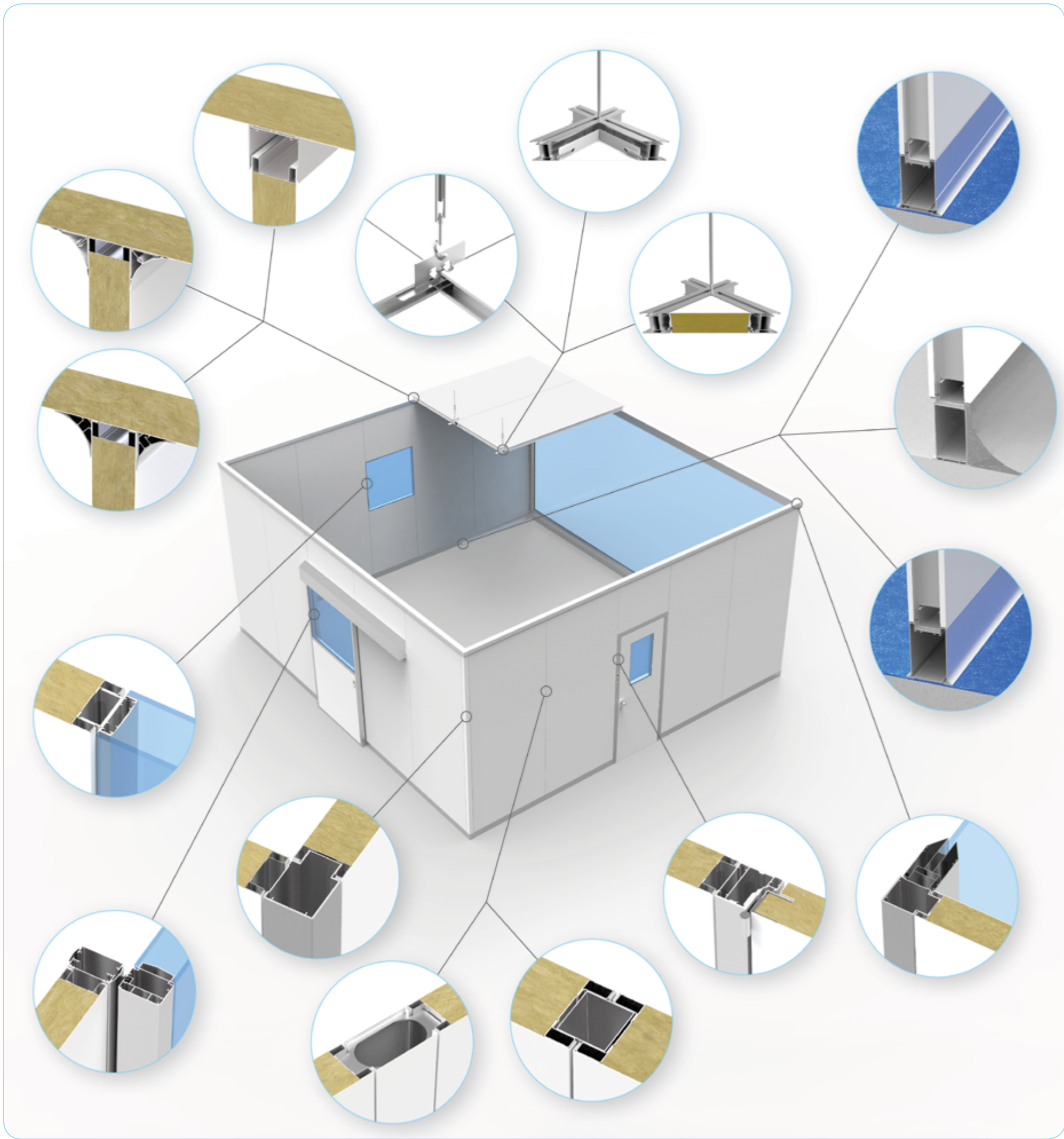


klimaoprema
CLEANROOM SOLUTIONS

Cleanroom Panel System


































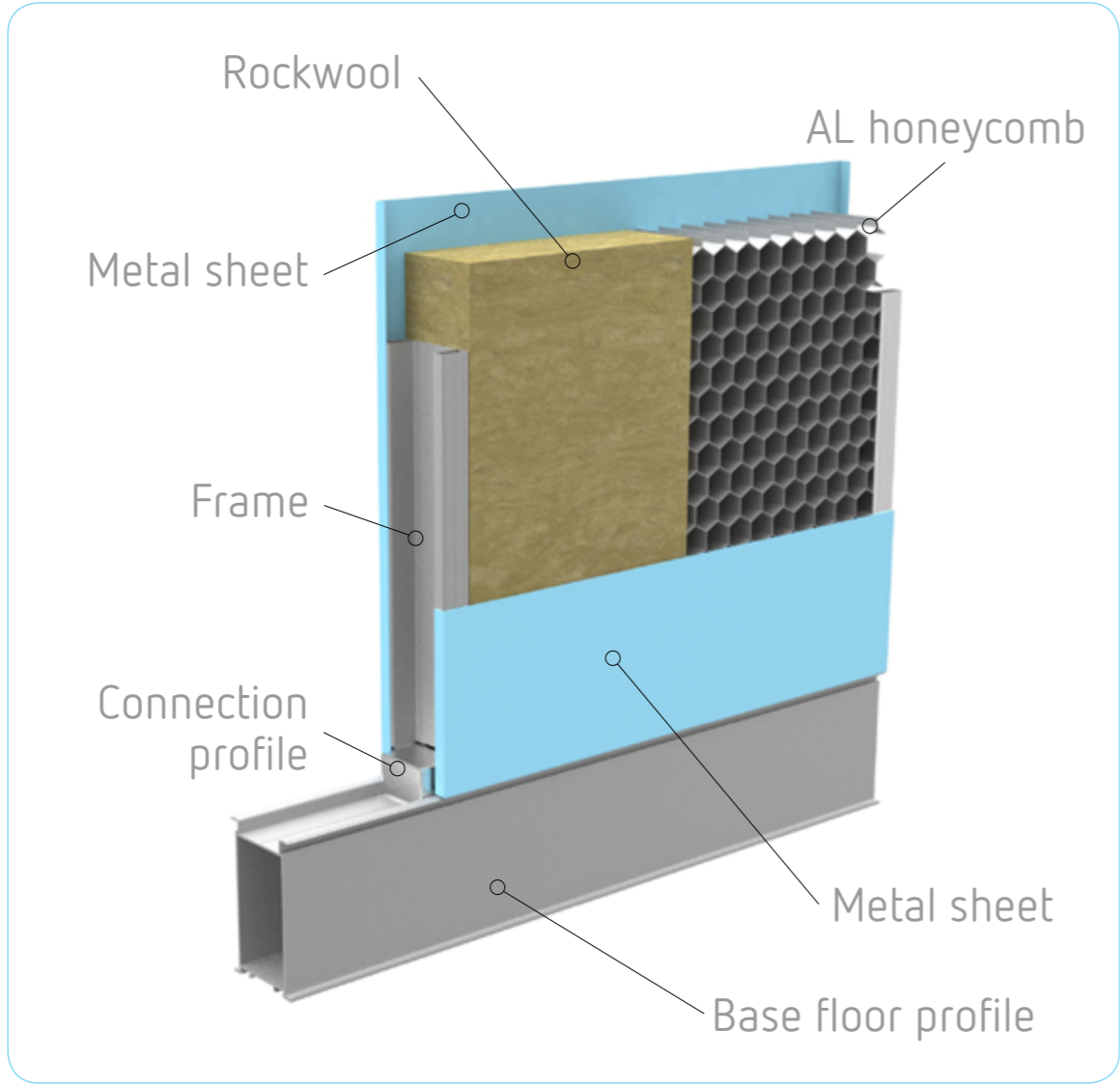
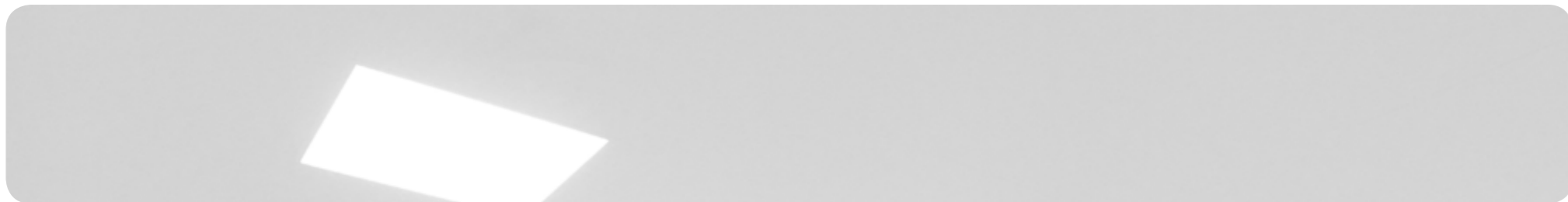


Cleanroom modular panel system

Cleanroom is controlled space designed to minimize particle contamination in every industry where small particles can adversely affect the manufacturing process. We are ensuring this solution with advanced architectural design using flushed design of cleanroom modular panel system, with controlling all relevant parameters like air purity, airflow, temperature, humidity, etc. Our cleanroom system is made according to EU GMP and ISO 14644 requirements.

Icon legend:

-  Standard thickness: 62 or 82 mm
-  Coating thickness
-  Metal sheet/glass thickness
-  Panel made out of galvanized steel sheet
-  Panel made out of aluminum sheet
-  Panel made out of 304/316 stainless steel sheet
-  Glass panel
-  PVC coating
-  PET coating
-  Standard 9010 RAL color
-  Other RAL colors on request
-  Standard dimensions and/or max. dimensions in one piece
-  Antibacterial sheet
-  Removable protective film
-  45/60min fire resistance
-  Special fireproof material THERMAX SF 750
-  Rockwool core
-  Aluminium honeycomb core
-  Other dimension on request
-  Walkable ceiling
-  Non-walkable ceiling
-  Polished surface
-  Satin surface
-  Tempered glass
-  Laminated glass
-  Laminated + tempered glass
-  Anodized aluminium
-  EC fan
-  HEPA filter
-  Prefilter option
-  Cooling option



Panel system

Cleanroom panel consists of two metal sheets, folded all around the edges of metal frame. Panel is filled with high density rockwool 100 kg/m³ or aluminum honeycomb. The frame is channel shaped and it covers panel's interior totally. The whole entity represents solid monoblock element. Panels are made according to the EU GMP and ISO 14644 requirements.



Dimensions:

62 mm 82 mm 1200 X 4000

Galvanized steel sheet:

Fe 0,8 mm RW

PVC RAL 9010 110 µm

Options:

PVC RAL 9010 110 µm

PET RAL 9010 50 µm

Aluminum sheet:

Al 1 mm RW

PVC RAL 9010 110 µm

Options:

PVC RAL 9010 110 µm

Stainless steel sheet:

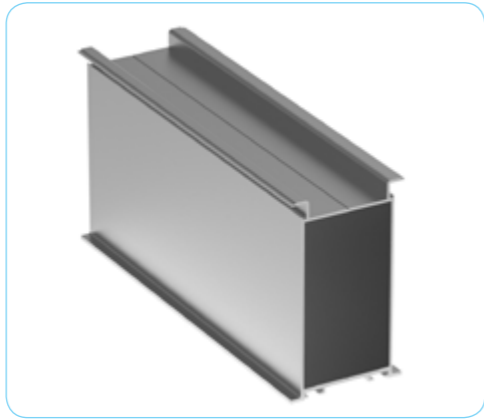
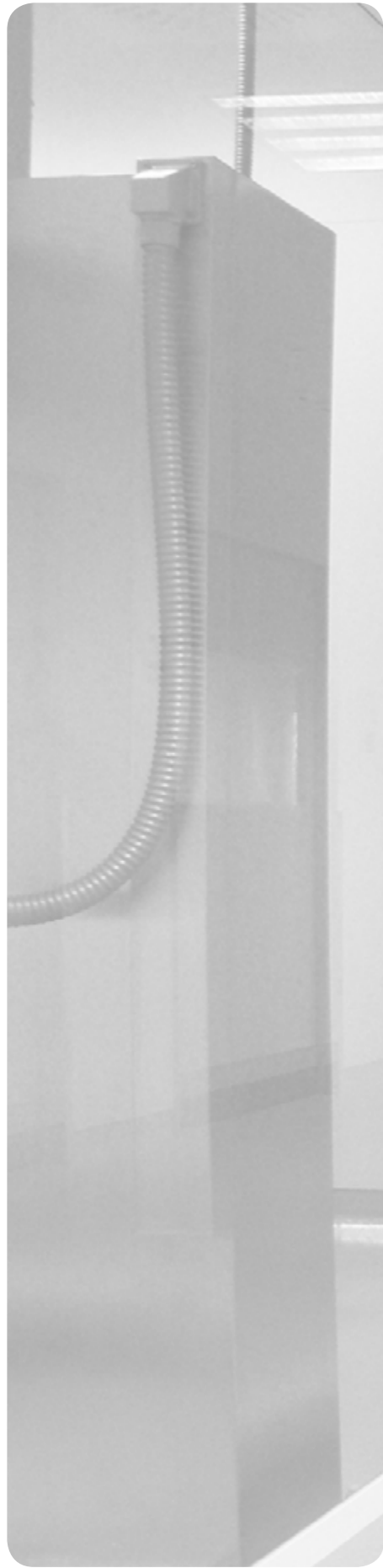
AISI 304 AISI 316 0,8 mm RW

Options:

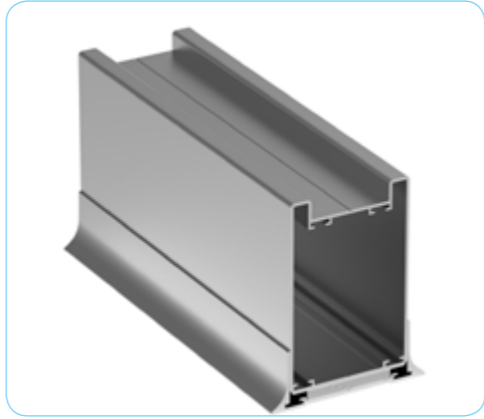
PVC RAL 9010 110 µm

Additional options:

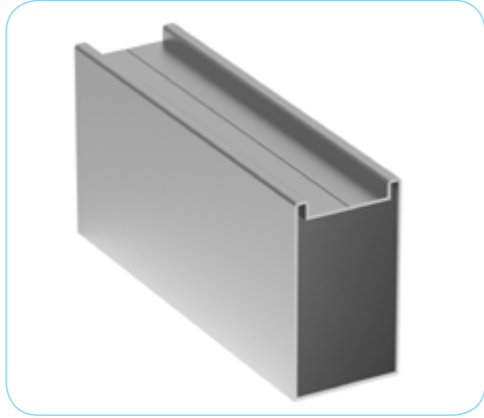
RAL Honeycomb



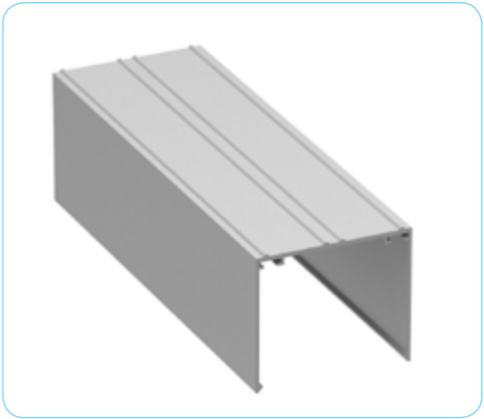
FTP1



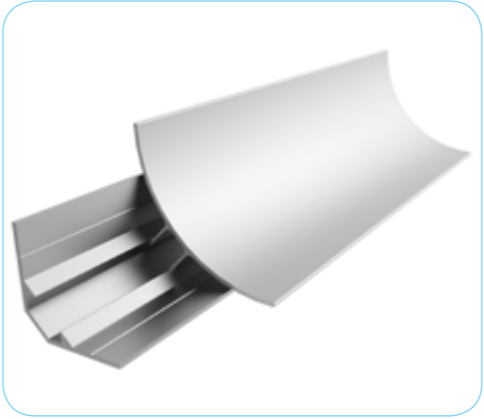
FTP3



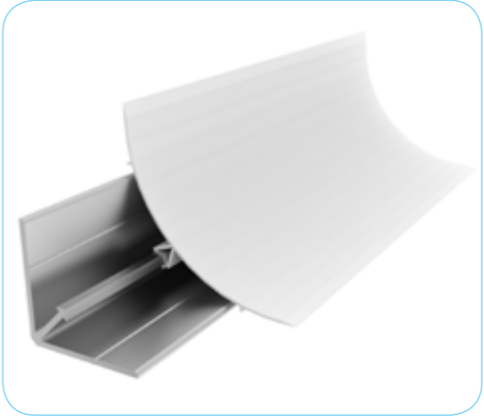
FTP5



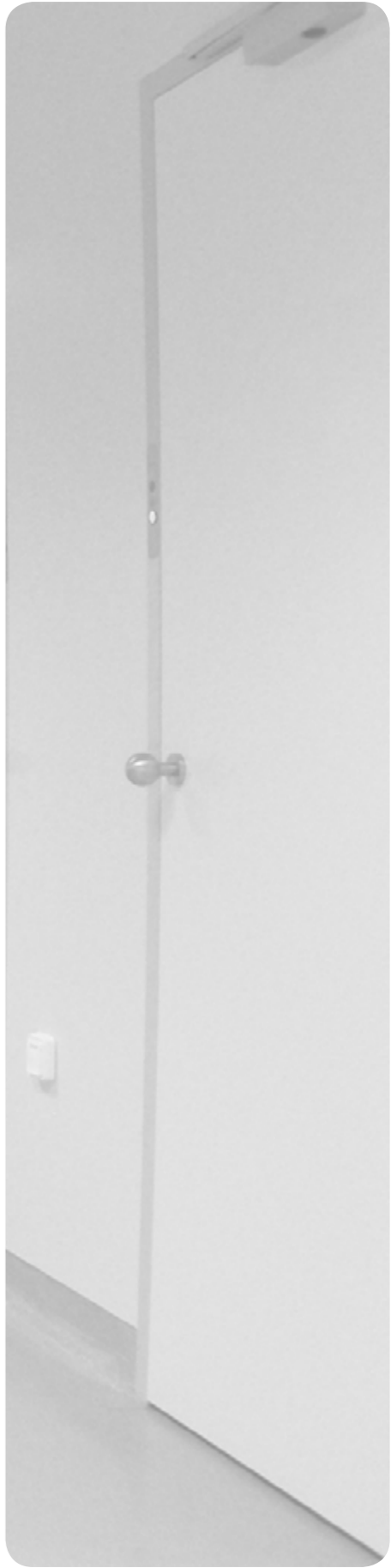
U-ceiling profile

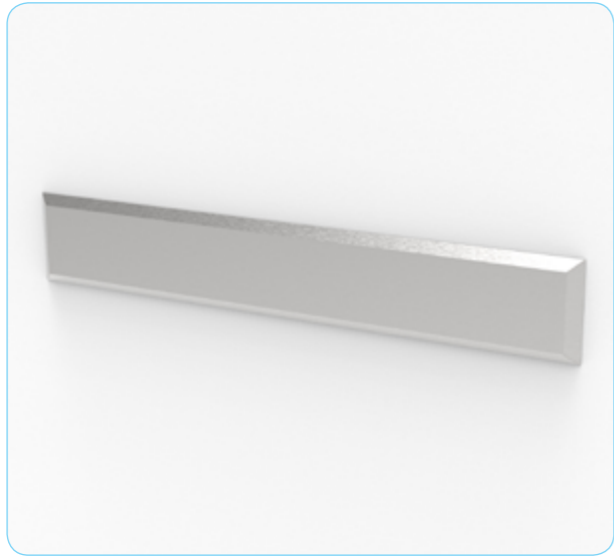
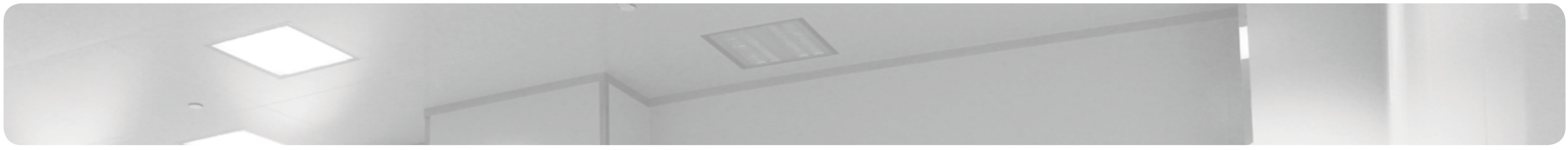


AL cove

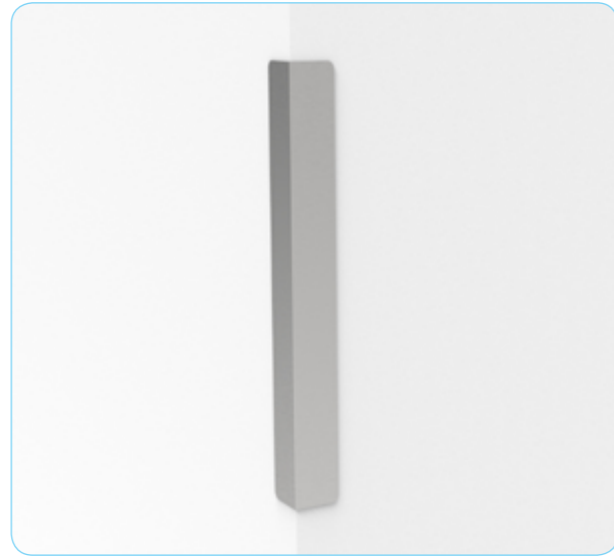


PVC cove





Wall bumper



Wall corner bumper



Floor bumper



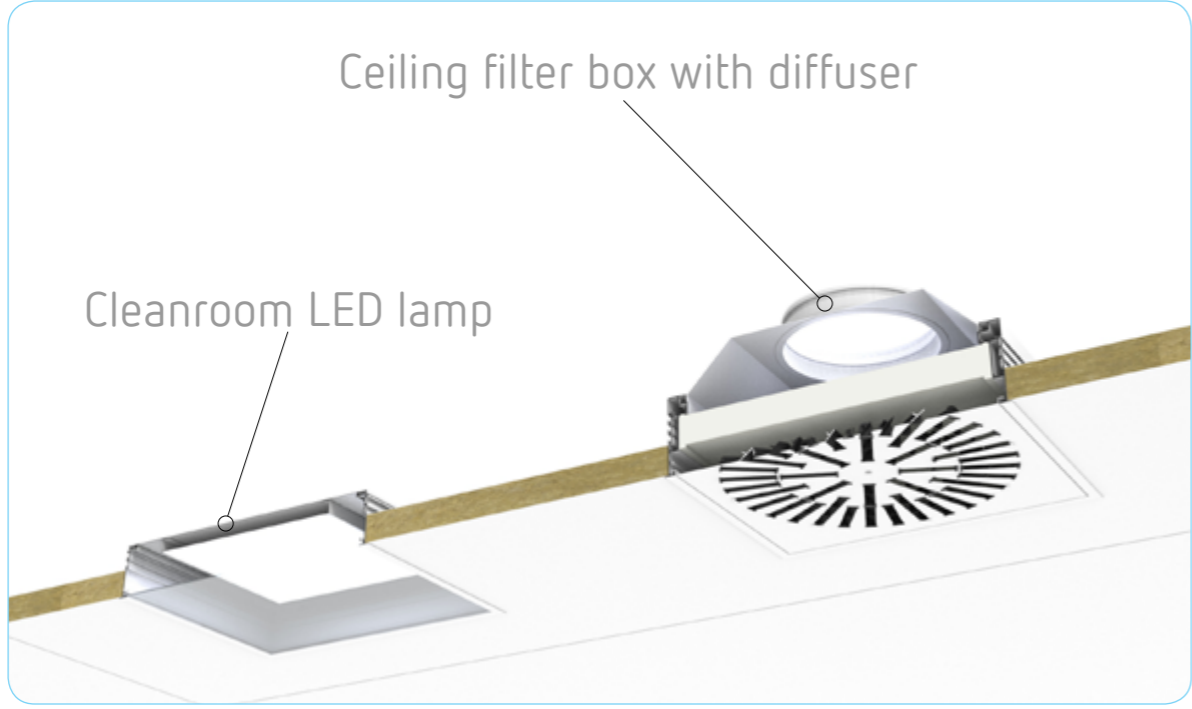
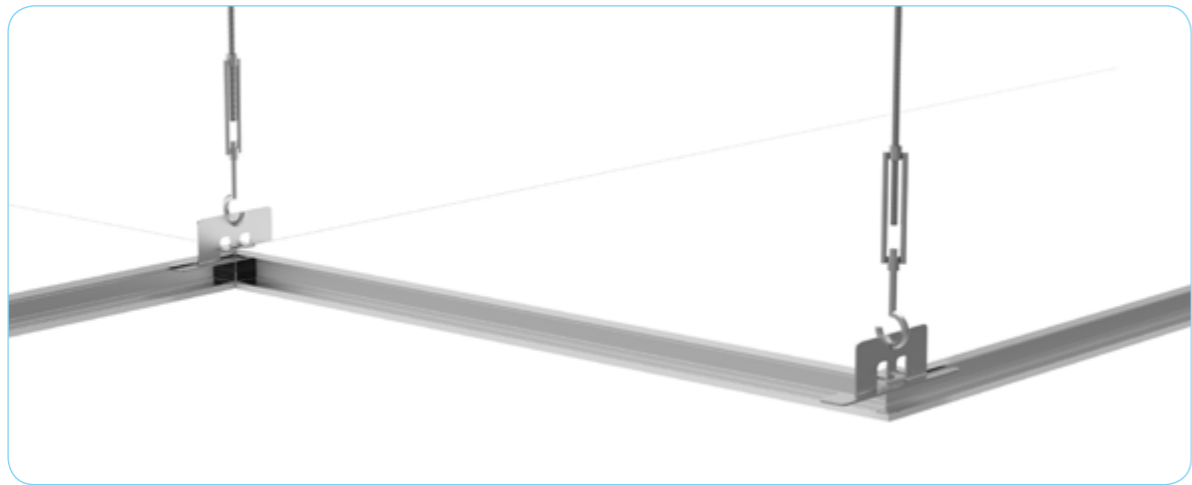
Floor corner bumper



Exhaust panel

The exhaust wall panel is special type of panel with a built-in exhaust grille in the lower part of the wall and a horizontal cylindrical connection at the top of the wall. This wall panel is intended for installation in areas where there is not enough space to install a classic vertical duct and the air from the room is provided through the wall panel. A cylindrical connection channel is connected to the technical zone above the ceiling. Standard panel wall options apply to exhaust panel.

Dimensions:

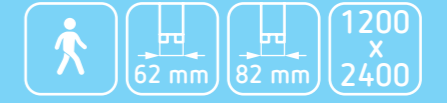
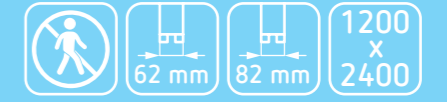


Ceiling system

Cleanroom ceiling panel consists of two metal sheets, folded all around the edges of metal frame. Panel is filled with high density rockwool 100 kg/m³ or aluminum honeycomb. The frame is channel shaped and it covers panel's interior totally. The whole entity represents solid monoblock element. The load capacity for walkable panels is 200 kg/m². It is supposed to be fixed onto steel grid or concrete structure. Ceiling panels are made according to the EU GMP and ISO 14644 requirements.



Dimensions:



Galvanized steel sheet:



Options:



Aluminum sheet:



Options:



Stainless steel sheet:



Options:



Additional options:





LUMINUS-CR-3

Cleanroom LED lamp for installation in cleanroom ceiling panels. Made from powder coated aluminum profiles and steel cover with LED light source.



Features:

- Compact housing
- Easy installation
- Easy service from above
- Low thickness (<2 mm) and rounded profile visible from clean room space
- Frame profile compatible with profile of filter ceiling box
- IP 65 grade water protection
- Designed for panel thickness 40-82 mm

Technical information:

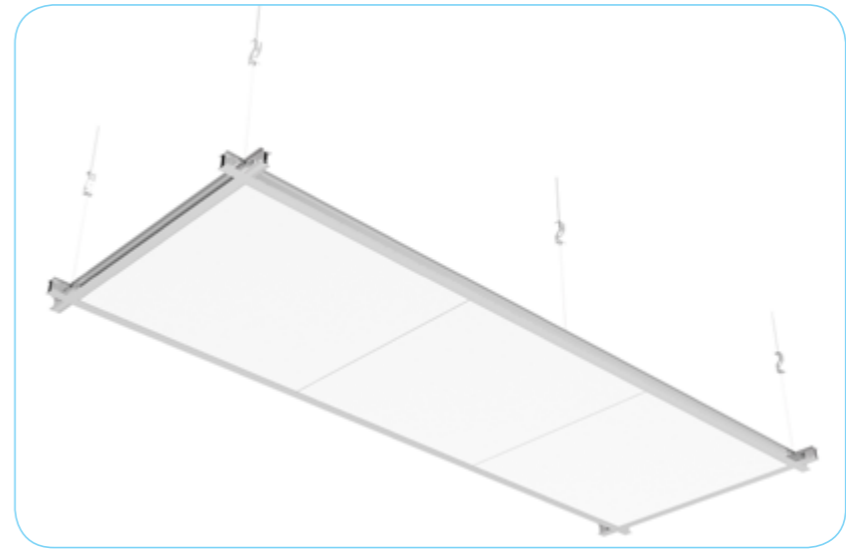
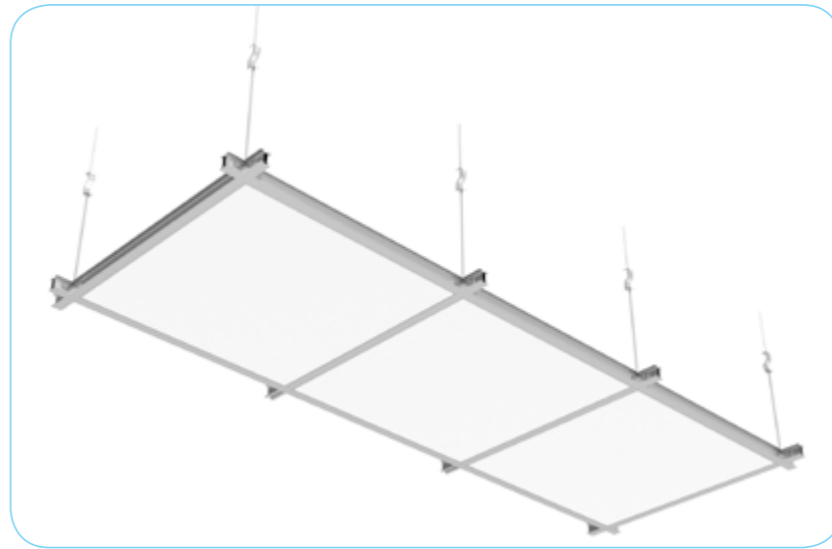
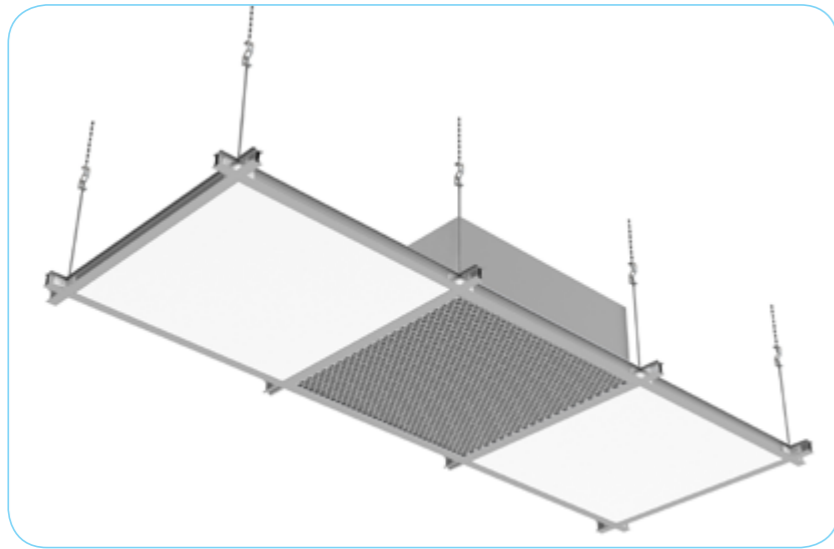
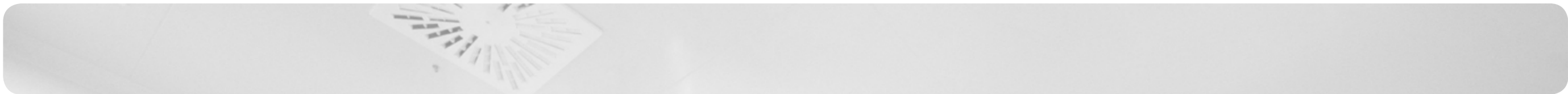
- Dimensions: 672 x 672 mm
- Mounting hole: 660 x 660 mm
- Power: 42.5 W
- Luminaire luminous flux: 6460
- Luminaire efficiency: 152 lm/W
- Input voltage: 230 V / 50 Hz
- Color temperature: 4000 K
- Supply unit: Integrated in the housing
- Options: Standard, DALI, Emergency (Integrated and Central)

Materials:



Certificates:





FFU

FFU (Fan Filter Unit) is used in controlled environments where small dust particles can adversely affect the manufacturing process. It can be installed in a variety of ceiling systems and achieve different cleanliness class requirements.

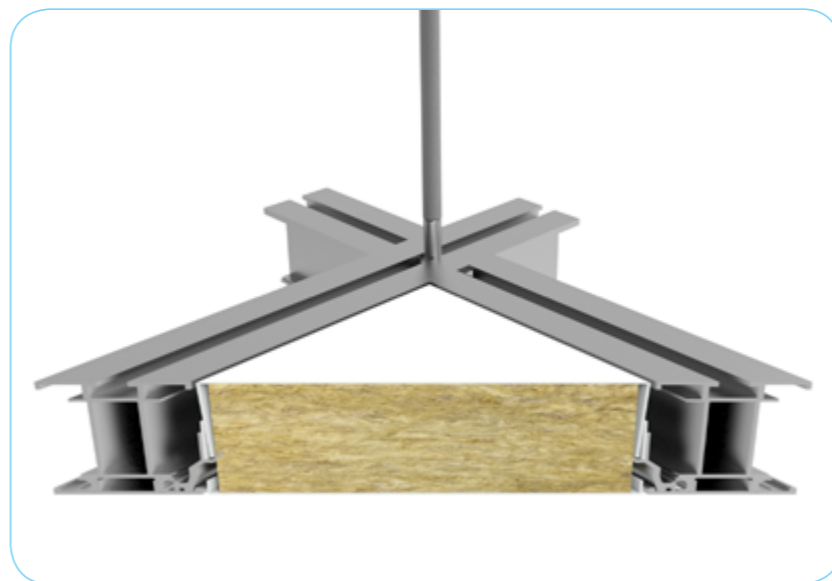
Specifications:



Dimensions:



Options:



Ceiling grid system

Cleanroom grid ceiling is used in high classes of cleanrooms, according to DIN EN ISO 14644-1, as well as class: A, B, C or D according to EC Guide (GMP). This product is protected by patent. Cleanroom ceiling grid system is made of aluminium profiles and panel filling. Panel consists of two metal sheets, folded all around the edges. Panel is filled with high density rockwool 100 kg/m³ or aluminum honeycomb. The load capacity for walkable ceiling grid system is 200 kg/m². It is supposed to be fixed onto steel grid or concrete structure.

Thickness:



Grid dimensions:

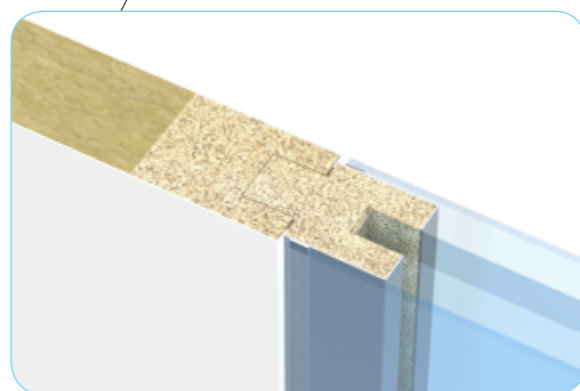
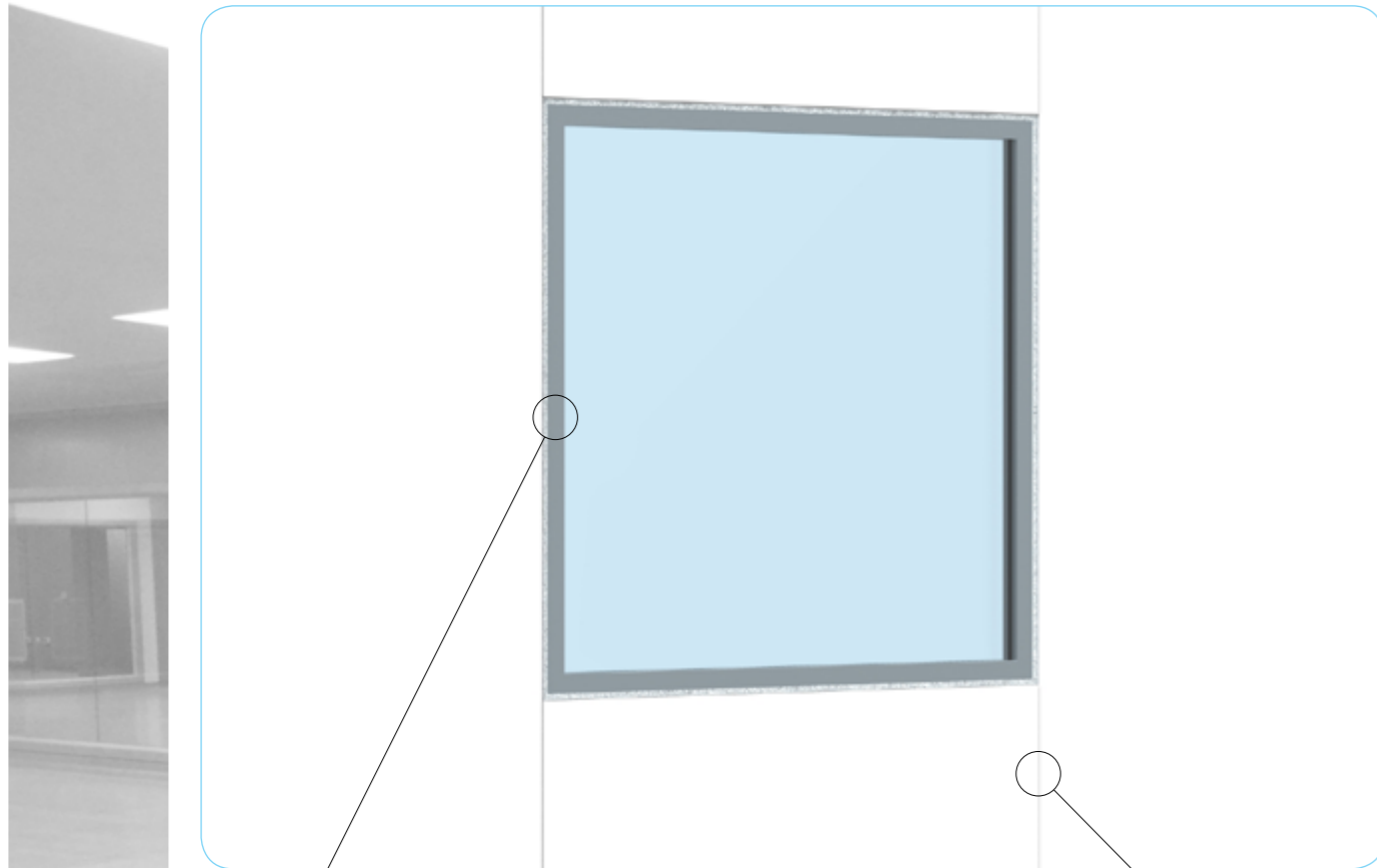
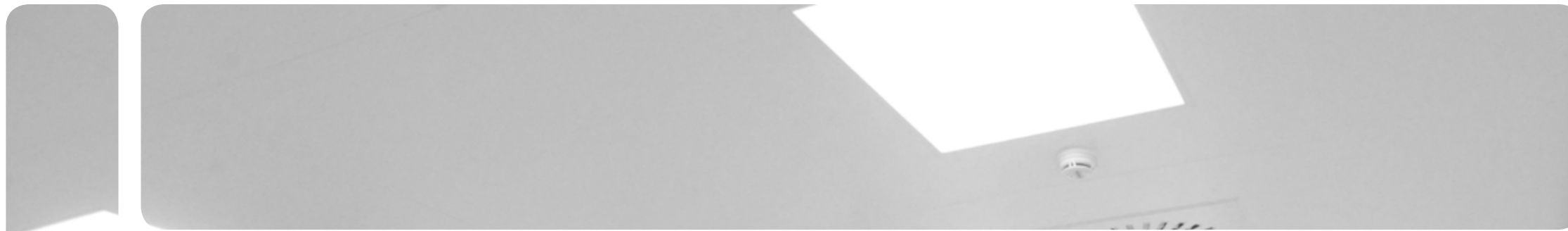


Thickness:



Grid dimensions:





Fire resistant panel system

Cleanroom fireproof panel consists of two metal sheets, folded all around the edges of frame. Panel is filled with high density rockwool 100 kg/m³. The frame is special fireproof material THERMAX SF 750 and it covers panel's interior totally. The whole entity represents solid monoblock element. Panels are made according to the EU GMP and ISO 14644 requirements.

Dimensions:



Galvanized steel sheet:



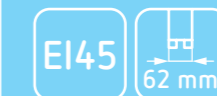
Options:



Fire resistant window

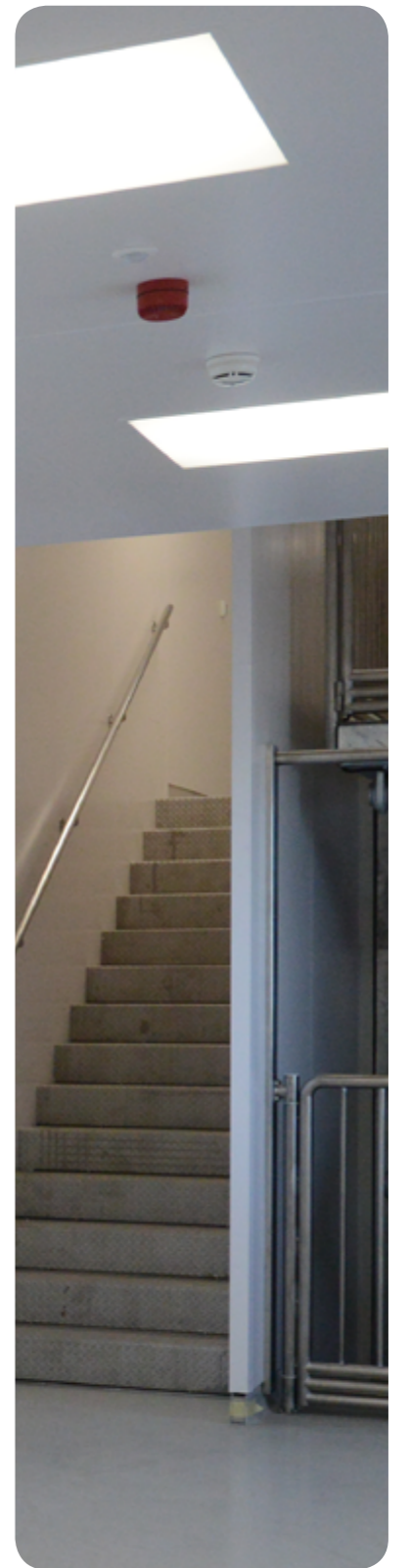
Cleanroom fireproof window is made of triple glass 4 + 16 + 4 mm. The frame is special fireproof material THERMAX SF 750 and is filled with silica gel that absorbs moisture to avoid condensation in empty space between glasses. The whole entity represents solid monoblock element. Panels are made according to the EU GMP and ISO 14644 requirements.

Thickness:

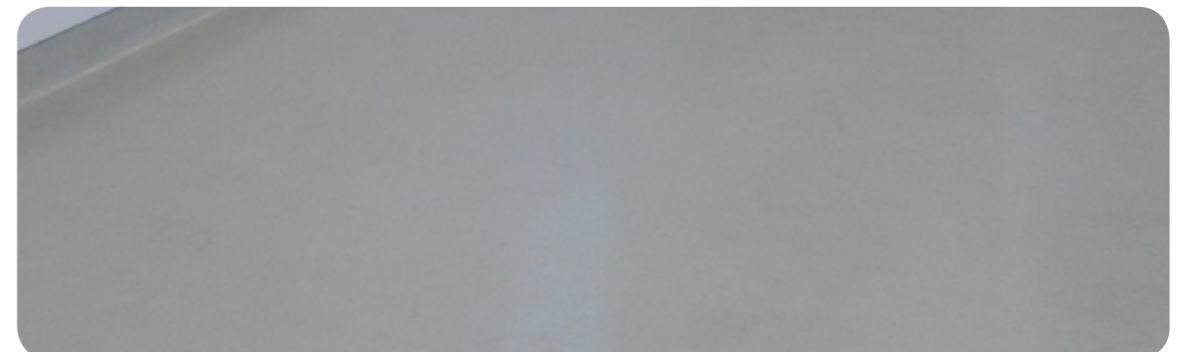


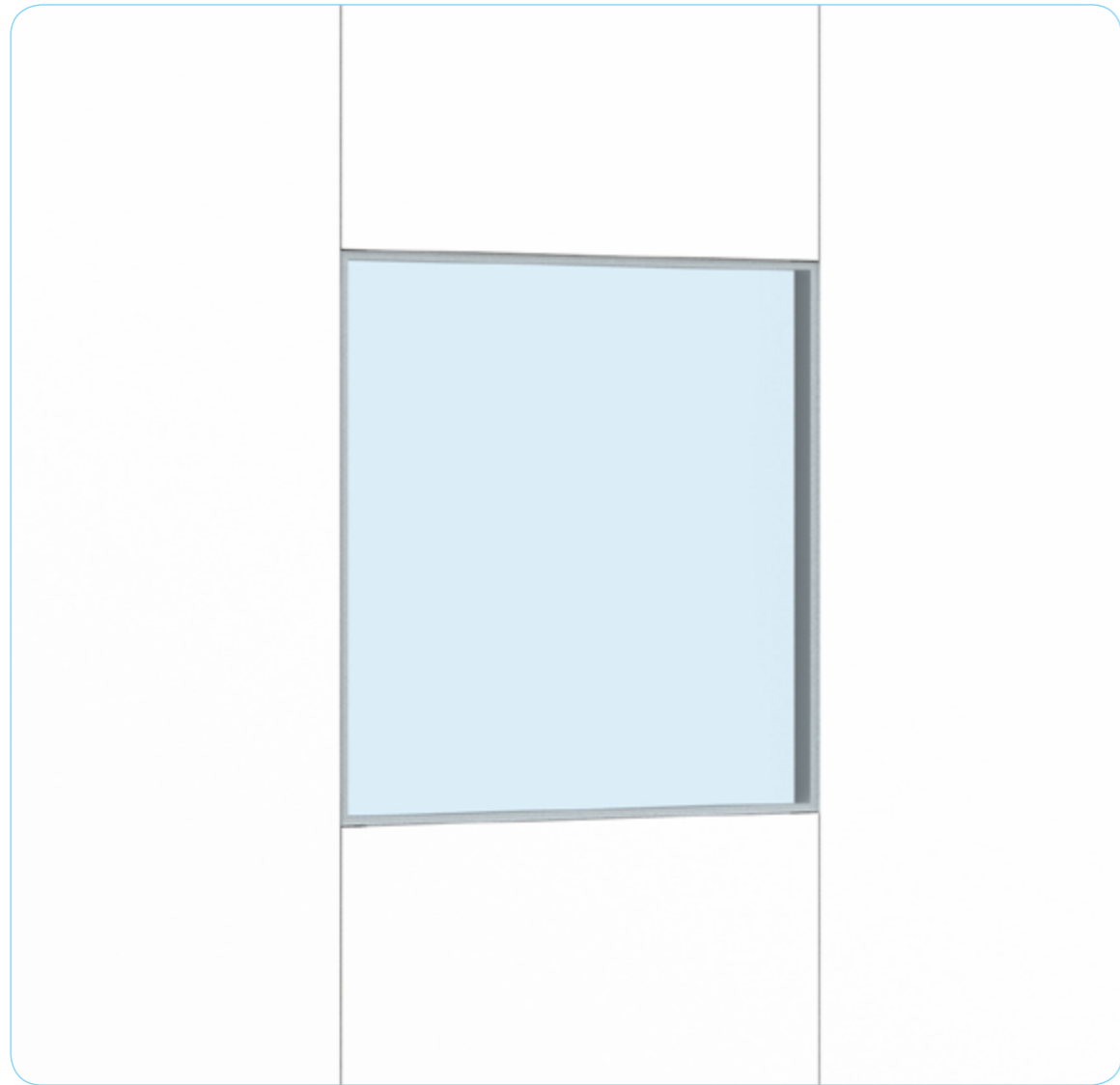
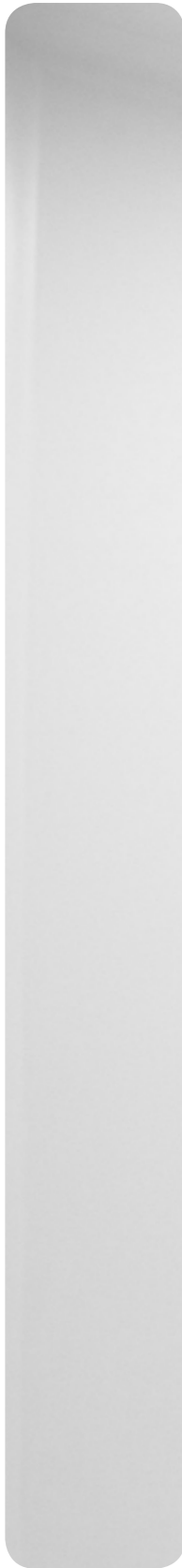
Dimensions:





Cleanroom window





Windows

Cleanroom window is made according to EU GMP and ISO 14644 standards. Window is made of double glass 6 + 6 mm and frame made out of aluminium profile and filled with silica gel that absorbs moisture to avoid condensation in empty space between the two glass.

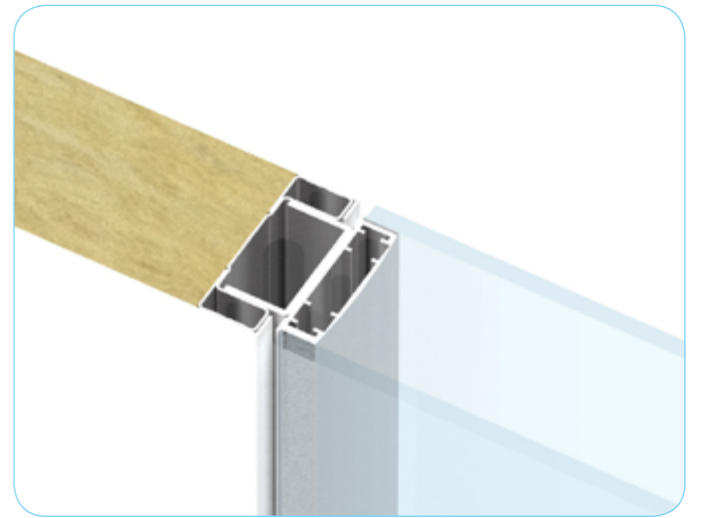
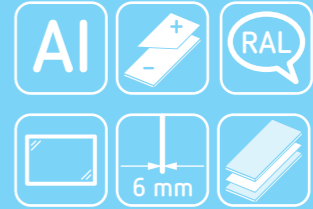
Thickness:

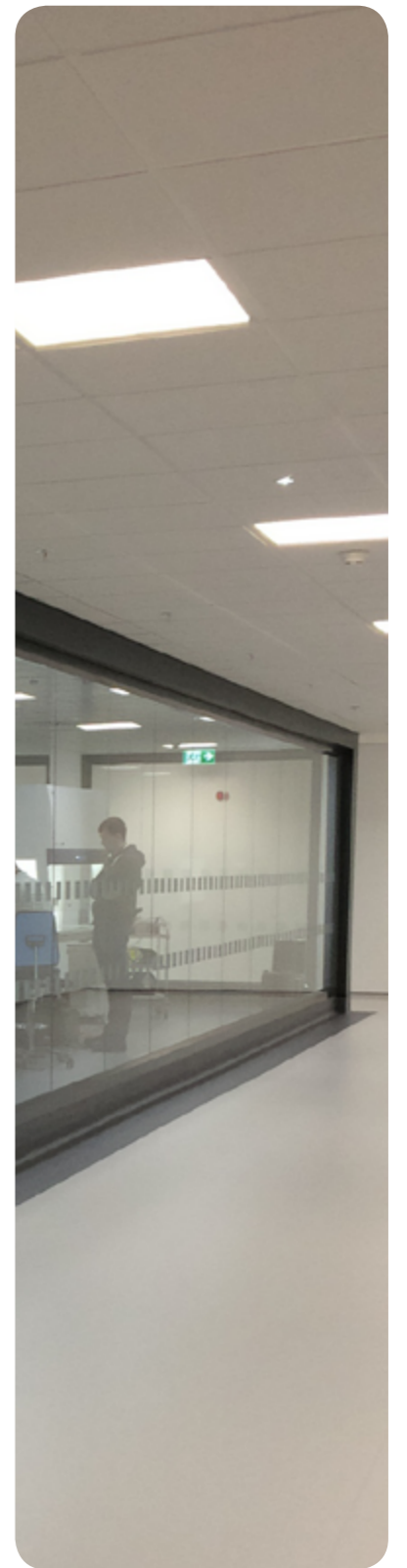


Dimensions:

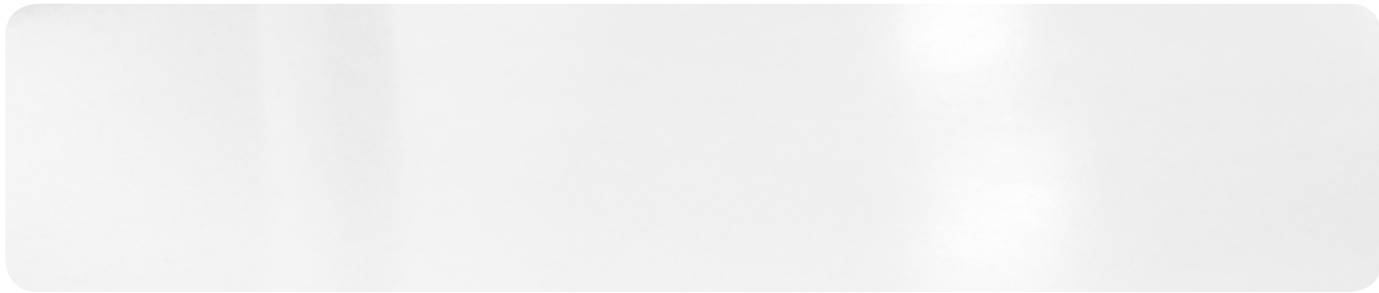


Material:





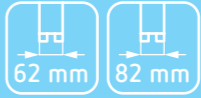
Glass wall system




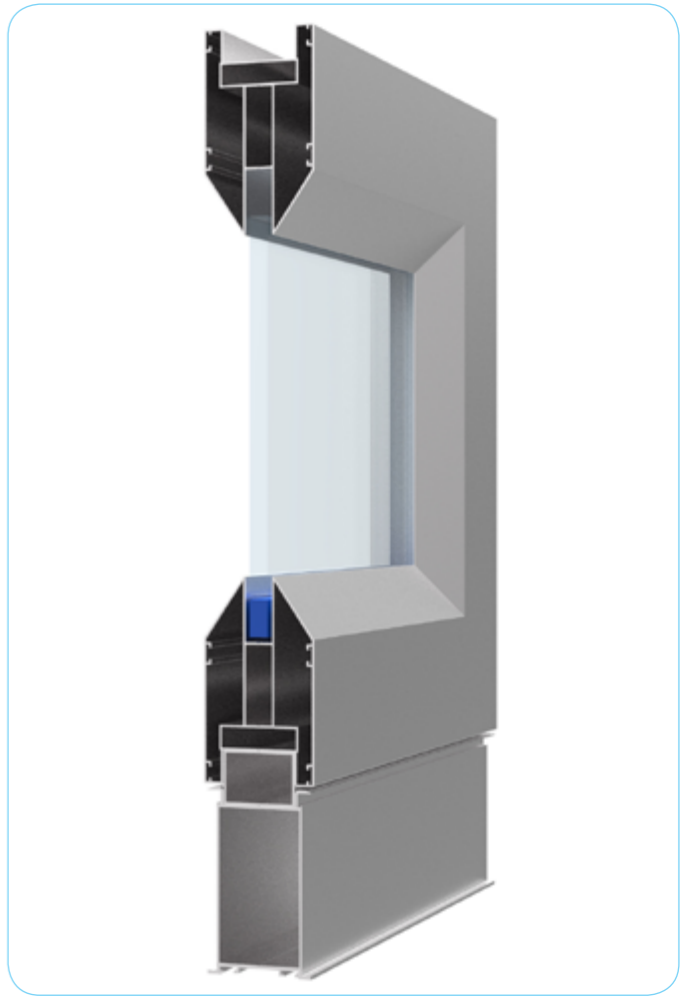
Glass wall system

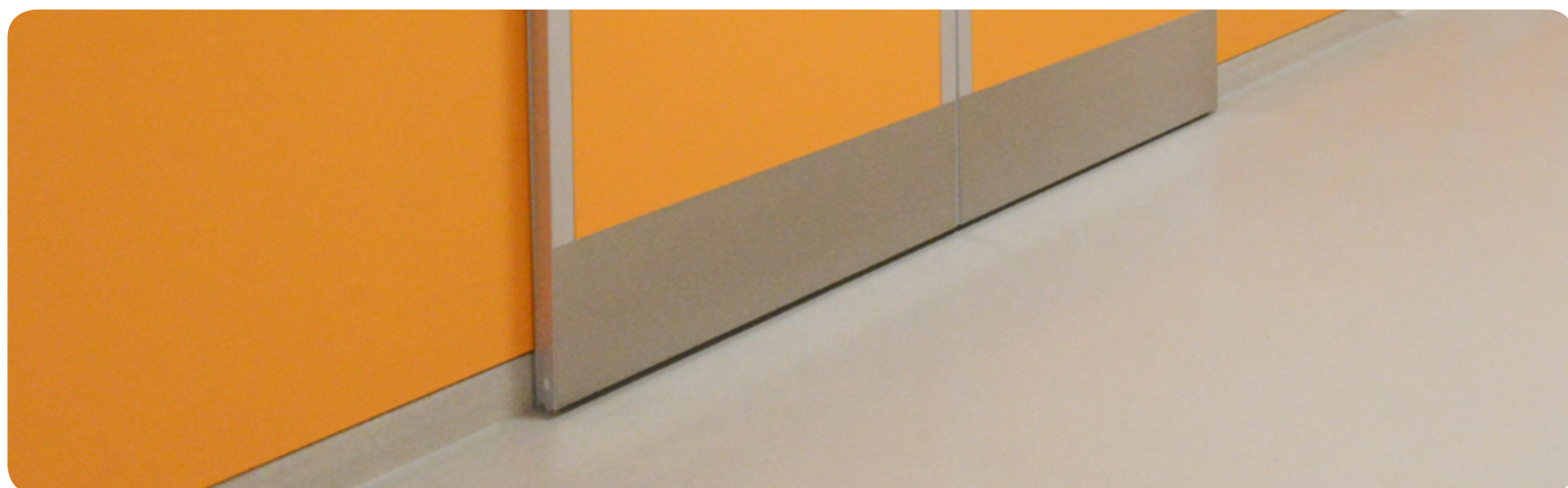
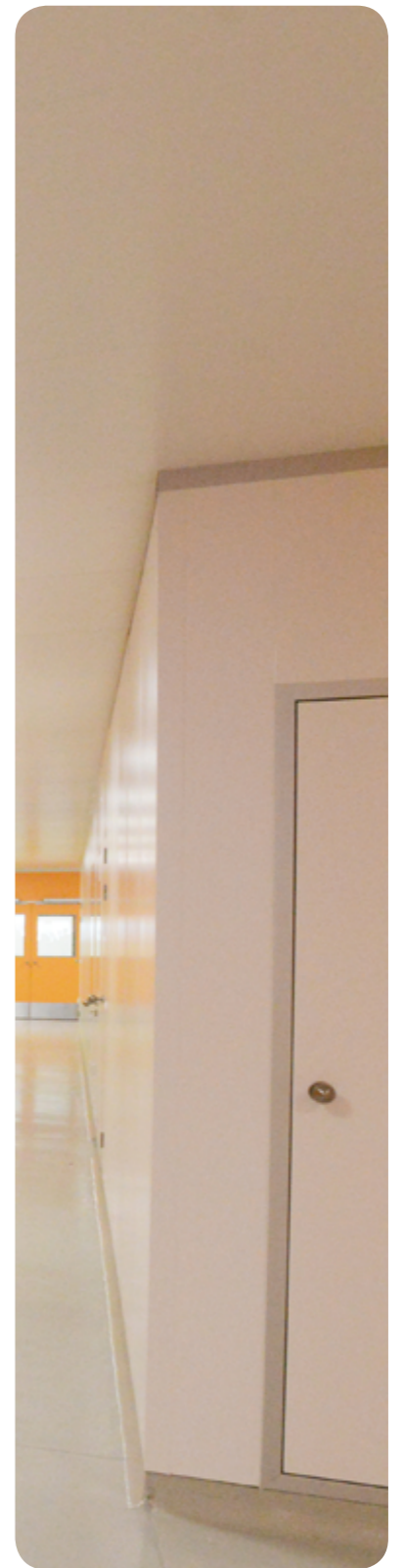
Cleanroom glass wall system consist of special frame made of aluminium profile and laminated glass thickness 10 mm. All joints are siliconized with non toxic fungicidal silicone. Glass wall is made according to the EU GMP and ISO 14644 requirements.

Thickness:

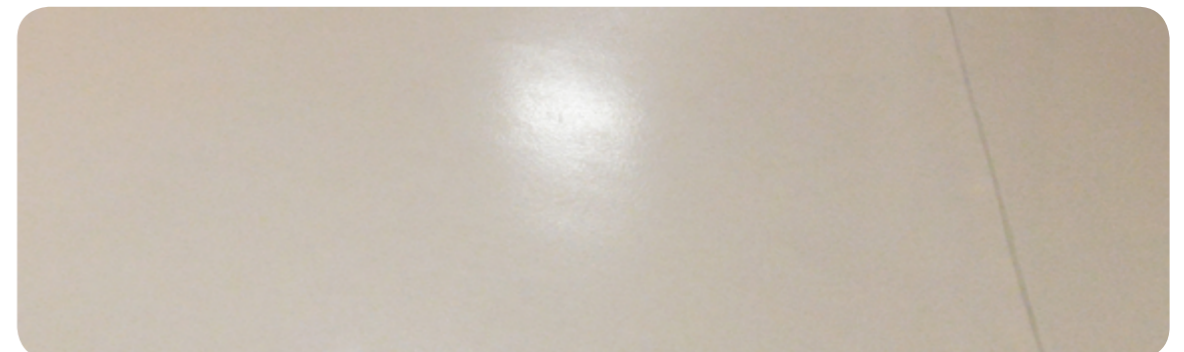


Material:



Cleanroom doors





Sliding doors

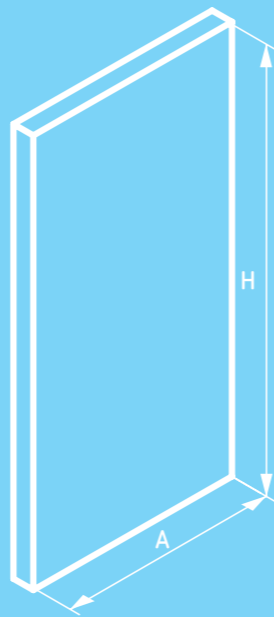
Cleanroom sliding doors are made according to the EU GMP and ISO 14644 requirements. Door frame is made out of aluminium profile. Door leaf is made out of metal sheet, filled with high density rockwool 100 kg/m³ or aluminum honeycomb core. The guide rail cover is made out of stainless steel, with angle for easier cleaning. Door are designed to maintain overpressure in the room.

Thickness:



Dimensions:

	Lenght (mm) A	Height (mm) H
One leaf	800-1400	2200
Two leaf	1300-2600	2200



Swing doors

Cleanroom swing doors are made according to the EU GMP and ISO 14644 requirements. Door frame is made out of aluminium profile. The door represent one solid element flush with wall panels. Door leaf is made out of metal sheet, and in filled with high density rockwool 100 kg/m³ or aluminum honeycomb core. Door handles and hinges are made out of stainless steel. "Drop seal" at the under side completely heads off air leakage. Doors are designed to maintain overpressure in the room.

Thickness:

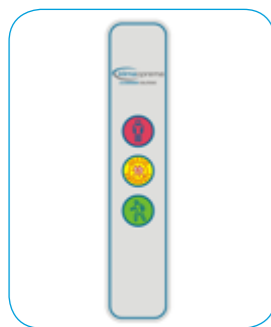
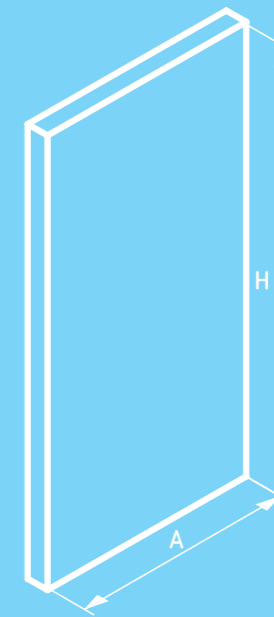


Window dimensions:

400 x 700	700 x 700	200 x 1300
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Dimensions:

	Lenght (mm) A	Height (mm) H
One leaf	800-1300	2200
Two leaf	1300-2600	2200



Interlock System



Automatic mechanism



Drop seal



Kick plate



Key lock



Handle



Ball handle



D-handle



Panic push bar



Push plate



References





References





References





**klimaoprema**
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February, 2020

