

# Press release

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Stuttgart/Germany, September 23, 2021

## Particle measurement at the tail pipe: MAHLE opts for premium technology

- New emissions test regulation will require particle measurement at the tail pipe from 2023
- MAHLE solution complies with strict new limit values and high standards of measurement accuracy by counting condensation particles
- Available as a stand-alone unit or as an add-on to the MAHLE EmissionPRO® and BRAIN BEE Emission Line equipment ranges

**With the PMU 400, MAHLE Aftermarket has launched a new particle measuring device that meets the strict standards of the forthcoming emissions test regulation. This will make particle measurement at the tail pipe mandatory from 2023. Unlike many of its competitors, the Stuttgart-based automotive supplier has chosen to use the high-quality method of condensation particle counting. The new PMU 400 particle counter more than satisfies the new requirements, such as tougher limit values and higher measurement accuracy. The PMU 400 is available as a stand-alone unit or as an add-on to the MAHLE EmissionPRO® and BRAIN BEE Emission Line equipment series.**



Superior technology: As well as being precise and robust, the PMU 400 can be flexibly adapted to meet future requirements.

“We directly incorporated the practical experience of selected workshops into the development of our new particle measuring device,” said Olaf Henning, Corporate Executive Vice President and General Manager Aftermarket. “In the future, we will therefore be able to offer our customers across Europe a flexible, practical, and future-proof solution for emissions testing within the framework of the standard test cycles.”

The individual nanoparticles in the exhaust gas flow are so small that they cannot be counted or measured using conventional methods. That is why MAHLE has opted to use condensation particle counter technology. The

measurement technique is based on the physical principles of scattered light measurement and the fact that, in an atmosphere of supersaturated vapor, particles act as condensation nuclei and can thus be detected and counted. This method is not only extremely robust, but it also guarantees high measurement accuracy even at low concentrations. This means that the sample taken from an exhaust pipe can be diluted with clean air by a factor of two hundred to minimize the deposition of particles and dirt in the most sensitive parts of the measuring device. As a result, the PMU 400 is a highly reliable and low-maintenance measuring instrument with the additional benefit of intuitive operability.

The device is made of high-quality materials and boasts a robust design. Thanks to the flexible software structure developed by MAHLE, the PMU 400 can be easily adapted to meet new requirements and is therefore particularly economical over its entire service life.

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## About MAHLE

MAHLE is a leading international development partner and supplier to the automotive industry. The technology group is now broadly positioned in the areas of powertrain technology and thermal management with a clear focus on future topics relating to mobility. As part of its dual strategy, MAHLE is working both on the intelligent combustion engine for the use of hydrogen and other nonfossil fuels and on technologies that will help the fuel cell and e-mobility achieve broad acceptance in the markets. The product portfolio of the company, which was founded in 1920, addresses all the crucial aspects of the powertrain and air conditioning technology. Half of all vehicles in the world now contain MAHLE components.  
#weshapefuturemobility

In 2020, MAHLE generated sales of approximately EUR 9.8 billion and is represented in over 30 countries with more than 72,000 employees in 160 production locations and 12 major research and development centers. (Last revised: 2020-12-31)

## About MAHLE Aftermarket

MAHLE Aftermarket, the business unit specializing in spare parts, uses the expertise from the series production of original equipment in its product range and supplies trade, workshop, and engine repair partners. The portfolio also includes products developed by MAHLE Service Solutions for workshop equipment as well as comprehensive services and customized training programs.

MAHLE Aftermarket is represented at 25 locations and other sales offices worldwide, with around 1,700 employees. In 2020, the business unit achieved a global sales volume of approximately EUR 898 million.