

KAISER | WHALE

*Reliability, Service, Value ... for Life*



## THE KING OF RECYCLERS

*Sewer cleaning jet-vac with continuous water recycling*





# KAISER | WHALE

*The KAISERWhale is recognised in the UK as the leading highly specialised sewer cleaning solution with continuous dirty water recycling. By effectively reusing dirty water for jetting, the KAISERWhale maximises time spent working, whilst minimising time wasted tapping into precious clean water supplies.*

*Designed and built to meet the specific needs of operators across the UK and Ireland, the KAISERWhale is an effective, powerful jetter and sewer cleaner that is available in 16, 18, 26, 32 and 44 tonnes, plus demountable variants.*

*Developed in exclusive technical partnership with Kaiser AG – the acknowledged European leader in water recycling equipment – the KAISERWhale offers significant operational benefits when it comes to specialist sewer cleaning operations.*





## A PROVEN PEDIGREE

Central to the success of the partnership that exists between Whale Tankers and Kaiser AG is synergy, something third generation Markus Kaiser and managing director of the Kaiser AG operation today is keen to point out. "Being like-minded businesses, Kaiser AG and Whale are innovators in technology and this lies at the heart of the success of the partnership, and has done so since day one. Not only do we share the same vision on recycling, the transfer of specialist technologies has resulted in the development and delivery of a dirty water recycling solution that has been tailored to meet the needs of the UK marketplace. If you add into the equation Whale's reputation for its technical expertise and the support infrastructure that they have in place, the potential for the ongoing future development of the partnership is substantial."

Markus Kaiser



**'Simply the best recycler in the UK'**

**Steve Hoad**  
Managing Director  
Hydro Cleansing Ltd



- Continuous Dirty Water Recycling
- Rotomax - A unique Single Self Cleaning Filter System
- Filter Cleaning - Low & High Pressure Spray Bars
- HP Water Pump - Specifically developed for Dirty Water Recycling
- No Cyclone or Settling Tanks required
- Load Sensing Hydraulics  
No Unloader Valve required - Saves Fuel
- More Operational Hours on-site per day
- Better utilization of Fresh Water Resources
- PLC & Can-Bus - Simplifies Operation and allows diagnostics
- Liquid Ring Vacuum Pumps mounted inside the tank - gives increased efficiency - better cooling - low noise and protects from frost
- Single or Double Liquid Ring Vacuum Pump arrangement
- Tank designed for 1 Bar Pressure Discharge
- Hydraulically Operated Flip Division  
Allows for Fresh Water Jetting Option
- Bespoke Storage & Lighting Solutions



## JETTING

While the waste is being loaded into the main tank Dirty Water is taken from the load and passes through the **Rotomax filter 1**. Filtered down to 500 microns, with an option of 300 microns, it is then fed to the Centrifugal pump.

The Rotomax is washed continually by a **Low Pressure Spray bar 2** creating a barrier from the solids within the load. When the going gets tough there is an additional and selectable **High Pressure Spray Bar 3** to clean the Rotomax filter.

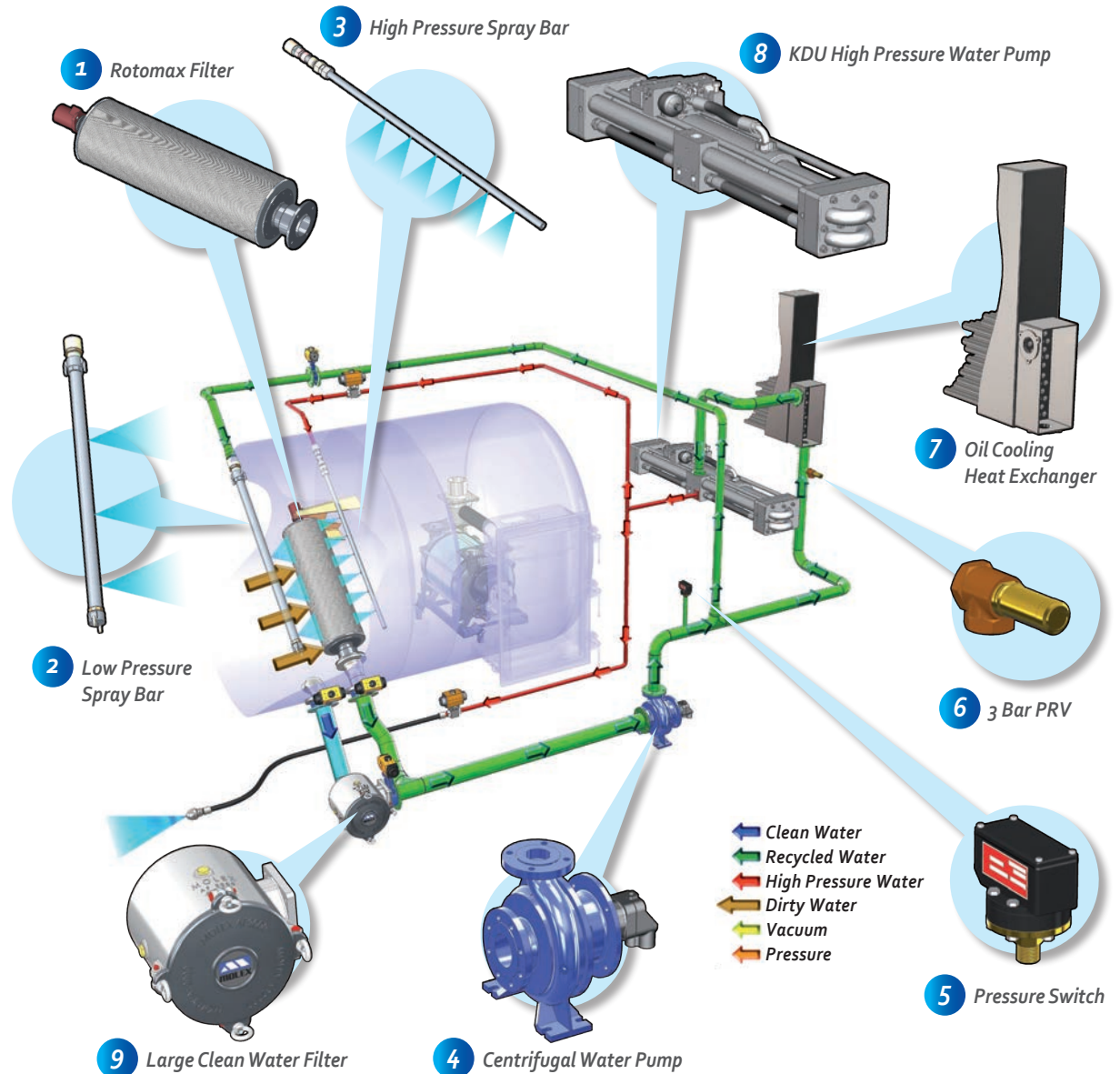
The flow from the **Centrifugal pump 4** is 800Litres Per Min, a **Pressure switch 5** and a **Pressure Relief Valve 6** in the feed line ensures that water is delivered at the correct rate of flow and pressure. The system will shut down if the flow and pressure is insufficient. The flow is divided in two, half goes to the continuous cleaning low pressure spray bar on the Rotomax Filter and the other half goes to the **Heat Exchanger 7** and used to cool the Hydraulic oil.

After passing through the Heat Exchanger the flow is sent to the **KDU High Pressure Pump 8** which supplies the Jetting Hose Reels and this water is fed under pressure up to 200bar and 90 gpm via high performance nozzles to clean the sewer lines, by flushing the debris backwards. The Jetting nozzle forces itself up the drain against the flow and then it is pulled back by the hydraulic hose reel bringing the debris back with it.

The same water along with the silt and debris is then sucked out of the drain so that the process can begin all over again –

### CONTINUOUS DIRTY WATER RECYCLING

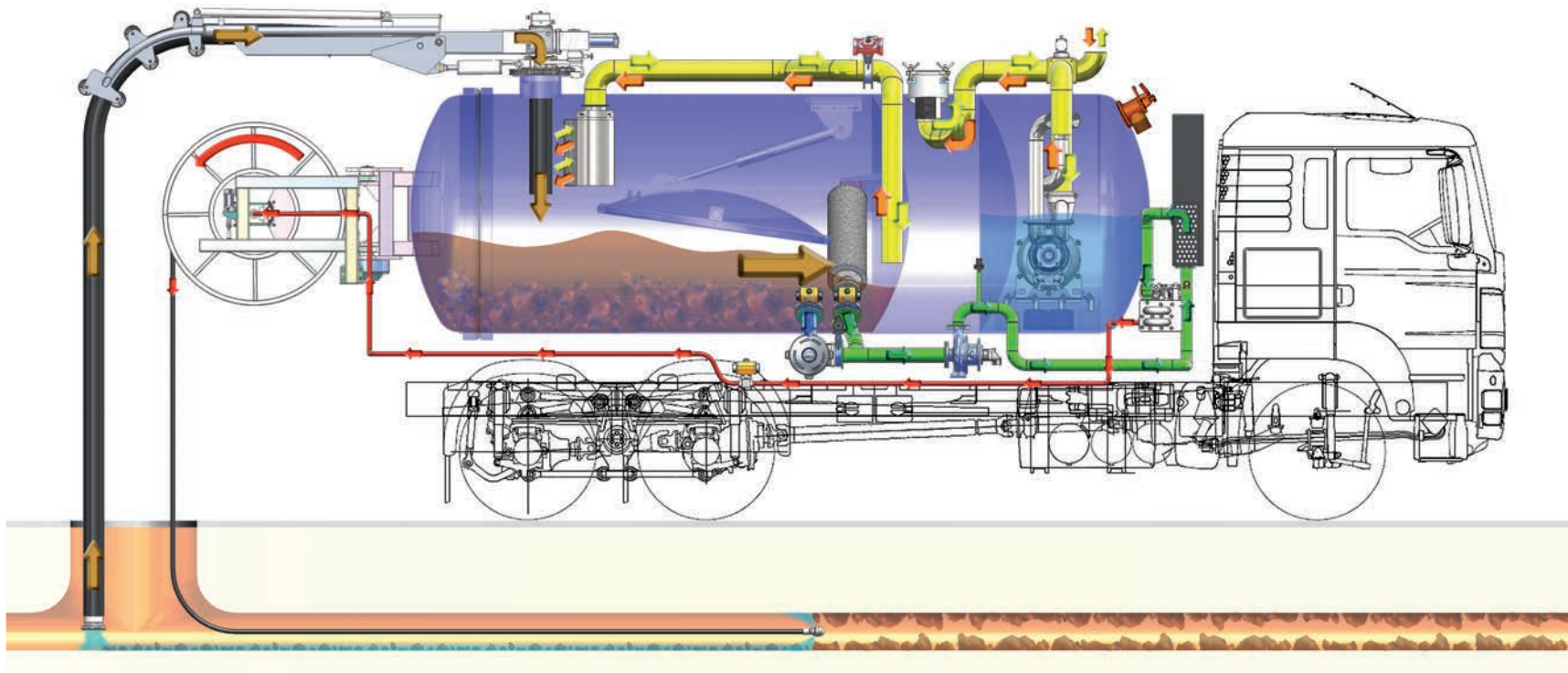
Providing further versatility the system can be used with Clean Water via a **Mesh Filter 9** and supply valve, the Clean Water compartment is formed from a Flip Division with a pneumatic seal in the main tank.



## HOW IT WORKS

### LOADING

- **The KWP Liquid Ring Vacuum Pump** generates a Vacuum inside the main tank.
- Hoses are connected to the **Hydraulic Overhead Loading Boom** and are lowered into the Drain or Sewer.
- **Vacuum Loading:** When the Valve is opened, Atmospheric pressure tries to equalise the Vacuum in the tank and pushes the water and waste up the hose and into the tank. This vertical lift process works down to a maximum depth of 8.6m.
- **Air Conveying:** To load from deeper depths, air is allowed to enter the loading hose just above the waste and water, creating a strong air flow up the hose to convey the load into the tank.



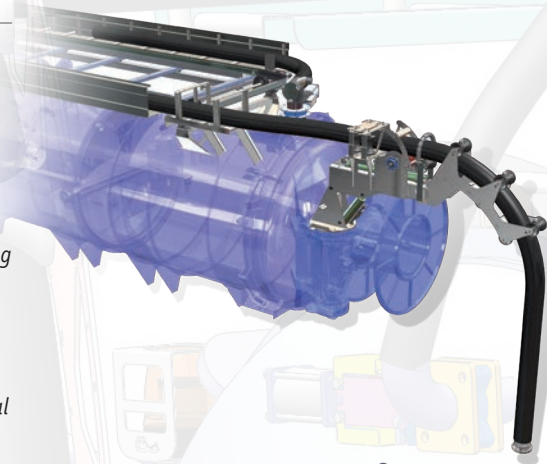


# KAISER | WHALE

## LOADING BOOMS

Equipped as standard with the fully hydraulic overhead loading boom, the KaiserWhale also offers alternatives as upgrades. There is the Spiral Boom with full hydraulic control having a reach below ground of 8m without attaching extra hoses, the Spiral Boom can also be further upgraded to include hydraulic lifting of the Boom arm. In addition there is the Cassette boom which has a reach of 10m below ground without attaching extra hoses.

All booms are designed to minimise manual handling.



## RADIO REMOTE CONTROL

Why not have all the controls at your fingertips, with Radio Remote Control that's exactly what you can have.

The system is specifically developed for the harsh environment of our industry, taking advantage of cutting edge technology this robust system is a real advantage for any operator.



## STORAGE

Whether it is dedicated storage for PPE, Nozzles, Tools or Road signs the Kaiserwhale standard package for storage is maximised. Customers can also request made to measure storage solutions.



## DIRTY WATER RECYCLING JETTING NOZZLES

For special performance Jetting Pumps you need very special Jetting Nozzles, any jetter is only as good as the Nozzles used. The KaiserWhale comes standard with high performance nozzles balanced at the factory for maximum performance and featuring ceramic inserts, the only way to cope with the demands of recycled water. In addition to the standard nozzles supplied there is a vast range of high performance special nozzles available.



## FLIP BUTTERFLY DIVISION

Hydraulically operated, this division gives greater flexibility of operation, when closed with the pneumatic seal inflated it provides two separate compartments, which allows the tanker to be operated as a traditional Jet-Vac. In addition with the division closed but with seal deflated it can act as coarse pre filter for the Rotomax Filter.

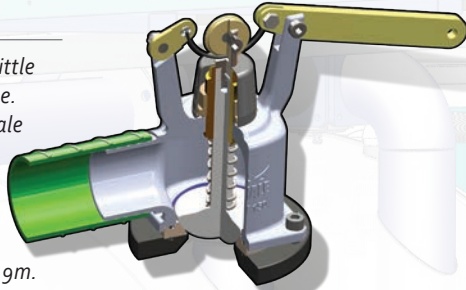




# Reliability, Service, Value ... for Life

## 1 BAR PRESSURE

Sometimes you may need to have a little extra power on the pressure discharge. Incorporating the Type Approved Whale Pressure Relief Valve and specially designed changeover valve, the working pressure is increased to 1 bar. This gives the facility to blow the waste vertically up to 30ft / 9m.

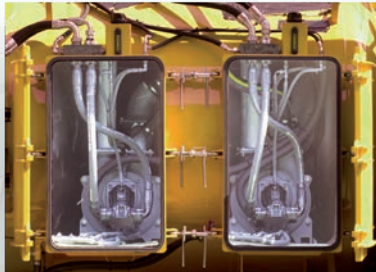


## LIQUID RING VACUUM PUMP

Made from a lightweight Alloy giving a 60% weight saving with a Teflon interior coating it is a premium product.

Partially submerged in its own supply of sealing water it is better equipped to deal with a range of temperatures and noise is kept to a minimum.

When one pump isn't enough why not have two, giving a maximum of 3600 CFM, the operator can select one or two pumps, depending on the work load.



## FRESH WATER JETTING

On occasions you may want to operate the Jetting unit with continuous fresh water, with the flip division in place and the seal inflated you can supply the jetting pump through an additional filtered supply system from the front compartment.

## UNIQUE ROTOMAX FILTRATION SYSTEM

A single stage 500 micron or optional 300 micron Stainless Steel wedge wire filter in the form of a cylinder, the filter rotates alternatively clockwise and anticlockwise. With a high surface area the filter handles 800litres of water per minute. The filter is constantly washed by a spray bar, using recycled water which creates a turbulent area around the filter maximising the cleaning process.

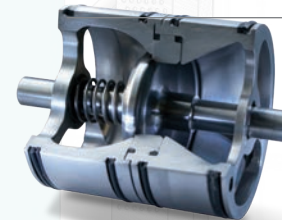
In extremely hostile environments the operators have the option of using the High Pressure spray bar operating at 200bar.



## KDU JETTING VALVE

This specially designed valve in the pump cylinder head handles the recycled water at a serious pressure. It has the advantage of being reversible and therefore doubling the life.

The valve is very accessible and can be changed or reversed within 1 hour.



## KDU JETTING PUMP

At the heart of the KaiserWhale is the KDU Jetting Pump, having the major advantage of being specifically manufactured to cope with fat and water containing up to 500 microns of suspended solids. The KDU operates at a much slower speed than triplex units which reduces wear and noise levels. A large diameter pump cylinder delivers high flow and pressure performance. Integral with the pump package is an accumulator that smooths out the flow, a heat exchanger to cool the load sensing hydraulics, tank tipping ram, body prop and oil reservoir. Performance: up to 90gpm and 200Bar.



## FEATURES AND OPTIONS

### FEATURES INCLUDED AS STANDARD

	16T	18T	26T	32T	Semi trailer	Demount
<i>Specially Developed Single Piston HP Water Pump</i>	✓	✓	✓	✓	✓	✓
<i>Rotomax 500 micron rotating filter with Auto Flushing</i>	✓	✓	✓	✓	✓	✓
<i>High Pressure Cleaning Spray Bar to Rotomax Filter</i>	✓	✓	✓	✓	✓	✓
<i>Programmable Logic Controller</i>	✓	✓	✓	✓	✓	✓
<i>System PRV - (Type Approved)</i>	✓	✓	✓	✓	✓	✓
<i>Electronic Water Pressure Controller</i>	✓	✓	✓	✓	✓	✓
<i>Jetting Soft Start</i>	✓	✓	✓	✓	✓	✓
<i>Jetting Safe Start</i>	✓	✓	✓	✓	✓	✓
<i>Hydrostatic Water Sensor</i>	✓	✓	✓	✓	✓	✓
<i>Pneumatic purge to jetting system for cold weather</i>	✓	✓	✓	✓	✓	✓
<i>Extended Tank and Paintwork Warranty</i>	✓	✓	✓	✓	✓	✓
<i>MyWhaleFleet Management Tool</i>	✓	✓	✓	✓	✓	✓

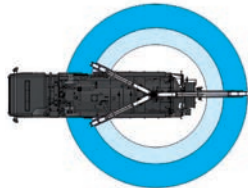
### OPTIONAL UPGRADES

	16T	18T	26T	32T	Semi trailer	Demount
<i>Hydraulically Powered Flip Division</i>			✓	✓	✓	✓
<i>Cassette Type Overhead Hydraulic Loading Boom</i>			✓	✓	✓	
<i>Spiral Type Overhead Loading Boom</i>	✓		✓	✓	✓	
<i>Spiral Type Overhead Loading Boom + Hydraulic Front Boom Lift</i>	✓		✓	✓	✓	
<i>Up rated Jetting Performance</i>			✓	✓	✓	✓
<i>Fresh Water Jetting System</i>	✓	✓	✓	✓	✓	✓
<i>Extra Jetting hose length</i>	✓		✓	✓	✓	✓
<i>Rubber Jetting Hose in lieu of Thermoplastic</i>	✓	✓	✓	✓	✓	✓
<i>Additional KWP Vacuum Pump</i>			✓	✓	✓	
<i>WhaleCARE Preventative Maintenance Package</i>	✓	✓	✓	✓	✓	✓
<i>Whale Smart Control</i>	✓	✓	✓	✓	✓	✓
<i>Stainless Steel Tank Barrel</i>	✓	✓	✓	✓	✓	✓
<i>Stainless Steel Internal Tank Liner</i>	✓	✓	✓	✓	✓	✓
<i>Heated PPE Locker in Stainless Steel</i>	✓	✓	✓	✓	✓	✓
<i>Chapter 8 Requirements</i>	✓	✓	✓	✓	✓	
<i>Hose Reel Meter with Digital Display</i>	✓	✓	✓	✓	✓	✓
<i>Nozzle Storage Locker</i>	✓	✓	✓	✓	✓	✓
<i>Bespoke Storage for Tools etc</i>	✓	✓	✓	✓	✓	✓
<i>Additional Lighting and Warning Beacons etc</i>	✓	✓	✓	✓	✓	
<i>Data Card Reader or GPRS</i>	✓	✓	✓	✓	✓	
<i>Radio Remote Control</i>	✓	✓	✓	✓	✓	✓
<i>Progressive Radio Remote Control</i>	✓	✓	✓	✓	✓	✓
<i>Radio Remote Control - Feedback System</i>	✓	✓	✓	✓	✓	✓
<i>Whale iWeigh system</i>	✓	✓	✓	✓	✓	

## BOOM STYLES & WORKING RANGE

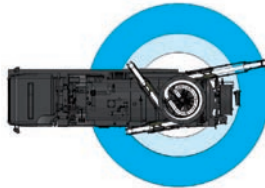
**Key:** Working range in the Extended position  
Working range in the Retracted position

Standard Hydraulic Overhead Loading Boom



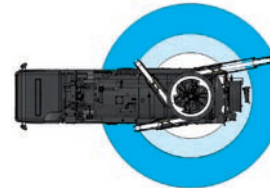
Available in: 4" & 5" & 6" Diameter  
 Requires additional hoses to reach below ground

Spiral Boom with Extension and Hydraulic Lift



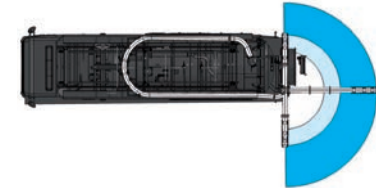
Available in: 4" & 6" Diameter  
 Reach below ground = 8m

Spiral Boom with Extension



Available in: 4" & 6" Diameter  
 Reach below ground = 8m

Cassette with Hydraulic Raise / Lower and Extension Boom



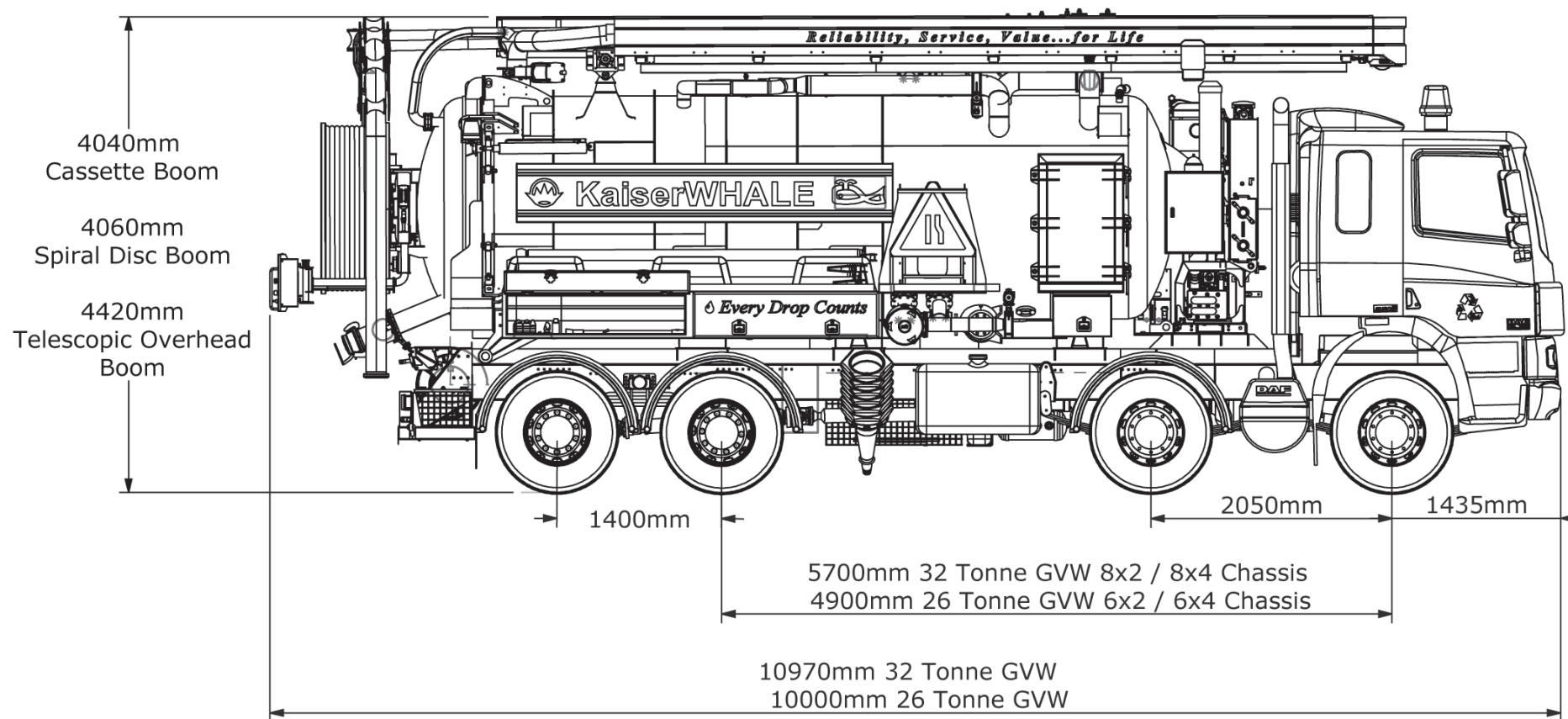
Available in: 5" & 6" Diameter  
 Reach below ground = 10m





## SPECIFICATION

All dimensions are nominal and will be subject to change depending on Chassis/Cab choice



## SUPPORT

One of Whale's primary objectives is to maximise operating performance by keeping downtime to an absolute minimum, leading to significantly reduced whole life costs. This is achieved by a service and parts operation that is the envy of the industry. In addition to extensive parts stock and availability, Whale offers routine and preventative maintenance packages.

## QUALITY

Whale Tankers care about quality across all aspects of its business. Indeed it is a word that characterises the company. Whale is an ISO9001 registered company. The manufacturing of both Trailers and HGV'S has also been granted Conformity of Production by the VCA.

## TRAINING

Central to Whale's success is not only the training of its workforce, but also the provision of recognised, accredited and non-accredited courses that have been structured to meet the changing needs of today's waste water and sewerage industries. The company is also respected for its onsite commissioning of all new vehicles for its customers.

## ENVIRONMENT

Whale Tankers is a green canvas through and through, encompassing its products, production processes, staff training and its interaction with its environment. Always focusing its efforts on minimising its impact on the environment, Whale is synonymous with the 'Green' concept. Operating an environmental quality system accredited to ISO14001, Whale Tankers continues to embrace proven environmental initiatives, whilst being committed to delivering on its promises for decades to come. Whale was for example one of the first companies to embrace low carbon technologies. Occupying an industrial site nestled within a 160 acre green belt area, Whale takes its immediate environment extremely seriously and treats it with the utmost sensitivity, creating its own Whale forest through the ongoing planting of more than 24,000 indigenous trees. Whale Tankers - home to an idyllic environment, green products and processes, and living proof that nature and manufacturing can co-exist together in perfect harmony.

Whale Tankers manufacture a wide range of vehicles and provide many other services. For a copy of any of the following brochures, or for further information, either call us today on: 0121-704 5700, email us at [sales@whale.co.uk](mailto:sales@whale.co.uk), or visit our website at [www.whale.co.uk](http://www.whale.co.uk)



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AQUA | WHALE

CITY | WHALE

CITY | CYCLER

GULLY | WHALE

COMPACT | WHALE

GULLY | WHALE

MEGA | WHALE

VACUUM | WHALE

KILO | WHALE

BESPOKE | WHALE

DEMOUNTABLE | WHALE

WATER | WHALE

WHALE | SERVICE

WHALE | CARE

WHALE | PARTS

WHALE | USED

**HOT/COLD PRESSURE WASHING**

**TRAILER PUMP SETS**

**VAN PACKS**



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