# Products EG –













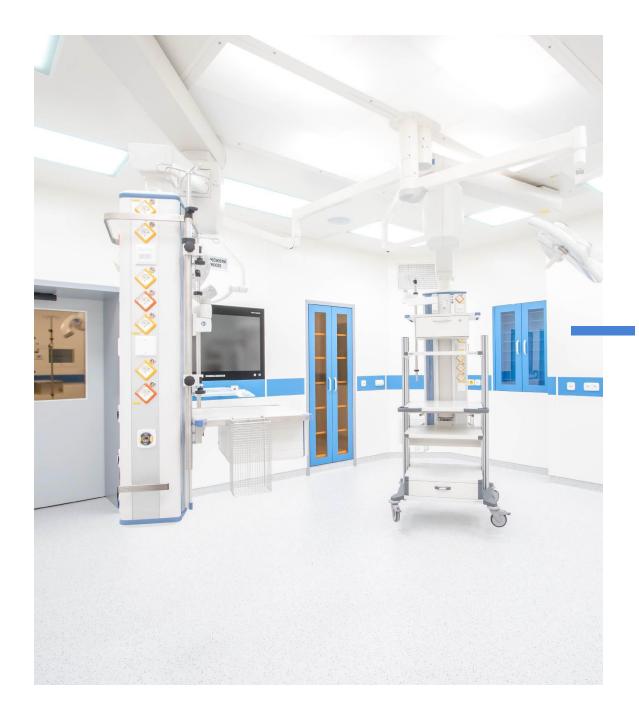


#### CLEANROOMS

EP Rožnov, a.s.

We manufacture, supply and install clean room products suitable for environments with high demands on air cleanliness and air quality.

We change established ideas and constantly innovate design solutions. We can manufacture proven and atypical elements according to customer requirements.

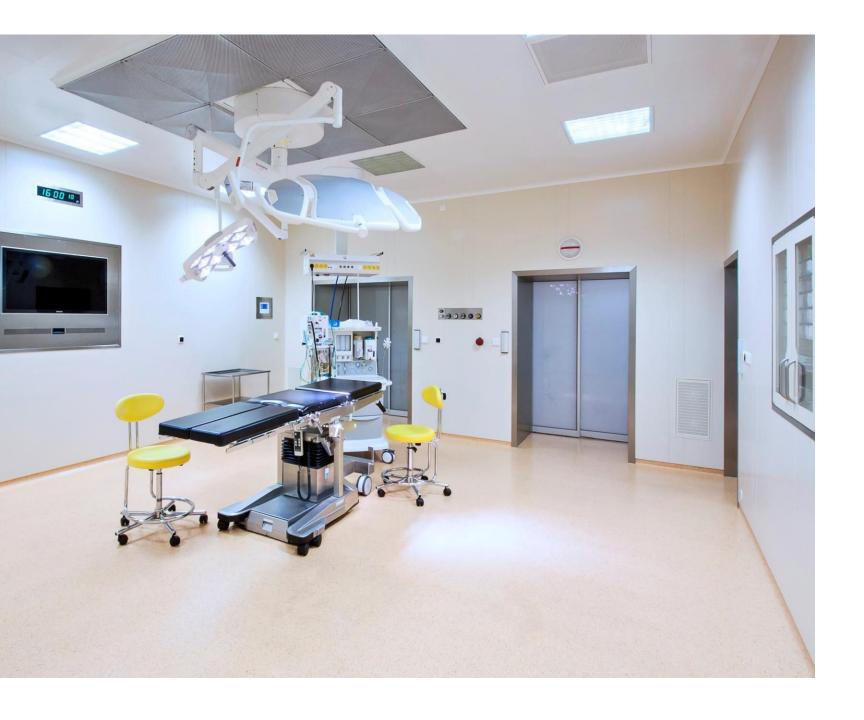


#### Wall systems

### Metal partitions EG

Suitable for use in building room demarcation and to provide a working environment with a defined cleanliness class. They allow dust-free and quick installation.





USE

EG metal partitions are designed for use in electrical industry, pharmaceuticals, healthcare, optics, fine mechanics, food processing etc.





#### EG metal partitions use a sandwich construction and are self-supporting.

They consist of panels with a module spacing of 1140 mm and flaps. The surface of the panels is made of sheet steel. The internal filling material is chosen according to the customer's request. All production joints of the panels are sealed with silicone sealant.

There is an opening in the panel for fitting EG windows, doors or another product Opening is reinforced from the inside with a steel sheet frame, into which the given product is fitted. In the case of requests to reinforce the partition, the panel is reinforced with a sheet steel profile.

Common connecting material in the prescribed surface finish is used for fitting products into partition panels or when hanging products on partitions.

### Lightweight integrated partition UNI-EG

Suitable for use in the building delineation of rooms and to ensure a working environment with a defined cleanliness class. The partitions enable dust-free and quick assembly.





USE

UNI-EG metal partitions and tiles have a wide range of use due to their versatility. For example, in the electrotechnical industry, pharmacy, healthcare, in the production of optics, fine mechanics, food industry and elsewhere.





UNI-EG lightweight metal partitions use a sandwich construction. They consist of a supporting grid and a lining.

The lining is composed of a body, SDK filling and clapper. Casings and dampers are made of sheet steel according to the project's requirements. Panel reinforcements are made of 15 mm thick plasterboard and glued to the bodies.

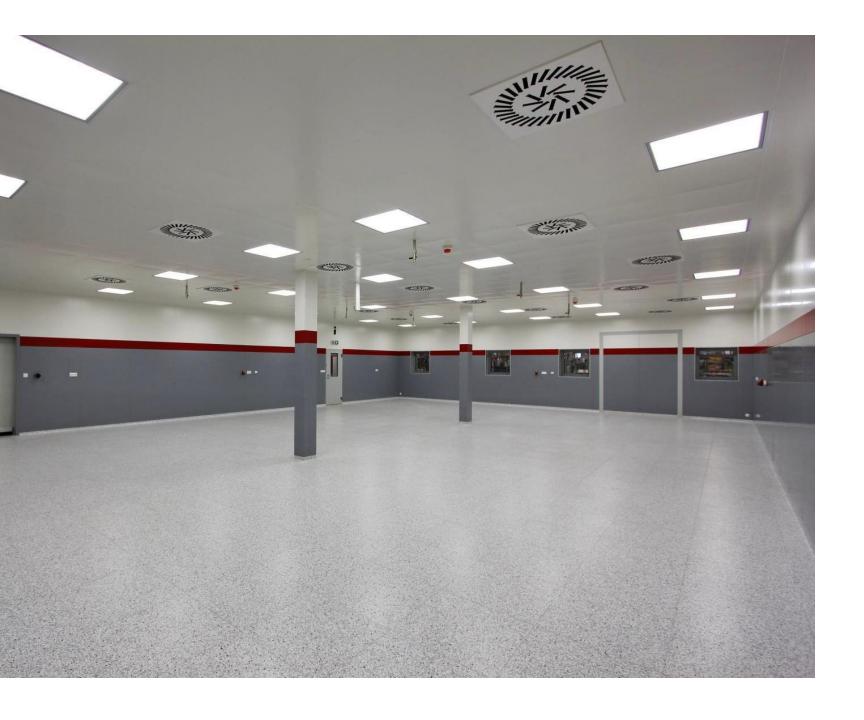
Completion is done by screwing the components of the metal cladding to the base surface. All production joints of the panels are sealed with silicone sealant. For installation of EG windows and doors, or another product, the opening in the panel is reinforced from the inside with a sheet steel frame.

UNI-EG lightweight metal partitions are resistant to normal mechanical action. Resistance to chemicals depends on the used surface material.

# Lightweight integrated partition UNI-EG Mono type S / T

Developed specifically for automotive as a built-in system for spaces with the most demanding production, testing and research conditions.

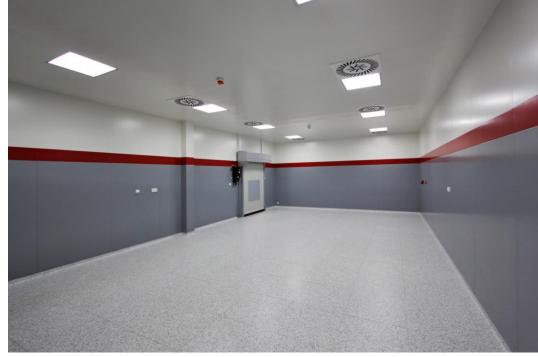


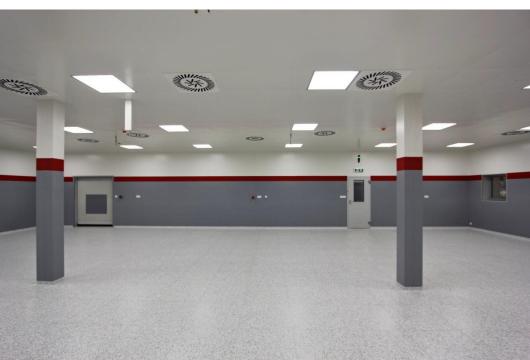


USE

#### The advantage of the multifunctional system is its multi-purpose.

The design solution enables
easy integration of internal
equipment and simple
dismantling of cladding panels
and elements from the
functional side of the room
without dusty processes.





The wall system is produced according to the manufacturer's individual production documentation.

The modular wall system is made up of a load-bearing steel structure, possibly internal insulation and cladding panels. Zinc-coated supporting structure consists of a reinforced load-bearing floor structure anchored to the floor, enabling the connection of the floor covering, a vertical steel structure made of steel rolled thick-walled EG41 profiles.

The horizontal steel structure and horizontal reinforcements are anchored to the vertical structure by sliding onto the suspension system. In the case of applying a double-sided dividing partition, the space between the partitions can be filled with sound insulation. A polyurethane seal is glued at the point of contact between the cladding panels.

### Metal partitions RTG3

Developed specifically for healthcare as a system for building operating theaters and facilities to ensure a working environment with a defined cleanliness class. The partitions have a completely new technical solution with protection against ionizing radiation (RTG).



USF

#### Partitions are suitable for X-ray workplaces in hospitals and places with ionizing radiation.

The system is highly variable.

The design solution enables the integration of internal equipment and the dismantling of cladding panels and elements from the functional side of the operating theater without dusty processes.

The system enables the installation of electrical, pipe and medigas distributions.





#### RTG 3 partition and cladding panels are almost indistinguishable from basic structural partition systems in appearance.

The only difference is in the non-use of connecting crosspieces (pressure and folding bar). There is an integrated lead insert in the inner part of the structure, which acts as an X-ray radiation screen.

Partition and cladding panels are designed as self-supporting. The compactness of the assembly is achieved with the help of internal connecting profiles (closed lamella), which are also equipped with a radiation screen. In this combination, radiation protection of the surrounding space is fully ensured. The strength of the shielding insert is determined by the project documentation of the specific order.

### Wall systems MSS-EG41

The multifunctional wall system MSS-EG41 was developed with high variability - the design solution allows easy integration of internal equipment, disassembly of facing panels and elements from the functional side of the operating theater without dusty processes.



USF

### Cladding panels are attached to the supporting structure using special clamps from inside the room.

The panels are made of metal materials with glued reinforcement made of material of fire resistance class A2 according to ČSN, suitable for use in the healthcare sector. It is glued at the point of contact of the cladding panels polyurethane gasket.





It consists of a reinforced load-bearing floor structure anchored to the floor, enabling the connection of the floor covering and a vertical and horizontal steel structure made of rolled thick-walled steel profiles EG41.

Horizontal reinforcements are installed in the place of the upper lintel of the door frame, sliding cabinets, supply windows, other opening fillings, and in the place where the linear sliding and rotating automatic door drives are installed.

The horizontal steel structure and horizontal reinforcements are anchored to the vertical structure using steel connectors and self-tapping screws.

### **EP MEDICAL**Partition

A solution specially developed for the healthcare sector.

Facing panels are placed on the system supporting steel structure, without the need for a screw connection or other additional mechanical connection.



USF

EP Medical partitions are mainly designed for use in the healthcare sector.

The adaptive panel width solution reduces the number of joints to a minimum, thus reducing the risk of bacterial contamination.





EG Metal partitions are self-supporting. The cladding panels are fastened as a clip-on element. They can be dismantled without difficulty only with the help of a tool for removing silicone in the joints and a glass handling suction cup.

The advantage of the system is its multi-purpose. The self-supporting structure of the system enables easy installation of electrical, water, medigas and other distributions. The construction solution facilitates the installation of cladding panels in variable dimensions. At the same time, it also allows easy integration of internal equipment and operating room equipment. The EP MEDICAL system supports subsequent changes or additions to media distributions, or new technology installations in the future. The advantage is the dust-free disassembly and reassembly of the cladding panels.

### **EP MEDICAL**Partition Glass

The wall system consists of a self-supporting steel structure, with the option of use internal noise insulation and cover cladding panels in various material and dimensional designs.





USE

The EP MEDICAL GLASS wall system is intended for healthcare, especially for wall structures in operating rooms.

The glass surface of the panels is a guarantee of higher quality and easier disinfection of the OS space. The advantage of the multi-functional system is its multi-purpose nature, allowing design backlighting or special graphic adjustments according to the customer's wishes.

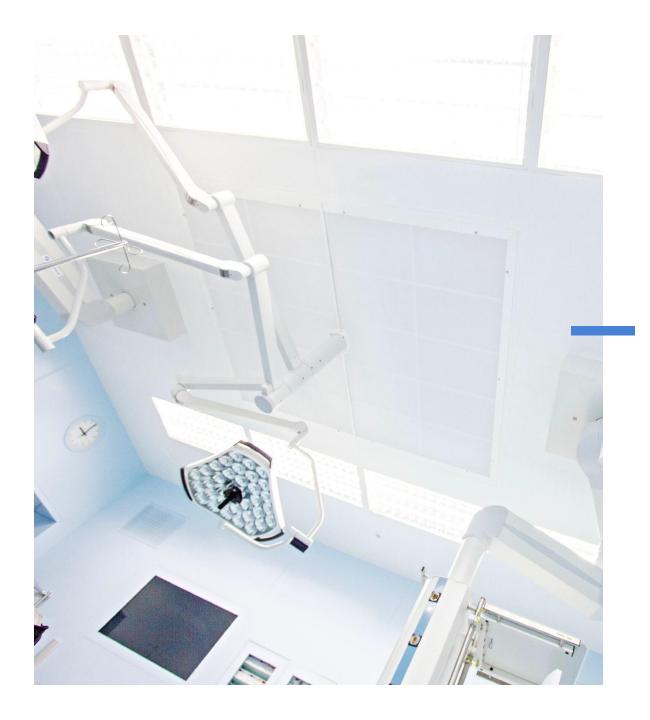




The multifunctional wall system consists of a selfsupporting steel structure, with the option of use internal noise insulation and covering cladding panels in various material and dimensional designs.

The self-supporting metal structure is made of thick-walled EG41 profiles with a zinc plating finish. The construction made of EG41 profiles is anchored to the floor using a "U" profile and to the building ceiling using fasteners.

All building openings (e.g. doors, glazing) are strengthened by the use of horizontal reinforcements anchored to vertical structures by a suspension system. The inner space of a two-sided or one-sided partition can be filled with sound insulation. The panels are made of metal materials suitable for use in the healthcare sector with glued reinforcement of material with fire resistance class A2 according to ČSN.



## Ceiling construction

### Lightweight integrated ceiling

Together with the partitions and the floor, it defines a clean room and forms one functional unit.





USF

#### The ceiling has a washable, hygienic surface resistant to the action of disinfectants.

The structural solution of the ceiling makes it possible to assemble clean zones in purity classes 100,000 to 100, depending on the given technology and any changes in the arrangement of filters during the reconstruction and modernization of the operation.

The integrated ceiling is also used to combine luminaires into strips and filter attachments into filter fields.





The ceiling is constructed as a raster structure. In the case of using an alternative grid size, the components can be placed in the ceiling by adjusting the grid in a given location or installing the component in cassettes. The grid construction enables the operative rearrangement of suspended ceiling elements in the future according to the needs of newly installed technologies.

Suspending the ceiling is done with adjustable steel rods on a pre-prepared steel structure. If the building ceiling allows it, it is hung on anchors in it. After media distribution and ventilation in the space above the grid, the suspended ceiling is closed using metal cassettes. The individual joints between the cassettes are sealed with silicone sealant. Access to the integrated ceiling to the control points is ensured by the so-called inspection (heavy) cassettes, which are marked with a pictogram from the side of the room.

### Walkable ceiling PSP 80

Designed for possible air distribution, lighting and at the same time allows almost unlimited movement with reachability of individual functional elements during maintenance interventions.



USE

### Together with the partitions and the floor, it defines a clean room and forms one functional unit.

The ceiling has a washable, hygienic surface, resistant to the action of disinfectants. The structural solution of the ceiling makes it possible to assemble a separating horizontal surface of the clean zone.





The PSP 80 integrated ceiling consists of supporting aluminum profiles, edge strips, sandwich panels, clamps, connecting bridges and height-adjustable hinges. The ceiling also includes entrance cassettes, which contain the entrance to the ceiling even after its assembly. The panels are stored in a seal.

For particularly demanding environments, the PSP 80 integrated ceiling can be ordered in stainless steel. For this type of ceiling, cassettes and edge strips are made of stainless steel, the supporting profile is aluminum. The marking of the integrated ceiling in stainless steel is: PSP 80-Anticoro.

### Heavy integrated ceiling

Ensures tightness, air distribution and ambient lighting for clean rooms.



US

The ceiling can alternatively be modified to Module M (680 x 680) mm / Module M (700 x 700) mm for filter inserts (610  $\times$ 610) mm / (610 x 610) mm. Filter attachments FN-TS 680 x 680 and luminaires EG type SV3 correspond to this module. Other non-modular products can also be installed in the ceiling. For example, EG luminaires type SV2, SV4, or end elements of VZT EG.





The integrated ceiling EG type ISU consists of supporting aluminum profiles, edge strips, steel cassettes, clamps, bridges and height-adjustable hinges. The ceiling also includes entrance cassettes, which allow entry into the ceiling even after its assembly. The surface treatment of all visible parts of the ceiling is done with KOMAXIT powder epoxy paint.

Other parts of the ceiling have the corresponding surface treatment with nickel plating or zinc chromating. The cassettes are stored in a seal they are sealed with silicone sealant according to the assembly documentation,



#### **Door EG**

### **Door EG**

Sandwich construction with a selfsupporting structure made of metal profiles.





USF

in building room delineation and to ensure a working environment with a defined cleanliness class in accordance with ČSN EN ISO 14644 Clean rooms and relevant controlled environments.

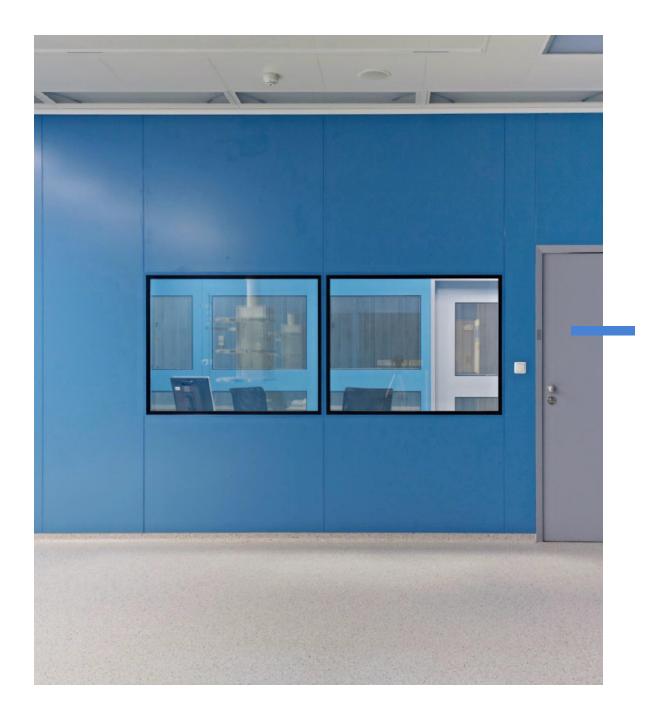
We offer an assortment of metal doors in pharma design in manual and automatic versions





The surface consists of a steel plate. Door frames are universal. They can be used in common wall systems. Split door frames are supplied for installation in ready-made openings. According to requirements, the door can be reinforced. Door frame could be reinforced as well with a sheet steel profile. Dr. Hahn door hinges are used to complete doors with frames. Doors with "pharma" glazing in the typical design are glazed on both sides with 4 mm glass. Promaglas strip with MP screen is applied to prevent internal fogging of the glass.

Magnetically operated blinds can be mounted in the space between the glasses. Clear glass is supplied in the basic version. Opal glass can be supplied to order. Automatic movement of the door is ensured by control elements such as radar, infrared sensor, key switch, elbow switch or foot switch.



## Glazing

## Pharma window

Designed for clean rooms with the possibility of fitting into all types of partitions.



#### USF

Windows are used to expand visual contact, let in light and increase eye comfort between rooms. Among other things, this is a safety element that enables visual inspection of personnel.

Pharma windows are suitable for use in the electrotechnical industry, pharmacy, healthcare, optics, fine mechanics, food industry, etc.





The frame of the EG pharma window is made of steel sheet provided with a powder fired varnish like other elements of ČP. The color solution is usually the same as the shade of the surrounding partition. At the customer's request, painted in any shade, according to the RAL scale.

Windows for the Medical system are installed in the partition, or additionally in the existing vertical structure and metal partition, when a complete window is inserted into the prepared opening and edging is performed. Magnetically controlled blinds, electric blinds with central control from the multifunction panel, or a separate controller attached to the crossbar can be installed in the windows.



## A/C Components

## Ventilation grills

Designed to remove air into an airconditioned space with the possibility of regulating the air flow volume.



USF

Ventilation grills are installed in walls, doors and ventilation ducts. When used for air extraction in rooms where material with fibrous waste is used, it is possible to use a ventilation grid with a filter fabric.

Perpendicular grids can be supplied with a transition element for direct connection to the air duct.





All types of grids and connecting elements are made of stainless steel and are supplied as standard with a surface treatment made with KOMAXIT powder epoxy - polyurethane coating in the shade RAL 9010 semi-matt.

On special order, the filter attachments can be supplied in a different color shade. The dimensions of the grids correspond to the used air ducts for their USE without further modifications. The ventilation grille may or may not contain regulation. The grid body is made of stainless steel. The regulating element is attached to the body using guide screws and fixed with flexible washers tightened with wing nuts. If required by the project, it is possible to insert a filter fabric into the body. The grid body is inserted into the grid frame or into the transition element.

## Filter and swirl attachments

End part of A/C used for air supply.

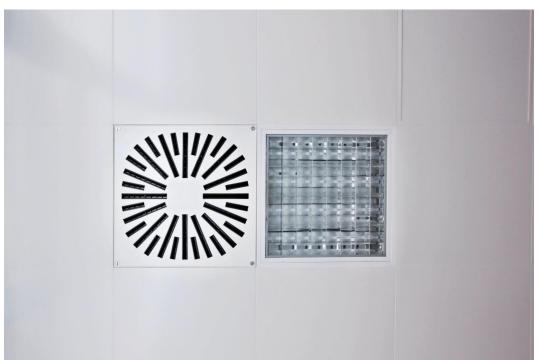


#### USF

Filtration and flow straightening is the third stage of filtration. It is used to hermetically attach a HEPA or ULPA filter insert (according to the cleanliness class), through which conditioned air flows from the HVAC unit into the clean room.

The output air flow is directed by the nozzle, which is fitted at the outlet of the extension. The attachment can be used for any air flow direction.





The filter attachment consists of a filter attachment body, a pressure chamber, a filter insert and an outlet. The body of the attachment and the pressure chamber are made of sheet steel, which are hermetically connected to each other. The pressure chamber is equipped with a circular, rectangular or square shaped inlet neck located from the side or above. The inlet can be equipped with a control flap.

A filter insert, which has a height according to the requirements, is fixed to the outlet part of the filter attachment body with clamps. The outlet part of the body is closed by a swirl outlet or a laminarizer, depending on the designed character of the outlet air stream. The body of the extension and the pressure chamber are equipped with grommets, interconnected tubes. The grommets allow the M5 thread to connect a probe for measuring the pressure loss and tightness of the filter insert.



### Air shower

### Air shower

Designed for normal entry and exit from clean rooms and ensures effective cleaning of entering persons from contamination by dust particles.



USE

The EP air shower is intended for normal entry and exit from clean rooms. It ensures effective cleaning of entering persons from contamination by dust particles. At the same time, it ensures the separation of two spaces with different degrees of cleanliness in order to prevent their contamination by dust particles in accordance with ČSN EN ISO 14644 Clean rooms and the relevant controlled environment.





The EP air shower is designed as a medium speed pressure system. This shower consists of a "VS" base, complete frame, top panels, glass door and control unit. The fan, the system of air supply channels and the filter insert are stored in the upper frame.

In the lower part from the gray dressing room, there is a glass entrance door, the closing of which is provided by an automatic door closer. The door is blocked electronically. by the BeFo lock, which is in the upper part of the door. A sensor is built into the door, which senses the state of the door being closed. Under the lid, there are LEDs for checking the operation of some steps of the control electronics (opening and closing the door), a RESET button and switches for manual control of the operation of the fan and the blocking of the door.



# Air decontamination

## FFUEG circulation unit

It serves to ensure a working environment with a defined class of cleanliness.



USF

Groups of circulating units creating a laminar field are assembled from the basic module. The units are fitted into the grid of the integrated suspended ceiling.

The circulation unit has its own fan and outlet filter insert. The output amount of air from the circulation unit is controlled by a central computer. Air is drawn into the unit from the pressure zones of the suspended ceiling from above and leaves the unit through the filter insert.





The circulation unit is made of grade 11 steel sheet. The unit has its own self-supporting structure, which is placed on the grid of the laminar field.

Fan motor power must be supplied to the unit. The motor is connected to the control unit using a communication and power cable. The filter inserts of the circulation unit are protected against damage by expanded metal on the outlet side. The inlet opening of the circulation unit is protected against damage and for safety reasons by a grid.

Regulation of the output speed of the air flow from the circulation unit is carried out with the OJ FFUEG type by computer, according to the data measured by an external anemometer (not included in the delivery).

### Laminar field EG

The end element of the air-conditioning system used for the supply of clean air.





USE

The Pure Zone® laminar field is the end element of the air-conditioning system used for the supply of clean air with a stable, even flow, for special clean rooms, especially in the healthcare sector - operating rooms.

The low output velocity of the clean air stream is the main advantage of the Pure Zone® laminar field. The directed stream of clean air from the laminar field prevents socalled secondary air contamination.





The laminar field is formed as a compact welded unit. Part of the laminar field are connection points for the ventilation ducts and a prepared installation chamber for the tube.

Filter inserts of the HEPA or ULPA series are installed in the body depending on the air output. The LED lighting is installed as well. The distribution part consists of a light aluminum frame covered with a double layer of laminarizing fabric.



# Blocking and signaling

## Blocking and signaling

It serves to ensure the controlled movement of people and material and to prevent contamination of clean rooms.



US

Door blocking and signaling serves to ensure the controlled movement of people, material and the prevention of contamination of clean rooms. It is designed for use in a work environment with a defined cleanliness class in accordance with ČSN EN ISO 14644 Clean rooms.

It is recommended to use in places where there is a risk of contamination by opening several doors at the same time. Unblocking is done automatically in the event of a power failure.





The blocking and signaling control module is placed in the space above the ceiling near the controlled door. It is possible to upload a control program to the control unit.

The control unit is connected to the door module located at each door by communication cables. The cable provides power for the electric opener, signals for individual door modules and information about the door status is sent. The doors are equipped with blocking electromagnetic locks, optical acoustic signaling and a sensor that signals the state of the door.

Door blocking and signaling is intended for use for 2 to 16 doors, which are controlled by autonomous units, each of which can be set to the master/slave position, or this position can be performed by a signal from the autonomous unit, or by the control button at the given door.

#### TABLE

#### Technical specifications

**Function:** 

Blocation Optic signalization Acoustic signalization

**Glazing Shade:** 

Transparent Sand Blasted Dyed

#### **Optical status indication**

by blinking, it informs about the possibility of entry (yes/no) and about blocking door leaf

#### **Acoustic signaling**

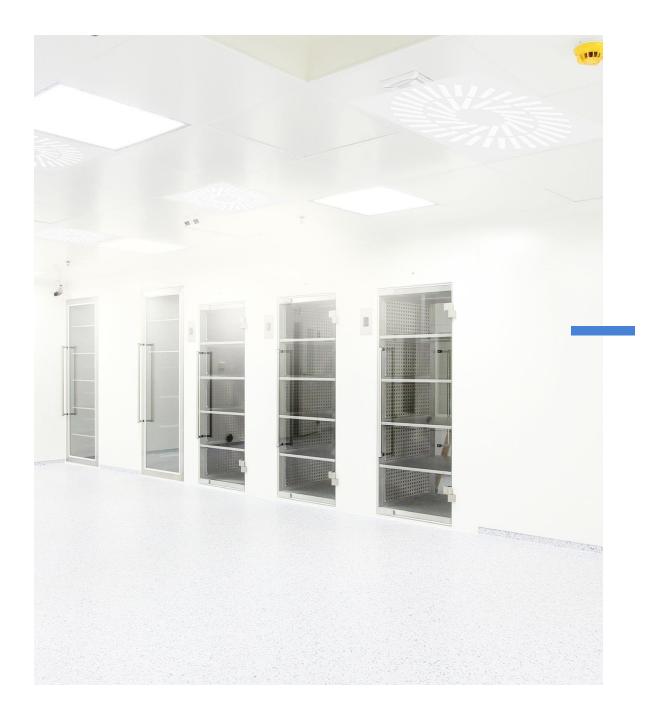
Key elements:

it beeps to inform you that the door leaf is blocked. The intensity of the beeping can be adjusted using the control program

#### **Unlock button**

Upon separate order, deblocking can be connected to each door module. In the standard design, the button is not active. In case of danger or threat to life, the blocked door can be opened using the release button.

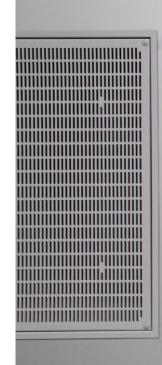




## Storage

## **Sewing** cabinet

Storing material in clean rooms is now a piece of cake. Necessary material for procedures and actions can be as close as possible to doctor's hand.





USF

The integration of cabinets into the partition minimizes demands on the surrounding space, which is freely accessible for other tasks. Its use reduces the risk of contamination from the surrounding environment.

Glass doors and shelves simplify orientation and speed up handling. EG transfer cabinets are designed for use in industry, pharmacy and healthcare.





The sewing cabinet is made of RUBACOLOR sheet metal or steel sheet with a surface treatment with powder fired varnish in RAL shade. Shelves can be made of glass, stainless steel or plastic (PE, PVC).

As a standard, FLOAT tempered glass is used for glazing, thickness 4mm. The closing of the cabinet wings is solved by magnets. All cabinet joints are sealed with silicone sealant. The cabinet is used in the panel systems of EP Rožnov, a.s.

## Storage and cabinet systems

Suitable for Clean rooms as operative storage of the necessary medical material.





USE

The EG cabinet is suitable for clean rooms as an operative storage of the necessary medical equipment,

Cabinets are integrated into partitions for free use of space.

Their use significantly reduces the risk of contamination from the surrounding environment.

Material transport is governed by the user's internal regulations. Transfer cabinets EG are designed for use in industry, pharmacy and healthcare.





The transmission box is made of RUBACOLOR sheet metal or steel sheet with a powder coating finish.

The most stressed surfaces are made of stainless steel (shelf and lower surface of the cabinet) or plastic (PE, PVC). As a standard, tempered glass is used for glazing, thickness 8 mm.

At the customer's request, the cabin can be supplied with glazing made of acrylic glass, thickness 6 mm.

All cabinet joints are sealed with sealant.

### **Working units**

Spaces for various processing, material preparation and storage.





Furniture and work units are prepared for situations where seconds can make a difference.

The material used can be chosen according to the location and other requirements for the set.

From stainless steel
assemblies treated with
powder fired coating, to
laminate compositions treated
with ABS edge.





The overall set of work lines consists of Modules, which together form a single unit. Depending on the need, the Modul body is made of stainless steel sheet or steel sheet.

A seal of the storage space from the surroundings is inserted into the door wings. Closing the door is solved by magnets that hold the wings to the body. Accessories are included in the set according to needs.

The composition of the set is variable and tailored for local needs with regard to built-in appliances, the overall layout, the choice of worktop, down to finer details such as door variants, wings, whether they are solid or glazed, crazy ends and their position.



# Material passbox

## Carousel Passbox

Transfer material in clean rooms.



It is used for passing material between rooms of different cleanliness classes, or between clean and gray areas. The transfer box prevents or limits the possibility of contamination and at the same time protects the user from the effects of X-ray radiation. Material transport is governed by the user's internal regulations. The transfer box must not be used for the passage of people. The transfer boxes are designed for use in industry, pharmacy and healthcare.





Carousel passbox is designed as a self-supporting independent device of sandwich construction - surface material stainless steel sheet AISI 304 - surface polish 320, filling mineral wool + lead insert Pb, thickness 2 mm.

The box is equipped with an arched sliding door with a tubular stainless steel handle and an electromagnetic blocking of the door against simultaneous opening and optical and acoustic signaling of the door status.

The functional interleaving surface consists of an autonomous rotating plate with a non-slip mat mounted on a ball-bearing turntable, enabling the interleaving material to be easily approached on the opposite side of the operator. The working space of the box is treated with air conditioning - the box is connected to the ventilation duct.

## Passing retractable window EG

They serve to easily transfer material between rooms, thereby reducing the time required.



EG passing windows in pharma design are intended for use in clean rooms. They serve to easily transfer material between rooms, thus reducing the time-consuming nature of surrounding work.

For the proper functioning of the window, it is necessary that a minimum overpressure of approx. 3 Pa be ensured between these rooms to limit the risk of contamination.

The transfer windows enable dust-free and quick assembly.





The EP passing window is made of steel profiles and steel or stainless steel sheet. Surface treatment identical to the elements of Clean rooms in the appropriate RAL color shade.

The sliding mechanism of the window is stored in the upper part of the frame and covered with a panel. The weight of the window is guided in the side profiles of the supporting frame, which is connected to the frame of the movable part of the window by a steel cable. The movable part of the window consists of a steel frame and safety glass.

## Passing cabinet EG

Cabinet is intended for passing material between rooms of different cleanliness classes.





Depending on the selected type, the EG passing cabinet prevents or limits the possibility of contamination of a room with a better cleanliness class from a room with a worse cleanliness class.

Material passing is governed by the user's internal regulations.

In principle, the EG passing cabinet must not be used for the passage of people. EG passing cabinets are designed for USE in industry, pharmacy and healthcare.





The most stressed surfaces are made of stainless steel (shelf and lower surface of the cabinet).

FLOAT glass with a thickness of 4 mm is used as standard for glazing. At the customer's request, the cabin can be supplied with CONNEX safety glass.

In the basic version, the cabinet is supplied with an electric door lock, or optical or acoustic signaling of the door status. Passing cabinets are supplied in "pharma" quality.

## Passing cabin EG

Material passing cabin with blocation.

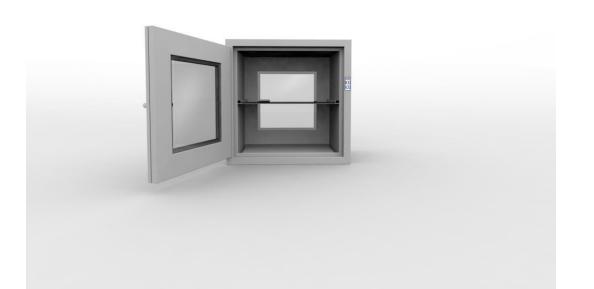




The passing cabin is intended for use in clean rooms. It is used for passing material between rooms of different cleanliness classes (clean and gray areas).

The passing cabin, depending on the selected type, prevents or limits the possibility of contamination of a space with a better cleanliness class from a space with a worse cleanliness class. Material transport is governed by the user's internal regulations. Transfer cabins are designed for use in industry, pharmacy and healthcare.





The passing cabin is made of RUBACOLOR sheet metal or grade 11 steel with a powder coating. The most stressed surfaces are made of stainless steel (shelf and lower surface of the cabin).

Glazing is standardly done with FLOAT glass with a thickness of 4 mm. At the customer's request, the cabin can be supplied with CONNEX safety glass.

The basic version of cabin is supplied with an electric door lock and optical or acoustic signaling of the door status. All cabin joints are sealed with silicone sealant.