

Media release

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Cutting-edge hydraulics at IAMD 2019

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- **Self-contained CLDP servo drive impresses with high productivity and resource-saving operation**
- **Self-contained CLSP servo drive reduces connected load**
- **Servo pump drives and variable speed pumps offer maximum productivity with energy savings of up to 70 percent**

HEIDENHEIM, Germany. From April 1 to 5, 2019 the IAMD (leading international trade show for integrated automation, industrial IT, drive and fluid power technology) will take place as part of the Hanover Fair. At the Voith booth B32 in Hall 23, visitors will experience live how machine and plant operators can save up to 70% energy while increasing productivity. Under the exhibition motto "Progressive Hydraulic Solutions", Voith will showcase cutting-edge hydraulic systems and products to control and manage machines and systems. The spotlight will be on the company's CLDP and CLSP linear drives as well as the IPS variable speed internal gear pump. Models of all products will be on display at the booth.

Simple integration into new or existing systems

The CLDP (Closed Loop Differential Pump) servo-drive is a hydraulic linear drive offering high power density and dynamics. The main components of the CLDP are a servo motor, an internal gear pump and a directly coupled hydraulic cylinder. It has a self-contained, compact design with all hydraulic components integrated into the CLDP servo drive. This means that it can be readily integrated into new or existing systems. All that is needed is the electrical connection for the servo motor.

The drive offers significant increases in productivity for mechanical engineering companies as well as for plant and machine operators. In addition, it offers outstanding features like very high force and position control, a long service life and almost wear-free operation. The CLDP servo drive is generally used in applications that require a dynamic

response, reproducibility and reliability, such as presses, test rigs, cutting, shaping and special-purpose machines.

Because it records operating conditions and is able to diagnose individual components and the entire system, it also provides the ideal conditions for integration into Industry 4.0 applications.

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Compact installed size and smaller connected load

The CLSP (Closed Loop 4Q Pump) servo drive is a hydraulic linear drive from Voith's range of self-contained drives. The typical features of Voith's self-contained servo drives are high energy efficiency, overload protection and almost wear-free operation. The CLSP drive also offers automatic load-dependent shifting of the automatic transmission. As a result, the connected load is substantially reduced and the motor and inverter have a more compact design. The CLSP consists of three main components: the servo motor, a 4Q internal gear pump and a directly coupled hydraulic cylinder. There is no need for a hydraulic power plant or oil tank to operate the self-contained drive, so all components can be integrated directly into the servo drive. The drive is also suitable for force and position control. Moreover, the installed sensors provide the basis for complete integration into automated manufacturing systems or production facilities.

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Maximum productivity with energy savings of up to 70 percent

The Voith servo pumps and variable speed pumps epitomize the future of hydraulics. They bring together the advantages of hydraulics and servo electrics, combining them with a technology designed for Industry 4.0.

Hydraulic applications with significant control requirements are subjected to highly fluctuating loads during operation. To ensure efficient operation despite these conditions, the Voith servo pump adapts to the power actually needed by varying volume flows and motor speeds. The optimized operation reduces energy consumption by up to 70 percent and the TCO of the entire hydraulic system by up to 35 percent, so the equipment has generally paid for itself within one to two years.

During a condition monitoring, the system collects data on operating conditions as well as on oil level, filter condition and efficiency level. As a nodal point, the servo inverter can exchange this information with a superordinate control system and thus enable the integration of the unit. Under load from the wear-induced drop in efficiency of the entire system, intelligent Voith servo pumps report the need for preventive maintenance

to the higher-level control system. This means that customers identify the maintenance requirement in good time and are able to substantially reduce downtimes for machines and systems.

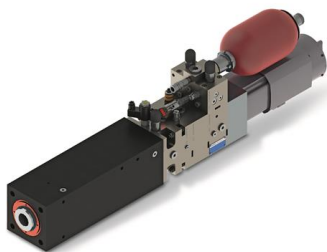
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About the Voith Group

The Voith Group is a global technology company. With its broad portfolio of systems, products, services and digital applications, Voith sets standards in the markets of energy, oil & gas, paper, raw materials and transport & automotive. Founded in 1867, the company today has more than 19,000 employees, sales of € 4.2 billion and locations in over 60 countries worldwide, and is thus one of the largest family-owned companies in Europe.

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Voith Turbo, a Group Division of Voith, is a specialist for intelligent drive solutions, systems and comprehensive services. Customers from highly diverse industries such as oil and gas, energy, mining and mechanical engineering, ship technology, rail and commercial vehicles rely on the advanced technologies and solutions-driven expertise of Voith.



The CLDP hydraulic servo drive can be easily integrated into new or existing systems.



The self-contained CLSP servo drive reduces the connected load.



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Voith's servo pumps enable high energy savings.

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