

LORENTZ Leachate and Remediation Pumping Solutions

A new approach to solving your landfill pumping challenges



LORENTZ offers you an electrically powered down well progressive cavity pump as a better solution to solve your leachate pumping challenges.

Our high efficiency, intelligent pump systems bring a new but proven approach to the market. Our pumps remove many of the service challenges of both air pumps and non specialized electric submersibles and so reduce your operating costs.

The high efficiency system gives you power choices, allowing you to run from grid or solar power, so opening up locations that were previously not economical.



Helping you to manage your cost and compliance challenges



Reducing costs

With the long term obligation to responsibly maintain legacy landfill sites and general rising costs, keeping control of operating costs has never been more important. Servicing of equipment and general operating costs can turn slim profits into losses very quickly.

Remote sites

The costs of installing and maintaining grid power and air infrastructure or running diesel generators for remote sites make maintaining compliance an expensive proposition.

Being in control

Knowing what your pumps are doing, monitoring extraction volumes, seeing tank and well levels all help to manage costs. If you can do this without visiting site, you are really in control.

Maintaining compliance

Maintaining compliance and running your operations within the requirements of your license is top priority. The ability to control exactly what a pump is doing, monitoring well levels automatically and being able to react quickly to changes puts you in a strong position.

With LORENTZ systems you can meet these challenges

What makes LORENTZ Leachate Pumps better for you?



Significantly reduced operating costs

Progressive Cavity Pumps (helical rotor pumps) are well known for their reliability and effectiveness. The LORENTZ leachate pump design brings this technology for use in landfill and remediation applications.

The LORENTZ system has been developed based on over 25 years experience of pumping challenges in the harshest conditions around the world.

With the LORENTZ solution, there are no above ground moving parts, no wearing items to replace, no scheduled service intervals, no pulling your pumps for cleaning, no wearing parts or seals to replace and no air injection creating calcification in pipework.

Progressive cavity submersible pumps with DC brushless motors just keep on working without maintenance.

CONNECTED

The pump controller constantly records operational data and provides access to rich information for the operator.

The flow can be infinitely controlled, interval and time of day timers can be set and other sensor data can be used to ensure the pump system can manage compliance levels and feed treatment plants effectively.

The controller can also be connected to our pumpMANAGER managed service. This is a simple, cloud delivered, pay monthly service that takes away the complexity of remote monitoring and management. One low fee means that you can see exactly what the system is doing, make changes to settings and receive alerts irrespective of location.

Simple to configure, information rich interface, monitoring built in and remote management enabled.

Power choices

The LORENTZ system uses a unique DC brushless and sensorless motor named ECDRIVE.

ECDRIVE is very efficient which gives you the option to run your pump on solar power. This means that without any power infrastructure, running of power lines or negotiation of easements you can pump leachate or contaminated water in any location.

The system can also run on grid power where high efficiency means lower power consumption, lower utility bills and cool running for a long life.

High efficiency systems means you have choices of grid or solar power and always low running costs.

A complete solution

LORENTZ designs our products to be a complete solution, this means that you have all of the hardware and software you need to control, monitor and manage your pumping operations.

The controller has eight sensor inputs that allow analogue and digital sensors to be connected. This combination of sensors with the powerful inbuilt software applications allows for full pump control and based on flow, pressure, fluid levels or daily pumping amounts.

PS2 is a complete solution "out of the box" without the need for building additional switching cabinets or PLC units.

All of the hardware and software required to successfully deliver your project.

Technical Data

Controller Technical Data

Model	PS2-600
Power (max)	700 W
Input voltage (max), DC Voc	150 V
Input current (max)	13 A
Output voltage, PWM 3 phase	30 – 130 V
Efficiency	Max 98%
Ambient temperature	-38 ... 50 °C (-36 ... 122 F)
Enclosure	IP 68 (NEMA 6P) outdoor housing Pressure cast aluminum and powder coated cover Pressure cast aluminum case with integrated heat sink

ECDRIVE (motor) Technical Data

Model	ECDRIVE 600
Power (max)	700 W
Input voltage	45 V
Physical	Insulation class F, max submersion 490 ft, enclosure class IP68, EN 1.4301/ AISI 304 stainless steel

Pump Technical Data

Model	PS2-600
Maximum head	50 m – 160 ft
Maximum flow rate	1.4m ³ / hour – 6.0 USG / min
Motor technology	96 mm / 4" high efficiency ECDRIVE brushless DC motor
Speed	600 to 3,300 rpm
Pump end helical rotor	Progressive Cavity Pump (PCP) EN 1.4301 / AISI 304 cast stainless steel stator housing Solid stainless steel rotor FKM rubber stator Stilling tube for solids reduction Non corrosive materials used throughout



About LORENTZ

LORENTZ is the global market leader in solar powered water pumping solutions. Founded in Germany during 1993 LORENTZ has pioneered, innovated and excelled in the engineering and manufacturing of solar powered water pumping. Today LORENTZ is active in over 130 countries through a dedicated network of professional partners. LORENTZ technology water uses the power of the sun to pump water, sustaining and enhancing the life of millions of people, their livestock and crops.

The LORENTZ Energy portfolio provides solutions for oil pumping, gas well de-watering, leachate management and remediation.



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