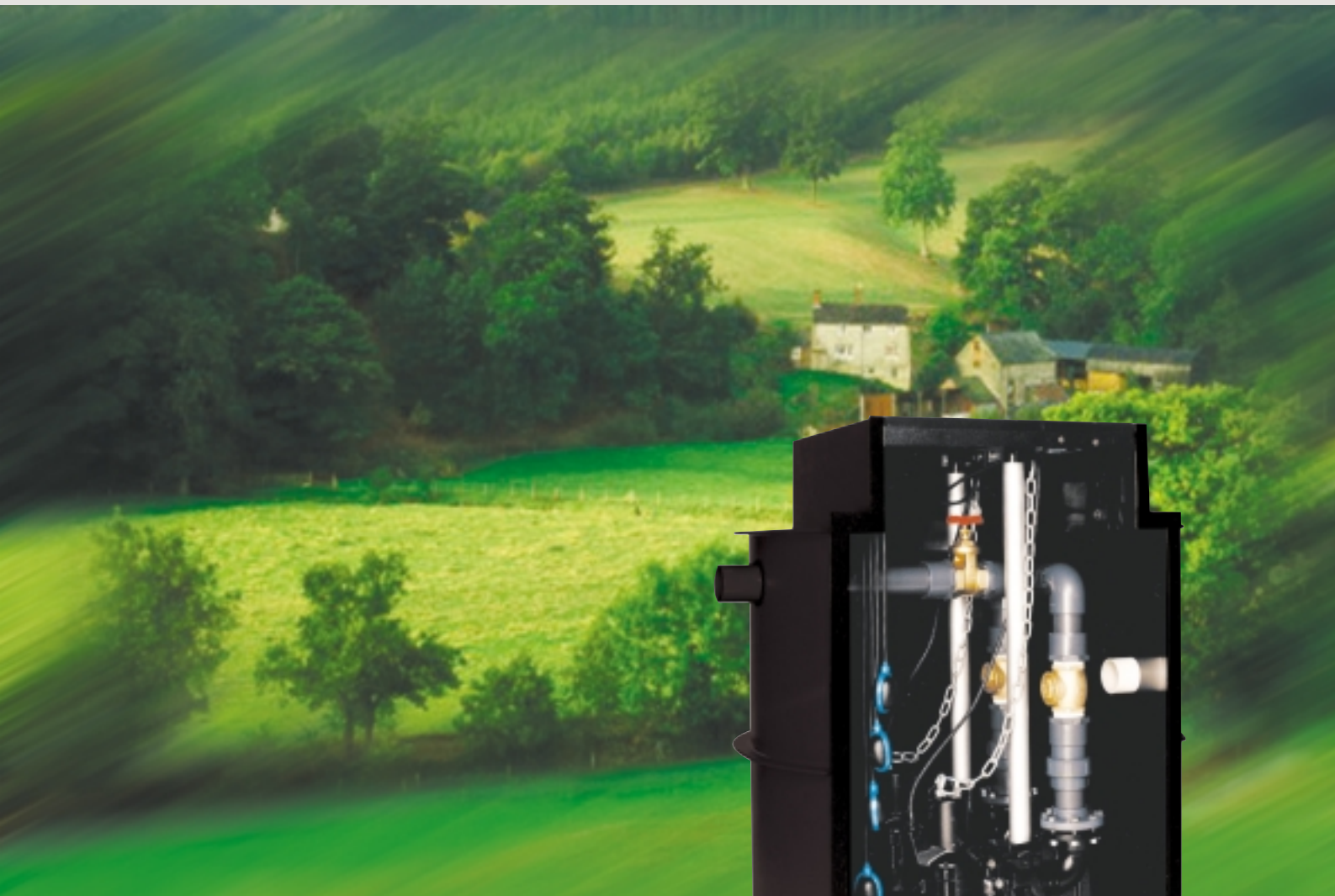


# Package Pump Systems

For Residential & Commercial Developments



[klargester.com](http://klargester.com)

  
***Klargester***

# Package Pump Systems

For Residential & Commercial Developments

## Applications

**Developments where foul drainage by gravity is not possible, including:**

- **Septic tank pumpsets**
- **Domestic sewage pumping**
- **Integral pumpsets for small sewage treatment plants**
- **Twin pumping systems for larger plants**
- **Bespoke systems**

## Features

- Complete package systems delivered direct to site
- Ready for immediate and simple installation
- Factory built and quality assured
- Maintenance free GRP and plastic constructed chambers
- Optional break-down alarm systems available
- Full Klargestar after sales maintenance available
- All Klargestar products are manufactured under the quality procedures of BS ISO 9001: 2000

## Design

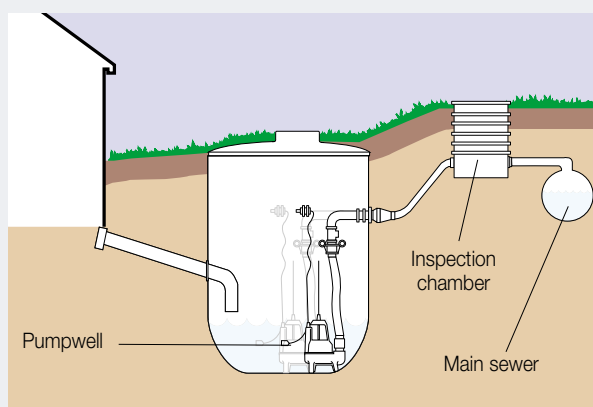
All standard Klargestar package pump systems are supplied complete with GRP/Plastic chambers, pump(s), pre-set automatic level control, non-return valve discharge pipe and fitting to just outside the chamber.

## Domestic Sewage Pumpsets

If the main sewer is accessible but at a higher level than the domestic foul drain, then a domestic sewage pumpset may be used to pump unsettled sewage directly to the main.

Drainage from the house is by gravity into the chamber which is normally situated conveniently in front of the house. The performance chart shown assumes pumping takes place through a MDPE pipe which is compatible with the pumpset outlet fitting supplied.

Whilst single pump units are suitable for individual houses, it is recommended that twin pumping systems be used for multiple dwellings.



## Twin Pumping Systems

For BioDisc®/AirFlow sewage treatment plants of 40 population equivalent and above, or larger septic tank applications, it is recommended that a twin pumping system be used.

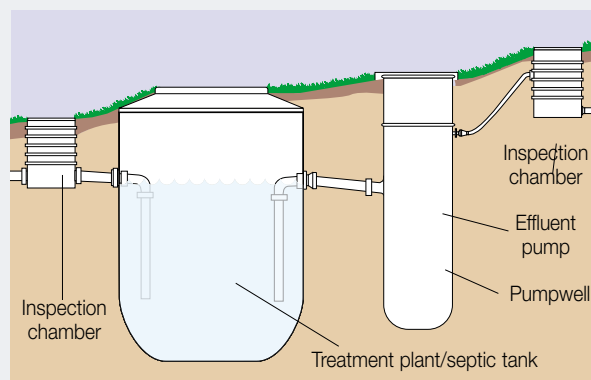
The pumping requirements for these units vary considerably, dependent on such things as the size of the plant, or tank, static or horizontal head and alarm systems required.

Please contact Klargestar for further advice on your specific application.

## Effluent Pumpsets

A septic/treatment pumpset can be used to disperse settled effluent when a site has a high water table or adverse invert levels.

Installed after the septic/treatment system and pumping settled effluent up to an inspection chamber, drainage to the sub surface irrigation system then takes place by gravity in the normal way.



## BioDisc®/AirFlow Integral Pumpsets

Developed specifically for use with the BA & BB BioDisc® and AirFlow AF1-AF4 sewage treatment plants. This pumpset is supplied as an integral part of the plant casing. This simplifies installation and obviates the need for drainage connections between the plant and the chamber.

Normally used where a high water table is encountered or drain invert levels are excessive, the system can pump up to an inspection chamber at the head of the sub-surface irrigation system or directly to a stream or water course, subject to Environmental Agency consent.

## Installation

Installation is quick and economical, the unit requiring only a concrete surround.

## Maintenance

Klargester package pump systems are designed for minimum low cost maintenance.

Klargester offers a full commissioning and after sales service involving planned maintenance visits on the U.K. mainland.

## Options

Alarm systems - for the warning of power or equipment failure, and high level conditions.

## Bespoke Systems

Klargester manufactures pumping chambers of various diameter and depths, either on their own or with pumps, guide rails and control equipment installed as per the client's specification. Please contact us direct and we will be pleased to quote against your specific requirements.

## Delivery and Installation

Units are normally delivered by flat bed vehicle and craneage facilities should be available on-site for off loading. Comprehensive installation instructions are supplied with every unit.

## Nationwide Availability

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

## Service

Whatever the system selected, Klargester have an extensive support package available for commissioning maintenance and repair.

Our extensive nationwide team of trained engineers carry out inspection, service and maintenance.

## Advice

The information in this sales literature is, by necessity, brief. For more detailed technical literature and drawings regarding applications, installation, maintenance or specific options, please contact Klargester. We have both internal and field sales staff who will be pleased to assist.

## Legal Requirements

Prior to installation, there is a legal requirement to obtain a Consent to Discharge from the appropriate agency. Klargester offer full assistance in this respect.



# Domestic Range



## Design Criteria

Suggest max useable heads as follows, low head = 7m, med head = 14m, high head = 20m.

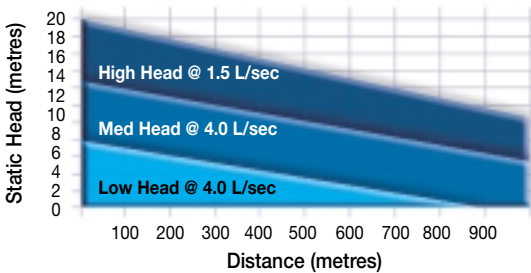
As a guide approx total head can be calculated by Distance X 0.03 + lift + tank depth.

Max inflows are for domestic use only, commercial applications to be assessed individually.

Station size guide as follows, 1220 denotes 1200 dia. x 2000 deep. Use three phase power if available.

## Single Package Pump

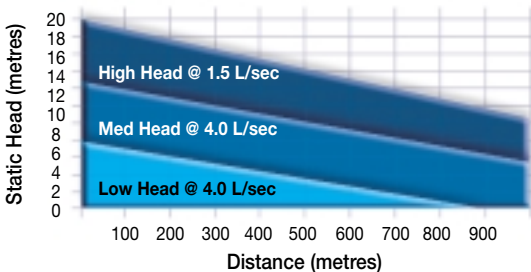
Pump Selection Graph



Station Size (m)	Power	Invert (m)	Duty (m)	Rising Main OD	Max Inflow m <sup>3</sup> /day
1020	1 ph/3 ph	1m	low head	90mm	1.5
1020	3 ph	1m	med head	90mm	1.5
1020	3 ph	1m	high head	63mm	1.5
1025	1 ph/3 ph	1.5m	low head	90mm	1.5
1025	3 ph	1.5m	med head	90mm	1.5
1025	3 ph	1.5m	high head	63mm	1.5
1030	1 ph/3 ph	2m	low head	90mm	1.5
1030	3 ph	2m	med head	90mm	1.5
1030	3 ph	2m	high head	63mm	1.5

## 1000 Twin Package Pump

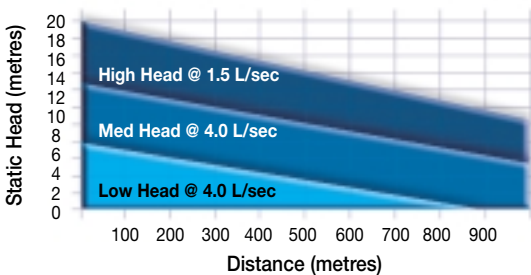
Pump Selection Graph



Station Size (m)	Power	Invert (m)	Duty (m)	Rising Main OD	Max Inflow m <sup>3</sup> /day
1020	1 ph/3 ph	1m	low head	90mm	5
1025	1 ph/3 ph	1.5m	low head	90mm	5
1030	1 ph/3 ph	2m	low head	90mm	5

## 1200 Twin Package Pump

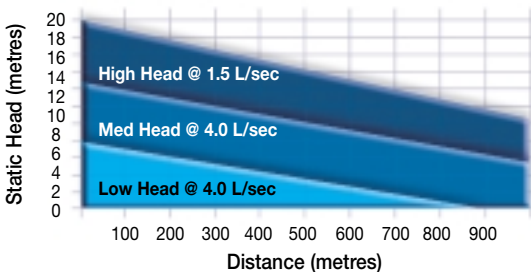
Pump Selection Graph



Station Size (m)	Power	Invert (m)	Duty (m)	Rising Main OD	Max Inflow m <sup>3</sup> /day
1220	1 ph/3 ph	1m	low head	90mm	10
1220	3 ph	1m	med head	90mm	10
1220	3 ph	1m	high head	63mm	10
1225	1 ph/3 ph	1.5m	low head	90mm	10
1225	3 ph	1.5m	med head	90mm	10
1225	3 ph	1.5m	high head	63mm	10
1230	1 ph/3 ph	2m	low head	90mm	10
1230	3 ph	2m	med head	90mm	10
1230	3 ph	2m	high head	63mm	10

## 1500 Twin Package Pump

Pump Selection Graph



Station Size (m)	Power	Invert (m)	Duty (m)	Rising Main OD	Max Inflow m <sup>3</sup> /day
1520	1 ph/3 ph	1m	low head	90mm	15
1520	3 ph	1m	med head	90mm	15
1520	3 ph	1m	high head	63mm	15
1525	1 ph/3 ph	1.5m	low head	90mm	15
1525	3 ph	1.5m	med head	90mm	15
1525	3 ph	1.5m	high head	63mm	15
1530	1 ph/3 ph	2m	low head	90mm	15
1530	3 ph	2m	med head	90mm	15
1530	3 ph	2m	high head	63mm	15

# Standard Range

## Effluent/Domestic Sewage

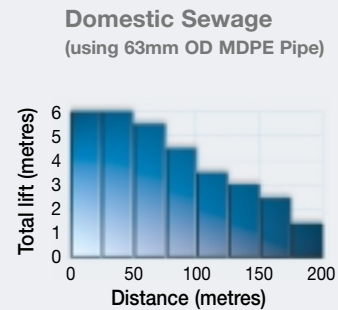
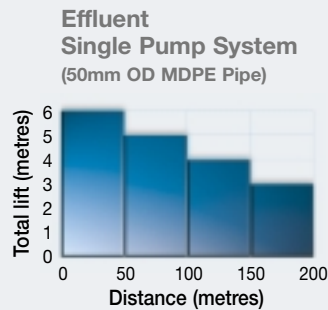
Both groups of pump stations come with the option of a single or twin pump (alternative run/standby) covering a wide range of situations from a single house to commercial applications (such as public houses and hotels).

Three phase pumps should be purchased for use in preference to single phase if the supply is available, especially in macerating applications.

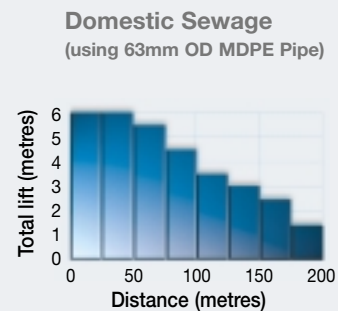
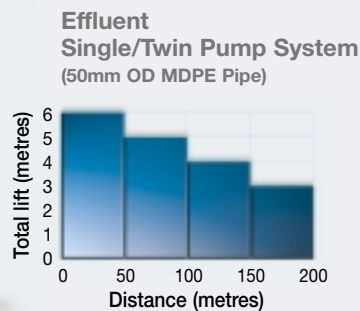
### Klargester Pump Stations can also offer:-

- Lockable covers
- High level alarms
- Wide range of emergency overflow tanks
- 110mm or 160mm inlet connections
- Various invert depths
- Air release valves
- Spare boxed pumps
- Maintenance contracts

## Single Pump - Effluent/Domestic Sewage



## Single/Twin Pump - Effluent/Domestic Sewage

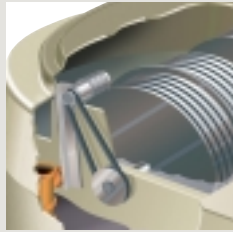


## Outlet Terminations and Rising Main Requirements

The diameter and type of rising main to be used varies from pump to pump but the general rule is 50mm, 63mm, 90mm outside diameter black medium density polyethylene (MDPE) 6 bar pressure pipe.

# Klargester Off-Mains Solutions

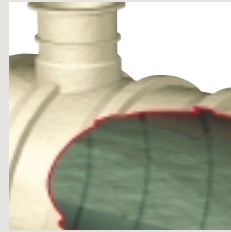
TREAT IT!



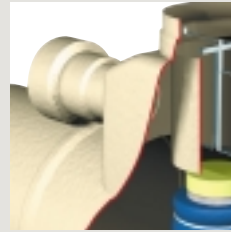
PUMP IT!



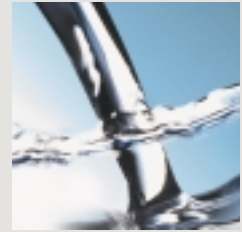
STORE IT!



SEPARATE IT!



SAVE IT!



- BioDisc® Sewage Treatment Plants
- AirFlow Sewage Treatment Plants
- Sigma Sewage Treatment Plants
- Package Pump Systems
- Septic Tanks
- Cesspools
- Grease Traps
- Light Liquid Separators
- Silage Effluent Tanks
- Reed Beds
- Rainwater Harvesting



## Certified Installers

Strategically located throughout the UK, Klargester Certified Installers are appointed following rigorous selection procedures which assess their installation expertise, reputation and financial status.

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



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