

Press release

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Advanced control of turbines – the Voith self-contained linear drive with fail-safe function

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The newly developed electrohydraulic linear drive from Voith regulates control valves on turbines precisely and in a highly dynamic way. It is self-contained meaning it operates completely without a hydraulic power pack. In addition, there is an integrated spring assembly. Using this, the drive closes the control valve in less than 200 ms in the event of a malfunction. This fail-safe function increases the operational reliability of the system and avoids costs for any secondary damage. The linear drive is a plug & play solution that is optimally suited for both new systems and the modernization of existing equipment.

The hydraulic system of the linear drive is self-contained. Oil management is not required because there will be no ingress of dirt from an external source. Without oil management, operators save the costs of operating material, pipework, wear parts and maintenance work. Operation of the linear drive is maintenance-free and offers all the benefits of a hydraulic solution, for example, a high power density and a high reliability. The availability of the system increases. That improves productivity and ultimately the bottom line.

The position is controlled in the Voith linear drive using the suppression principle via a servo motor and a servo pump. This type of position control is highly energy-efficient, while the level of heat introduced to the system remains low. This reduces energy costs by up to 50 %. Lower CO₂ emissions contribute to climate protection.

The modular design of the linear drive enables very flexible integration in the turbine control system. Installation in new systems or during a retrofit is simple, quick and cost-effective.

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Figure 1: The Voith self-contained linear drive with fail-safe function. It regulates control valves on turbines precisely and in a highly dynamic way.

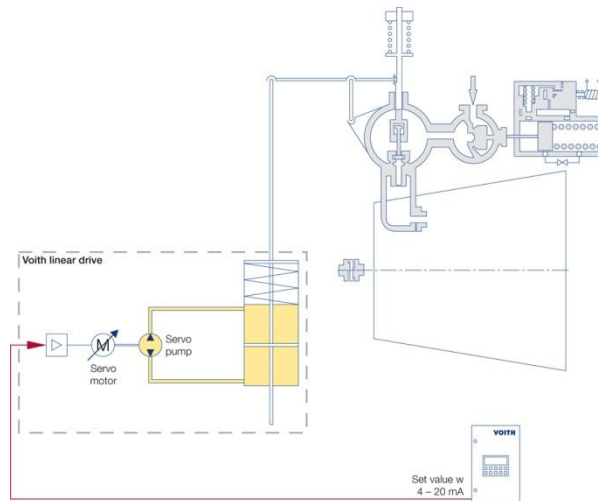


Figure 2: The Voith linear drive with position control using the suppression principle saves up to 50 % on energy costs.

Voith Turbo, the specialist for hydrodynamic drive, coupling and braking systems for road, rail and industrial applications, as well as for ship propulsion systems, is a Group Division of Voith GmbH.

Voith sets standards in the markets energy, oil & gas, paper, raw materials and transportation & automotive. Founded in 1867, Voith employs more than 42 000 people, generates € 5.7 billion in sales, operates in about 50 countries around the world and is today one of the biggest family-owned companies in Europe.

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