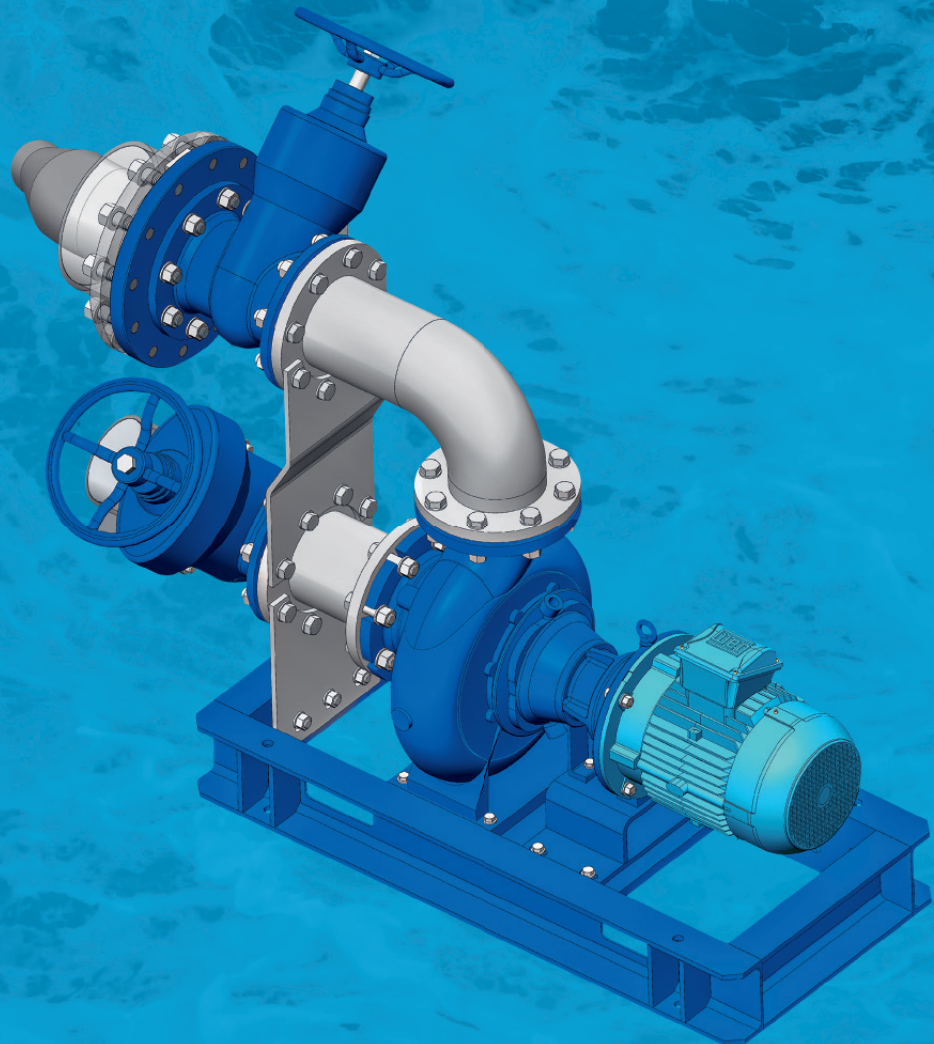




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Hidromix Pump Mixing Systems

The Alternative to Conventional Submersible & Gas Mixing



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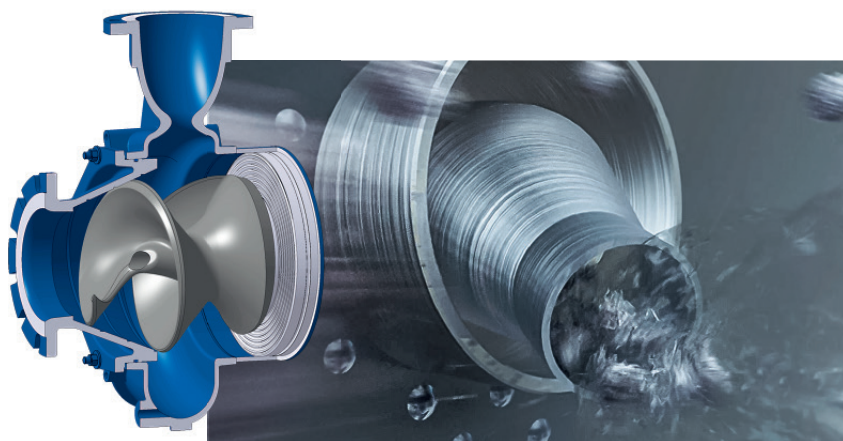
The key objective with any form of sludge storage is to avoid the build up and settlement of wastewater solids within the tank. Hidrostal's Hidromix pump mixing system is one of the simplest and most reliable proven design to achieve this.



A liquid stream is drawn from the tank and pumped through a Hidrostal screw centrifugal pump to the mixing nozzle. In the nozzle, pressure energy is converted into kinetic energy, creating a lower pressure at the outlet that pulls in surrounding liquid. In the following mixing section, a flow profile forms that prevents particles from settling. This results in effective mixing of the medium through intense momentum exchange.

The high-volume low-pressure efficiency factor achieves a uniform recirculation mix without the need to run constantly, saving both power and running costs.

We utilize the inertia of the fluid medium to continue the mixing process without additional drive mechanisms. This is a significant advantage compared to systems with in-line components such as propellers, mixers, or jet nozzles.



Unlike other mixing systems the Hidromix system does not require structural steel work within the tank.

The system is mounted at ground level and fixed to the outside of the tank. Large diameter nozzles are installed externally through the tank walls. The systems have simple pipework designs with short pipe run resulting in minimum friction losses and the maximum energy imparted to the fluid.

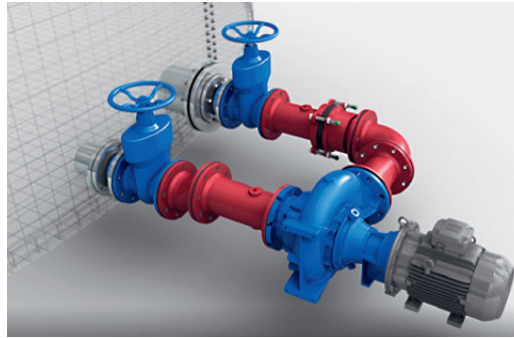
Hidrostal can also supply the total system including pipework as an offsite manufactured package. Installation is also available if required. The Hidrostal pump mixing solution is based upon the company's well-proven screw centrifugal impeller pump.

Advantages

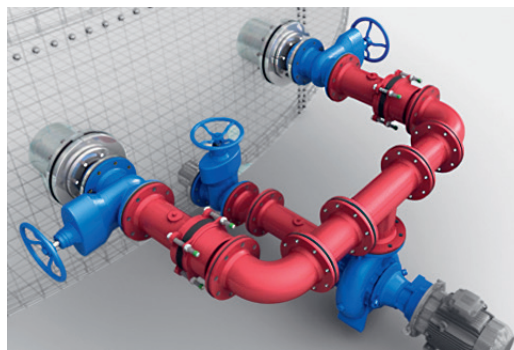
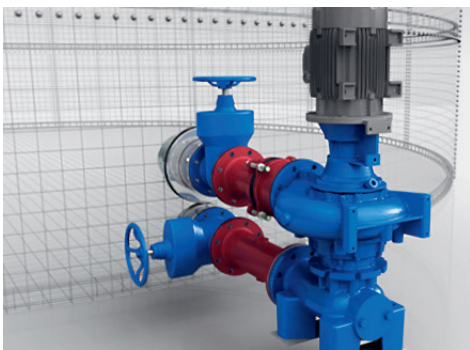
- No pipework required in the tank
- Easy access for inspection and maintenance
- Can be fitted to new and existing tanks
- Improved Health & Safety environment
- Large diameter pipework and nozzles for effective solids handling
- Nozzles externally removable without any need for tank entry
- Tank turnover and nozzle energy can be selected to suit sludge characteristics and tank shape
- IP55 motors are cheaper and easier to repair than submersible motors
- IP55 TEFC motors are always to latest highest efficiency class IE3/IE4

System Design

Each pump mixing solution is a bespoke design to take into account the sludge characteristics and the geometry of the tank.



CFD analysis is optionally available for optimum performance and mix efficiency.



The Hidromix system is easily adapted to fit just about any installation.



- Externally mounted system ensures no tank access is required for installation or maintenance
- Easily accessible for inspection and maintenance
- Wall mounted pump inlet and outlet pipes eliminate ragging problems
- Offsite manufactured packaged can be delivered pre-assembled to save time and cut costs
- Optimum performance can be maintained year after year by on-site adjustment of the impeller clearance to restore efficiency



Applications

- Balancing tanks
- Sludge storage tanks
- Mixing & tanker loading
- Mixing & sludge transfer

Available in New Zealand from:
Prime Fluid Management

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primefluid.co.nz



Find out more
about Hidrostral pumps
in New Zealand

