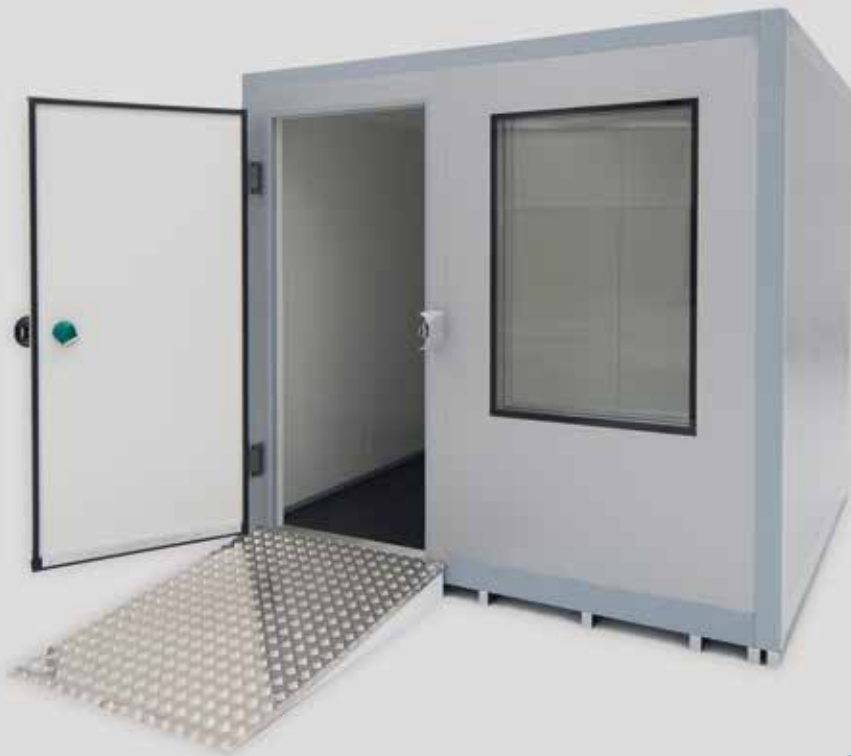


MATRIX

Modular Cold Room



COLDKIT



The modular cold room with endless possibilities

The solution for cold storage and conservation needs regarding hotels, restaurants, catering companies, other business sector and high production volume levels industrial kitchens and ever-changing business environments.

It stands out for its distinctive and unique design feature, with its high-quality finishes and a wide range of panel sizes and thicknesses as well as additional applications such as EXPOMATRIX.

EQUIPMENT AND ENVIRONMENT

The MATRIX range appears from environmentally friendly materials (e.g. CFC's or HCFC's free polyurethane insulation) that are produced in modern factories with state-of-the-art machinery in order to ensure permanent quality levels. Our fully dedicated customer logistics department ensures short delivery times along with reliability, thanks to a large warehouse network and excellent transport control.

EQUIPMENT AND QUICKNESS IN ITS SHIPPING

PUREVER has implemented a decentralized logistics system, with Distribution Centers that quickly and effectively fulfil the orders of all its customers.

We have a wide distribution network throughout the Iberian Peninsula, Europe and the rest of the world.





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(Vertical and
Roofing)

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Window Panels

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Rims and
Doors

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Assembly Add-ons
and Accessories

What is Matrix?

MATRIX is an innovative **modular cold room** capable of making a difference compared to traditional cold rooms.

It's the result of a major research effort involving professionals from different countries.

It provides **solutions with a practical and professional manner** towards the conservation and storage needs of hotels, restaurants, catering companies, other business sector and industrial kitchens.

The **MATRIX** range is about a modular cold room concept made up of different insulation sandwich panels. It's simple and fast packaging allows the combination of cold rooms with the most varied volumes.

AESTHETICS AND QUALITY

284 STANDARD MODELS

EASE OF TRANSPORT AND ASSEMBLY

COMPETITIVE PRICE

LOW CONSUMPTION

EASY MAINTENANCE PROCEDURE





MODULAR COLD ROOM

TOTAL MODULARITY

MATRIX arises to adapt to any situation. It was developed with modulation of 200 by 200mm (height, length and width), creating a multitude of possible combinations and adapting to all spaces and places. Its modularity also brought the possibilities of internal divisions, allowing creating within a cold room, different areas for different products or different temperatures, adapting better to different customer needs.

EXCLUSIVE DESIGN

With the same modularity concept and ease of assembly, the customer can choose from different models, quantities and types of doors: sliding, flip-flap, and hinged doors, with porthole option, windows and lamella curtains.

EVEN MORE EASY TO ASSEMBLE

Assembly takes place quickly and easily enough from the inside of the cold room.

The fixing element system of the cold room takes place by a simple union of two hooks inserted in the panels.

In a few hours, the cold room will be operational with clean, easy work and no need of cuts.

A MULTITUDE OF OPTIONS

MATRIX offers a wide range of accessories: footers, sanitary profiles, pressure balancing valves, lighting, temperature control, access ramps, lamella curtain, etc.

COLDKIT

MATRIX] 60 85 1

A multitude of options

The special feature of the MATRIX range lies primarily in its technical concept:

- 4 panel thicknesses (60, 85, 105, 150mm)
- 200mm modulation for 60, 85, 105mm and 150mm
- Floor panels finishing (phenolic resin) with the following options (stainless): standard version and reinforced version
- Possibility of interior division or joined cold rooms
- Wide range of hinged and sliding doors
- Maximum component integration for easy cleaning (the electrical resistance inside a PVC profile surrounds the rim)
- Wide range of accessories to meet current health standards
- Options: refrigerating groups - shelving

In addition, it has an aesthetic finish that is characterized by:

- Outer color: gray (RAL 9006)
- Smooth finish for easy cleaning
- Hinged door is round outside except in MATRIX 150mm
- Hinges and lock fit perfectly into these global shapes



Available in two versions: with and without floor



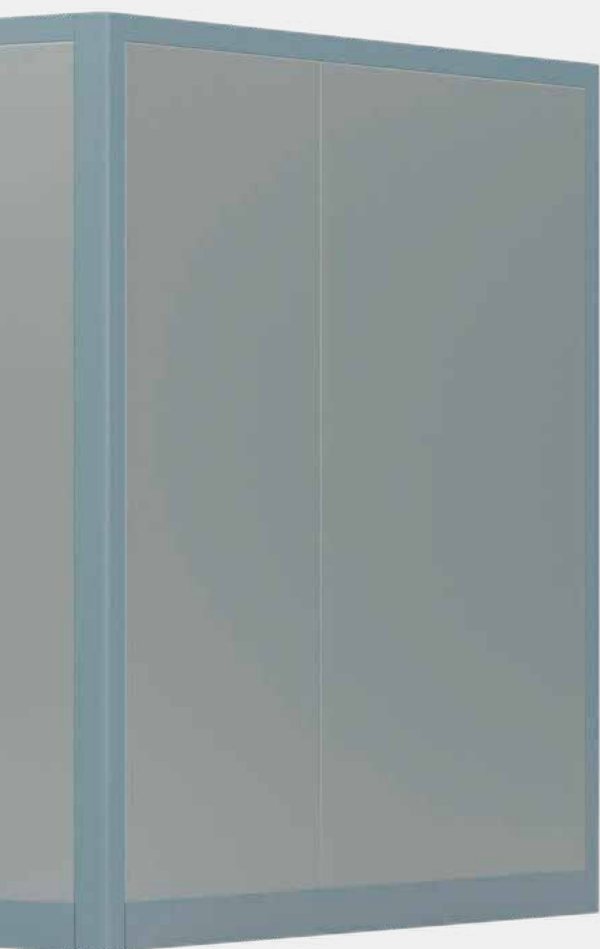
Standard Configuration



Standard Configuration Without Floor

Flexible production that
allows you to offer a wide
range of thicknesses, heights and
finishes.
With fast delivery.

05 150



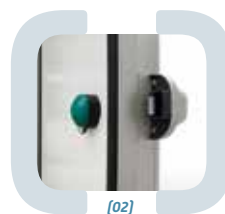
Cold room
integration in a
professional kitchen



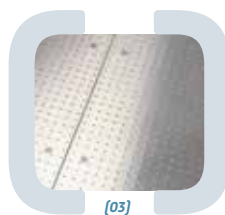
Accessories



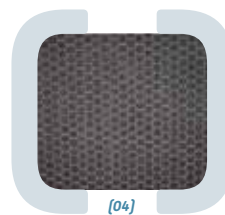
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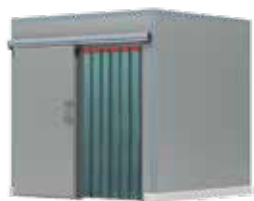
[02]



[03]



[04]



Without Floor - Configuration with optional
elements [sliding post, lamella curtain]



Configuration with optional elements
[window, aeration profiles and ramp]

[01] Pivoting door key lock

[02] Interior panic lock

[03] Optional Floor [Stainless Steel]

[04] Standard floor [phenolic resin]

Panels (Vertical and Roofing)

CALCULATION PARAMETERS

Thermal conductivity λ , expressed in W/mK or W/m°C, is the amount of energy (in watts) that crosses a surface of 1m² and 1m in thickness, according to the temperature difference between each of the faces (k or °C). Regarding polyurethane insulation, it is necessary to be aware of the first parameter. For this purpose, laboratory measurements must be carried out in accordance with current standards on samples taken from the factory-manufactured products.

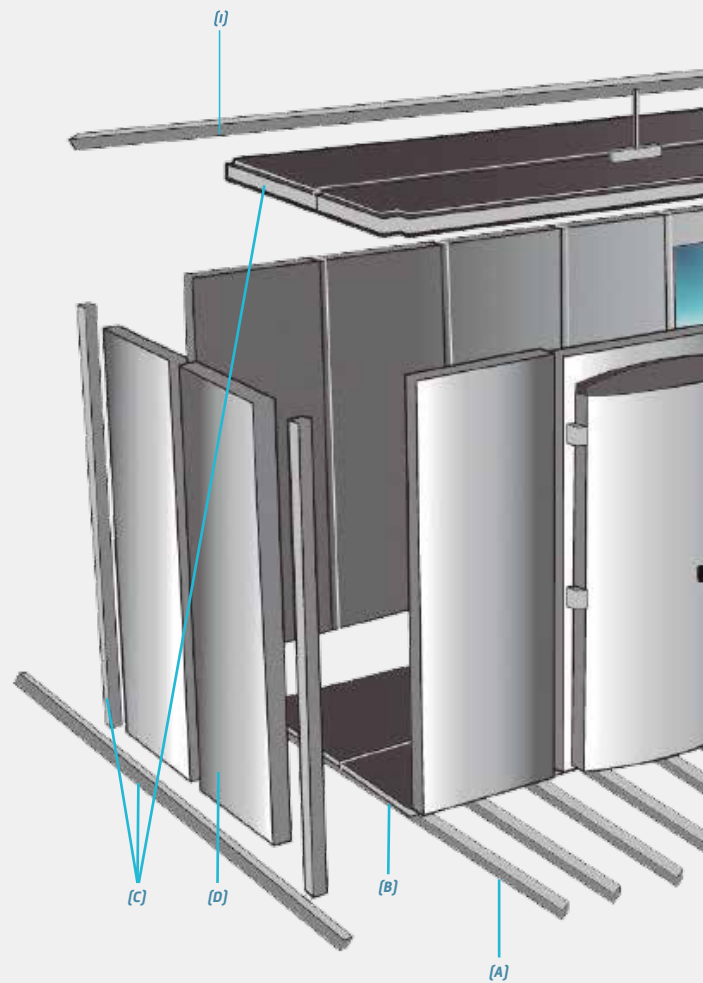
The thermal transmission K or U, expressed in W/m² K or °C, is the sum of the thermal resistance from each layer of material that constitutes the panel, plus the interior and exterior surface exchange resistances. The MATRIX panels value is as follows:

Value		
MATRIX 60	0,37	W/m ² .°C
MATRIX 85	0,26	W/m ² .°C
MATRIX 105	0,21	W/m ² .°C
MATRIX 150	0,15	W/m ² .°C

The temperature difference T1 (indoor) and T2 (outdoor) will allow calculating the heat loss through the walls (Q), explicit in W/m².

Example of a **MATRIX cold room 85aT1 = 5°C** and **T2 at 20°C**, i.e. a ΔT of 25°C, the heat loss value through the walls will be $0.259 \times 25 = 6.47$ W/m².

Normal heat loss values are generally between 10 and 13 W/m² for a positive temperature cold room and between 8 and 10 W/m² for negative temperature cold rooms.



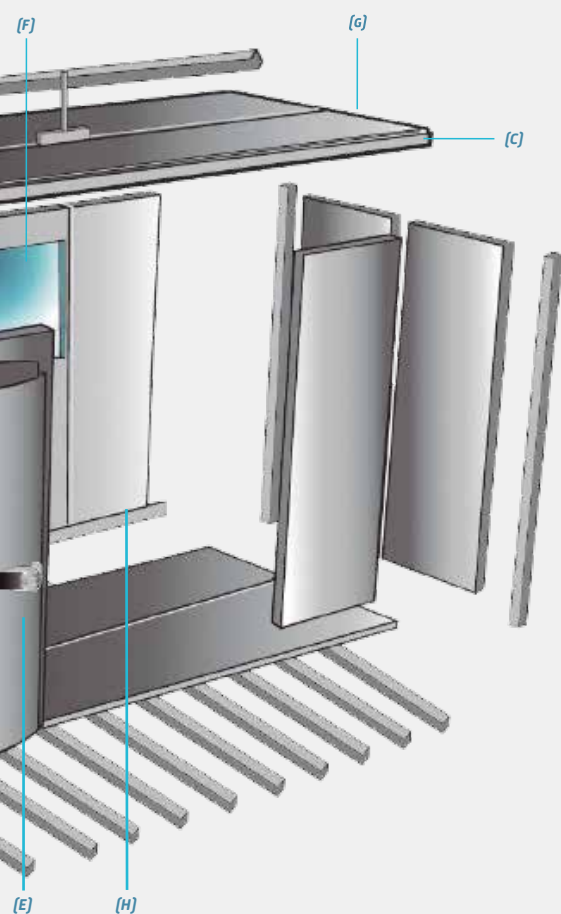
PANELS (VERTICAL AND ROOFING)

MATRIX vertical and roofing modular panels are made of high-pressure injected polyurethane, free of CFC and HCFC. We offer a range of MATRIX vertical and roofing panels of four thicknesses, depending on the customer's refrigeration needs: 60, 85, 105 and 150.

Indoor room temperature span, as well as recommended applications for each panel thickness, varies between +8° and -40°.

Each panel has the following modules, expressed in meters, in order to adapt correctly to the space configuration reserved for the cold room.

The **MATRIX 60, 85 and 105** vertical and roofing panels modules are 200mm high and wide and the **MATRIX 150** modules are 400mm high and wide.



- (A) Following Profile
 (B) Floor Panel
 (C) Rounded Angles (Vertical/Roofing and Floor)
 (D) Vertical Panel
 (E) Door
 (F) Window Panel
 (G) Roofing Panel
 (H) Floor Waistline
 (I) Roof Support (Optional/Self-Support)

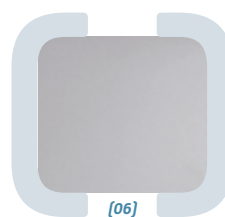
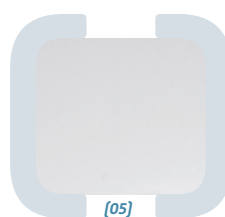
Thickness			
MATRIX 60 - 85 - 105		MATRIX 150	
Width	Height	Width	Height
-	2000	-	2000
-	2200	-	-
-	2400	-	2400
400	2600	400	-
600	2800	-	2800
800	3000	800	-
1000	3200	-	3200
1200	3400	1200	-
-	3600	-	3600
-	3800	-	-
-	4000	-	4000



SPECIAL COATING OPTIONS

There are 6 available options for exterior panel coating:

- **SMOOTH - WHITE:** In pre-lacquered galvanized steel plate with a 25-micron polyester varnish. White colour reference **1006**, 0.50mm thick and polyethene protective film.
- **SMOOTH - GRAY:** In pre-lacquered galvanized steel plate with a 25-micron polyester varnish. Grey colour reference **RAL 9006**, 0.50mm thick with polythene protective film.
- **SMOOTH - STAINLESS:** AISI304 Brushed stainless steel plate. The thickness is 0.60mm and it's protected by a polyethene film.



INTERIOR/EXTERIOR COMBINATIONS

- White / Gray
- White / White
- White / Stainless
- Stainless / Gray
- Stainless / White
- Stainless / Stainless

[05] Smooth White REF 1006

[06] Smooth Gray RAL 9006

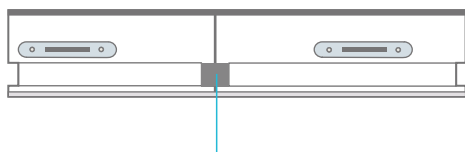
[07] Smooth Stainless

PANELS ASSEMBLY

All vertical and roofing panels are equipped at the time of manufacture with universal plastic housings supplied with hook and shaft (patented model) to adapt to 200mm modulation (400mm for **MATRIX 150**).

To ensure a perfect match of the assembly systems, the molds used during the manufacturing process are designed for exact positioning of the connection boxes.

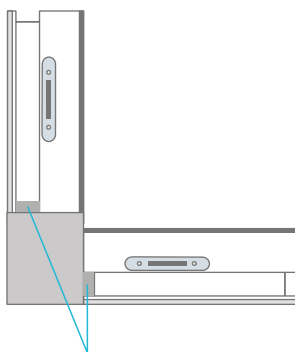
MATRIX 150 vertical and roofing panels have the particularity of ensuring insulation continuity. At the joint between the two panels, as well as between panels and angles, a polyethylene liner supplied with the cold room must be fitted during assembly. To keep them in place, silicone drops should be placed.



MATRIX 150: 30x20mm insulation between 2 panels

ASSEMBLY METHOD

Each of the aforementioned boxes has one with a hook and shaft. Besides, the gray polyethylene self-adhesive joint placed on the side of each box must be stressed in this regard. When closing, it allows the panels to be compressed towards ensuring perfect tightness. To install, just simply turn 45° the hexagonal locking screw that has been previously inserted into the provided slot.



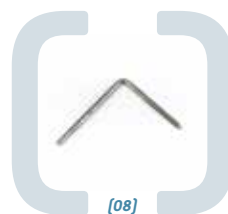
MATRIX 150: 30x10mm insulation between panels

Technical Data

Vertical and Roofing Panels				
	MATRIX 60	MATRIX 85	MATRIX 105	MATRIX 150
Conductivity Coefficient	0,37 W/m ² . °C	0,26 W/m ² . °C	0,21 W/m ² . °C	0,15 W/m ² . °C
ΔT of regular temperature (Q) for heat loss 13 W/m ²	35°C	50°C	60°C	85°C
Perpendicular tensile strength to the front. According to UNE 41950-94	0,12 N/mm ²			
Dimensional stability. According to UNE 41950-94. After 24h at 80°C. After 24h at -20°C	0,5% by volume 0,2% by volume			

THERMAL AND PHYSICAL FEATURES

- Thermal conductivity coefficient of polyurethane according to **DIN 52612** standard is equal to: **0.0228 W/m°C**
- In the same way, density of polyurethane according to **UNE 92235** standard is equal to: **40 +/- 2 kg/m³**
- Compression resistance, according to **UNE 92334** standard is equal to: **0,15 N/mm²**



[08]



[09]



[10]

[08] Key
[09] Male box + Female box
[10] Set

Dimensions					
Dimensions (width in mm)					
MATRIX 60 - 85 - 105					
mm	400	600	800	1000	1200
200					
400					
600					
800					
1000					
1200					
1400					
1600					
1800					
2000					
2200					
2400					
2600					
2800					
3000					
3200					
3400					
3600					
3800					
4000					

Dimensions				
Dimensions (width in mm)				
MATRIX 150				
mm	400	800	1200	
400				
800				
1200				
1600				
2000				
2400				
2800				
3200				
3600				
4000				

Dimensions				
Dimensions (width in mm)				
UPPER DOOR (Bandeaux)				
mm	400	800	1200	
400				
800				
1200				
1600				
2000				
2400				



Floor Panels and Window Panels

MATRIX modular floor panels are made of rigid **CFC** and **HCFC**-free polyurethane. We provide to our customers different versions depending on the strength they must have for their intended use, both for conventional and reinforced service loads, for the largest service loads.

About **MATRIX 60, 85** and **105** cold rooms, the floor panel is **85mm** thick in **200mm** wide modules. However, for **MATRIX 150** cold rooms, the floor panel is **150mm** thick and the modules **400mm** wide.



[11]



[12]

[11] Slip Resistant Phenolic Resin
[12] Stainless Steel Slip Resistant and/
or Reinforced Stainless Steel
Slip Resistant

STANDARD FLOOR PANEL

Standard floor panel is recommended for conventional service loads. We offer two interior coating options:

- 10mm plywood (**CTBX**), coated with a brown slip resistant **phenolic resin**. The material used in the manufacture is Finnish birch wood.
- 10mm plywood (**CTBX**), coated with a slip resistant **stainless steel** plate. The exterior finish in both cases

is smooth in pre-lacquered galvanized steel plate with 25-micron polyester varnish, reference 1006, and 0.50mm thickness with polyethylene protective film.

REINFORCED FLOOR PANEL

Reinforced floor panel is recommended for especially high service loads. It has a 10mm plywood inner coating (**CTBX**) lined with a slip resistant stainless steel plate over another 0.50mm thick lacquered plate joined to the inner face of the plywood.

Mechanical and Technical features

MATRIX 60 - 85 - 105 - 150			
PANEL RESISTANCE	PHENOLIC	STAINLESS STEEL	REINFORCED
Evenly distributed static load	3.000 Kg/m ²	3.000 Kg/m ²	4.000 Kg/m ²
Concentrated static charge	400 Kg/60 cm ²	400 Kg/60 cm ²	500 Kg/ 60 cm ²
Dynamic load on 4-wheel pneumatic trolley. According to UNE 41950-94	500 Kg	500 Kg	800 Kg

Dimensions

Dimensions (width in mm)					
MATRIX 60 - 85 - 105					
MATRIX 150					
mm	400	600	800	1000	1200
800					
1000					
1200					
1400					
1600					
1800					
2000					
2200					
2400					
2600					
2800					
3000					
3200					



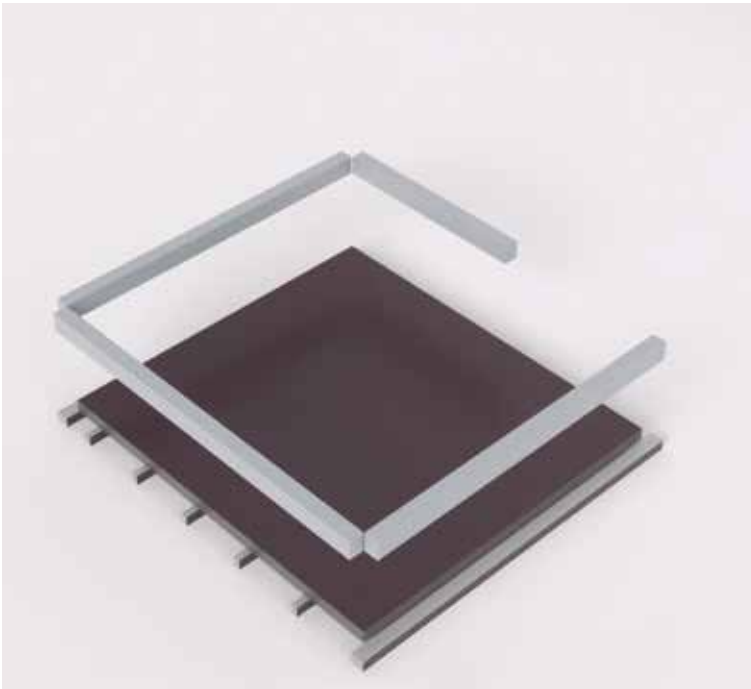
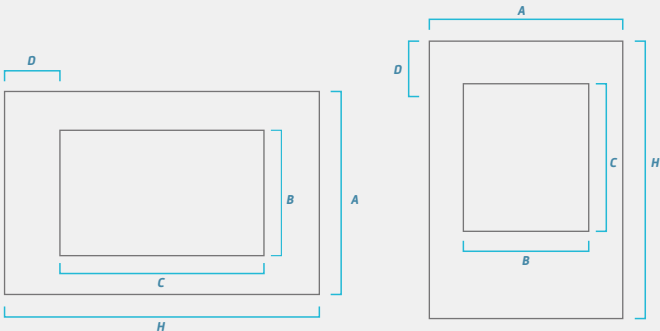
WINDOW PANEL

MATRIX 60 and **MATRIX 85** offer the possibility to include in the 1200mm wide panel a leveled glass on both sides and of the same panel thickness (60mm or 85mm). This glass is formed by two 6mm glasses joined on an aluminum profile. The vacuum produced at the time of accession ensures the stability between the windows as well as the tightness of the silicone grease to avoid any risk of condensation.

Measures				
H = 2000				
MODEL	A	B	C	D
1	1200	800	800	200
2	1200	800	1200	200
3	1200	800	1200	400
4	1200	800	1600	200

H = 2200				
MODEL	A	B	C	D
1	1200	800	800	400
2	1200	800	1200	200
3	1200	800	1200	500
4	1200	800	1600	300

H = 2400				
MODEL	A	B	C	D
1	1200	800	800	600
2	1200	800	1200	400
3	1200	800	1200	600
4	1200	800	1600	400



Angles

MATRIX 60, 85 and 105 modular cold rooms can be installed with or without floor panel, depending on the intended use (conservation, freezing, etc.).

The use of the **MATRIX 150** cold room is intended for negative temperatures and will therefore **always be installed with a floor**.

That way, the following drawings represent each of the possible alternatives for the assembly of the different cold rooms.

TYPES OF ANGLES



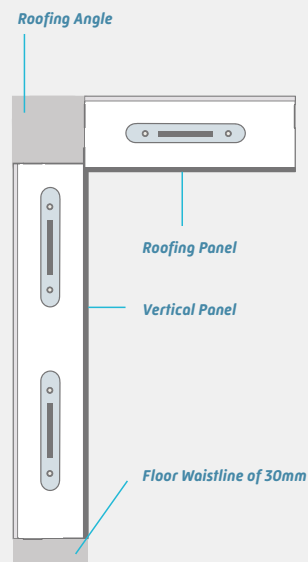
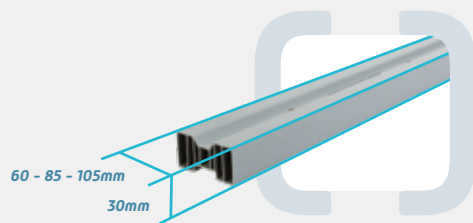
[14]

[14] Inner Connection Angle

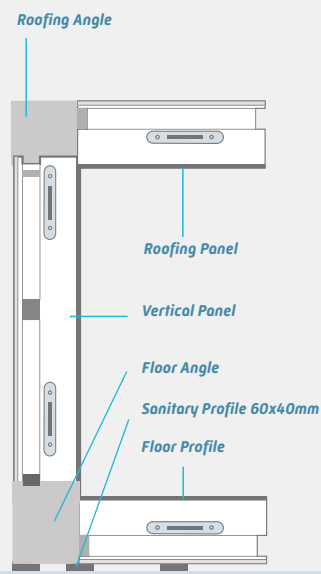
FLOOR WAISTLINE

The floor reinforcement consists of a PVC profile with a single height of 30mm and widths: 60, 85, 105mm, respectively for the MATRIX of 60, 85, 105. This reinforcement is generally indicated for cold rooms without floor towards fixing the vertical panels. In this case, it is fixed using screws included in the assembly kits, directly on the floor, where the cold room is to be mounted.

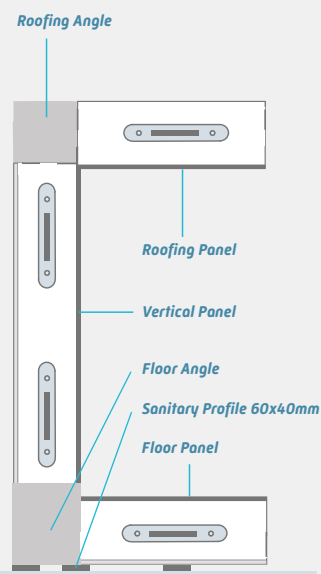
It is also used vertically and horizontally in the case of the MATRIX 60, 85 and 105 cold rooms, whose walls are fixed on a confine of traditional materials. Its name is angle type G, H and J.



MATRIX 60, 85 and 105 - WITHOUT FLOOR



MATRIX 150 - WITH FLOOR



MATRIX 60, 85 e 105 - WITH FLOOR

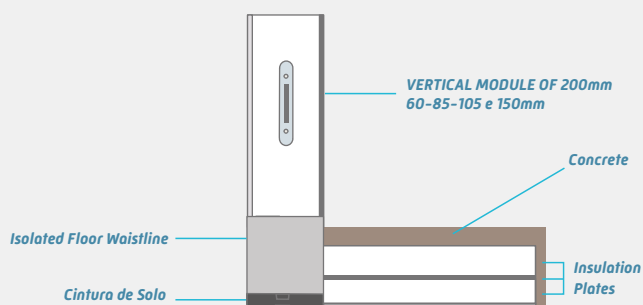


ISOLATED FLOOR WAISTLINE

This is an assembly principle without floor panels, usable only in the case of an insulated concrete floor. Assembly occurs as follows:

1. The 30mm floor reinforcements corresponding to the perimeter of the cold room shall be placed on the concrete (except for clearances used for passing through the doors). They stay fixed to the floor using plastic plugs and a screw, both included in the assembly kit.
2. The insulated waistlines are then fitted using box cams on the 30mm waist shafts. To do this, it must be used the switch key included in the assembly kit.
3. The vertical panels are then assembled by joining the boxes at the insulated waistline according to the same principle. These waistlines exist for each panel thickness, 60, 85, 105 and 150mm, and in three heights: 180, 200 and 240mm.

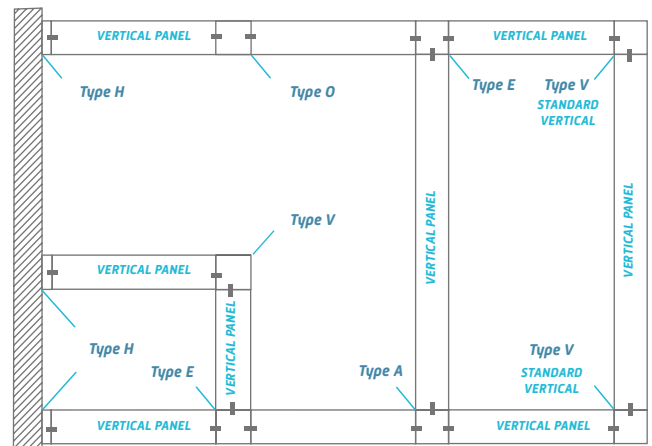
ISOLATED FLOOR SUPPORT



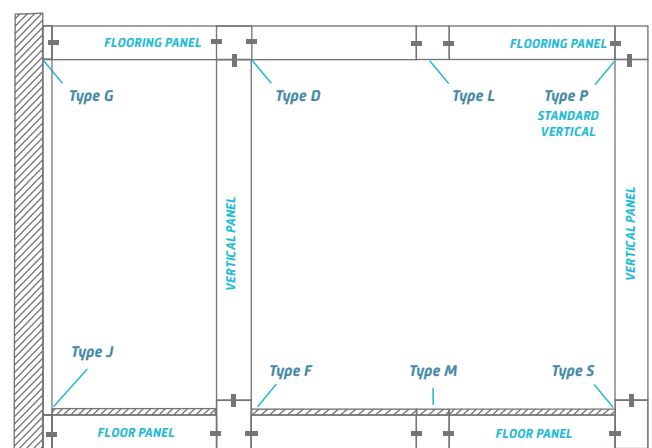
USAGE AND TYPES OF ANGLE

For types **E** and **A**, in **MATRIX 105** and **150**, the difference is the direction: Left for type A and right for type E.

PLANT



ELEVATION



VERTICAL AND ROOFING ANGLE

All MATRIX vertical and roofing angles are available in the following lengths (their width will be the same as the selected MATRIX model 60, 85, 105 or 150mm).

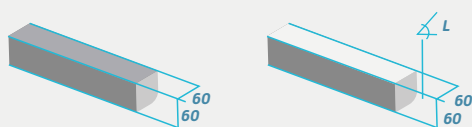
MATRIX 60

Made of grey PVC RAL 7040 with a square section of 60x60mm, not injected with polyurethane.

The exterior vertical angle is rounded to simplify cleaning action and has two faces for fixing with the vertical panels. It's used for the following versions:

White/Gray, Stainless/Gray, Stainless/Stainless, White/Stainless and White/White.

For the remaining **White/White** and **Stainless/White** coated versions as well as the Type E and D 3-way roofing angles and 2-way L and O (for joining cold rooms), a 60x60mm square section PVC profile is used, white or grey not injected with polyurethane.



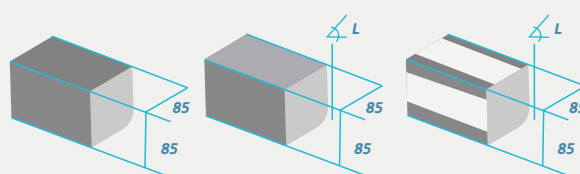
2 ways		3 ways	
ROOF	VERTICALS	ROOF	VERTICALS
800	1630	800	1630
885	1715	1000	1715
1000	1800	1200	1800
1085	2000	1400	2000
1200	2030	1600	2030
1285	2115	1800	2115
1400	2200	2000	2200
1485	2230	2200	2230
1600	2315	2400	2315
1800	2400	2600	2400
2000	2430	3000	2430
2200	2515	3200	2515
2400	2630	-	2630
2600	2715	-	2715
2800	2830	-	2830
3000	2915	-	2915
3200	3030	-	3030
-	3115	-	3115
-	3320	-	3230
-	3315	-	3315

MATRIX 85

Made of grey PVC RAL 7040 with a square cross-section of 85x85mm, injected with polyurethane. The exterior vertical angle is rounded to simplify cleaning action and has two faces for fixing with the vertical panels. It's used for **White/Gray** and **Stainless/Gray** coated versions.

For **White/White** and **Stainless/White** coated versions, as well as Type E and D 3-way roofing angles, and 2-way L and O (for joining cold rooms), it's used an 85x85mm square section PVC profile in white or grey colour, injected with polyurethane.

For the other versions with **White/White** and **Stainless/White** coatings, with 2 or 3 directions, are used the 85x85mm square section angles with stainless steel plate joined with polyurethane injected plastic profile.



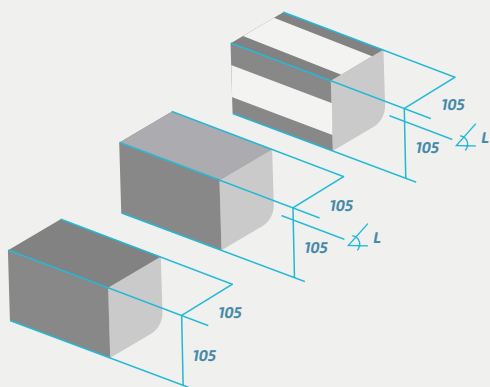
2 ways		3 ways	
ROOF	VERTICALS	ROOF	VERTICALS
800	1600	800	1600
885	1630	1000	1630
1000	1715	1200	1715
1085	1800	1400	1800
1200	2000	1600	2000
1285	2030	1800	2030
1400	2115	2000	2115
1485	2200	2200	2200
1600	2230	2400	2230
1800	2315	2600	2315
2000	2400	2800	2400
2200	2430	3000	2430
2400	2515	3200	2515
2600	2630	-	2630
2800	2715	-	2715
3000	2830	-	2830
3200	2915	-	-
-	3030	-	-
-	3115	-	-



MATRIX 105

Made of grey PVC RAL 7040, it has a square section of 105x105mm, injected with polyurethane. It's rounded to the outside vertical angle to simplify cleaning action. It has double-sided shafts for fixing with vertical panels. This angle is used for **White/Gray** and **Stainless/Gray** coated versions.

For **White/White** and **Stainless/White** coated versions as well as the Type E + A (right and left) and D 3-way roofing angles, and Type L and O 2-way (for joining cold rooms) roofing is made of a 105x105mm square cross-section PVC profile, white or grey, injected with polyurethane.

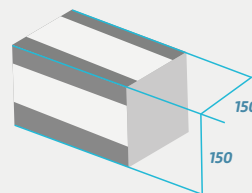


2 ways		3 ways	
ROOF	VERTICALS	ROOF	VERTICALS
800	1600	800	1600
885	1630	1000	1630
1000	1715	1200	1715
1085	1800	1400	1800
1200	2000	1600	2000
1285	2030	1800	2030
1400	2115	2000	2115
1485	2200	2200	2200
1600	2230	2400	2230
1800	2315	2600	2315
2000	2400	2800	2400
2200	2430	3000	2430
2400	2515	3200	2515
2600	2630	-	2630
2800	2715	-	2715
3000	2830	-	2830
3200	2915	-	2915
-	3030	-	3030
-	3115	-	3115

MATRIX 150

For the other versions with 2 or 3-way **Stainless/Stainless** and **White/Stainless** coating, the square cross-section angle of 105x105mm is made of stainless steel plate and polyurethane-injected plastic.

This angle has a square section of 150x150mm and is made of stainless steel or pre-lacquered plate (depending on the interior and exterior coating of the panels) joined with a plastic profile and injected with polyurethane. It's available in 2-way for standard cold rooms, 2-way Type L and O or 3-way Type E and D for joining cold rooms.



2 ways		3 ways	
ROOF	VERTICALS	ROOF	VERTICALS
800	1630	800	1630
950	1750	1200	1750
1200	1780	1600	1780
1350	2180	2000	2180
1600	2330	2400	2330
1750	2580	2800	2580
2000	2730	3200	2730
2150	2980	-	2980
2400	3130	-	3130
2800	-	-	-
3200	-	-	-

FLOOR ANGLE

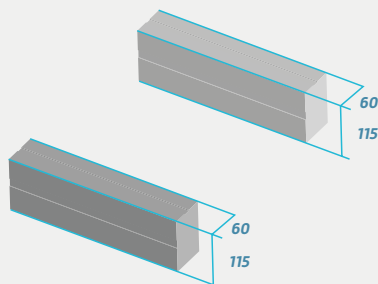
MATRIX floor angles are available in the following sizes:

MATRIX 60

The MATRIX 60-floor angle is standard and has 2 or 3 ways.

It's made of PVC and has a rectangular section of 115x60mm injected with polyurethane.

- **RAL GREY 7040** for **White/Grey, Stainless/Grey, White/Stainless, Stainless/Stainless** versions.
- **WHITE** for **White/White** and **Stainless/White** versions.

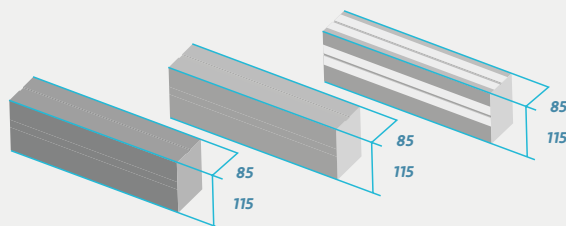


MATRIX 85

MATRIX 85-floor angle is standard and has 2 or 3 ways. It's made of PVC and has a rectangular section of 115x85mm injected with polyurethane, with two colors depending on the coating of the cold room:

- **RAL GREY 7040** for **White/Grey, Stainless/Grey, Stainless/Stainless** and **White/Stainless** versions.
- **WHITE** for **White/White** and **Stainless/White** versions.

For the stainless/stainless and white/stainless coating versions, the 115x85mm rectangular section angle is made of stainless steel plate joined with 1 plastic profile which in turn guarantees thermal insulation injected with polyurethane.



Dimensions

		Matrix 60	Matrix 85	Matrix 105			
LONGITUDE	HEIGHT	WIDTH			LONGITUDE	HEIGHT	WIDTH
400	115	60	85	105	400	180	150
600	115	60	85	105	-	-	-
800	115	60	85	105	800	180	150
1000	115	60	85	105	-	-	-
1200	115	60	85	105	1200	180	150
1400	115	60	85	105	-	-	-
1600	115	60	85	105	1600	180	150
1800	115	60	85	105	-	-	-
2000	115	60	85	105	2000	180	150
2200	115	60	85	105	-	-	-
2400	115	60	85	105	2400	180	150

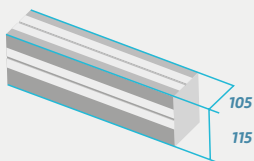


MATRIX 105

For all versions, the 115x105mm rectangular section angle is made of stainless steel or pre-lacquered plate (depending on the interior and exterior coating of the panels) joined with 1 plastic profile and injected with polyurethane.

Depending on the version, they will have the following features:

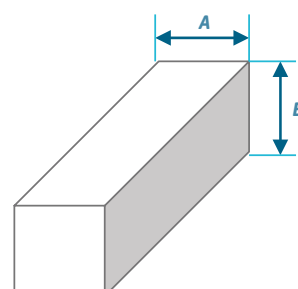
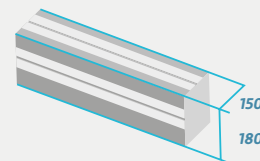
- **White/Grey** and **Stainless/Grey**, the outer plate is GREY RAL 9006 and the 30mm part visible on the inside is WHITE 1006 or STAINLESS.
- **Stainless/Stainless** and **White/Stainless**, the outer plate is Stainless and the 30mm part visible on the inside is WHITE 1006 or STAINLESS.
- **White/White** or **Stainless/White**, the outer plate is WHITE 1006 and the 30mm part visible on the inside is WHITE 1006 or STAINLESS.



MATRIX 150

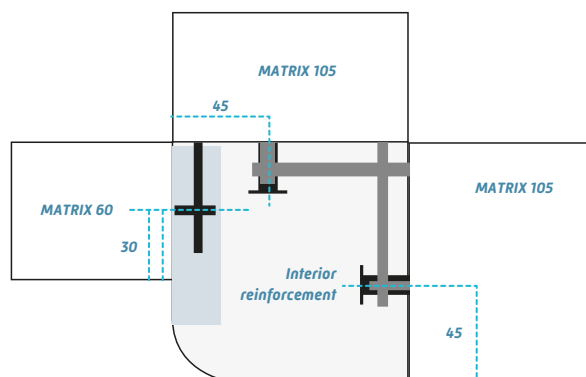
For all versions, the 180x150mm rectangular section angle is made of stainless steel or pre-lacquered plate (depending on the inner and outer coating of the panels) joined with 1 polyurethane plastic profile. Depending on the version, they will have the following features:

- **White/Grey** and **Stainless/Grey**, the outer plate is GREY RAL 9006 and the 30mm part visible on the inside is WHITE 1006 or STAINLESS.
- **Stainless/Stainless** or **Stainless/White**, the outer plate is WHITE 1006 and the 30mm part visible on the inside is WHITE 1006 or STAINLESS.
- **White/White** and **Stainless/White**, the outer plate is WHITE 1006 and the 30mm part visible on the inside is WHITE 1006 or STAINLESS.



PANELS SET

It is possible to fix 2 cold rooms: 1 MATRIX 60 with 1 MATRIX 85 or 105 of equal interior heights, with 3-way vertical and horizontal MATRIX 85 or 105 angles. The MATRIX 85 or 105 vertical and roofing angle is an 85x85mm or 105x105mm square section PVC profile. It's RAL 7040 GRAY and injected with polyurethane. It is rounded at the outside angle to simplify the cleaning action. With 3-sided shafts for fixing to wall panels, with a thickness of 60mm on one side and 85 or 105mm on the other two sides. It's used for White/Grey and Stainless/Grey coated versions.



For floor cold rooms installed in this regard, are used the MATRIX 85 or 105 3-way floor angles of type F. The image below represents this special angle for fixing cold rooms:

ROOF	800		1000		1200		1400		1600		2000	2200	2400	2600	2800	3000	3200			
VERTICAL	1630	1715	1800	2000	2030	2115	2200	2230	2315	2400	2430	2525	2630	2715	2830	2915	3030	3115	3320	3315

SOLUTIONS

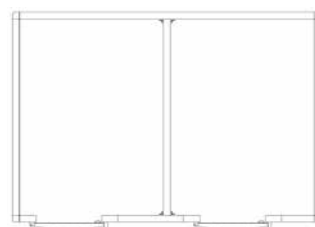
↑ ADDITIONAL HEIGHT

Inner height cold room exceeding 2,430mm

I PARTITION WALL

Coldroom with partition

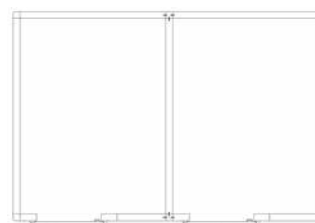
The MATRIX cold room can be divided through a partition wall composed of white/white panels. The partition wall is fixed with plate profiles and rivets.



I COMMON WALL

Side by side cold rooms

Two MATRIX cold rooms, of the same height, floor type and thickness, can be coupled, thus forming a common wall (side by side). In this case 3-way angles will be used to connect the cold rooms.





CHANGE COATING

Coldroom coating change

MATRIX consists of wall and roofing panels made of lacquered steel plate WH/GR, white (Ref. 1006) inside and gray (RAL 9006) outside, 0.50mm thick (0.60mm for stainless steel).

For a non-standard cold room coating (WH/GR), please consider a longer delivery time (upon request).

Coldrooms with White coating outside

Two-sided white (WH/WH) cold rooms may be provided, subject to a price premium.

AISI304 stainless steel panel coating

Cold rooms with AISI304 stainless steel coating may be provided, subject to a price premium.

Cold room floor type change

The MATRIX cold rooms floor referred to in this catalog consists of floor panels coated with lacquered steel plate on the outside, and phenolic resin coated marine plywood on the inside (SSW floor).

The insulation of the 85mm thick floor panels is made of polyurethane (PUR), reaction to fire class Bs2, d0. For MATRIX150 cold rooms the insulation thickness is 150mm. Other floor coating options are possible: stainless steel (SSR) and reinforced stainless steel (SRR).



CHANGE TO OTHER HINGED DOOR

MATRIX cold rooms include a hinged door, positive (negative in MATRIX150), right or left, with 1900x800mm of free passage (module of 2030x1200mm).



More options:

- Change to a sliding door
- Change to service door
- Inclusion of additional door
- Add a hinged door
- Inclusion of additional door
- Add a sliding door
- Add a service door
- Inclusion of a glass showcase

Rims and Doors

RIMS

All MATRIX range frames are made in the same way as a panel. The outer face is made of 0.5mm lacquered galvanized steel plates and the inner face is made of the same plate.

Between the two plates, rigid polyurethane foam of a 40 +/- 2 kg/m² density is injected. At the time of manufacture, reinforced plastic boxes are placed for assembly (in the 200mm or 400mm module with the vertical panels).

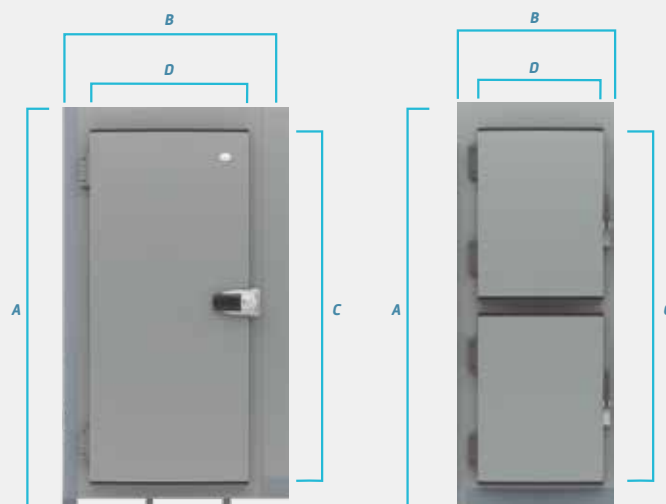
The thicknesses are the same as those of the vertical panels, i.e. 60, 85, 105 and 150mm. The free passage finish is ensured thanks to a PVC profile which simultaneously serves as thermal rupture breakage and heat resistance housing.

STOPS

The stops for MATRIX 60, 85, 105 are convex, except for the 2200x1200mm and 2200x1500mm free passage stops, which are flat. In the case of MATRIX 150 all the stops are flat.

The convex positive stop with 80mm thickness and the convex negative stop with 140mm thickness. The hinges are made of composite material (there is no risk of corrosion) and the closure has a key lock and an interior opening system of the "handle" type.

Flat positive stops with 60mm thickness and negative stops with 120mm thickness.



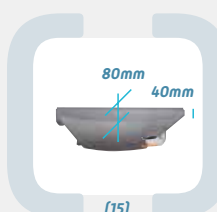
Pivoting Doors

MATRIX 60 - 85 - 105		MATRIX 150	
A x B Rim	Free Passage C x D	A x B Rim	Free Passage C x D
2000 x 800	850 x 620*	2000 x 800	850 x 620*
2000 x 1000	850 x 700*	2030 x 800	1900 x 620**
2030 x 800	1900 x 620	2030 x 1200	1900 x 800**
2030 x 1000	1900 x 700	2030 x 1200	1900 x 950**
2030 x 1000	1900 x 800	2430 x 1600	2200 x 1200**
2030 x 1200	1900 x 800	2430 x 2000	2200 x 1500**
2030 x 1200	1900 x 800	-	-
2030 x 1200	1900 x 900	-	-
2430 x 1200	2200 x 1000	-	-
2430 x 1600	2200 x 1200**	-	-
2430 x 2000	2200 x 1500**	-	-

*2 Hatches ** these doors have flat, non-round stops



Matrix Coldroom with Pivoting Door



[15] Positive Door



[16] Negative Door

SLIDING DOORS - STOPS

For all the following models - MATRIX 60, 85, 105 and 150 - the stop is flat. For positive temperature, the stop thickness is 85mm for MATRIX 60, 85 and 105, and for negative temperature, the stopper thickness is 120mm regarding MATRIX 85, 105, 150. The slide rail is anodized aluminium (15x) with built-in concealer, and the fixed handle is of aluminium.

Measures	
MATRIX 60 - 85 - 105 - 150	
Rim (min width)	Free passage
2030 x 1200 (2400)	1850 x 950
2430 x 1200 (2400)	2200 x 950
2430 x 1600 (2800)	2200 x 1200
2430 x 2000 (3600)	2200 x 1400
2430 x 2000 (3600)	2200 x 1600



DISPLAY GLASS DOOR

The cold room can also be equipped with display doors in order to facilitate product selection before opening the cold room.

These doors have PVC chassis, 4mm thick tempered glass and include a 12mm separator as well as strength on the door stops.

They are recommended for temperatures between +2°C and +20°C, for environments up to 70% relative humidity.

These doors are available in the sizes shown. Cold rooms with display doors can also be supplied with white food-safe color multi inclinable interior shelving. The doors can be supplied with right or left opening, according to customer requirements and it has automatic return to the closure position.

The standard illumination of these sets is made by fluorescent lamps, although it is also possible in LED.

Contact us if you need negative or special sized display doors.

Measures	
Doors 595 x 1700mm	
Doors Number	Set A x H Dimensions
1	675 x 1780
2	1285 x 1780
3	1895 x 1780
4	2505 x 1780
5	3115 x 1780
6	3725 x 1780

Doors 750 x 1700mm	
Doors Number	Set A x H Dimensions
1	830 x 1780
2	1595 x 1780
3	2360 x 1780
4	3125 x 1780
5	3890 x 1780
6	4655 x 1780



[17]



[18]



[19]

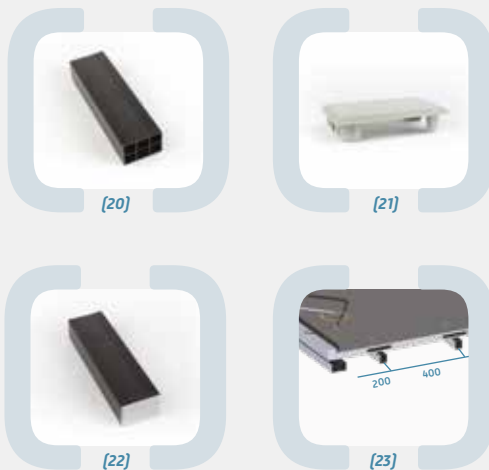
- [17] Glass Display Doors
 [18] Multi Inclinable Interior Shelving
 [19] Automatic return to the closure position

Assembly Add-Ons and Accessories

FOLLOWING PROFILE

It's a rectangular 60x40mm PVC profile designed to improve the floor level for floors assembly, as well as to allow water to pass through weather-exposed cold rooms and to prevent condensation underground in the refrigeration space.

Placed parallel to each 400mm and correctly adjusted with a level, they ensure that the floor panels are placed without any discrepancies between them.



[20] Following Profile

[21] Cover

[22] Set

[23] Pay special attention to the hole placement under the floor profiles

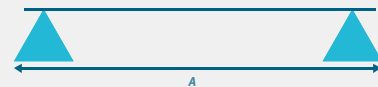
ROOFING PANEL SUPPORTS

There are several possibilities in regard of supporting this element:

SELF-SUPPORT PANEL

The panel is considered self-supporting on the walls when the maximum cold room width is less than or equal to the allowable range (A).

Panel				
Thickness	60mm	85mm	105mm	150mm
The maximum	4000mm	4800mm	5500mm	6000mm
Anchorage number	2	2	2	2



SUSPENDED PANEL IN STRUCTURE

The inter-axis of the suspension points must be in this case \leq within the permissible range of the roofing panels. Each suspension point is made by attaching to a box for the inter-axis < 3.20 m and on two boxes for the upper anchorages.

For both panel types, the technical information is as follows:

- Total load 60 of N/m²
- Arrow $\leq 1/200$ of the range
- Breakages safety
- Compatibility with anchorage strength

When the width of the cold room is greater than the range of the roofing panels, 2 types of structure are proposed allowing to make the panel self-supporting:

Structures Range Cold Room Width in mm	Structures Maximum Inter-axis
3600	3200
3800	3200
4000	3200
4200	3200
4400	3200
4800	3200
5000	2400
5200	2400
5400	2000
5600	1600
5800	1600
6000	1600

120 OMEGA

For roofing panels with a width ≤ 6 m, the calculation basis for the Omega structures inter-axis is:

- Total load 50kg/m^2
- Arrow $\leq 1/200$ range
- 1 suspension per panel



[24]

[24] Omega Structure

AUXILIARY STRUCTURE

The auxiliary metallic structure of 320mm is suitable for cold rooms with an internal dimension between 6 and 14,80mm.

The calculation basis for the inter-axis of these structures is as follows:

- Total load 40kg/m^2 for open construction and 50kg/m^2 for closed construction
- Allowable arrow $\leq 1/200$ range
- 1 single roofing support per panel when the length is $\leq 3,20\text{m}$
- 2 roofing supports per panel when the length is $> 3,20\text{m}$.

Maximum Inter-axis of Structures		
Structure Range Camera Width in mm	Open Construction	Closed Construction
640	600	600
660	600	600
680	600	600
700	600	600
720	600	600
740	600	600
760	600	600
780	600	600
800	600	600
820	600	600
840	600	600
860	600	600
880	600	600
900	600	600
920	560	600
940	560	600
960	520	600
980	520	600
1000	440	560
1020	320	560
1040	320	480
1060	320	440
1080	320	440
1100	320	440
1120	320	400
1140	320	400
1160	240	360
1180	240	360
1200	200	320
1220	160	320
1240	160	280
1260	160	280
1280	200	280
1300	200	280
1320	200	240
1340	200	240
1360	160	240
1380	160	240
1400	160	200
1420	160	200
1440	160	200
1460	160	200
1480	160	160



[25]



[26]



[27]

[25] Auxiliary Structure
[26] Support for Auxiliary Structure
[27] Auxiliary Structure and Support

ROOFING SUPPORTS

This part, made of stainless steel, is intended for the recovery of roofing panels in the 3 assembly cases mentioned above (suspension in construction, suspension with an omega or suspension with a lattice).

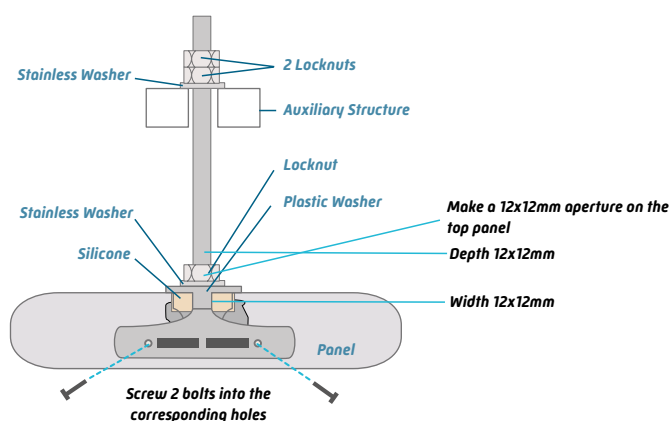
It comes with the cold room only in these 3 assembly cases. The roofing support is inserted between 2 boxes and is fixed with the axes aid.

After locating the position of the suspensions in the scheme accompanying the cold room, it must be prepared their placement in accordance with the following diagram.

After the panels assembling, the cavity around the threaded rod must be filled with silicone. Then it must be tightened the nut over the plastic sealing washer. This washer has a prominent part to enter the joint of the panels.

METHOD OF PLACING ROOFING PANEL SUPPORTS

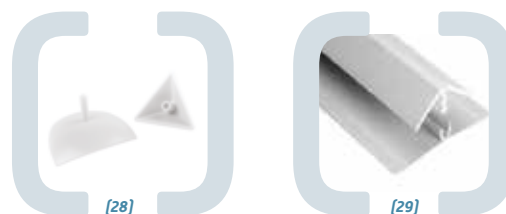
It is very important to scrupulously follow all these instructions, especially concerning tightness, which should be perfect outside the roofing panel.



FOLLOWING PROFILE KIT

The following profile kits consist of 2 parts, the PVC channel that is fixed to the wall, and the white PVC profile rounded in a quarter circle, clipped in this channel. For

each corner of the cold room, there is a finishing piece called the angled corner.



[28] Inner Corner and Outer Corner
[29] Following Profile

FRIEZE OR SKIRTING

Friezes or skirting's are white PVC profiles that are attached to the base of the vertical panels to ensure their protection. For this purpose, there are PVC parts that fit into the corners of the cold room as well as at the edges of the profiles.

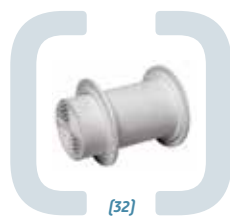
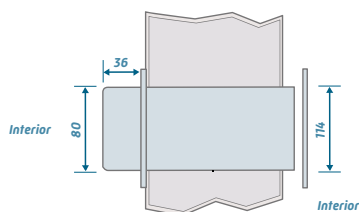


[30] Frieze
[31] Skirting

PRESSURE BALANCE VALVE

The cold room assembly instructions are accompanied by a complete guide for the installation of this element. There are two types of compensation valves, the use of which will depend on the volume of the cold room, according to the following table:

Inside Cold Room Temperature					
VOLUME (m³)	<-30°	<-20	<-15	<-10	<-5
<20	1*	1	1	1	1
<50	1*	2	2	2	2
<100	1*	1*	1*	1*	1*



[32] Pressure Balancing Valve T2-21

LAMELLA CURTAINS

They are made up of PVC lamellae that have hinged polyethylene supports mounted on PVC pipe. Transparent lamellae have a width of 200mm and a thickness of 2mm.

RAMPS

For the entire MATRIX range there's the possibility to incorporate steel ramps to suit the selected door entry and customer space requirements.

PLATE PROFILES

L, U, or Z profiles or bent flat are available in 3 coating versions:

- Stainless steel
- Pre-lacquered WHITE reference 1006
- Gray (RAL 9006)

These profiles are used to provide vertical and roofing anchorage to movable intermediate partitions, in order to coat uncovered panels, to improve the cold room finish.



MODULAR SHELVING

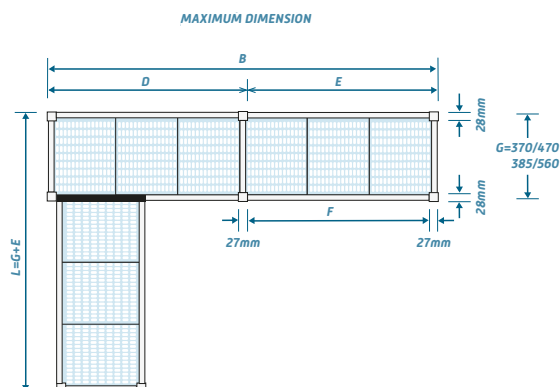
The MATRIX can be equipped with shelving made of anodized **15-micron** aluminium and certified for sanitary use.

Following the **Coldkit** product philosophy, these bookcases combine a functional and elegant design existence with a quick and simple assembly, along with a finish planed for

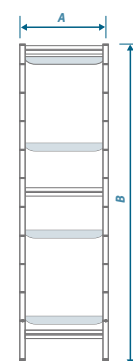


easy cleaning and maintenance.

In addition, its resident materials guarantee a shelf capacity of between **100** and **120kg**. Adjustable feet and levels possibility (up to 10), together with the angular assembly option, benefits perfect adaptation to the cold room interior space.



Dimensions in mm					
Line 370 / Line 470					
A	B	C	D	E	F
370	1670	650	644	618	591
470	2000	770	764	738	711
		890	884	858	831
		940	939	913	886
		1060	1059	1033	1006
		1180	1179	1153	1126
		1300	1299	1273	1246
		1480	1474	1448	1421
		1600	1594	1568	1541
Line 370 / Line 470					
385	1750	710	704	677	650
560	2000	820	814	787	760
		930	924	897	870
		1035	1029	1002	975
		1145	1139	1112	1085
		1255	1249	1222	1195
		1365	1359	1322	1305
		1470	1464	1437	1410
		1580	1574	1547	1520



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and hotel, restaurant
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COLDKIT

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