 - 2255 | 500 - 1000 | 550 - 1050 | 2480 | 1130 |
| GST040 | 4000 | 1755 - 2255 | 500 - 1000 | 550 - 1050 | 3360 | 1215 |

- Shallow dig - the Gamma is designed with easy, affordable installation in mind.
- Costly excavation and soil disposal isn't necessary, nor is additional concrete backfill.
- 99.97% removal efficiency
- The Gamma is made from durable MDPE. This allows the gamma tank to be lightweight, long lasting, and damage resistant.
- Full compliance with European Union EN 12566 part 1 standards.

GAMMA SEPTIC TANK

## ALPHA GRP SEPTIC TANK

The **Alpha** septic tank comes in three sizes and is suitable for individual domestic dwellings up to a large family house.

| CAPACITY (litres) | No. PEOPLE (150l/head/day) | WIDTH (mm) | INLET LEVEL TO BASE (mm) |
|---|---|---|---|
| 2800 | 5 | 1905 | 1565 |
| 3800 | 12 | 2070 | 1795 |
| 4600 | 17 | 2080 | 2035 |

- Performance tested to EN-12566 (Part 1) requirements
- Internal baffle design within the tank aids separation and retention of solids, improving the effluent quality thus providing a long life to the soakaway
- Made from composite GRP – strong, light, chemically resistant and watertight

ALPHA SEPTIC TANK

## PROFESSIONAL INSTALLERS

**Kingspan 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

**Contact us for further details.**

Kingspan Klargester Accredited Installer

## CARE & MAINTENANCE

**Kingspan Environmental Services**
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:

**NI: 0844 846 0500**
**ROI: 048 3025 4077**

or visit us online:
**www.kingspanenvservice.com**

Kingspan Environmental Services

Kingspan Klargester

## DOMESTIC SEWAGE SOLUTIONS

**BIODISC®** DOMESTIC SEWAGE TREATMENT PLANTS

PACKAGED PUMP STATIONS

REED BEDS

SEPTIC TANKS

BELOW GROUND STORAGE TANKS

## RAINWATER HARVESTING SOLUTIONS

INTEGRATED RAINWATER HARVESTING SYSTEMS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Visit our website **www.kingspanklargester.com**


*Part of* Kingspan Environmental

bsi. ISO 9001 Quality Management

bsi. OHSAS 18001 Occupational Health and Safety Management

RIBA CPD PROVIDERS NETWORK

BRITISH WATER

UK GREEN BUILDING COUNCIL Founding Member

CIBSE CPD

FSC www.fsc.org 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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