

AIR SHOWER_DESCRIPTION

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APPLICATIONS

The Air shower shall be installed at the entrance to clean-area in order to minimize the amount of particulate contaminants entering.

Personnel move through the air shower while particulate contaminants are washed off with high velocity HEPA-filtered air jets coming from dedicated nozzles positioned on the sidewalls and the ceiling.

The particles removed from the operators' clothes or the surface of materials in transit are drawn from the air through the grids fitted with pre-filters. The air is re-circulated by a fan through an absolute high-efficiency filter to be sent back under pressure along a duct and blown into the transit area via the nozzles.



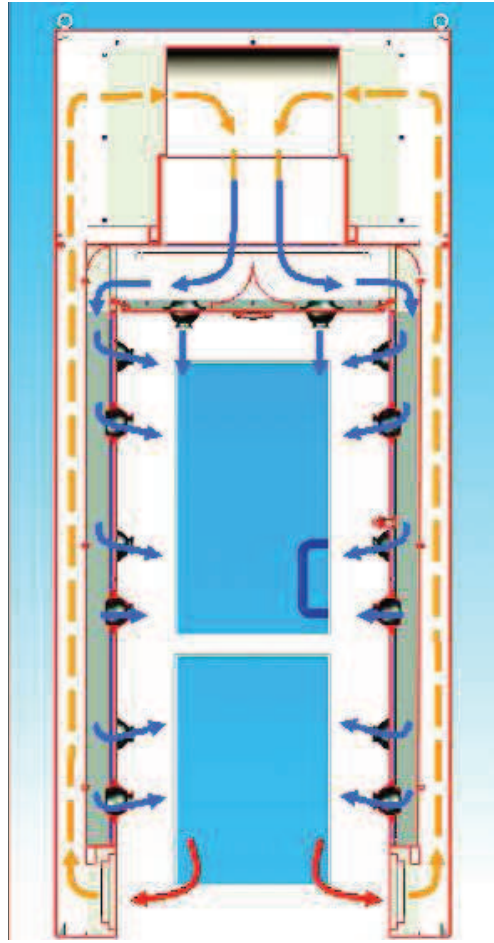
OPERATING PRINCIPLES

When opening the access door and entering the Air Shower, the washing cycle can be activated automatically by a dedicated sensor which detect the presence of personnel. At the end of the cycle (time factory setting at 45 seconds but easy adjustable according to the customer requirements), the door lock is released and access to the clean area is enabled.

The exit in the one-way cycle, does not foresee the washing cycle but only the locking of the doors.

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Picture 1

MATERIALS

All exterior and interior Air Shower surfaces are made of AISI 304 scotch brite

Doors made from clear anodized aluminum and tempered crystall with electric lock

CONFIGURATIONS

Various door hangings available

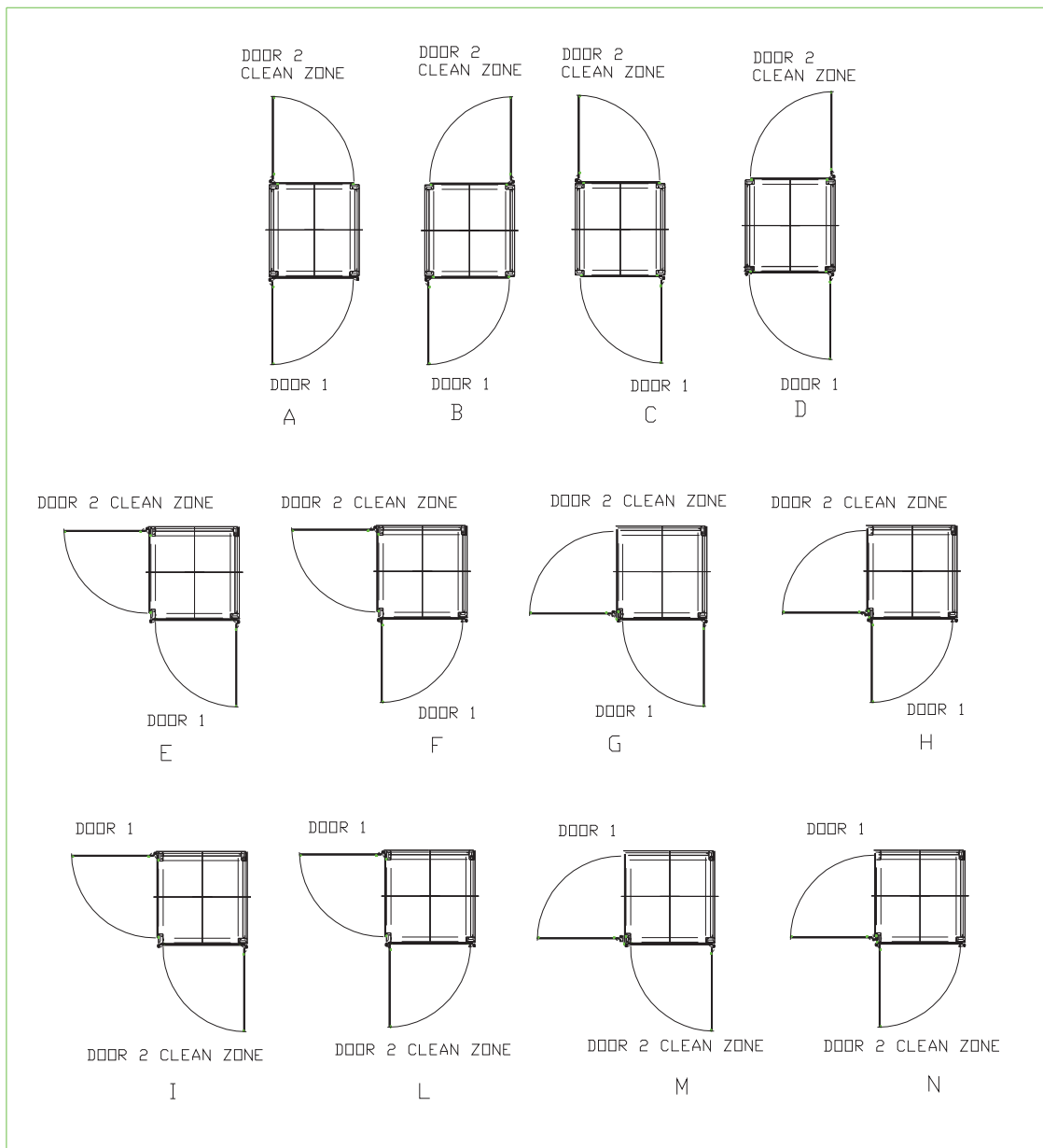
Different configurations are:

- Access/exit in line with one-way cycle
- Access/exit in line with two-way cycle
- Access/exit 90° with one-way cycle

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➤ Access/exit 90° with two-way cycle



Duration of cycles settable from a minimum of 15 seconds to a maximum of 4 minutes

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AIR SHOWER: MAIN CHARACTERISTICS

- ✓ Centrifugal fan at high pressure
- ✓ HEPA filter with H14 MPPS efficiency in accordance with EN 1822. Filter access is from the interior ceilings
- ✓ Regenerable pre-filter with 70% ASHRAE efficiency ponderable
- ✓ Average Air velocity: 30 m/s from nozzles
- ✓ 22 Adjustable air diffusion nozzles positioned on the walls and ceiling grant a very good air distribution and a high removal of particles from the operator clothes and from the surface of material in transit.
- ✓ Interior ceilings include a fluorescent light and the sensor which detect the presence of personnel activating automatically the air washing cycle
- ✓ A Programmable Logic Controller (PLC) is used to control the sequence of operation of the Air Shower.
- ✓ Door interlocks 24 volt are located in the door jamb at the entrance and exit ways. All locks shall automatically release upon loss of power or when the Emergency Off button is pressed.
- ✓ The Emergency Off buttons are located inside the Air Shower and outside on both sides close to the entrance door
- ✓ Main control box with PLC is positioned on the ceiling of the chamber with easy access by an inspection removable panel

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SPECIFICATIONS

FULL SIZE	
External dimensions (WxDxH)	1300 x 1450 x 3000
Internal dimensions (WxDxH)	650 x 1350 x 2000
WEIGHT	
550 Kg	
POWER SUPPLY	
VOLTAGE	400v 3F + N + PE
REQUIRED POWER	2,5 KW
FANS	
Centrifugal, single intake	
MAXIMUM VOLUME	
2000m ³ /h	
FILTERS	
Dimensions of pre-filters	545 x 195 x 23 mm
Dimensions of HEPA filters	610 x 762 x 292 mm

ENVIRONMENTAL REQUIREMENTS	
Operating Temperature	0°C to 38°C (32°F-100°F)
Storage Temperature	-17°C to 60°C (0°F-140°F)
Humidity	10%-95% non condensing
Dust	Non-conducting, non corrosive
Electromagnetic Radiation	Moderate RF fields can be tolerated