

# CLEANROOM SYSTEMS



c l e a n r o o m   s y s t e m s

## SECANORM

# INDEX

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**SECANORM**



Defence Industry



Aviation



Space



Automotive



Engineering



Pharmaceutical Industry



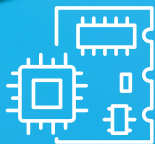
Biotechnology



Medical Production



Chemical Industry



Microelectronic



Food Industry



Telecommunications



Scientific

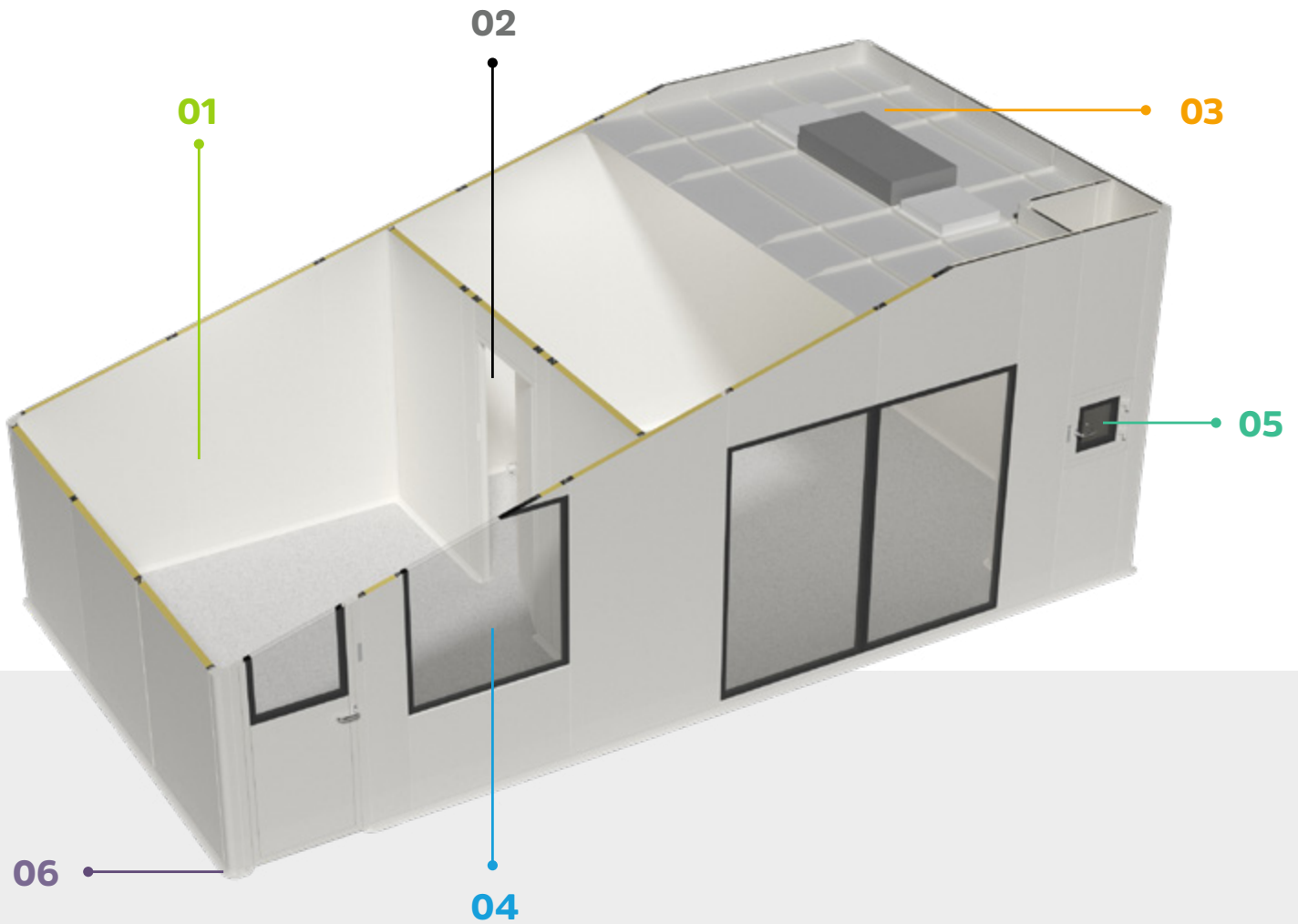
# Clean Room Systems

A clean room is one or more working environment(s) established for research and production purposes, free from airborne particulate concentration and other particles, where business-specific pollutants are kept under control and humidity controls are provided. In order to ensure the desired level of cleanliness, the ventilation system, the equipment used and the entrances and exits of the users of the environment must be controlled. Additionally, the employees of the clean room use special clothes.

There are different types of clean rooms which need different filtration and air conditioning solutions for their intended use. Appropriate design and project planning is carried out in line with the sphere of activity, cleaning class and usage requirements of the room.

## AREAS OF UTILIZATION

Semiconductor,  
Battery Cell,  
Solar Cell,  
Lithography Process,  
Nanotechnology,  
Microelectronics,  
Electro-Optics,  
Dry Room,  
Clean Room,  
Glass Manufacturing,  
Microprocessor,  
Weapon Manufacturing,  
Aerospace,  
Composite Process,  
Automotive Industry,  
Defense,  
Photo-Lithography,  
Nuclear Process,  
Chemical Production,  
Electronics,  
Fiber Optic Laser Technology



## Clean Room Constructional Components

Clean room projects are designed by our expert team according to user requests and standards.

In the post-design stages; architectural application, mechanical installation, electrical installation, HVAC, automation, instrumentation and all similar work items can be applied on a turnkey basis.

All of our clean room constructional components are specially designed by us

and all constructional components work in perfect harmony with each other. In this way, the risk of contamination due to the structure is completely eliminated with the superior sealing ability.

Clean room equipment is designed to be easy to assemble / disassemble when necessary. Thanks to the composite structure of the constructional components, higher fire resistance is provided.

## Wall Panel 01

In clean rooms, modular panels with composite structure consisting of PVDF coated, galvanized steel and aluminum profiles are used. Removable clean room panels, which have high quality standards, are durable and long-lasting as well as easy to install.

## Door 02

Our door systems which are prepared in accordance with clean room standards have high impermeability. The doors are manufactured from PVDF coated galvanized steel with or without glass.

## Glass Panel 03

All window units are double glazed. Window and panel thicknesses are equal and they are flush with each other. Clean room glass thickness is 4mm tempered glass. The window system is completely sealed by silicone.

## Ceiling Panel 04

Thanks to the clean room suspended ceiling systems, it is produced as a T-grid carrelage ceiling with a strong carrying capacity. T-grid types of ceiling are a carrier structure made of aluminum profile to support ceiling panels, lighting and filtering equipment units.

## Pass box 05

Clean rooms are compact structures with UV lamp and electronically controlled magnetic lock system, designed statically or dynamically depending on the general conditions of the room, working according to active and passive door logic, for material transfer between rooms.

## Accessories 06

These are finishing elements designed by us to be in full harmony with all our building elements.

# Clean Room Wall Panel

Panels with PVDF coating, galvanized metal surface and aluminum carcass structure are manufactured as standard. Alternatively, combinations with different surface materials can be created according to application details and user requests. Our clean room wall panels and mounting equipment compatible with the panels provide a system which is free of indentations, leak-proof, easy to assemble and reusable after disassembly.

- Main metal sheet: PVDF coated galvanized steel
- Sheet thickness: 0.8 MM
- Standard panel size: 1200x3050 MM  
(Contact for different panel sizes)
- Standard Panel thickness: 50 MM ±1 MM
- Inner frame material: Aluminum
- Aluminum profile and 4 mm PVC gasket as wall fitting
- After assembly, panel gaps are filled with antibacterial silicone
- Fireproof panel feature: B-S1-D0 ( EN 13501 )
- Other certifications: ISO 9001:2015 ; CE

Non-  
flammable



Detachable



Insulation



Chemically  
Resistant



Cleanable



## SECANORM



# Fireproof PU Filled Panel



Standards  
\* ISO 9001 \* CE \* EN 13501



Fireproof panel feature:  
**B-S1-DO ( EN 13501 )**



Water Absorption  
Resistance



Air Resistance



Dimensions  
**1.200 x 3.050 mm**  
other dimensions  
optional



Thickness  
**50 mm**



## FILLING

40 ± 2 kg/m<sup>3</sup>  
polyurethane



## EXTERIOR METAL SHEETS

Sheet thickness: 0,8  
mm Paint: 25 um

Material:

- Steel | PVDF
- Steel | AISI 304
- Steel | AISI 316

Colors:

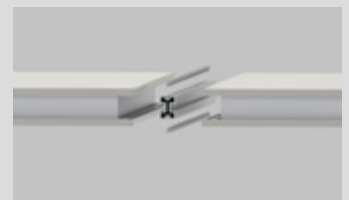
- RAL 9002
- RAL 9010



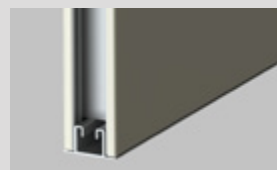
## INSTALLATION DETAILS



Wall joint  
4 mm silicone gap



Wall joint Profile and  
Silicone Gasket



Floor Profile

# Clean Room Doors

# 02

Our door systems which are prepared in accordance with clean room standards feature high impermeability. Doors are produced from PVDF coated galvanized steel with or without glass, as single-wing, double-wing and sliding doors. Airlock system doors are produced for transitions from a clean room of a specific class and category, classified according to the intended use, to a room of a different class. There are traffic lights, emergency exit button, timer for waiting in the open or closed position at the doors which provide controlled transitions. In addition to the standard sizes in all door types, custom sizes are also produced by our company as per the projects.

Flexibility



Easy-to-install



Impermeability



Quality of Material



Visual Aesthetics



## SECANORM

# Single Leaf Clean Room Door



Standards  
\* ISO 9001 \* CE \* EN 13501



Airlock



Water Absorption  
Resistance



3D Adjustable  
Hinge



Air Resistance



Filler Fireproof  
Polyurethane  
/ Aluminum /  
Rockwool



Thickness **50 mm**



## OPTIONS AND ACCESSORIES

### Panel Metal Sheet

- Steel | PVDF

### Colors:

- RAL 9010
- RAL 9002

### Options

- Stainless Handle
- Airlock
- Magnetic
- Mechanical
- Threshold guillotine

### Hinge

Adjustable in 3 axes



## DOOR OPTIONS



# Double Leaf Clean Room Door



Standards  
\* ISO 9001 \* CE \* EN 13501



Airlock



Water Absorption  
Resistance



3D Adjustable  
Hinge



Air Resistance



Filler Fireproof  
Polyurethane  
/ Aluminum /  
Rockwool



Thickness **50 mm**



## OPTIONS AND ACCESSORIES

### Panel Metal Sheet

- Steel | PVDF

### Colors:

- RAL 9010
- RAL 9002

### Options

- Stainless Handle
- Airlock
- Magnetic
- Mechanical
- Threshold guillotine

### Hinge

Adjustable in 3 axes



## DOOR OPTIONS





# Clean Room Glass Panel

It is manufactured in a constructive structure compatible with clean room wall panels. It is used in areas where visibility is required and where transparency is desired in clean rooms according to the design.

- Double Glazed Tempered Glass Panel
- Laminated Glass Panel

Non-flammable



Sökülebilir



Tempered



Chemically  
Resistant



Cleanable



## SECANORM

# Double Glazed Tempered Glass Panel

# Laminated Glass Panel



Standards  
\* ISO 9001 \* CE \* EN 13501



Tempered Glass Thickness  
**4+42+4 mm**



Dimensions  
120\*100 cm  
Other dimensions optional



Standards  
\* ISO 9001 \* CE \* EN 13501



Laminated Glass Thickness  
**6+1,14+6 mm**



Dimensions  
120\*200 cm  
Other dimensions optional

## • Double Glazed Tempered Glass Panel

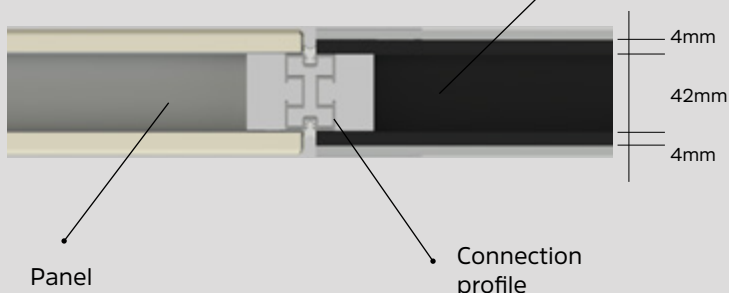
Double Glazed Tempered Glass Panel consists of 4+42+4 mm double-sided tempered glass. It is produced to your desired dimensions.

## • Laminated Glass Panel

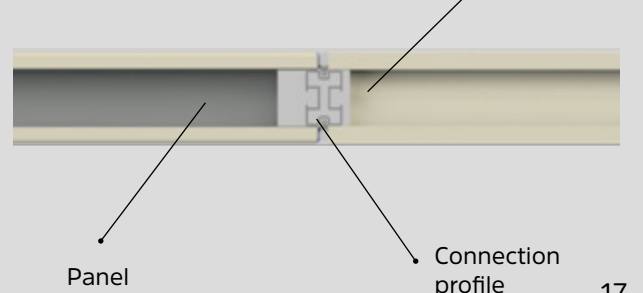
Laminated Glass panel system consists of single glazed, 6+6 mm laminated glass. It is produced to your desired dimensions.



### INSTALLATION DETAILS



### INSTALLATION DETAILS









# Clean Room Ceiling Panel

The clean room ceiling panel is manufactured as compatible with our wall panels. Ceiling panels are manufactured to have a structure which will create a sealed ceiling surface in the clean room and can carry accessories to be used on the ceiling such as HEPA Filter and Lighting Fixture.

Due to its structure, the ceiling system provides easy assembly and disassembly with the accessories on it.

- T-Grid Modular Ceiling
- Walkable Panel Ceiling

Non-flammable



Detachable



Chemically Resistant

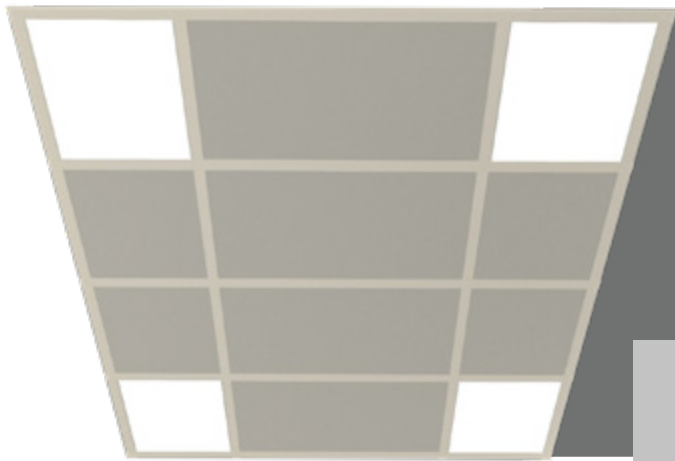


Cleanable



## SECANORM

# T-Grid Modular Ceiling



Standards  
\* ISO 9001 \* CE \* EN 13501



Fireproof panel feature:  
B-S1-DO ( EN 13501 )



Modular Ceiling Profile

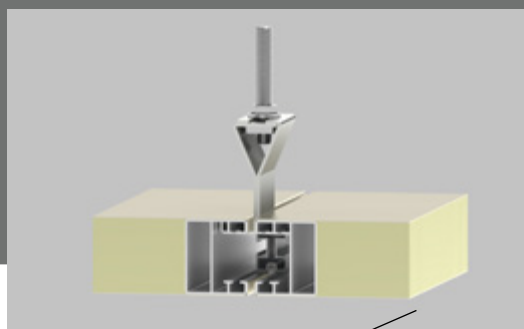
# Walkable Ceiling



Standards  
\* ISO 9001 \* CE \* EN 13501



Fireproof panel feature:  
B-S1-DO ( EN 13501 )



Walkable Ceiling Profile

# Clean Room Pass box

They are compact cabinets specially designed for material transfer between clean rooms. There are three types of pass boxes: Active, static and dynamic.

Hepa filter



Airlock



Chemically  
Resistant



Cleanable



## SECANORM

# Pass box



Standards  
\* ISO 9001 \* CE \* EN 13501



Airlock



Water Absorption  
Resistance



3D Adjustable  
Hinge



Air Resistance



Filler Fireproof  
Polyurethane  
/ Aluminum /  
Rockwool



Thickness  
50 mm



## OPTIONS AND ACCESSORIES

### Interior surface

- AISI 304 steel

### Exterior surface:

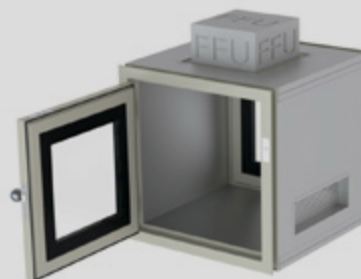
- Painted galvanized steel
- AISI 304 steel

### Özellikleri:

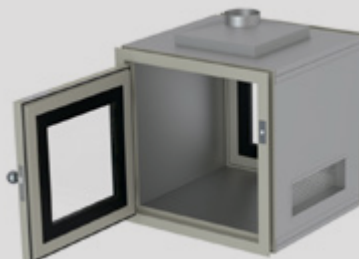
- HEPA filter
- UV led
- Airlock
- Air flow
- Mechanical lock
- Emergency button



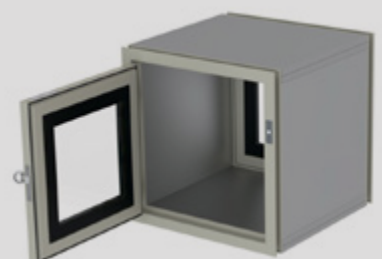
## OPTIONS AND ACCESSORIES



**DYNAMIC PASS BOX**



**ACTIVE PASS BOX**



**STATIC PASS BOX**



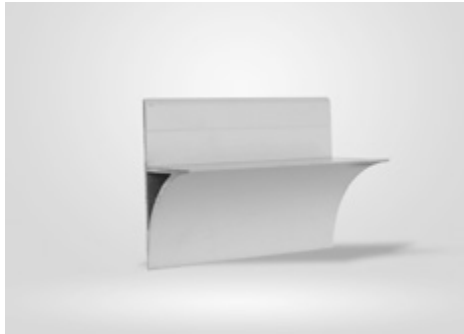


# Accessories

Vertical Corner Profile



Ceiling Profile



Door Finish Model 1



Door Finish Model 2



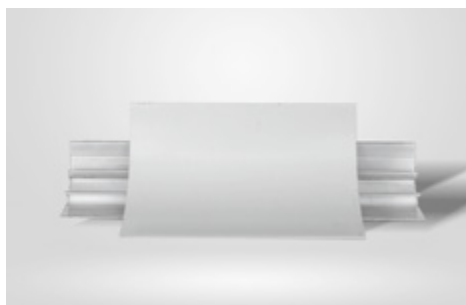
Lower Outside Corner



Lower Inside Corner



Upper Hygiene Profile



Lower Hygiene Profile





# Our Expertise in **CLEAN ROOM** for your Applications

Our 30 years of experience in TURN KEY SOLUTIONS make us your ideal Contract Development Organization.

Your vision. Our Know-How  
From Lab to Factory  
Building a GMP Facility



## We SETUP

- Quality management
- Personnel and organization
- Building, equipment, equipment and materials
- Documentation
- Raw product input, product processing, storage and distribution
- Quality control and proficiency tests
- Approval and authorization of all transactions
- Complaints and recalls
- Investigation of errors, clinical follow-up of the manufactured products after use
- Storage of samples, disposal of problematic, returned products
- Internal and external audit



## We SUPPORT

- Raw material
- Processing
- Product development
- Production
- Packaging
- Storage
- Distribution

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TRANSFER AND  
documentary Works!



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**SECANORM**

Clean  
Room  
Techn  
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