

P R E S S R E L E A S E

Reducing emissions through shorter cold-start phases

- **Eberspaecher utilizes cold-start phase potential**
- **Solution for metal and ceramic catalytic converters**
- **Up to 90 percent less NO_x emissions**

Esslingen, 2 February 2021 — In the wake of the new EURO 7 emission standard, the automotive industry expects a significant reduction in exhaust gas limit values for HC, CO, NO_x, and more. With its Active Heating product family, Eberspaecher is forging ahead with concepts to further reduce pollutant emissions. The exhaust specialist works closely with its customers to make various solutions ready for series production. In doing so, it carefully considers the OEM's requirements, vehicle geometry, and the available installation space. The first step sees the experts utilize the potential for reducing emissions in the cold-start phase. If required, the EHC Lamella Heater heats up the exhaust gas purification system even before the engine is started, thus already increasing exhaust gas purification efficiency right from the start of the journey.

Modern exhaust gas purification systems are highly efficient components. Complex chemical processes purify the exhaust gas that fuel combustion creates. Due to a further reduction in emission limit values brought on by the upcoming EURO 7 emission standard, new approaches and concepts are required. As a thermal management and exhaust specialist, Eberspaecher sees the potential for further reducing emissions in fuel-powered passenger cars — especially in the cold-start phase. Catalytic converters require a certain minimum temperature in order to work efficiently and thus clean the exhaust gases. The optimum temperature is only achieved when the engine is running, and depends on the driving distance and profile. It's in this cold-start phase that Eberspaecher

engineers find the potential for further improving exhaust-emission purification. Eberspaecher is now presenting the EHC Lamella Heater, an electrically heated catalyst, as its first series product. In the future, it will bring the catalytic converter and exhaust gas flow up to temperature more quickly in the exhaust gas purification system. An additional control unit starts, controls, and monitors the heating process. As a system supplier, Eberspaecher offers the EHC Lamella Heater and control unit combo as a complete package.

Electric heating element with lamellas also available for hybrid vehicles

The Eberspaecher EHC Lamella Heater is an electrically heated catalyst that directs the exhaust gas flow over preheated lamellas at the inlet of the exhaust system. It is installed in diesel and gasoline-powered vehicles directly in front of the catalytic converters in order to generate the necessary temperatures at the best-possible point. For example, as tested under applicable test conditions, earlier activation of the SCR system reduces NO_x emissions by up to 90 percent. The lamellas can also be catalytically coated and make an additional contribution to purifying the exhaust gases. This Eberspaecher solution can be used in conjunction with both metal and ceramic catalytic converters. Due to its special design, the EHC Lamella Heater operates at 48 V, but can be designed for 400 V for hybrid vehicle applications.

Expertise transfer fully utilized

As a thermal management specialist, Eberspaecher has many years of experience with a wide variety of heating solutions for interior temperature control. It's now transferring this experience to the engine compartment. The EHC Lamella Heater is very compact and installation space-friendly, and can be integrated into conventional exhaust systems. In contrast to fuel burner technology, the electrically heated catalyst does not require fuel or an additional ignition source. The EHC Lamella Heater heats electrically — and thus warms up the flowing exhaust gas. This ensures that the exhaust gas purification system is fully functional just seconds after the engine is started.

Captions:

Eberspaecher's EHC Lamella Heater for metal and ceramic catalytic converters reduces NO_x emissions by up to 90 percent.

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About Eberspaecher:

With approximately 10,000 employees at 80 locations worldwide, the Eberspaecher Group is one of the automotive industry's leading system developers and suppliers. The family business, headquartered in Esslingen am Neckar, stands for innovative solutions in exhaust technology, automotive electronics and thermal management for a broad range of vehicle types. Eberspaecher components and systems provide more comfort, greater safety and a cleaner environment on or off the road. In 2019, the Group generated revenue of more than 4.9 billion euros.