# Press Release

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**Easy handling of electronic components.**

**Test cabinets with ESD protection ensure electromobility and autonomous driving.**

**Modern vehicles require an increasing number of electronic components. These increase driving comfort and make vehicles safer. At the same time, these components are highly sensitive and can be quickly damaged through electrostatic discharge (ESD) without the damage being noticed. Weiss Technik offers reliable protection for development divisions and production with its ESD options for environmental simulation cabinets.**

**ESD: discreet, invisible and extremely dangerous**

Electrostatic discharges are everyday phenomena. They occur wherever two differently charged, conductive materials approach each other or come into contact. This is the case, for example, when ESD-sensitive test items are placed into a test cabinet with one hand, while at the same time, the other hand holds the cabinet door or touches the operating field. The different charges offset each other suddenly and at high electric current flows. This voltage breakdown is called ESD.

**Hidden danger for modern vehicles**

While people only feel an electric shock from voltages of around 3,500 volts and above, electronic components are already damaged from levels of 100 volts and upwards. If the damage does not lead to a complete failure of the component, it frequently goes unnoticed. The consequences can be later functional errors and as a result, safety risks. With autonomously driving vehicles in particular, with their large number of sensors and control devices, faulty components can have severe consequences and in the worst case lead to accidents that cause death and injury. Guarantee claims may be asserted against the vehicle manufacturer and the suppliers of components as a result, and huge financial damage may be incurred, alongside a loss of image.

**Avoiding overvoltage during development and production**

For manufacturers of electronic components for electric vehicles or autonomously driving vehicles, it is therefore particularly important to provide the best possible protection during development and production against electrostatic discharging. Only in this way can the quality and safety of sensors, control devices and circuit boards be reliably guaranteed, and the car manufacturing standards met. At the same time, all relevant production processes must be designed in an ESD-safe way. These include the establishment of ESD protection zones and the provision of ESD-safe fittings on the test equipment used.

**Structural revision protects against ESD**

Weiss Technik offers special ESD options for its environmental simulation cabinets. These prevent damage from ESD and as a result help make vehicles safer and more reliable. With the ESD options, operating staff, the test space and the test items are all earthed. For this purpose, a series of structural measures is implemented on the test cabinet, depending on requirements, and components such as seals and locks are designed with electrically insulating materials. In addition, the test cabinets are coated with a special conductive paint.

**Standard-compliant and tested by the ESD-Akademie**

In order for the ESD measures to offer the desired protection, Weiss Technik cooperates closely with the ESD-Akademie in Großmaischeid. In this internationally recognised competence centre for ESD protection, all protective measures are tested and certified. In addition, staff are trained accordingly. The ESD options for Weiss Technik environmental simulation cabinets fulfil the standards of DIN EN 61340-5-1 on the “Protection of electronic devices against electrostatic phenomena”. In this standard, all requirements are specified which companies must meet for the effective management of electrostatic charges.

**ESD protection for all test cabinets**

ESD options are available for all Weiss Technik environmental simulation cabinets in the LabEvent, ClimeEvent and ShockEvent series. These come with test space volumes of between 20 and 1,500 litres and in different designs and performance classes. There are also customised special designs and mobile models. In this way, Weiss Technik offers manufacturers of electric vehicles and autonomously driven vehicles and their suppliers reliable protection against the consequences of unwanted electrostatic discharge.

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More information can be found at [www.weiss-technik.com](http://www.weiss-technik.com)

**Photomaterial:**

LabEvent-mit-ESD-Schutz.jpg: No tensions to be expected: An ESD-protected temperature test camber LabEvent.

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**The Weiss Technik Companies**

The Weiss Technik Companies offer under the slogan - Test it. Heat it. Cool it. - solutions that are used around the world in research and development as well as in the production and quality assurance of numerous products. A strong distribution and service organisation with 22 companies in 15 countries at 40 locations ensures optimum customer support and guarantees a high degree of operational safety. The brand **weiss**technik® includes individual solutions for environmental simulation, clean rooms, climatic engineering, air dehumidification as well as containment solutions. With the test systems from the field of environmental simulation, different environmental influences around the globe can be simulated in time-lapse. The product is tested under real load for its functionality, quality, reliability, material resistance and service life. The dimensions of the test equipment range from laboratory test cabinets to test chambers for aircraft components with a volume of several hundred cubic meters. The Weiss Technik Companies are part of the Schunk Group based in Heuchelheim near Gießen, Germany.

**Schunk Group**  
The Schunk Group is a globally active technology group with over 8,200 employees in 29 countries. The Group offers a wide range of products and services in the carbon technology and ceramics, environmental simulation and air-conditioning technology, sinter metals and ultrasonic welding sectors. In 2017, the Schunk Group generated a turnover of around 1.2 billion euros.