

## Press Release

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### **IAA 2016: Voith to Expand Dis-engagement Capability of Driveline Components for an Increase in Efficiency**

- **DIWA.6 Stop-Start Technology lowers fuel consumption**
- **ECO-SWR: The secondary water retarder can be disconnected resulting in increased efficiency**
- **New air-compressor technologies increase energy efficiency**
- **Predictive monitoring increases vehicle availability**

**Heidenheim, Germany:** When it comes to bus and truck fleet efficiency, low fuel consumption and component wear play a critical role in fleet management. The contribution Voith is making to this with its products and services will be on display at this year's IAA Commercial Vehicles from 22 to 29 September 2016 in Hanover, Germany. The company's highlights will include the DIWA.6 automatic transmission with Stop-Start Technology, a version of its secondary water retarder that can be disconnected, and the new air compressors with TwinSave technology or coupling. Visitors can learn more about innovative solutions including real-time support for drivers, optimized maintenance management for operators as well as remanufacturing of transmissions and retarders. Voith will be showcasing their capabilities at the IAA 2016 at Hall 17, Booth A14.

#### **DIWA.6 Stop-Start Technology: Ready for the Road**

The numbers speak clearly: City buses in regular operation spend up to 40 percent of their operating time in idling mode due to bus stops, red lights and heavy traffic. This translates into unnecessary fuel consumption while also increasing pollution and noise emissions. Voith has extended the features of the successful DIWA.6 automatic transmission with Stop-Start functionality so that bus operators can increase the profitability of their vehicles while also providing added value for the environment. The DIWA.6 is capable of stop times up to 60 seconds without any influence on the start-up readiness of the bus. Depending on the duty cycle, this enables

fuel savings of 5-10 percent. More than 100 buses are successfully using DIWA.6 Stop-Start in Great Britain – and this has been going on for more than a year already.

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## **ECO-SWR: A Secondary Water Retarder That can be Disconnected**

Another highlight is the secondary water retarder (SWR) for which Voith develops a version that can be disconnected from the driveline. The SWR was designed as a secondary retarder for buses and trucks. It brakes with water and uses the engine coolant. In this way, it does not need any additional operating medium and handles up to 90 percent of all vehicle braking actions wear-free. Furthermore, the retarder technology induces the driver to drive with anticipation which, in conclusion, reduces fuel consumption. However, there are energy losses – even if no continuous braking power is used – due to the constantly moving rotor. With a coupling, Voith disconnects the rotor from the driveline ensuring in the future that, when the retarder is not required, no power is consumed. The disconnecting capability further reduces fuel consumption of the vehicle, which goes hand in hand with lower CO<sub>2</sub> emissions. In light of the EU Commission's plans to introduce mandatory CO<sub>2</sub> emission limits for trucks and buses in Europe over the medium term, the ECO-SWR from Voith comes at just the right time.

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## **Air Compressors With 'TwinSave' Technology or With a Coupling**

Two innovations aimed at increasing the efficiency of operating air compressors are also celebrating their premier at the IAA. Voith will display a prototype of the new LP 560 air compressor equipped with 'TwinSave' technology. An additional control valve in the second compressor stage permits additional energy savings when idling as well as a closed pressure line with an external control. Thus, the technology uses both stages to save energy. In applications requiring a drive through option on the air compressor, savings of up to 25 percent can be achieved compared to today's industry-wide reference standard; Voith's SLS idle system.

For applications without a drive through option on the air compressor, Voith will equip several compressor types with an integrated coupling in the future. The component is installed directly in the gear of the compressor. Consequently, no additional installation space is needed. This saves up to 45 percent compared to the SLS.

## **Optimum Vehicle Use and Predictive Maintenance**

At IAA, Voith will be presenting its automotive service with strong innovation impulses coming from the newly founded Digital Solutions group division. Based on the established telemetry system DIWA SmartNet, the portfolio was extended by the SmartAssist and SmartMaintenance product families in its newest generation. SmartAssist informs the driver in real time about his driving behavior, provides tips for possible improvements and supplies corresponding reports for the fleet management. In addition, Smart Maintenance uses a simple traffic light system to provide monitoring of the driveline. This enables a predictive and cost saving maintenance approach. Vehicle availability is increased and breakdowns are avoided. Bus operators know the exact condition of the transmission and also receive information on additional components within the driveline.

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### **Remanufacturing: Used Components in New-Build Quality**

In addition to the digital service solutions, fleet operators will learn how remanufacturing allows them to considerably reduce their expenses when exchanging components without compromising on quality or reliability. With its service network Voith reconditions used units and brings them up to the latest technical and mechanical state. Whether it is a retarder, air compressor or automatic transmission including the electronics and control unit – at the end of the process, there is a product with new-build quality and with the full factory warranty. As many parts are reconditioned and reused in this process, operators not only save costs with remanufacturing, they also contribute to protecting the environment.

With locations throughout the world, Voith keeps the distances short and ensures replacement parts are available fast, even at short notice. For maintaining the familiar component reliability, quality thereby takes top priority. This means: With a replacement, only tested genuine parts are used. Non-genuine parts often wear out considerably faster and, as a result, force the entire vehicle back into the workshop long before the planned service interval. For the operator, this means an unplanned shutdown resulting in multiplied costs.

For comprehensive information on the presence of Voith at IAA 2016, please visit: <https://voith.com/iaa-en>.

Voith Turbo, a Group Division of Voith GmbH, is a specialist for intelligent drive solutions. Customers from highly diverse industries such as oil and

gas, energy, mining and mechanical engineering, ship technology, rail and commercial vehicles rely on advanced technologies from Voith Turbo.

Voith sets standards in the markets for energy, oil & gas, paper, raw materials, transport & automotive. Founded in 1867, Voith employs more than 20,000 people, generates €4.3 billion in sales, operates in over 60 countries around the world and is one of the largest family owned companies in Europe.\*

\* Excluding the discontinued Group Division Voith Industrial Services

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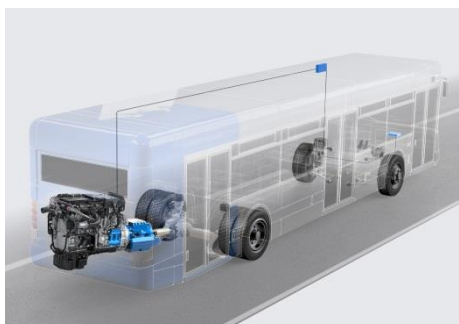
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Depending on the operating profile, the DIWA.6 Stop-Start Technology allows fuel savings of 5-10 percent.



The Voith secondary water retarder can be disconnected from the driveline during idle in the future.



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With SmartServices, Voith is helping bus operators and drivers to achieve the best use of their vehicles.



With its global services network, Voith provides operators with maximum safety and availability when overhauling their components.

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