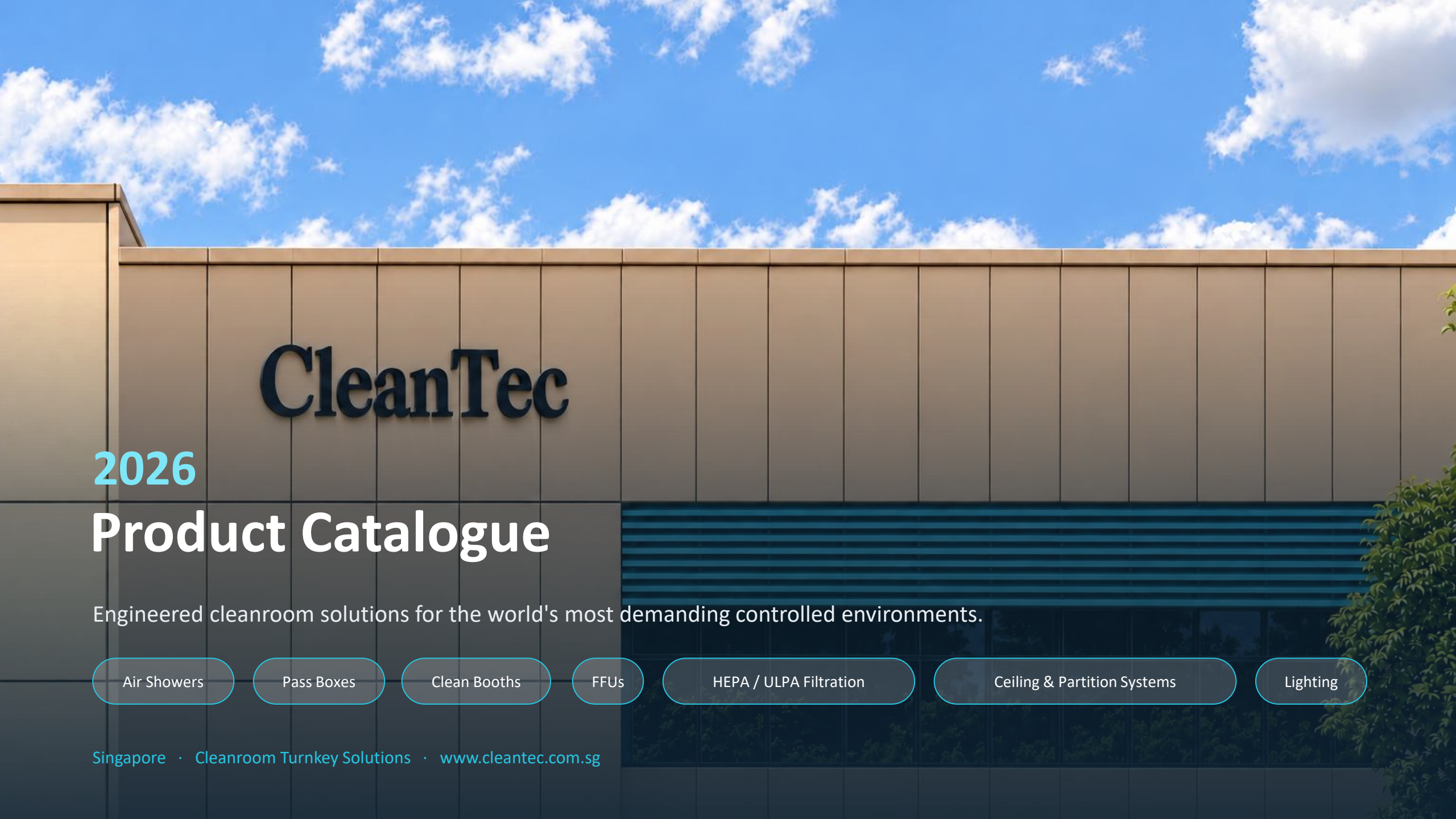




CleanTec

2026

Product Catalogue

Engineered cleanroom solutions for the world's most demanding controlled environments.

Air Showers

Pass Boxes

Clean Booths

FFUs

HEPA / ULPA Filtration

Ceiling & Partition Systems

Lighting

Singapore · Cleanroom Turnkey Solutions · www.cleantec.com.sg

Leadership in cleanroom contamination control

CleanTec Engineering (S) Pte Ltd is a Singapore-based specialist in contamination control, with more than 25 years' experience in the design, fabrication and distribution of cleanroom equipment for the world's most demanding controlled environments.

Our products combine strong structural integrity, durable low-maintenance finishes and full compliance with international cleanroom filtration standards — each backed by independent third-party testing and professional engineering design.

ISO 14644

Cleanroom classification

EN 1822

HEPA / ULPA filtration

EU-GMP

Pharmaceutical compliance



2001

Established

25+

Years' experience

ISO 9001

Certified QMS

NEBB

Cert. testing

A complete turnkey cleanroom partner

From the first enquiry to final testing and commissioning, CleanTec designs, manufactures, installs and validates complete controlled environments — not just the equipment inside them.

01

Turn-Key Solutions

End-to-end delivery — design, fabrication, installation, testing and commissioning of the complete cleanroom, tailored to each customer's process and classification.

02

NEBB Performance Testing

A NEBB-certified firm. Certified professionals test and certify cleanroom performance to ISO 14644-3, IEST-RP-CC001.6 and CC006.3 and other relevant standards.

03

Quality Assurance

Assessed and registered to ISO 9001:2015 for the design, development, manufacture, installation and servicing of cleanroom turnkey systems, equipment and accessories.

A complete, engineered portfolio

Six solution families spanning personnel entry to final filtration and the built cleanroom envelope.

01 Entry & Contamination Control

- Air Shower & Air Shower Tunnel
- Air Shower Pass Box
- Pass Box
- Hand Washer & Dryer

02 Enclosures & Containment

- Clean Booth
- Clean Bench / Laminar Flow
- Cleanroom Isolator (Glove Box)
- Safety Unit (Bag-in Bag-out)

03 Fan Filter Units & Air Movement

- Fan Filter Unit (AC / EC)
- Pressure Relief Damper

04 Air & Gas-Phase Filtration

- HEPA / ULPA Filter
- Mini-Pleat High-Capacity
- HEPA Aluminium Separator
- PTFE Membrane Filter
- Ducted HEPA Ceiling Module
- Activated Carbon (PU) Filter
- Chemical Filter (AHU)
- Rigid Box / Medium Filter

05 Structure & Materials

- Ceiling Tee System (50 / 55 / 80 mm)
- Partition System
- Die-Cast Aluminium Raised Floor
- Static Dissipative Sheet
- Anti-Static PVC Vinyl Strip

06 Lighting, Fixtures & Utilities

- Cleanroom LED Lighting
- Cleanroom Furniture
- Cleanroom Lifter (Dumbwaiter)

SECTION 01

Entry & Contamination Control

Personnel and material decontamination at the cleanroom boundary — air showers, transfer chambers and hygiene stations.

- Air Shower & Air Shower Tunnel
- Air Shower Pass Box
- Pass Box
- Hand Washer & Dryer

Air Shower & Air Shower Tunnel

SINGLE UNIT · MULTI-PERSON WALK-THROUGH TUNNEL

Personnel carry fine particulates into the cleanroom on clothing and footwear. High-velocity jets of HEPA/ULPA-filtered air strip lint and dust at the entrance, in a single-person air shower or a walk-through tunnel for several operators at once.

■ High-Speed Nozzles

Adjustable jet nozzles deliver an intense clean-off sweep

■ HEPA / ULPA Filtration

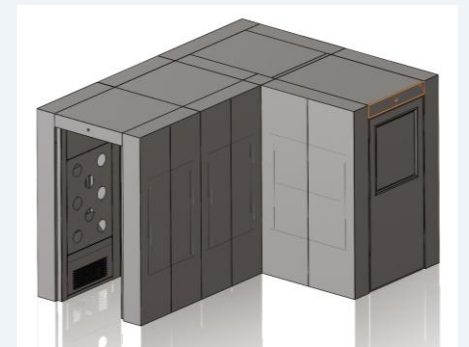
99.99% at 0.3 μm (EN 1822); ULPA optional.

■ Door Interlock

Doors never open together; 10–20 s cycle.

■ Four Traffic Modes

Single or double entry and exit options.



Air Shower Pass Box

INTEGRATED TRANSFER CHAMBER

Combines a traditional pass box with an integrated air shower. Filtered air is continuously circulated through HEPA or ULPA filters to strip surface-borne particulates from transferred items before the door unlocks — enabling safe material transfer between areas of differing cleanliness.

■ Built-in Air Shower

High-efficiency HEPA / ULPA particle removal.

■ Safety Interlock

Mechanical or electrical door interlock.

■ Continuous Circulation

Air brought down to cleanroom particle levels.

■ Customisable Build

Sizes and finishes to suit the opening.



Pass Box

STATIC & DYNAMIC · MECHANICAL / ELECTRICAL INTERLOCK

Interlocked transfer compartments spanning two areas that prevent cross-contamination during material transfer. A mechanical or electrical interlock stops both doors opening at once, so particles cannot flow freely into the cleanroom. Optional miniature air-shower and UV disinfection are available.

■ Interlocked Doors

Mechanical or electrical — never both open.

■ Powder-Coat or SS

Steel or stainless-steel construction.

■ Optional Air Shower

Miniature shower for surface cleaning.

■ UV Option

Ultraviolet disinfection for sensitive items.



Hand Washer & Dryer

TOUCH-FREE ALL-IN-ONE HYGIENE STATION

A touch-free station that combines hand washing and high-speed drying in a single enclosure. Infrared sensors activate each cycle automatically, antimicrobial-coated surfaces resist bacterial growth, and water-efficient nozzles cut consumption — removing the move between separate stations and reliance on paper towels.

■ **Touchless Operation**

Infrared-controlled wash and dry cycles.

■ **All-in-One Enclosure**

Washing and drying in one compact unit.

■ **Hygienic Design**

Antimicrobial-coated, smooth surfaces.

■ **Durable Build**

Electro-galvanized steel, powder-coated.



KEY SPECIFICATIONS

Material	EGI steel, powder-coated
Operation	Sensor-activated
Drying	High-speed warm / cold air
Power	AC 220–240V, 50/60Hz
Option	HEPA-filtered drying

SECTION 02

Enclosures & Containment

Self-contained clean zones and sealed containment for people, product and hazardous processes.

- Clean Booth
- Clean Bench / Laminar Flow
- Cleanroom Isolator (Glove Box)
- Safety Unit (Bag-in Bag-out)

Clean Booth

MODULAR SOFT / HARD-WALL · UP TO CLASS 10 (ISO 4)

A modular, cost-effective alternative to a full cleanroom, achieving cleanliness up to Class 10 with the appropriate setup. An aluminium, steel or stainless-steel framework gives excellent structural stability with minimal construction time, while adjustable supports and interchangeable panels allow fast levelling and layout changes.

■ Modular Framework

Aluminium / steel / stainless-steel structure.

■ Fast Installation

Minimal construction time, easy relocation.

■ Adjustable Supports

Simple height adjustment and levelling.

■ Flexible Panels

ACP, anti-static vinyl or SS side panels.



Class 10

Achievable cleanliness

ISO 7–8

Typical setups

Clean Bench / Laminar Flow Bench

VERTICAL / HORIZONTAL FLOW · UP TO CLASS 10

Self-contained laminar-flow benches that provide an economical, contamination-controlled work zone of Class 10 or better using ULPA filters. A continuous flow of clean air constantly purges the work area; benches sit on an existing bench top or as stand-alone units and configure for vertical or horizontal airflow.

■ ULPA Filtration

Class 10 or better clean work zone.

■ Vertical Flow

Protects personnel from powders and solvents.

■ Horizontal Flow

Product first-in-line with the clean air.

■ Aluminium or SS

Bench-top or free-standing on castors.



Cleanroom Isolator (Glove Box)

SEALED CONTAINMENT · HEPA / ULPA

A sealed containment system for safe handling of hazardous, sensitive or reactive materials. Operators work through integrated gloves, keeping complete separation between personnel and the internal process environment. Chemical-resistant construction, a viewing window, internal lighting and optional PLC control support GMP and aseptic operations.

- Sealed Containment

Prevents contamination and operator exposure.
- Integrated Gloves

Manipulate materials without direct contact.
- Chemical-Resistant

SS / coated steel for corrosive media.
- Controlled Atmosphere

Optional pressure / gas control and PLC.



KEY SPECIFICATIONS

Filtration	HEPA ≥99.97% / ULPA ≥99.999%
Airflow	Laminar / turbulent
Air velocity	0.3–0.5 m/s
Window	Transparent safety panel
Size	Fully customizable

Safety Unit — Bag-in Bag-out

BIBO CONTAINMENT FILTER HOUSING

A containment filter housing that allows contaminated HEPA / ULPA filters to be changed without exposing the operator or environment to captured hazards. The bag-in / bag-out procedure seals the used filter inside a disposable bag during removal — essential for toxic, biological or hazardous exhaust applications.

■ Safe Filter Change

Bag-in / bag-out isolates the operator.

■ Robust Housing

Coated or stainless-steel construction.

■ Contained Exhaust

For toxic, biological or hazardous air.

■ Custom Configurations

Single or multi-stage filter banks.



SECTION 03

Fan Filter Units & Air Movement

Uniform laminar airflow supply and cleanroom pressure control.

- Fan Filter Unit (AC / EC)
- Pressure Relief Damper

Fan Filter Unit (AC / EC)

HIGH-EFFICIENCY LAMINAR AIRFLOW · AC / EC

The Fan Filter Unit delivers high-efficiency, uniform laminar airflow to the cleanroom. A HEPA / ULPA filter with an appropriately sized fan module supplies clean air with low noise and vibration. AC types suit standard applications; energy-saving EC types add precise variable-speed control and can be monitored individually by computer.

■ Modular Ceiling-Mount

Integrates into the cleanroom tee grid.

■ AC or EC Motor

Standard AC or energy-saving EC drive.

■ Low Noise & Vibration

Comfortable, stable operation.

■ Smart Add-ons

Prefilter, speed control, remote monitoring.



Pressure Relief Damper

PRD SERIES · CLEANROOM PRESSURE CONTROL

The PRD Series maintains consistent, controlled pressure within ductwork or pressurized spaces. Where positive pressure must be held to keep contaminated air out, the counterweighted damper blade automatically relieves excess pressure once the set differential is exceeded — preserving cleanroom integrity with simple on-site adjustment.

■ Counterweighted Blade

Reliable, purely mechanical operation.

■ Simple Adjustment

Precise on-site pressure setting.

■ Flanged Connection

Easy integration into duct systems.

■ Custom Sizes

Materials and airflow to suit the duty.



KEY SPECIFICATIONS

Model	PRD-300
Airflow	≈250 CMH
External size	156 × 360 × 260 mm
Weight	≈4.5 kg
Material	Powder-coated steel (Al/SS opt.)

SECTION 04

Air & Gas-Phase Filtration

A complete filtration range from coarse pre-filtration to ULPA-grade final filters, plus carbon and chemical media.

- HEPA / ULPA Filter
- Mini-Pleat High-Capacity
- HEPA Aluminium Separator
- PTFE Membrane Filter
- Ducted HEPA Ceiling Module
- Activated Carbon (PU) Filter
- Chemical Filter (AHU)
- Rigid Box / Medium Filter

HEPA / ULPA Filter

MINI-PLEAT PANEL · H10–U17

The mini-pleated HEPA / ULPA panel delivers high-efficiency filtration with reliable, consistent performance. Its lightweight, compact 70 mm-deep construction eases handling and installation while keeping a low pressure drop. Every unit is 100% leak-tested and certified to EN 1822, with gasket-, gel- or knife-edge sealing.

High Efficiency

H10–U17, up to 99.99995% @ 0.12 µm.

Slim 70 mm Panel

Lightweight and easy to handle.

100% Leak Tested

Scan-tested with certificate.

Versatile Sealing

Gasket, gel-seal or knife-edge.



H10–U17

Efficiency grades

70 mm

Panel depth

100%

Leak tested

Mini-Pleat High-Capacity

ULTRAIR TYPE HC · V-BANK BOX · H10 / H13 / H14

The Ultrair Type HC combines mini-pleat media with a V-bank configuration for superior airflow, reduced pressure drop and extended service life — ideal for high-performance cleanroom and HVAC final-filtration stages. The compact box type handles high airflow in less volume than separator filters.

V-Bank Structure

Maximises media, reduces resistance.

Energy Efficient

Low ΔP cuts HVAC energy use.

High Airflow

Up to 4000 m³/h per unit.

Compact

Less volume than separator filters.



4000

m³/h per unit

H10–H14

Efficiency grades

HEPA — Aluminium Separator

VAV / HIGH-TEMP · H11–U15

A very-high-efficiency HEPA filter with corrugated aluminium separators for applications demanding high air cleanliness under harsh conditions. The separators ensure uniform pleat spacing, excellent airflow distribution and mechanical rigidity — stable under variable (VAV) airflow and performing to 80 °C and up to 100% RH.

■ **VAV-Ready**

Stable under turbulent, variable airflow.

■ **High Temp & Humidity**

To 80 °C, up to 100% RH.

■ **Aluminium Separators**

Uniform pleats and distribution.

■ **Reinforced Pack**

Extra bar braces on both sides.



80 °C

Max temperature

H11–U15

Efficiency grades

PTFE Membrane Filter

ULTRAIR PTFE · H13–U17

The ULTRAIR PTFE series uses advanced PTFE membrane media for ultra-high efficiency with minimal airflow resistance. A finer fibre structure and smaller pore size outperform conventional glass-fibre media in the most demanding, chemically aggressive environments — with no boron or phosphorus outgassing.

■ Ultra-High Efficiency

Up to U17 classification.

■ Chemical Resistant

Acidic, alkaline and organic media.

■ Energy Saving

Up to 30% lower pressure drop.

■ Low Outgassing

Boron- and phosphorus-free.



U17

Top efficiency grade

–30%

Pressure drop

Ducted HEPA Ceiling Module

ULTRAIR M · DUCTED TERMINAL FILTER · H10-U17

A compact, ceiling-mounted terminal filter module with a ducted plenum box for direct connection to the HVAC system. These disposable modules are easily replaced at end of life; each unit is 100% leak-tested and certified to EN 1822 and IES-RP standards for cleanroom, healthcare and laboratory environments.

■ Ducted Plenum

Direct connection to the HVAC system.

■ Disposable Module

Simple end-of-life replacement.

■ 100% Leak Tested

Individual certificate supplied.

■ HEPA to ULPA

Efficiency from H10 to U17.



Activated Carbon (PU) Filter

POLYURETHANE FOAM · GAS & ODOUR CONTROL

Activated-carbon powder impregnated into an open-cell polyurethane foam gives excellent air permeability and structural stability. The large carbon contact area enables fast adsorption of odours, gases and fine airborne impurities, improving indoor air quality with easily replaced media.

■ High Adsorption

Fast capture of gases and odours.

■ Improves IAQ

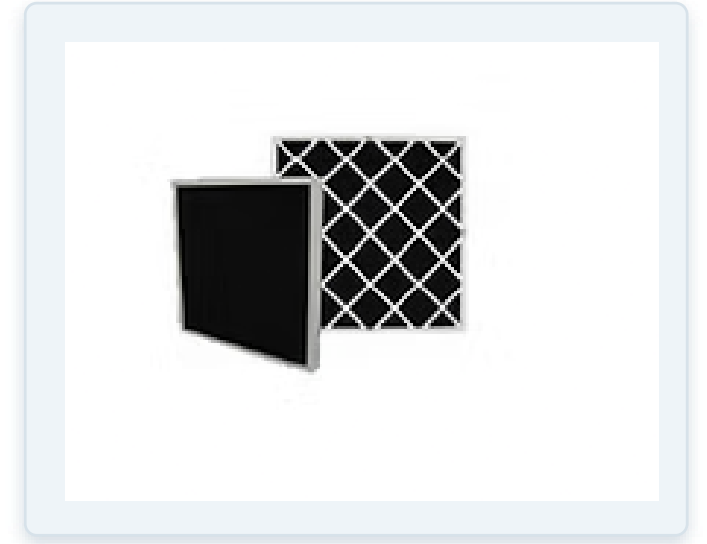
Removes odour and gas molecules.

■ Heat Resistant

Stable at elevated temperatures.

■ Easy Replacement

Simple install in HVAC systems.



Chemical Filter for AHU

MOLECULAR / AMC CONTROL · ACID · BASE · VOC

Chemical filters for air-handling units treat fresh and recirculation air by removing acid gases, alkaline gases, VOCs and dopants. Advanced chemical media in a robust ABS / PP housing deliver high removal efficiency, low pressure drop and long service life for molecular contamination (AMC) control.

■ Targeted Media

Type A acid · B base · C VOC / dopant.

■ Rigid ABS/PP Frame

Robust, corrosion-resistant housing.

■ Leak-Free Sealing

EPDM gasket for a tight fit.

■ Low Resistance

≤ 80 Pa air resistance.



Rigid Box / Medium Filter

SYNTHETIC MICROFIBER PRE-FILTER · MERV 9–14

The Rigid Box Filter uses moisture-resistant pleat stabilizers on both sides of the media pack to hold a tapered pleat throughout service life, maximising media area and dust-holding capacity for effective pre-filtration. Synthetic microfiber media sheds no glass fibre and is colour-coded by efficiency grade.

■ **Pleat Stabilizers**

Moisture-resistant, both sides.

■ **Synthetic Microfiber**

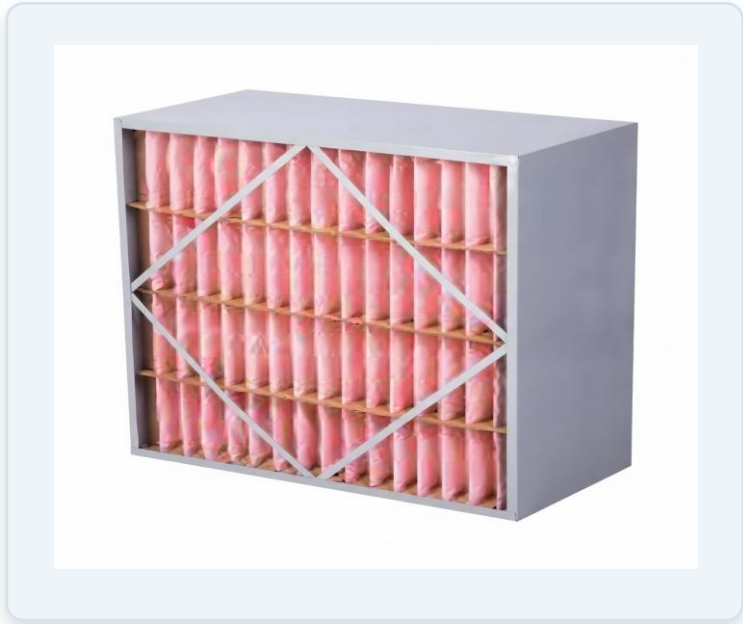
No glass-fibre shedding.

■ **High Dust Capacity**

Extended service life.

■ **Colour-Coded**

Media colour by MERV grade.



MERV

9–14 pre-filtration

SECTION 05

Structure & Materials

The built cleanroom envelope — walkable ceiling grids, modular walls, raised floors and ESD materials.

- Ceiling Tee System (50 / 55 / 80 mm)
- Partition System
- Die-Cast Aluminium Raised Floor
- Static Dissipative Sheet
- Anti-Static PVC Vinyl Strip

Ceiling Tee System

50 / 55 / 80 mm SUSPENDED GRID · WALKABLE

An efficient suspended support framework that carries filters, lighting and ceiling panels while allowing flexible layout. Available in 50, 55 and 80 mm grids with a natural-anodized or powder-coated finish that will not chip, crack or peel. The medium-duty grid is walkable, independently tested and PE-certified.

■ **Heavy-Duty Suspension**

Walkable, rated up to ~750 kg.

■ **Durable Anodized Finish**

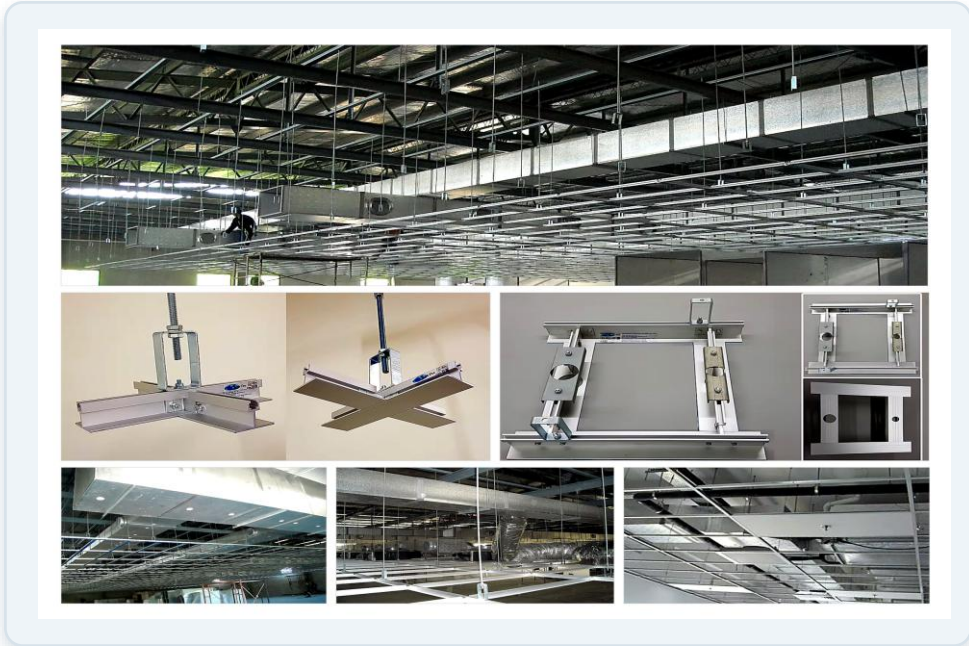
No repainting or maintenance touch-ups.

■ **50 / 55 / 80 mm**

Grid depth to suit the loading.

■ **Verified Performance**

Third-party tested, PE-sealed.



750 kg

Walkable load

3

Grid depths

1.2 m

Hanger spacing

Partition System

MODULAR WALL · PU / ROCK WOOL / ALU-HONEYCOMB CORE

A modular wall system for cleanrooms built from 0.5 mm electro-galvanized steel panels on an aluminium frame. Available with polyurethane, rock-wool or aluminium-honeycomb cores for insulation, fire resistance or rigidity, the anti-static, dust-free panels seal tightly and assemble and dismantle easily.

■ Three Core Options

PU · rock wool · aluminium honeycomb.

■ Anti-Static Surface

Surface resistance $1 \times 10^4 - 10^8 \Omega$.

■ EGI Steel + Alu Frame

Durable and corrosion-resistant.

■ Modular & Sealed

Easy assembly, good airtightness.



KEY SPECIFICATIONS

Panel thickness	49 mm
PU core density	100–120 kg/m³
Rock wool	≈120 kg/m³, fire-resistant
Surface	0.5 mm EGI steel
Coating	Polyester / epoxy 20–80 µm

Die-Cast Aluminium Raised Floor

HIGH-LOAD ACCESS FLOOR · 600 × 600 mm

A durable, fire-resistant die-cast aluminium raised-floor system for data centers, cleanrooms and advanced technology environments. Lightweight yet high-load-capable panels ensure precise underfloor airflow management and excellent conductivity, with no ferrous content to disrupt magnetic fields.

■ Die-Cast Aluminium

Light, with very high load capacity.

■ Class A1 Fire Rating

Non-combustible panel core.

■ Airflow Control

Solid / 17% / 22% / 25% options.

■ Conductive / ESD

Static-dissipative coverings.



KEY SPECIFICATIONS

Panel size	600 × 600 mm (500 opt.)
Load	2–12 kPa
Pedestal height	50–1200 mm
Fire rating	Class A1
Recyclability	100%

Static Dissipative Sheet

METALLIZED OR CARBON GRID · ANTI-STATIC PVC FILM

A specially formulated anti-static PVC film with good transparency and flame-retardant properties. It holds long-lasting specific volume resistance on both sides and comes as clear metallized or clear with carbon grid — enclosing and partitioning ESD-controlled areas while keeping clear sightlines.

■ **Transparent PVC Film**

Clear film keeps sightlines open.

■ **Flame Retardant**

Self-extinguishing PVC base.

■ **Dual-Side Resistance**

Long-lasting on both faces.

■ **Two Grid Options**

Clear metallized or carbon grid.



KEY SPECIFICATIONS

Material	PVC
Internal side	$10^4\text{--}10^6\ \Omega/\text{m}^2$
External side	$10^8\text{--}10^9\ \Omega/\text{m}^2$
Thickness	0.3 / 0.5 mm
Roll size	1.37 m × 30 m

Anti-Static PVC Vinyl Strip

STATIC-DISSIPATIVE STRIP CURTAINS · DOORS & PARTITIONS

A high static-dissipative PVC that safely bleeds off charge to prevent sparks and ESD damage. Supplied as flexible strips for doors and partitions — ideal for explosive atmospheres and static-sensitive areas such as data centres, electronics factories and packaging lines.

■ Static-Dissipative

Bleeds off charge to stop sparks and ESD.

■ Flexible & Durable

Long service life; resists impact and scratches.

■ Thermal & Noise Insulation

Buffers temperature and sound between zones.

■ Chemical Resistant

Withstands a wide range of chemical exposure.



KEY SPECIFICATIONS

Material	Anti-static PVC
Size	200 × 2 mm × 50 m
Colour	Blue / Clear
Temperature	−20 to +50 °C
Density	1.20–1.25 g/cm ³

SECTION 06

Lighting, Fixtures & Utilities

Cleanroom-grade lighting, furniture and material-handling fixtures.

- Cleanroom LED Lighting
- Cleanroom Furniture
- Cleanroom Lifter (Dumbwaiter)

Cleanroom LED Lighting

LED PANEL (LR-SERIES) · T5 HIGH-LUMEN BATTEN

Cleanroom-grade LED lighting that replaces traditional modular luminaires with bright, uniform illumination, greater energy savings and lower maintenance. The flat LR-Series panel resists dust accumulation and wipes clean, while the integrated T5 high-lumen batten offers flicker-free, easy-connect linear lighting.

Uniform Flat Panel

No dust build-up, easy to clean.

High Output

LR-570×1170 panel — 7700 lm at 85 W.

T5 Batten Option

1200 mm, flicker-free, 3000–6000K.

Energy Saving

Up to 90% less than conventional lamps.



KEY SPECIFICATIONS

LED panel	570×1170×30 mm · 85W
Panel output	7700 lm · 170–265 VAC
T5 batten	1200 mm · 18W · 2286 lm
CRI	80
Lamp life	30,000 h

Cleanroom Furniture

STAINLESS-STEEL & POWDER-COATED · GMP-COMPLIANT

Cleanroom furniture built from cleanroom-compliant materials — stainless steel or powder-coated steel — for durable, easy-to-clean, low-shedding fittings. The range includes garment lockers, gowning benches, storage cabinets, tables, trolleys and pass-through shelving configured to the room layout.

■ Stainless or Coated Steel

Low-shedding and easy to clean.

■ GMP-Compliant

Smooth, crevice-free surfaces.

■ Full Range

Benches, lockers, tables, trolleys.

■ Made to Layout

Configured to the gowning flow.



Cleanroom Lifter (Dumbwaiter)

CLEANROOM-GRADE GOODS HOISTING

Cleanroom-compatible lifters for hoisting and positioning goods within controlled environments. Built from low-particulate, easy-to-clean materials, they move filters, equipment and materials safely during installation and maintenance without compromising cleanliness.

■ Cleanroom Materials

Low-particulate, wipe-clean build.

■ Install & Service

Handles filters and equipment.

■ Safe Hoisting

Controlled lifting and positioning.

■ Custom Capacity

Sized to the application.



Industries we serve

Turnkey contamination-control solutions across the most demanding controlled-environment industries.

1

Semiconductor & Electronics

Ultra-low particulate wafer fab and precision assembly.

2

Pharmaceutical & GMP

Compliant production suites meeting EU-GMP standards.

3

Biotechnology & Life Sciences

Controlled research and production environments.

4

Medical-Device Manufacturing

Sterile, contamination-controlled assembly & packaging.

5

Hospital & Healthcare

Operating theatres, isolation and compounding suites.

6

Data Storage & Optics

Precision environments for storage and optical media.

7

Food & Beverage

Hygienic processing and packaging environments.

8

Aerospace & Research

Laboratories and precision research facilities.



Let's engineer your cleanroom.

Turnkey cleanroom solutions — from air showers and pass boxes to clean booths, fan filter units, HEPA / ULPA filtration, ceiling systems and the built cleanroom envelope.

ADDRESS 13 Woodlands Terrace, Singapore 738438

TELEPHONE (65) 6254-1151 · Fax (65) 6254-1161

EMAIL sales@cleantec.com.sg

WEBSITE www.cleantec.com.sg