

## Press Release

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**Voith at Busworld 2017: Innovative and reliable solutions for buses under the slogan “New Mobility – New Horizons”**

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- **The DIWA.6 automatic transmission in combination with the stop-start function enables fuel savings of 10-12 percent**
- **Thanks to higher gear change intervals, the Voith transmission leads the way when it comes to CNG powered buses**
- **Digital Smart Services offer bus operators increased efficiency and optimized maintenance for fleet vehicles**

**Heidenheim/Kortrijk:** From the 20<sup>th</sup> until the 25<sup>th</sup> of October, Voith will be presenting innovative and reliable drive solutions for city and intercity buses at the Busworld 2017 in Kortrijk, Belgium. Major trends such as alternative drive technologies, digitization, as well as sustainability will be discussed by visitors and exhibitors during the trade show. Voith will be showing its extensive portfolio of highly efficient and reliable products and services for buses and coaches at Booth 513 in Hall 5.

### **Increased reliability: DIWA.6 automatic transmission and Stop-Start**

The DIWA.6 transmission from Voith stands for reliability and efficiency in city and intercity buses. Its unique long first DIWA gear allows for smooth, gear change-free moving off across a speed range in which other transmissions change gears two or three times. This means less wear on the entire driveline, which improves operating costs (TCO). The DIWA.6 transmission offers additional savings potential through its stop-start function, which enables the engine to shut down when the vehicle is stopped for up to 180 seconds. Depending on how the bus is used, this represents fuel savings of 10 - 12 percent. This not only reduces CO<sub>2</sub> and NO<sub>x</sub> emissions, but also helps protect the environment and limits noise pollution. More than 1,000 buses are already fitted with DIWA.6 Stop-Start technology, bearing testimony to its reliability and added value in everyday operation.

Furthermore, the DIWA.6 transmission leads the way when paired with CNG-powered buses, which are gaining in popularity thanks to lower emission values and lower fuel costs. Due to higher gear change intervals, the DIWA.6 transmission supports the engines in times of demanding control; the secondary retarder provides additional relief during braking. Thus the transmission offers major benefits in conjunction with the alternative fuel of compressed natural gas and makes a major contribution to the overall reduction of fleet emissions.

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## **DIWA Next Generation**

Voith continues to work on its DIWA Next Generation transmission, which was firstly announced at last year's IAA. In addition to a central recovery unit based on 48 V, the transmission offers an optimal gear ratio through an additional overdrive. The long-standing differential converter principle remains a part of the design. Voith also plans to separate the DIWA's torque converter and retarder to optimize the differential converter with regard to its traction function. Both components, however, continue to use a common oil circuit and heat exchanger.

## **Lower fuel consumption and lower operating costs**

The Voith secondary water retarder (SWR) is the first secondary retarder in the world that uses water to brake completely maintenance-free and with the potential to be disconnected from the driveline. The SWR is designed as a secondary retarder for buses and trucks. It uses engine coolant as its operating medium. With this, it carries out up to 90% of all vehicle braking operations wear-free. Further, the secondary water retarder requires 50% less installation space than its predecessor, is 35 kg lighter, and achieves a reduction in brake dust emissions of up to 80%. For bus operators in particular, this is a critical factor when it comes to optimizing the efficiency of their vehicles.

The LP 560 air compressor with "TwinSave" technology shows Voith's innovative skills in increasing efficiency. An additional control valve in the second compressor stage enables additional energy savings when idling as well as closed pressure line with an external control. Therefore, the technology uses both stages to save energy. This allows for savings of up to 25 percent when compared to the industry reference scale.

## **Smart Services. Smart. Simple. Efficient.**

Voith understands digitization to be one of the future trends in the commercial vehicle industry. Through its many years of experience in the transfer and analysis of operational data, and its close cooperation with the newly-established Digital Solutions corporate unit, Voith Turbo is a leader in digitization. The SmartAssist and SmartMaintenance systems developed by Voith enable more efficient operation for bus operators as well as optimized vehicle maintenance. SmartAssist is a comprehensive platform that helps drivers optimize their driving behavior and thus reduce the fuel consumption of the fleet.

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SmartMaintenance continuously monitors the status of the automatic transmission, reducing unplanned service-related downtimes, increasing vehicle availability, and enabling improved maintenance planning. Currently more than 2,000 buses are equipped with this technology. Field and performance tests have already proven the stated benefits in practice. Based on SmartMaintenance, Voith also offers cost-effective, tailored service contracts with individual warranties, uptime guarantees, and short reaction times. This results in maximum fleet availability and optimized workshop planning.

## **About Voith Turbo**

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, rail and commercial vehicles, ship technology, mining and mechanical engineering rely on the advanced technologies and solutions-driven expertise of Voith Turbo.

## **About Voith Digital Solutions**

Voith Digital Solutions bundles Voith's long standing automation and IT expertise with the know-how in the fields of water power, paper machines and drive engineering. This new Group Division works with new and existing customers to develop innovative products and services by driving IoT innovations and decisively shaping the digitalization process in the field of machine and plant engineering.

## **About Voith**

For 150 years, Voith's technologies have been inspiring customers, business partners and employees around the world. Founded in 1867, Voith today has around 19,000 employees, sales of €4.3 billion and locations in more than 60 countries worldwide and is thus one of the

largest family-owned companies in Europe. Being a technology leader, Voith sets standards in the markets of energy, oil & gas, paper, raw materials and transport & automotive.

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**Caption:** The DIWA.6 transmission is the reliable and efficient transmission for city and intercity buses.



**Caption:** The Voith Aquatarder SWR uses water to brake and through that reduces wear significantly.



**Caption:** The Air compressor LP 560 with TwinSave technology ensures up to 25 percent energy savings.



**Caption:** SmartAssist informs the driver in real time about his driving behavior in regard to fuel consumption.

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