

# AIR FILTER TECHNOLOGY

## LAMINAR FLOW UNITS with FFUs

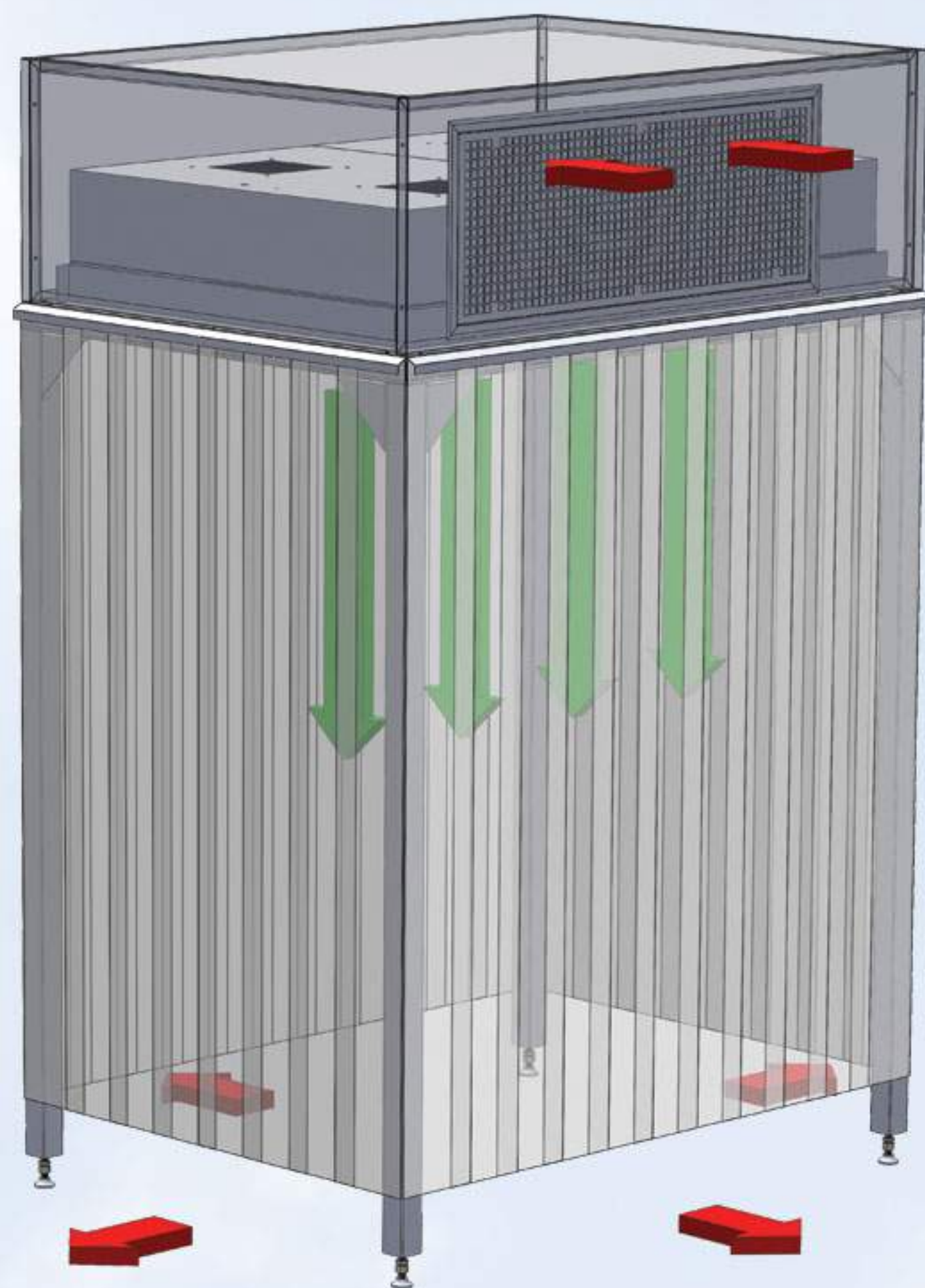
### Introduction

Laminar Flow Cabin with FFUs is made of special aluminum profiles and stainless steel frames. Cabins are either designed to be hanged from ceiling or comes with rolling wheels. Transparent hygienic curtains, variable speed controller, differential pressure gauges, test aerosol nozzles are some of the standard accessories. LF units achieve Class 100 conditions according to U.S. Federal Standard 209E or ISO Class 5 according to ISO 14644-1 with speed controlled fans, pre-filter and HEPA filter (H14).

Clean-air velocity is about 0,45 m/s ( $\pm 20\%$ ) measured 15-20 cm under the air distributor. Laminar flow cabins with FFU supply laminar flow achieving positive pressure in the unit.

### Specifications

- Test aerosol inlet nozzle (DOP/EMERY Test)
- Replacement HEPA filter from room side or ceiling side
- Perforated stainless steel diffuser ensures uniform air distribution
- Modular design with Compact, Separated and Gel type FFUs
- Silent operation (<65 dBA)
- Body structure fully made in stainless steel AISI 304
- Provide laminar air from the LF unit @ 0.45 m/s  $\pm 20\%$
- Ceiling suspended or free-standing with support legs
- Ceiling or side wall mounted lighting
- Portable or ground mounted
- Adjustable airflow with variable speed controller
- High technology AC or EC fans
- Anodized aluminium frame filter with protective grid
- Improved plenum design for better air flow distribution with lower noise level
- Available in various dimensions
- Excellent LED lighting



### Operation principle

The LF Unit takes the air from surrounding environment of the unit. Air passes through the perforated grilles and prefilter. 100% of overall air goes through HEPA Filter and perforated SS air distributor into the entire of working space. It ensures positive pressure inside the unit with laminar flow.

### Standard Accessories

- Variable Speed Controller
- AC Fan
- Magnehelic Manometer
- G4/H14 Filters
- Display for air velocity (m/s)
- DOP/EMERY Test ports
- Fan Start/Stop
- IQ&OQ Documents

### Optional Accessories

- FlowGrid (Silencer)
- Constant Speed Controller
- EC Fan
- Explosion Proof Design
- Fan malfunction indicator

#### Product Type

**ULAF:** Ulpatek Laminar Flow Unit

#### LAF Type

**FFU:** Design with FFU

#### Filter Frame Model

**ASM:** Knife Edge Profile

**ANJ:** Gel Type (80mm)

**AMJ:** Gel Type (104mm)

**AS:** Ceiling Type (69mm)

#### ULAF-FFU-ANJ-2A2C-EC

#### Fan Motor Type

No mark: Standard AC

**EC:** EC      **EX:** Exproof

#### Reference FFU Dimensions

**A:** 610x1220

**B:** 610x915

**C:** 610x610

**D:** 457x610

**E:** 457x4570

**F:** 762x1220

**G:** 457x915

**H:** 610x762

**K:** 762x915

#### FFU Quantity

**1:** 1 pc.      **3:** 3 pcs.

**2:** 2 pcs.      **N:** N pcs.



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