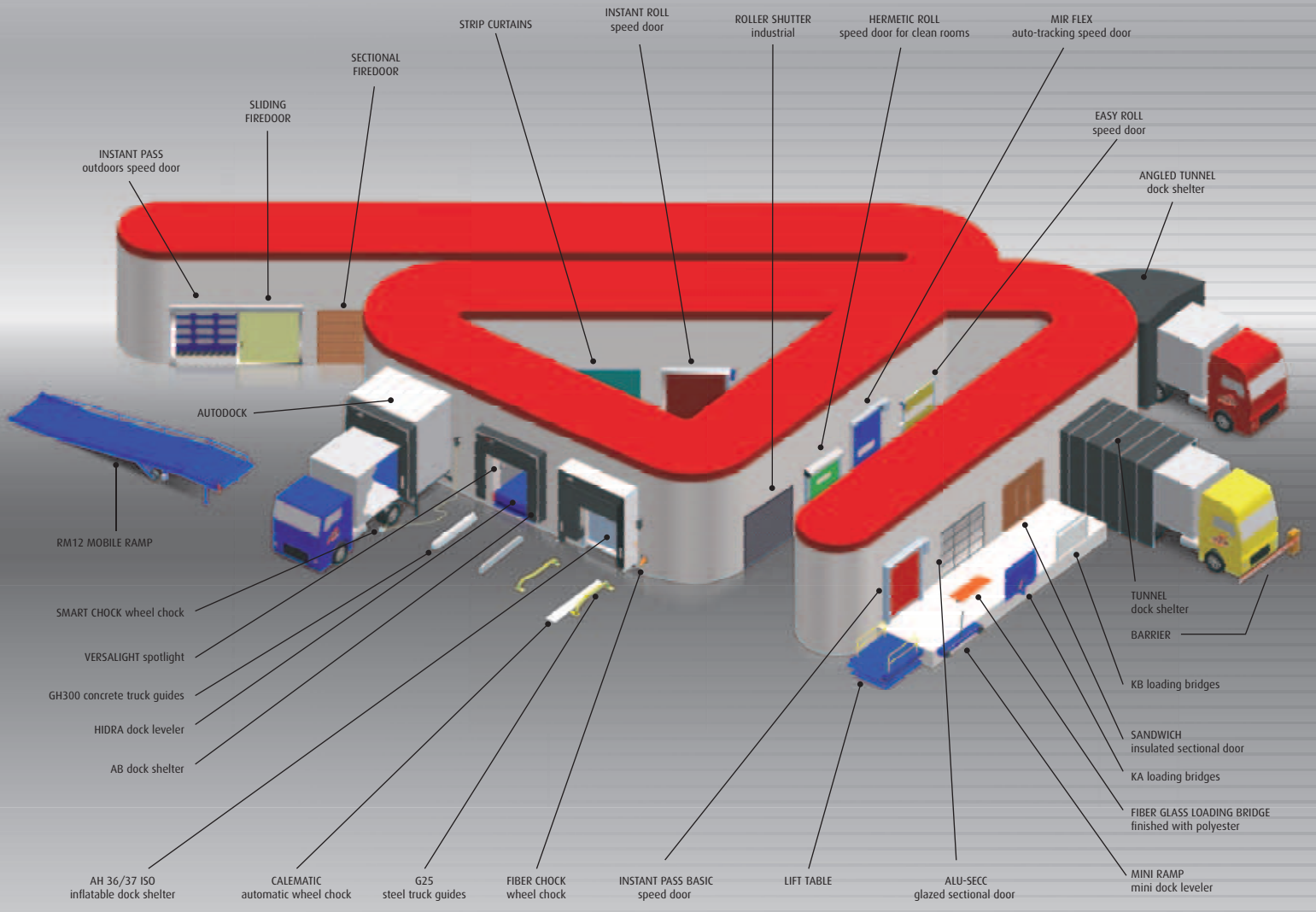
HIGH SPEED Doors

DOORS
ANGELMIR®
Since 1967



30 instant-pass®

years on the market

EXPORTING OVER 50 COUNTRIES SINCE 1967

www.angelmir.com

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

We are manufacturers with almost 50 years experience in industrial equipment for access management and logistics. We have developed special doors that are references within the industry. Patented systems, with own identity, have been created from our will to meet our customer's demands.

All custom made solutions are developed to resolve technical, operational, secure and aesthetical requirements.

Ángel Mir
President

Angel Mir factories
with over 22.000 m²

www.angelmir.com

DOORS ANGEL MIR®
Since 1967

ENERGY EFFICIENCY
THINK GREEN

INDEX

WHAT IS A HIGH SPEED DOOR?

A high speed door is a flexible and light-weight door, designed for intensive industrial use, which, thanks to the speed of operation, minimises air currents and ambient temperature losses and helps to make traffic flows more efficient.

The improvements to working conditions and savings in energy expenditure help to make these doors an investment which soon pays for itself.

An industrial maintenance door is opened on average between 200 and 400 times a day. A rigid automatic door, whether sectional, overhead or other, measuring approximately 4,000 x 4,000 mm, has a maximum waiting time for opening of approximately 10 seconds and for closing of 60 seconds. Therefore with a minimum of 200 operations a day, the door will be open for more than three hours per day.

When the same calculations are applied to a high speed door, with an operating speed of 1 m/s and a pause of 7 seconds (door opens in approximately 15 seconds), the difference in the speed of the operation is 45 seconds: More than 2.5 hours per day extra with the door closed!

This is equivalent to 2.5 hours of energy savings per day and a substantial improvement in productivity as waiting times for the door to open are reduced fivefold.

High speed doors can be divided into two main groups: those with an industrial fabric folding system (Instant-Pass) and those made of roll -up canvas (Instant- Roll, Mirflex, Hermetic-Roll, etc.).

Ángel Mir®, has manufactured high speed doors for 30 years, is a leader in the international market and complies with the most demanding safety requirements.

Applications have been developed for fold-up as well as roll-up models, in stainless steel and in standard models. Designed for all sectors; especially for the chemical, pharmaceutical and agro-food industries. Special designs include:

- Marine and corrosive environment resistant doors.
- ATEX certified doors for explosive environments. Powder or paint.
- Doors for robotic welding cells.
- Doors adapted to intelligent conveyor belt storage.
- Doors for clean rooms.
- Doors for refrigeration chambers up to -25ºC.

Ángel Mir® offers a number of closure systems made in sandwich panels in order to adapt the high speed door to your requirements:

- High speed sectional door with exterior (or interior) frame and pedestrian door.
- High speed up and over door with exterior (or interior) frame and pedestrian door.
- Sectional exterior door and high speed interior door.
- High speed door and side closure with pedestrian door.

HIGH SPEED DOORS MODELS

Doors **for outdoor use**

These doors are resistant to strong winds loads thanks to its reinforced design. Usually there are speed doors with stackable lifting system, but there may be some exceptions.

Instant Pass®

Instant Pass® PREMIUM

Instant Pass® BASIC

Instant Pass® ECO

Grand Pass® (Big dimensions)

Doors **for indoor use**

These doors are resistant to strong winds loads thanks to its reinforced design. Usually there are speed doors with stackable lifting system, but there may be some exceptions.

Instant Roll®

Instant Roll® ECO

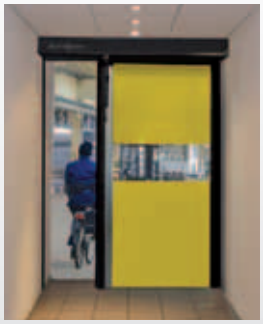
Instant Roll® BASIC

Easy Roll®

Mirflex® AUTO TRACKING

Mirflex® ECO AUTO TRACKING

Mirflex® ZIP AUTO TRACKING



Mono Pass® NOVOSPRINT (horizontal)

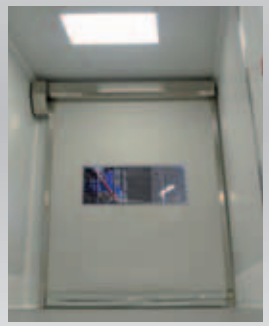
Doble Pass® NOVOSPRINT (horizontal)

Doble Pass® NOVOSPRINT HIGYENIC (horizontal)

Doors **for special use**

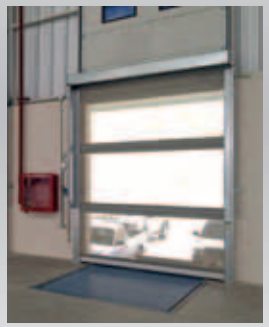
These doors are designed for a specific sector, considering each technical needs. The opening can be rolling or stackable.

Instant Pass® ISO (for cold rooms)



Hermetic Roll® for clean rooms (at pharmaceutical industry)

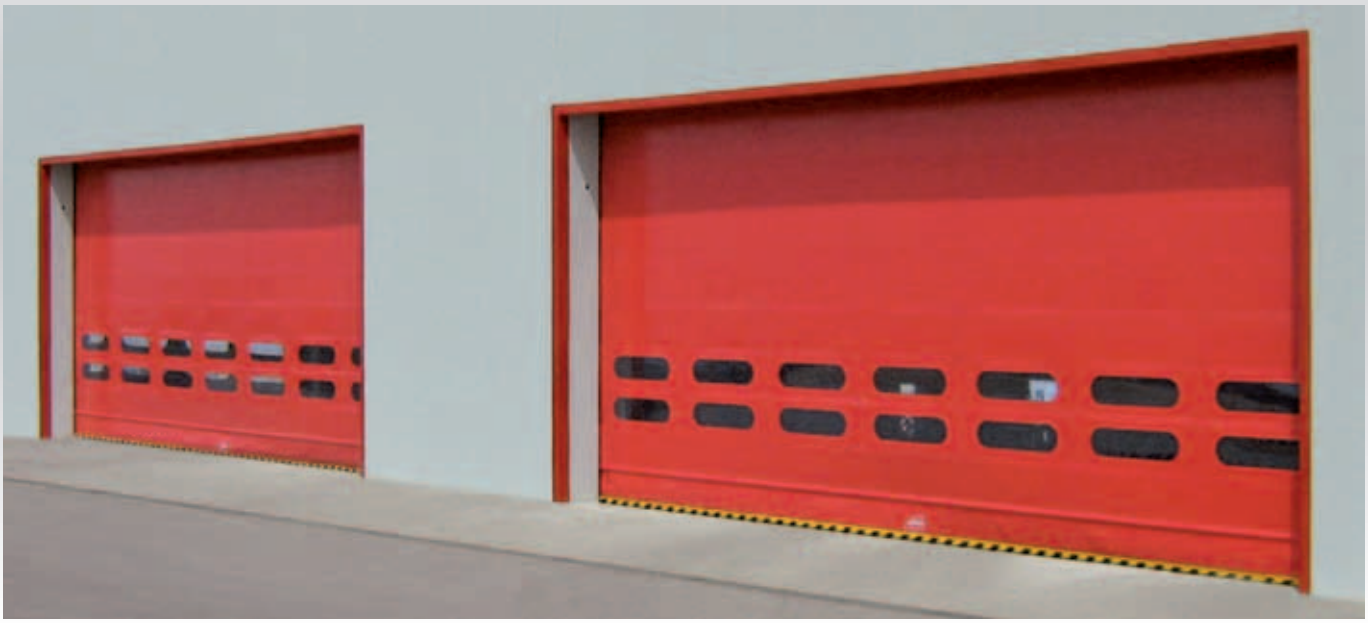
Instant Protect® (robots and machines)



Easy Roll® INSECT (mosquito net)

Instant Roll C3® (for cold & refrigerated rooms)

Model **INSTANT PASS®**



The efficient folding system fast door...
Specially designed for exposed entrances or entrances subject to significant changes in air current or wind without coming off the guides, without being subject to wear and tear, tears or deformations and remaining unaltered for many years.

Canvas specifications
The canvas is fitted with a series of side reinforcements, depending on the requirements of the works, in galvanised steel of different diameters or in "composite" material made of fibreglass or polyester manufactured by pultrusion. This material has extraordinary resistance to breaking (even with violent impacts from moving vehicles) and great flexibility, which is why it can be bent forcibly without causing permanent deformations. Rubber caps are mounted on the ends to prevent wear from friction and to reduce noise. The lower skirting is a fabric bag that enables perfect adjustment even on uneven floors. The bag is painted in yellow and black stripes, which indicates a hazardous transit area for material transport industrial vehicles.

*For range of colours and types of canvas see page 32.

Structure
Mainly manufactured from galvanised steel of different thicknesses depending on the application.

Reinforced sheet metal has been fitted to the insides of the guides and the platform to withstand the significant impacts they are subject to, without causing deformations. The standard format is delivered painted with polyurethane paint made of two highly resistant and durable components.

Standard RAL colour or, on order request, a colour selected by the customer.

Motor and control panel
Self-locking reducer motor for intensive use with integrated position mechanical switches. Electro-brake for exact positioning and locking the canvas. Manual release of the electro-brake with a handle. Manual opening system with a crank, actionable on foot from the floor. Control panel controlled by a programmable automaton, configured with a specific algorithm for this type of auctioning.
Some examples of use may be:
- Industrial environments
- Car dealers
- Washing tunnels, etc.

Special situations that do not enable standard configurations to be adapted may be studied by the Angel Mir projects department.

Options
- AISI 304L and 316L stainless steel structure.
- ATEX certified doors for explosive environments. Powder or paint.
- Sealing joints or brushes.
- Detachable vision panels.

Access security
Wireless contact band on the main edge and infra-red barrier at 500 mm from the floor.

Optional: Infra-red curtain up to 2.5 m height. This system has a series of photocells fitted one on top of another that create the infra-red barrier on the entire height of the door and up to 2 m high, which detects any object, including small objects, preventing lowering the door or raising it again if it has already begun to lower. Avoids physical contact with the door.

Performance of the air
Wind resistance as 12424: until class 4.

Dimensions
Maximum: 9,000 x 7,000 mm.
Please ask if larger sizes are required.

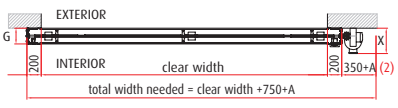
Instant Pass® repair workshop exterior assembly with cover, motor guard and printed sign.

Instant Pass® for loading bays in Eithad Towers of Abu Dhabi.

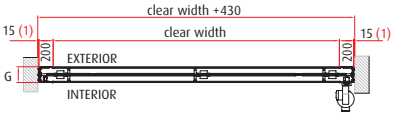
Lintel occupation. Approximate measurements (mm.)

SPAN HEIGHT mm.	2.500	3.000	3.500	4.000	4.500	5.000	5.500	6.000	6.500
Nº OF PANELS	5	7	7	9	9	9	11	11	11
B (LINTEL)	1.083	973	1.057	985	1.048	1.110	1.061	1.111	1.161

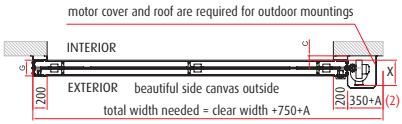
Installation measurements Instant Pass® (mm.)



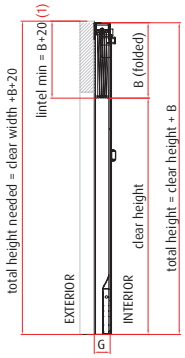
Side motor (internal overlapped)



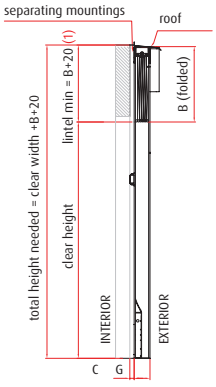
Front motor (between walls)



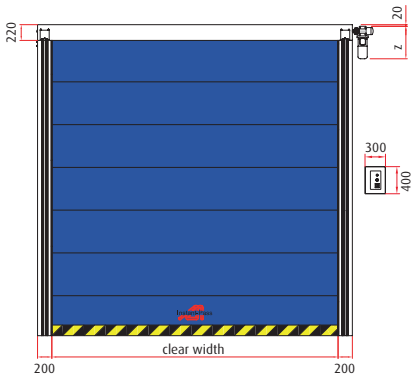
Side motor (external overlapped)



Side motor (internal overlapped)



Side motor (external overlapped)



(1) Exemption
(2) Space required for adjusting the end of the runway.
A Measurement A varies between 70 and 130 depending on the motor.
X Measurement X varies between 245 and 355 depending on the motor.
Z Measurement Z varies between 400 and 670 depending on the motor.
C For span width <4,000 C=60; for span width >4,000 C=90.
G Measurements vary between 200 mm and 500 mm.

Check the table for B measurements.

The figures provided here are intended for guidance only. Please ask our sales department to confirm any information.

Model **INSTANT PASS®** PREMIUM

Instant Pass® PREMIUM is the fastest stackable door on the market, up to 1.8 m/s. There are semi-rigid doors, very complete technically speaking and having a design very resistant and adaptable to virtually all kinds of voids. They are particularly suitable for areas with intense people flow having accesses of medium / large side, facing the exterior and / or with major air pressures – depressions.

Features of the canvas

The canvas is equipped with a series of cross reinforcements that, depending on the work necessities, are manufactured in galvanized steel of different diameters and thicknesses or in "composite" material of fiberglass polyester made by pultrusion. This material count on an extraordinary resistance to breakage (even through violent impacts made by vehicles in movement) and great flexibility, so it can bend strongly without permanent deformation.

The ends of the canvas have rubber caps that prevent the wear by friction, and reduce the noise. The lower socle is a band, thanks to it a perfect adjustment even in irregular floors is achieved. The mentioned band is screen printed with the safety symbols – black and yellow diagonal stripes – indicating the danger in a traffic area of industrial vehicles transporting materials.

Structure

The structure is self-supporting and made with galvanized steel. Inside the guides and the platform, and in order to support, without getting distorted, the significant stress to which they are submitted, reinforcements of folded metal sheet have been placed. It also incorporates anti-noise sealing joints into the lateral guides.

The finish of the structure is made with polyurethane painting of two components of great resistance and durability. With the RAL colour chosen or manufactured in Inox Steel AISI 304 or 316.

Engine and operation panel

Irreversible geared engine for intensive use with integrated sidelight mechanical switches. Electrobrake for a precise positioning and locking of the canvas. Manual release of the electrobrake through a handle. Manual opening system through a handle, which can be triggered standing on the ground. The engine is protected with a cover.

Elastic connection between the engine and the axle to absorb the vibrations and increase the reliability of the geared motor. The operation panel is controlled by a programmable controller, which is configured with a specific algorithm for this kind of drive. It incorporates a speed control that provides a quick rising of the canvas and a more gentle speed when lowering.

Options

- The canvas may incorporate viewing windows made of PVC glass quality.
- The vision panels may be detachable.
- Special canvas Flextex 1000-FR for stackable doors.

Access security

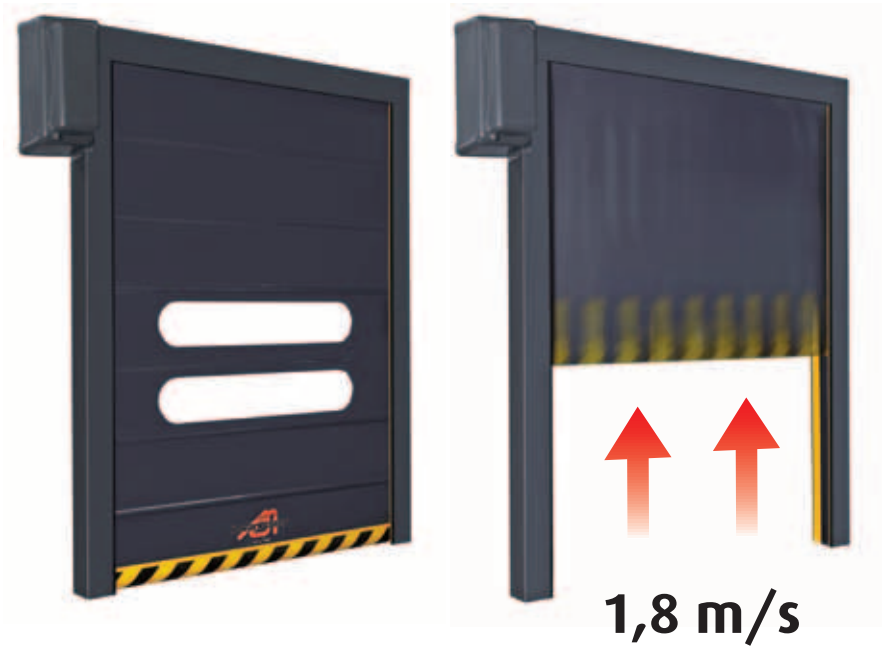
Infrared curtain up to 2.5 m high. This system consists of a series of photocells arranged one above the other creating an infrared curtain across the whole width of the door and to 2.5 m. height. That curtain detects any object, including the small ones, preventing the door lowering or lifting again if it has started to fall. Therefore avoiding physical contact with the door.

Performance of the air

Wind resistance as per 12424:
up to Class 4.

Dimensions

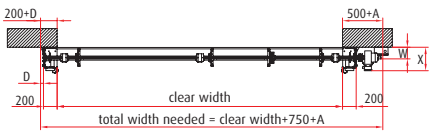
Maximum sizes: 5,000 x 5,000 mm.
To consult for larger sizes.



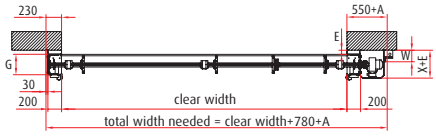
A detachable rod system allowing the replacement of the canvas by sections.

Sealing joints or brushes and infra-red barrier.

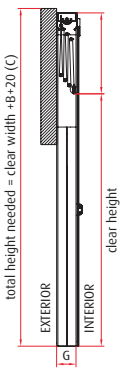
Installation measurements Instant Pass® PREMIUM (mm.)



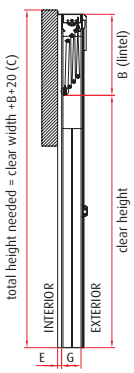
Side motor
(internal overlapped)



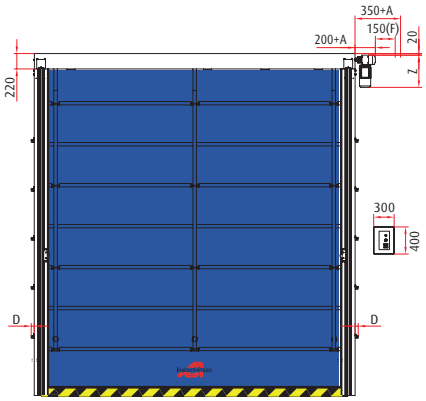
Side motor
(external overlapped)



Side motor
(internal overlapped)



Side motor
(internal overlapped)



(C) Exemption
(D) For doors until 25 m² D=46
For doors over 25 m² D=100

(E) For width until 4 m E=60
For width over 4 m E=90
(F) To regulate the limit switch

(A, B, G, X, Z) Check the tables

Model **INSTANT PASS®** BASIC

Instant Pass® BASIC at logistic warehouse.

Instant Pass® BASIC is the basic model of a door that has been successful for many years.

Built with practically the same specifications as its sister product, this is the perfect door for outdoor accesses and can withstand significant changes in the air current or wind without coming off the guides, without being subject to wear and tear, tears or deformations and remaining unaltered for many years.

Canvas specifications
The canvas is fitted with a series of side reinforcements in tubes of "composite" material made of fibreglass and polyester manufactured by pultrusion, which provides extraordinary resistance to breaking (even with violent impacts from moving vehicles) and can withstand significant air pressures without causing permanent deformations.

Rubber caps are mounted on the ends to prevent wear from friction and to reduce noise. The lower skirting is a fabric bag that enables perfect adjustment even on uneven floors. The bag is painted in yellow and black stripes, which indicates a hazardous transit area for material transport industrial vehicles.

*See page 32 for the colour range.

Structure
Mainly manufactured from galvanised steel of different thicknesses depending on the purpose of the task. Reinforced sheet metal has been fitted to the insides of the guides and the platform to withstand the significant impacts they are subject to, without causing deformations. It is delivered as standard in natural galvanised steel, although it may optionally be painted in RAL colour. Available in a stainless steel version.

Motor and control panel
Auto locking compact reducer motor with safety catch incorporated. Electronic control panel.

Usage recommendations
Some examples of use may be:
- Industrial environments
- Car dealers
- Washing tunnels, etc.

Special situations that do not enable standard configurations to be adapted may be studied by the Angel Mir projects department.

Access security
Option 1: Wireless contact band on the main edge and infra-red barrier at 500 mm from the floor.
Option 2: Infra-red curtain up to 2.5 m height. This system has a series of photocells fitted one on top of another that create the infra-red barrier on the entire height of the door and up to 2.5 m high, which detects any object, including small objects, preventing lowering the door or raising it again if it has already begun to lower. Avoids physical contact with the door.

Performance of the air
Wind resistance as per 12424:
up to Class 3.

Dimensions
Maximum: 6,000 x 6,000 mm.
Please ask if larger sizes are required.

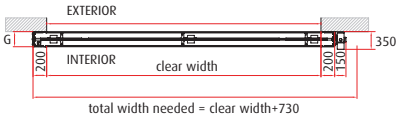
Instant Pass® BASIC.

Instant Pass® BASIC with double canvas.

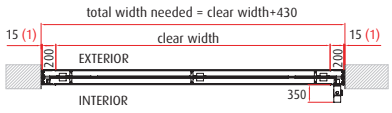
Lintel occupation. Approximate measurements (mm.)

SPAN HEIGHT mm.	2.500	3.000	3.500	4.000	4.500	5.000	5.500	6.000
Nº OF PANELS	5	7	7	9	9	9	11	11
B (LINTEL)	1.083	973	1.057	985	1.048	1.110	1.061	1.111

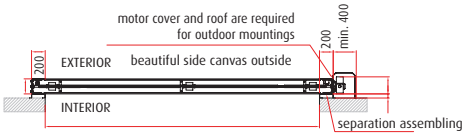
Installation measurements Instant Pass® BASIC (mm.)



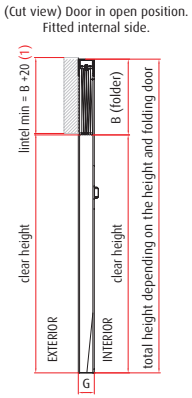
Side motor (internal overlapped)



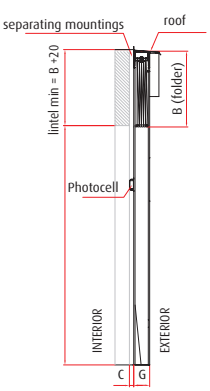
Front motor (between walls)



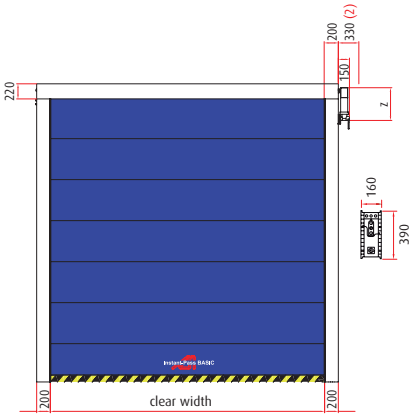
Side motor (external overlapped)



Internal overlapped



External overlapped



(1) Exemption
(2) Space required to assemble the motor.

Z Measurement Z varies between 245 and 522 depending on the motor.
C for span width <4,000 C=60; for span width >4,000 C=90.

G Measurements vary between 200 mm and 400 mm. Check the table for B measurements.

The figures provided here are intended for guidance only. Please ask our sales department to confirm any information.

Model **INSTANT PASS®** ECO

Instant Pass® ECO at pressure wash cars centre.

Instant Pass® ECO is the speed and stackable door suitable for small accesses facing outwardly and inwardly and / or having to withstand wind loads or important air pressures or depressions. Although its structure is lighter than other models Instant Pass, is a sturdy and solid door, designed for continuous use.

Features of the canvas

The canvas is equipped with a series of cross reinforcements that, depending on the work necessities, are manufactured in galvanized steel of different diameters and thicknesses or in "composite" material of fiberglass polyester made by pultrusion. This material count on an extraordinary resistance to breakage (even through violent impacts made by vehicles in movement) and great flexibility, so it can bend strongly without permanent deformation.

The ends of the canvas have rubber caps that prevent the wear by friction, and reduce the noise. The lower socle is a band, thanks to it a perfect adjustment even in irregular floors is achieved. The mentioned band is screen printed with the safety symbols – black and yellow diagonal stripes – indicating the danger in a traffic area of industrial vehicles transporting materials.

Structure

The structure is self-supporting and made with galvanized steel. The finish is in steel sheet lacquered in Blanco Pirineo colour.

Engine and operation panel

Irreversible geared engine for intensive use with integrated sidelight mechanical switches. Electrobrake for a precise positioning and locking of the canvas. Manual release of the electrobrake through cable handles. The canvas is moved via a handle incorporated in the engine itself. Electronic operation panel.

Instant Pass® ECO with vision panels in repair workshop.

Access security

Wireless contact band on the main edge and infrared barrier at 500 mm from the ground.

Options

The canvas may incorporate viewing windows made of PVC glass quality and the engine may be front mounted with chain drive.

Performance of the air

Wind resistance as per 12424:
Class 2.

Dimensions

Maximum: 5,560 x 4,900 mm.

Lintel occupation.

Approximate measurements (mm.)

SPAN HEIGHT mm.	Nº OF PANELS	B (LINTEL)
2.500	5	1.083
3.000	7	973
3.500	7	1.057
4.000	9	985
4.500	9	1.048
5.000	9	1.110

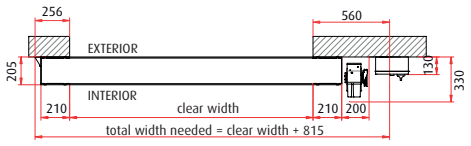
Instant Pass® ECO in distribution warehouse.

Instant Pass® ECO in paper industry.

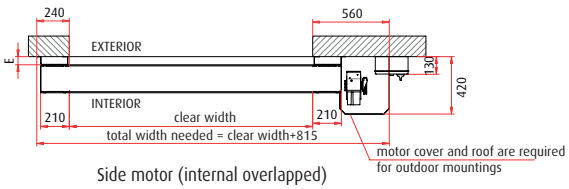
Instant Pass® ECO in supermarket warehouse.

Instant Pass® ECO in supermarket warehouse.

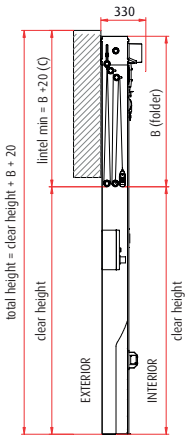
Installation measurements Instant Pass® ECO (mm.)



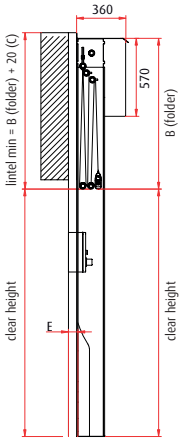
Side motor (internal overlapped)



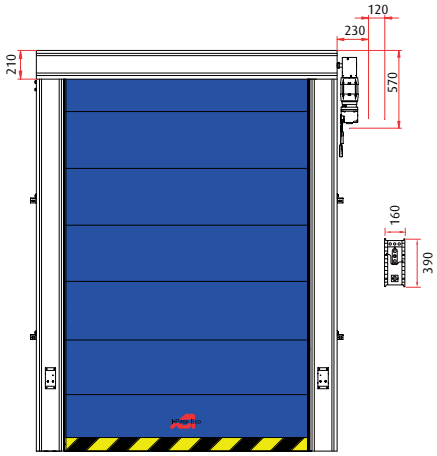
Side motor (internal overlapped)



Inside installation



Outside installation



(B) Exemption Exemption of installation

(E) For width until 4000 E = 60
For width over 4000 E = 90

The figures provided here are intended for guidance only. Please ask our sales department to confirm any information.

Model **INSTANT PASS®** ISO

Instant Pass® ISO.

Instant Pass® ISO.

Ángel Mir® Instant Pass® ISO doors have been refined based on continual demand for high speed doors for refrigerated chambers. Designed to resist low temperatures.

Canvas specifications

The mobile curtain is made up of a series of panels, made up of a double fabric wall made from Trevira impregnated with PVC and a flexible polyurethane foam insulating laminate on the inside. The panels are pre-formed so that they fold easily on the creases. Polyamide locking joint on the ends of the mobile curtain.
Waterproof insulating canvas on the upper front of the mobile curtain.
Roll-up PVC cover on the upper part of the platform for maintenance access to the shaft case. The composite side reinforcements, sheathed in canvas enable the door to withstand pressures from air currents caused by differences in temperature or open doors. The material they are made of enables them to withstand strong impacts without breaking or causing permanent deformations.

Structure

Mainly manufactured from galvanised steel of different thicknesses depending on the purpose of the task. Reinforced sheet metal has been fitted to the insides of the guides and the platform to withstand the significant impacts they are subject to, without causing deformations.
Special brushes for low temperatures are placed on the mountings to improve the seal. There is an option for insulated and heated mountings.

Motor and control panel

Self-locking reducer motor for intensive use with integrated position mechanical switches. Designed to withstand low temperatures. Heating motor option. Electro-brake for exact positioning and locking the curtain with increased protection for preventing moisture from entering and ice from forming.
Manual release of the electro-brake with a handle. Manual opening system with a crank. Control panel with polyester box and increased protection. Control panel controlled by a programmable automaton, configured with a specific algorithm for this type of auctioning.
The security photocells are heated to prevent ice formation.

Characteristics

This model DOESN'T work as the only door for negative chambers, separating positive temperature environments. It should always be combined with a cooler sliding door.
In order to prevent the formation of ice or frost, these doors must be assembled in dehumidified areas. They cannot be mounted as a separation between freezing chambers and areas having temperature and humidity around them.
They cannot include transparent window. Usually, the operation panel should be assembled on the positive side. If installed in negative zone, it should be heated.
Maximum temperature – 25º.

Options

- Painted and galvanized steel structure.
- Insulated and heated guides.
- Heated operation panel.
- Heated engine.

Performance of the air

Wind resistance as per 12424:
Class 2.

Dimensions

Maximum: 4,000 x 4,000 mm.

Lintel occupation.

Approximate measurements (mm.)

SPAN HEIGHT mm.	Nº OF PANELS	B (LINTEL)
2.500	5	1.083
3.000	7	973
3.500	7	1.057
4.000	9	985

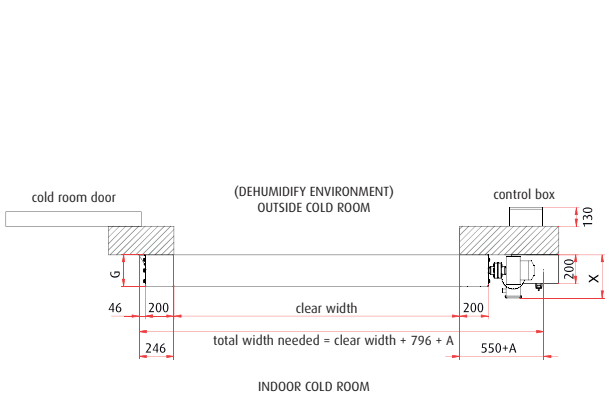
Instant Pass® ISO in distribution warehouse of freezing products.

Instant Pass® ISO in cold room.

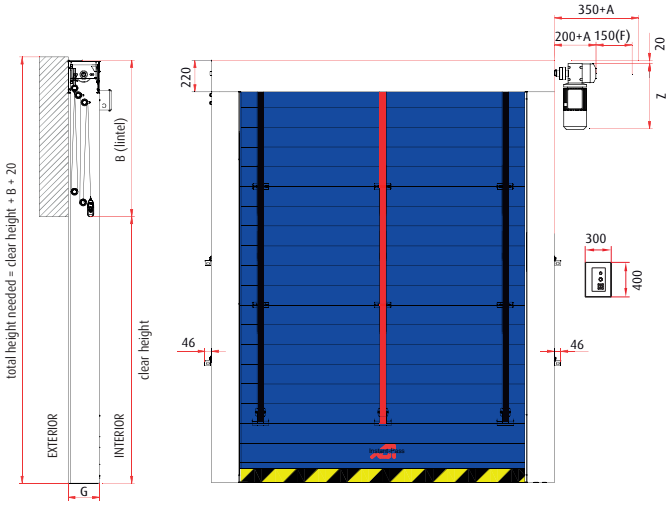
Instant Pass® ISO in freezing warehouse with roller belt between two negative temperature environments.

Detail of canvas with thermal isolation.

Installation measurements Instant Pass® ISO (mm.)

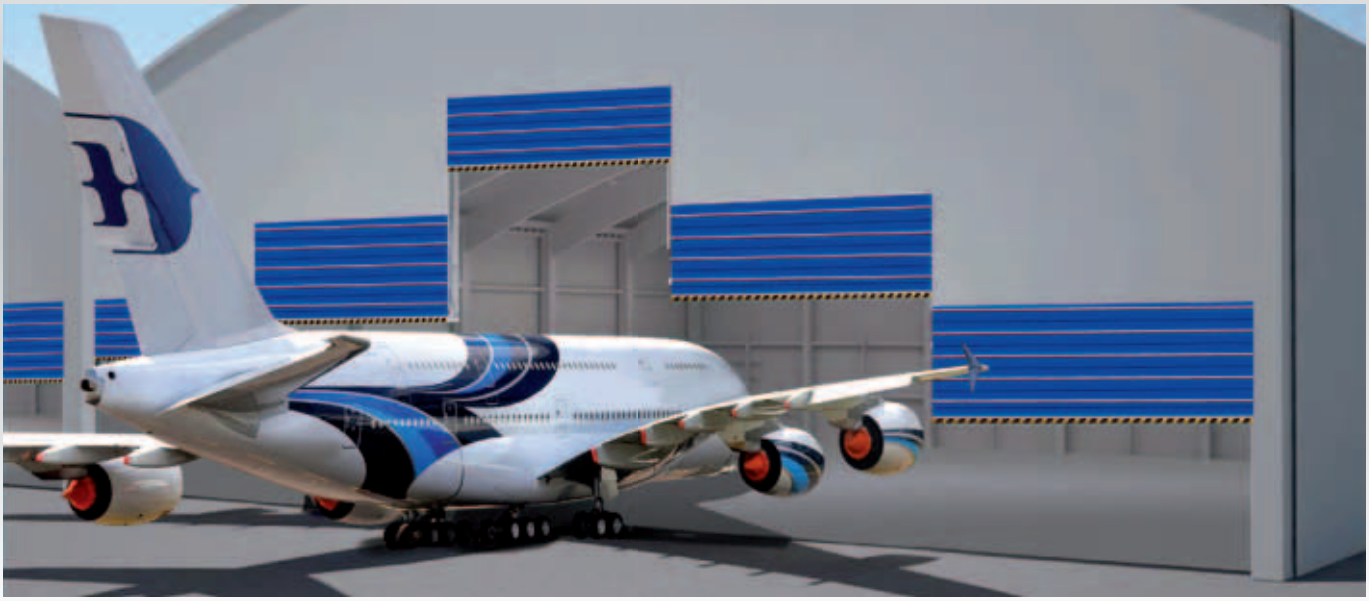


A, B, G, X, Z Check the tables



Inside installation

Model **GRAND-PASS®**



Grand Pass® for hangars.

Fast doors designed for large openings and high wind pressures.

The mobile curtain is made up of a series of panel made up of a double canvas wall made from plasticised trevira.

The canvas specifications may vary depending on the application with different thicknesses or reinforced with a vandal-proof steel cable fabric.

This is fitted, sideways, with reinforcements made with extruded aluminium structural tube. Varying the layout and quantity of these elements may increase resistance to wind.

Polyester straps pull the aluminium tubes upwards, so that the whole curtain is folded on the upper platform, which houses the motors, shafts, pulleys and pull-up mechanisms.

The vertical guides are manufactured from galvanised steel plate and are fitted with a series of internal reinforcements to withstand the stresses from the wind, calculated according to customer requirements.

For wider spaces, groups of individual doors can be used; the central guides are dismountable or retractable, and once group of doors have opened, the guides retract, manually or automatically, giving maximum width of passage.

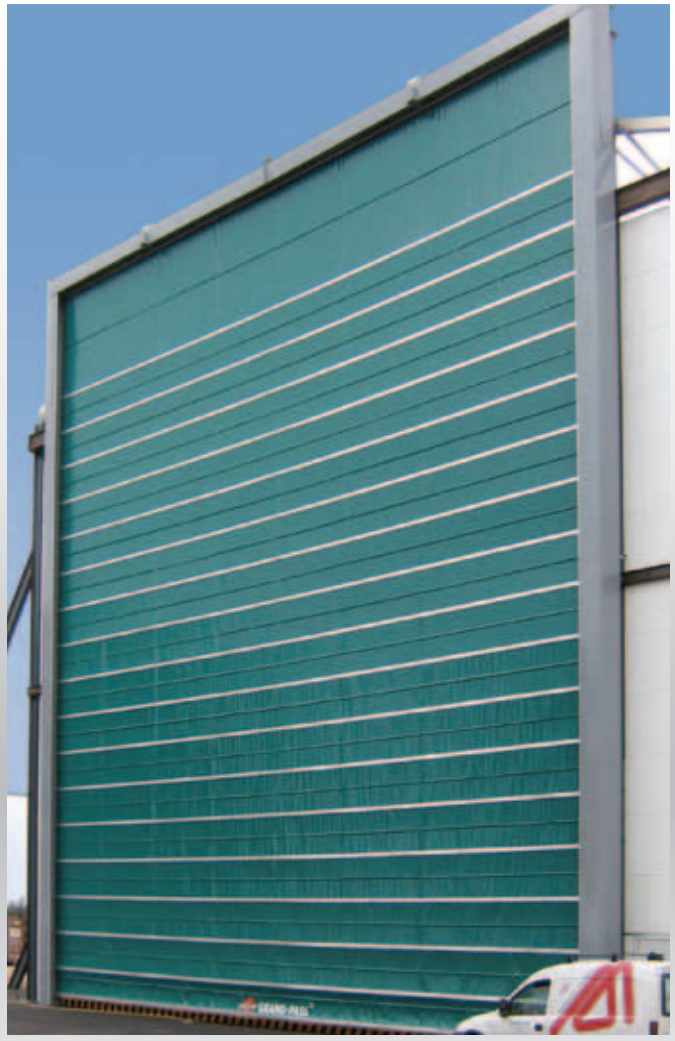
Once the large vehicle has entered the warehouse, the guides are returned to the correct positions and the doors operate individually.

Given the complex nature of these types of doors, the specifications required for this application are determined in a technical study.

Performance of the air
Wind resistance as per 12424:
up to Class 4.

Applications
- Aeronautics industry
- Naval industry
- Removable hangars
- Gantry cranes
- Steel industry
- Waste treatment plants
- Grain silos
- Large dimension painting cabins

Grand Pass® in a waste treatment plant.



Grand Pass® in a shipyard.

Grand Pass® silo/tank manufacturing company.

Model **INSTANT ROLL®**

Instant Roll®

Instant Roll® in a logistics centre.

Instant Roll® with front motor.

The outer frame is a self-supporting frame made of galvanised and painted steel plate, made up of two posts, which act as guides and supporting base (the edges that come into contact with the fabric are protected by industrial brushes which minimize friction and increase the seal), and an upper beam in the form of an accessible drawer.

The aluminum roller shaft is inside the platform, mounted on supports with bearings. The curtain rolls onto the shaft. The structure is self-supporting and is secured with simple reinforcement anchorage and thus does not require major fastening systems on site.

Canvas specifications
The canvas has a series of transversal reinforcements, which provide the resistance required for the air pressure currents it will endure.

The lower skirting is a PVC bag, enabling perfect adjustment on uneven floors. The bag is painted in yellow and black stripes, for greater identification of the transit area.

Applications:
- Agro food industry.
- Supermarkets.
- Shopping centres.
- Laboratories.
- Industries.

Recommendations
It is designed to fit in almost any space. Special situations that do not enable standard configurations to be adapted may be studied by the Angel Mir projects department.

Options
- Emergency opening system by means of UPS or mechanical system.
- AISI 304L and 316L stainless steel structure.
- ATEX certified doors for explosive environments. Powder, paint or gas.
- See-through canvas.
- Double isolation canvas.

Access security
Option 1: Wireless contact band on the main edge and infra-red barrier at 500 mm from the floor.

Option 2: Infra-red curtain up to 2.5 m height. This system has a series of photocells fitted one on top of another that create the infra-red barrier on the entire height of the door and up to 2.5 m high, which detects any object, including small objects, preventing lowering the door or raising it again if it has already begun to lower. Avoids physical contact with the door.

Performance of the air
Wind resistance as per 12424:
Class 1 up to 4,000 x 4,000 mm.
Class 0 up to 5,000 x 5,000 mm.

Maximum dimensions
5,000 x 5,000 mm.

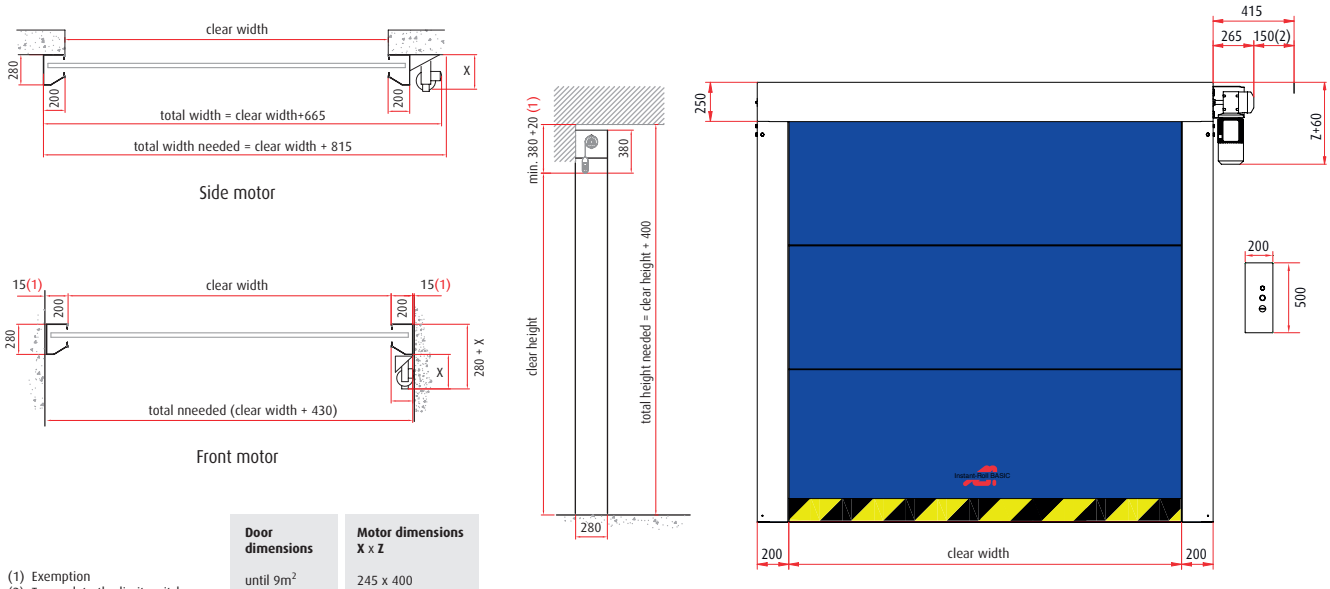
Instant Roll® in food industry.

Instant Roll® two-colour canvas in the pharmaceutical industry.

Instant Roll® with see-through canvas in cars reception.

Instant Roll® in food industry.

Installation measurements Instant Roll® (mm.)



Door dimensions	Motor dimensions X x Z
until 9m²	245 x 400
until 21m²	300 x 470

(1) Exemption
(2) To regulate the limit switch

Model **INSTANT ROLL®** ECO

Instant Roll® ECO is the lightweight version of the Instant-Roll door. It has adequate provisions for medium size openings with moderate air pressure for indoor use.

Structure

The curtain is situated between two mountings in a U shape, which act as a guide and support base for the entire set. It is reinforced, on the inside, with profiles that provide the resistance required to resist the forces it will be subject to and to withstand the weight and forces of the upper shaft with the curtain and the motor. A rounded aluminium profile is mounted on the outside edge which, in addition to reinforcing the base, reduces friction on the canvas.

There is an industrial brush on the inside edge, which minimises air entry and smoothes friction on the canvas. The supports are situated on the head, which support the aluminium shaft, mounted on ball bearings, on to which the curtain rolls and the motor is fastened. They are made from galvanised steel and pre-lacquered in white and the supports and other accessories are made from galvanised steel in different thicknesses depending on the application requirements.

The bases are fastened to the floor and the head to a light structure that prevents swaying. In order to ensure greater resistance to frontal forces, one or two middle fastenings are required depending on the height. The shaft can optionally be covered with a sheet cover pre-lacquered in the same colour as the mountings.

Curtain specifications

The canvas has a series of lengthwise reinforcements, which provide rigidity and the resistance required for the air pressure currents it will endure. A concave/convex profile made of "composite" materials is sheathed in the curtain.

This profile has extraordinary resistance to breaking (even with violent impacts from moving vehicles) and can withstand significant flexing without causing permanent deformations. The lower skirting is a PVC bag, enabling perfect adjustment even on uneven surfaces. The bag is painted in yellow and black stripes, for greater identification of the transit area.

Motor and control panel

Compact self-locking reducer motor for intensive use with integrated position mechanical switches. Internal safety catch.

Electro-brake for exact positioning and locking the canvas. Manual release of the electro-brake with handles. Manual opening system with a crank or chain.

Control panel: Single phase 220 V power supply and control panel with programmable automaton and with a frequency converter for regulating speeds.

Access security

Infra-red curtain up to 2.5 m height. This system has a series of photocells fitted one on top of another that create the infra-red barrier on the entire height of the door and up to 2.5 m high, which detects any object, including small objects, preventing lowering the door or raising it again if it has already begun to lower. Avoids physical contact with the door.

Options

- Emergency opening system via UPS with single phase panel.
- AISI 304L and 316L stainless steel structure.
- Double canvas
- See-through canvas
- Sealing joints

Performance of the air

Wind resistance as per 12424: Class 0.

Dimensions

Maximum: 4,500 x 4,500 mm.

Detail of infra-red barrier.

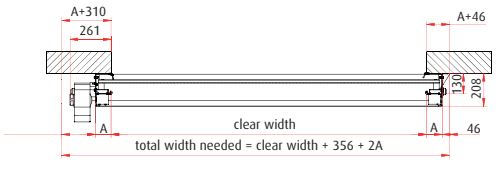
Instant Roll® ECO in repair workshop.

Sealing joints and double canvas option.

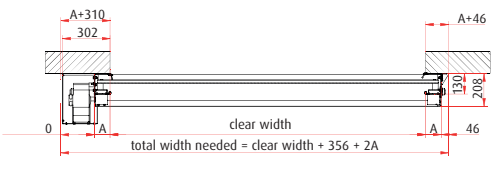
Instant Roll® ECO in freezing logistic center.

Instant Roll® ECO STAINLESS version.

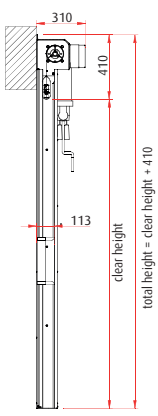
Installation measurements **Instant Roll**® ECO (mm.)



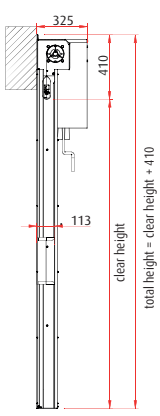
Standard



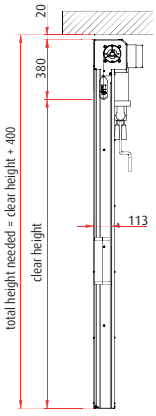
With motor cover (optional)



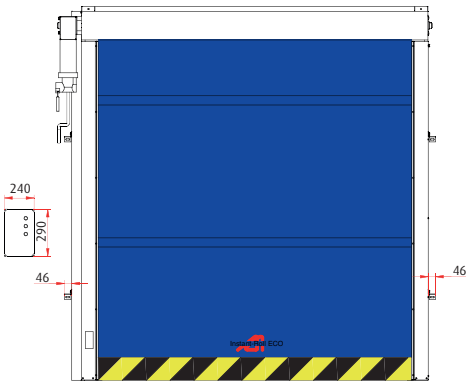
Standard



With motor cover (optional)



With front and rear covers



(A) For clear width over 3.000 A=100
(A) For clear width over 3.000 A=150

Model **INSTANT ROLL®** BASIC

Instant Roll® BASIC STAINLESS with simple canvas.

The speed rolling door Instant Roll BASIC are suitable for medium-sized voids located indoors and having an intense flow, as in production and storage areas. They have been designed to occupy a minimal space and capable to withstand light air pressures-depressions.

Features of the canvas

The canvas incorporates a number of longitudinal reinforcements providing stiffness through a concave-convex tubular profile, made with "composite" materials, that is inserted into a cladding on the canvas. This profile count on an extraordinary resistance to breakage (even through violent impacts made by vehicles in movement) and a great flexibility, so it can bend without permanent deformations.
The lower socle is a band, thanks to it a perfect adjustment even in irregular floors is achieved. The mentioned band is screen printed with the safety symbols – black and yellow diagonal stripes – indicating the danger in areas having vehicles flow.

Structure

The structure is self-supporting thanks to the guide reinforcement profiles made of prelacquered galvanized sheet, and to its upper platform built with the same material.

Motor and control panel

The door Instant Roll Basic carries an irreversible compact geared motor for intensive use. On the other hand, the standard configuration of the operation panel comes equipped with a frequency variator allowing a high speed of lifting and a descent at reduced speed, with soft starts and stops. So, the strong impacts of the starting and stopping of the engine are eliminated, improving therefore its reliability.

Access security

Standard: curtain of photocells placed one above the other creating an infrared curtain across the door width and up 2.5 m. height. This infrared curtain detects any object, including small ones, preventing the door lowering or lifting again if it has already started to go down. Avoids physical contact with the door.

Options

The finish of the canvas may be in various colours similar to RAL, while the structure finish can be in galvanized steel or also in a RAL colour chosen by the customer.

Performance of the air

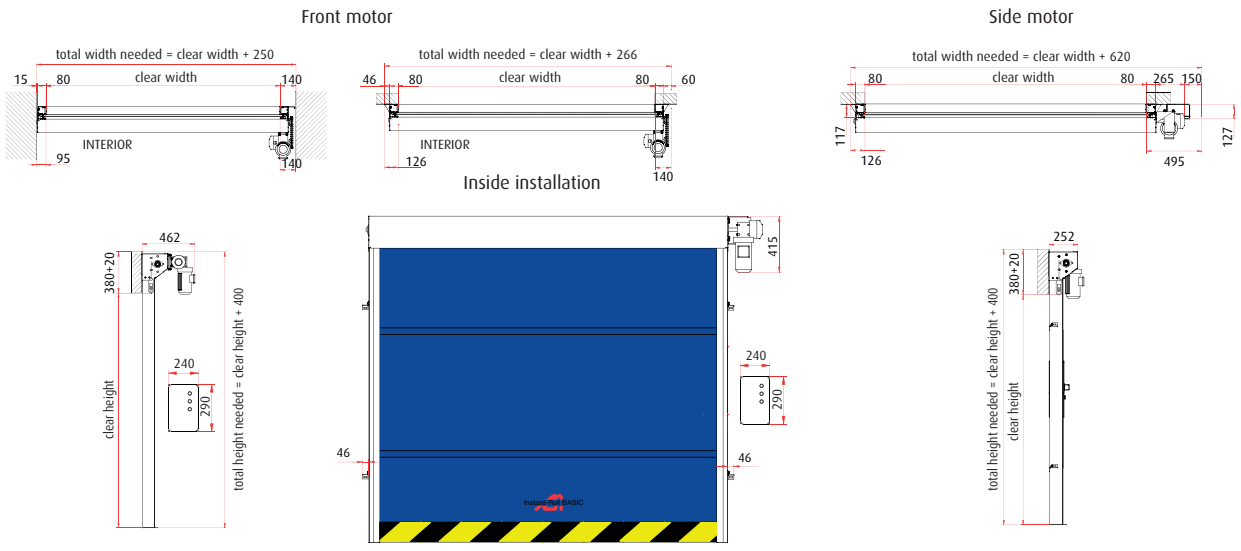
Wind resistance as per 12424: Class 0.

Dimensions

Maximum: 3,300 x 3,500 mm

Instant Roll® BASIC with double canvas.

Installation measurements Instant Roll® BASIC (mm.)



The figures provided here are intended for guidance only. Please ask our sales department to confirm any information.

Model **HERMETIC ROLL®** (for clean rooms)

The speed rolling door Hermetic Roll overcomes small size voids, ideal for the pharmaceutical industry. It has been designed to have a low permeability to the air and a good resistance to air pressures, making it perfect to be installed in clean rooms having positive or negative pressure. It prevents dirt accumulation. The top hood is inclined to favour the runoff of the materials placed on top.

Features of the canvas

The canvas is made with PVC fabric of high longitudinal flexibility and transversal rigidity. As longitudinal reinforcements are not needed, the canvas is smooth, without protuberances or edges. Standard colour: white PVC smooth on both sides. There are other colours with rough surface and FDA quality, or antistatic fabric (only grey colour).

Options

Viewing windows manufactured with PVC glass quality 2 mm. thickness.

Performance of the air

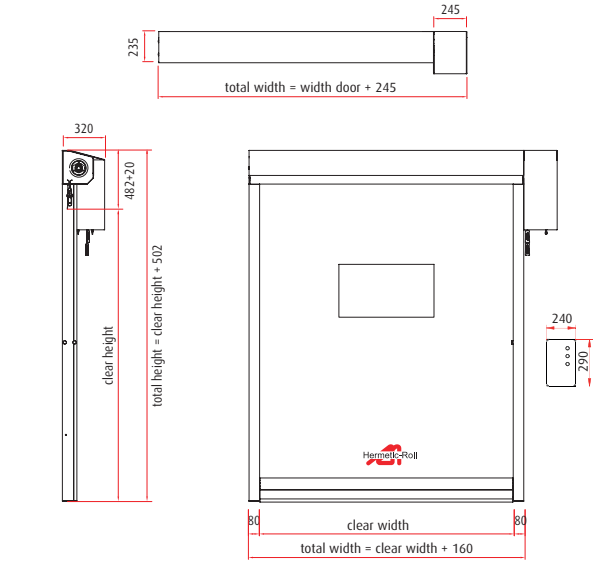
Wind resistance as EN 12424: class 1 / Air permeability as EN 12426: class 2. Loss of air A 30 Pa: Positive pressure below 2 m^3 / H m^2 / Negative pressure below 4 m^3 / H m^2.

Dimensions

Maximum: 2,800 x 2,800 mm.
With vision panels max. 2,500 x 2,800 mm.

Detail guide.

Installation measurements Hermetic Roll® (mm.)



Model **INSTANT PROTECT®**

The speed rolling door **Instant Protect®** is suitable for medium sized voids. Is intended to be used as separating of robotic cells or accesses to machines. This door is resistant to moderate air currents and minor impacts. The structure is designed to be integrated into demanding environments, and the engine and the operation panel for a very intensive use. This door model also incorporates safety stroke limits up to category 4.

Features of the canvas

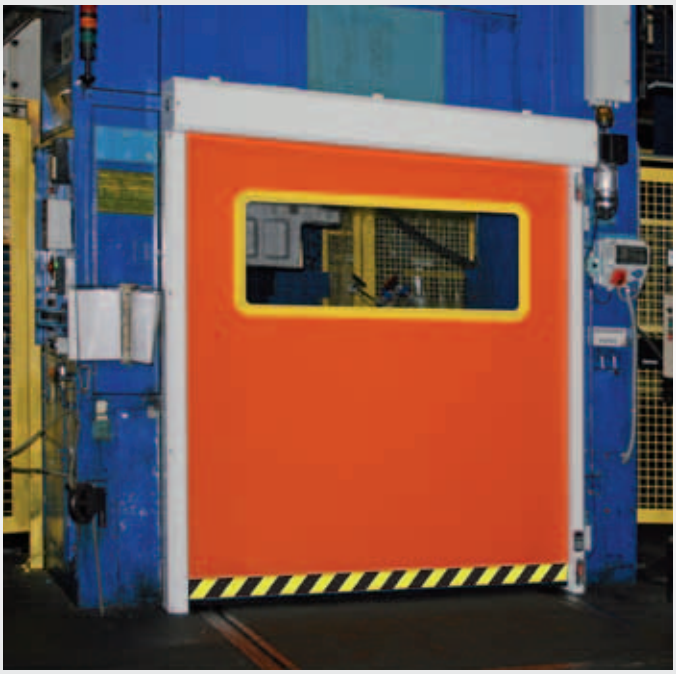
The canvas is manufactured with PVC fabric having high longitudinal flexibility and transversal stiffness. Longitudinal reinforcements are not required but, in case of higher requirements, the canvas can be reinforced. Standard colour: orange PVC with linen rough surface. Optionally it can be in other colours. Antistatic fabric (only grey colour).

Options

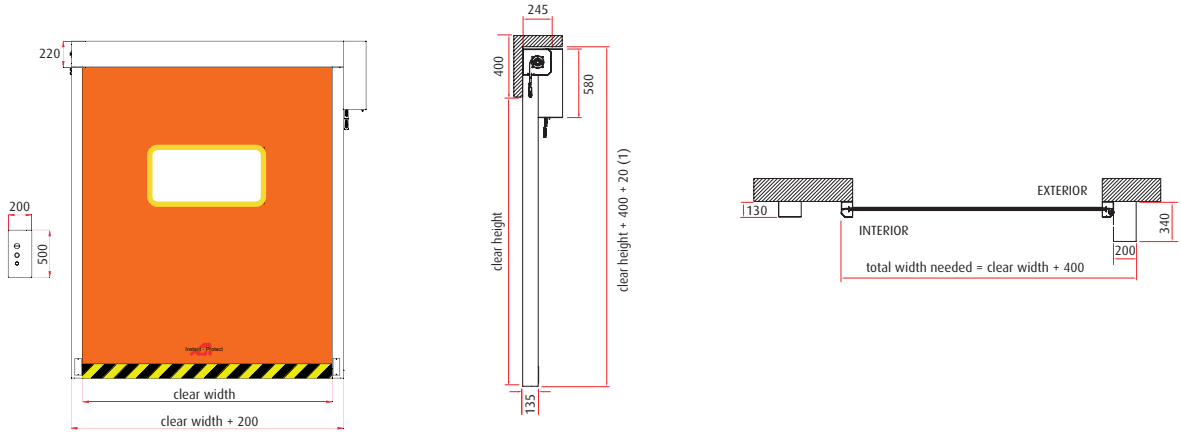
Viewing windows with PVC glass quality of 2 mm thickness. Integrated into the canvas itself. Possibility to have red peepholes for welding areas. It includes photocells barrier system.

Dimensions

Maximum: 3,500 x 3,500 mm.



Installation measurements Instant Protect®(mm.)



(1) Exemption of installation

Model **EASY ROLL®**

Ángel Mir® Easy Roll® high speed door is designed for interior openings and for separating different environments, with low air pressures and with reduced corridor spans (up to 3 m wide). It is ideal for replacing awkward slatted curtains and PVC side hung doors.

The design of the outer frame has been simplified and consists of a pair of lateral galvanised plate guides, which support the aluminium roller shaft onto which the curtain winds.

The structure is simple and requires a solid anchorage.

Canvas specifications
The central reinforcements are manufactured from an aluminium bar which also serves to support the central window that can be replaced.

The ends of the lower skirting are made of neoprene which slots into the guides. In the event of an impact, the ends bend and come out of the guides, returning to the correct position in the next operation.

Options
- Emergency opening system via UPS or mechanical system.
- Stainless steel version, particularly suited for the food industry.

Installation recommendations
Some examples of use may be:
- Walkways between buildings
- Supermarkets.
- Warehouses.
- Refrigeration chambers.
- Refrigeration chambers.
- Food industry (STAINLESS version).

Access security
Photocells curtain.

Performance of the air
Wind resistance as EN 12424: Class 0

Dimensions
Maximum: 3,300 x 3,300 mm.

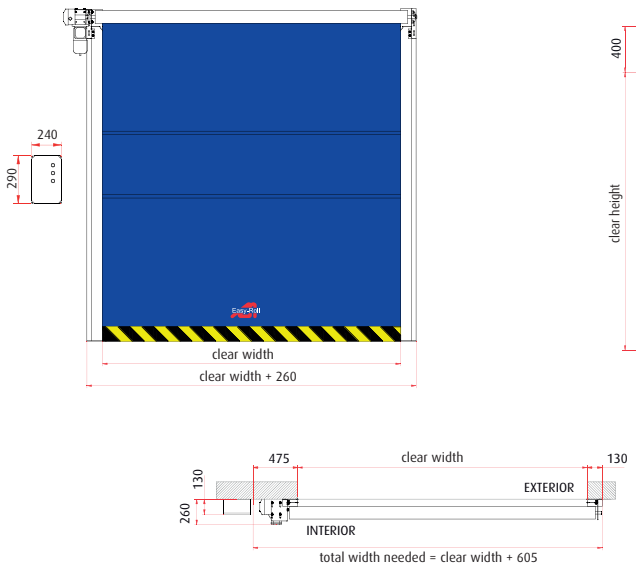
The small size of the structure enables it to be adapted to any opening or environment.

Easy Roll® in the meat industry.

Detail of photocells curtain.

Easy Roll® in fruit industry.

Installation measurements Easy Roll® (mm.)



(1) Exemption
(2) To regulate the limit switch

The figures provided here are intended for guidance only. Please ask our sales department to confirm any information.

Model **EASY ROLL®** INSECT

Manually operated door with canvas of perforated fabric used as a barrier against insects. The drive is manual, easy, and fast and doesn't need electricity. Convenient for production facilities and food handling, or places in need to prevent the entry of insects. Economic price.

Dimensions
Maximum: 3,500 x 3,000 mm.

* For range of colours and types of canvas see page 32.

Easy Roll® INSECT with perforated blue canvas.

Easy Roll® INSECT (manual version).

Model **MIRFLEX ZIP®** AUTO TRACKING

A door completely built with galvanized steel profiles or painted.

The guiding of the door is made via a system of racks located on the sides of a PVC canvas. These flexible racks lead, smoothly, the canvas inside some guides of special polyamide of high resistance and sliding, that prevent that the canvas derails due to the strength of air currents. When the rack gets an impact, it leaves the guide and goes back to the rails when dropping.

These doors are recommended for use indoors or outdoors without wind pressures.

Suitable for: warehouses, supermarkets, separations between industrial units, etc.

Optionally, in places where a nicer aesthetic finish is required, a cover for the drum is proposed.

Dimensions
Maximum: 4,500 x 5,000 mm.

Model **MIRFLEX®** AUTO TRACKING

A rolling door for medium size openings, ideal for separating different environments and passage ways between buildings, warehouses or stores. Designed with different small size profiles, they take up little of the opening's light space and require little space on the side bracelets and on the lintel. They are resistant to moderate air currents and the curtain has a system of flexible reinforcements that come off the guides when they receive a strong impact and roll up again when the door opens.

Mirflex® AUTO TRACKING in food factory.

Structure
Vertical mountings made up of a reinforced guide made from extruded aluminium and with a specific design for this model door, housed in a double rectangle profile made from 1.5 mm stainless steel.

Galvanised and lacquered. Galvanised and lacquered steel sheet base with eyelets for fastening to the floor. Black polyethylene tracking. Support platform for the rolling drum and the motor made from galvanised and lacquered stainless steel. Aluminium rolling drum with galvanised steel shaft on supports with ball bearings.

The bases are fastened to the floor and the head to a light structure that prevents swaying. In order to ensure greater resistance to frontal forces, one or two middle fastenings are required depending on the height.

Canvas specifications
The canvas has a series of lengthwise reinforcements, which provide rigidity and the resistance required for the air pressure currents it will endure. A concave/convex profile made of "composite" materials is sheathed in the curtain.

This profile has extraordinary resistance to breaking (even with violent impacts from moving vehicles) and can withstand significant flexing without causing permanent deformations. The lower skirting is a PVC bag, enabling perfect adjustment even on uneven surfaces. The bag is painted in yellow and black stripes, for greater identification of the transit area.

Auto tracking system
In the event of impact on the curtain, the sheet bends thanks to the flexibility of the reinforcements and can come off the guides. When it goes up again, the ends of the reinforcements are reinserted into the guides thanks to the auto tracking system on the lower part. The door is then ready for the next manoeuvre. The system reduces the span width by 80 mm.

Motor and control panel
Self-locking reducer motor for intensive use with integrated position mechanical switches.
Electro-brake for exact positioning and locking the canvas. Manual release of the electro-brake with a handle. Manual opening system with a crank.
Control panel: 220 V single phase power supply and 24 V operating voltage.
Control panel with programmable automaton and frequency converter for speed regulation.

Access security
Option 1: Wireless contact band on the main edge and infra-red barrier at 500 mm from the floor.
Option 2: Infra-red curtain up to 2.5 m height. This system has a series of photocells fitted one on top of another that create the infra-red barrier on the entire height of the door and up to 2.5 m high, which detects any object, including small objects, preventing lowering the door or raising it again if it has already begun to lower. Avoids physical contact with the door.

Options
- Emergency opening system via UPS or mechanical system.
- AISI 304L and 316L stainless steel structure.
- ATEX certified doors for explosive environments. Powder, paint or gas.

Performance of the air
Wind resistance as per 12424: up to Class 0.

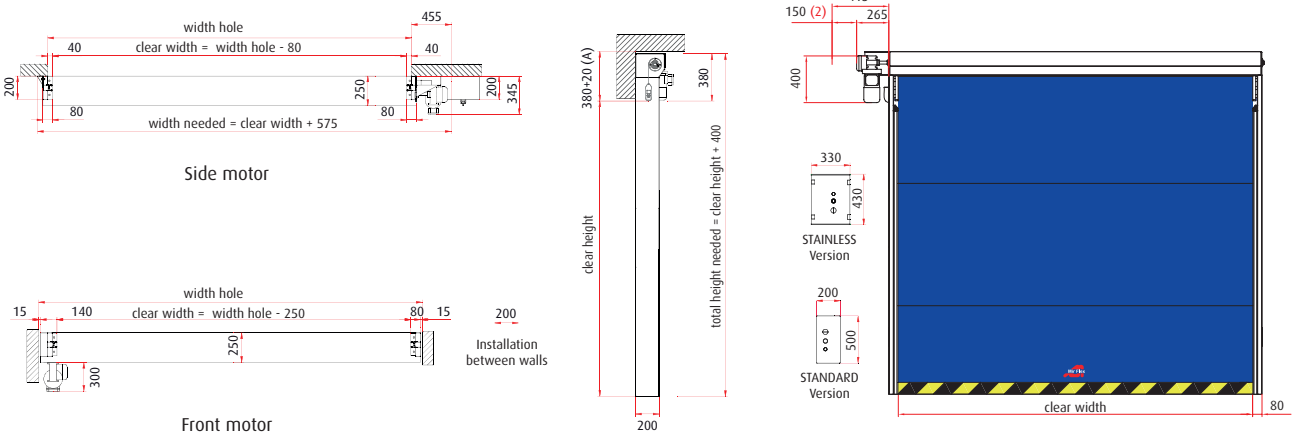
Dimensions
Maximum: 3,300 x 3,500 mm.
Please ask if larger sizes are required.

Mirflex® AUTO TRACKING.

Mirflex® AUTO TRACKING Stainless.

Mirflex® AUTO TRACKING.

Installation measurements Mirflex® AUTO TRACKING (mm.)



(1) Exemption
(2) For assembling and disassembling the motor

Model **MIRFLEX ECO®** AUTO TRACKING

This is the lightweight version of Mirflex® AUTO TRACKING, for medium size openings, ideal for separating different environments and passage ways between buildings, warehouses and stores.
Designed with different small size profiles, they take up little of the opening's light space and require little space on the side bracelets and on the lintel.
They are resistant to moderate air currents and the curtain has a system of flexible reinforcements that come off the guides when they receive a strong impact and roll up again when the door opens.

Mirflex ECO® AUTO TRACKING Stainless.

Structure

Vertical mountings made up of a reinforced guide made from extruded aluminium and with a specific design for this model door, housed in a double rectangle profile with central housing for the guide. Can be delivered lacquered in two colours (Pyrenees white and grey RAL 9007) and stainless steel anodised. Stainless steel sheet base with eyelets for fastening to the floor. Black polyethylene tracking.

The aluminium rolling drum is situated between two stainless steel supports with reinforced bearings that support the shaft.

The bases are fastened to the floor and the head to a light support structure. In order to ensure greater resistance to frontal forces, one or two middle fastenings are required depending on the height.

Canvas specifications

The canvas has a series of lengthwise reinforcements, which provide rigidity and the resistance required for the air pressure currents it will endure. A concave/convex profile made of "composite" materials is sheathed in the curtain.

This profile has extraordinary resistance to breaking (even with violent impacts from moving vehicles) and can withstand significant flexing without causing permanent deformations. The lower skirting is a PVC bag, enabling perfect adjustment even on uneven surfaces. The bag is painted in yellow and black stripes, for greater identification of the transit area.

Auto-tracking system

In the event of impact on the curtain, the sheet bends thanks to the flexibility of the reinforcements and can come off the guides.

When it goes up again, the ends of the reinforcements are reinserted into the guides thanks to the auto-tracking system on the lower part. The door is then ready for the next manoeuvre. The system reduces the span width by 80 mm.

Motor and control panel

Compact self-locking reducer motor for intensive use with integrated position mechanical switches. Internal safety catch. Electro-brake for exact positioning and locking the canvas. Manual release of the electro-brake with handles. Manual opening system with a crank or chain. Control panel. 230/400 V three phase power supply. Electronic control panel.

Option: Single phase 220 V power supply and control panel with programmable automaton and with a frequency converter for regulating speeds.

Options

- Emergency opening system via UPS or mechanical system.

Access security

Option 1: Wireless contact band on the main edge and infra-red barrier at 500 mm from the floor.
Option 2: Infra-red curtain up to 2.5 m height.
This system has a series of photocells fitted one on top of another that create the infra-red barrier on the entire height of the door and up to 2.5 m high, which detects any object, including small objects, preventing lowering the door or raising it again if it has already begun to lower. Avoids physical contact with the door.

Performance of the air

Wind resistance as per 12424: up to Class 0.

Dimensions

Maximum: 3,300 x 3,500 mm.
Please ask if larger sizes are required.

Mirflex ECO® AUTO TRACKING with printed canvas.

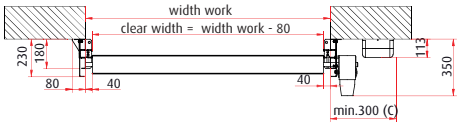
Mirflex ECO® AUTO TRACKING in food industry.

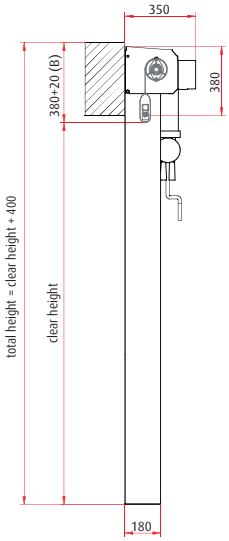
Photocells curtain.

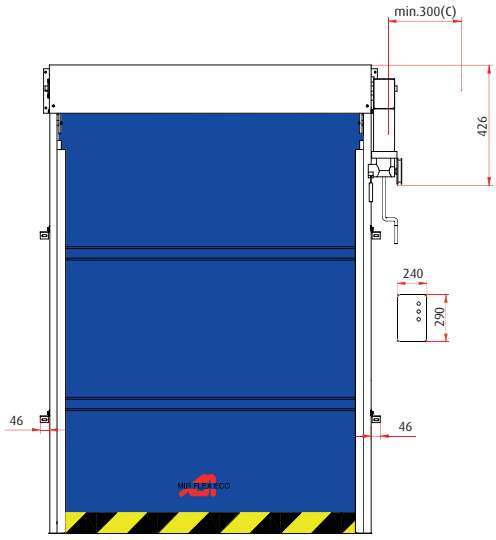
Mirflex ECO® AUTO TRACKING.

Mirflex ECO® AUTO TRACKING with see-trough canvas.

Installation measurements Mirflex ECO® AUTO TRACKING (mm.)







(B) Exemption of installation
(C) To assemblying and dissassemblying the motor

- For total height up to 3m manual operation by crank
- For total height over 3m manual operation by chain

Canvas specifications and options

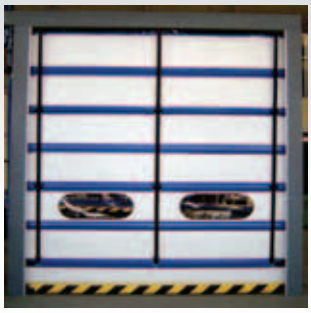
Reinforcement bars with rubber caps for reducing wear and tear and noise. For stackable models.

Belt guides and locking clamps made from polyamide to avoid wear and tear and noise. For stackable models.

Resistant bars, light and flexible for absorbing impacts. For stackable models.

Black and yellow skirting detail and red safety strip. For stackable models.

High speed door with outside view screen printed with landscapes or photographs.



Double canvas with insulation. Useful for reducing noise and thermal insulation.

Canvas door printed with text.

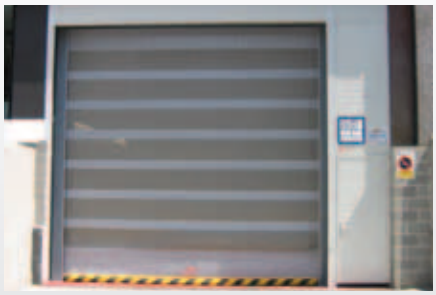
Canvas door printed with logos.

The base material is a plastic canvas that is highly resistant to wear and tear and discolouring. A tinted PVC compound is applied to a polyester fabric, producing a canvas that is extremely resistant to breaking and tearing.

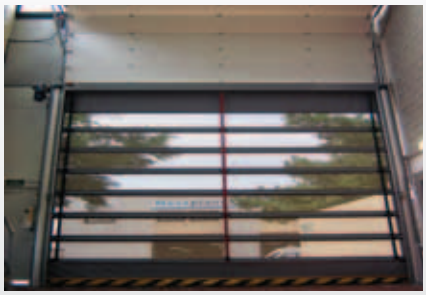
The sheaths that support the reinforcements suitable for each type of door and which provide the rigidity and resistance required to support the air currents the sheet will be subject to are welded transversally to the inside part.

Transparent, PVC, 1 mm thickness viewing windows can optionally be installed. This material is resistant to solar radiation, thanks to an integrated UV filter. The weldings that join the canvas are also made with adapted moulds and by high frequency. **These specifications are common to the different high speed door models.**

Canvas specifications
1100 Dtex.
900 g/m².
420/380 daN/5 cm DIN 53354.
70/55 daN 7% ISO 4674.
Both sides.
Glass quality transparent PVC.



High speed door with perforated canvas (outside view).



High speed door with perforated canvas (inside view). To control the entry of people, animals, etc.

A combination of colours on one door.

Opening systems

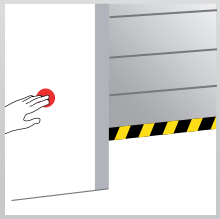
1. Photocell or barrier

2. Handle

3. Radar

4. Remote control

5. Magnetic detector



6. Push button

Canvas models and colours (colours RAL approximate)

STANDARD CANVAS FOR SPEED DOOR

Polyester fabric 1100 dtex coated with PVC and lacquered on both sides.

Roll-up doors (950 gr.)

M2

RAL 1003	Signal yellow
RAL 3002	Carmin red
RAL 5005	Signal blue
RAL 6026	Opal green
RAL 7016	Anthracite grey
RAL 7040	Window grey
RAL 9003	Signal white

M3

RAL 1014	Ivory
RAL 2002	Vermilion
RAL 2004	Pure orange
RAL 8016	Mahogany brown
RAL 9005	Jet black
RAL 9006	Grey aluminium

Fold up doors. FLEXTEX canvas 1000-FR (extremely flexible)

M2

RAL 1003	Signal yellow
RAL 3002	Carmin red
RAL 5005	Signal blue
RAL 7040	Window grey
RAL 9003	Signal white

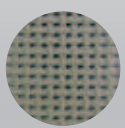
SPECIAL CANVAS FOR HERMETIC ROLL AND INSTANT PROTECT DOORS

Polyester fabric of double layer with PVC and lacquered on both sides. With rotation direction and lateral stiffness. Approved by the FDA to be in contact with food items. Thickness: 2mm.

- Blue
- Red
- Orange
- Yellow
- Grey

PERFORATED CANVAS

Polyester fabric 1100 dtex coated with PVC. Available two options:



PERFORATED **Grey-hole** 2x2 mm. (approx.)

PERFORATED **White-hole** 5x5 mm. (approx.)

MOSQUITO NET Black-hole 1,2 mm. (approx.)

ISOLATION CANVAS

Polyester fabric 1100 dtex coated with PVC. Available two options:

FOAMED CANVAS

DOUBLE CANVAS with thermal and acoustical isolation.

ANTISTATIC CANVAS

Combination with existing doors

Ángel Mir® has solutions for the installation of high speed doors in combination with doors already installed. Utilizing the existing door, by means of walls, recesses and adjustment fittings between both.

High speed door combined with fire protection door.

High speed door combined with sectional door.

High speed door for parking access.

High speed door combined with chamber sliding door.

High speed door for vehicle garage.

High speed door in a cabin.

High speed door in a cabin.

High speed door combined with sectional door.

Applications

Instant Pass® ECO with air curtain and slinding fire door **Corfire**.

Instant Pass® ISO and **Instant Pass**® ECO.

Instant Roll® with air curtain.

Mirflex® ECO in food industry.

Mirflex® ECO for loading bays.

Instant Pass® in repair workshop.

Special applications

High speed door in Atex area (dust).

Pedestrian high speed doors.

High speed door in industrial warehouse.

High speed door, gantry crane.

High speed door, gantry crane.

High speed door combined with sectional and sliding door.

High speed door in loading bay.

High speed door, car wash.

High speed door, car wash.

High speed door for purification plant.

High speed door combined with sectional door.

High speed door perforated for ventilation.

High speed door in loading bays.

High speed doors for silos.

High speed doors without base.

Enclosure walls

High speed door with pre-cam and enclosure with side pedestrian door.

High speed door with enclosure and side pedestrian door.

High speed door with loading bay enclosure.

High speed doors with side and upper enclosures installed on the outside.

High speed door with side pedestrian door.

High speed door with side pedestrian door.

Model **MONO PASS®** NOVOSPRINT

Mono Pass® NOVOSPRINT

Mono Pass® NOVOSPRINT

The door **Mono Pass®** NOVOSPRINT provides a fluid traffic flow, free of obstacles and contact free thanks to its quick opening through a single rolling sheet to one side. Therefore it is very suitable for narrow corridors and passages or spaces having restrictive conditions.

It is a corrosion-resistant and chemically neutral door, for use in pharmacy and the food sector (e.g. stainless steel, plastic). Ideal hygienic conditions can be achieved, because the dirt can be easily detected thanks to its light material, almost without structure and joints.

With a strong technology, added to a maximum speed opening of 2.5 m/sec., and a top speed closing of 1.25 m/sec., Novosprint Mono achieves to protect efficiently against the heat loss, providing so a significant reduction in operating costs during its entire life.

The plates of this speed door are of laminated polyester on both sides with PVC of standard yellow colour. It is a canvas resistant to tears and allows to incorporate a transversal strip of transparent thermostatic plate at eye level to improve the vision in both directions.

Due to the innovative technology of the opening and the high speed of the door, it also allows the passage of bicycles and segways.

Manufactured of stainless steel, this door includes a sturdy and functional structure. The feet covers are easily removable and it provides almost the whole width clear because only 460 mm width are required for the installation.

The different safety elements included in this prototype of speed door, make it entirely safe. Same for its operation and design, since the opening side of all passage height offers an immediate accessibility, avoiding so efficiently any risk of accident.

Engine power: 400 V/10 Hz

Dimensions
Maximum: 3,500 x 3,300 mm.

Model **DOBLE PASS®** NOVOSPRINT

Doble Pass® NOVOSPRINT

Doble Pass® NOVOSPRINT with see-trough canvas.

The **Doble Pass®** door is a high speed door with a side opening. Indicated for places with lintel or reduced bracelets or a requirement for very fast opening.
Since it is built with a self-supporting structure, complex support elements are not required. The structure is made from galvanised steel and is supplied painted in black (RAL 9005).

It can also be ordered in stainless steel.

Each of the panels are made up of a double canvas wall made from a polyester fabric impregnated with PVC.
For special requirements, canvas without PVC can be supplied, which means they will have very high thermal and acoustic values. The outside finish is available in various colours.

The curtain may have transversal transparent bar at eye level to improve vision on both sides.

When the door begins to open, vision is extended to the entire height of the panel. This reduces collision hazard in operating mode.

The high speed of the opening/closing cycle reduces air currents and heat exchange, thus reducing energy consumption.

The mechanisms, cylinders and hydraulic group are housed on the inside of the upper platform and thus do not occupy space on the sides of the door.

Motor power supply: 400 V III.

Operating at 24 V.

The control panel is mounted on one of the two side bases and is quick and easy to connect.

Standard measurements Doble Pass® NOVOSPRINT
Model I: 3,250 mm x 3,250 mm double canvas.
Model II: 4,500 mm x 4,500 mm double canvas.
Model III: 9,000 mm x 6,000 mm simple canvas.

Measurements Doble Pass® NOVOSPRINT BASIC
4,500 mm x 4,500 mm simple canvas.

Model **DOBLE PASS®** NOVOSPRINT HYGIENIC

The best solution for areas with significant hygiene requirements (food and meat indust ries, laboratories, etc.).

Some characteristics that make this the ideal door for these types of areas are:

- The high speed of the side opening (1.5 Mt/s) on the entire height of the door releases it very quickly.
- Built from non-porous materials, stainless steels and plastics. It does not retain grime and is easy to clean.
- The upper platform is inclined to avoid the accumulation of dust.
- The panels do not contact the floor so they do not drag liquid, dust or grime.
- The mechanisms and the motor are housed on the inside of the upper platform and thus
- Do not occupy space on the sides of the door and are protected from the environment.

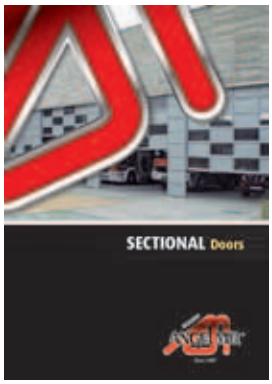
The minimum spaces required and the self-supporting construction system assist modernisation and renovation of facilities.

Dimensions
Maximum: 4,400 x 4,500 mm.

For further information, please consult our detailed product catalogues:

General Catalogue
Industrial doors and loading bay equipment

Loading bay equipment:
loading docks, safety systems and lifting tables

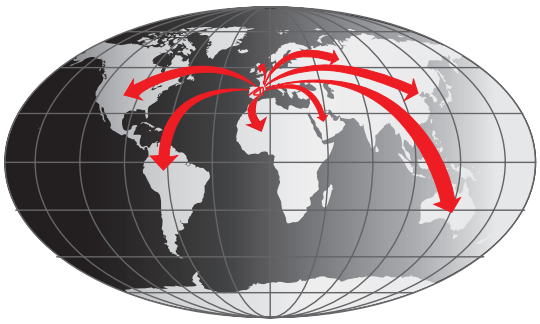


Sectional Doors

Speed Doors

Industrial doors and loading bay equipment

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



DOORS ANGELMIR® *Since 1967*

FACTORY PORBISA PORTES BISBAL, S.L.

@angelmirporbisa angelmirporbisa angelmirporbisa angelmirporbisa

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

info@angelmir.com
www.angelmir.com

Distributor:

Edition 2016