

Cleanroom AHU



Precision Air Handling for Controlled Environments.

CleanRoom AHU is engineered for environments that demand ultra-clean air, precise control, and zero contamination. Designed specifically for cleanrooms across various industries, this unit ensures particulate-free, sterile, and hygienic airflow with uncompromising reliability

Features

- GMP-compliant design
HEPA/ULPA filtration
- Stainless steel components
- Antimicrobial inner surfaces
- Low-leakage construction
- Integrated DOP/PAO ports
- BMS compatible
- EC/IE5 motors & VFDs
UV lamps
- Smooth internal finish
- Sectional/modular design
- Differential pressure gauges

Benefits

- Regulatory Compliance
- Contamination Control
- Sterile & Controlled Environment
- Energy Efficiency
- Hygienic Construction
- Easy Maintenance & Validation
- Modular & Customizable
- Real-Time Monitoring
- Enhanced Product Safety

Product Technical Specifications – Product Range

1. Airflow Capacity:

- Ranges from 1,000 CFM to 60,000+ CFM

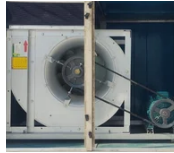
2. Filtration

- Pre-filters: G4 / EU4 (90% efficiency)
- Fine filters: F7–F9 (up to 95%)
- HEPA filters: H13 / H14 (99.97% @ 0.3 µm)
- ULPA optional: U15–U17 (99.9995%)



3. Fan Section:

- EC / backward curved centrifugal / plug fans
- VFD compatible



4. Cooling / Heating Coils

- Copper tubes with aluminum fins
- Chilled water / DX / electric heating / steam coils



5. Motor & Drive

- IE3 / IE5 energy-efficient motors
- Direct or belt-driven (low noise)

6. Accessories

- UV-C germicidal lamps (optional)
- Differential pressure gauges for filters
- DOP/PAO test ports
- Anti-vibration mounts

7. Controls & Integration

- BMS / SCADA compatible
- PLC-based automation (optional)
- Temperature / RH sensors & control logic



Product Construction Details

1. Casing Structure

- Double-skin panels with 25 mm to 50 mm thickness
- PUF, Glasswool, Rockwool, PIR insulation density: 40 kg/m³ (48 kg/m³, 64 kg/m³, 96 kg/m³ – Optional) for thermal and acoustic performance

2. Frame Material

- Extruded aluminum profiles with nylon corners
- High mechanical strength and corrosion resistance

3. Panel Material

- Internal skin: SS 304 / SS 316 for cleanroom compatibility
- External skin: Pre or Powder-coated galvanized steel / optional stainless steel

4. Drain Pan

- SS 304 sloped design with smooth corners
- Proper insulation to prevent condensation and microbial growth

5. Fan Section

- Centrifugal / plug fans / EC Fans, mounted on anti-vibration mounts
- Direct-driven or belt-driven based on requirement

6. Filter Section

- Designed for pre, fine, HEPA/ULPA filters
- Filter holding frames with gaskets and sealing arrangements to avoid bypass leakage

7. Access Doors & Panels

- Flush-mounted, lockable, and gasketed for airtight sealing
- Hinged or removable type with inspection windows

8. Coil Section

- Copper tubes with aluminum fins
- Hydrophilic coating and SS 304 frame (optional for hygiene)

9. Accessories

- DOP/PAO test ports, DP gauges, and UV lamps as per cleanroom application

Product Certifications

1. Eurovent Certified : (Standard EN 13053 & EN 1886)

- Casing strength class : D1
- Casing air leakage class at -400 Pa : L1
- Casing air leakage at +700 Pa : L1
- Filter bypass leakage class : F9
- Thermal transmittance class : T2
- Thermal bridging factor class : TB2



2. AHRI Certified : Standard 1350

- Casing Deflection Rating Class (Positive) : CD4
- Casing Deflection Rating Class (Negative) : CD4
- Casing Air Leakage Class (Positive) : CL2
- Casing Air Leakage Class (Negative) : CL2
- Thermal Transmittance Class With Leakage : CT2
- Thermal Transmittance Class Without Leakage : CT2
- Thermal Bridging Class : CB2



3. CE Certified : (EN ISO 12100:2010, EN 60204-1:2018)

4. ISO Certified : (ISO 9001:2015)

5. AHRI Certified Chilled Water Coils : AHRI Standard 410

6. AHRI Certified Hot Water Coils : AHRI Standard 410

Applications



Healthcare / Hospitals



Pharmaceuticals



Biotechnology



R&D labs



Incubation zones



Cosmetics



Life Sciences



Medical Devices Assembly & packaging



FMCG / Nutraceuticals



Diagnostics & Labs

Our Presence



Sales & Support Offices

Ahmedabad | Bengaluru | Chennai | Delhi | Gurugram | Hyderabad | Jaipur | Kanpur | Kolkata | Mumbai | Pune

Corporate Office

Gurugram

DLF Corporate Greens,
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Southern Peripheral Road,
Sec - 74A, Gurugram -
122004, Haryana

Manufacturing Facilities

Haryana

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Old Industrial Area,
Bahadurgarh-124507
Haryana, India

Maharashtra

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Village Lahe, Mumbai-
Nashik Highway,
Taluka Shahpur,
Thane - 421603

Karnataka

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