



# CleanBoy Medical – a particle-free, sterile clean-room workbench

12-Aug-2021

**DESIGN AND BUILD**

**Suitable for any application in the field of medical technology**



*CleanBoy Medical*

The requirements in respect of the cleanliness of laboratory environments and commercial premises have increased dramatically, particularly in the areas of industrial production, packaging and in

analytics and medical laboratories and research. A particulate-free, sterile environment is often crucial in such fields.

For this reason, considerable amounts of money are often spent and enormous technical and building effort are invested to erect large clean rooms even though the cleanliness and purity required for the given application is only actually needed in certain areas of the workplace or laboratory.

The CleanBoy Medical clean-room workbench was developed specifically for use in hospitals, doctors' surgeries, pharmacies and clinical labs. The unit makes it possible to create clean-room and hygienic conditions wherever they are needed with little capital outlay. It requires no installation and is ready to use in a matter of minutes.

The "innards" of the CleanBoy Medical are the same as those of the standard CleanBoy range from Spetec GmbH. The main feature is that all components of the housing are made from stainless steel. All corners and edges have been rounded to facilitate cleaning of the surfaces of the unit. All joints have been sealed so as to offer no potential bacterial breeding ground. All the materials used are resistant to commonly used disinfectants and cleaning agents.

The CleanBoy – Medical has been tested by the Fraunhofer Institute for Manufacturing Engineering and Automation (IPA) and has been certified as a clean room grade B medical device. According to the Annex "Biocontamination" of the GMP Guidelines, there should be no evidence of more than 5 CFU (colony forming units) on settle plates with a diameter of 90 mm at any point within the clean room workbench after 4 hours of operation.

At the heart of the clean-room workbench lies Spetec's tried and tested filter technology. A laminar air flow is created in a filter unit. The unit features an H 14 high-performance filter. This has a filtration efficiency of 99.995 %, meaning that the filter captures at least 99.995 % of all particles of a size of 0.12 µm. The CleanBoy – Medical has an isolation factor of 10,000. The air quality in the work area is at least 10,000 times better than that of the ambient air.

One important effect of the filtered clean-room atmosphere is that the microbial count in the working space is also reduced dramatically. Conditions within the working area of the workbench are virtually sterile. As a rule, Microbes adhere to particles or are transported via aerosols. If these microbes are filtered out from the air, this creates an effectively sterile environment in the working area. All surfaces are designed to allow hygienic cleaning and disinfection and particular attention was paid to meeting the design recommendations laid down by the EHEDG and in ISO 14159 and 172-2.



## Companies

- Spetec

## Related Articles



2019 Cleanroom Innovation Round-up