

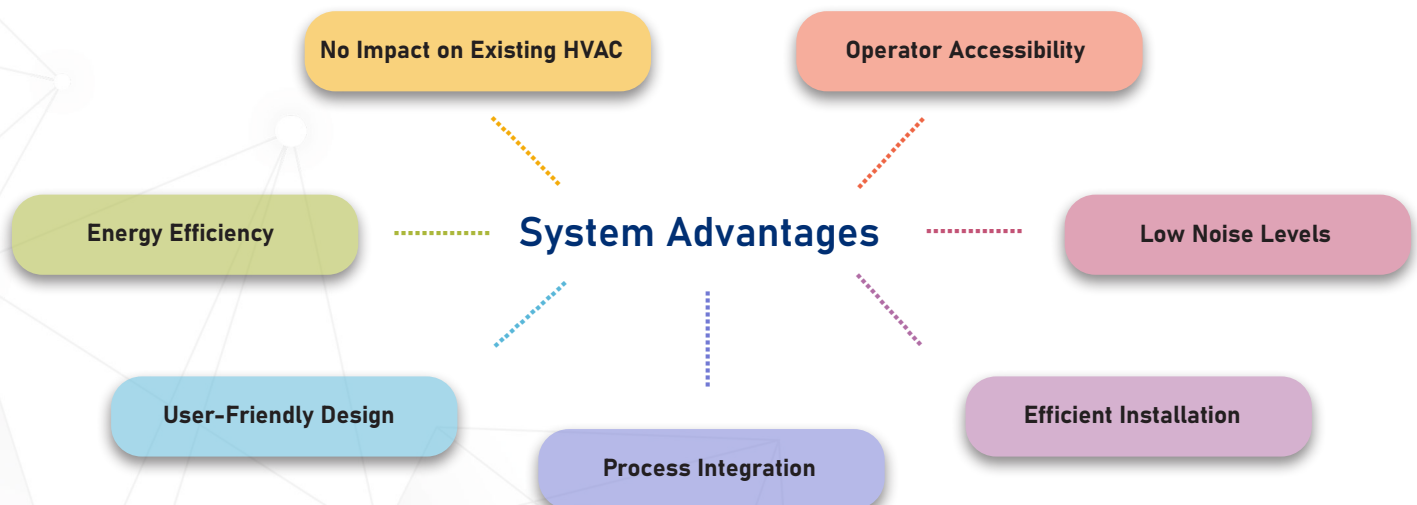
CONTAINMENT BOOTH (DFB)

Downflow Booth - Dispensing Booth - Laminar Flow Unit for Weighing and Sampling

Our Containment Booth (DFB) is designed to ensure that weighing, sampling, and other processing activities are carried out in ISO Class 5 cleanroom conditions, protecting the product from external contaminants. Additionally, the booth prevents particles from the processed product from spreading outside the unit. This is achieved by maintaining the unit at a negative pressure relative to the room it is placed in, ensuring that the cleanroom conditions outside the unit remain uncompromised.

Specifications

- **Laminar Airflow Velocity:** 0.45m/s \pm 20% measured 15-20 cm from HEPA filter or diffuser face.
- **Applications:** Suitable for production, weighing, sampling.
- **Filtration Systems:** Custom filtration systems, including HEPA filters, designed to suit each application.
- **HEPA Filter Testing:** Leakage test with test aerosol according to ISO 14644-3.
- **Temperature Regulation:** Optional cooling coil systems available.
- **Dimensions:** Available in various dimensions and safe working zones.
- **Noise Reduction:** Fan FlowGrid to reduce noise levels.
- **Safe Change Filters:** Configurations available for both internal and external filter changes.
- **Design:** cGMP modular design with minimized joints and seams.
- **Airflow Configurations:** Suitable for powder or solvent applications.
- **Lighting:** Ceiling or side wall-mounted LED lighting, with optional UV lighting.
- **Construction Materials:** Available in epoxy-coated zintec steel, 304/316L stainless steel, or a combination of both.
- **Additional Features:** PVC strip curtains available.



Quality Assurance

Every Containment Booth (DFB) undergoes rigorous quality controls, detailed in our FAT (Factory Acceptance Test) protocols, complying with ISO 14644 standards. Each unit is delivered with comprehensive documentation, including user and maintenance manuals, spare parts lists, CE certificates, individual filter certificates, and electrical diagrams.

Cleanroom Equipment

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A large, dark grey ULPATEK Containment Booth (DFB) is shown in a cleanroom environment. The booth has a control panel on the side and a large air filter on top. Two people in white protective suits and masks stand next to the booth, one holding a clipboard. The booth is illuminated by overhead lights.

ULPATEK | Air Filter Technology

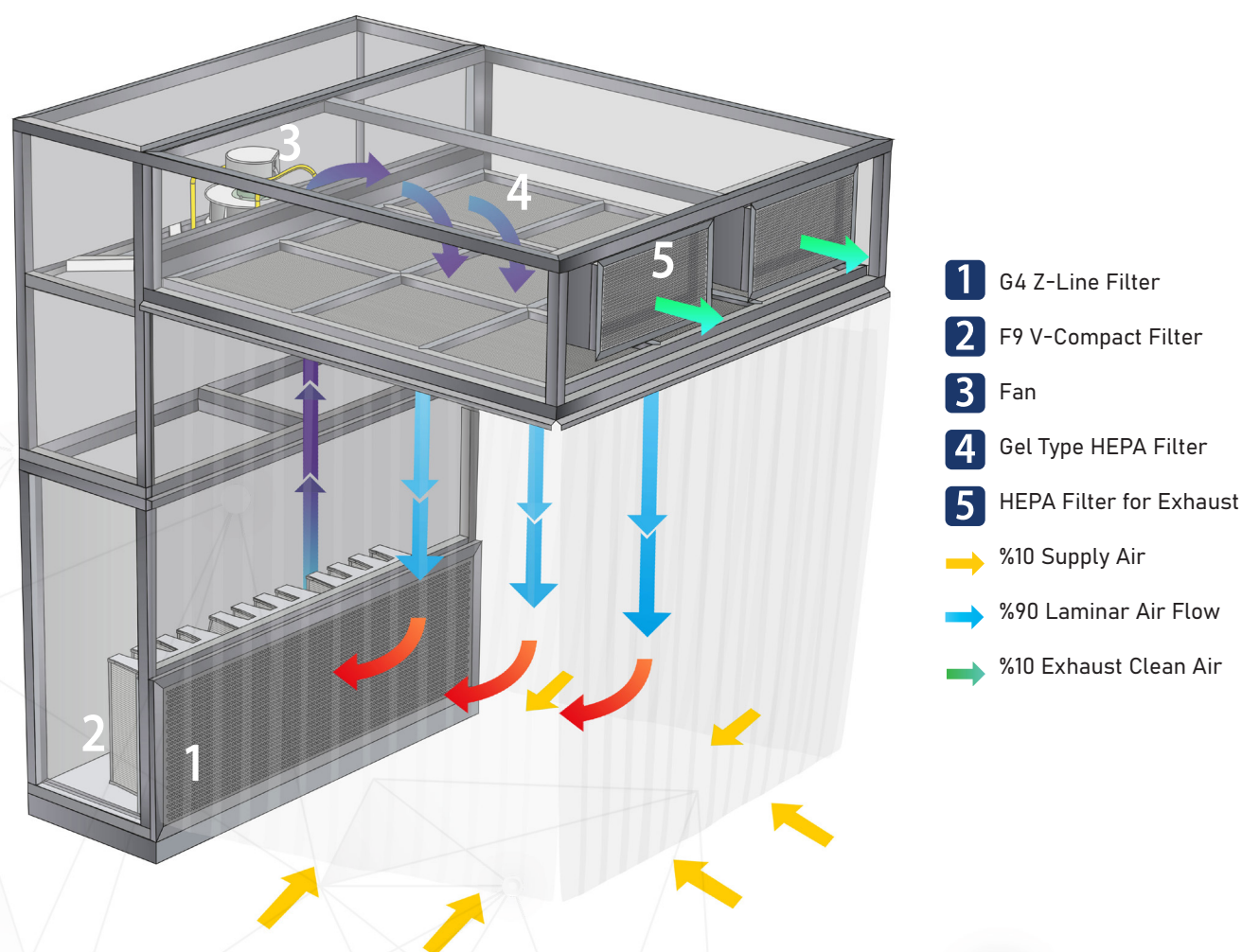
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Operation Principle

The LF Unit operates on a recirculatory push-pull airflow principle, providing effective containment through controlled air movement. Approximately 85-90% of the overall air volume passes evenly through the HEPA filter into the working space, pushing any respirable dust clouds from the product being processed away from the operator's breathing zone and capturing airborne particles. Contaminated air passes through perforated return grilles and two stages of prefilters before returning through the unit's ceiling plenum. The remaining 10-15% of the air is exhausted through a HEPA filter into the surrounding environment, maintaining negative pressure within the working space to prevent contamination breakout. Airflow control is automatically regulated by fan speed sensors to ensure consistent performance.



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