



**KAISER
WHALE**

WHALEWATER
DRINKING WATER SYSTEM 



WHALE TANKERS

Reliability, Service, Value ... for Life



“Continuing to lead the field in terms of product innovation and development, Whale Tankers has developed a unique drinking water solution that is being welcomed by the leading water authorities across the UK”

With current equipment and technologies nearing the end of their expected product lifecycle, Water Authorities are focusing their energies investing in the optimum infrastructure to ensure water supplies can be maintained in both urban and rural areas should a mains system fail. Enter Whale Tankers and its highly efficient WhaleWater – a technologically advanced Variable Speed Pump (VSP) system that has been designed to be fitted to new vehicles, or retrofitted to older vehicles both within Water Authorities' and sub-contractor fleets.



VSP PUMPING SYSTEM

- DWI (Drinking Water Inspectorate) Approved - regulation 31(4) (A) of the water supply (Water Quality) Regulations 2016 SI No 614 (As Amended) & The Water Supply (Water Quality) Regulations 2018 SI No 647 (W.121). DWI Ref Number 56.4.662
- Accredited for NIEA (Northern Ireland Environment Agency) - The Water Supply (Water Quality) Regulations (Northern Ireland) 2017.
- Automated system allowing re-supplying of the mains water, by directly pumping into the network using variable flow and pressure as required.
- Pump and Pipework mounted inside a thermostatically controlled cabinet to prevent freezing and minimise environmental noise.
- Rear Roller shutter doors, with the addition of a side lockable control door for security. Access not required to valves, engine and pump during operation allowing unattended working.
- Thermostatically controlled cabinet with air vents and additional fans for drawing and extraction of air for optimised cooling.
- Water sampling vales adjacent to inlet and outlet connections.
- Centralised drain down plate incorporating all valves required for system drain down.
- Inlet/outlet Couplings are fitted with sensors ensuring appropriate hoses are correctly installed.
- Designed to be installed on a range of new tankers from 18 Tonne GVW to 44 Tonne GVW or retro-fitted to customers' existing tankers.

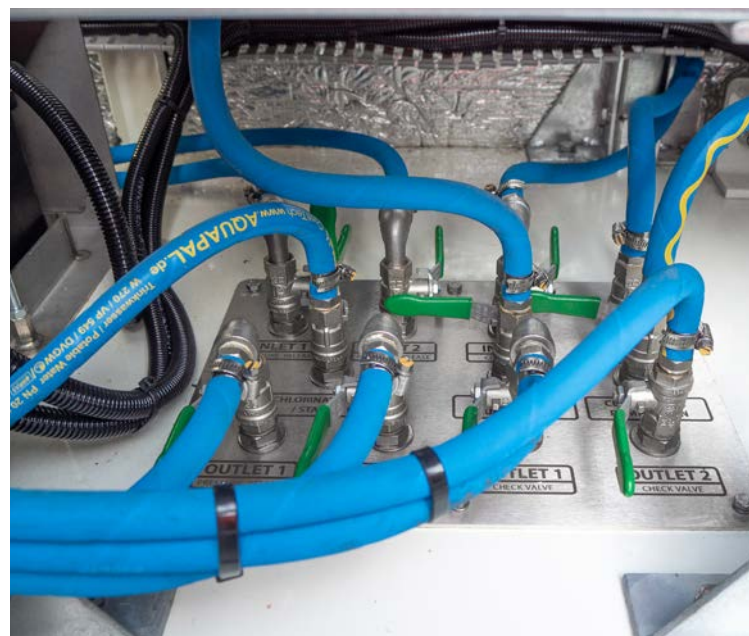
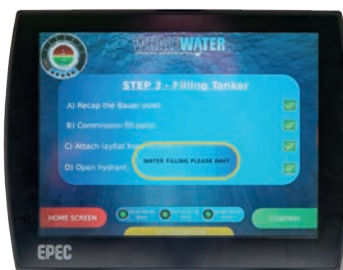


VSP CONTROL FUNCTIONS AND OPERATION

- High Definition Touch Screen interface.
- GSM module available for remote dial in and monitoring.
- Step by step operation with visual prompts, levels and pop up warnings.
- Automated to prevent pump running when tanker is empty.
- WRAS approved flow meter integral to pumping system.
- Screen showing live time flow and pressure.

Basic control system Modes:

- **Closed Network** - automatically re-establishes the supply of drinking water back into the mains supply, allows the operator to programme the required pressure between 20mHd and 80mHd which is then automatically maintained.
- **Open Network** - mode used to either discharge or transfer from the prime tank to another storage source at high flow. Over pumping facility allows the VSP to be used as a transfer pumping station.
- **Tanker Fill** - Is an automated feature so the unit stops filling when the GVW has been reached on the Water Tanker.
- **Auto Fill** - automated programme allowing the water tanker to be kept topped up from an additional water supply.
- **Cleaning and Preparation** - automated programme allowing the water tanker to be kept topped up from an additional water supply.



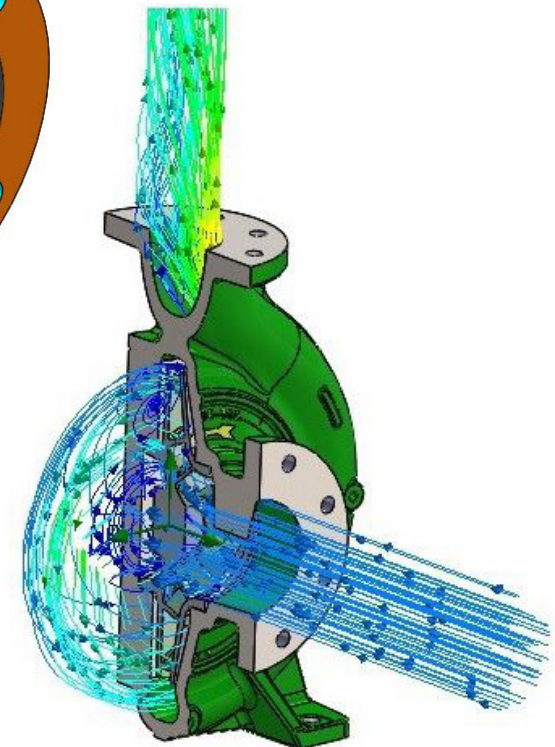
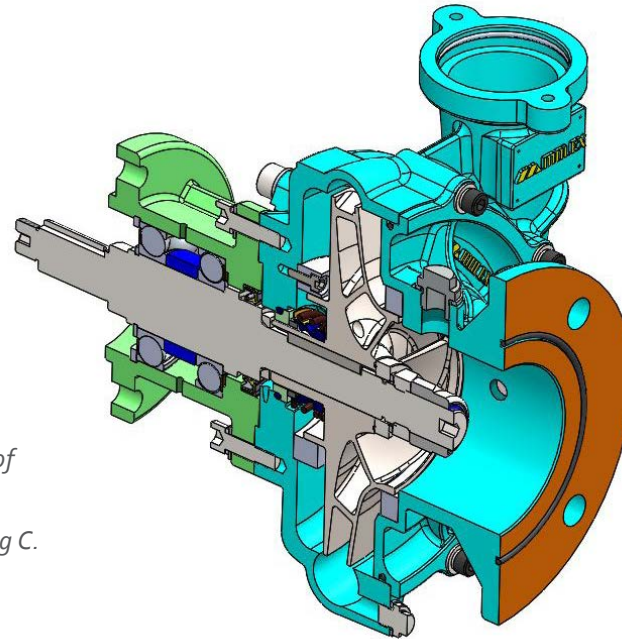
BATTERIES AND LIGHTING

- Self-contained system with a split charging and battery protection providing reliable electrical power.
- System detects low battery power and will automatically start engine to charge batteries.
- 230VAC 16a 50Hz LudoPLUG mains power plug fitted with automatic power connector release. Ensures twin output 12V intelligent independent charge to engine and auxiliary batteries.
- Two off auxiliary AGM Sealed lead acid 125amp deep cycle leisure batteries fitted external in galvanised battery compartment.
- CAN power charge and protection fitted and CAN power battery isolator fitted.
- LED lighting fitted in enclosure with PIR and controller switching.
- LED High Powered 1400 Lumens scenic lights designed to illuminate downwards, IP67 rated, illuminates an area of approximately 30m². Fitted to Tanker and VSP cabinet.



MOLEX AQUA 220 (CENTRIFUGAL WATER PUMP)

- Water Regulations Advisory Scheme (WRAS) Approved Product - Certified in accordance with: The Water Supply (Water Fittings) Regulations 1999, The Water Supply (Water Fittings) (Scotland) Water Byelaws 2014, The Water Supply Regulations (Northern Ireland) 2009 and all other applicable WRAS requirements, (WRAS certificate No 2105303).
- Complies with the small surface area calculation in accordance with approval of products for use with drinking water advice sheet 8: Small Surface Area Products Regulations 31 (4)(B.)
- Kiwa UK Regulation 4 (KUKreg4) Approval (Certificate No 2104703).
- Capable of – Maximum flow of 2200 Litres per minute at a pressure of 0-8 Bar, variable as required.
- Suitable for continuous use up to an operating temperature of 45 Deg C.
- Stainless Steel Grade 316 outer casing, shaft and impeller.
- Fitted with WRAS approved Mechanical seals.
- Molex Aqua 220 has an incorporated bearing head, fitted with angular contact bearings. This design removes side loads to the impeller ensuring only pure torque loads are generated, allowing increased performance and longevity to rotating parts.
- AQUA 220 PUMP is suitable for all water tanker applications and for skid mounting. Engine driven or hydraulically drive option available.
- Optimisation of internal casing, ports and impeller design using Computational fluid dynamics (CFD) flow analysis ensures low minimal frictional losses occur and pump performance has being enhanced by laminar flow. This also reduces potential noise and cavitation across the variable flow range.



ENGINE AND FUEL TANK

- *Kubota WG Series (3-cylinder) 24.2 KW Petrol engine complies with EU Stage V.*
- *Engine installation approved by Kubota.*
- *Kubota inline pre-filter and fuel feed pump fitted.*
- *Fuel lines installed meeting SAE 30R7 Specification.*
- *Type approved aluminium fuel tank fitted externally having a vehicle type filler cap.*
- *Large capacity fuel tank with a 12 hours running time before refilling.*
- *Engine skid mounted on compliant flexible engine mountings to reduce noise and vibration.*
- *Engine is easily accessible or removable for service and repair.*



DRINKING VESSEL

- DWI (Drinking Water Inspectorate) Approved - regulation 31(4)(A) of the water supply (Water Quality) Regulations 2016 SI No 614 (As Amended) & The Water Supply (Water Quality) regulations 2018 SI No 647 (W.121). DWI Ref Number 56.4.662.
- Accredited for NIEA (Northern Ireland Environment Agency) - The Water Supply (Water Quality) Regulations (Northern Ireland) 2017.
- Designed and manufactured to cover a range of vehicles from 18 Tonne GVW to 44 Tonne GVW.
- Stainless Steel Grade 316 to all wetted parts all seals DWI approved.
- All valves lockable and manufactured from Stainless Steel Grade 316.
- Tank structure designed and manufactured to be fully vacuum rated (-1 Bar 28"hg).
- Cleaning nozzles fitted to each tank section to allow chlorination cleaning.
- Passivation of internal surfaces carried out prior to delivery This ensures the removal of free iron and other surface contamination from stainless steel and also enhances the spontaneous formation of a protective passive film barrier.
- Ample storage for signs, road cones and barriers with a range of stainless steel lockable lockers available dependant on vehicle size and configuration.



WRAS
WATER REGULATIONS ADVISORY SCHEME

dwi

NIEA | Northern Ireland
Environment
Agency
www.daera-ni.gov.uk



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, or visit our website at www.whale.co.uk

AQUA | WHALE

CITY | CYCLER

GULLY | WHALE

COMPACT | WHALE

GULLY | WHALE

MEGA | WHALE

VACUUM | WHALE

WHALE | VAC

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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