

Machinery, Plastics, Electronics

Laboratory Case Study



Accurate Weighing Aids Emissions Testing

Mahle Powertrain's Vehicle Emissions Laboratory

Conforming to the strict regulations held within the automotive industry



Weighing accuracy is vital to Mahle Powertrain's Vehicle Emissions Laboratory, based in Northampton, UK, as they measure particulate matter down to a 10th of a microgram. Together with METTLER TOLEDO, Mahle was able to ensure accurate emission measurements and achieve full compliance to US and EU legislation.

Stricter regulations in place

Determining the weight of particulate matter (PM) is a key task in the automotive industry and is likely to become more important as emissions standards become stricter. As a major supplier to the automotive industry, Mahle uses the latest Horiba technology to meet customers changing needs. Their ambient and climatic test capabilities accommodate current and future requirements for testing, development and certification work. To enable Mahle to conform to the strict regulations held within the automotive industry, they needed to ensure accurate,



MicroBalance XP2U

METTLER TOLEDO



VCA Type approval certified Full flow Duplex particulate tunnel, with 47mm filter holders as per for EU5 requirements.



Mahle's staff performing filter weighing.

reliable and consistent weighing results time after time. Therefore, equipment repeatability and consistency was key to enable them to meet the demanding requirements that Euro 5 regulations require.

Meeting emissions standards with minimal effort

To help Mahle gain more accurate readings when measuring particulate matter, METTLER TOLEDO's XP2U Ultra Micro Balance, together with a filter weighing kit and clean booth weighing environment, provided a state-of-the-art solution for emissions determination.

The measurement system enabled fast and accurate weight determination down to 0.1 µg, meeting the company's standards as well as adhering to the strict automotive

and environmental requirements, in this case Euro 5. The XP2U's innovative weighing pan enabled perfect filter placement and the Haug anti-static device provided a shorter stabilization time promoting increased productivity.

In addition, the instruments' easy maintenance and simple to use function keys meant simplified, straightforward routine checking for Mahle and staff that could be quickly and easily trained.

Gavin Mabbutt, senior emissions engineer explains, "The VCA type approved EU 5/6 upgrade puts Mahle Powertrain's independent emissions facility in a prime position to carry out our clients' development and certification requirements". He also adds, "With

consistent repeatability and ease of use, the METTLER TOLEDO's XP2U Ultra Micro Balance supports the accuracy and repeatability demands required for the low emission test results that Mahle Powertrain produces for its clients."

Mahle Powertrain can now easily conform to the Euro 5 regulations and work towards the future Euro 6 with confidence.

Mahle's experience allows them to help customers find engineering solutions to meet the increasing pressure from governments and the public to control the impact of automotive pollution on the environment.

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Mettler-Toledo AG
Laboratory Division
Im Langacher
CH-8606 Greifensee, Switzerland

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