CLEANROOM DOORS

CLEANROOM DOOR BROCHURE

KAIZEN AIRTECH SOLUTIONS

Office No. B-3, Jayguru Niwas, Khedekar Nagar, Near Navale Hospital, Narhe, Pune-411041, Maharashtra, India

Email: info@kaizenairtech.com

Introduction

- An increasing number of defined standards require reliable special doors for clean room application.
- Specifying the correct door is one of the most important components in the clean room.
- Doors should perfectly suits to the requirements in many controlled environments.
- Clean room doors (Prime Clean Reset) are designed for inside applications requiring limitation of leak flow.
- The perfect sealing properties of Prime Clean Reset provide environmental control and protect the inside environment against draughts, dust and dirt.

- Our clean room doors have a smooth surface structure, it can be easily cleaned. Can withstand air pressure up to 40pa.
- These door are indirectly helping manufacturer to improve product quality and increase productivity of the man and machines.

Type of cleanroom Doors:

There are different types of cleanroom doors used as per requirement or applications. There are of following type:

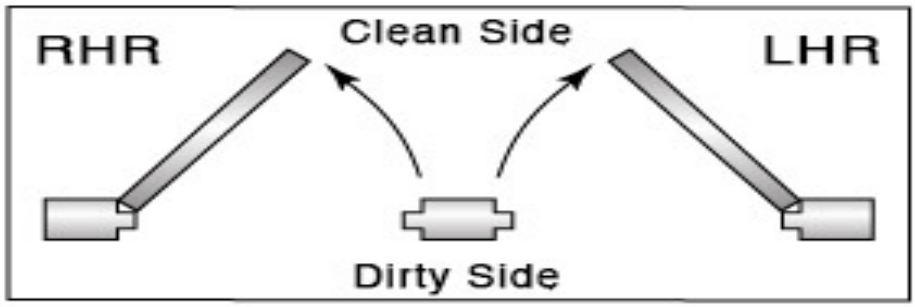
1. Swing Door
2. Sliding Door
3. Rollup Door/High speed door

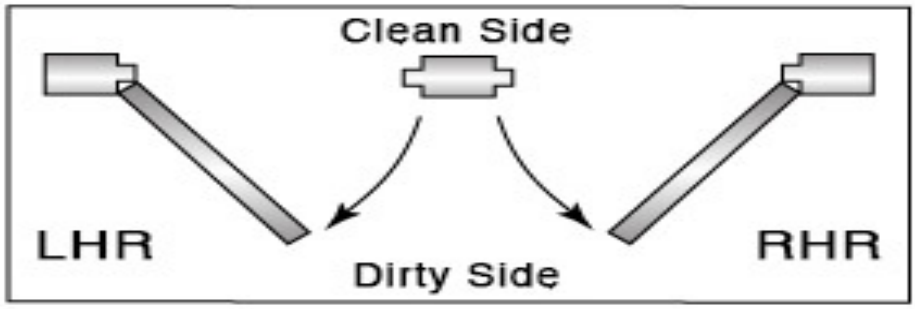
1. Swing Door:

- Cleanroom doors include frames of the material specified to allow easy mounting.
- Doors swings are either Left Hand Reverse (LHR) or Right Hand Reverse (RHR) when viewed from outside the cleanroom.
- LRH and RHR swings minimize impact on cleanroom when door opens.
- For a swing into the cleanroom, either door can by mounted on the opposing jamb.
- Doors may be single swing or double swing.

Door Swing Direction Guide (Looking into Cleanroom)

- LEFT HAND REVERSE: hinge on the left jamb, with door opening outward (away from cleanroom) or right jamb, door opening into cleanroom.
- RIGHT HAND REVERSE: hinge on the right jamb, with door opening outward (away from cleanroom) or left jamb, door opening into cleanroom.





Specifications:

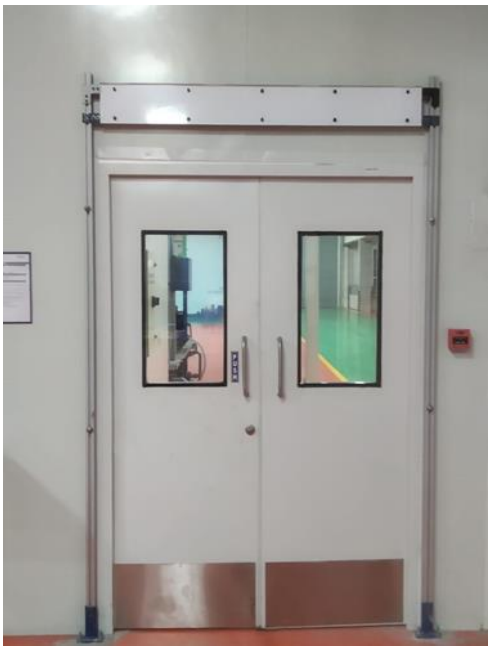
- Open style – swing
- Type- single swing/double swing
- Dimensions- 1500mm x 2100 mm
- Material – metal doors
- Coating – G. I. Powder coated doors
- Heavy- duty structure for high durability
- Fire rated Door

Features

- Designed to meet hygienic and stringent requirement of clean rooms
- Made for Cleanroom Interior Applications
- Acoustic
- No Pressure Leakage
- Prevents Bacteria Growth

Flush Surface, Easy to Assemble Cleanroom swing doors consists of single and double doors. The construction foresees a visible frame in tubular aluminium coupled with a panel, blind or glazed, normally realized with the same materials of the walls in which they are inserted. All assembly points or surfaces are sealed with silicone to simplify cleaning operations and, above all, to guarantee a real air tightness.

Doors are used with standard sizes and sometimes also customised sizes are provided as per requirement. Material used for doors are of puff, SS, Glass with Al extrusion frame having cleanliness properties, fire rated which will according to customer's requirement.



2. Sliding Door:

Manual sliding Door:

Sliding doors, suitable for installation on modular partition walls or on masonry or plasterboard walls. Made-to-measure with radiuses extruded aluminium profile structure and vertical trim on door and frame profile, rounded aluminium guard for top rail with manual or automatic silent sliding mechanism, fitted with tubular handle with vertical grip and recessed chrome handle, panel of choice available in the same variety of products as the modular system.

Automatic Sliding Door:

Cleanrooms are highly versatile environments and for this reason, it is important for them to have entryways that can live up to the demands of this particular area. Thankfully, there are now cleanroom automatic sliding doors that can meet and even exceed the expectations of the users.

With the help of these automatic sliding doors, the ease and speed of transferring various materials in and out of the cleanrooms will help a lot in increasing and improving production.

Sliding doors have high functional features of its own and if these doors come with improved customization, their features gain additional value. One of the prominent sliding doors is glass sliding doors. We use these doors of standard size and also customized if required. Doors are designed for tough everyday operation, extremely sturdy, resistant to impact and effectively corrosion-protected. Sliding doors having variety of manually slide doors, automatic slide doors accordingly.

3. Rollup Door:

- One of the most imperative aspects of clean rooms is the Door you choose for clean room facility.
- Time for which door is open will play a critical factor in avoiding dirt, temperature, humidity etc.
- Opening and closure of door has to quick enough to isolate the two areas.
- Cleanroom Roll-Up Doors make it easy to transport carts and large equipment into and out of a facility.
- They are highly space efficient and easy to operate, with doors that automatically roll up and down at the push of a button.

- Eliminates the need for door clearance, saving valuable floor space.
- Touch panel buttons are easy to operate and respond to gloved fingertips.
- Bi-directional motor and disk brake ensure smooth, accurate door motion and full braking power in the event of a power failure.
- Infrared beam sensors will stop the door from closing if they detect objects in its path.
- A key-switch locks the door in the open position to prevent inadvertent operation while performing maintenance.
- The lock-down function closes the door and emits an audible alarm until lock-down is deactivated.
- The emergency stop button will stop the door and reverse it to the fully open position.
- The Cleanroom Roll-Up Door is designed to be easy to install in Modular Cleanroom
- The two sides of the door frame are fitted into the wall cut-out and fastened together.
- The door motor housing is then mounted at the top of the door frame, along with the electrical box that houses the control board.
- The slatted aluminium door feeds out of the motor housing and into the tracks built into the door frame.
- The power cord extends from the control box on top of the motor housing and can be connected to any standard outlet.
- The materials used in the construction of the door are all cleanroom-compatible.
- 304 stainless steel makes up the frame and housings, while the door itself is powder-coated aluminium.
- The touch panel is mounted flush in the door frame to make it easy to wipe down and sterilize.
- An LED indicator light signals to personnel that the door is receiving power and is operational.

Specifications of Rollup Door

- Door type- Roll up
- Dimensions- 3000 mm X 3000 mm
- Applications- cleanroom
- Fire rated door
- High speed door
- Max height of clean room 4 mtr
- Speed: Relay Control Unit As Standard

  Opening Speed upto: 1.0 m/s

  Closing Speed: 0.8 m/s

  Optional inverter motion system to adjust different speeds, with progressive control of acceleration & deceleration during braking

  Opening Speed upto: 2.0 m/s

  Closing Speed: 0.5 m/s

- Resistance to Wind Load: EN 12424: Class 3
- Permeability Air: EN 12426 EN 12427: < 12 m^3/m^2h, Δ 50 PA
- Curtain: Fabric0.9 - 1.5 mm : Standard

  Full Transparent PVC2.0 mm: Optional

- Side Guide: UHMWPE 1000: Standard
- Guide Structure Material / Surface : Aluminium : Standard
- Shaft / Operator Cover: Straight: Optional
- Operator and Control: Connecting Voltage: 400V – 3ph, N: Open-Stop-Close Button

  Protection Category (Operator / Control): IP 54 / IP 65

  Emergency-OFF Button: Optional

  Closing Zone MonitoringLight Grille IP 67: Optional

  External Route MonitoringInbuilt Photocell: Standard

  Door area MonitoringRadar Presence Detector: Optional

Induction Loop: Optional

- Emergency Opening: Crank Handle: Standard
- Standard Curtain Colours.

Motorized Rolling Shutters are typical, are perfect for circumstances where side room is less and security is required. Rolling Shutters need very less headroom above the structural opening. They combine strength with elegance along with toughness and are designed for both external and internal applications. Automatic Rolling Shutters are made-up of interlocked Galvalume, Galvanized Insulated and Non Insulated, Stainless Steel, Patented Aluminium profiles and patented Bright Steel Bar Rolling Grills. Automatic Rolling Shutters are strongly built to endorse trouble-free process and long life. The Motorized Rolling Shutters

can also be planned as per customer’s conditions or conforming to IS6248. Clean Room Doors are best suited for pharma industries where you need to have controlled environment. The opening and closing of door is fast enough to separate two areas.