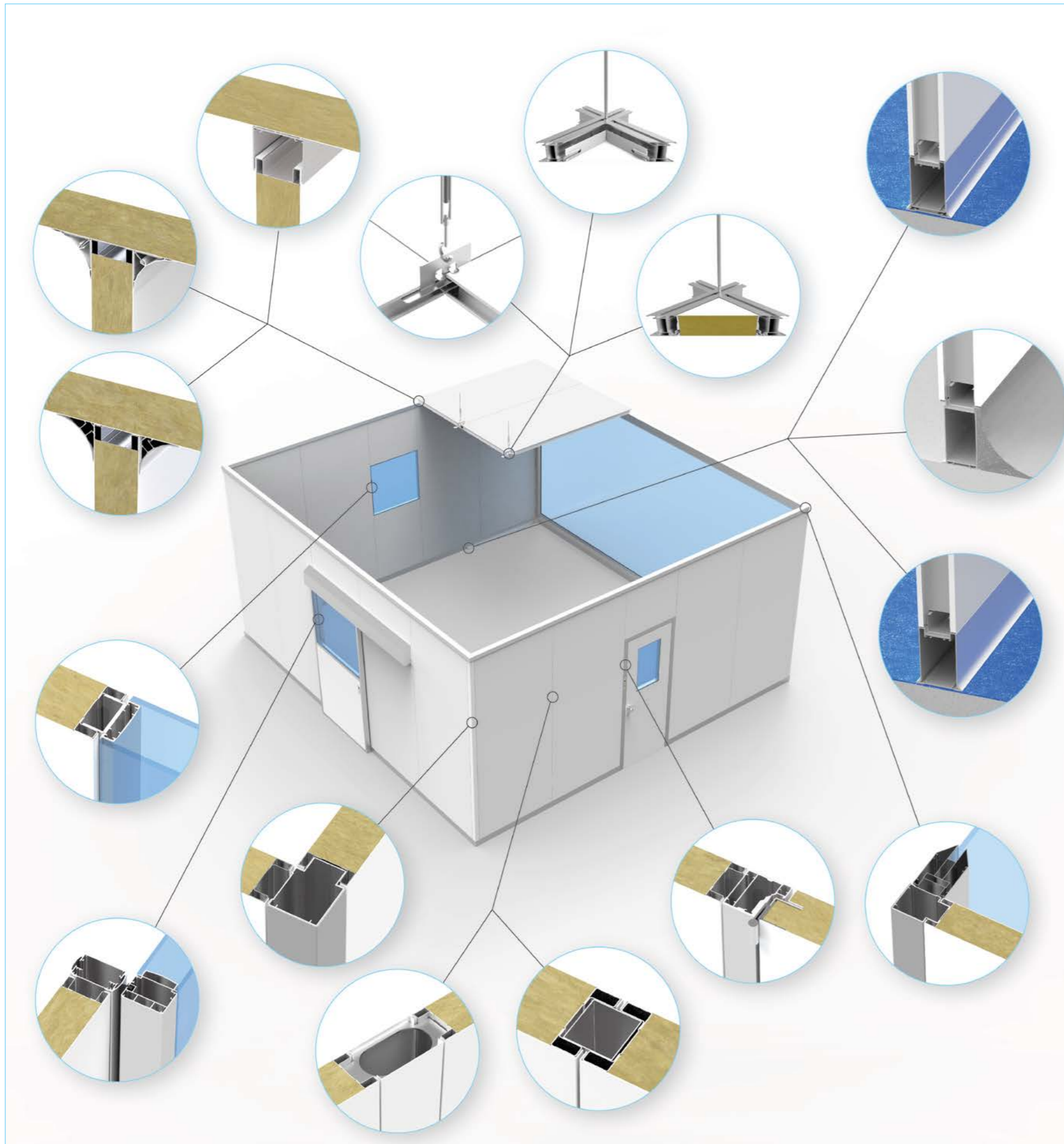**AMELICOR**
The Core of Better Future

klimaoprema | AMELICOR Engineering | MCRT Micro Cleanroom Technology GmbH
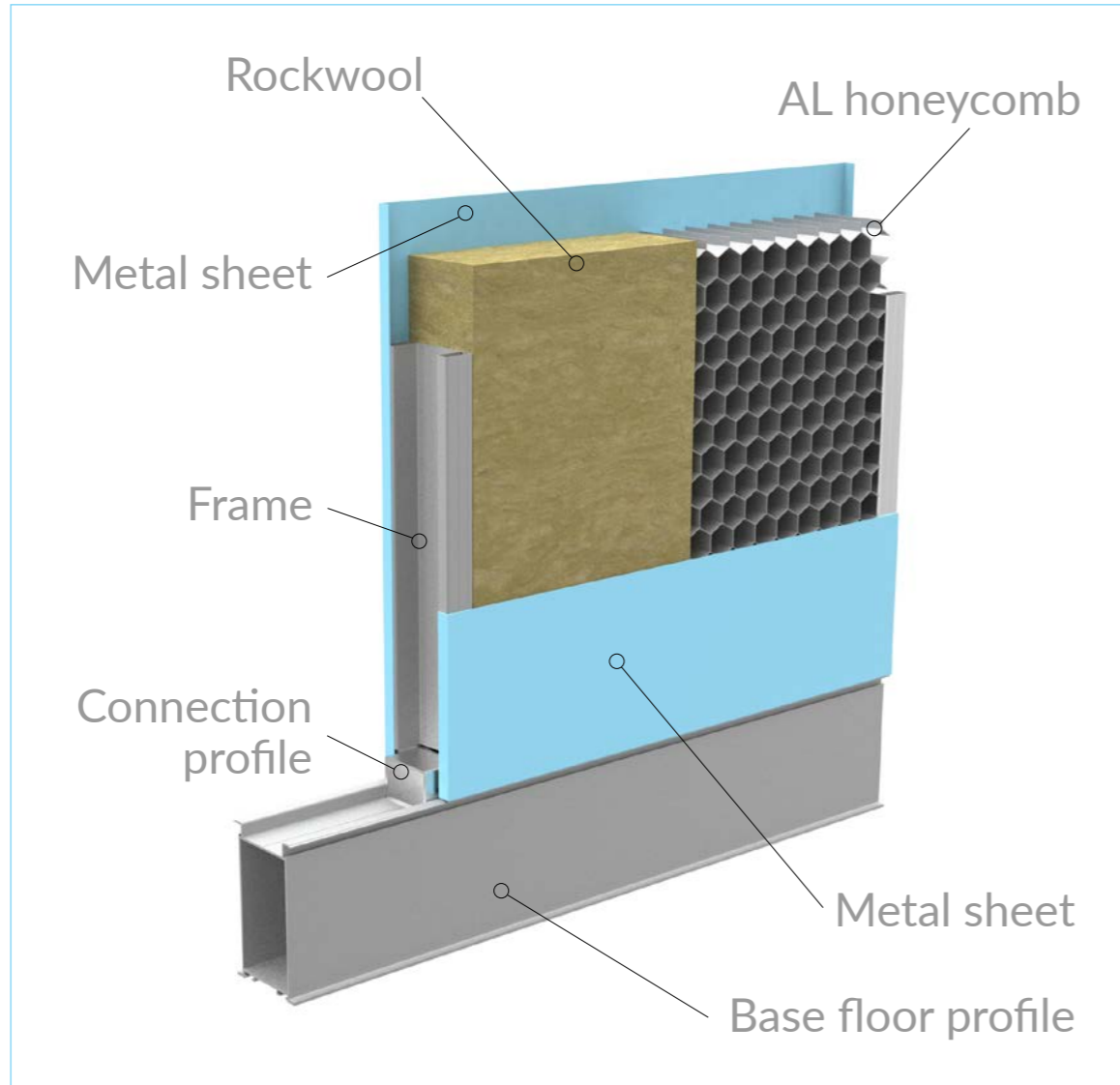
Cleanroom Panel System

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 arhitectual design using flushed design of cleanroom modular panel system, with controlling all relavant parametars like air purity, airfow, temerature, humidity, etc. Our cleanroom system is made according to EU GMP and ISO 14644 requirements.

Icon legend:

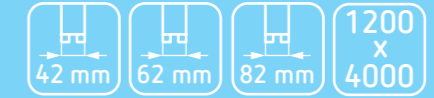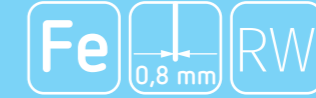| Icon	Description	Icon	Description
42 mm	Standard thickness: 42, 62, or 82 mm	EC	EC fan
110 µm	Coating thickness	RW	Rockwool core
0.5-3 mm	Metal sheet/glass thickness		Aluminium honeycomb core
Fe	Panel made out of galvanized steel sheet		Other dimension on request
Al	Panel made out of aluminum sheet		Walkable ceiling
Pb	Panel made out of lead sheet		Non-walkable ceiling
AISI 304	Panel made out of 304/316 stainless steel sheet		Polished surface
	Glass panel		Satin surface
PVC	PVC coating		Tempered glass
PET	PET coating		Laminated glass
RAL 9010	Standard 9010 RAL color		Laminated + tempered glass
RAL	Other RAL colors on request		Anodized aluminium
900 x 1200	Standard dimensions and/or max. dimensions in one piece	EI45	45/60min fire resistance
	Antibacterial sheet	THERMAX SF 750	Special fireproof material THERMAX SF 750
	Removable protective film		Cooling option
	Prefilter option	HEPA filter	HEPA filter

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 mono-block element. Panels are made according to the EU GMP and ISO 14644 requirements.

Dimensions:

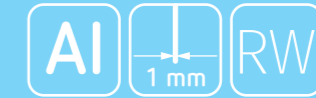| 42 mm | 62 mm | 82 mm | 1200 x 4000 |

Galvanized steel sheet:

Fe | 0,8 mm | RW

PVC | RAL 9010 | 110 μm

Or

PVC | RAL 9010 | 110 μm

Or

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

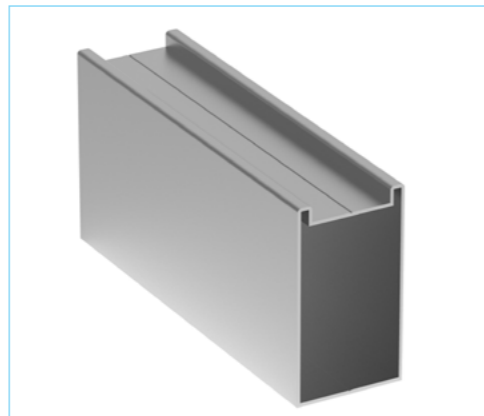Options:

PVC | RAL 9010 | 110 μm

Additional options:
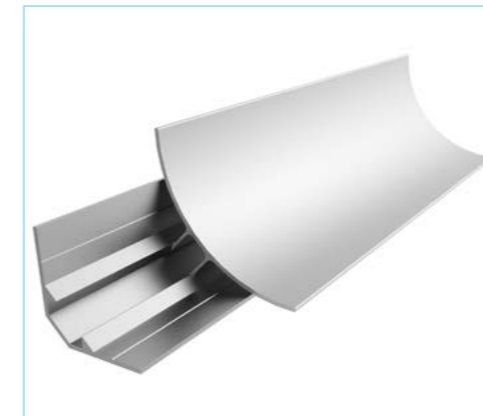
RAL

FTP1

FTP5

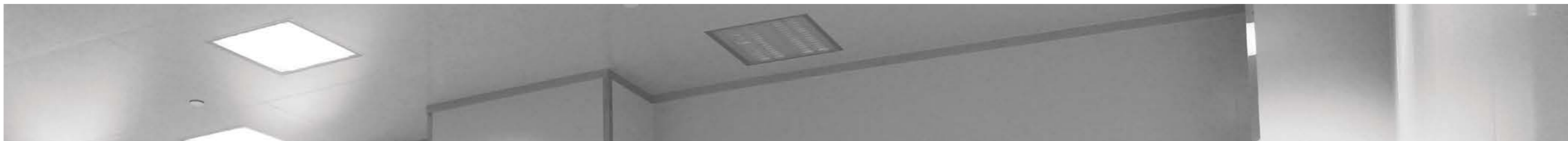FTP6

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:

62 mm   82 mm   1200 X 4000
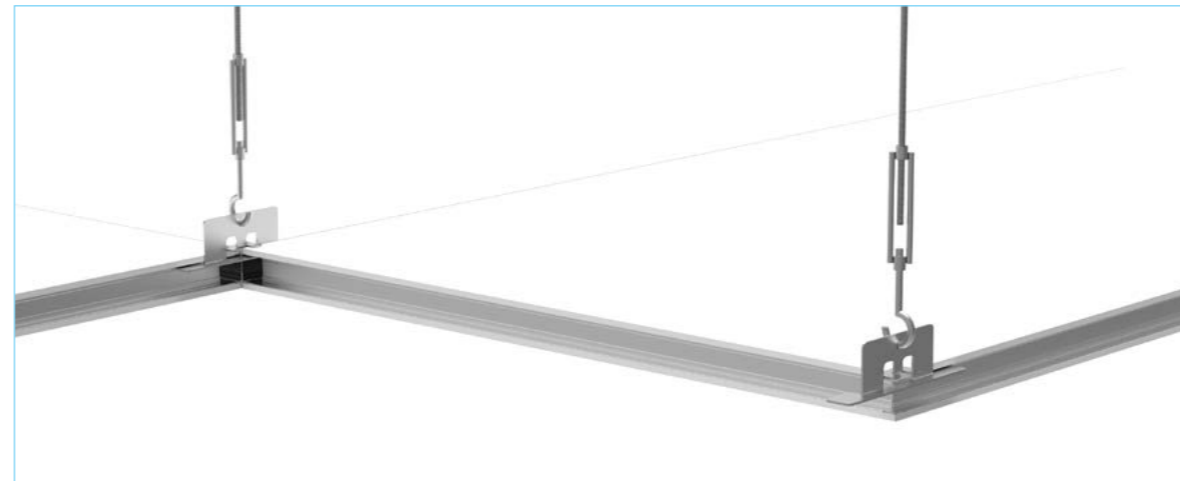
New ceiling grid design!

- Fully integrated lights and HVAC diffusers
- Joints sealed with FDA approved silicone sealant 2-3 mm
- Easy installation without the need for special tools
- Standardized parts allowing quick installation
- Individual tiles can be swapped out allowing great flexibility
- Cable integration with full two-way routing
- Easy accessibility for future re-work or maintenance
- Can be installed fully independent of walls
- Customizable open sizes available for a wide range of lights & grilles available on market
- Completely flat bottom surface
- 1,5 mm thick main profiles and top plate with polyvinylchloride powder coated finish
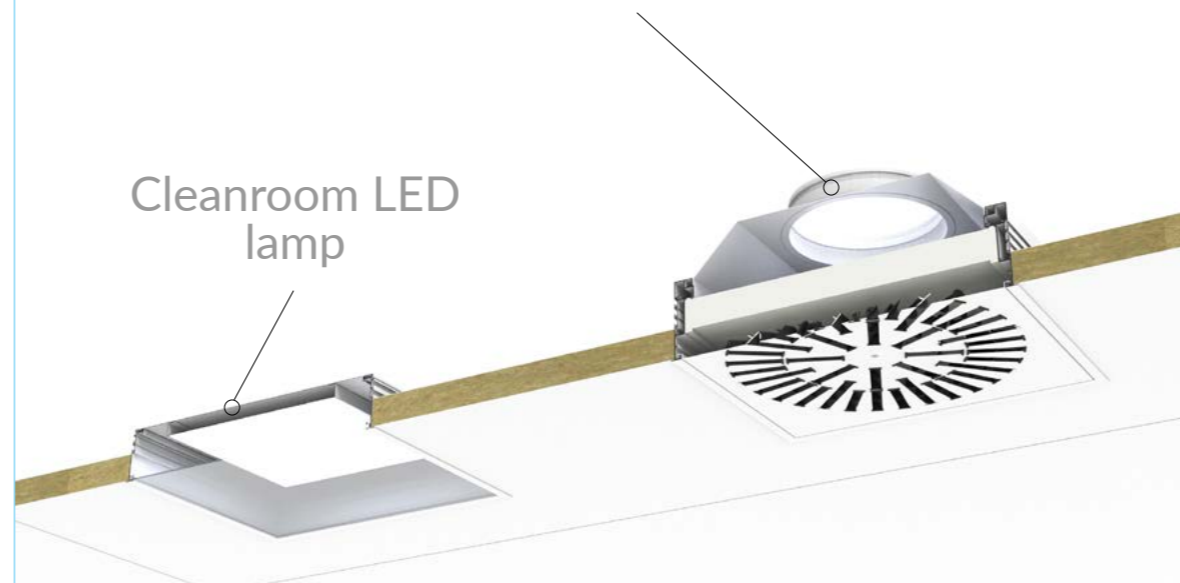- 1,25 mm thick bottom plate
- 2,5 kN/m² walk on capacity

Thickness:

130 mm

Grid dimensions:

1200 x 1200 | 1200 x 2400

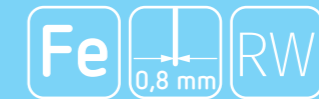## Ceiling filter box with diffuser

Cleanroom LED lamp

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.
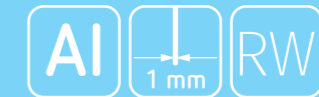
Dimensions:

62 mm | 82 mm | 1200 x 2400

62 mm | 82 mm | 1200 x 2400

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

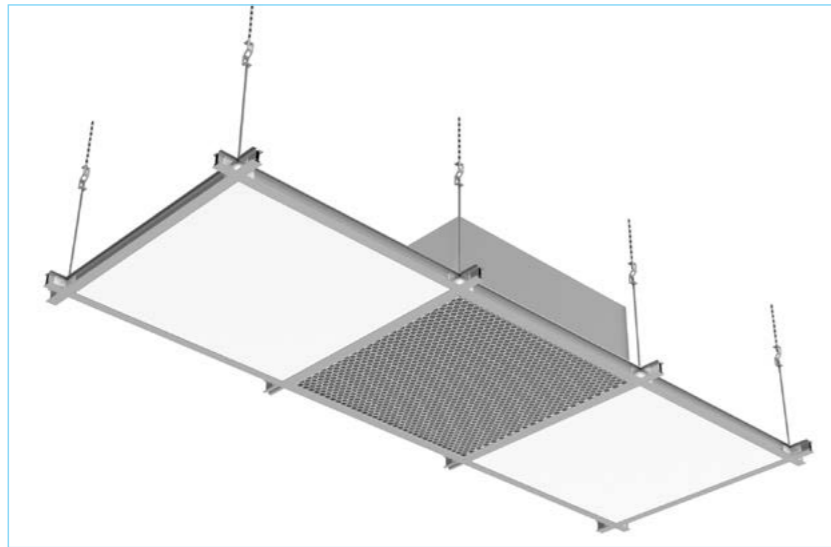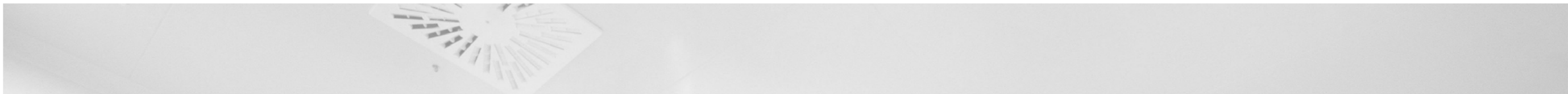**Additional options:**

RAL

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.
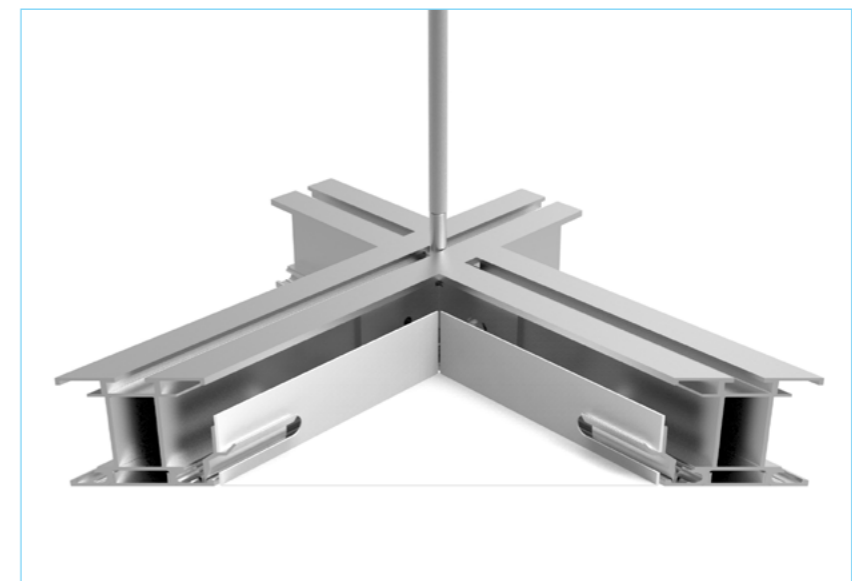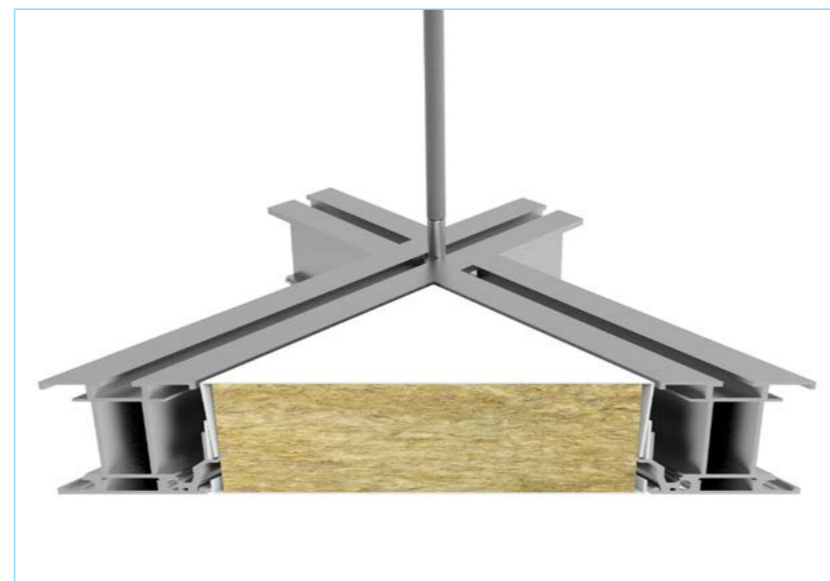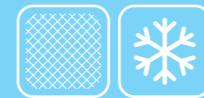
Specifications:

EC | HEPA filter

Dimensions:

| 600 x 1200 | 900 x 1200 | 1200 x 1200 |

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 capacitiy for walkable ceiling grid system is 200 kg/m². It is supposed to be fixed onto steel grid or concrete structure.

Thickness:

62 mm

Grid dimensions:

| 600 x 1200 | 600 x 2400 | 900 x 900 | 900 x 1200 | 900 x 2400 | 1200 x 1200 | 1200 x 2400 |

Thickness:

62 mm

Grid dimensions:

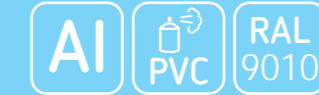| 600 x 1200 | 600 x 2400 | 900 x 900 | 900 x 1200 | 900 x 2400 | 1200 x 1200 | 1200 x 2400 |

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 efficiancy: 152 lm/W
- Input voltage: 230 V / 50 Hz
- Color temperature: 4000 K
- Supply unit: Integrated in the housing
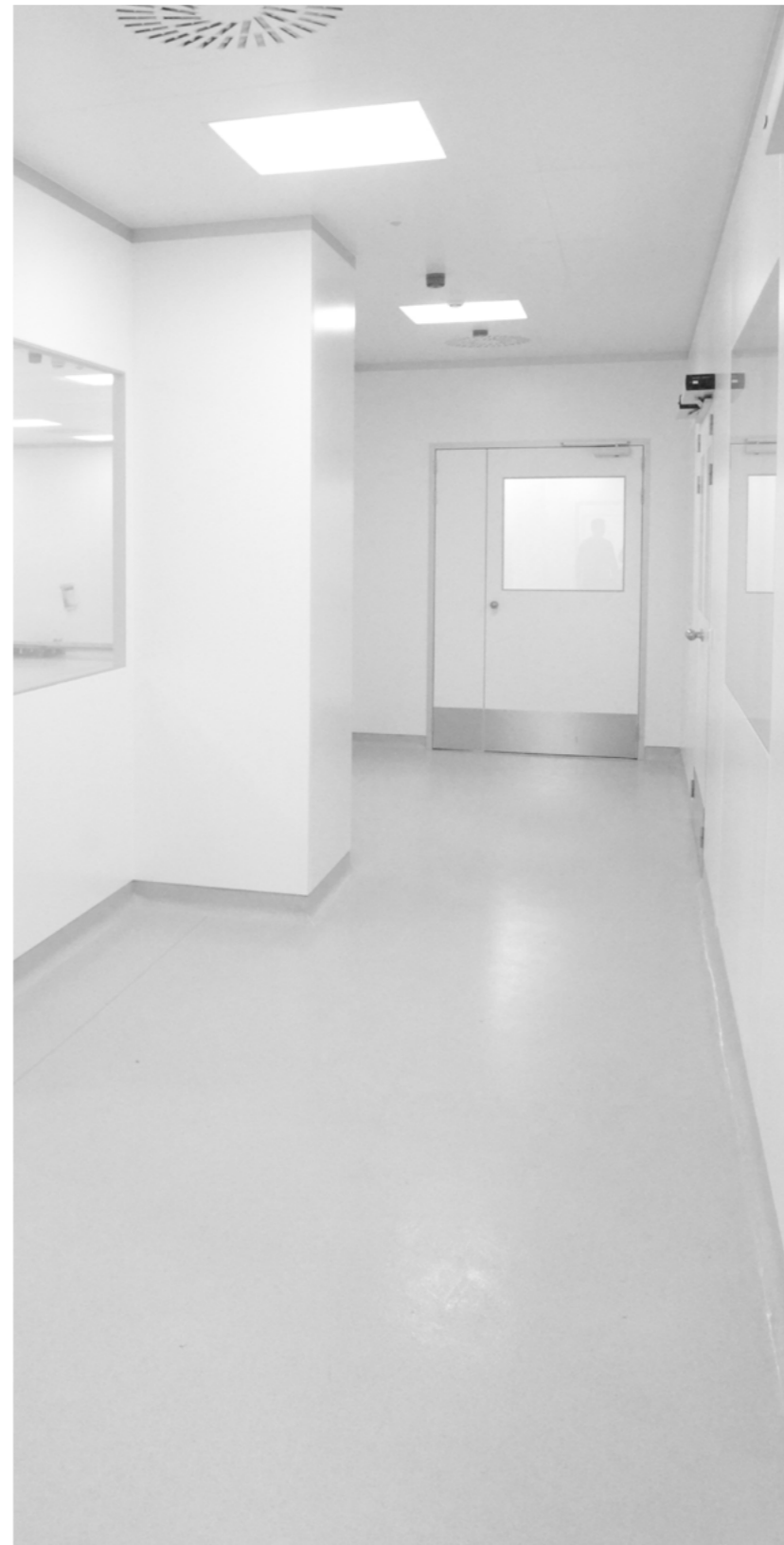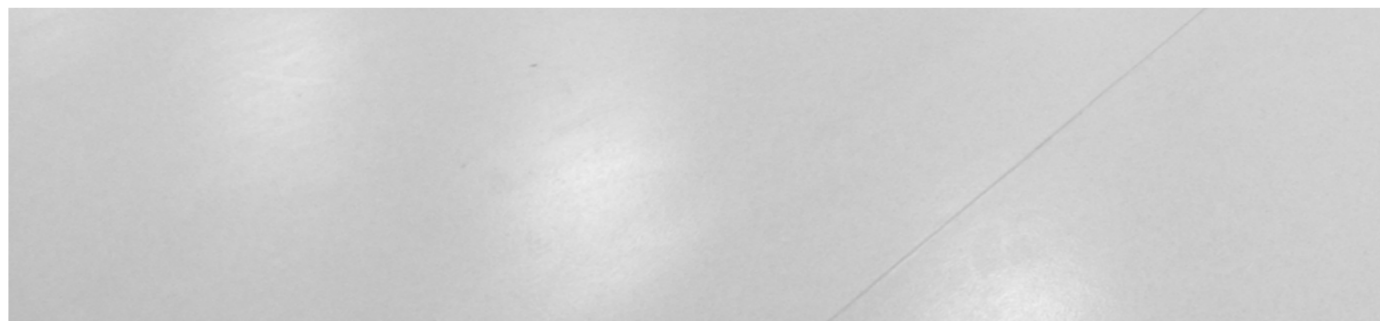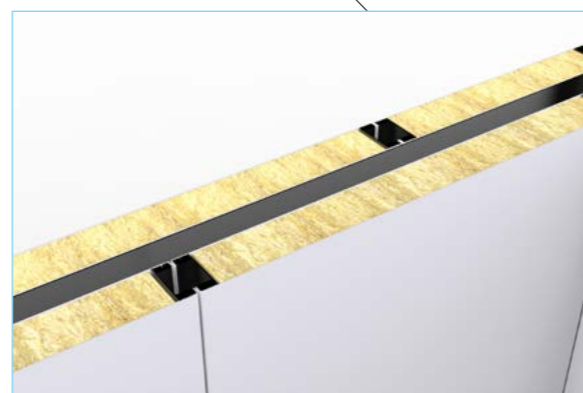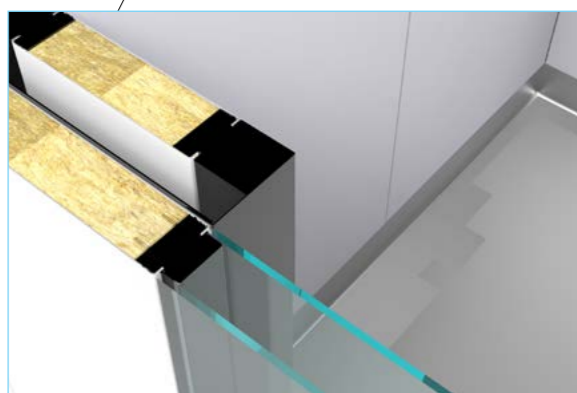- Options: Standard, DALI, Emergency (Integrated and Central)

Materials:

| AI | PVC | RAL 9010 |

Certificates:

| CE | EAC | IP65 | IK 09 |

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.
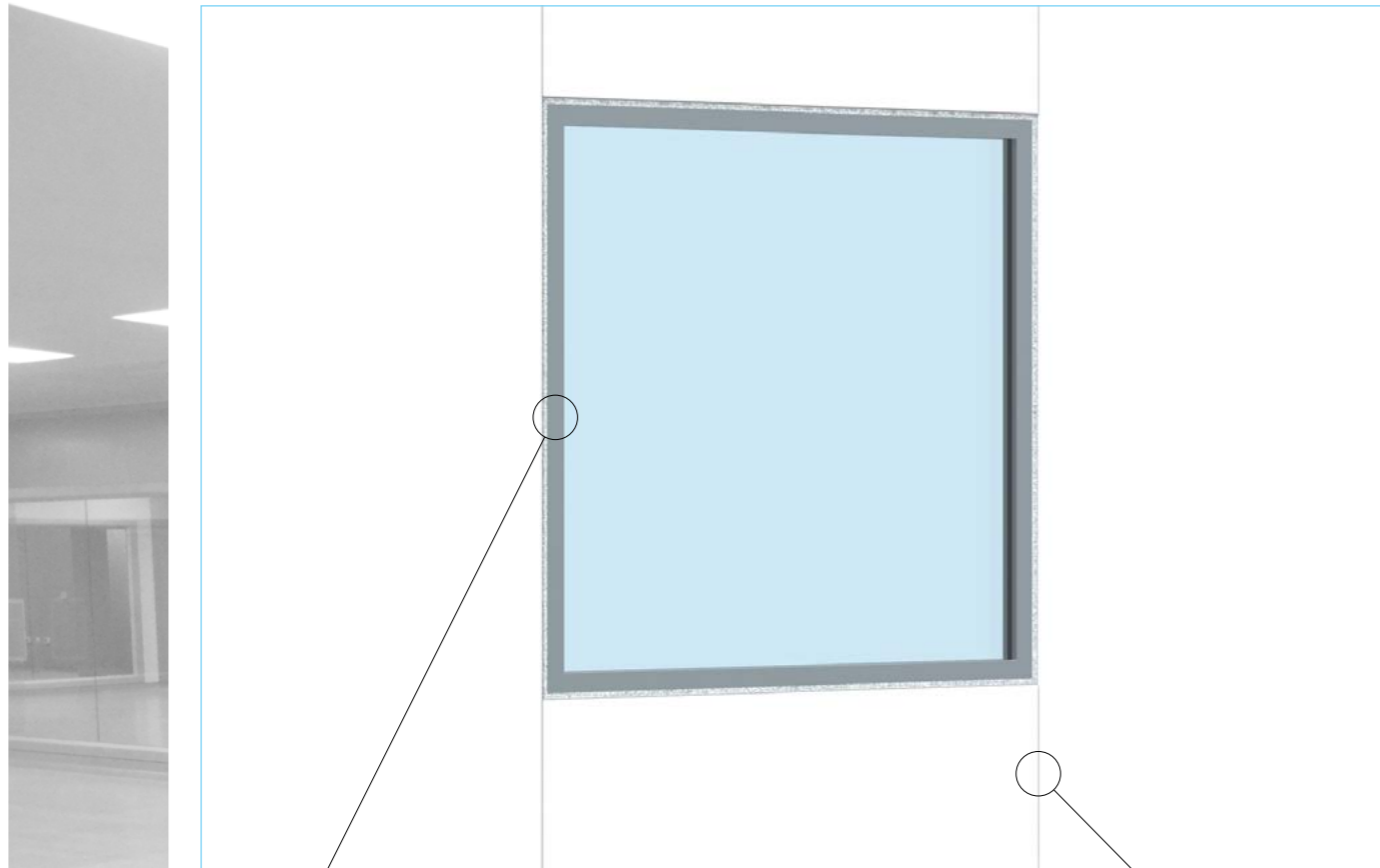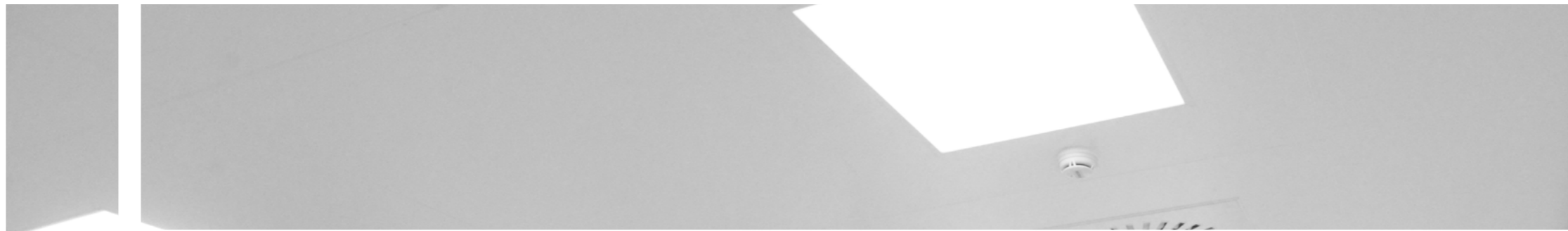
Lead panel system

Cleanroom panel system with integrated lead sheets (0.5-3.0 mm thick).
It comes in three combinations:
- glued to the panel wall
- a double panel wall, on one of which a lead plate is attached
- glued to the existing construction wall in front of which is a panel wall

Dimensions:

EI45	62 mm	1200 x 4000
EI60	82 mm	1200 x 4000

Lead sheet:

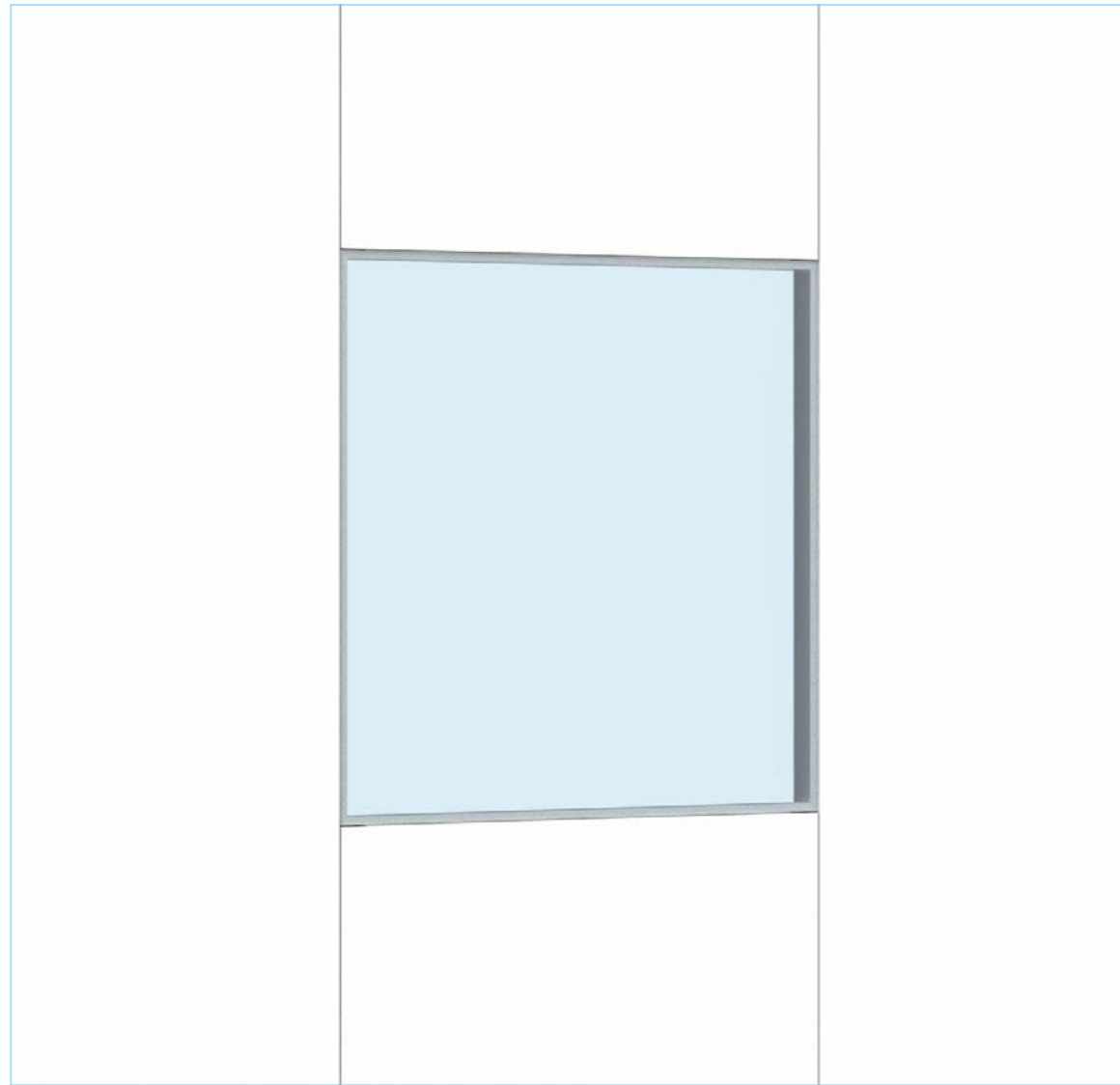|		
Pb	0.5-3 mm	RW
PVC	RAL 9010	110 µm

Options:

|		
PVC	RAL 9010	110 µm

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.
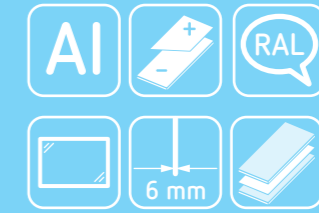
Thickness:

42 mm	62 mm	82 mm

Dimensions:

600 x 1200	900 x 1200	1200 x 1200	

Material:

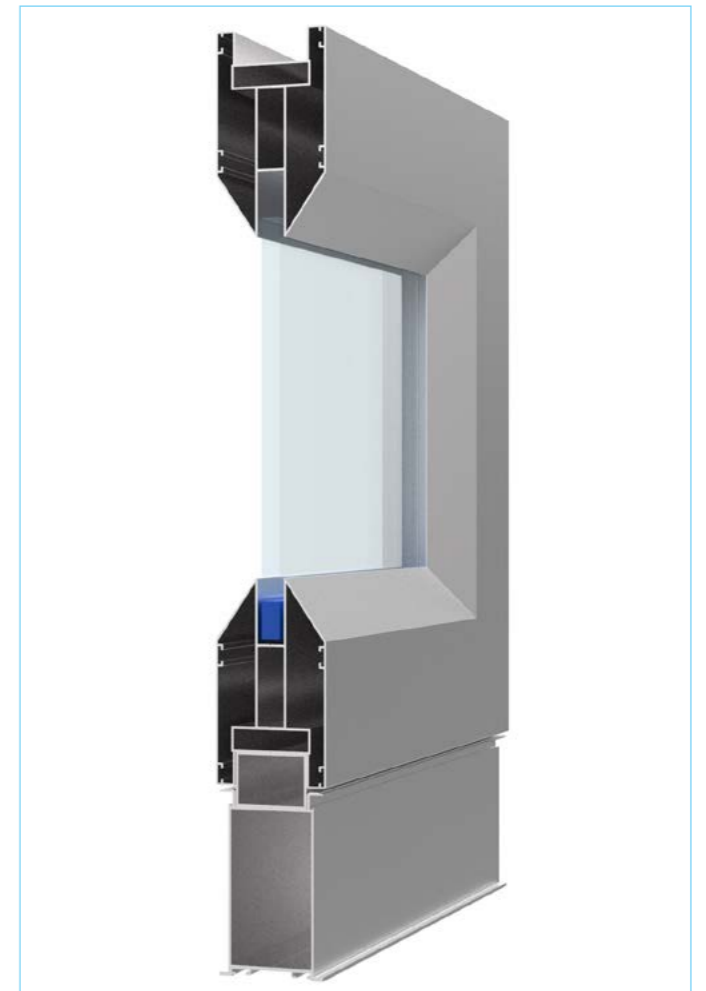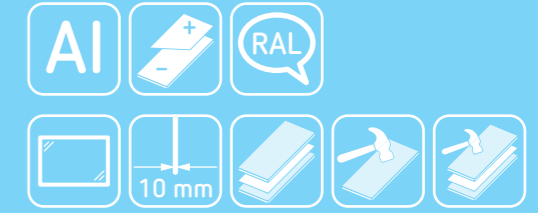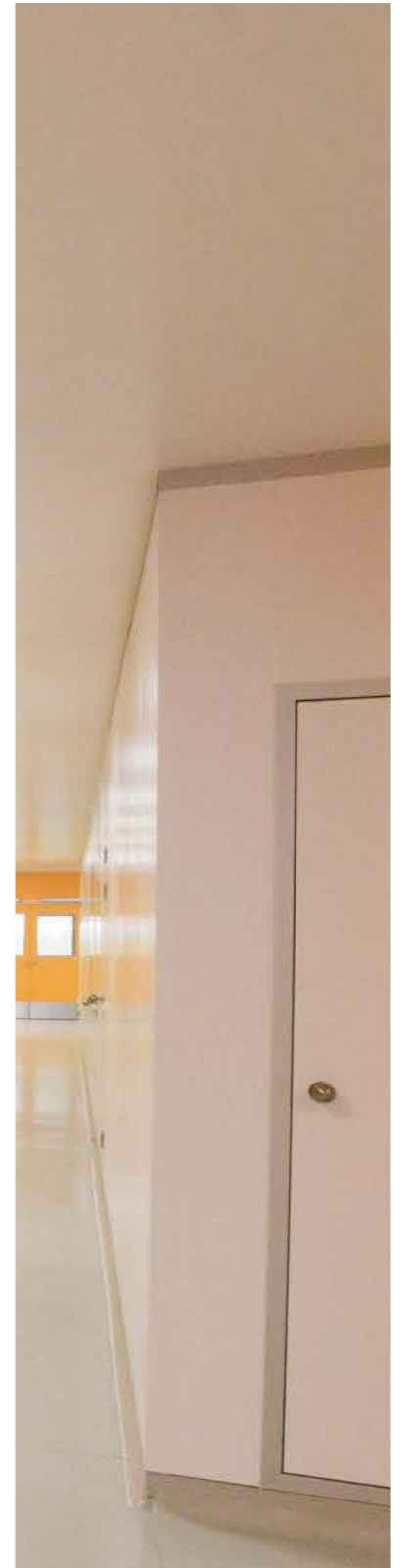| Al		RAL
	6 mm	
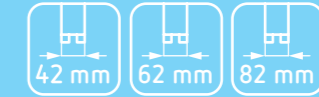
Glass wall system

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:

62 mm · 82 mm

Material:

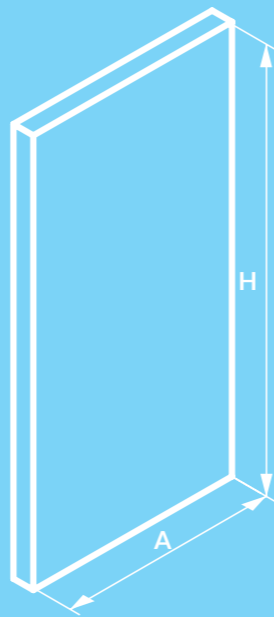AI · RAL · 10 mm

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:

62 mm   82 mm

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.
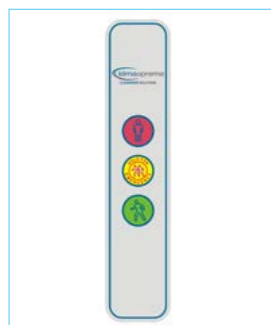
Thickness:

62 mm   82 mm
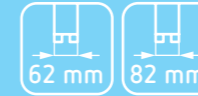
Window dimensions:

400 x 700   700 x 700   200 x 1300

Dimensions:

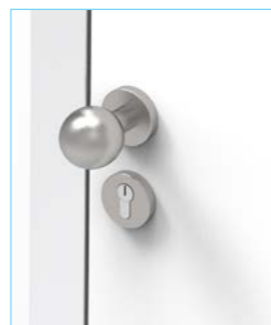|	Lenght (mm) A	Height (mm) H
One leaf	800-1300	2200
Two leaf	1300-2600	2200

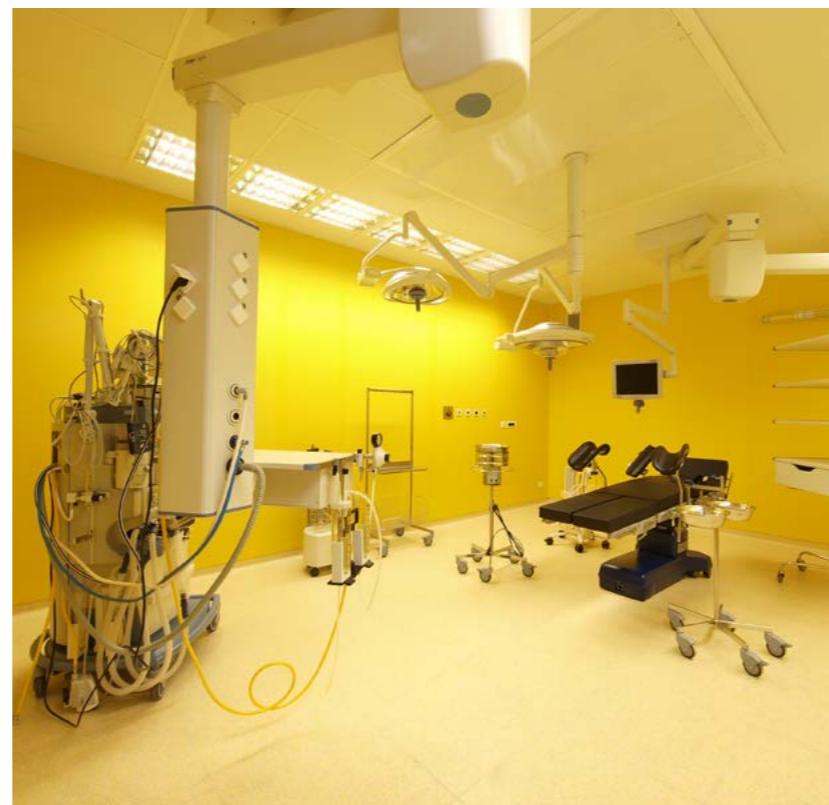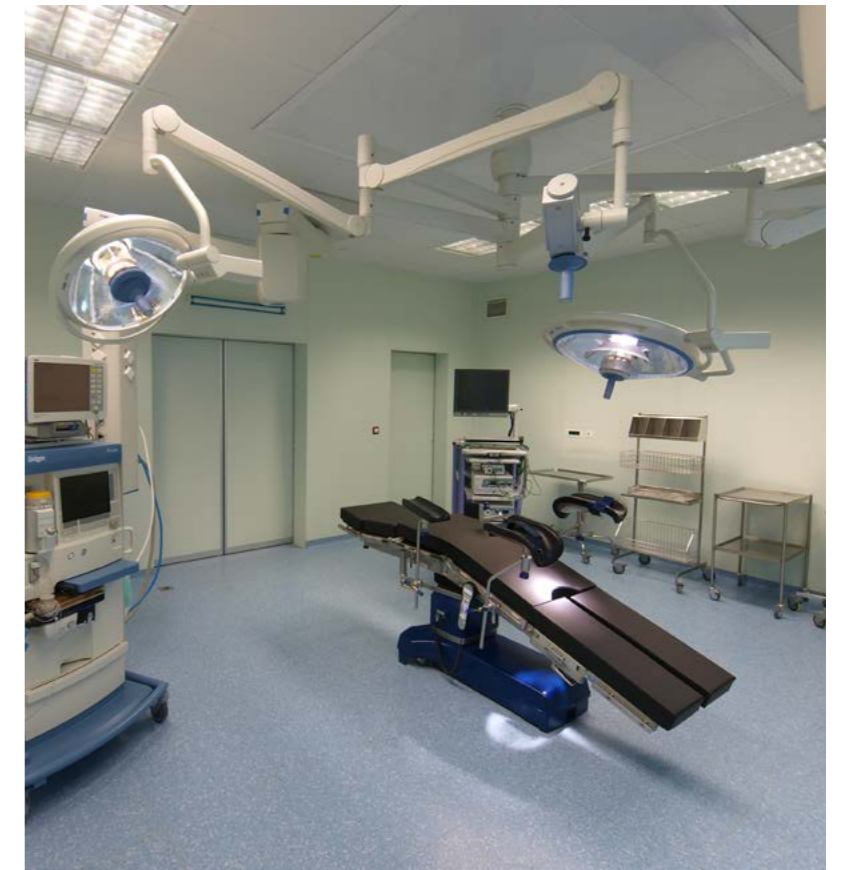| Interlock System | Automatic mechanism | Drop seal | Kick plate | Key lock | Handle | Ball handle | D-handle | Panic push bar | Push plate |
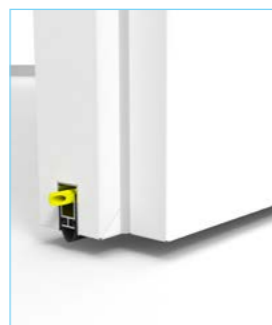
References

References

References

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March, 2023