



# MATERIAL TRANSFER HATCH



Pass Box  
Unit

Material Transfer Hatch



PROTECTION, SAFETY, RELIABILITY.  
AND MORE.

## Pass Box Unit

Material Transfer Hatch  
Class 3 - EN ISO 146644-1

GMP Grade A  
Air cleanliness

*In a nutshell...*

### TECHNICAL SPECIFICATION

- ✓ Body structure fully made in stainless steel AISI 304L 4B (Scotch Brite finishing) press-bent metal sheets with radius of 3 mm for easy cleaning and roughness lower than 0,8 Ra.
- ✓ Internal surfaces:
  - ▶ stainless steel internal side surfaces made in AISI 304L with rounded corners;
  - ▶ one piece perforated work surface with 5 mm holes for perfect laminar flow shape made in AISI 304L stainless steel. Collecting sink below work surface in AISI 304L stainless steel;
  - ▶ equalizer and protective H14 HEPA/ULPA filter diffusor grid made in anodized aluminium.
- ✓ Glass screens: doors are made from 10 mm thickness safety glass with AISI 304L stainless steel hinges and electro-magnetic handles to open the screen.
- ✓ Filtration: Class H14 HEPA/ULPA filter. Typical efficiency of 99.995 % MPPS down to particles size of 0,12 µ according to CEN EN 1822.
- ✓ Recessed control box with opening towards not cleaning area.
- ✓ Functional backlit switches positioned on the frontal face of the hatch of the box with operating switches and lights indications, in both clean and dirty side area.

**Faster transfer hatches are laminar flow equipment commonly known as pass boxes which provide for a clean environment in Class ISO 3 in accordance to ISO 14644-1 while transferring samples from areas classified with different air cleanliness.**

According to Clean Room standards and requirements, these units may be simple transfer boxes with no filtration (passive pass box) made out of partition room walls with glass screens separating the two areas or, stainless steel self-standing structures separating two areas both physically and dynamically with positive or negative pressure air flow pattern providing for a dynamic tightness toward the surrounding environment.

### AVAILABLE DIMENSIONS (useful internal w x d x h)

- ✓ 500 x 500 x 500 mm
- ✓ 800 x 500 x 700 mm
- ✓ 800 x 800 x 800 mm

Custom dimensions and special internal arrangement are available upon request

### CUSTOMIZATION

- ✓ Passive transfer hatch (no ventilation) with UV light sanitizing cycles.
- ✓ Square doors or three doors version.
- ✓ Software and fittings for integration with Hydrogen Peroxide generators.



### WORKING PRINCIPLES

Transfer hatch devices *may operate both in negative and in positive pressure without compromising the safety and cleanliness performances.* The pressure pattern set up and operational mode, mostly depends on the lay-out of the clean room or to meet specific standard requirements. Faster transfer hatches operates as standard in negative pressure in comparison to the pressures of the surrounding environments generating the so called "well of pressure".

- ▶ **Positive step of pressure:** the inside pressure is higher in comparison to not clean side area and lower than clean side area.
- ▶ **Overpressure:** the inside pressure is higher in comparison to not clean side and clean side areas.
- ▶ **Well of pressure:** the inside pressure is lower in comparison to not clean side area and clean side area.



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Protect the Environment for present and future generations - manufacturing low energy consumption equipments  
Reduce risks and improve efficiencies  
Introduce improved technology and processes