

# KNÜRR ELICON® CLASSIC

81 to 103



## MODULAR WORKSTATION SYSTEM

Especially for engineering workstations or in electronic laboratories offers our comprehensive product range optimal solutions for a customized, ergonomic and efficient workstation.

The **modular design** enables a wide variety of configurations and guarantees the highest degrees of flexibility. Combinations of tables can be retrofitted or modified at any time and without considerable effort.

**High quality materials** with extruded aluminum profiles in

combination with die-cast aluminum stabilizers ensure a **maximum degree of stability and sturdiness**.

**Ergonomic details** simplify daily work in various situations and environments.

A **comprehensive range of accessories** completes the Knürr Elicon workstation system: flat screen holders, PC and 19-inch rack containers, workstation lighting, usable storage trays, cable routing ducts and other extras.

## Knürr Elicon® Strong points

- **Future-proof modular design**
  - Expand your existing table combinations, modify your current installation or supplement it with new accessories. The modular design and multi-functional T-grooves give you all the options for future upgrades.
- **Perfect ergonomics**
  - Freely selectable working height in 20 mm increments (can be changed retroactively), great ergonomics guaranteed.
- **Convenient cable management**
  - Spacious horizontal cable ducts with convenient access from above via sliding sections. Routing through vertical cable troughs via detachable covers on the inside and outside of the side sections.
- **Providing electricity**
  - Cable troughs and crosspieces are equipped with a cap extrusion for easy mounting and attachment of socket strips and installation components.
- **Flat-packed kit**
  - Preassembled modules are supplied as a flat-packed kit. This saves freight space and reduces time and space required for assembly.
- **Easy assembly**
  - Screw connections facilitate quick assembly. Simple assembly instructions describe the process.
- **Different working surface depths**
  - Working surface depths from 700 mm to 1000 mm (in 100 mm increments) allow for custom room planning in accordance with your requirements.
- **Maximum stability**
  - More than 20 years of proven stability of Elicon extruded aluminum profiles and die-cast stabilizers in conjunction with sheet steel make this system a reliable and stable choice.



CON20105



CON20103



CON20104



CON20107



CON20106

## ESD workstations

	Knürr ESD workstation	10 <sup>6</sup> - 10 <sup>8</sup> Ohm
	Safety range for personnel 50 kOhm - infinite	
Safety range: MOS components		
Danger area for personnel	Safety area for personnel and MOS components	Danger area for MOS components
10 <sup>3</sup> Ohm	10 <sup>5</sup> Ohm	10 <sup>9</sup> Ohm

- When computers go crazy, alarm systems no longer function or cash registers simply refuse to work, the gremlin at work is quite often easy enough to identify: Static Electricity.

- The constant development of highly integrated circuits results in increasingly more efficient (but also increasingly smaller!) equipment. Therefore it is all the more important to determine the growing sensitivity of **electrostatic sensitive devices (ESD)**. Even voltages of just 100 – 200 volt are enough to damage microprocessors or MOSFETs.

- High voltages are often triggered by modern plastics, artificial fibres in clothing and carpets, and by low humidity in centrally-heated rooms. Depending on the shoe material, speed and humidity, a person walking across a carpet can be loaded with between 2000 and 20,000 volts.

- There is no doubt about it! The safety of electronic components (not to mention the well-being of the operating personnel) can no longer be guaranteed under these conditions.

- In order to safely neutralize static charges at non-hazardous currents, the electric resistance between the respective component and ground must be between 1MΩ and 1GΩ. Worktops made from electrically conductive particle board and special conductive HPL-surfaces offer this defined conductivity. Further we recommend to always connect work-places via a 1MΩ Safety Resistor to building-earth in order to avoid possibly inaccurate earthing resistances on building level.

- With the **ESD workstations from Knürr**, the perfect operational workstation equipment is now available.

- Site insulation in accordance with VDE 0100, § 24 and DIN 57 680 part 2.
- Protection of electronic components against static electricity (EN 61340)



ELI00473

### The Basics

- Generation of electrostatic charges cannot always be prevented. Therefore the discharge must be specifically "influenced". Influenced means: All discharge processes must be run controlled and calculable.

The calculable discharge process is described by the following exponential function:

$$U(t) = U_0 \cdot e^{-t/RC}$$

U<sub>0</sub> = Initial voltage of the capacitor

R = Leakage resistance

C = Capacity

- By activating the equation towards R, an equation is generated with which an ideal leakage resistance can be ascertained.

$$R_0 = \frac{-t_{zul}}{C \cdot \ln(U_0/U_{zul})}$$

- The optimal discharge curve is consequently achieved. Assuming that the voltage (U<sub>0</sub>) must be reduced within 0.1 sec (t<sub>zul</sub>) to 50 V (U<sub>zul</sub>) so that the electrostatic endangered components are not under high voltage for too long, the leakage resistance therefore acts as the regulator for a controlled discharge.

- Of course, for the safety of the



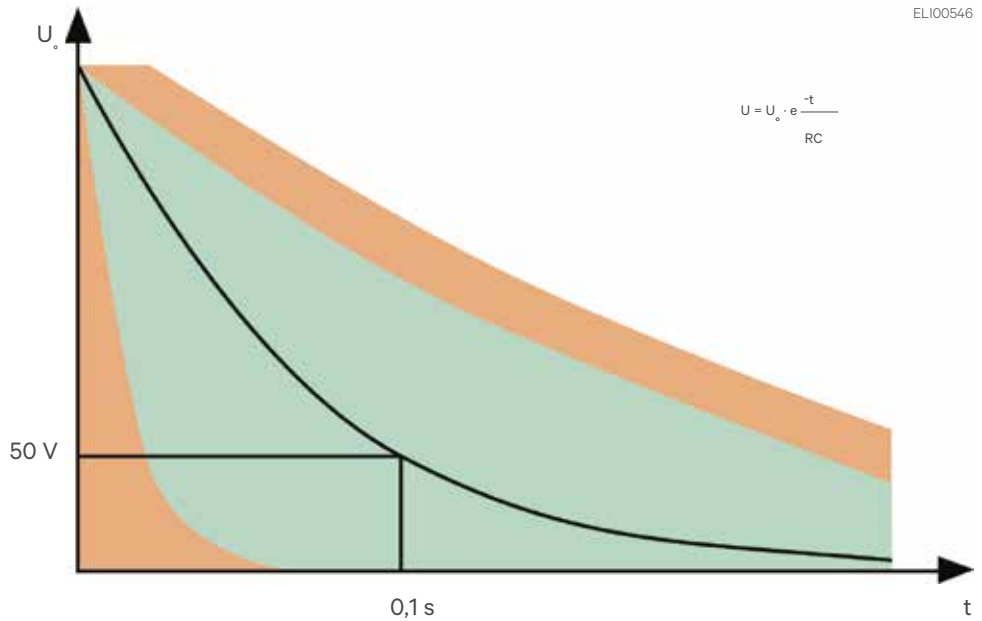
endangered components it is also helpful if charges can be prevented before they are generated by equalising the different potentials. Conductive work and unit surfaces, plastic parts made of conductive materials, the connection of all parts with one another and with the ESD body are all required for this purpose.



\*Electrostatic discharge

- Easily accessible connections for ESD potential equalization, e.g. for measuring and soldering equipment must be available at each workstation. A cable is provided for the safe connection between workstation and ESD potential equalization.
- Easy release connection points for wristbands and other potential equalization conductors are also provided.

**Discharge curve of electrostatic charges**



ELI00546

- Also included in safeguarding equipment are drawers and storage spaces inside and outside which are made of conductive material for further preventing charges from building up.
- With Knürr ESD workstations, all the necessary requirements are satisfied. For this very reason, both the complete workstation itself and work pieces, tools and operating personnel are all on an equipotential line. If potential differences occur as a result of rubbing or for whatever other reason, safe charge equalization or charge dissipation via earth is implemented immediately.

**Diverse areas of application**

- Highly sensitive components do not require just direct protection at electronic workstations; the safety equipping of all other work areas is just as important in this respect. They must also be equipped with conductive desks, chairs, racks, transport trolleys and containers.



If you follow the path of electrostatic endangered components via transport – laboratory – test area – production

- goods output control – packaging through to dispatch, it soon becomes evident that ESD room equipment and ESD accessories have become an indispensable necessity.
- Each of these stations is a part of the quality chain, and as with every chain, a single weak link nullifies the capacities of the other segments.

**Knürr ESD workstations provide a comprehensive safety solution to ensure efficiency**

**Conductive materials**

- Last, and certainly by no means least, the safety equipping of Knürr ESD workstations has been made possible with the advances in the development of conductive materials (plastics, laminates, paints). Thanks to these materials we can now successfully unite both **ergonomic requirements** and **modern design** and **safety** in one system.



**[knuerr-consoles.com](https://www.knuerr-consoles.com)** | Vertiv Integrated Systems GmbH, Mariakirchener Straße 38, 94424 Arnstorf, Germany ID-Nr. DE 129273873, WEEE DE14390867

© 2023 Vertiv Group Corp. All rights reserved. Vertiv™ and the Vertiv logo are trademarks or registered trademarks of Vertiv Group Corp. All other names and logos referred to are trade names, trademarks or registered trademarks of their respective owners. While every precaution has been taken to ensure accuracy and completeness herein, Vertiv Group Corp. assumes no responsibility, and disclaims all liability, for damages resulting from use of this information or for any errors or omissions. Specifications are subject to change without notice.