## LORENTZ Oil Pumping Solutions

A new approach to solving your oil pumping challenges



LORENTZ offers you an electrically powered down well progressive cavity pump as a better solution to solve your oil 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 traditional pump jacks 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 production challenges



#### Production costs

With low and volatile oil prices, 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.

#### Infrastructure independence

The costs of installing and maintaining grid power infrastructure or running diesel generators can make existing wells or new leases unattractive for production. Pumping oil without infrastructure or operating cost is a real differentiator.

#### Being in control

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

## With LORENTZ systems you can meet these challenges



#### Increasing yields

Getting the most from your operations is critical to success. The ability to control exactly what a pump is doing, reacting to changes in the production volumes and doing this simply is very important.



## What makes LORENTZ Oil Pumps better for you?





## Significantly reduced operating costs

Progressive Cavity Pumps (PCP) are well known in the oil industry for their reliability and effectiveness. The LORENTZ oil pump design brings all of the benefits of the PCP and makes it available as a down well solution for smaller production volumes.

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 broken rods or pulling of pumps for cleaning.

Progressive cavity submersible pumps with DC brushless motors just keep on working.

#### CONNECTED

The pump contoller 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 get the best yield from the well.

The contoller 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 efficent 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 oil anywhere.

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	PS2-1800	PS2-4000	
Power (max)	1,800 W	4,000 W	
Input voltage (max) DC Voc	200 V	375 V	
Input current (max)	14 A	14 A	
Output voltage PWM 3 phase	30 – 130 V	60 - 240 V	
Efficiency	Max 98%		
Ambient temperature	-38 50 °C (-36122F)		
Enclosure	IP 68 (NEMA 6P) outdoor housing Pressure cast aluminum and powder coated cover Pressure cast aluminum case with integrated heat sink		

### Pump Technical Data

Model	PS2-18
Maximum head	1,650
Maximum flow rate	2.8 bbl/h
Motor technology	3.5" hig
Speed	
Pump ends Helical Rotor	EN 1.430 Solid sta
	Non corrosi

#### ECDRIVE (motor) Technical Data

Model	ECDRIVE 1800	ECDRIVE 4000
Power (max)	1,800 W	4,000 W
Input voltage	95 V	240 V
Physical	Insulation class F, max submersion 490 ft, enclosure class IP68, EN 1.4301/ AISI 304 stainless steel	



#### 1800

PS2-4000

0 ft

2,300 ft

/hour

10.7 bbl/hour

nigh efficiency ECDRIVE brushless DC motor

600 to 3,300 rpm

Progressive Cavity Pump (PCP) 01/ AISI 304 cast stainless steel stator housing stainless steel rotor with hard chrome plating FKM rubber stator Stilling tube for solids reduction osive and oil resistant materials used throughout Air seperator to prevent gas locking





#### 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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