

Automatic Revolving Doors



Open to the future Keeping a firm commitment to excellence lead us to develop products that are 100% Manusa. We guarantee that they meet the highest quality standards, both in Spain and in our branches in Portugal, Brazil and China. As well as in the rest of the world, where we work with our exclusive suppliers, trained in our own facilities. Our aim: to be open to the world, always maintaining utmost attention and service demanded by our customers. Wherever that may be.

Open to Leadership

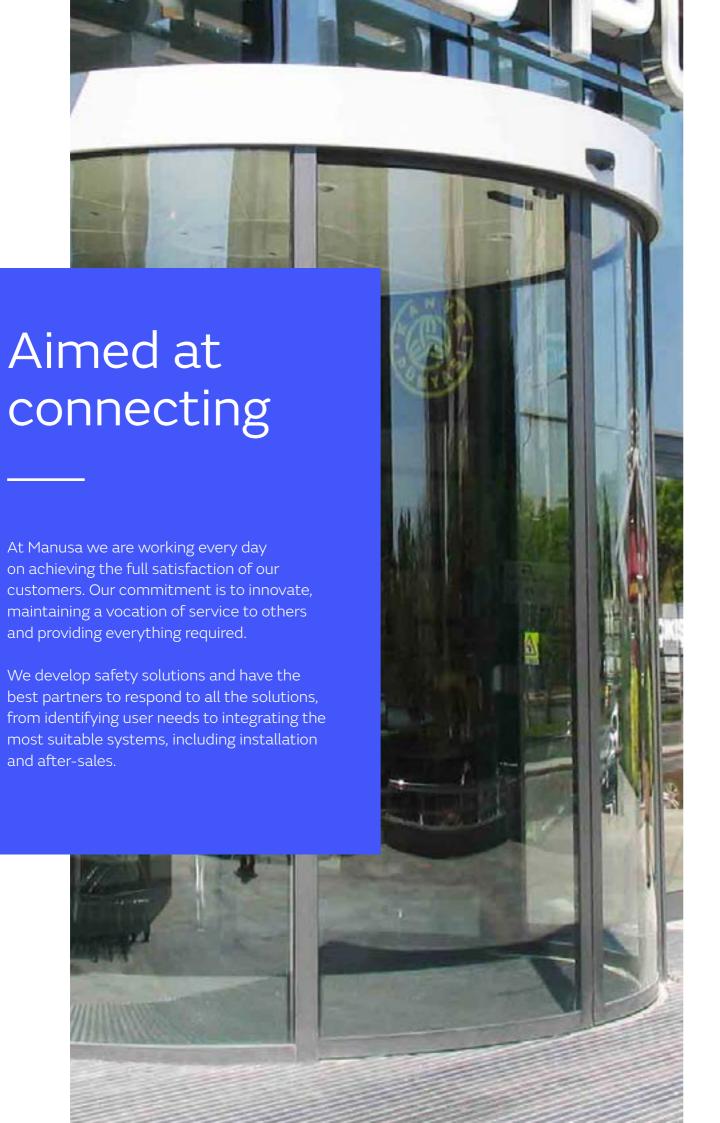
The Manusa Group, created more than 50 years ago, has grown to become a leading company in the creation, design and development of all types of intelligent access. Thanks to our determined commitment to innovation and technology, we put our expertise to work in installations found in every corner of the globe. We accommodate the latest market trends and open doors to the future, getting ever closer to you.

Open to excellence

We maintain the highest level of excellence throughout the development of each project, from its beginnings until its subsequent maintenance. We only use the highest-quality materials during the manufacture of our access points, subjecting them to the highest controls. To guarantee perfect operation and absolute peace of mind for our customers.

Open to You

More than 20,000 access points designed, manufactured, installed and maintained each year by our expert team of professionals in over 90 countries, guaranteeing convenience for millions of people. Because our guiding principal is the development of access points and services with drive and integrity, so we can adapt at any moment to changing times and the real needs of people. In order to continue being a trusted partner.



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Automatic revolving doors

Quality

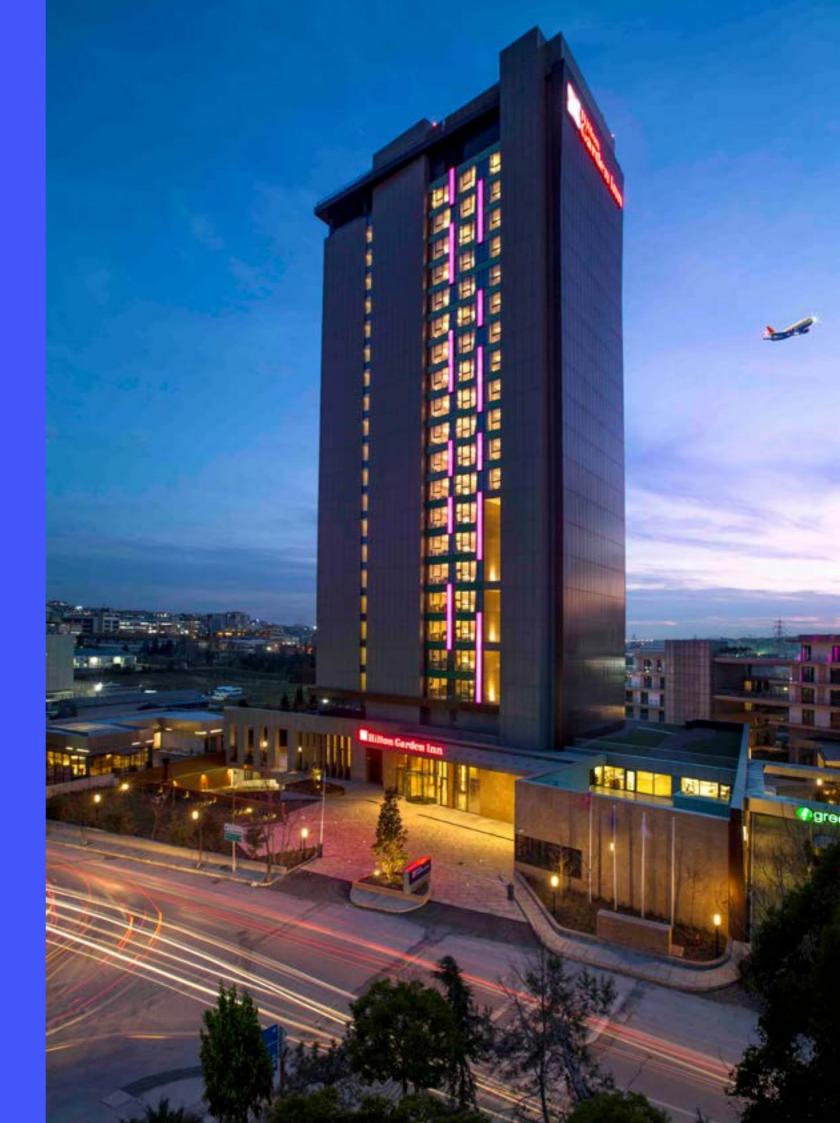
Our automatic revolving doors are made using top quality materials and they are subject to the strictest controls to guarantee excellent and safe operations for people and for its installation.

Design

Thanks to its adavanced technology and avant-garde design, automatic revolving doors add elegance and uniqueness to the entrance while ensuring the safety of users.

Service

Since the very beginning, we have been firmly committed to innovation and technology as a way of offering our customers the very best products adapted to the market and to their requirements. The leading infrastructure of the Manusa Group enables us to offer top-level technical support.





Thermal insulation, chic design, smooth entrance and versatility

Our standard automatic revolving door provides you with various of insulated and energy efficent entrance alternatives with its versatility.

Also provides you with smooth entrance and reliable performance with the best available mechanism.

Manusa standard sutomatic revolving doors gives you a combination of aluminium, glass, slim profiles and insulation materials that meet energy efficiency and a smooth entrance to satisfy all your demands.

The chic design meets versatility to enrich your building's exterior. Its reliable performance with thermal and noise insulation makes it even more useful.

Supply	220 V CA / 50-60 Hz		
Motor	UniMASTER AC Motor		
Ambient Temperature	-20 °C a +55 °C		
Fixed Curved Glasses	Standard 4 + 4 Lamir	nated Glasses	
Side Wall Cladding		Optional	
Leaf Glasses	Standard 8 mm Tem	pered Glasses	
Door Handles	Vertical or Horizonta	l Stainless Steel Door Handles	
Speed Control	Standard		
Disabled Passage System	Standard		
Lighting	Energy Saving Halog	en Lighting	
Locking	Electromagnetic Mo	tor Lock	
Hand Edge Safety	Standard		
Heel Safety	Standard		
Extra Safety Package		Optional	
Anodized Finish	Standard		
Electrostatic Powder Coating	Standard		
Stainless Steel Cladding		Optional	
Floor Mat		Optional	
Floor Ring		Optional	
Waterproof Ceiling		Optional	
Night Shield		Optional	
Breakout Mechanism		Optional	
Push&Go System	Standard		
Underground Mechanism		Optional	
Microwave Radar	Standard		
Summer Mode	Standard		
Continuous Slow Mode	Standard		
Night Mode	Standard		
Circular Air Curtain		Optional	
Espagnolette Lock		Optional	

^{*} For manual revolving door version contact sales department

^{* *} Contact for special requests upon project basis.



Design and functionality without compromising on safety

Manusa glass revolving door is made of complete glass and slim stainless steel profiles.

It is designed to fit effortlessly into transparent facades. It can be used as automatic with the UniMASTER mechanism, which is concealed under the floor not to affect transparency.

With intelligent sensing systems developed specially for glass revolving doors, they offers safe entrance solutions.

In addition to all these functions, also provides you with insulation and smooth flow of standard revolving doors and with all these features combined.

Power Supply	220 V AC / 50-60 Hz
Motor	UniMASTER AC Motor
Working Temperature	-20 °C - +55 °C
Fixed Drums	Standard 5+5 Laminated Glass
Moving Leaves	Standard 8 mm Tempered Glass
Ceiling Glass	10+0,76+6 mm Tempered Laminated Glass
Speed Control	Standard
Disabled Access System	Standard
Locking	Electromagnetic Motor Lock
Hand Safety Edge	Standard
Stainless Steel Cladding	Standard
Floor Mat	Optional
Floor Ring	Standard
Transparent Ceiling Glass	Standard
Extra Clear Glass	Optional
Night Shield	Optional
Espagnolette Lock	Optional
Underground Mechanism	Standard
Night Mode	Standard
Push&Go Mode	Standard
Microwave Radar	Standard
Summer Mode	Standard
Slow Mode	Standard
Automatic Mode	Standard
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^{*} For manual revolving door version contact sales department

^{* *} Contact for special requests upon project basis.



Best solution when passage traffic is so high for standard door

Manusa grand automatic revolving doors is designed specially for entrances with high pedestrian traffic.

They give you the opportunity to have a wide passage on high traffic along with aesthetic and distinguished look. .

High and reliable performance, maximum isolation, smooth entrance and even create special ornamental differences

You can choose between 3 and 4-leaf versions, but you also have the choice of wheter you want a showcase or not. With that you have the chance to display products or to give your passage a special touch.

Supply	220 V CA / 50-60 Hz		
Motor	UniMASTER AC Motor		
Ambient Temperature	-20 °C a +55 °C		
Fixed Curved Glasses	Standard 4 + 4 Lamina	ated Glasses	
Side Wall Cladding		Optional	
Leaf Glasses	Standard 8 mm Temp	ered Glasses	
Door Handles	Vertical or Horizontal	Stainless Steel Door Handles	
Showcase	Triangle, Flat or Squar	e Showcase	
Speed Control	Standard		
Disabled Passage System	Standard		
Lighting	Energy Saving Spot Li	ght	
Locking	Electromagnetic Moto	or Lock	
Hand Edge Safety	Standard		
Heel Safety	Standard		
Extra Safety Package		Optional	
Anodized Finish	Standard		
Electrostatic Powder Coating	Standard		
Stainless Steel Cladding		Optional	
Floor Mat		Optional	
Floor Ring		Optional	
Waterproof Ceilingl		Optional	
Night Shield		Optional	
Breakout Mechanism		Optional	
Push&Go System	Standard		
Underground Mechanism		Optional	
Microwave Radar	Standard		
Summer Mode	Standard		
Continuous Slow Mode	Standard		
Night Mode	Standard		
Espagnolette Lock		Optional	

^{*} Contact for special requests upon project basis.



A multi functional entrance system, provides multiple operating combinations desired in main entrances.

Manusa multi-function automatic revolving doors with a 2-leaf construction and a sliding door in the middle allows very large objects to pass through the revolving door.

It works on the principle that the ceiling rotates completely, that allows to be installed around a column or similar structures.

It is the most popular and functional entrance system for high traffic buildings such as shopping malls, hospitals, airports, hotels, in which users carry high volume equipments such as luggage, stretcher, shopping cart, enter and exit with these equipments.

Break-out mechanism, which can be used in an emergency, can also be attached to this system.

Supply	220 V CA / 50-60 H	Ζ	
Motor	UniMASTER AC Motor		
Ambient Temperature	-20 °C a +55 °C		
Fixed Curved Glasses	Standard 4 + 4 Lami	nated Glasses	
Fixed Panel Cladding		Optional	
Leaf Glasses	Standard 8 mm Tem	pered Glasses	
Showcase	Two Triangle Openal	ole Showcases	
Speed Control	Standard		
Disabled Passage System	Standard		
Lighting	Energy Saving Spot I	_ight	
Locking	Electromagnetic Mo	tor Lock	
Hand Safety	Standard		
Heel Safety	Standard		
Extra Safety Package		Optional	
Anodized Finish	Standard		
Electrostatic Powder Coating	Standard		
Stainless Steel Cladding		Optional	
Floor Mat		Optional	
Floor Ring	Standard		
Waterproof Ceiling		Optional	
Breakout Mechanism		Optional	
Automatic Sliding Door	Standard		
Microwave Radar	Standard		
Summer Mode	Standard		
Continuous Slow Mode	Standard		
Night Mode	Standard		
Circular Air Curtain		Optional	
Espagnolette Lock		Optional	

^{*} Contact for special requests upon project basis.

Automatic revolving door accessories

DRIVE: Drive systems to control safe opening.



Radars

They have microwave features and start the motions when they detect a person. Can both be applied to top of the glass profiles and to suitable areas according to architectural structures.

There are combined radars, that prevents to get stuck inside the door and also operates as an activation sensor when the door is closed. It can be used inside and outside as standard options.



Disabled access system

It enables to decrease the speed of the wings with the use of a button and makes a safe passage for the disabled or elderly people.

This system is used as standard for Manusa automatic door systems and it is mounted to the fixed wings and can be used externally.



Emergency exit

The emergency stop button which is standard in Manusa automatic revolving door systems, enables you to stop the position of the wings when it's pushed.

As to the emergency exit button which is used as an extra function, provides safety and quick exit by switching revolving and sliding mode for the most suitable position in emergency situations.

CONTROL: to control the operating mode of doors and manage malfunctions.



Touch panel

It is a digital position switch which shows the functions of the door with various icons. As it is installed onto the door, it can be used as an external equipment. Also, it is the digital panel system which provides you with an access to use options such as speed control, brake control and brake distance adjustments.

This device is used for Manusa automatic revolving door systems as an option.*

SAFETY: Devices to control the entrance and exit, providing user protection.



Night shield

It is an extra safety system that is presented by Manusa revolving door system as an option. Night shield system is installed outside the door and onto the fixed wings. Night shield system, having a sliding door mechanism, is used to block the enterance when it is completely closed. It also can be strengthened with high security glasses and used for a long time.



Hand safety edges & curtain safety sensors

Hand safety edges are attached to each main and counter closing edge, late entry safety sensors also monitor the entire counter closing edge. The lower secondary closing edges of the door leaves are protected by heel safety edge. These stop the door at the slightest contact and thus prevent people from being injured inside the door. Curtain safety sensors are located in the direction of the ration and stop the door if there is an object in the way before the object touches the door leaf.

^{*} Contact sales department for others activation alternatives such as radar, code field, card reader, non-contact sensor switch, elbow switch, fingerprint reader, remote control, etc.

Automatic revolving door accessories

CLADDING OPTIONS



Stainless Cladding Options

Satine, matt, mirror and gold mirror stainless cladding options can be applied for all products lines of Manusa.

Stainless steel cladding provides an extra durability by preventing from corrosion against to all weather conditions for long times. In addition, it provides an elegant appearance for the architectural structures.

OTHER ACCESSORIES



Underground mechanism

In addition to starndard applications which are presented by Manusa, it is the system which brings an elegant apparence especially for glass revolving door and pick up all the electronic equipments under the ground. Due to its impermeability, it prevents the electronic components from any damage and provides you with smooth operation for long years.



Floor mat

It consists of metal scrubbers as an optional function which is presented by Manusa.

Floor mats which are designed according to all weather conditions prevents water, dust and dirt come inside of the building. It can be installed easily in modular pieces.



Sliding door mode

The most important feature of Manusa multifunctional automatic revolving door systems is to provide maximum passage width. The sliding door mode in the middle mechanism operates as sliding door whenever it is required such as in emergency situations and rush hours during the day. At the same time those systems are used for energy



Fluent passage

The system facilitates entry-exit for shopping malls, hotels, business centers, etc. where an intense pedestrian traffic is essential. High quality electronic equipments are used to fulfill all your needs by combining energy saving feature with providing a fluent passage. It completes the apperance of your building with its aesthetic design.



Showcase

This is the wing system which completes the appearance of the door. The system can be used for promotions, advertisements and announcements.

The system also has led lighting and locking options.



Air curtain

The special ventilation systems have a circular design that has been adapted to the diameter and structure of the revolving doors, and prevents air cirulation from outside to inside. Used especially at shopping malls, business centers, hotels, restaurants, hospitals, etc.

Features and specifications

STANDARD SPECIFICATIONS	Standard	All-glass	Grand	Multi-function
Outer Diameter D (mm)	2000-3800	2000-3400	3600-6000	3400-5400
Inner Diameter D2 (mm)	D - 94	D - 100	D - 94	D - 94
Passage Height H (mm)	2100-2400	2100-2400	2100-2400	2100-2200
Canopy Height C (mm)	250-300	18 mm VSG	250-300	310
Passage Width W 3 leaves (mm)	860-1760	850-1550	1650-2850	1500-2490
Passage Width W 4 leaves (mm)	1270-2540	1232-2223	2400-4100	1500-2490
Number of leaves	3-4	3-4	3-4	2
Drum Wall Glazing (laminated)	8 mm	10 mm	8 mm	8 mm
Door Leaf Glazing (tempered)	8 mm	10 mm	8 mm	8 mm
Lighting LED	4	Not available	4-6	6

SAFETY SENSORS (EN 16005)	Standard	All-glass	Grand	Multi-function
Hand safety edge (drum wall)	Standard	Standard	Standard	Standard
Hand safety edge (door leaf)	Standard	Standard	Standard	Standard
Heel safety edge	Standard	Standard	Standard	Standard
Curtain safety sensor ¹	Standard	Standard	Standard	Not available
Late entry safety sensor	Standard	Standard	Standard	Standard
Passive safety edge (drum wall)	Standard	Standard	Standard	Standard
Emergency stop button	Standard	Standard	Standard	Standard
Disabledbutton (both sides)	Standard	Standard	Standard	Standard

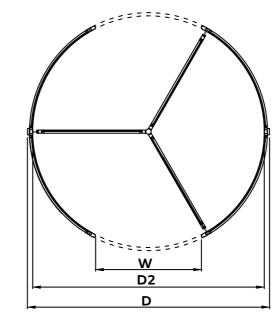
OPTIONAL DIMENSIONS	Standard	All-glass	Grand	Multi-function
Passage height H (mm)	Up to 3000	Up to 3000	Up to 3000	Up to 3000
Canopy height K (mm)	Up to 1200	Not available	Up to 1200	Up to 1200

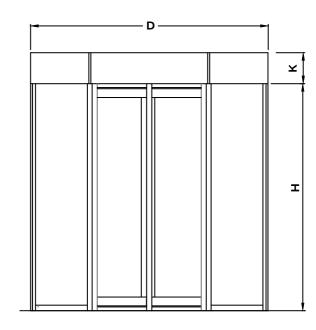
SURFACE FINISH	Standard	All-glass	Grand	Multi-function
Powder coating (standard RAL)	Standard	Optional	Standard	Standard
Natural matt anodized	Standard	Optional	Standard	Standard
Stainless steel cladding ²	Optional	Standard (304)	Optional	Optional

OPTIONS	Standard	All-glass	Grand	Multi-function
Underfloor mechanism	Optional	Standard	Optional	Not available
Breakout mechanism	Optional	Not available	Optional	Not available
Floor ring	Optional	Standard	Optional	Optional
Floor mat	Optional	Optional	Optional	Optional
Door handles	Optional	Optional	Optional	Not available
Water insulation ³	Optional	Not available	Optional	Optional
Air curtain inside canopy ⁴	Optional	Not available	Optional	Optional
Air curtain vertical outside	Optional	Optional	Optional	Optional
Drum wall - metal sheet	Optional	Optional	Optional	Optional
Night shield (manual)	Optional	Optional	Optional	Standard
Night shield (automatic)	Optional	Not available	Optional	Standard
Manual lock	Not available	Not available	Optional	Optional
Electronic lock	Standard	Standard	Standard	Standard
Espagnolette lock	Optional	Not available	Optional	Optional
Anti-wind system (for breakout)	Optional	Not available	Optional	Not available
Speed control	Optional	Standard	Standard	Standard
Touchpanel	Optional	Optional	Optional	Optional

^{*} Special dimensions and designs are available on request. Dimensions are guidelines

² AISI 304 or 316 ⁴ Water or electric





 $^{^{1}}$ For Ø > 3000 mm 3 Outside half of canopy

Automatic revolving door type of use

The following table applies to a 4-leaf standard and grand dimension automatic revolving door

DIAMETER (mm)	Passage width	Max persons/ section	Person capacity per passage / min.	Type of use
1800	1130	2	42	æ
2200	1410	2	50	2 ² \$
2400	1550	2	52	2 ²
2700	1760	3	56	2 ² 2 ²
2900	1905	3	64	2 ² 2 ²
3100	2040	4	68	2 ² 2 ²
3300	2180	4	70	2
3500	2320	5	73	2
3700	2460	5	75	2
3900	2600	5	78	2
4500	3040	8	95	2 ²
5200	3540	11	110	2
5600	3820	12	112	2
6000	4100	14	115	2

The following table applies to a 3-leaf standard and grand dimension automatic revolving door

DIAMETER (mm)	Passage width	Max persons/ section	Person capacity per passage / min.	Type of use
1800	760	2	33	<u>e</u>
2200	960	2	40	<u>e</u>
2400	1060	3	47	2 ° \$
2700	1210	4	49	2 ° \$
2900	1310	4	51	2 ° \$
3100	1410	5	58	2 ° \$
3300	1510	5	63	2 ° \$
3500	1610	6	65	2 ° \$
3700	1710	7	67	2
3900	1810	8	68	2
4500	2100	11	77	2
5200	2450	15	86	2
5600	2650	18	94	2
6000	2850	20	102	2 ° \$ &







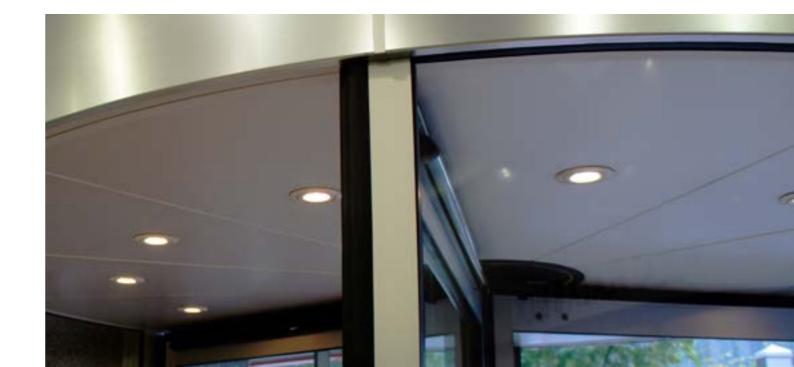
Automatic revolving door canopies

The modular system of Manusa revolving door canopies enables easy assembly and maintenance. The individual canopy sheets can be taken out separately and moved within the construction. So you can take out one or two elements and move the rest of them so that you can easily reach the desired location inside the canopy.



The canopy sheets are standard in the same color as the door. However, they can be adapted as required and thus give your building an individual character.

By default, the center element of the canopy ceiling comes in black, but there is the option to deliver it in different colors.



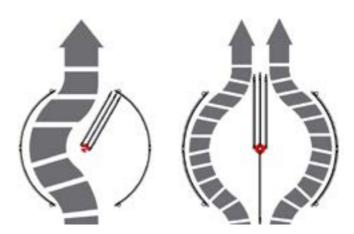
Break-out mechanism

The break-out mechanism can be used on different type of revolving doors. This system, which can be used for both 3 and 4 leaf versions, ensures that the leaves are folded when sufficient force is applied on them. This system is activated when the door leaves are pressed with force in an emergency. The leaves, which fold around the doors center, provide a free and empty passage to the outside.

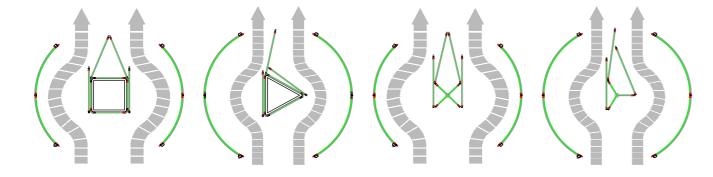
When the mechanism is activated and the leaves are folded around the doors axis, sensors on the leaf- axis detect this movement. As soon as this movement is detected, the motor will stop immediately and the rotation will stop. The door will continue to operate normally when the leaves are returned to their original position.



This system enables the building to be evacuated quickly. In addition, this can also be used in everyday life if necessary to allow manual use of the door. This function is particularly preferred in shopping malls, hospitals, etc.



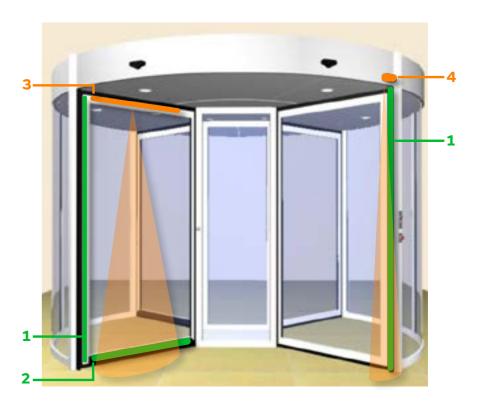
Break-out 3-leaves and 4-leaves for standard automatic revolving door



Break-out 4 and 3 leaves, with and without a showcase, for grand automatic revolving door

Safety

Safety in automatic revolving doors plays a major role. All closing edges on our doors are secured in such a way that you do not have to think about them during operation. Contact edges and safety sensors ensure perfect protection.



1. Hand safety edge

These are attached to both the door leaves and the drum walls. You thus secure the main and counter-closing edges.

If pressure is exerted on the contact strips, emergency braking occurs and the door comes to a standstill. As soon as the contact strip is released, the door continues its rotation.

2. Heel safety edge

The safety contact strip attached to the lower secondary closing edge protects the heel area. If pressure is exerted on the contact strips, emergency braking occurs and the door comes to a standstill. As soon as the contact strip is released, the door continues its rotation.

3. Curtain safety sensor

This moving sensor ensures that the door comes to a standstill as soon as something is detected in its field.

4. Late entry safety sensor

This sensor is activated as soon as the door leaf approaches the counter closing edge. If something is detected by this sensor, the rotation stops and the door comes to a standstill.



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