

PRESS RELEASE

Heated Tunnel Mixer lowers emissions from Diesel and Diesel hybrid passenger cars

- **Another milestone reached in fulfilling the upcoming EURO 7 exhaust-emission legislation**
- **Improved processing and evaporation of the urea-water solution**
- **Very high nitrogen oxide conversion rates of over 98 percent**

Esslingen (Germany), April 4 2022 – **Further and significant reduction of emission limit values calls for even more efficient exhaust gas purification systems. Purem by Eberspächer has therefore developed a heated mixer for Diesel and Diesel hybrid passenger cars. The Heated Tunnel Mixer increases the efficiency of exhaust gas purification conversion by optimizing the processing and evaporation of the urea-water solution. Thus, nitrogen oxide conversion rates of over 98 percent can be achieved in the WLTP cycle.**

Mixing sections are key components in the processing of the urea-water solution and are installed as standard in almost all Diesel passenger cars. Purem by Eberspächer is now launching a technology to further lower emissions in Diesel and Diesel hybrid passenger cars. For this purpose, the exhaust technology specialist pursuing its strategy of “active heating”, is now heating the wall surface of its tunnel mixer. The **Heated Tunnel Mixer** is based on the 2018 CLEPA Award-winning mixing unit from Purem by Eberspächer. The component design allows for excellent processing of the urea-water solution and high ammonia uniformity across all load conditions. Heating the tunnel mixer significantly improves the evaporation and processing of the urea-water solution.

Potential for cold start and low-load phases

By actively heating the tunnel mixer, the temperature needed to evaporate the urea-water solution is reached earlier. At the same time, the geometry of the Heated Tunnel Mixer reduces potential deposits. During cold starts or low-load phases, the heated component reduces nitrogen oxide emissions by up to 70 percent over unheated solutions. Over the entire WLTP cycle (Worldwide Harmonized Light Vehicles Test Procedure) and thus also in real driving conditions, over 98 percent can be achieved. The heating concept can be transferred to different component sizes and adapted to different installation spaces as well as engine and market needs. With a heating performance of around 500 watts, the heated mixing unit is suitable for 12-volt, but is also available for 24- and 48-volt vehicle electrical systems. Ongoing evaluation and testing phases of the Heated Tunnel Mixer have been promising. Interested parties can request the solution directly from Purem by Eberspächer.

Emission standards worldwide

Purem by Eberspächer has set itself the goal of actively shaping the clean and quiet mobility of the future. The systems and solutions of the exhaust technology and acoustic specialist of the Eberspächer Group are helping OEMs worldwide achieve the lowest of emission limit values. With the upcoming European emission standard EURO 7 and similar legislation covering North America, India and China, the limit values for pollutant emissions in individual and freight traffic are continuing to become stricter. EHC Lamella and EHC Fractal Heater, along with the Heated Tunnel Mixer unit, are building blocks from Purem by Eberspächer's Active Heating product family that are helping to reach these limit values.

Picture caption:

The Heated Tunnel Mixer from Purem by Eberspächer achieves a nitrogen oxide reduction of over 98 percent.

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About Purem by Eberspaecher:

Purem by Eberspaecher is a subsidiary of the Esslingen-based Eberspaecher Group. To achieve clean and quiet mobility, around 7,000 employees develop and produce exhaust and acoustic systems for passenger cars, CVs, and off-road vehicles. The technologies make a significant contribution to meeting the strictest emission standards and noise guidelines. Its customer base includes the world's leading vehicle manufacturers. In 2020, the area within the group of companies generated revenue of around 4.4 billion euros.

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. In combustion or hybrid engines and in e-mobility, the components and systems from Eberspaecher ensure greater comfort, higher safety and a clean environment. Eberspaecher is paving the way for future technologies such as mobile and stationary fuel cell applications, synthetic fuels as well as the use of hydrogen as an energy carrier. In 2020, the Group generated revenue of more than 4.9 billion euros.