

Klargester Septic Tanks

A Range of Septic Tanks for the Collection and Treatment of Domestic Sewage



Sustainable, Reliable, Affordable


Kingspan®

Klargester Septic Tanks

What is a Septic Tank?

For domestic dwellings without mains drainage, Septic Tanks provide a traditional solution to sewage disposal needs.

Sewage enters the Septic Tank into a settlement chamber, allowing solid waste (sludge) to sink and liquid to rise to the surface.

The 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.

More advanced products, like the **Klargester SuperSeptic**, offer a much higher level of effluent quality, but 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 **Klargester Alpha** and **Beta** ranges of septic tanks only provide settlement for sewage solids. The liquid overflow requires further biological treatment in a suitably designed, correctly situated drainage field.
- An **SuperSeptic** tank pumps air (including oxygen) through sewage which substantially reduces the pollution content of the overflow.
- A full sewage treatment plant with integral biological treatment technology produces far superior treated effluent - see the **Klargester Biotec™** and **BioDisc®** ranges.

Any product installation is dependent on obtaining regulatory approvals.

Why Klargester?

- Unrivalled experience in the design and manufacture of septic tanks, providing cost effective, reliable and proven performance septic tank systems.
- Product application and technical support available from both our internal and external sales teams.
- Over 350,000 successful installations.
- Kingspan Environmental is an ISO 9001 accredited company.
- Klargester products are widely available from your local Builders Merchants.

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.

By reference to the table the length of drain run required for various capacity tanks may be established.

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.

Time taken to fall 150mm (mins)	Equivalent value of Vp (sec/mm)	Alpha			Large Capacity		
		Overall length of drain run required (m)			Overall length of drain run required (m)		
		2800 Litres	3800 Litres	4600 Litres	6000 Litres	7500 Litres	9000 Litres
		4 people	10 people	14 people	22 people	30 people	38 people
20	8	16	40	56	88	120	152
30	12	24	60	84	132	180	228
40	16	32	80	112	176	240	304
60	24	48	120	168	264	360	456
120	48	96	240	336	528	720	912
180	72	144	360	504	792	1080	1368

The above is based upon 500mm trench width, 2m apart.
For lengths above 100m it is acceptable to use 1m wide trench and halve the length.

Typical Installation

EPP2
Certificated
Product
ask.klargester.com

Alpha Septic Tank

Klargester Alpha tanks provide a reliable, economic and efficient solution to your sewage disposal needs. Alpha is a range of septic tanks combining Kingspan's experience with the latest production technology to provide a product to meet the needs of both property owners and installers, making Alpha the No.1 choice.

Beta Septic Tank

Rotomoulded septic tanks provide a strong, reliable and trouble-free sewage solution.

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SuperSeptic Tank

If permission has been granted to install a septic tank consideration should still be given to the effect that prolonged discharge of untreated effluent will have on the constructed drainage field.

SuperSeptic bridges the gap between the simple septic tank and the high performance Klargester Biotec™ and BioDisc® Treatment Plants.

It can reduce the level of pollutants and therefore help increase the life of a drainage field - an important consideration if only limited land is available.

Ask us about
Ezy-Drain!

The revolutionary
packaged drainage field.
**Less Fuss! Less Time!
Less Waste!**



to soil
otextile membrane
shed gravel or clinker
-50mm grade
ainage network



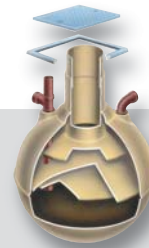
SuperSeptic Tank



Beta Septic Tank



Alpha Septic Tank



Large Capacity Septic Tank

SuperSeptic Tank

The **SuperSeptic** tank is available in two sizes suitable for either an individual domestic dwelling (maximum 6 persons) or two properties (maximum 12 persons).

Capacity (litres)	Population Equivalent	Dia. (mm)	Invert to Base (mm)	Standard Inlet Invert	Deep Inlet Invert
3800	6	2070	1795	0.9	1.4
6000	12	2390	2200	1.0	1.5

- Manufactured using state-of-the-art GRP pressure moulding technology
- Contained within a rigid GRP tank, the structural aeration chamber will not collapse during desludging
- Easy to install
- Designed to require only an annual desludge
- Small footprint, discreet 600 x 600mm opening with pedestrian duty cover
- Low cost operation - less than a 60 watt bulb
- Reliable and simple with no electrical or moving parts within the tank
- Unit has adjustable inlet invert level, with a standard invert of 1.0 metre and maximum of 1.5 metres
- Small air pump can be discreetly situated above ground and up to 13 metres away from unit causing minimal disruption when maintained
- Efficient process combining 'submerged aerated media' and 'activated sludge'
- Integrated media sack within plant stabilises biological treatment and ensures rapid start-up after maintenance or power failure

Beta Rotomoulded Septic Tank

Beta septic tanks are available in three sizes suitable for various applications.

Capacity (litres)	No. People (200l/head/day)	Diameter (mm)	Inlet Level to Base (mm)
2730	4	1760	1820
3635	9	1940	1980
4540	14	2000	2230

- Manufactured from robust, impact resistant, high quality polyethylene
- Strong, easy to move and simple to install
- Wide neck for easy access for annual desludging
- Extension neck available to allow for deeper installation on difficult sites

Alpha 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 (200l/head/day)	Diameter (mm)	Inlet Level to Base (mm)
2800	4	1905	1565
3800	10	2070	1795
4600	14	2080	2035

- The only septic tank available independently tested to EN-12566 (Part 1).
- Approved for exemption for a permit to discharge under new EPP2 environmental legislation.
- 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
- Press moulded shape provides wide, squat, form which makes the tank easy to install and handle
- Stable base for storage
- Shackles are provided to aid lifting and positioning within the excavation
- All unit volumes are designed in accordance with the recommendations given in BS 6297: 1983

Large Capacity Septic Tanks

Large Capacity septic tanks are suitable for rural sites where ground conditions favour the use of a septic tank with discharge to sub-surface irrigation.

Capacity (litres)	No. People (200l/head/day)	Diameter (mm)	Inlet Level to Base (mm)
6000	22	2390	2200
7500	30	2516	2540
9000	38	2650	2550

- For populations of 22 persons or above
- 6000 to 9000 litre capacity
- Annual desludging intervals
- All unit volumes are designed in accordance with the recommendations given in BS 6297: 1983
- Adjustable access shaft for ease of installation
- Standard 1.0 metre invert and Heavy Duty 1.5 metre invert

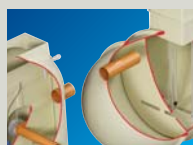
The Market Leading Range of Klargester Sewage Treatment, Pumping and Drainage Solutions from Kingspan Environmental



Commercial Sewage Treatment Plants



Large Capacity Pumping Stations



Stormwater Attenuation Systems



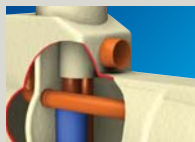
Domestic Sewage Treatment Plants



Packaged Pump Systems



Reed Beds



Oil/Water Separators



Septic Tanks



Below Ground Storage Tanks



Grease & Silt Traps

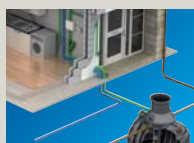


Packaged Drainage Systems

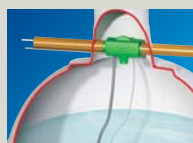
KingspanWater Rainwater Harvesting Solutions



Residential & Commercial Rainwater Harvesting



Domestic Rainwater Harvesting



Garden Watering Systems

Klargester Accredited Installers

Strategically located throughout the UK and Ireland, Klargester Accredited Installers are appointed following a selection process which assesses their installation expertise, reputation and financial status.

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



Advice

The information in this sales literature is by necessity, brief. For further technical literature or assistance on sizing please contact Klargester.

Nationwide Availability

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

Kingspan Environmental Service

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 treatment 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, contact us on **0845 355 0555** or visit us online at

www.kingspanenvservice.com



Accredited to
BS EN ISO 9001: 2008
BS OHSAS 18001: 2007



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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.

