

VHP Decontamination Lock

Material airlock providing rapid H₂O₂ decontamination.



Dimensions VHP Decontamination Lock



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Dimensions in mm - VHP Decontamination Lock 1

Width	1900
Height	2640
Depth	1600
Closing door height	2100
Swing door width	800

Dimensions in mm - VHP Decontamination Lock 2

Width	1150
Height	2795
Depth	840
Closing door height	800
Swing door width	800

Description

Decontamination locks are most frequently used as a pass-through to transfer material between rooms with different classes of cleanliness (typically B and C), whereas material must be decontaminated (by means of surface sterilization) before entry into the room. Loaded materials are decontaminated using hydrogen peroxide vapour with a 6-log reduction. A hydrogen peroxide vapour generator is a part of the equipment.

- Integrated VHP generator
- Decontamination pass-through cabin may be fitted onto the wall separating individual rooms
- Lock complies with the leak tightness classes pursuant to ISO 10648-2
- "B" class cleanliness according to the EU GMP Standard
- Electronic control system for automatic adjustment of basic operating modes managed by Siemens PLC
- Color touchscreen controls
- Mobile perforated shelves allow sterilization of the product from all sides
- Process works at normal temperatures (at about 25 to 30 °C) and normal pressures
- Jacket material – stainless steel AISI 304
- Pass-through chamber material – AISI 316L with a thickness of 3.00 mm, polished surface finish, $R_a < 0.6 \mu\text{m}$
- Rounded corners $R = 55 \text{ mm}$
- Inlet and outlet H14 HEPA filtration
- Possible validation of decontamination cycle
- Possible data recording on a recording unit, printer or PC
- Low operating costs
- Decontamination a low-temperature
- Quick interval of a decontamination cycle
- Long operation life, minimal maintenance demands
- Easy handling and operation



Standards

Main switch 01

HMI control panel 02

Chamber closing door 03

It is made of PMMA with a thickness of 25 mm. The door is sealed with a silicone pneumatic seal. A sensor monitors the closing of the door; another sensor controls the mechanism that prevents the door from opening.

Perforated shelves 04

4 pieces, standard perforated shelves for loading material.

Compressed air inlet 05

Air exhaust 06

Air inlet 07

Paperless recorder 08

VHP distribution 09

Distribution pipe for optimal gassing inside the chamber.

Pressure fuse 10

Options

H₂O₂ concentration sensor – high

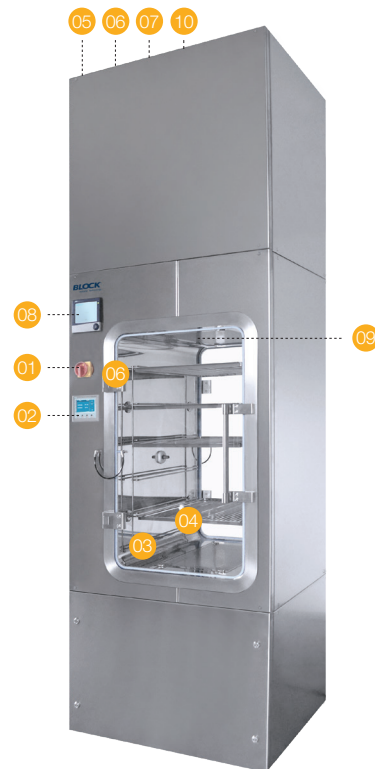
Process sensor inside the chamber.

H₂O₂ concentration sensor – low

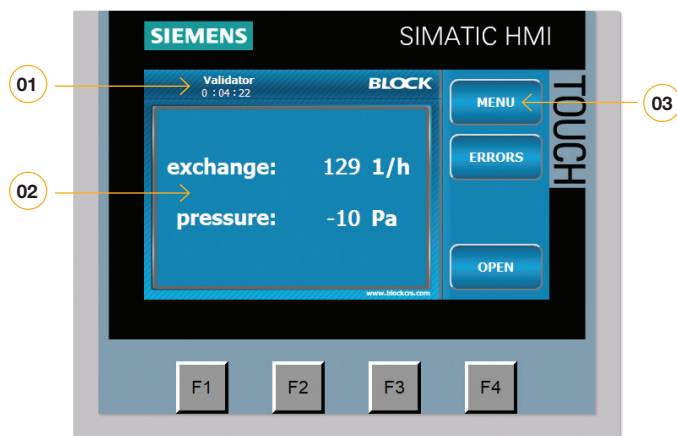
Safety sensor inside the chamber.

H₂O₂ concentration sensor – low

Safety sensor outside the chamber.



HMI Control Panel



Overview of Functions

- 01 User Login and automatic log-off countdown timer
- 02 Display for measured physical values in the chamber interior
- 03 Device operation modes menu, Alarm and Settings menu