

## Press Release

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### **Brakes with Water: the New Mercedes-Benz Arocs**

April 2013

**Like its siblings Actros and Antos, the new specialist for heavy construction traffic, the Mercedes-Benz Arocs, optionally brakes with water. This is ensured by the Aquatarder SWR (Secondary Water Retarder) from Voith. With a braking torque of up to 3500 Nm and fully integrated into the on-board brake management, it is a guarantor for maximum safety in this vehicle class. It is currently available for the engines of the OM 470 family; from October 2013 it will also be on offer for the OM 936 variety.**

Tipper, concrete mixers, articulated trucks or flatbed chassis – they are all part of the new construction vehicle family of Mercedes-Benz. The Arocs is available in 16 different output versions ranging from 175 to 460 kW. Its total weight starts at 18 t for the two-axle truck and goes up to 41 t for the off-road four-axle models.

A combination of engine brake and Aquatarder SWR offers maximum driving safety during heavy-duty operation on construction sites and in traction traffic: They complement each other ideally both at low and high speeds and, when combined, provide a maximum brake power of up to 750 kW/1020 HP. Compared to conventional oil retarders this means up to 30 percent more continuous braking output.

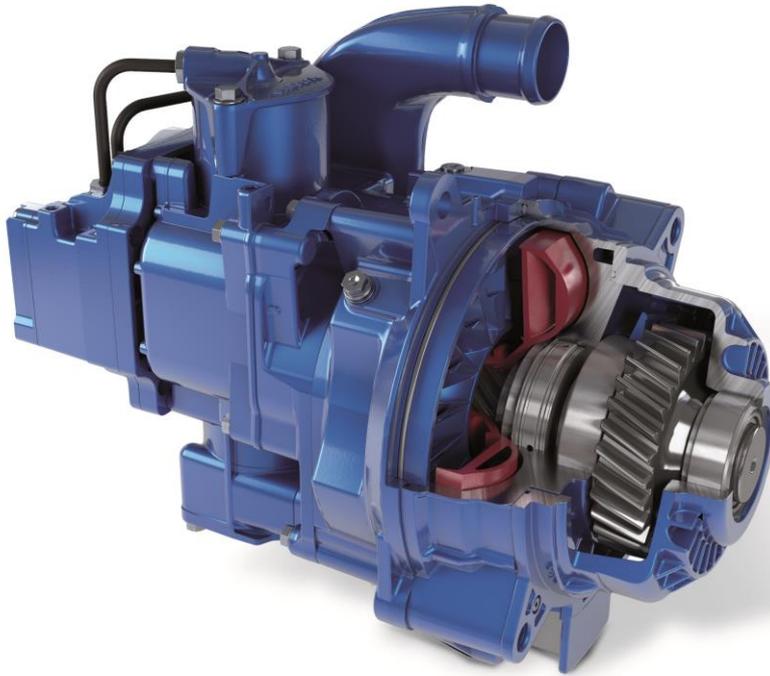
Weighing only 42 kg, the Aquatarder SWR can be optimally integrated into the vehicle. Compared to its predecessor, it needs about 50 percent less installation space.

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Like all modern secondary retarders, it is directly installed to the gearbox and operates after the hydrodynamic principle. The Aquatarder uses nothing but the cooling water as operating medium and is therefore maintenance-free. Its rotor, which is driven directly via the propshaft, sets this cooling water into motion and accelerates it. The water flow is then decelerated by the stator, which counteracts the rotary motions of the rotor. The result: the vehicle brakes without wear.

Page 2  
Press Release  
April 2013

Apart from providing safe and effective continuous braking power, the Aquatarder SWR also keeps the operating temperature of the combustion engine at a constant level on long downward gradients. In doing so, it provides excellent support for the complex exhaust gas cleaning system of the series-produced Euro VI engine, as it ensures that the cleaning technology always works with maximum efficiency. As recently as last year, the Aquatarder SWR won the European Transport Sustainability Award.



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Page 3  
Press Release  
April 2013

*Aquatarder SWR*

**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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