

NYMNPA

05/09/2019

**From:** Ian Lyle  
**Date:** 05/09/2019 08:32 (GMT+00:00)  
**To:** Jill Bastow <j.bastow@northyorkmoors.org.uk>  
**Subject:** York House Caravan park

Dear Jill

Further to our conversation yesterday I attach a specification sheet for the package treatment plant – provided by the applicant.

I must admit whilst I understand the issue raised I don't quite understand the logic behind the point being made by your colleagues

The Pods are on the site that already has pp for tents and I think is unlikely to result in a significant increase/ in any in the number of people staying on site at any one time. It could be argued that there will be less as there is a fixed number of pods / occupants ( 2 for each) whereas there is currently no restriction on the number of tents/occupants. The package treatment plant has been spec'd on the basis of peak capacity - touring caravans, pods and tents. Clearly in the applicant's interests to ensure that the treatment plant works well and does not pollute adjacent watercourses. He will need a permit from the EA and if any breaches are found then this could be rescinded – see link <https://www.gov.uk/permits-you-need-for-septic-tanks/you-have-a-septic-tank-or-small-sewage-treatment-plant> Quality of output is therefore a matter for other legislation/ control regimes

The fact that the pods may be in use for more of the year compared to tents again surely isn't an issue as outside of peak season occupancy rates will undoubtedly fall meaning the package treatment plans will be operating well below peak capacity?

Kind Regards

Ian Lyle  
**Director**

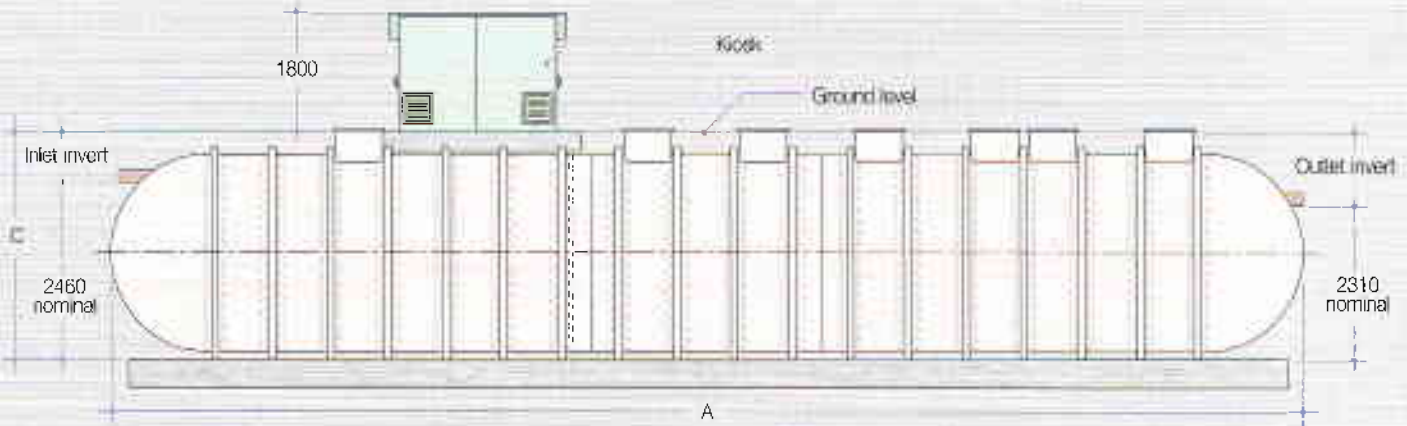


Gateway House, 55 Coniscliffe Road, Darlington Co. Durham, DL3 7EH

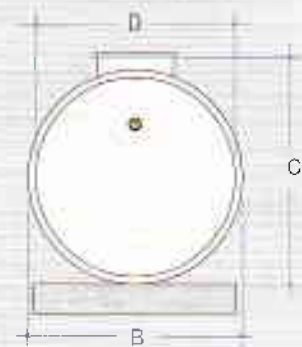
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**Technical Specification**



High Effluent Quality (HEQ) Models	7H	38H	42H	47H	55H	67H	80H
Maximum flow (m <sup>3</sup> /day)	15	20	25	30	40	50	60
Retention time (hrs)	46	39	35	32	28	28	27
Medium Effluent Quality (MEQ) Models	--	38	42	47	55	67	80
Maximum flow (m <sup>3</sup> /day)		17	23	28	35	46	58
Retention time (hrs)		41	34	34	28	26	24
A Overall Length (m)	7.4	8.1	8.9	9.7	11.2	13.5	15.8
B Overall Width (m)	2.8						
C Height (m)							
500mm Inlet / 650mm Outlet Invert*	3.02						
1000mm Inlet / 1150mm Outlet Invert*	3.52						
1500mm Inlet / 1650mm Outlet Invert*	4.02						
2000mm Inlet / 2150mm Outlet Invert*	4.52						
D Diameter (m)	2.6						
Volume (m <sup>3</sup> )	34	38	42	47	55	67	80
Weight approx (kg)	3000	3200	3400	3800	4200	4700	5400
Inlet / Outlet Diameter (mm)	180						



**Notes:**

\* Extension rocks can be added to turrets to achieve deeper inverts. Alternative pipe sizes may be ordered. For deep installations over our standard 2m invert, we recommend an independent civil engineer advice be sourced. Weights are dry weights and installers must ensure there is no water in the tanks before lifting. All weights are approximate. Klargester reserve the right to alter the above dimensions without prior notice.

\*\*See Klargester Biotec™ range, model ref. Biotec™ 7.

**Service & Maintenance**

**Envirosafe's** individual chambers have large dedicated manholes to allow quick and easy maintenance access. Servicing is also simplified as **Envirosafe's** flow control makes it unnecessary to empty the biozones, as is the case with other designs of treatment plant.

As a result, the biozones immediately resume operation following servicing, whilst the influent level is restored.

As a result there is no loss of plant performance during periodic maintenance.

**Specialist Advice**

Delivering high quality effluent requires careful evaluation of the various parameters affecting each scheme. Relatively minor changes may result in the loss of one or more of the required effluent qualities.

Klargester's team of technical specialists assess each site's demands and application and tailor a technical specification to meet the consent requirements.

Plant sizing is not only calculated on current demand but also gauged on potential future loading in order to meet the latest legislative criteria.

## Klargester Envirosafe

### Introducing the new **Envirosafe** range

Heightened environmental standards, more stringent controls, new European guidelines and the introduction of new Building Regulations have placed greater importance than ever before on the need to install correctly sized and specified sewage treatment plants.

Such systems have to deliver high performance, but also be capable of supporting future demand, not just current level of use.

The requirement for a more flexible plant has led to the development of **Envirosafe** – a wholly new range of sewage treatment plant to meet the demands of today's consumer.

We have drawn on over 40 years of expertise in treatment plant technology in order to meet our own strict criteria in the development of the **Envirosafe** plant:

- High and medium rate performance options across a range of influent and effluent qualities
- Adaptable to specific consent requirements including 'Total Nitrogen'
- Low head loss
- Minimal footprint area
- Single piece tank for rapid installation and reduced costs
- Variable invert options
- Minimal visual impact (below ground)
- Low running costs
- May be installed in trafficked areas (subject to loading)
- Compliant with EN-12255
- Designed for applications selected in compliance with British Water Code of Practice Flows and Loads
- Low maintenance
- Alarm protected



#### **Envirosafe Control Panel**

- Weatherproof to IP66 rating, can be externally mounted
- Fully pre-programmed treatment plant control with alarm/fault log
- Automatic re-start from power failure condition
- Integrated level protection
- Visual and audible alarm indicators

## Process Design

**Envirosafe** sewage treatment plants employ a plug flow combination of aerobic and anoxic processes in a fluidised bed arrangement. This operates in conjunction with an advanced system of air diffusers and selected media to deliver optimum levels of purification.

This process takes place in three distinct stages:-

### 1. Primary Settlement

This is the initial stage of treatment and simply involves the retention of coarse solids present in raw sewage and wastewater for subsequent gradual breakdown. **Envirosafe** features two chambers to ensure efficient operation with a flow balancing facility.

### 2. Biological Treatment

Substantial BOD reduction takes place here, where the carbonaceous pollutants are removed by presenting the sewage to the micro-organisms in the presence of oxygen. The treatment is achieved by high efficiency air diffusers continually pumping oxygen through the biological media and fluidised effluent. Standard **Envirosafe** models utilise two aerobic treatment chambers for lower performance applications. Where higher effluent standards are required, the HEQ models employ a third anoxic zone.

### 3. Settlement

A natural by-product of biological treatment is humus sludge and this is separated for further treatment. The treated effluent is discharged via the outlet.

Total nitrogen consents can be achieved with HEQ models (contact our sales office for your application).

## Flow Management

**Envirosafe**'s design incorporates flow management in order to both stabilise influent volume variations and to minimise hydraulic impact on the final settlement process. Such control ensures that final effluent remains at a consistently high quality.

## Options

- Medium (MEQ) and high (HEQ) effluent quality configurations
- Choice of inverts (from 0.5 to 2.0m)
- Duty and Standby blowers (as required)
- Alarm Systems
- Sample chambers
- Pumping stations
- Extension shafts (to 2.0m maximum standard invert)