

## Media Release

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2016-08-24

### **ECO-SWR: The Dis-connectable Secondary Water Retarder from Voith**

- **Voith will be presenting the ECO-SWR for the first time at the IAA Commercial Vehicles 2016**
- **Fuel savings and lower emissions**
- **CO<sub>2</sub> emission limits for trucks and buses will soon be introduced by the European Commission**

**Crailsheim, Germany:** With the Secondary Water Retarder (SWR), Voith has been offering bus and truck operators hydrodynamic continuous braking that works in conjunction with the coolant of the engine. In the next generation of the SWR the unit can be disconnected whilst idling. This means that, in addition to contributing to maximum safety, low operating costs and environmental protection, the ECO-SWR will in future also help to further reduce fuel consumption and vehicle emissions. Voith displays this innovation at IAA Commercial Vehicles 2016 in Hanover for the first time. The debut comes at just the right time. According to the plans issued by the European Commission, CO<sub>2</sub> emission limits for trucks and buses will be introduced also in Europe in the medium term.

The USA, Canada and China already have CO<sub>2</sub> emission limits for heavy duty vehicles, and it is only a matter of time before the European Commission also introduces similar regulations. In this context, it is important to utilize any and all opportunities to further optimize the CO<sub>2</sub> efficiency of heavy duty vehicles. In this regard, the SWR is a groundbreaking solution within the Voith portfolio already today. However, it will become even more environmentally friendly soon.

At the IAA 2016 in Hanover, Germany, Voith will be presenting the new generation of the Secondary Water Retarder. The ECO-SWR can be

disconnected from the drive train during idling mode and thus contributes to further reducing the fuel consumption and emissions of trucks and buses. This benefits the vehicle manufacturers with regard to the overall vehicle efficiency as well as the operator, who saves on fuel costs and taxes.

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## **No Power Consumption When the Retarder is Disconnected**

Since the rotor of the retarder is force-fit to the drive train, it rotates permanently while driving. This consumes energy - even if no braking power is required. In the ECO-SWR, a coupling disconnects the rotor from the drive shaft in idling mode. This means that no further energy is consumed.

Page 2 of 3

Today, the SWR contributes to fuel savings by facilitating proactive driving behavior and fewer gear changes. The automated disconnection functionality in the ECO-SWR will further reduce fuel consumption, thus leading to savings in the range of three-digit euro figures per year. At the same time, the technology contributes to a reduction in CO<sub>2</sub> emissions, which not only protects the environment but can also have a positive effect on the CO<sub>2</sub> certification of vehicles.

The driver still benefits from great driving comfort and safety offered by the ECO-SWR. The continuous brake system is actuated as usual either via the steering column or the brake pedal. Like its predecessor, the ECO-SWR is integrated into the vehicle's brake management system. Emptying and disconnecting thus takes place automatically after each braking process.

## **Braking with Water: Reduced Weight and Service Requirements**

The ECO-SWR is a secondary retarder that brakes with water, using the coolant of the engine. This means it does not require an additional operating medium and manages 90 percent of all vehicle braking operations wear-free. At the same time, its pumping effect increases the coolant flow-rate. This in turn increases the continuous brake output by 20 to 30 percent, which means that the maximum braking torque remains available even during long descents.

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

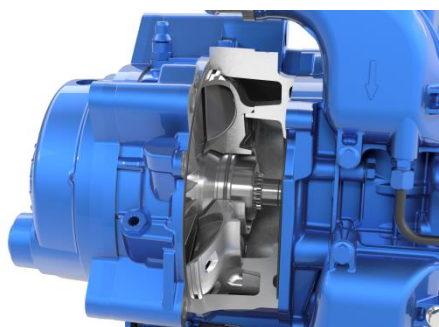
Voith Turbo, a Group Division of Voith GmbH, is a specialist for intelligent drive solutions. Customers from highly diverse industries such as oil and gas, energy, mining and mechanical engineering, ship technology, rail and commercial vehicles rely on advanced technologies from Voith Turbo.

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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.

Page 3 of 3



In future, the Voith ECO-SWR can be fully disconnected from the drive train in idling mode.

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