



Media information

Huf expands test capacities: new test laboratory for electromagnetic compatibility

Velbert, 17 August 2022 | Huf has installed a new test facility for electromagnetic compatibility (EMC) at its Velbert site. With the test equipment, Huf continues to meet the latest automotive standards and can provide its customers with reliable test results even faster.

As a specialist for car access and authorization, Huf supplies its customers with numerous electronic products. These include car keys for remote control and passive entry as well as electronic control units, which Huf offers for power automated side doors and the Phone as a Key system for digital key management. In addition, there are door handle systems equipped with various sensor technologies for modern openings via touch and smartphone access via NFC. A good example are the flush door handles made by Huf, which detect approaching persons and extend automatically. These door handles are used in most of the electric vehicles around the world and provide reliable service surrounded by high electromagnetic peripherals in ultra-modern cars.

"The proportion of electronic components and radio communication in cars is increasing rapidly. In addition, there are other external electromagnetic interferences caused by smartphones and wearables for example. We have to take all this into account when developing our electronic products," says Thomas Annen, Head of Product Development, Testing & Prototypes at Huf. "With the new laboratory, we are expanding our EMC equipment and adding an important piece to our testing set-up. Thanks to this modern facility, we can provide our customers with reliable results even faster and comply with new automotive standards."

New EMC test laboratory meets state-of-the-art automotive standards

Huf planned and installed the new EMC chamber in Velbert together with the specialist Rohde & Schwarz last year. The new facility at Huf is based on a turnkey system for EMC measurements on vehicle components and complies with important standards such as CISPR and ISO. In addition to these EMC standards used by automotive industry, Huf products have to fulfill other manufacturer-specific standards that required adaptation of the facility. "It is a normal process that test standards in the automotive sector are constantly evolving. With the new EMC chamber, we have established a modular system that we can adapt to new developments or changing requirements at any time," says Thomas Annen.

Frank Kirch, Sales Manager Industry, Electronics and RF Components at Rohde & Schwarz, says: "The Huf testing team works closely with car manufacturers and can therefore assess current as well as future developments for the product areas of car access and authorization very well. Based on the detailed catalog of requirements, our experts have put together state-of-the-art test equipment and installed it on site. This meets the high quality requirements and can be expanded in the future."

The new EMC chamber complies with the latest automotive standards and enables a wide range of tests. In its current configuration, the chamber is approved for absorbing frequencies up to 40 GHz and thus fulfills the requirements of the automotive customers of Huf. Thanks to the modular system, much higher frequency ranges are also possible for immunity measurements. Among other things, the numerous antennas are a prerequisite for the high measurement quality: part of the equipment are active rod and ring antennas as well as biconical and logarithmic-periodic antennas. In addition, there is a double bar horn antenna that enables the experts at the Velbert site to measure even weak signals in the wide frequency range from 800 MHz to 18 GHz. This also allows Huf to test, validate and consistently develop inhouse its modern UWB (Ultra Wideband) products, which communicate in the frequency range between 6.5 and 10 GHz.

High testing competence at Huf worldwide

The new EMC chamber is one more important cornerstone in the global testing network at Huf. The automotive supplier operates test centers in Europe, North America, China, and India to quickly deliver reliable test results to its customers. Huf provides high quality through the entire product development process and product life cycle, ensuring long product durability and reliability. Particularly car door handles which are moving components on the vehicle and must guarantee reliable car access at all times, and also need to withstand extreme conditions such as heat, cold and dirt. This is why door handles as well as all other products made by Huf have to pass extensive tests. These tests range from thermal tests between minus 70 to plus 120 degrees Celsius, through vibration and drop tests, to leak tests with water and even chemical solvents that must not harm car keys, for example. The design and manufacturing of tools for test systems is also a Huf core competence since decades and Huf is well-known for it at numerous car manufacturers worldwide.

Images and further information are available via the following link:

[Huf Group Newsroom](#)

About Huf Group

The Huf Group develops and produces car access and authorization systems for the global automotive industry. Established in Velbert by Ernst Hülsbeck and August Fürst in 1908, the family-owned company today has locations in Europe, America and Asia. According to a study conducted by Handelsblatt, Huf is among the 20 most innovative companies in Germany. In the 2021 financial year, the Huf Group generated sales of roughly 1 billion EUR and employed 7,300 people worldwide.

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With its modular test equipment, Huf continues to meet state-of-the-art automotive standards.



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Thanks to the new EMC system, the market leader for car door handles can provide its customers with reliable test results even faster.