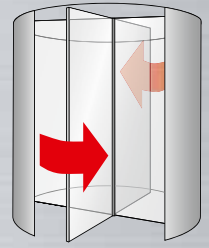


Automatic Revolving Door Systems



★★★★★
TORMAX
AUTOMATIC



*Storcenter Nord,
Aarhus, Denmark*

*Details from left to right:
Emergency Stop, Disabled Button
and self-standing Air Curtain
(Air Curtain is also capable
of being integrated in the
Canopy of the Revolving Door)*



First impressions last. And last ones too.

When it comes to revolving doors from TORMAX, it is not only the first impression that counts, but also the last:

If it is convenient for visitors, customers and business partners to enter your premises, it is sure to be so when they come to leave again – even with full hands. What is more, a revolving door system is a sign of individuality, reliability and business success on every level.

Enticing aesthetics

Revolving doors from TORMAX are a type of calling card demonstrated by buildings to the outside world and inside. They welcome people with a gently revolving motion. Not only is the entrance barrier free, the design options are also unlimited with profiles and glass panels in diverse variants and colour hues.

Functional comfort

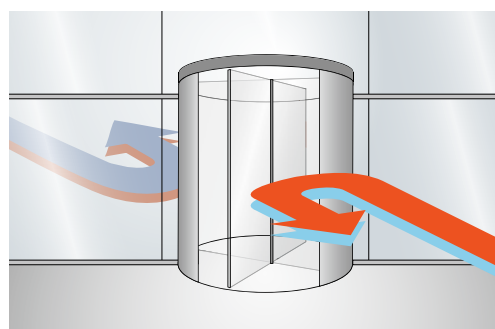
Revolving doors enable a pleasant two-way traffic of persons, without those entering and leaving hindering one another. Thanks to the sluice principle, noise, dust and odours are effectively kept away from inside the building.

Safety and complete reliability

Reliable sensors integrated in the system guarantee maximum safety for every user. Specially developed safety systems also provide protection during strong gusts of wind and help to exit the building quickly in an emergency.

Cost effectiveness. Even for the environment.

Revolving doors are always closed – and yet open. The indoor climate is effectively shielded from the outside climate, even when it is bitterly cold or stiflingly hot outside. Because cold cannot fully penetrate inside the building and air-conditioned air cannot fully escape, revolving doors massively reduce energy consumption for heating and ventilation in comparison to normal doors: by up to 80 percent. Conclusion: Revolving doors allow you to maximise the energy efficiency of a building, improve the CO₂ building balance and ultimately save energy costs. This especially because revolving doors are tremendously suitable for entrances subject to frequent use.



Inside climate: constant

Outside climate: hot or cold



Recycling

Revolving doors are predominantly made of aluminium and glass – and hence also from materials that can easily be recycled. The drives are manufactured in as environmentally friendly a way as possible and only from materials corresponding to the RoHs standard.

Quality. From Europe's pioneer.

TORMAX is the pioneer who installed the first automatic door in Europe in 1951. Our subsidiary in Denmark has been providing expertise in revolving door systems for decades, manufacturing these in suitable production halls in line with the strict quality guidelines of its Swiss parent company. Together, we ensure the famous quality of TORMAX that customers have come to appreciate so highly – including rapid response times and reliability.

*Left: Production
TORMAX Denmark,
Construction of a revolving door*

*Right: Skipper
Service-Tool*



And of course, the intelligent Skipper Service-Tool plays a major role in quality. This allows every revolving door system to be programmed and tested quickly using a notebook.

Door drives. Only the best.

The heart of every automatic door is the drive. The advantages offered by the latest generation of specially developed and manufactured TORMAX iMotion drives are clearly apparent in our revolving doors:

iMotion® • Operational safety even when used with the utmost frequency
• Extremely long service life

- Uncompromising personal safety
- Very quiet operation
- Dynamic acceleration and braking performance
- Problem-free integration in building systems
- Manufactured exclusively from materials according to RoHS standard

iMotion central drives work extremely quietly thanks to their belt drive. The motor is maintenance free. The advanced control means each door can be configured so that all requirements for safety and the needs of operators and users are covered. The nimble drive is distinguished by smooth movements with swift starting and rapid braking.

Freedom of design. Getting the very best.

Another thing distinguishes TORMAX revolving doors:

a unique selection of individual versions. Design your entrance experiences as individually and meaningfully as you wish. The door systems are available in diverse basic designs, sizes, materials and colours.

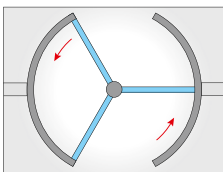



TORMAX revolving doors offer a maximum of design freedom and individual variants.

A TORMAX revolving door expresses perfect harmony with modern, rectilinear architecture. A wide range of profile designs is available to match the overall architectural concept: powder-coated in diverse colours, natural anodised aluminium, chrome steel ground, polished, mirror smooth or brass rolled blank. Numerous additional options round off the almost unlimited design possibilities.

3 or 4-wing revolving doors.

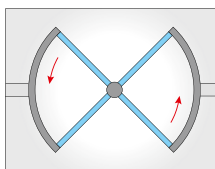
Depending on the application range and expected frequencies, the use of 3 or 4-wing revolving doors is recommended.



 Frequency

3-wing

Highly suitable for hotels, as the segments are larger than in the case of 4-wing doors, which makes it easier to enter or exit with luggage or large items, thereby enhancing the comfort zone. The passage width is narrower in comparison to 4-wing doors, but the door stands out more distinctly from the façade




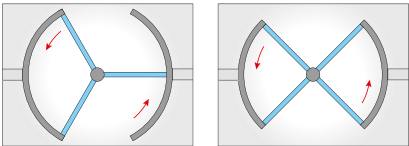

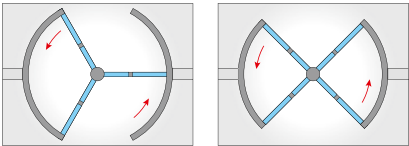

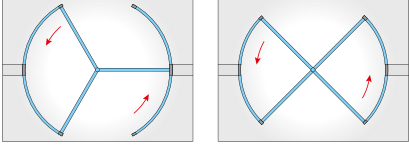

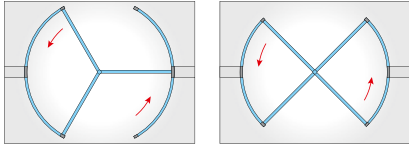
 Frequency

4-wing

The 4-wing door is suitable for all buildings with a large flow of persons, for example at entrances to shopping centres etc. Depending on the diameter, up to 30 percent more people can pass through the door per hour than with an equally sized 3-wing door. The wider passage allows a two-way person traffic to flow much more effectively.

You have the choice. The big one.

Making an entrance a calling card. TORMAX revolving doors set the scene even before entering and make a positive first impression. They smoothly shape the flow of persons; dust, noise, odours, heat and cold remain outside.

Automatic Revolving Door Systems	Form / Wings	Drive*	
	<p>CLASSIC small</p> <ul style="list-style-type: none"> • Classic, timeless design • Narrow profiles • Up to 4.0 m door diameter • Drive in roof structure or floor 	<p>Three or four winged</p> 	<p>Manual 5051.CL Servo Automatic 5151.CL Fully Automatic 5251.CL</p>
	<p>CLASSIC large</p> <ul style="list-style-type: none"> • Classic, timeless design • Optionally with presentation window • With break-out and wind brake • 3.6 to 6.2 m door diameter • Drive in roof structure 	<p>Three or four winged</p> 	<p>Fully Automatic 5351.CL</p>
	<p>LIGHT FRAME</p> <ul style="list-style-type: none"> • Glass design also for high frequency • Narrow profiles with centre column • Up to 3.6 m door diameter • Drive invisible in the floor 	<p>Three or four winged</p> 	<p>Manual 5051.LF Servo Automatic 5151.LF Fully Automatic 5251.LF</p>
	<p>FULL GLASS</p> <ul style="list-style-type: none"> • Complete glazing • Without centre column, full transparency • Minimum profile finishes • Up to 3.0 m door diameter • Drive invisible in the floor 	<p>Three or four winged</p> 	<p>Manual 5051.FG Servo Automatic 5151.FG Fully Automatic 5251.FG</p>

* TORMAX revolving door systems are available in the following versions:

- Manual doors: without drive
- Servo Automatic: Door moves in response to light pressure
- Fully Automatic: Door is completely controlled via sensors

Diameter	Use	Capacity ⁴⁾ (Persons/h)	Passage height / Cornice height	Options
1800 to 2600 mm		800 to 1500	Up to 3000 mm ³⁾ / From 150 mm	• Break-out** • Escape route
1600 to 3000 mm		1500 to 1800	From 150 mm	
1600 to 4000 mm		1800 to 2200	From 250 mm	• Night locking inside • Night locking automatic • Air curtain integral ⁵⁾
3600 to 4800 mm		2000 to 2300	Up to 3000 mm ³⁾ / From 500 mm	• Break-out** (Standard) • Escape route
4800 to 6200 mm		2300 to 2700		
				• Showcase • Night locking inside • Night locking automatic • Air curtain integral ⁶⁾
1800 to 2600 mm		800 to 1500	Up to 3000 mm ³⁾ / From 30 mm	• Break-out** • Escape route
2600 to 3000 mm		1500 to 1800		
3000 to 3600 mm		1800 to 2000		• Night locking • Air curtain self-standing
2700 to 3600 mm		1200 to 1400		
1800 to 2600 mm		800 to 1500	Up to 3000 mm ³⁾ / From 30 mm	• Break-out** • Escape route
2600 to 3000 mm		1500 to 1800		(Wing with centre column)
				• Night locking • Air curtain self-standing

** The mechanical emergency opening system (break-out) opens the door wing upon reaching the individually specified force and stops the rotational movement automatically. The door wings can be moved permanently into the open position; the resetting is manual. In situations involving strong wind, the installation of a wind brake is recommended. This is activated via a key-operated switch or a wind measuring system and prevents the doors wings from responding.

¹⁾ 3-wing from Ø 3600 mm / 4-wing from Ø 4200 mm

²⁾ 3-wing from Ø 4200 mm / 4-wing from Ø 4800 mm

³⁾ The maximum passage height depends on the diameter, with /without break-out as well as the wind situation on site.

⁴⁾ Approximate capacity in one direction

⁵⁾ Cornice height min. 350 mm

⁶⁾ Cornice height min. 550 mm

Additional functions. Customised intelligence.

Tailored to your wishes and requirements, optional equipment features perfectly extend the basic versions of the TORMAX revolving door systems. They also increase the functionality, comfort or monitoring of the doors. A series of further options protect the building more effectively against intruders and the effects of the weather, or users in the event of an emergency.



Integrated presentation window

A display window is ideally suitable for advertising spaces and product presentations. Available for select revolving door systems.

Air curtain

An air curtain, installed directly in the roof structure of the door or as a self-standing solution, enhances the climatic advantages of the revolving door. The operation is via the heating system.



Night locking/Intruder protection

Manual or automatic night locking protects against unwanted access, while preventing leaves, water and snow from coming inside. Special glass according to the standard WK 2-3 also significantly increases safety of the door against intruders.

Break-out and wind brake

All TORMAX revolving door systems are optionally available with wings that can swivel out in any position (break-out). That means even bulky goods can conveniently be transported through the entrance. The wind brake function also optionally available fixes the wings electro-mechanically during high winds via a switch or wind measuring system.



Floor covers

Various floor covers are available for selection, these tested in accordance with the standard DIN 18650/EN 16005 and DIN 51130. They serve as a dirt trap or non-slip base, for example.



Escape route

3 and 4-wing versions with optional break-out fittings are suitable for escape and rescue routes. **Attention:** Please always observe the relevant national regulations!



Networking

iMotion Net allows a revolving door to be integrated easily in a building management system. Ideal above all for operators of larger buildings, who wish to gain an immediate overview of the door status or any error messages.



Access Control

Depending on the version, TORMAX revolving door systems can be provided with access control systems for three different security levels. Badge, key or biometric identification systems are directly supported. TORMAX provides a separate product range for access control.



From left to right: – Laser sensor for precise recognition of persons or objects. – Safety sensors automatically adjust the door speed to the flow of persons. – Outside entrance detail with circular drainage steel grid. – Antislip and dirt absorbing floor mat.

Factory Integrated Safety. Safety included.

Benefit from the first-class *Factory Integrated Safety* provided by TORMAX. That means: All safety elements are seamlessly coordinated to one another in the factory. Only the final coordination and concluding check are necessary on the construction site.



Left: Personal safety in every situation.

Middle: Speed adjustable with Handicap switch.

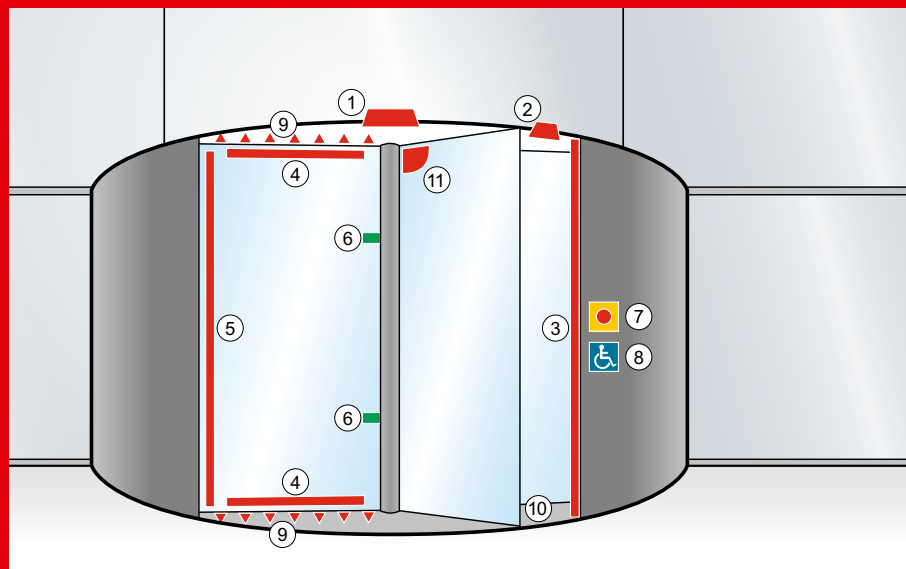
Right: The emergency stop button keeps everything under control at all times.

Every TORMAX revolving door system undergoes an extensive check during manufacture in line with definite quality management. This applies equally no matter whether a door from the standard range or specific constructions.

Swiss quality from TORMAX.

Depending on the version, TORMAX revolving doors are provided with different safety elements. Only the latest technologies that communicate optimally with the controls are used:

- Rotational force monitoring and computer-controlled rotation
- Special sensors stop the system without contact and adjust the speed to those passing through
- Soft, redundant rubber strips prevent a direct collision
- Adaptation to market-specific requirements such as BS7036 (United Kingdom), DIN 18650/EN 16005 or Security EN 1627 WK 2-3
- The sensors are invisibly integrated in the construction, depending on the version
- Handicap switch limits the speed of the door for a definite number of rotations, thus making it easier for people to pass through with a handicap, a pram or similar.



Safety elements:

- | | |
|-------------------------------------|--------------------|
| 1. Activation sensors | 8. Handicap switch |
| 2. Preliminary post safety elements | 9. Finger guard |
| 3. Post safety elements | 10. Floor covering |
| 4. Horizontal safety thrust strips | 11. Laser sensor |
| 5. Vertical safety thrust strips | |
| 6. Break-out device | |
| 7. Emergency stop | |

Depending on the door, version and requirements, the safety elements will vary.

Your Partner for Every and Any Automatic Door System

You will find a suitable automatic door system at TORMAX for whatever use you intend. They are all convenient. Not least silent, reliable and safe.

Swing Door Systems



Sliding Door Systems



Revolving Door Systems



Folding Door Systems



Consultation and service included

Ask for further documents on the individual systems or simply ask your TORMAX partner. He will be glad to offer you help in conceiving door systems, the selection of materials, the calculation of cross sections, professional assembly – in brief: he offers all services prior to,

during and after the purchase. If necessary, service professionals are at your disposal on the spot wherever you are in the world.

You find your TORMAX partner at: www.tormax.com