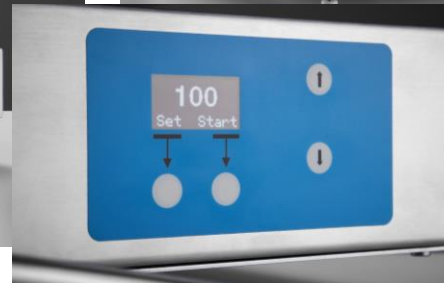


# Helmke Drum and Measuring Table according to ASTM for Particle Measurements at Cleanroom Clothing

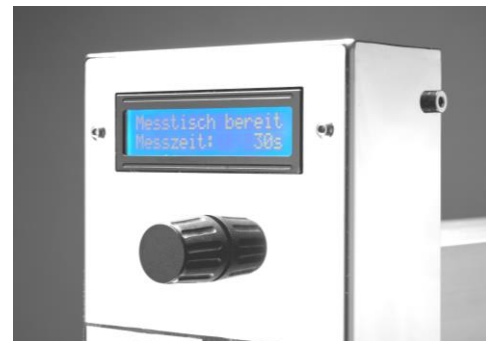
Made in Germany



CCI - von Kahlden GmbH



**Helmke Drum**



Dienstleistungen und Geräte für die Reinraumtechnik

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# Helmke Drum and Measuring Table according to ASTM for Particle Measurements at Cleanroom Clothing

Made in Germany



CCI - von Kahlden GmbH

The **CCI – Helmke Drum** is manufactured according to the Recommended Practice (RP) of the Institute of Environmental Science (IEST) – CC003.4. The dimensions and the 100 revolutions per test process correspond to the specification from RP-CC003.4.

The principle of the Helmke drum is based on the release of particles from clothing, through the movement in the rotating Helmke drum. At a constant speed of 10 revolutions per minute, the clothing is set in motion with the help of drivers and particles are thus detached from the clothing. The RP-CC003.4 specification describes exactly how to load the clothes into the drum. The CCI - Helmke Drum "Made in Germany" is available with a hang up door or with a hinged door. The microcontroller monitors the measurement process and the display shows the detailed measurement processes. The CCI - Helmke Drum is supplied with a substructure on 4 adjustable feet. This allows the Helmke Drum to be placed on any workbench.

**Particle Counter:** Use customer-supplied or CCI-supplied (Lighthouse 3100E).

## Measuring table according to the ASTM method

The measuring table system is used to record the particulate load on cleanroom clothing with an industrially applicable, reproducible and meaningful examination method. For this purpose, the particle measurement on cleanroom clothing is carried out on the basis of the suction method. The method comes from the ASTM guideline and is also described in detail in it. The Textile Institute in Denkendorf (formerly ITV, now DITF) has refined this process and CCI has implemented it in an industrially applicable test system. Essentially, the clean room clothing is placed on the sample table and stretched taut manually, and the sample is then flushed with ultrapure compressed air. The sample air is fed directly to the particle counter.

### Advantages: Rapid measurement test of the residual particle content of processed clean room textiles

- **Speed** – freely selectable measurement duration in seconds
- **Simplicity** – Simple measurement procedure due to automatic operation
- **Reproducibility** – measurement can be reproduced in a defined manner at any time
- **Gentle on textiles** – measuring method gentle on the garment
- **Sample volume flow** – easily adjustable to any cleanroom textile
- **Particle counter:** Use of common devices with software for data storage and Transfer to the PC and subsequent evaluation, e.g. using an Excel sheet

Only Particle Counters with a sample volume of 1 cft (28.3 l/m) can be used. The particle counter will be started at the same time as the measuring process when the Helmke drum or the measuring table is started. This allows the user a very simple and uncomplicated handling.

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