



EFES



EFES

Process Equipment Pvt.Ltd





Process Equipment Pvt.Ltd

About

EFES Process Equipment Pvt. Ltd is a Customized Clean Room Solutions Provider. We have a Comprehensive Understanding and Expertise in Executing Clean Room Solutions, Turnkey HVAC and Clean Room Projects to Meet The Requirements and Intrinsic Regulations of Pharmaceutical and Biotechnological Industry.

EFES Manufacturing Facilities Equipped with CNC Machinery, Top Class Powder Coating Line and High Pressure Foaming Machinery, Enable EFES to Meet the Divergent Requirements and Specifications of the Customers.



Products

- Modular Clean Room Systems.
- Clean Room Equipments.
- HVAC Systems.
- Mechanical Piping and Utilities.
- Validations Services.

Applications

In Industries Such as Pharmaceuticals, Food Processing and Electronics, Keeping Products or Processes Clean and Uncontaminated is Crucial. Also, Personal Protection From Hazardous Substances Requires an Effective Defense Against Biological and Chemical Substances.



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Modular Clean Room Systems

- Wall & Ceiling Panels are Manufactured in Standard Sizes and Can Also be Customized Depending on the Requirement.
- Partition type : Powder Coated GI / Pre Coated GI / Stainless Steel (SS) / High Pressure Laminates (HPL).
- Powder Coating Thickness : 70-90 Microns / 20-25 Microns / N.A. / N.A.

Wall Partition Systems (Progressive / Non- Progressive Type) Ceiling Partition Systems (Walkable / Non- Walkable Type)

- Standard Size : Double Skin Panel 1200 x 3000 mm (Other Sizes Customizable on Request).
- Sheet MOC : GI Powder Coated / SS 304 and GI Pre-Coated.
- Sheet Thickness : 0.6 / 0.8 / 01 mm as Standard Thickness (HPL – 3 or 4 mm).
- Wall Panel Thickness: 50 / 80 / 100 mm.
- Ceiling Panel Thickness: 60 / 50 mm Filler.
- Glass : Full Glass & Half Glass Wall Panel.
- Factory Made Cutouts : PVC Conduits For Power Sockets / Magnehelic Manometer etc.
- Return Air Risers : 80 & 100 mm are Specifically Designed to Carry Return Air Ducts or Risers.
- Factory made cutouts : Light / Return Grill / Supply Grill etc.

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Modular Clean Room Doors Type

- Door Type : Single Leaf Door / Double Leaf Door .
- Door Thickness : 50 / 80 / 100 mm.
- Sheet Type : Powder Coated GI / Pre Coated GI / Stainless Steel (SS) / High Pressure Laminates (HPL).
- Powder Coating Thickness : 60-80 Microns / 20-25 Microns / N.A. / N.A.
- Leaf Thickness: 44 mm Thick as Standard Sheet 0.6 / 0.8 / 01 mm (HPL – 3 or 4 mm).
- Frame Sheet Thickness: 01 / 1.2 mm as Standard Thickness.
- Filler Material: PUF/ Rock Wool / Paper Honey comb / PIR.
- Glazing : 5 / 6 mm Thickness (Float or Toughened Glass).
- Leaf Opening : Left or Right Single Leaf / Equal Double Leaf / Unequal Double Leaf.



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Door Accessories



Door Closer



Flush Bolt



Dead Lock



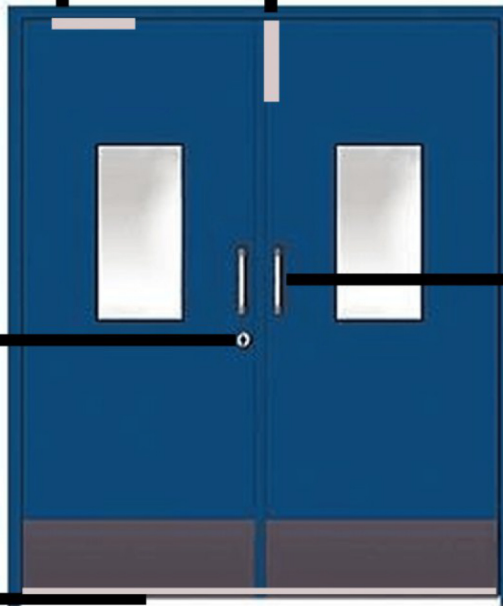
D Handle



Drop Seal



Hinge





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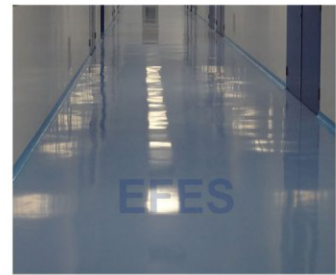
Accessories Required for Cleanroom Constructions Are.



PVC Vinyl Flooring



PU Flooring



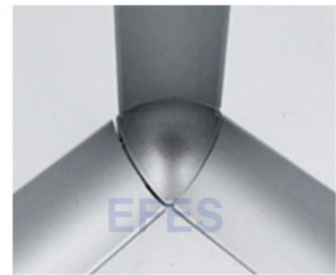
Epoxy Flooring



Coving



View Panel



3D Corner Coving



Inbuilt Risers



Supply Air Ceiling Grill



Swirl Diffuser



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Dynamic & Static Pass Box

- Cabinet Fabricated in SS 304 / 316 / 316L Structure.
- Re-Circulated Filtration System.
- Centrifugal Type Air Blower With Speed Variable.
- Electro-Magnetic Interlocking System (Drop Bolt Lock) .
- Miniplate HEPA Filter H14 99.999% Grade for Supply Air With Aluminum Box (Efficiency 0.3 μm) .
- Pre-Filter EU-6 98% Grade With SS 304 Flange (Efficiency 5 μm) .
- Differential Pressure Gauge .
- Tear Drop Light and Germicidal Ultraviolet Fluorescent Light With Hour Meter .
- Feather Touch Controller for Blower / Light / Pressure Display.
- DOP Port / Atmospheric Nozzles of HEPA Filter .
- Available in Standard and Custom Made Pass Boxes .
- Food Grade Neoprene Gasket Arrangement For Air Tightness .
- Doubled Skin Cabinet With Doors and Toughened Glass.

Options and Accessories

- Flange For Filling The Gap Between The Pass Box and The Clean Room Wall.
- HEPA Filter Blocked Alarms & Velocity Display With Alarms (Audible and Visible).
- Explosion proof Electrics For Flame-Proof Applications.
- Audio / Visual Alarm For Blower Tripping.
- Support Stand For Pass Box.
- Floor Mounted Construction With Three Side Wall Structure & Door Drop Seal.
- SS Perforated Safety Grill For HEPA Filter.



Dynamic
Pass Box



Static
Pass Box



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Vertical Laminar Air Flow Unit

- Air Flow Direction : Vertical (ISO Class 5 Particle Free Work Area).
- Two Stage Filtration.
- Cabinet Fabricated in SS 304 / SS 316 / SS 316L Structure.
- Miniplate HEPA Filter H14 99.999% Grade (Efficiency 0.3 μm)
- Pre-Filter EU-6 98% Grade With SS 304 Flange (Efficiency 5 μm).
- Centrifugal or Back-Word Curved Type Air Blower With Speed Variable .
- Magnehelic Differential Pressure Gauge.
- Tear Drop Light and Germicidal Ultraviolet Fluorescent Light With Hour Meter.
- Feather Touch Controller For Blower / Light / Pressure Display.
- DOP Port / Atmospheric Nozzles of HEPA Filter.
- SS 304 Work Table With Due Reinforcement.
- SS Perforated Safety Grill For HEPA Filter.

Options and Accessories

- Toughened Glass Both Side Panel / Anti Static PVC Curtain on all sides.
- Polycarbonate Enclosures / Night Mode Operation.
- HEPA Filter Blocked Alarms & Velocity Display With Alarms (Audible and Visible).
- Explosion Proof Electrics For Flame-Proof Applications.
- Audio / Visual Alarm For Blower Tripping With Reset Switch.



Horizontal Laminar Air Flow Unit

- Air Flow Direction: Horizontal (ISO Class 5 Particle Free Work Area).
- Two Stage Filtration.
- Cabinet Fabricated In SS 304 / 316 / 316L Structure.
- Miniplate HEPA Filter H14 99.999% Grade For Supply Air With Aluminum Box (Efficiency 0.3 μm).
- Pre-Filter EU-6 98% Grade With SS 304 Flange.(Efficiency 5 μm).
- Centrifugal Or Back-word Curved Type Air Blower With Speed Variable.
- Minihelic Differential Pressure Gauge.
- Fluorescent Light With Milky White Diffuser (250 Lux).
- Germicidal Ultraviolet Fluorescent light With Hour Meter.
- Feather Touch Controller For Blower / Light / Pressure Display.
- DOP Port / Atmospheric Nozzles of HEPA Filter.
- SS 304 Work Table With Due Reinforcement.
- Polycarbonate / Toughened Glass Both Side Panel.

Options and Accessories

- Front Doors (Hinged / Pneumatic Cylinder).
- Air / Gas Cock.
- Night Mode Operation.
- HEPA Filter Blocked Alarms & Velocity Display With Alarms (Audible and Visible).
- Explosion Proof Electrics For Flame-Proof Applications.
- Audio / Visual Alarm for Blower Tripping With Fault Acknowledgement & Reset Switch.
- Photohelic Gauge With Audio / Visual Alarm in Lieu of Minihelic Gauge With High / Low Indicators.





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Mobile Laminar Air Flow

- Cabinet Fabricated In SS 304 / 316 / 316L Structure.
- Two Stage Filtration.
- Centrifugal Type Air Blower With Speed Variable.
- Electro-Magnetic Interlocking System (Drop Bolt Lock).
- Miniplate HEPA Filter H14 99.999% Grade For Supply Air With Aluminum Box (Efficiency 0.3 μ m).
- Pre-Filter EU-6 98% Grade With SS 304 Flange (Efficiency 5 μ m)
- Differential Pressure Gauge.
- Tear Drop Light And Germicidal Ultraviolet Fluorescent Light With Hour Meter.
- Feather Touch Controller For Blower / Light / Pressure Display.
- DOP Port / Atmospheric Nozzles of HEPA Filter.
- Food Grade Neoprene Gasket Arrangement For Air Tightness.
- Doubled Skin Cabinet With Doors And Toughened Glass.
- SS Grill For HEPA Protection.
- Battery Back-Up With Inverter For 30 mins.
- PU Coated Lockable Castor Wheels.

Options And Accessories

- HEPA Filter Blocked Alarms & Velocity Display With Alarms (Audible And Visible).
- Explosion Proof Electrics For Flame-Proof Applications.
- Audio / Visual Alarm For Blower Tripping.
- Statically & Dynamically Balanced Motor-Blower.
- Battery Back-Up With Inverter For 60 or 120 mins.
- SS 304 Removable Shelves.
- Magnehelic Differential Pressure Gauge.





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Reverse Laminar Air Flow (Sampling & Dispensing Booth)

- Powder Coated Mild Steel, SS 304 / SS 316 / SS 316L
- Down Flow Booth Functions on a Recirculatory Airflow Principle.
- Laminar Down Flow of Class 100 Air Supplied to Work.
- Triple & Two Stage Filtration as Per Application.
- Miniplate HEPA Filter H14 99.999% Grade For Supply Air and Exhaust Air With Aluminum Box (Efficiency 0.3 μ m).
- Pre-Filter EU-4 90% Grade With SS 304 Flange (Efficiency 10 μ m).
- Intermediate Filter EU-7 95% Grade With SS 304 Flange.(Efficiency 3 μ m).
- Centrifugal or Back-Word Curved Type Air Blower With Speed Variable.
- Internal Covings For Easy Cleaning.
- SS 304 / SS 316 / SS 316L Double Walled Side Panels.
- DOP Port / Atmospheric Nozzles of HEPA Filter.
- Differential Pressure Gauge.
- Feather Touch Controller For Blower / Light / Pressure Display.
- 5/15 Amp Switch Socket .
- Fluorescent Light With Milky White Diffuser.



Accessories Made Available

- HEPA Filter Blocked Alarms & Velocity Display With Alarms (Audible and Visible).
- Explosion Proof Electrics For Flame-Proof Applications.
- Audio / Visual Alarm For Blower Tripping With Reset Switch.
- Photohelic Gauge With Audio / Visual Alarm With High / Low Indicators.
- Sodium Vapor Lamps.
- Double Skin Side Panels With View Panel.
- Front Anti Static PVC Curtains.
- SS Stand Alone Table For Keeping Weighing Balance.
- PLC Based Control System.
- Safe Change Bag In / Bag Out Arrangement For Filters.
- Differential Pressure Gauge : 3 Nos to Monitor Pressure Drop Across Three Stages of Filters.





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Dynamic & Static Garment Storage Cubicle

Dynamic



- Cabinet Fabricated in SS 304 /316 / 316L Structure.
- Centrifugal Type Air Blower With Speed Variable.
- Vertical Hanging or Horizontal Rack As Per Requirement.
- Electro-Magnetic Interlocking System (Drop Bolt Lock).
- Miniplate HEPA Filter H14 99.999% Grade (Efficiency 0.3 μ m).
- Pre-Filter EU-6 98% Grade (Efficiency 5 μ m).
- Magnehelic Differential Pressure Gauge.
- Tear Drop Light and Germicidal Ultraviolet Fluorescent Light With Hour Meter.
- Feather Touch Controller For Blower / Light / Pressure Display.
- DOP Port / Atmospheric Nozzles of HEPA Filter.
- Food Grade Neoprene Gasket Arrangement For Air Tightness.
- Doubled Skin Cabinet With Doors And Toughened Glass.
- Available in Standard And Custom Made Pass Boxes.

Static



Options and Accessories

- Flange For Filling The Gap Between The Pass Box And The Clean Room Wall.
- Hepa Filter Blocked Alarms & Velocity Display With Alarms (Audible And Visible).
- Explosion Proof Electrics For Flame-proof Applications
Audio / Visual Alarm For Blower Tripping.

Biosafety Cabinet

- Cabinet Fabricated In SS 304 / SS 316 / SS 316L Structure.
- Centrifugal Type Air Blower With Speed Variable.
- Miniplate HEPA Filter H14 99.999% Grade For Supply Air & Exhaust Air With Aluminum Box (Efficiency 0.3µm).
- Pre-Filter EU-6 98% Grade With SS 304 Flange (Efficiency 5 µm).
- Differential Pressure Gauge.
- Tear Drop Light and Germicidal Ultraviolet Fluorescent Light With Hour Meter.
- Feather Touch Controller For Blower / Light / Pressure Display.
- DOP Port / Atmospheric Nozzles of HEPA Filter.
- SS 304 Work Table With Perforations At Front And Back Side That Can Be Removed For Cleaning Purpose.
- Front Door Sliding Toughened Glass Front Door With Counter Weight Arrangement.
- Double Walled Flushed Toughened Glass Side Panels.
- SS 304 Support Pipe 40 x 40 mm With Leveling Lugs.
- SS 304 / 316 / 316L 300 mm Long Elbow Duct For Exhaust.
- Alarm Triggers In Case Front Door Is Raised More Than 160 mm (6 inch).

Options and Accessories

- HEPA Filter Blocked Alarms & Velocity Display With Alarms (Audible and Visible).
- Explosion Proof Electrics For Flame-Proof Applications.
- Audio / Visual Alarm For Blower Tripping.
- Night Mode Operation.
- Front Doors With Glove Arrangement.
- Transfer Hatch For Material Movement.
- PLC Based Control System.



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Air Shower



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- Cabinet Fabricated in Powder Coated Mild Steel , SS 304 / 316 / 316L Structure.
- Centrifugal type Air Blower With Speed Variable.
- Two Stage filtration.
- Miniplate HEPA Filter H14 99.999% Grade for Supply Air With Aluminum Box (Efficiency 0.3 μ m).
- Pre-Filter EU-6 98% Grade With SS 304 Flange (Efficiency 5 μ m).
- PVC or SS 304 Nozzle is Provided, Which Should Be Connected to Suit of Person During Shower Operation to Air Breathing.
- Differential Pressure Gauge.
- Tear Drop Light and Germicidal Ultraviolet Fluorescent Light With Hour Meter.
- Feather Touch controller For Blower / Light / Pressure Display.
- DOP Port / Atmospheric Nozzles of HEPA Filter.
- SS 304 Doors With Double Walled Flush Glass View Panels & Door Closer.
- Control Systems Ensuring That Both The Doors Cannot Be Opened At The Same Time And Will Be Locked When The Air Flow is on.
- Timer For Setting Air Shower : Settable From 30 Seconds To 5 Minutes.
- Emergency Stop Button.
- Indicator Lights Mounted on Both Sides of The Air Shower Exterior Regulate Traffic Flow In And Out of The Clean Room.

Options and Accessories

- HEPA Filter Blocked Alarms & Velocity Display With Alarms (Audible And Visible).
- Explosion Proof Electrics For Flame-Proof Applications.
- Audio / Visual Alarm For Blower Tripping.
- Night Mode Operation.
- PLC Based & Bio Module Control System.
- Safe Change Bag in / Bag out Arrangement For Filters.
- Control Module and Bio metric Module.





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Dedusting Tunnel

- Cabinet Fabricated In Powder coated Mild Steel SS 304 / SS 316 / SS 316L .
- Centrifugal Type Air blower With Speed Variable.
- Pre-Filter EU-6 98% Grade With SS 304 (Efficiency 5 µm) For Fresh & Return Air Filter.
- Differential Pressure Gauge.
- Tear Drop Light.
- Feather Touch Controller For Blower / Light / Pressure Display.
- SS 304 Doors With Double Walled Flush Glass View Panels .
- Single-Pass Fully Automated System With Endless Conveyor With Rotary Moving Brush In Vertical & Horizontal.
- PVC or SS 304 Nozzle is provided, Which Should Be Connected to Suit Drums During Shower Operation to Air Breathing.

Options and Accessories

- Explosion Proof Electrics For Flame-Proof Applications.
- Audio / Visual Alarm For Blower Tripping.
- Single-Pass Fully Automated System With Doors (Entrance And Exit) With Endless Conveyor With Rotary Moving Brush In Vertical & Horizontal.





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Clean Room Wall Systems That Can Be Adapted to a Variety of Clean Room Modular Systems. The Product Has Excellent Performance, Factory Prefabrication, On-site Splicing, and Easy Module Installation

Solutions For Different Environments: We Have a Quick Detachable Solution, a Panel Resistant Agent (VHP) Solution, a Cold-Proof Bridge - a Frame Anti-Condensation Solution, a Fast Automatic Typesetting Solution, a Clean Room Color Quick Change Scheme And Clean Room Doors and Windows A Number of Technical Patents, etc.



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