

Integrated aseptic garment system

ElisAir

Working in the higher-class cleanroom environments is not easy from contamination control perspective and comfort perspective as the operators are fully gowned. As the human is the most critical factor inside a cleanroom, this is a risk that companies would like to minimize as much as possible.

Challenges that are being faced in high grade cleanroom areas, are:

- Human skin—goggles not fitting to the face, hoods not fitting properly, or opening creations by head movement
- Goggles—not closing fully, condensation, personal glasses not fitting
- Comfort—being fully gowned without any form of ventilation and breathing in your own breath gives discomfort and could end up in less productivity and concentration problems

Also, the new Annex 1 (2023) describes: “For grade B including access to grade A, a sterile face-mask and sterile eye coverings (e.g., goggles) should be worn to cover and enclose all facial skin and prevent the shedding of droplets and particles.”

Next to this, table 6: Maximum action limits for viable particle contamination describes “no growth” for grade A areas. To reach 0 CFU for cleanroom operators after their work shift, considering time in the cleanroom, working activity and perspiration of the operator is a true challenge.

Concept

ElisAir is an integrated air ventilated garment system for sterile environments which brings comfort to the operator and better contamination control for protecting the environment. This concept, next to undergarments, coverall, and boots, consists of a:

- Cleanroom hood with an autoclavable airtight zipper and panoramic detachable visor, which are both full track and traceable.
- Air device helmet (providing laminar airflow from the cleanroom environment in front of the operators' face, automatically adjusted air speed, measuring air pressure inside hood, fitted to any head circumference) and battery with a lifetime up to 6,000 working hours.

The return when using ElisAir

- Highest contamination control level reached—fully closed gowning concept eliminating skin
- Less CFU—operators produce lower bio contamination due to controlled air inlet
- Up to 80% CO₂ reduction inside cleanroom garment
- Lower risk of human errors by increased comfort for operators
- No condensation, nor fogging—clear and bright view on your work activity
- No pressing points on face due to cleanroom goggles
- No skin exposure—Annex 1
- Personal glasses will always fit

Visit Elis at the Cleanzone 2024,
Booth 1.2 A40 to find out more.

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