# PASS BOX BROCHURE


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# Introduction

Kaizen pass box is customized to allow material to transfer without much personal movement. Controlling the ingress of particulate contamination into clean room and another controlled environment. The auto control releases the transfer items only after a full clean down.

# Description:

Pass box is one of the cleanroom systems, which is used to transfer materials from one side to other side through controlled environment in order to avoid airborne cross contamination. As the name states itself, the primary and only work of a **pass box** is to pass material from one side to other without raising contamination concern and if any particulate matter presents on the material surface, it swipes away during the operation. Interlocking door mechanism is the prime feature of a pass box, when door at one side is open the door at other side remains closed. It is popular with other names such as *cleanroom pass through, clean transfer window and transfer hatch*; in addition, it is widely used in microbiology laboratories in food, pharmaceutical and chemical industries.

A pass box is designed in two different types; static and dynamic, it is the user specific requirement decides the right design configuration. The difference between these two is explained as:

### DYNAMIC PASS BOX (DPB)

A dynamic pass box is fitted between classified and non-classified areas. Material is passed through vertically HEPA filtered air.

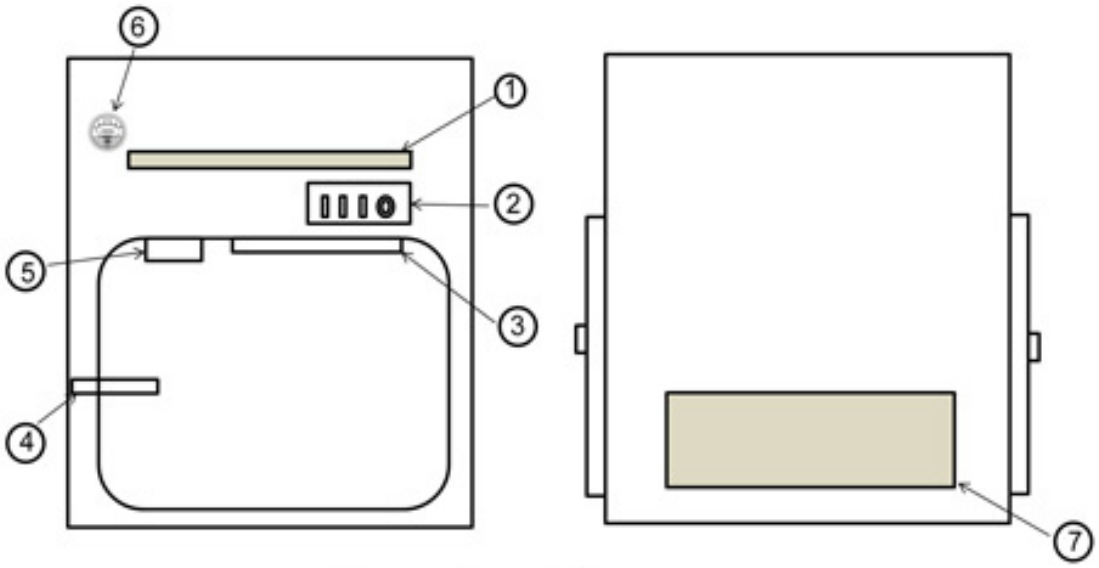
### STATIC PASS BOX (SPB)

Static pass box on the other hand is fitted only between two clean room areas and has no air supply or extract. It is also known as passive pass box and equipped with UV light.

We are ISO certified pass box manufacturers in India. Our **pass boxes** deliver low noise and easy to use operation, rugged construction promises long service life. Standard size is ***2 x 2 x 2 ft***, we also make customized pass through boxes to any customer provided size. Every box is made to comply international standards and supplied at industry leading price in India.

## PASS BOX DIAGRAM:

1. HEPA FILTER
2. Control Panel
3. UV Light
4. Door handle
5. Electromagnetic Lock
6. Magnehelic Gauge
7. Per-filter.




Pass Box Diagram

## Key Benefits:

1. Double skin SS 304 base surface
2. Reliable electronic interlock system.
3. Skin door with glass vive panel.

## Static Pass Box:

Features:

1. Microprocessor based digital LCD Controller displays all safety information on one screen easy monitoring all parameters.
2. Electronic interlocking system is reliable maintenance free fail safe and maintain clean room integrity by preventing both door from being opened at the same time.
3. Powder coat inhibits microbial growth on external surface prevents contamination and improves safety
4. The full body is constructed of SS 304 with Satin finish, which is maximum chemical resistance.
5. Frameless internal surface with coving easily clean.
6. Double skin door with toughened glass or polycarbonate sheet vive panel.
7. Fluorescent light (interlocked with door. When booth door closed both are electric magnet locked, for open press touch screen to release door at a time only one door opened.
8. Audio/visual indication for material is kept inside the pass box.
9. In close condition of both doors UV light will be on, when open any one door UV will off and FL will on.

## Model

| Model No | Working Dimensions (mm) | External Dimensions ( mm) | Electrical |
|---|---|---|---|
| KSPB2 | 450 X 450 X 450 | 550 X 500 X 550 | 230 V, 50Hz |
| KSPB3 | 610 X 610 X 610 | 740 X 680 X 810 | 230 V, 50Hz |
| KSPB4 | 910 X 910 X 910 | 1100 X 680 X 1560 | 230 V, 50Hz |

# Dynamic Pass Box

Kaizen dynamic pass box provide barrier between areas & to sweep away the particulate load if present on surface of object being transferred to more clean area. Personal traffic is the most important factor which must be controlled. They may also be used to protect the external environment from egress of contamination.

## Key Benefits:

1. Double skin SS 304 base surface
2. Reliable electronic interlock system
3. Double skin door with glass vive panel.

## Features:

1. Statically and dynamically balanced motor blower assembly.
2. Microprocessor based digital LCD Controller displays all safety information on one screen easy monitoring all parameters.
3. Electronic interlocking system is reliable maintenance free fail safe and maintain clean room integrity by preventing both door from being opened at the same time.
4. Powder coat inhibits microbial growth on external surface prevents contamination and improves safety.
5. The full body of pass box is constructed of SS 304 with Satin finish, which is maximum chemical resistance.
6. Internal coving for easy clean, bottom with heavy roller base.
7. This can be easily installed on the wall between the classified room and unclassified room.
8. Double skin door with toughened glass or polycarbonate sheet vive panel.
9. ISO class 5 air cleanliness
10. HEPA filter 99.999% down to 0.3 micron Fluorescent light (interlocked with door)
11. When booth door closed both are electric magnet locked, for open press touch screen to release door at a time only one door opened.
12. Audio/visual indication for material is kept inside the pass box.
13. In close condition of both doors UV light will be on, when open any one door UV will off and FL will on.

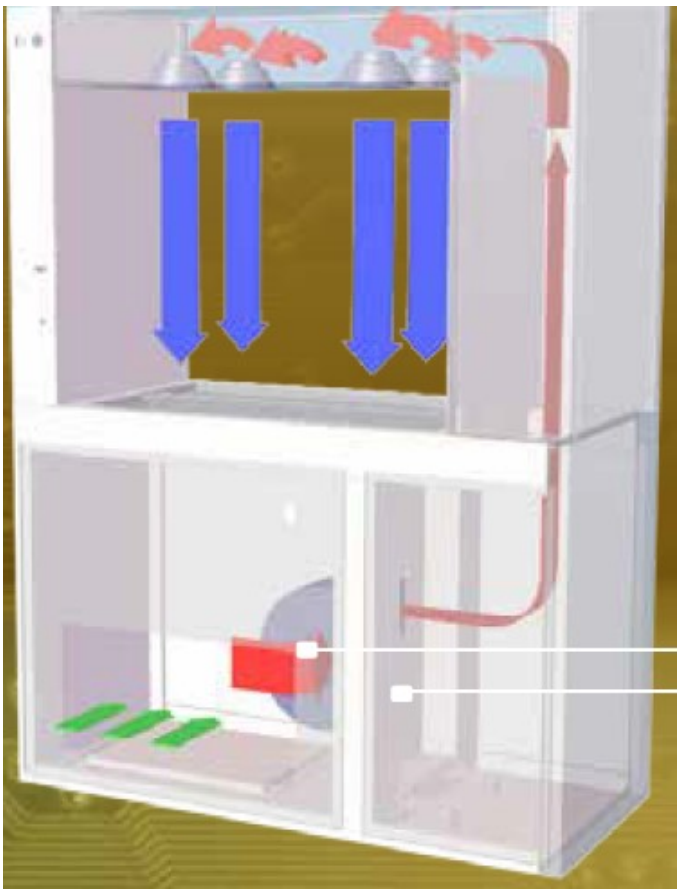
## Models:

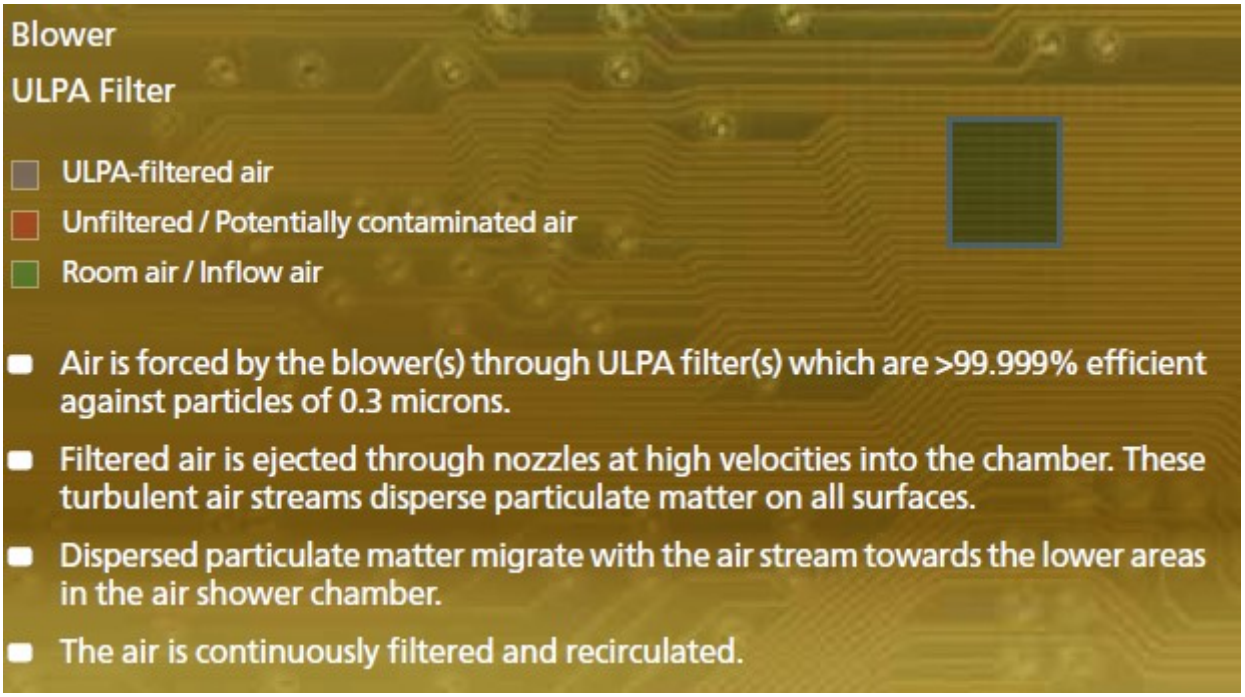
| Model No. | Working Dimensions (mm) | External Dimensions (mm) | Electrical |
|---|---|---|---|
| KSPB-24 | 610 x 610 x 610 | 740 x 660 x 1275 | 230 V,50 Hz |
| KSPB-30 | 760 x 760 x 760 | 910 x 810 x 1425 | 230 V50 Hz |
| KSPB-36 | 915 x 915 x 915 | 1065 x 980 x 1580 | 230 V50 Hz |
| KDPB-24 | 450 X 450 X 450 | 590 X 550 X 1100 | 230 V50 Hz |
| KDPB-24 | 610 x 610 x 610 | 750 x710 x1250 | 230 V50 Hz |
| KDPB-24 | 760 x 760 x 760 | 900 X 860 X 1400 | 230 V50 Hz |

## Cabinet accessories:

1. UV Lamp, 253.7 nm wavelength
    1. With timer to optimize lamp life and specific species exposure need
    2. Hour Meter
2. FLP Electrical goods for explosion area.
3. Flush level with ground level.
4. Flange for one side flush mount in clean room wall.
5. Microprocessor based interlocking system.
6. SS handle and hinges.
7. Hour meter for UV light.
8. Fluorescent light with interlocking arrangement to put on light when the doors are in closed position.

## Pass box Airflow diagram:




Blower
ULPA Filter
ULPA-filtered air
Unfiltered / Potentially contaminated air
Room air / Inflow air
Air is forced by the blower(s) through ULPA filter(s) which are >99.999% efficient against particles of 0.3 microns.
Filtered air is ejected through nozzles at high velocities into the chamber. These turbulent air streams disperse particulate matter on all surfaces.
Dispersed particulate matter migrate with the air stream towards the lower areas in the air shower chamber.
The air is continuously filtered and recirculated.