

# **Sectional Doors**



**Quality since 1967** 

**Reliable Doors & Docks** 

# WE HAVE THE SOLUTION

# **FOR YOUR COMPANY**





## **EXPORTING OVER 50 COUNTRIES SINCE 1967**

www.angelmir.com

The technical data and measurements shown in the catalogue are merely for guidance. For manufacturing data please contact our technical department. Angel Mir products are manufactured tailormade for each client. They are products made by the unit and not in series" All rights reserved. Constantly advancing and improving our products, ANGEL MIR reserves the right to modify models and features without prior notice. The technical data in this catalogue is published only for informative purposes, without this representing any commitment on the part of ANGEL MIR. No part of this catalogue may be reproduced, recorded on any kind of storage system or transmitted in any way by any procedure, whether it be electronic, mechanical, reprographic, magnetic or other means, without prior written authorisation from ANGEL MIR.

# The passion for the work well done, is the key of the Angel Mir growth.

For 50 years, we have manufactured industrial doors and solutions for logistics. We are present in more than 50 countries, developing doors for specific applications that are a reference in the international market.

Our exclusive and original patented systems are originated in our commitment to meet the needs of our customers to the smallest detail. Our equipment is designed to solve functional, safety, technical and aesthetic circumstances.

At Angel Mir, our range of equipment is unique because our goal is customer satisfaction; therefore, we advise and design each product according to the needs of each application and we take care of its installation. We also offer an after-sales service for maintenance and repair throughout the product's lifetime.

#### Ángel Mir

President









Angel Mir factories with 42.000 m<sup>2</sup>







#### **Energy efficiency**

Some products of **Angel Mir**\* have been designed to provide significant energy efficiency and reducing consumption of resources.

With our experience, we support and help our customers to carry out the projects with maximum energy savings through the most appropriate choice of our products. Also, depending on the sector, we recommend the most durable and suitable equipment for each application.

#### **Raw Materials**

For almost 50 years, **Angel Mir**° has always counted on local and European suppliers that provide the best raw materials, in order to achieve the best performance of its loading bay equipment and durability.

#### INDEX

SECTIONAL DOORS	4
WHAT IS A SECTIONAL DOOR?	6
SANDWICH	7
ALU-MIX	12
ALU-SECC	14
ALU-SECC VISION	18
FIBER-SECC	20
LOADING DOCKS	22
LINTELS	24
OPTIONS AND FINISHINGS	28
PEDESTRIAN DOORS	30
COMPONENTS AND AUTOMATISMS	32
FIRE-RESISTANT	34
RIPENNING SECC	36
MINERAL-SECC	38

# **SECTIONAL DOORS,** a model for each sector.



# Great thermal insulation for logistics

SANDWICH sectional doors 40 and 80 mm. for loading points



# **Greater brightness** in the industrial unit

Glass doors
ALU-MIX
ALU-SECC
ALU-SECC VISION



# Integrated in modern architecture

Glass doors
ALU-MIX
ALU-SECC
ALU-SECC VISION



# **Elegance**

Glass doors
ALU-MIX
ALU-SECC
ALU-SECC VISION



# **SECTIONAL DOORS,** a model for each sector.



# **Maximum transparency**

Glass doors
ALU-SECC VISION



# Design for door and façade

Glass doors ALU-MIX ALU-SECC ALU-SECC VISION SANDWICH



# Adapted to different sectors

Glass doors ALU-MIX ALU-SECC SANDWICH



# For commercial industrial units

Glass doors SANDWICH



The sectional doors form **Angel Mir**® are versatile doors that, due to their design and construction, can be adapted, in a safe and stylish manner, to a variety of architectural styles and to the most demanding conditions of use. They suit for both residential and industrial applications, and the great advantages of insulation and sealing, as well as safety and ease of use, make the sectional doors from Ángel Mir an effective and hard-wearing solution.

They are made basically by a series of panels that are lifted by lateral guides and compensated through a system of springs.

As their guide and lifting system has different configurations, it is possible to easily adapt them to any type of construction.

The great variety of finishes, such as sandwich panels in different colours, noble woods, marine board, etc., allow a perfect harmonization with the architectural style employed.

Sealing joints around the whole perimeter and between panels ensure a great insulation against the external inclemency thus avoiding that water, dust or air currents entering, also preventing losses of air conditioning. They have an exceptional smooth operation. The parts slide upwards on sturdy galvanized steel guides, by means of adjustable rollers of synthetic material that include ball bearings. This system provides smooth and quiet operation with minimal friction. As the compensating springs are very effective and are calculated by a computer program, the operation is smooth and without excess efforts. The connection between panels is achieved by continuous hinges made of extruded aluminium.

Sectional doors offer many **added values** that other locking systems do not have:

- Insulation and sealing.
- They do not occupy interior surface.
- They do not reduce the useful void.
- They do not need large side spaces.

- They do not invade the road outside.
- They fill internal obstacles (bridges, cranes, beams...).
- Safety and reliability.
- Wide range of models.



## Model **SANDWICH**

The **sandwich panels** are manufactured with two galvanized and pre-lacquered steel sheets having a high resistance to oxidation. In the chamber formed between them, high density polyurethane foam is injected, thus achieving a high thermal and acoustic insulation factor and a high mechanical resistance.

The panels can be manufactured in different thicknesses: from 40 to 80 mm., according to the insulating requirements. The panels of 80 mm. are intended for sectional doors in refrigerated storage facilities. The sealing between panels is achieved by polyurethane elastic joints.

The **Sandwich sectional doors from A ngel Mir** are the perfect equipment for energy-saving and secure locking in industrial units where regulating the air conditioning is required.

#### **Technical characteristics**

- Thickness: 40 mm.
- · Sheets thickness: 0.5 mm.
- Available widths: 500 mm, 610 mm and 740 mm.
- Weight per surface unit: 11.5 to 12.2 Kg/m<sup>2</sup>.
- Wind resistance: class 2
- Polyurethane density: 40.5 Kg/m3 (free of CFC).
- Thermal transfer coefficient: K= 0.50 / 0.53 W/m2.°K.
- Acoustic transfer coefficient. Weighted value of RW=26,5 dBA.
- Supplement of longitudinal steel to screw to the hinges is included.

#### **Automatisms**

Any of the described on p. 33.

#### **Dimensions**

Width 8.500 mm.; height 7.000 mm up to area of 48m<sup>2</sup>

#### **Options**

- Built-in pedestrian door.
- · Side pedestrian door.
- · Peepholes.
- · Ventilation grilles.
- Panels thickness (40/80mm).
- Components and options on p. 32.

#### **Safety devices**

- Safety brake by cable breakage.
- Safety brake by spring breakage.

#### **Finishing**

INTERIOR

- Surface of embossed sheet IN white RAL 9002 EXTERIOR
- Standard lacquers.
- Can be painted in any colour of the RAL chart.

See finishing and thickness options at p. 29.



Sandwich panel sectional doors with peepholes.



Sandwich panel sectional doors with peepholes and pedestrian door in car dealer.



Interior view of sandwich sectional doors in fire station.



Sandwich panel sectional doors with pedestrian door.



Sloping sectional doors in fire station.



Micro-profiled sandwich panel sectional door in automotive company.



Sandwich panel sectional doors with pedestrian door in car wash.



Sandwich panel sectional doors.

## Model **SANDWICH 3G**

The **reinforced sandwich sectional doors 3G** from **Angel Mir**\* provide greater strength and sturdiness, so they are recommended in the following cases:

- Sizes from 6,000 mm. width or 6,000 mm. height.
- Areas experiencing strong winds or air currents, such as tunnels, mines, etc.
- Areas of intensive traffic flow.

#### Differences with a standard sandwich door:

- 1 or 2 reinforcement omegas in each panel to avoid deformation.
- Vertical and curve guides of bigger size and thickness.
- Double side hinges.
- Safety brake system suitable for weight and sizes of each door.

- Support shaft of larger diameter rolling drums.
- · Large diameter metallic wheels.
- Greater length and thickness of the rollers shaft.

NOTE: In case of very large and heavy doors, these can be built without springs, but with a direct traction motor.



Sandwich panel sectional doors with peepholes in car dealer.



Double side hinge for 3" guide



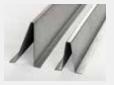
Safety of breakage protection cable for 3" doors and standard



Part of reinforced and standard shafts



Standard 2" and reinforced 3" guides



Reinforced and standard omega



Standard 2" and reinforced 3" curves



Metal rollers 3" and nylon rollers 2"



Sandwich panel sectional doors with peepholes.



Interior view of sectional doors in industrial unit.



Large sandwich panel sectional doors with side fixed and pedestrian door.

### Model **ALU-MIX** Doors with character open to light.

The glass sectional doors **Alu-Mix**® from **Angel Mir**® combine the beauty and strength of the glass panels with the resistance and insulation of the sandwich panels. They offer a wide variety of possibilities.

They are especially suitable for places where taking advantage of the natural light or having a better visual field is required; they also combine in different ways to be adapted to the working requirements.

The glass panels are manufactured with exclusive aluminium profiles, setting up a series of frames that can be filled with different opaque or transparent materials; for example, sandwich panels where good insulation or acrylic glasses are needed and where good visibility and/or illumination is required. The standard glazing is made with compact polycarbonate, a material that stands out for its extraordinary mechanical resistance and its tolerance to wear caused by solar radiation, as it is equipped with an anti-UV filter on its external face. Other types of glazing can be supplied: cellular polycarbonate (in case further insulation is wished) or methacrylate. The opaque panelling is made with aluminium sandwich panel of 14 mm thickness. The glasses are sealed by rubber joints and the sealing between panels is achieved also with the same material.

The sandwich panels are of galvanized and pre-lacquered sheet with polyurethane foam inside.

#### **Dimensions**

Maximum width: 8,500 mm. Maximum height: 6,000 mm.

For other sizes, please contact our commercial department.

Wind resistance: class 2

#### **Finishing**

The aluminium profiles and the sandwich panels can be painted with the chosen colour from the RAL chart.

#### Safety devises

- · Safety brake by cable breakage.
- · Safety brake by spring breakage.

#### **Automatisms**

Any of the described on p. 33.

#### Wide range of possibilities

- Number of opaque or glass panels: 1, 2, 3...etc.
- Door panel position: Lower (B), Central (C) and Upper (S).
- Type of panel: Glassed (A) and Opaque (O).



Door Alu-Mix® in food industrial unit. (1SA)



Door Alu-Mix® in garage repair. (2CA)



Door Alu-Mix® in workshop. (1BO, 1SO)



Door Alu-Mix® in automotive industry. (4SA)



Door **Alu-Mix**® in automotive industry. (4SA)

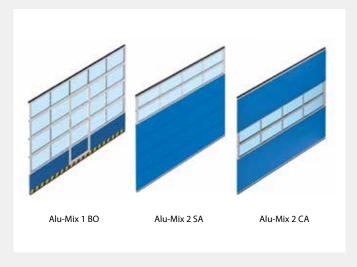


Door **Alu-Mix**® in garage repair. (1BO)

## Glazing options



## Examples of some of the multiple possible combinations



## Model **ALU-SECC**

#### Glass doors with maximum transparency, design and functionality

The glass sectional doors **Alu-Secc**° from **Angel Mir**° stand up for their beauty and strength.

They are specially intended for places where having a view into the interior and taking advantage of the natural light and a secure closing is required.

They are ideal for car dealers, workshops open to the public or constructions which are aesthetically special.

The glass panels are manufactured with exclusive aluminium profiles, setting up a series of frames that can be filled with different opaque or transparent materials; for example, sandwich panels where good insulation is needed or acrylic glasses where good visibility and / or illumination is required. The standard glazing is made with compact polycarbonate, a material that stands out for its extraordinary mechanical resistance and its tolerance to wear caused by solar radiation, as it is equipped with an anti-UV filter on its external face.

Other types of glazing can be supplied: cellular polycarbonate (in case further insulation is wished) or methacrylate. The opaque panelling is made with aluminium sandwich panel of 14 mm thickness. The glasses are sealed by rubber joints and the sealing between panels is achieved also with the same material.

#### **Dimensions**

Maximum width: 6,500 mm. Maximum height: 6,000 mm. Wind resistance: class 2

#### **Finishing**

Both, the aluminium profiles and the sandwich panels can be painted with the chosen colour from the RAL chart, except for the interior trims that are delivered in grey. Standard colours: anodised silver.

#### Safety devises

- Safety brake by cable breakage.
- Safety brake by spring breakage.

#### **Automatisms**

Any of the described on p. 33.

### Glazing options





Sectional doors Alu-Secc® chess arrangement in sports hall.





Sectional doors **Alu-Secc**® inside sports hall.



Exterior view of glass sectional doors **Alu-Secc**® in water park with glass fixed top.



Interior view of glass sectional doors **Alu-Secc**® in water park with glass fixed top.



Sectional door **Alu-Secc**® with perforated sheet.



Sectional door **Alu-Secc**® with side pedestrian door.

## Types of glass and aluminium panel



Transparent single polycarbonate of 3 mm.



Safety polycarbonate. Anti-scratch protection on both sides.



Transparent double polycarbonate of 3+3 mm.



Translucent single polycarbonate of 3 mm.



Cellular polycarbonate of 16 mm.; in bronze, white or translucent.



Aluminium sheet of 3 mm.



Aluminium sandwich panel of 6 mm.



Deploye sheet.



Aluminium perforated sheet.



Aluminium louvres for ventilation.



Door **Alu-Secc**® in garage.



Doors **Alu-Secc**® in fire station.



**Alu-Secc**® chess arrangement in fire station.



Interior view **Alu-Secc**® chess arrangement.



Glazed sectional doors on a hotel terrace.



**Alu-Secc® doors** on a restaurant terrace.



Exterior view **Alu-Secc**® doors with cellular polycarbonate.



Interior view **Alu-Secc**® doors with cellular polycarbonate.



Special sectional doors **Alu-Secc**® coated with aligned aluminium blades.



Interior view sectional doors **Alu-Secc**® in fire station.



Detail levelled sectional door **Alu-Secc**°.

## Model **ALU-SECC VISION**

# Glass doors having maximum transparency, design and functionality.

The glass sectional doors **Alu-Secc® Vision** from **Angel Mir®** stand up for their beauty and strength.

They are specially intended for places where having a view into the interior and taking advantage of the natural light and a secure closing is required.

They are ideal for car dealers, workshops open to public or constructions which are aesthetically special.

The glass panels are manufactured with exclusive aluminium profiles, setting up a series of horizontal frames that can be filled with acrylic glasses 6 mm thickness where good visibility and / or illumination is required. They stand out for their extraordinary mechanical resistance and for including an anti-scratch protection on both sides. Besides, being equipped with an anti-UV filter on their external face, they are resistant to wear caused by solar radiation.

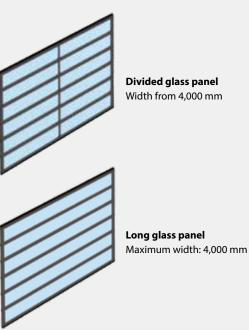
#### **Dimensions**

Maximum widht: 6,000 mm. Maximum height: 5,000 mm. Wind resistance: class 2

See sizes as per configuration.

Automatisms systems: anyone of page 33

# **Glazing configurations**





Sectional door **Alu-Secc® Vision** in automotive industry.



Sectional door **Alu-Secc® Vision** in garage repair.



**Alu-Secc® Vision** doors with divided glass panel in garage.



 $\textbf{Alu-Secc} \textbf{`Vision'} \ doors \ with \ long \ glass \ panel \ in \ showroom.$ 

## Model FIBER-SECC Ideal for outdoors including marine and corrosive environments.

The sectional door **Fiber-Secc Inox 316**° from **Angel Mir**° is the perfect door to be used outdoors and in corrosive and marine environments.

It is light, very resistant to impacts and corrosion and easy to clean. It is manufactured with insulating panels type of polyester and fiberglass sandwich. The interior finishing consists of a white Gel Coat and the exterior finishing of Gel Coat in different standard colours.

The guides and ironwork are made with stainless steel 316 and the torque springs comply with the quality requirements imposed by the standard DIN 17223-C.

The option of the springless weight compensation systems guarantees a longer service life with much less maintenance. Optionally, it can be equipped with one or two lower panels that include anti-impact and self-repairing system. This mechanism assures a greater resistance to the usual blows in this kind of facilities, avoiding frequent repairs of panels and consequently expensive invoices. See last pictures p. 21.

#### Differences with a conventional sectional door:

- · Composed sandwich panels.
- Exterior faces of polyester, reinforced with fiberglass and filled of polyurethane foam.
- Standard thickness 40 mm.
- · Lower panel very resistant to impacts.
- Self-repairing panel, optional.
- With springs and counterweights (only on vertical doors). Optional without springs (on automatic door).
- Guides and ironworks in stainless steel AISI 316.

#### **Maximum dimensions:**

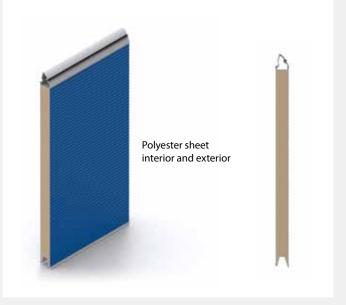
5,500 x 6,000 mm.





UNIQUE

Sectional door **Fiber-Secc**® in sea salt warehouse.





Fiber-Secc® in loading dock.



**Fiber-Secc** \* door in salt industry.



Fish market with **FFiber-Secc**® doors.



 $\textbf{Fiber-Secc} \ ^{\otimes} \ doors \ in \ tuna \ plant \ dock.$ 



**Fiber-Secc**® doors in motorway salt warehouse.



**Fiber-Secc**® with self-repairing lower panel in fish market.

## Model **ECO-DOCK** Sectional doors for loading docks



Sectional doors with peepholes in loading docks.

The loading points **Angel Mir**® are the result to combine three equipment with three specific functions:

- Loading ramp: bridges incline and void between the dock and vehicle.
- **Shelter:** isolates, protects and maintain climatic conditions when loading and unloading.
- Sectional door: closes and isolates thermally.

With the sectional door, manufactured with sandwich panels, a perfect sealing is guaranteed through sealing joints, while, at the same time, due to polyurethane being injected between sheets, isolates thermally the place. It can be manufactured in different types of lifting depending on the building characteristics. The door can be manual or automatic driven and can include mixed control panels, ramp/door.

#### **Options**

- Stainless steel ironworks and guides.
- Panels of 80 mm. for refrigeration facilities.
- Fiberglass panels for very corrosive environments.
- · Anti-impact panels.
- Peepholes.
- Safety switch to cancel the ramp in manual doors.

To ask for our special rates regarding standard sizes.

#### Guidance sizes for standard door voids for docks (in mm.)

	WIDTH	HEIGHT	1
HIDRA ramp	2,800	3,000	
HIDRA ramp	3,000	3,000	
TELESCO ramp	3,000	3,600	(Sectional door ahead ramp)
TELESCO (Isoperfect) ramp	3,200	4,000	(Sectional door ahead ramp)
TELESCO (Isoperfect) ramp	3,200	4,600	(Sectional door ahead ramp and down to the floor)

## Mixed control panels; door + dock leveller



Combi electromechanical motor for ramp and door.



RS300V+CS250 Combi electronic motor for ramp and door with telescopic auto-return.



Sectional doors, Hidra dock levellers and Versalight led lighting in loading bay.



Eco-Dock doors with glass panel in loading dock.



Outside view of Eco-Dock doors with glass panel in loading docks.



Inside view of Eco-Dock doors with glass panel.



Loading bay with Eco-Dock doors.

## **LINTEL OPTIONS**

## Reduced

Ideal when minimum space to fold the door.

Maximum light sizes: 6,000 x 5,000 mm. (width x height)

Maximum area: 30 m² Maximum weight: 350 kg

**Minimum lintel:** 200 mm. (horizontal guide = light width + 1,000 mm.) **Maximum lintel:** 300 mm. (horizontal guide = light width + 700 mm.)



## Normal

The normal lifting system is the most suitable because it allows the best operation of the door. A 450 mm lintel is required for both manual and automatic versions.

Maximum light sizes: 8,500 x 7,000 mm. (width x height)

Maximum area: 48 m² Maximum weight: 660 kg

Minimum lintel: 450 mm. (up to 5,500 mm height)

520 mm. (from 5,500 mm height)



## Normal on incline

This system allows making the most of all the advantages of a normal lifting because, as it follows the slope of the roof.

Maximum light sizes: 6,000 x 5,000 mm. (width x height)

Maximum area: 30 m² Maximum weight: 350 kg

Minimum lintel: de 450 mm. a 600 mm. Horizontal guide maximum incline: 35°



## **LINTEL OPTIONS**

## High lifting

It is considered high lifting when the lintel measures between 800 mm. and 3000 mm, in which case the horizontal available space is reduced, taking then advantage of the existing lintel.

Maximum light sizes: 8,000 x 6,000 mm. (width x height)

Maximum area: 48 m<sup>2</sup> Maximum weight: 800 kg Minimum lintel: 800 mm. Maximum lintel: 4,400 mm.



## High lifting with incline

It allows to take the maximum advantage of the interior height of the building and, at the same time, to follow the slope of the interior roof.

Maximum light sizes: 8,000 x 6,000 mm. (width x height)

Maximum area: 48 m<sup>2</sup> Maximum weight: 800 kg Minimum lintel: 800 mm. Maximum lintel: 4,400 mm.

 $\textbf{Horizontal guide maximum incline: } 35^{\circ}$ 



## Vertical lifting

In case of a lintel with equal or greater size than the useful height, it is possible to use the vertical lifting system (guillotine) to take advantage of the whole interior useful space. (Minimum horizontal available space).

Maximum light sizes: 8,000 x 6,000 mm. (width x height)

Maximum area: 48 m<sup>2</sup> Maximum weight: 500 kg

Minimum lintel: light height+370 mm.



# **LINTEL OPTIONS**

## **Model ECO loading point lower springs**

### **NEW SYSTEM LOWER SPRINGS**

Maximum light sizes: 3,200 x 3,100 mm. (width x height)

Maximum area: 10 m² Maximum weight: 130 kg

**Minimum lintel:** light height + 320 mm. **Centre springs:** light height + 800 mm.



## **Model ECO loading point upper springs**

Maximum light sizes: 3,200 x 3,600 mm. (width x height)

Maximum area: 12 m² Maximum weight: 130 kg

Minimum lintel: light height + 350 mm. Centre springs: light height 800 mm.



## Model ECO loading point high lifting lintel

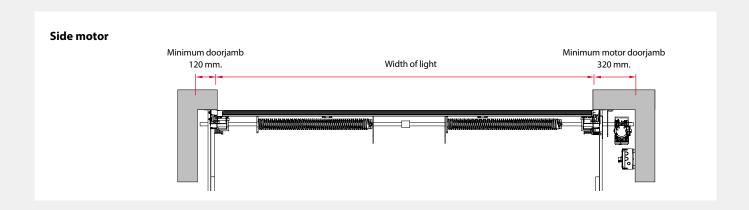
## **NEW SYSTEM LOWER SPRINGS**

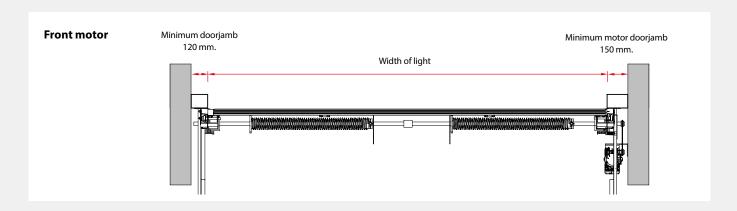
Maximum light sizes: 3,200 x 3,100 mm. (width x height)

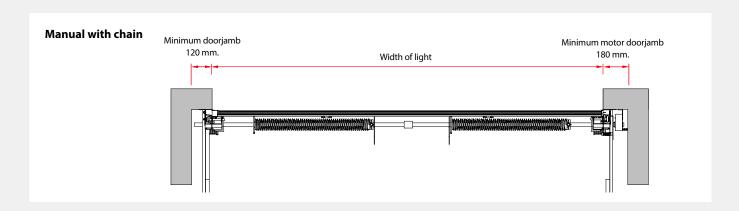
Maximum area: 10 m<sup>2</sup>
Maximum weight: 130 kg
Minimum lintel: 1,950 mm.
Centre springs: light height 800 mm.

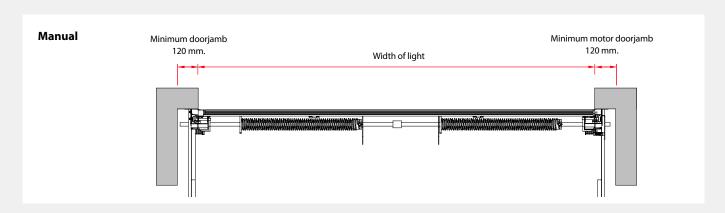


# **Occupied spaces**









## **Peephole options**



Rectangular peephole: **609 x 203 mm.** 



Rectangular peephole: **610 x 350 mm.** 



Round peephole: Ø 330 mm.

## Ventilation grille options



Ventilation grille: 344 x 138 x 40 mm.



Ventilation grille: 350 x 160 x 35 mm.



Ventilation grille: **550 x 260 x 35 mm.** 



Ventilation grille: 1050 x 360 x 35 mm.



Interior view of door with rectangular peephole and ventilation grille. Peephole 610 x 350 mm. Grille 1050 x 360 x 35 mm.



Sectional doors with rectangular peephole. Peephole 609 x 203 mm.



Pedestrian door with round peephole, flat panic bar and high skirting board.

## Panel finishes and thicknesses





#### **Rough corrugated**



#### Measures

Without passage door

PANEL 40 mm.	WIDTH maximum	HEIGHT maximum
Without passage door	12.000	6.000
With passage door (low skirting boar	d) 4.000	5.000
With passage door (high skirting boa	rd) 5.000	5.000
PANEL 80 mm.	WIDTH maximum	HEIGHT maximum

Consult dimensions according to the weight of the door.



12.000

6.000

Any colour RAL chart on request

# Micro profiled standard lacquered panels

(approximate RAL colours)



## FLAT LINE standard lacquered panels

(approximate RAL colours)



## Standard lacquered rough panels

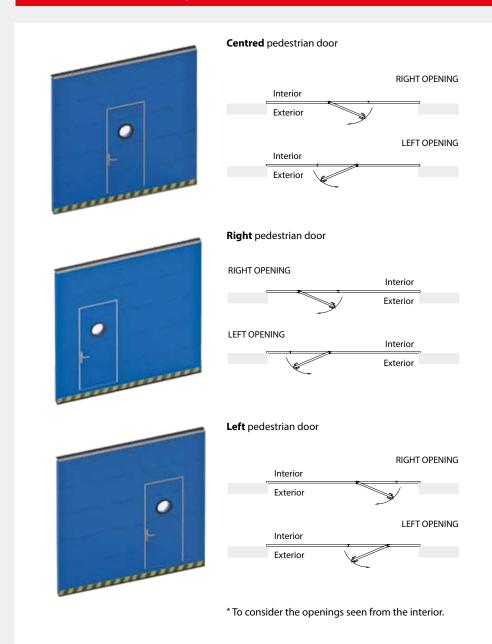
(approximate RAL colours)





29

## Pedestrian doors incorporated in sectional ones





Pedestrian door with yellow and black reinforced skirting board.

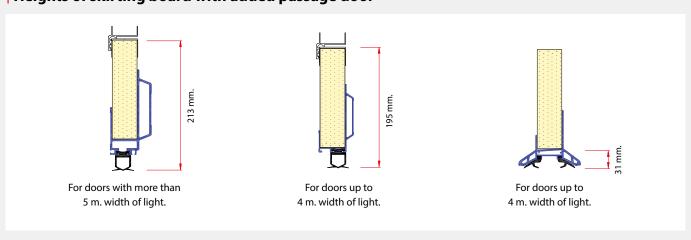


Pedestrian door with lower skirting board.



Part of safety spring and microphone.

# Heights of skirting board with added passage door



## Side sandwich pedestrian doors



View from behind of side sandwich pedestrian door.



Front view of side sandwich pedestrian door.

## **ALU ISO 40 BASIC Model**

Basic model of sandwich panel pedestrian door with anodized aluminium profiles and fixed lower skirting board. Sandwich panel of 40 mm.

#### Side pedestrian doors

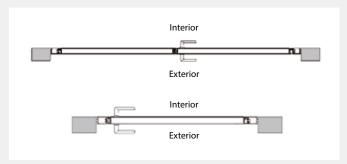


Double sheet door.



Simple sheet door.

#### Frames



## **ALU ISO 40 PLUS** Model

Sandwich panel pedestrian door with reinforced aluminium profiles painted in white or black. More resistant and aesthetic. Sandwich panel of 40 mm.

### Side pedestrian doors



Double sheet door.



Double sheet door with fixed top.



Simple sheet door.



Simple sheet door with fixed top.

#### Frames

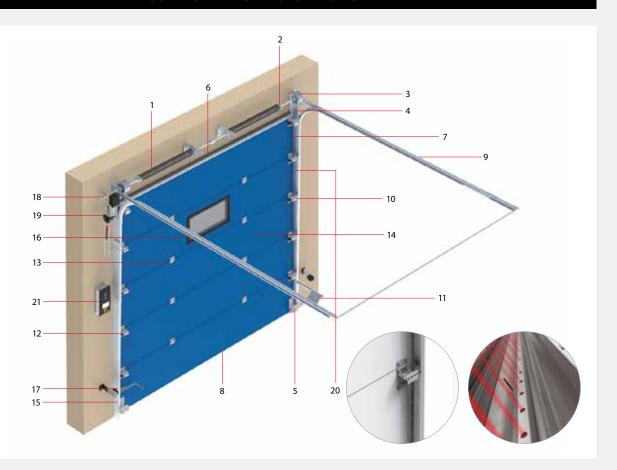




**Options available for both models:** panic bar, peepholes, 3-point security lock, retaining spring and interior reinforcement with 0.8mm sheet metal.

31

# **COMPONENTS AND OPTIONS**



	Function	Description	Finishing
1	Compensation (STA)	Torsion springs	Blasting treatment and grey painted
2	Safety (STA)	Safety brake by spring breakage	Galvanized
3	Compensation (STA)	Rolling drums, as per the type of lifting	Casting aluminium
4	Lifting (STA)	Non-spin steel cable *	Galvanized
5	Safety (STA)	Safety brake by cable breakage	Galvanized
6	Sealing (STA)	Rubber upper joint	Black
7	Sealing (STA)	Rubber and PVC side joint	Black
8	Sealing (STA)	Rubber tubular lower joint	Black
9	Guiding (STA)	Sliding guide of steel sheet	Galvanized
10	Guiding (STA)	Nylon rollers with ball bearings	Galvanized metallic parts
11	Safety (STA)	Anti-exit and thrust blocks	Galvanized
12	Hinging (STA)	Adjustable consoles to support the rollers	Galvanized
13	Hinging (STA)	Middle hinges to support panels	Galvanized
14	Sheet	Sandwich panels	Standard lacquered.
		Aluminium glass panels	Optionally, painted with polyurethane paint
		Wood panels	or anodized.
15	Locking	Side catch	Galvanized
16	Illumination (OP)	Peephole	Polycarbonate and black rubber
17	Safety (OP)	Emitter and photocell mirror with adjustable support	Grey lacquered 9006
18	Opening and closing (OP)	Shaft industrial motor	
19	Release (STA)	Unlocking handle with chain	Galvanized
20	Safety (OP)	Photocell curtain L2500 mm.	
21	Opening and closing (OP)	Control panel	

 $<sup>^{\</sup>star}\, \text{The anti-spin cables suffer less wear than the normal cables, considerably increasing their useful life}.$ 

<sup>\* (</sup>STA) standard. (OP) optional.

## **AUTOMATISMS SELECTION**

Door situation	Operating system	Ramp included	Type of panel	Automatism recommended	Compulsory electrical safeties	Connection with ramp
Loading bay	Present operator	No	Plate integrated in motor. Switches on bottom panel.	HP - Dock - EL -QI HP - Dock - OV - QI	No	No
Loading bay	Present operator	Yes	Plate integrated in motor. Switches on mixed panel	HP - Dock - EL - CM HP - Dock - OV - CM	No	Yes
Loading bay	Keypress	No	External control panel PA	AP - EL - CE AP - OV - CE	Contact band and photocell or photocell curtain	No
Loading bay	Keypress	Yes	Mixed control panel PA with switches door and ramp	AP - EL - CM AP - OV - CM	Contact band and photocell or photocell curtain	Yes
Iso Perfect	Present operator	Yes	Special Iso Perfect HP	HP - EL	No	Yes
Iso Perfect	Keypress	Yes	Special Iso Perfect PA	AP - EL	Contact band and photocell or photocell curtain	Yes
Standard	Present operator	No	Standard control panel HP	HP - EL - CE HP - OV - CE (if there are other loading point doors with this type of motor)	No	No
Standard	Keypress	No	Standard control panel keypress PA	AP - EL - CE AP - OV - CE (if there are other loading point doors with this type of motor)	Contact band and photocell or photocell curtain	No

<sup>\*</sup> The present operator automatisms must be operated from the side of the door. The operator must control the movement to avoid entrapment.

**HP** Present operator

AP Keypress

QI Internal plate with switch

CM Mixed panel

CE External panel

## **CHARACTERISTICS OF BLASTING AND PAINTED SPRINGS**

These springs are standard for all the doors from **Angel Mir**\*. The blasting springs meet the quality requirements imposed by the standard DIN 17223-C. They also have a traceability program from the beginning of the material casting to the set up and thermal treatment, being eventually subjected to a blasting effect.

The mentioned process consists of, once the spring is ready and before being painted, the "bombarding" with hundreds of small metallic particles at high speed and energy on to the exposed face of the metal is carried out. This process, in addition to improve the superficial finishing, produces a tension relief effect that increases the fatigue limit. These changes mean longer useful life and better response in the strength-weight ratio. The springs painted with a powder coating look better and, besides, the advantage of this system is the protection against corrosion.



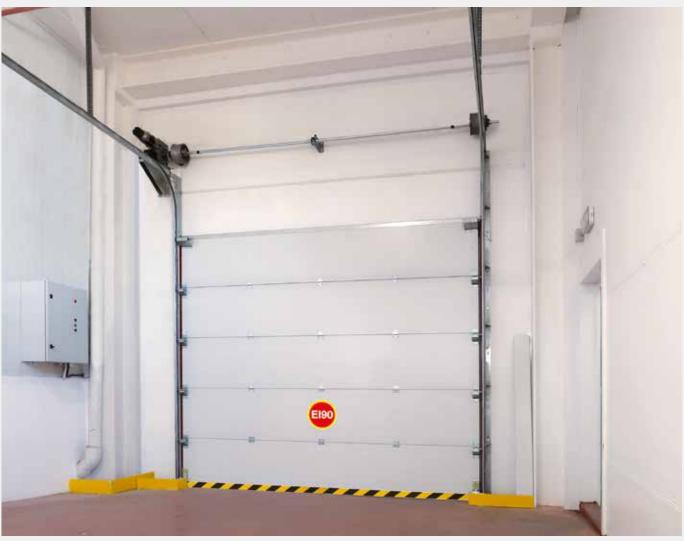
"Bombarding" installation of particles and powder paint.



Part of spring wire before and after applying the blasting.

 $<sup>^{\</sup>star}\, \text{The automatisms by keypress can be operated with remote drives: handles, remote controls, etc.}$ 

### Model **SECCFIRE** FIRE SECTIONAL 60' and 90'



Fire sectional door in warehouse.

The main function of the **fire sectional door SECCFIRE**\* is to subdivide the different rooms of the industrial unit in case of fire. Thanks to its design, it can remain open or operate as a normal sectional door both outdoors and indoors. Besides, it allows several types of elevation to be adapted to the available spaces, which makes it perfect for diverse applications such as theatres, goods lifts, car parks, conveyors, logistic warehouses, etc.

The whole structure is covered by materials that prevent flames, smoke and gases to escape and, at the same time, act as sealing joints that provide maximum sealing. The inner chamber is made of insulation composite having a density of 350 kg/m3 and a thickness of 60 mm. The finishing of the sheet structure is in smooth galvanized steel plate painted in white RAL 9010 or, optionally, in stainless steel 304 or 316. SeccFire includes an irreversible gear motor for no intensive use with integrated digital position switches; and it is located on the side of the door.

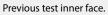
In case of fire, these doors guarantee a minimum resistance on both sides of the door of 60 or 90 minutes, depending on the model.

The control panel is connected to the fire alarm or to the smoke alarm; when receiving the alarm signal, the door drops through the motor movement or, in case of power failure, descends thanks to an UPS built into the control panel. Thanks to the safety system by auto-whitening photocells, a secure passage for people and vehicles is guaranteed.

### Maximum dimensions:

**El60 and El90:** 4,000 x 4,000 mm.







Previous test outer face.



Test inner face.

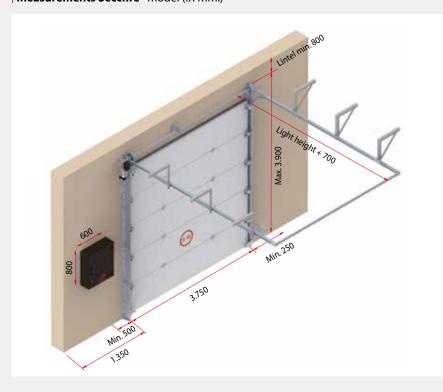


Test outer face.





Measurements Seccfire® model (in mm.)





## Model RIPENING SECC





**Intended for fruit ripening,** these sectional doors are of superior range to guarantee the adequate processing of the food with a hermetic and effective sealing.

The door **Ripening Secc**\* certifies the control of special factors in terms of temperature, humidity, cleaning or heat conditions; it **provides greater tightness to the gas**, thanks to the high-quality insulating materials with which it is manufactured and that provide a superb guarantee for the fruit cooling and ripening.

The side of this model is made of white lacquered steel and galvanized steel medium hinges and it always includes a **double acrylic window** that works as an **emergency exit**.

With the special designed rail, there is no need to build additional door frames, since a levelling around the opening is sufficient in most cases.

The right operation of the door, whether manual or electrical, is guaranteed by the high quality of the materials, improving the fitting of the panels. In addition, they are equipped with the latest safety measures and available in several standard colours.

#### Fruit ripening doors versions:

- Sandwich model (with different lintel options).
- Stackable model without horizontal guides or springs. (See photo).

#### **Maximum dimensions:**

5,500 x 7,000 mm.



# Air permeability certification: Class 6 / Water permeability certification: Class 3



**Ripening Secc**® door on fruit ripening room



Test of air and water permeability.



Detail of water permeability test.



## Fold-up door RIPENING SECC Model



Option fold-up model for reduced spaces.



Ripening Secc® fold up model.

## Model MINERAL-SECC® ROCK WOOL A1

The sectional door **Mineral-Secc**\* is a door to improve the thermal and acoustic insulation between the outside and the inside where the door is located, thanks to the rock wool filling inside.

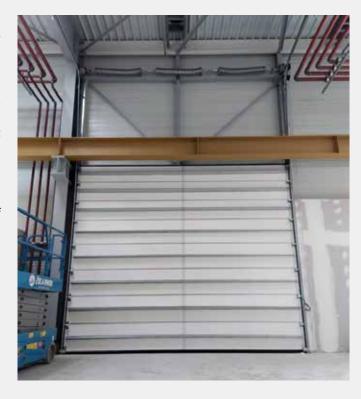
It is designed to be used in environments having high temperatures, between 60 and 100°C, for example paint booths, where panels with polyurethane are not appropriate, or places where polyurethane is not allowed. Thanks to its characteristics it can be used as a flame-arrester door. It is also ideal for insulating the loading points facing outside.

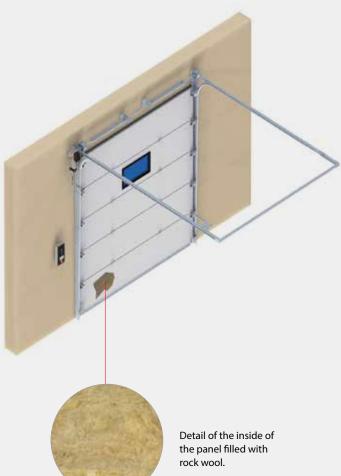
The panels are made up of two sheets of white galvanized steel or fibre fireproof sheet, filled inside with rock wool. It has fireproof reinforcements throughout the entire panel, joined together with an aluminium male/female.

The panels are raised by means of lateral guides and their weight is compensated through a spring system.

#### **Maximum sizes:**

4,500 x 4,500mm. (to inquire for special sizes).















GENERAL CATALOGUE



LOADING BAY EQUIPMENT



HIGH SPEED DOORS



SECTIONAL DOORS



ROLLER SHUTTER DOORS



FIRE RESISTANT DOORS







# **We are present in more than 50 countries** EUROPE, AFRICA, LATIN AMERICA, MIDDLE EAST, ASIA



Distributor:		

BARCELONA (Spain) Tel.: (+34) 972 640 620 Fax: (+34) 972 642 451

info@angelmir.com www.angelmir.com



angel mir porbisa



@angelmirporbisa



angel mir porbisa



angelmirporbisa



angel mir porbisa