

# INDUSTRIAL DOORS

- COLDROOM AND FREEZER
- GAS-TIGHT
- SWING
- UNIVERSAL







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## Introduction

Paneltech company, thanks to long-lasting activity and gained experience, offers a wide range of industrial, coldroom and freezer doors. High quality of our doors has been achieved thanks to high quality finish, application of modern computer-controlled production technology with new generation machinery and top quality materials used in the production process. Our doors are equipped with high quality accessories supplied by FERMOD-European leader in the field of refrigeration accessories. Experience gained in doors

production allows us for the execution of untypical orders tailored to individual client's needs. PaNELTECH doors are applied, first of all, in the food processing and catering facilities, that is storehouses, storehouses, cold stores, freezers, supermarkets, utility rooms and social rooms, communication routes as well as meat and milk processing facilities.

## About the Product

### PaNELTECH door come in two versions:

- **Premium door** – door leaf with PUR foam injected under high pressure. Coatings are made of stainless and acid-proof sheet, steel sheet galvanized on both sides and painted according to RAL palette (RAL 9010 as standard) or Pecolit polyester laminate.
- **PaNELTECH sandwich panel door with polyurethane core**, coating made of a sheet galvanized on both sides and painted according to RAL palette (RAL 9010 as standard). The sheet is covered with organic protective coatings, resistant to corrosion.

### Premium door:

- **DRU** - premium universal hinged door;
- **DRK** - premium coldroom and freezer hinged door;
- **DPK** - premium sliding coldroom and freezer door;
- **DPKG** - premium sliding gas-tight door;
- **DW** - premium swing door.

### Sandwich panel door with polyurethane core:

- **DRS** - sandwich panel coldroom and freezer hinged door;
- **DPS** - sandwich panel sliding coldroom and freezer door;
- **DPSG** - sandwich panel standard sliding gas-tight door.

# COLDROOM AND FREEZER HINGED DOOR - DRK/DRS TYPE

Premium hinged door type – DRK

Standard hinged door type – DRS

## Application:

Single and double-leaf hinged door for coldrooms and freezers within the temperature range from -25°C to +50°C. The structure of the door ensures its strength, durability and high insulation properties thanks to polyurethane foam core (PUR).

### Premium hinged door type DRK door leaf:

- Made of envelope bent steel;
- Filled with polyurethane foam of at least 40 kg/m<sup>3</sup> density;
- Standard finish of door coating:
  - acid-proof stainless sheet, type 1.4301, 0.8 mm thick, with mat surface 2B;
  - galvanized steel sheet 0.75mm thick, coated with polyester paint other than white (RAL9010).

### Standard hinged door type DRS door leaf:

- Made of sandwich panel with polyurethane PUR core in the frame of steel channel section:
  - made of galvanized steel sheet 1.5 mm, coated with polyester paint in white (RAL 9010);
  - acid-proof stainless sheet, type 1.4301; 1.5mm thick;
- Standard finish of door coating: galvanized steel sheet 0.4mm-0.6mm thick, coated with polyester paint in white (RAL 9010). The sheet is covered with organic protective coatings, resistant to corrosion.

### Characteristics:

- available thicknesses:
  - 60mm/80mm – single and double-leaf coldroom door;
  - 100mm/120mm – single and double-leaf freezer door.

### Overlay Frame (not decreasing the door opening):

- Standard finish of frame:
  - acid-proof stainless sheet, type 1.4301; 1.5mm thick;
  - galvanized steel sheet 1.5 mm thick, coated with polyester paint in white (RAL9010);
  - frame filled with polyurethane foam;
- additionally, freezer door frame and threshold are equipped in heating system (heating cable, 230V, 40W/rm).

### Lock:

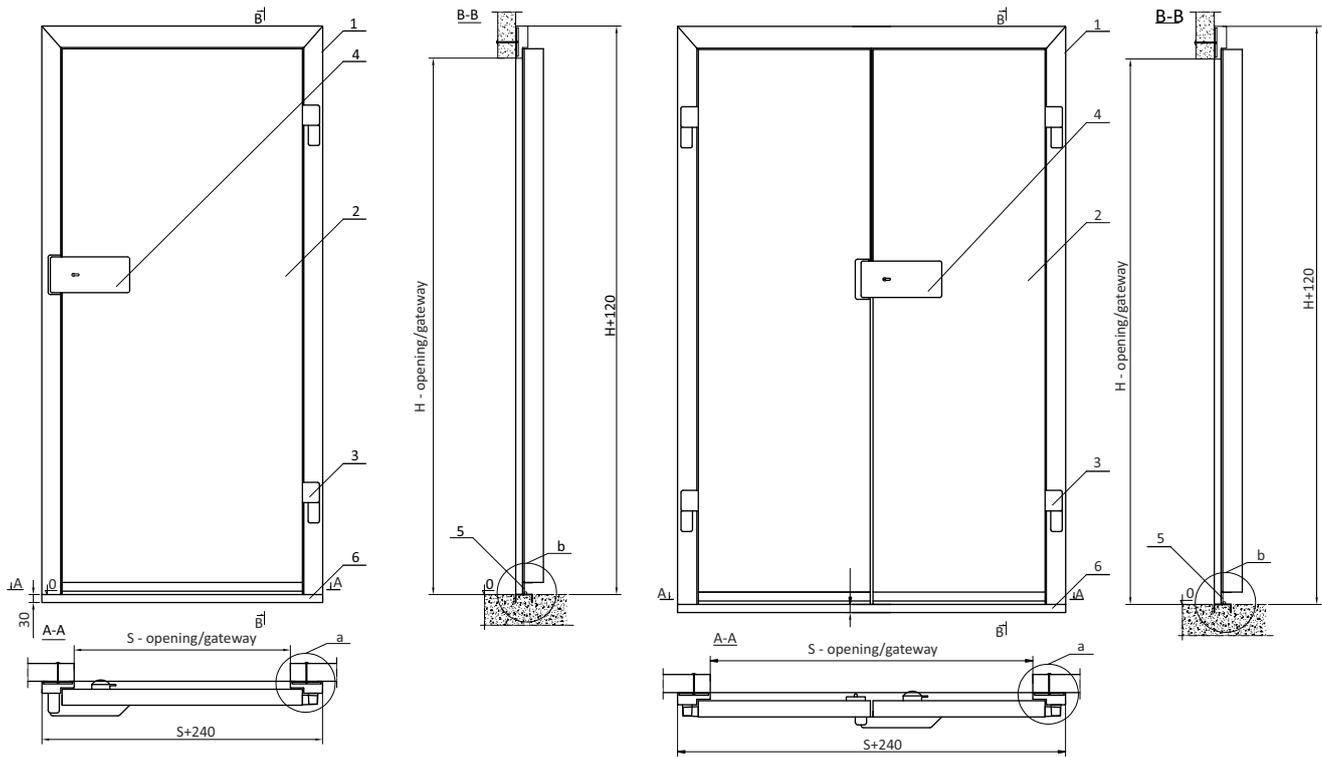
- FERMOD lock is equipped with patent insert, with possibility of emergency opening from the inside, even if the door is locked safe lock);
- Bolt in double-leaf door.

### Hinges:

- Hinges are delivered by FERMOD. Thanks to door lifting option during opening and closing the hinges prevent the lower gasket from friction.

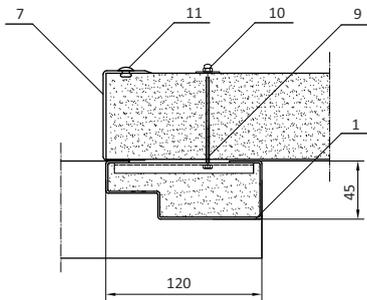
### Options:

- Untypical finish of door coating:
  - acid-proof stainless sheet, type 1.4301, 0.8 mm thick, with grinded surface 4N or grained-finished;
  - galvanized steel sheet 0.75mm thick, coated with polyester paint other than white (RAL 9010);
  - polyester laminate in RAL 9016, with acid-proof stainless framing, type 1.4301;
- Door adjusted to top railway system;
- Glazings:
  - PVC round window of Ø300mm;
  - stainless round window of Ø280mm;
  - window in a different shape and dimension (special enquiry);
  - execution of opening for an individual glazing;
- Flashings of the opening;
- Availability to produce door with and without a threshold (lower element is installed in the floor):
  - without a threshold: the lower element is installed in the floor to level 0. The door may be produced and mounted without the lower element;
  - with a threshold: frame made with an identical profile on four sides.

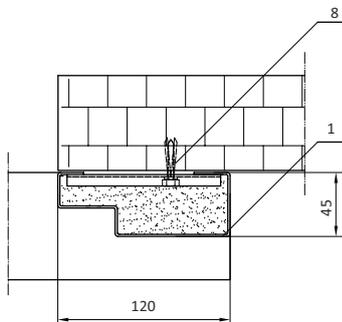


## Details

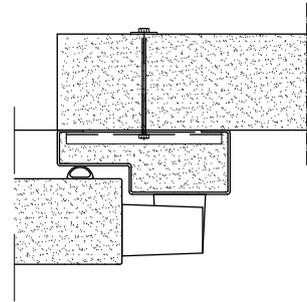
**a** frame mounted to a sandwich panel



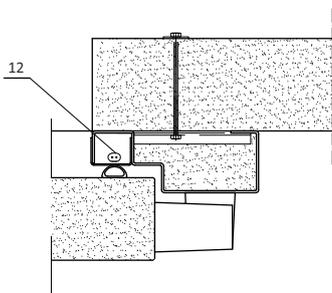
**a** frame mounted to a wall



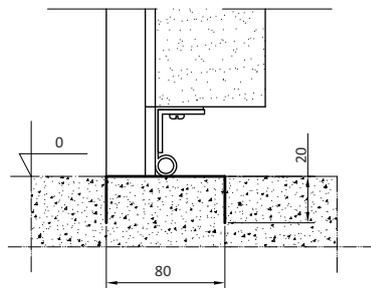
**a** coldroom door



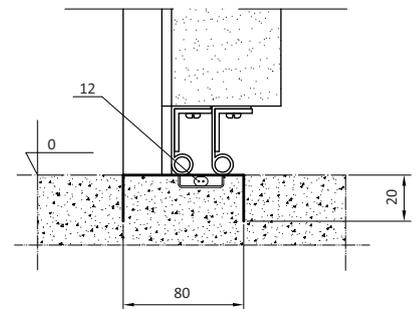
**a** freezer door



**b** coldroom door



**b** freezer door



- 1. frame
- 2. door leaf
- 3. hinge
- 4. safe lock
- 5. seals
- 6. threshold
- 7. flashing (option)
- 8. Ø10x70 screw anchor

- 9. M8 x 90 screw (75 panel)  
x 125 (100 panel)  
x 175 (150 panel)  
x 225 (200 panel)
- 10. M8 acorn nut + washer  
x 125 (100 panel)  
x 175 (150 panel)  
x 225 (200 panel)
- 11. stainless rivet Ø4x10
- 12. heating cable

## COLDROOM AND FREEZER HINGED DOOR - DRK-Z TYPE (FLUSH)

Premium hinged flush door type – DRK-Z

### Application:

Single and double-leaf hinged door for coldrooms and freezers within the temperature range from -25°C to +50°C. The structure of the door ensures its strength, durability and high insulation properties thanks to polyurethane foam core (PUR).

#### Premium hinged door type DRK-Z door leaf:

- Made of envelope bent steel;
- Filled with polyurethane foam of at least 40 kg/m<sup>3</sup> density;
- Standard finish of door coating:
  - acid-proof stainless sheet, type 1.4301, 0.8 mm thick, with mat surface 2B;
  - galvanized steel sheet 0.75mm thick, coated with polyester paint other than white (RAL9010).

#### Characteristics:

- available thicknesses:
  - 80mm – single and double-leaf coldroom door;
  - 100mm/120mm – single and double-leaf freezer door.

#### Frame assembly in door opening:

- Standard finish of frame:
  - acid-proof stainless sheet, type 1.4301; 1.5mm thick;
  - galvanized steel sheet 1.5 mm thick, coated with polyester paint in white (RAL 9010);
  - frame filled with polyurethane foam;
- additionally, freezer door frame and threshold are equipped in heating system (heating cable, 230V, 40W/rm).

#### Lock:

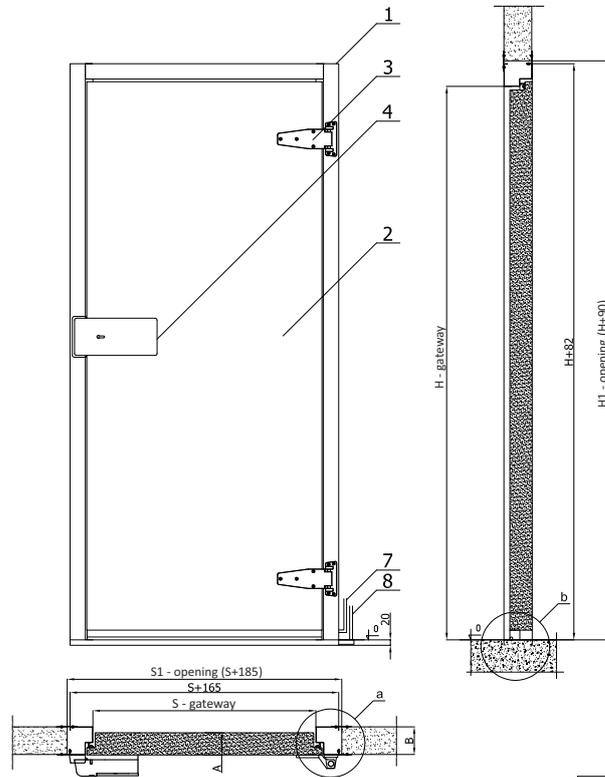
- FERMOD lock is equipped with patent insert, with possibility of emergency opening from the inside, even if the door is locked safe lock);
- Bolt in double-leaf door.

#### Hinges:

- Hinges are delivered by FERMOD. Thanks to door lifting option during opening and closing the hinges prevent the lower gasket from friction.

#### Options:

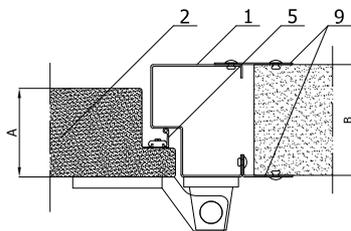
- Untypical finish of door coating:
  - acid-proof stainless sheet, type 1.4301, 0.8 mm thick, with grinded surface 4N or grained-finished;
  - galvanized steel sheet 0.75mm thick, coated with polyester paint other than white (RAL9010);
- Door adjusted to top railway system;
- Glazings:
  - PVC round window of Ø300mm;
  - stainless round window of Ø280mm;
  - window in a different shape and dimension (special enquiry);
  - execution of opening for an individual glazing;
- Flashings of the opening;
- Availability to produce door with and without a threshold (lower element is installed in the floor):
  - without a threshold: the lower element is installed in the floor to level 0. The door may be produced and mounted without the lower element;
  - with a threshold: frame made with an identical profile on four sides.



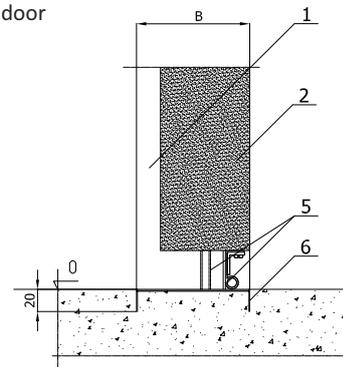
|               | A   | B            |
|---------------|-----|--------------|
| coldroom door | 80  | 80, 100, 120 |
| freezer door  | 100 | 100, 120     |

## Details

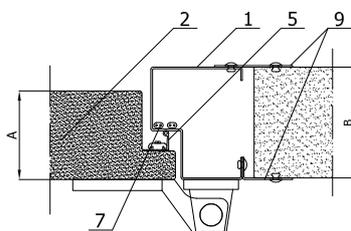
**a** coldroom door



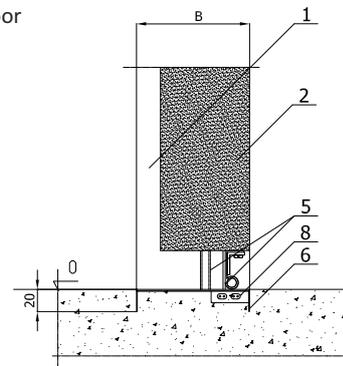
**b** coldroom door



**a** freezer door



**b** freezer door



- 1. frame
- 2. door leaf
- 3. hinge
- 4. safe lock
- 5. seals
- 6. lower element (stainless channel)
- 7. frame heating cable

- 8. threshold heating cable
- 9. frame fixing flashings

## SLIDING COLDROOM AND FREEZER DOOR - DPK/DPS

Premium sliding door type – DPK

Standard sliding door type – DPS

### Application:

Door applied in coldrooms or freezers within the temperature range from -25°C to +50°C. The structure of the door ensures its strength, durability and high insulation properties thanks to polyurethane foam core (PUR).

#### Premium sliding door type DPK door leaf:

- Made of envelope bent steel;
- Filled with polyurethane foam of at least 40 kg/m<sup>3</sup> density;
- Equipped with FERMOD gasket;
- Standard finish of door coating:
  - acid-proof stainless sheet, type 1.4301, 0.8 mm thick, with mat surface 2B;
  - galvanized steel sheet 0.75mm thick, coated with polyester paint other than white (RAL9010).

#### Standard sliding door type DPS door leaf:

- Made of sandwich panel with polyurethane PUR core in the frame of steel channel section:
  - made of galvanized steel sheet 1.5 mm, coated with polyester paint in white (RAL 9010);
  - acid-proof stainless sheet, type 1.4301; 1.5mm thick;
- Equipped with FERMOD gasket;
- Standard finish of door coating: galvanized steel sheet 0.4mm-0.6mm thick, coated with polyester paint in white (RAL 9010). The sheet is covered with organic protective coatings, resistant to corrosion.

#### Characteristics:

- available thicknesses:
  - 60mm/80mm – single and double-leaf coldroom door;
  - 100mm/120mm – single and double-leaf freezer door.

#### Overlay Frame (not decreasing the door opening):

- Standard finish of frame:
  - acid-proof stainless sheet, type 1.4301; 1.5mm thick;
  - galvanized steel sheet 1.5 mm thick, coated with polyester paint in white (RAL9010);
  - frame filled with polyurethane foam;
- Additionally, freezer door frame and threshold are equipped in heating system (heating cable, 230V, 40W/rm).

#### Lock:

- FERMOD lock is equipped with patent insert, with possibility of emergency opening from the inside, even if the door is locked (safe lock).

#### Hinges:

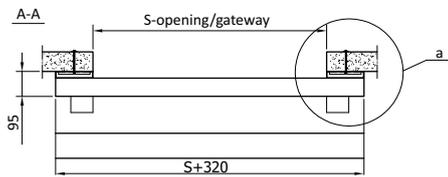
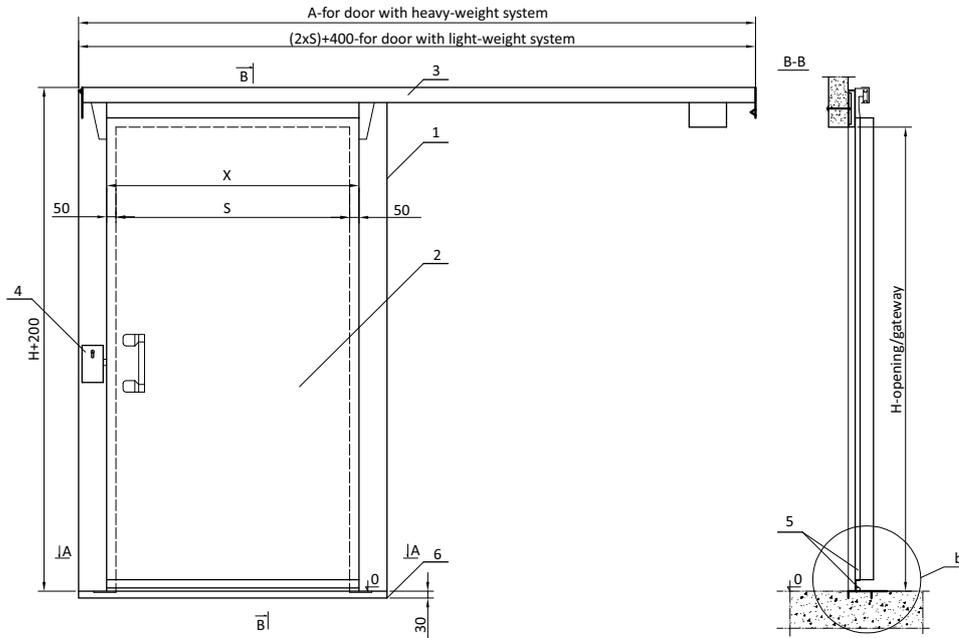
- FERMOD suspension system, aluminium rail-lightweight type;
- FERMOD suspension system, galvanized steel rail-heavyweight type.

#### Options:

- Untypical finish of door coating:
  - acid-proof stainless sheet, type 1.4301, 0.8 mm thick, with grinded surface 4N or grained-finished;
  - made of galvanized steel sheet, coated with polyester paint in white (RAL 9010);
  - polyester laminate in RAL 9016, with acid-proof stainless framing, type 1.4301;
- Door adjusted to top railway system;
- Flashings of the opening;
- Glazings:
  - stainless round window of Ø280mm;
  - PVC round window of Ø300mm;
  - window in a different shape and dimension (special enquiry);
  - execution of opening for an individual glazing;
- Availability to produce door with and without a threshold (lower element is installed in the floor):
  - without a threshold: the lower element is installed in the floor to level 0. The door may be produced and mounted without the lower element;
  - with a threshold: frame made with an identical profile on four sides.

#### Opening automatic control:

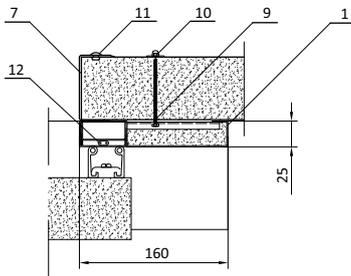
- electromechanical system;
- mechanical system.



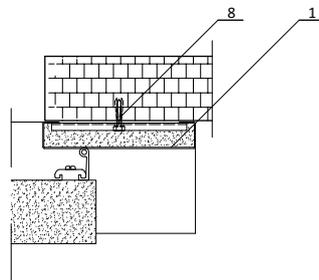
| X mini | 1140 | 1441 | 1741 | 2041 | 2341 | 2641 | 2941 |
|--------|------|------|------|------|------|------|------|
| Xmaxi  | 1440 | 1740 | 2040 | 2340 | 2640 | 2940 | 3240 |
| A      | 3150 | 3750 | 4350 | 4950 | 5550 | 6150 | 6750 |

## Details

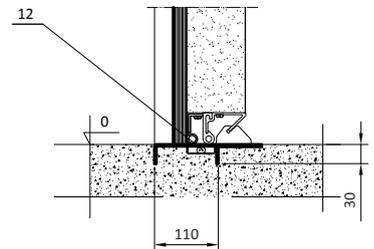
**a** freezer door mounted to a sandwich panel



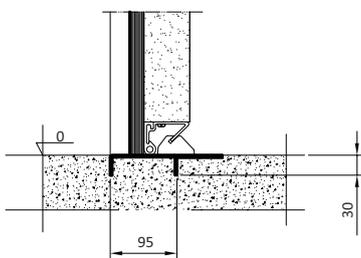
**a** coldroom door mounted to a wall



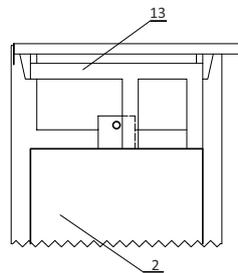
**b** freezer door



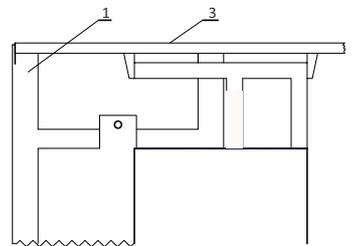
**b** coldroom door



**special design allowing to bypass line route**



closed door



open door

1. frame
2. door leaf
3. upper door suspension
4. safe lock
5. seals
6. threshold
7. flashing (option)
8. Ø10 screw anchor

9. M8 x 90 screw (75 panel)  
x125(100 panel)  
x175(150 panel)  
x225(200 panel)
10. M8 acorn nut  
+ washer
11. Ø4x10 stainless rivet
12. heating cable

13. special design
14. lower slider rail

## SLIDING GAS-TIGHT DOOR - DPKG/DPSG TYPE

Sliding gas-tight door type – DPSG

Sliding gas-tight door type – DPKG

### Application:

Doors are applied for rooms with controlled atmosphere (CA). CA is regarded as the best technology to store fruits and vegetables. In standard coldrooms fruits are stored in normal atmosphere containing 21% of oxygen and 0% of carbon dioxide. Whereas in the controlled atmosphere the contents of oxygen is below 3% and the content of carbon dioxide is below 5%. This leads to prolongation of fruits and vegetables store period without losing their commercial quality.

#### Sliding gas-tight door type DPKG door leaf:

- Made of envelope bent steel;
- Filled with polyurethane foam of at least 40 kg/m<sup>3</sup> density;
- Equipped with FERMOD gasket;
- Standard finish of door coating:
  - acid-proof stainless sheet, type 1.4301, 0.8 mm thick, with mat surface 2B;
  - galvanized steel sheet 0.75mm thick, coated with polyester paint other than white (RAL 9010).

#### Sliding gas-tight door type DPSG door leaf:

- Made of sandwich panel with polyurethane PUR core in the frame of steel channel section – acid-proof stainless sheet, type 1.4301;
- Equipped with FERMOD gasket;
- Standard finish of door coating: galvanized steel sheet 0.4mm-0.6mm thick, coated with polyester paint in white (RAL 9010). The sheet is covered with organic protective coatings, resistant to corrosion.

#### Characteristics:

- available thicknesses:
  - 80mm – single-leaf gas-tight door;
- ball valve, one for nitrogen or oxygen filling, the other in order to take samples from the room atmosphere;
- clamps to ensure door leaf tightness;
- lockable revision window, dimensions: 528×828 mm.

#### Overlay Frame (not decreasing the door opening):

- Standard finish of frame:
  - acid-proof stainless sheet, type 1.4301; 1.5mm thick;
  - galvanized steel sheet, coated with polyester paint in white (RAL 9010);
  - frame filled with polyurethane foam;

#### Lock:

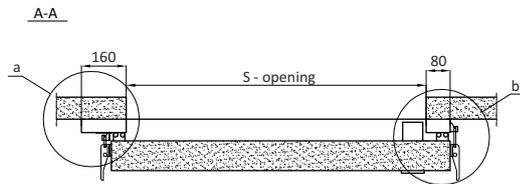
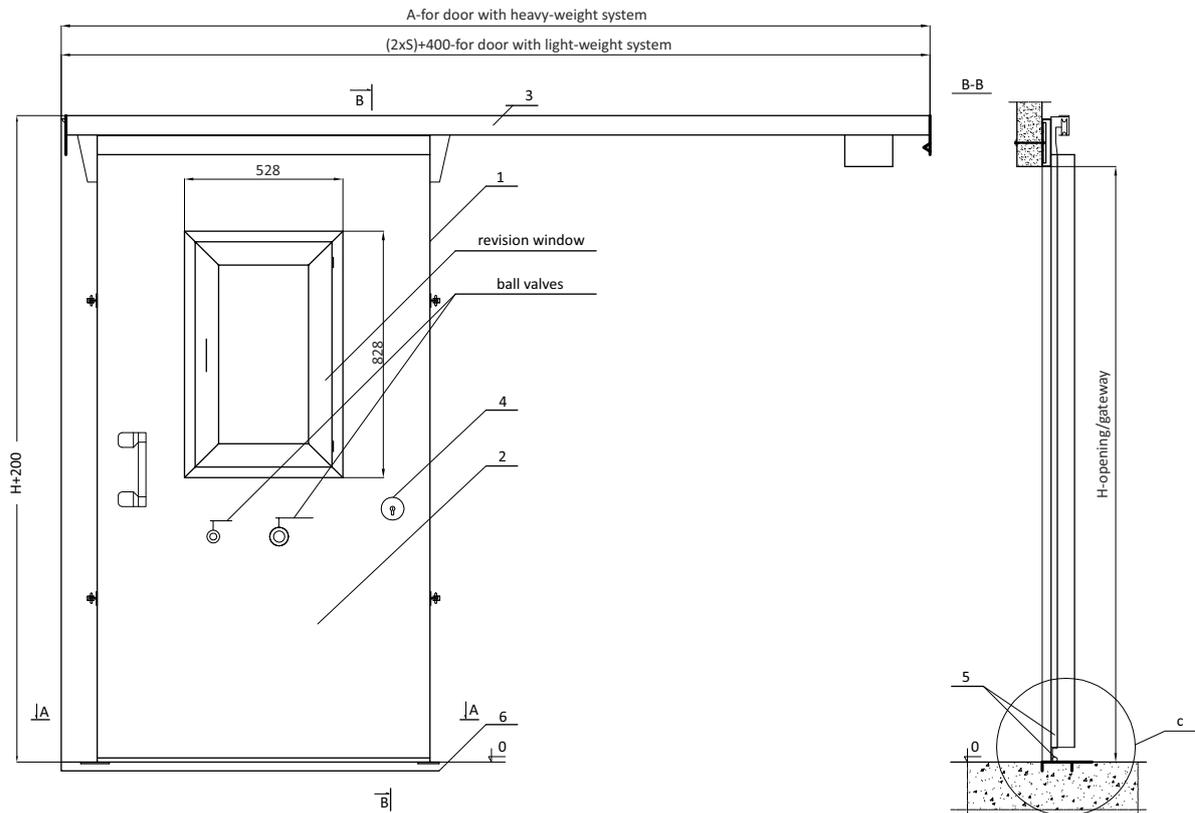
- RAHRBACH lock is equipped with patent insert, with possibility of emergency opening from the inside, even if the door is locked (safe lock);

#### Suspension:

- FERMOD suspension system, aluminium rail-lightweight type;
- FERMOD suspension system, galvanized steel rail-heavyweight type.

#### Options:

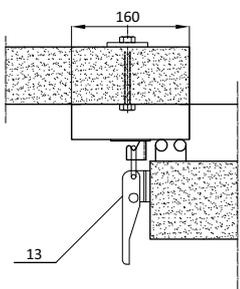
- Untypical finish of door coating:
  - acid-proof stainless sheet, type 1.4301, 0.8 mm thick, with grinded surface 4N or grained-finished;
  - galvanized steel sheet 0.75mm thick, coated with polyester paint other than white (RAL 9010);
- lockable revision window, dimensions 828×828 equipped with patent insert with possibility of emergency opening from the inside even if the door is locked (safe lock);
- Availability to produce door with and without a threshold (lower element is installed in the floor):
  - without a threshold: the lower element is installed in the floor to level 0. The door may be produced and mounted without the lower element;
  - with a threshold: frame made with an identical profile on four sides.



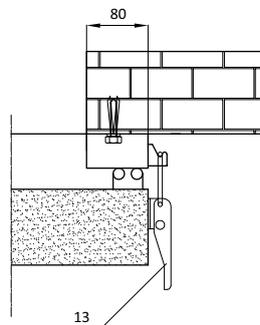
|        |      |      |      |      |      |      |      |
|--------|------|------|------|------|------|------|------|
| X mini | 1140 | 1441 | 1741 | 2041 | 2341 | 2641 | 2941 |
| Xmaxi  | 1440 | 1740 | 2040 | 2340 | 2640 | 2940 | 3240 |
| A      | 3150 | 3750 | 4350 | 4950 | 5550 | 6150 | 6750 |

## Details

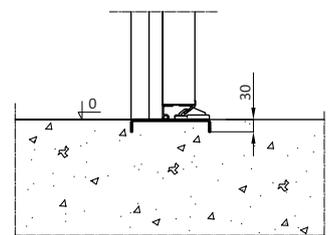
**a** frame mounted to a sandwich panel



**b** frame mounted to a wall



**c** floor weatherstripping



1. frame
2. door leaf
3. upper door suspension
4. safe lock
5. seals
6. threshold
7. flashing (option)
8. Ø10 screw anchor

9. M8 x 90 screw (75 panel)  
x125(100 panel)  
x175(150 panel)  
x225(200 panel)
10. M8 acorn nut  
+ washer
11. Ø4x10 stainless rivet
12. heating cable

13. additional clamps
14. lower slider rail

### Application:

Swing doors are great solution for industrial gateways with high number of passages with simultaneous maintenance of easy displacement between facilities, for instance: production halls, hipermarkets, restaurants, stores, communication routes. Door construction makes them extra strong, durable and provides excellent insulation properties, as doors are filled with polyurethane foam injected at high pressure.

#### Door leaf:

- Made of envelope bent steel;
- Filled with polyurethane foam of at least 40 kg/m<sup>3</sup> density;
- Thicknesses: 25mm;
- Standard finish of door coating:
  - acid-proof stainless sheet, type 1.4301, 0.8 mm thick, with mat surface 2B;
  - galvanized steel sheet 0.75mm thick, coated with polyester paint other than white (RAL9010).

#### Characteristics:

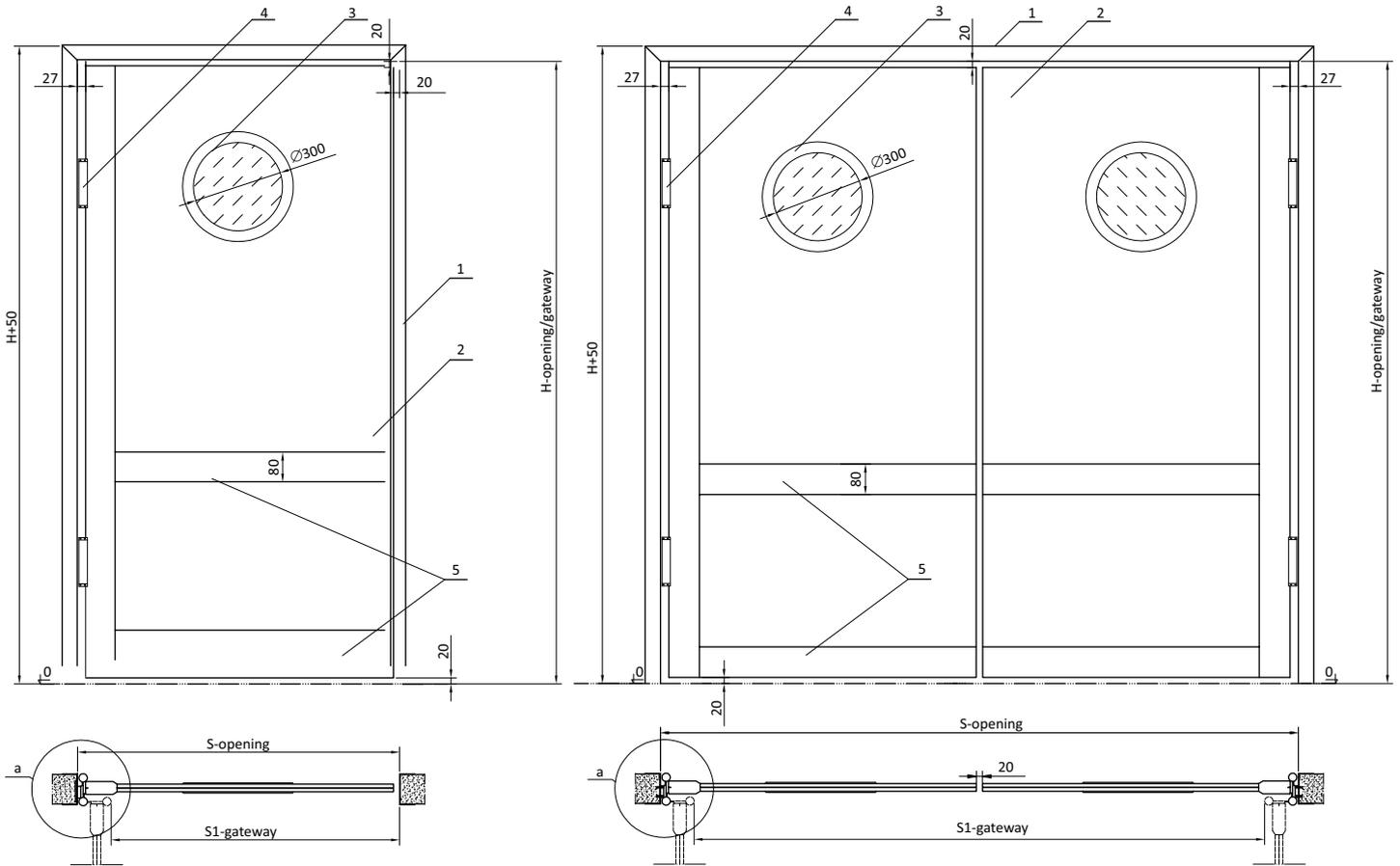
- available thicknesses:
  - 25mm – single and double-leaf door;
- the door is equipped with a PVC window, internal diameter of Ø300mm or stainless steel window, internal diameter Ø280mm;
- the door is equipped with fenders made of PVC.

#### Hinges:

- Stainless hinges of FERMOD company;
- FERMOND company PVC hinges with STOP function.

#### Options:

- Untypical finish of door coating:
  - acid-proof stainless sheet, type 1.4301, 0.8 mm thick, with grinded surface 4N or grained-finished;
  - galvanized steel sheet 0.75mm thick, coated with polyester paint other than white (RAL9010);
  - artificial material PE500.

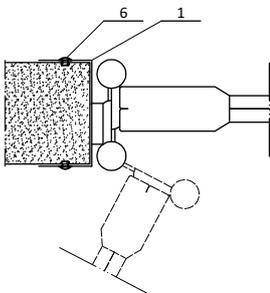


gateway S1 is:  
 S-50 with a PVC hinge  
 S-105 with a stainless hinge

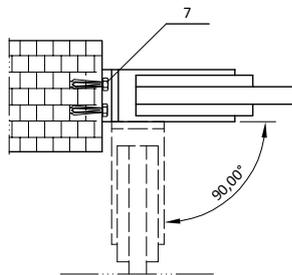
gateway S1 is:  
 S-100 with a PVC hinge  
 S-210 with a stainless hinge

## Szczegóły

**a** mounting to a panel  
 with a stainless hinge



**a** mounting to a wall  
 with a PVC hinge



1. frame  
 2. door leaf and reinforcements  
 3. window  
 4. hinge

5. PE 500 fenders  
 6.  $\varnothing 4 \times 10$  stainless rivet  
 7.  $\varnothing 8 \times 50$  screw anchor

### Application:

Multifunctional hinged doors which can be applied in difficult conditions. They are durable and functional, can be applied in social rooms, production halls, storehouses, etc. The door structure makes them very strong; they have high insulation properties because the door core is made of polyurethane PUR foam injected at high pressure.

#### Door leaf:

- Made of envelope bent steel;
- Filled with polyurethane foam of at least 40 kg/m<sup>3</sup> density;
- Standard finish of door coating:
  - acid-proof stainless sheet, type 1.4301, 0.8 mm thick, with mat surface 2B;
  - galvanized steel sheet 0.75mm thick, coated with polyester paint other than white (RAL 9010).

#### Characteristics:

- available thicknesses:
  - 50mm – single and double-leaf door.

#### Corner frame:

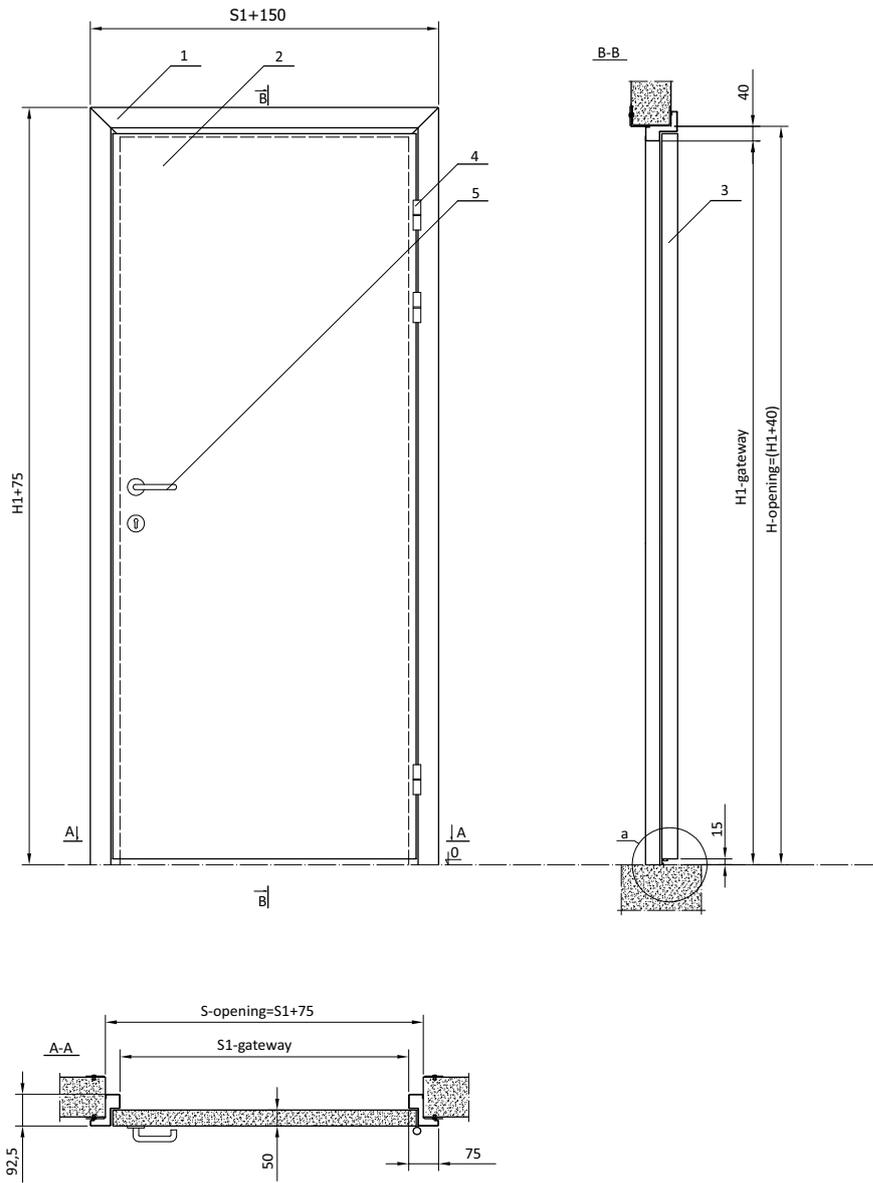
- Standard finish of frame:
  - acid-proof stainless sheet, type 1.4301; 1.5mm thick;
  - galvanized steel sheet, coated with polyester paint in white (RAL 9010).

#### Fittings:

- lock with patent insert;
- handle or knob made of stainless, acid-proof steel, type 1.4301;
- Hinges made of acid-proof stainless steel type 1.4301. Thanks to door lifting option during opening and closing the hinges prevent the lower gasket from friction;
- bolt in double-leaf door.

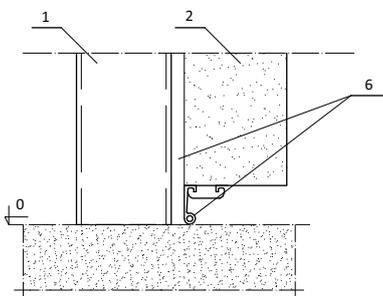
#### Options:

- Untypical finish of door coating:
  - acid-proof stainless sheet, type 1.4301, 0.8 mm thick, with grinded surface 4N or grained-finished;
  - galvanized steel sheet, coated with polyester paint other than white (RAL 9010);
  - polyester laminate in RAL 9016, with acid-proof stainless framing, type 1.4301.
- Flashings of the opening.
- Glazings:
  - stainless round window of Ø280mm;
  - PVC round window of Ø300mm;
  - window in a different shape and dimension (special enquiry);
  - execution of opening for an individual glazing.
- Panic lock with push rod.
- Ventilation bar.
- availability to produce door with and without a threshold (lower element is installed in the floor):
  - without a threshold: no lower element;
  - with a threshold: frame made with an identical profile on four sides.

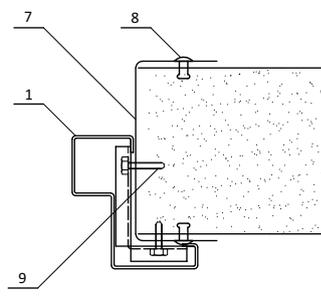


## Details

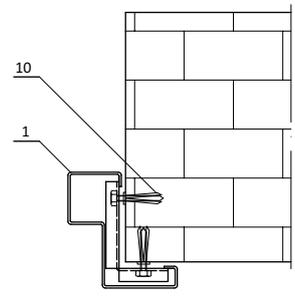
**a** floor weatherstripping



**b** frame mounted to a sandwich panel



**c** frame mounted in a wall



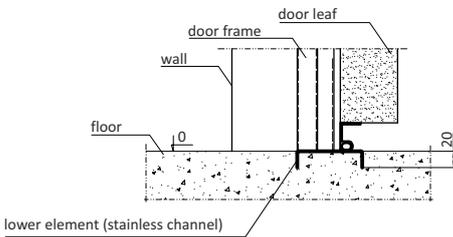
- 1. frame
- 2. door leaf
- 3. leaf filling (polyurethane)
- 4. hinge
- 5. closing the door
- 6. seals
- 7. flashing (option)

- 8. Ø4x10 stainless rivet
- 9. M6x20 screw
- 10. Ø8x50 screw anchor

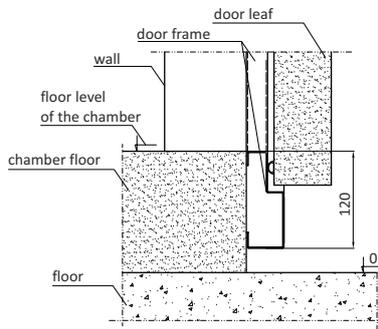
# FRAME VARIANTS - FLOOR FINISHING

## DRS, DRK type door

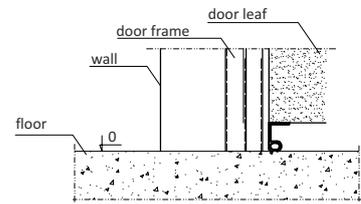
Variant I - without a threshold (standard)  
lower element installed in the floor



Variant II - with a threshold  
threshold in the shape of the frame  
(frame along the circumference)

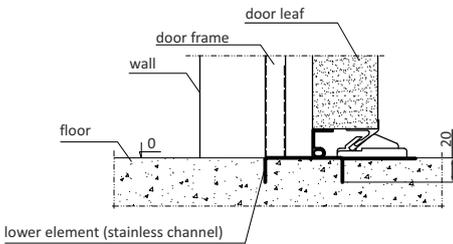


Variant III - without the lower element  
(as a standard, stiffening profile cut off before mounting)

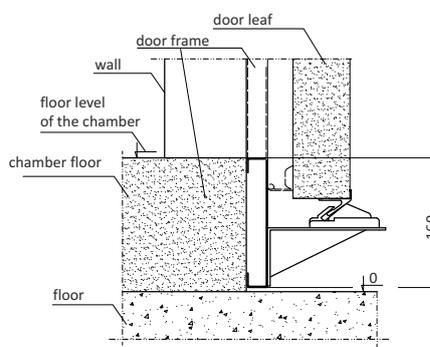


## DPS, DPK type door

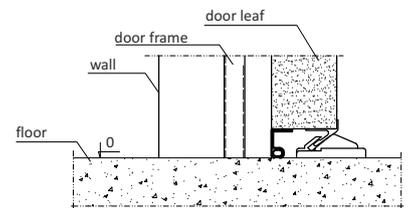
Variant I - without a threshold (standard)  
lower element installed in the floor



Variant II - with a threshold  
threshold in the shape of the frame  
(frame along the circumference)

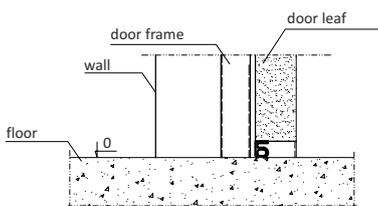


Variant III - without the lower element  
(stiffening profile cut off before mounting as a standard)

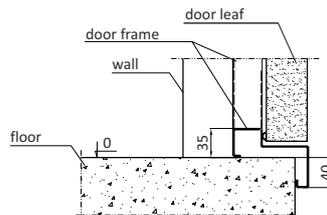


## DRU type door

Variant I - without the lower element (standard)  
(stiffening profile cut off before mounting as a standard)

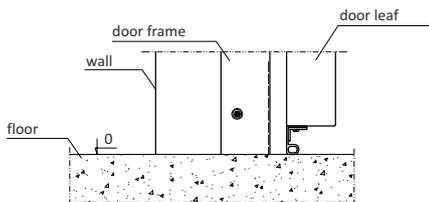


Variant II - with a threshold  
threshold in the shape of the frame  
(frame along the circumference)

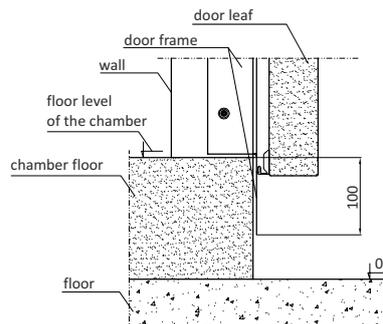


## DRE type door

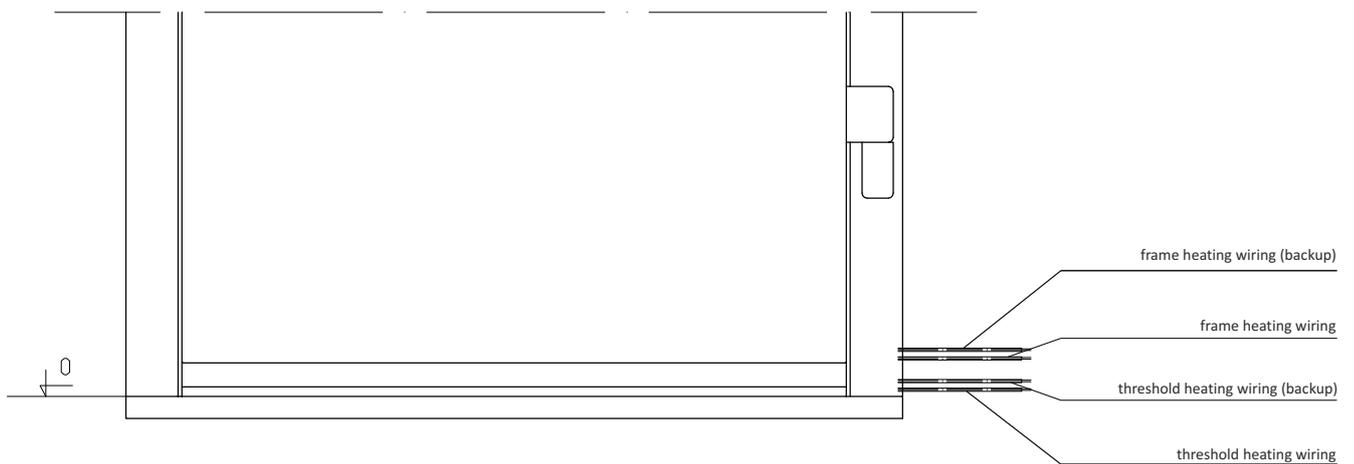
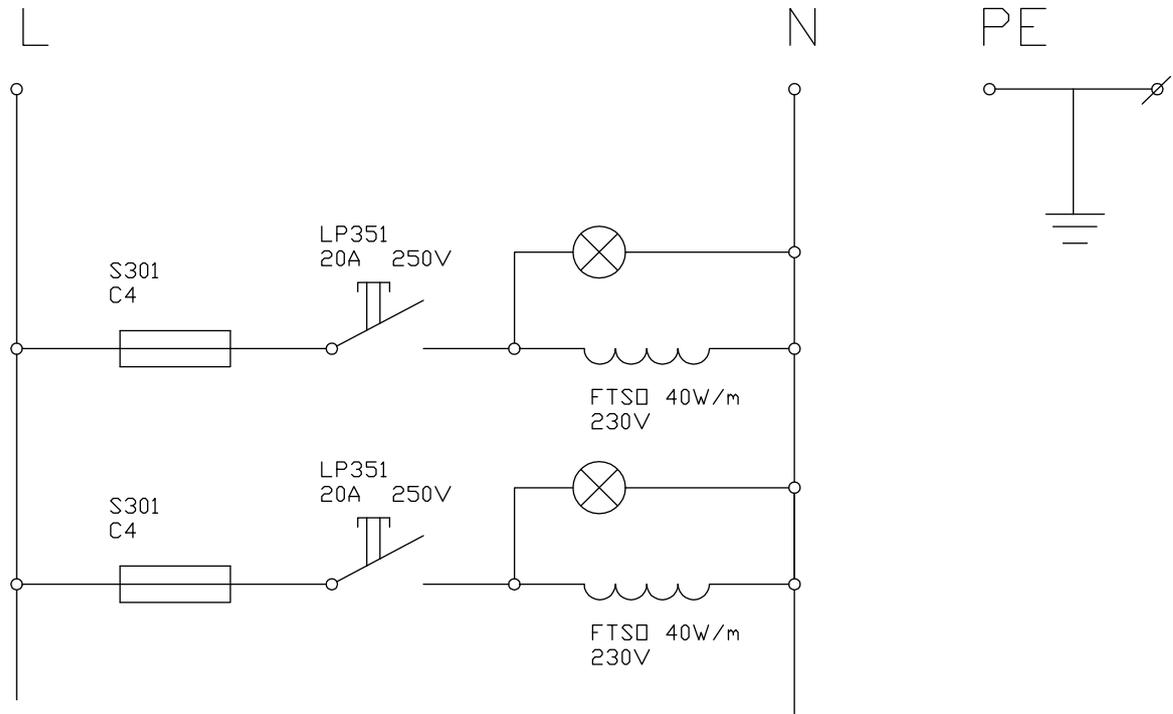
Variant I - without the lower element (standard)



Variant II - with a threshold  
threshold in the shape of the frame  
(frame along the circumference)



# HEATING WIRING DIAGRAM



\* For safety reasons, connecting heating cables should be entrusted to a person possessing the necessary knowledge and qualifications to carry out electrical installations.

### **AUTOMATIC ELECTROMECHANICAL SYSTEM**

The electromechanical system for opening and closing the door uses an electric motor with a gear motor. The door is opened by a push button, a pull switch, a remote control or by means of an induction loop. In the event of power failure, a special coupling allows the door to be opened manually.

#### **The electronic circuit controls:**

- the torque required to properly open and close the door;
- door movement, including speed reduction at the end of each operation;
- manual or temporary closing;
- safety functions.

#### **Features and advantages:**

- adjustable coupling;
- easy to use.

#### **Options:**

- clock;
- contact pneumatic protection;
- locks;
- remote control.

### **MECHANICAL DOOR CLOSING SYSTEM**

The mechanical system for closing the door uses its own flexible wire, hence it does not require an electrical connection. After opening, the door closes automatically, which facilitates work for users, saves energy and extends the life of refrigeration equipment by:

- minimising the door opening time;
- minimising temperature changes;
- minimising the operation of the refrigeration equipment.

#### **Features and advantages:**

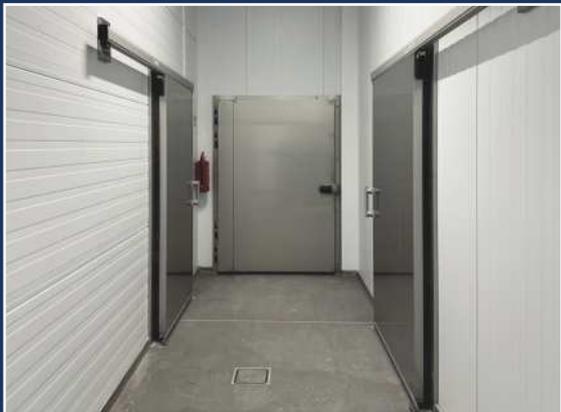
- very fast return on investment;
- łatwy montaż i regulacja;
- easy assembly and adjustment door closing adjustable from 0 to 60 seconds (option).







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