

## Agile shimming: Audi introduces new technology in body shop

**Neckarsulm, March 24, 2025 – In their quest for perfect accuracy, body shop workers at Audi often use fine shims to adjust equipment by tenths of a millimeter. “Agile shimming”, which is used on the two-way framer at the Audi Sport plant at Böllinger Höfe, is a unique technology within the group. Shimming during the fitting of the exterior side parts was automated at one location and connected to the in-line measurement station via a control circuit. An algorithm automatically adjusts the actuators. Audi employees from Neckarsulm and Ingolstadt developed the technology together.**

Manual shimming is an art unto itself. By adding or removing fine shims at geometrically crucial clamping points, the position of a part can be adjusted by tenths of a millimeter before it is fitted. Previously, shimming was based solely on the experience of employees. At the heart of agile shimming is an algorithm that continuously monitors the dimensional accuracy data from the in-line measurement technology and calculates optimal compensation values. Thanks to the closed control circuit, a built-in linear motor directly adjusts the clamping points based on the data from the measurement station.

“The measurements clearly show that agile shimming has made us even more precise”, says Wolfgang Shanz, Head of Audi Sport Production at Böllinger Höfe. “It is also noteworthy that the project was developed and implemented entirely in-house. ‘Agile’ describes not only the technology, but how we work.” The technology is being used in the body shop for the Audi e-tron GT. As a real-world laboratory, small-series production at Böllinger Höfe plays a special role in advancing the digitalization of production and logistics. At Böllinger Höfe, Audi tests intelligent solutions for the fully connected and smart factory.

### Communication Production Sites

Carolin Soulek

Spokesperson for Production at Neckarsulm site and Böllinger Höfe

Tel.: +49-173-9767893

E-mail: [carolin.soulek@audi.de](mailto:carolin.soulek@audi.de)

[www.audi-mediacycenter.com](http://www.audi-mediacycenter.com)



---

The Audi Group is one of the most successful manufacturers of automobiles and motorcycles in the premium and luxury segment. The brands Audi, Bentley, Lamborghini, and Ducati produce at 21 locations in 12 countries. Audi and its partners are present in more than 100 markets worldwide.

In 2024, the Audi Group delivered 1.7 million Audi vehicles, 10,643 Bentley vehicles, 10,687 Lamborghini vehicles, and 54,495 Ducati motorcycles to customers. In the 2024 fiscal year, Audi Group achieved a total revenue of €64.5 billion and an operating profit of €3.9 billion. As of December 31, more than 88,000 people worked for the Audi Group, more than 53,000 of them at AUDI AG in Germany. With its attractive brands and numerous new models, the group is systematically pursuing its path toward becoming a provider of sustainable, fully networked premium mobility.

---