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Press release

Laing introduces new D5solar pumps to work directly with the power supplied by solar panels

The first DC spherical motor pump for direct connection to solar panels with automatic performance optimization using maximum power point tracking technology.

Laing's D5 Solar pump only consumes as much energy as needed and will perform a soft start with as little as 1 watt of power. The Ecocirc Solar pump can be used wherever a highly efficient circulation pump is needed without a direct connection to AC power. It can be connected directly to a solar panel and is characterized by its small size, high efficiency, very low power consumption and its MPP tracking. The shaft-less spherical motor technology enables a long, maintenance-free and quiet service life. Areas of application are thermal solar systems for single family homes.

The principle of the spherical motor, which was invented by Laing, is fundamentally different from conventional canned motor pumps. The only moving part in a spherical motor is a hemispherical rotor/impeller unit, which sits on an ultra-hard, wear-resistant ceramic ball. There are no conventional shaft bearings or seals. This rules out, the possibility of play in the bearings and the increase in noise associated with it. These pumps are particularly robust and provide exceptionally long service. The self-realigning bearing is lubricated and cooled by the media. Maintenance is not necessary under normal conditions and even after lengthy shutdown periods, a reliable start-up is virtually guaranteed. The parts exposed to the fluid are completely corrosion resistant.

The D5 Solar pump has been programmed for a soft start-up. When the solar panel provides sufficient power, the pump first goes through the alignment phase, turning the rotor into the position required for start-up. Then the processor waits until the built-in capacitor has recharged sufficiently. This enables a start-up with minimal power. Cycling due to unsuccessful starting attempts is minimized. Even after prolonged shutdown, the pump will start

reliably. The D5 Solar pumps are the first and only spherical motor pumps with self-optimizing software. Every three seconds, the processor will modify its operating point on the voltage-current curve of the PV panel to find the point of maximum performance. This is called the "Maximum Power Point" (MPP). At this point, the pump achieves the maximum rpm and therefore the maximum performance. There is no need for a separate performance adaptation, the pump will always find its best operating point under any given light and temperature conditions by itself.

Laing have been working since the beginning of the 50s in research and development concerned with products in the fields of pump and heating technology. The original Swabian research and development institute has grown, with the second generation, into an international concern with factories and production plants in the USA, Japan, Germany and Hungary, employing almost 500 people world wide. At the same time, Laing are also successfully involved outside the sanitation, heating and air-conditioning sector, like for a new circulation pump which forms the heart of a water cooling system for computers.

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High resolution pictures

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Company profile

Foundation	Family enterprise since 1950
Management board	Oliver Laing, Karsten Laing, Birger Laing
Group of companies	<p>Laing Holding GmbH located in Remseck, Germany www.laing.eu</p> <p>Laing GmbH Systeme für Wärmetechnik located in Remseck, Germany www.laing.de</p> <p>Laing Thermotech, Inc. located in San Diego, U.S.A. www.lainginc.com</p> <p>Laing Szivattyú Kft. located in Cegléd, Hungary www.laing.hu</p> <p>Laing Pump K.K. located in Osaka, Japan www.laingpump.co.jp</p>
Employees	Worldwide approx. 500 employees
Product range	<ul style="list-style-type: none">· Pumps· Mixing modules and heat exchangers for underfloor heating· Electrical heaters· Control units· Special products and OEM versions

About us

Laing have been working since the beginning of the 50s in research and development concerned with products in the fields of pump and heating technology. The original Swabian research and development institute has grown today into an international concern with factories and production plants in the USA, Japan, Germany and Hungary and employs almost 500 people world wide. Today, the product range consists of shaftless spherical motor pumps invented by Laing, mixing modules and heat exchangers for underfloor heating, electrical heaters and control units.

Further information can be found on <http://www.laing.de/eng/company>