It’s good for the environment and employees: Audi trials new sealing process at the paint shop

- Innovation makes it easier to apply sealing material
- Precise metering reduces material consumption and saves weight
- Improved ergonomics for employees

Ingolstadt/Győr, September 12, 2019 – At its paint shop in Győr, Hungary, Audi is testing a new method of body sealing. Before a car is given its paint finish, a paste-like sealing material is applied to areas such as the weld seams. This improves vehicle acoustics, guards against corrosion and seals off the interior. The new method grants complete freedom in determining the thickness and width of material to be applied. This makes it possible to apply the sealing material more quickly and with supreme precision.

The new, automated process is known as digital sealing. A robot-guided applicator deposits ultra-fine droplets of uniform quality to the body with outstanding accuracy. Beforehand, trained system operators program the optimal width and thickness of material to be applied. Thanks to the precision involved, almost none of the sealing material goes to waste. What’s more, because less material is used, the overall weight of the vehicle is reduced by several kilograms—and every kilogram saved improves vehicle dynamics and cuts carbon emissions.

The new process is good for employees, too, as their work is going to be made much easier in terms of ergonomics. The benefits of the new method are most apparent in hard-to-reach places that are subject to exacting quality requirements concerning tight seals. In the past, these steps in the process often called for a lot of experience and meant demanding ergonomics, including working overhead on the vehicle underbody. Another example is sealing the cut-outs for the rear lights, known as the “lamp pots.” Audi and its development partner Atlas Copco are now trying out the new method for this purpose in a series production facility for the first time at the paint shop at Audi’s site in Győr.

The new, automated process also saves time and improves the visual appearance of the seals thanks to its consistent level of precision. A patent application has been filed, and the method is due to be rolled out at additional Audi sites.

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