Passion for quality and progressiveness: the new Audi e-tron GT

- First electrically powered Audi produced in Germany
- Production in Neckarsulm combines high tech and craftsmanship
- e-tron GT and Audi R8 travel through the same assembly line
- Gran Turismo sounds powerful and progressive thanks to own e-sound

Neckarsulm/Ingolstadt, October 8, 2020 – Passion for detail, maximum precision, and top quality: The new Audi e-tron GT reflects all the passion with which Audi develops and builds cars. For the production of the electrically powered Gran Turismo at Audi Böllinger Höfe at the Neckarsulm site, the company uses customized new technologies – however, the finishing touches are applied by highly skilled hands. And since the dynamic work of art must also sound good, Audi has brought musical flair and technical competence to bear in composing a unique sound for the e-tron GT. It sounds powerful and progressive – just as an Audi should.

Production of the Audi e-tron GT
The Audi e-tron GT is the brand’s first fully electric car to be built in Germany. The Gran Turismo will start rolling off the production line at Audi Böllinger Höfe at the Neckarsulm site at the end of 2020. The small-series production facility has been expanded, upgraded, and converted for its new role. The skilled craftsmanship from the previous facility has been retained and is supplemented by digital processes and smart technologies. During the expansion, production planners made use of new virtual methods. The tests of the work procedures on the assembly line and the logistic processes were conducted in the virtual domain for the first time, with container planning also performed with the help of VR technology. Production of the e-tron GT was designed without physical prototypes – a first at Audi.

Large areas of the body of the all-electric Gran Turismo are constructed from ultra-high-strength steel and aluminum. To produce this material mix in the planned quantities, a body shop was established that combines the skilled craftsmanship of the employees with the full potential of automated production technology. It consists of an innovative body assembly line along which each body passes twice. It is constructed around what is called the two-way framer, in which ten robots are used to attach the inner and outer side panels. It combines all manufacturing steps involved in joining the sides in a single system – thus making production of the Audi e-tron GT possible on the existing floorspace.

The equipment, data and prices specified in this document refer to the model range offered in Germany. Subject to change without notice; errors and omissions excepted.
The inline measuring procedure for the bodies is also new. It guarantees even greater accuracy and can respond very quickly to minute deviations. At the end of the body assembly line is where precise craftsmanship comes into play: Experienced workers fit the add-on parts and check the finish of the completed body. The expressive design of the Audi e-tron GT places unusually high demands on production quality – the side wall frame, for instance, has a remarkably large draw depth of 35 centimeters (13.8 in) between its highest and lowest point.

The expanded assembly line includes 36 instead of the previous 16 cycles. The e-tron GT shares it with the R8 – this integration of two technically completely different cars is unique in the Volkswagen Group. Both models are moved using the same driverless transport vehicles and an electrically powered monorail system. At one station of the line, humans and robots work side by side. A 3D printer is also on hand to produce customized assembly aids at the employees’ request. Once completed, every car is driven for 40 kilometers (24.9 mi) on public roads, which also includes sections on the highway and in urban traffic.

“With the integration of the Audi R8 and Audi e-tron GT, a unique combination of craftsmanship and smart factory technology is coming to life at Böllinger Höfe,” says Production Head Wolfgang Schanz in summary. “I am especially proud of the passion and spirit of our team.”

**The e-sound of the Audi e-tron GT**

Whether it’s quality, design or technical characteristics – the Audi e-tron GT is a car packed with all the passion of Audi. This also applies to the sound of the electrically powered Gran Turismo. Engineers Rudolf Halbmeir and Stephan Gsell conceived and designed the progressive electronic sound – on the computer, in the sound laboratory, inside the moving car, and in customer studies.

As with every electric car, the e-tron GT also features the statutory acoustic vehicle alerting system (AVAS), although embedded within a broader acoustic spectrum. A loudspeaker fitted in the front of the vehicle emits the AVAS sound. For customers ordering the optional sound package, a second, large loudspeaker is added in the rear. In parallel, two loudspeakers in the interior provide an emotional sound experience. Two control units continuously remix the e-tron GT sound based on variables such as speed or accelerator position. The Audi drive select system allows drivers to set whether and how intensively they wish to experience the sound.

Do you want to hear the Audi e-tron GT too? This and more at https://www.audi-mediacenter.com/en/presskits/passion-for-quality-and-progressiveness-the-new-audi-e-tron-gt-13259
Facts and figures

Production
- Production of the Audi e-tron GT at Audi Böllinger Höfe, which opened in 2014 at the Neckarsulm site; expansion and conversion 2019; new virtual planning methods
- Head of Production Wolfgang Schanz: “Here, we are bringing a unique combination of craftsmanship and smart factory technology to life”
- The body shop for the e-tron GT is around 85 percent automated; ten stations with a total of 34 robots
- Optimum area management with a body assembly line along which each body passes twice; two-way framer combines multiple manufacturing steps on limited floorspace
- Correlation-free inline measurement is a new technology offering the highest precision, with a maximum possible deviation of just +/-0.20 millimeters
- The joint assembly line for Audi e-tron GT and Audi R8 despite their different technology concepts is unique in the Volkswagen Group
- Different conveyor technologies on the assembly line: 20 driverless transport vehicles, new electrically powered overhead conveyor rail, autonomous transfer station
- Human-robot cooperation for bonding the front and rear windows
- Customized assembly aids from the 3D printer based on employee ideas

e-sound
- Development of the e-sound for the Audi e-tron GT with musical creativity and technical competence; designed on the computer, in the sound laboratory, and in the car
- 32 individual sound elements; weighted and modulated based on drive management data
- Optional sound package: two control units in the luggage compartment, two external loudspeakers on the car and two internal loudspeakers in the rear doors
- Sound characteristics can be adjusted across multiple stages using Audi drive select

The Audi Group, with its brands Audi, Ducati and Lamborghini, is one of the most successful manufacturers of automobiles and motorcycles in the premium segment. It is present in more than 100 markets worldwide and produces at 16 locations in 11 countries. 100 percent subsidiaries of AUDI AG include Audi Sport GmbH (Neckarsulm, Germany), Automobili Lamborghini S.p.A. (Sant’Agata Bolognese, Italy), and Ducati Motor Holding S.p.A. (Bologna, Italy).

In 2019, the Audi Group delivered to customers about 1.845 million automobiles of the Audi brand, 8,205 sports cars of the Lamborghini brand and 53,183 motorcycles of the Ducati brand. In the 2019 fiscal year, AUDI AG achieved total revenue of €55.7 billion and an operating profit of €4.5 billion. At present, 90,000 people work for the company all over the world, 60,000 of them in Germany. With new models, innovative mobility offerings and other attractive services, Audi is becoming a provider of sustainable, individual premium mobility.

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