



## **TORMAX Hermetic**

Hermetic and Airtight Door Systems  
for Special Areas.

★★★★★  
**TORMAX**  
AUTOMATIC

## In a nutshell

- High-quality door system with all-round sealing (hermetic) or three sides sealing (airtight)
- Made-to-measure with a wide range of design specifications and functions
- Design, production, installation and service by TORMAX
- Entire door system made by TORMAX in Switzerland and directly shipped to your building site



# Hermetic or Airtight

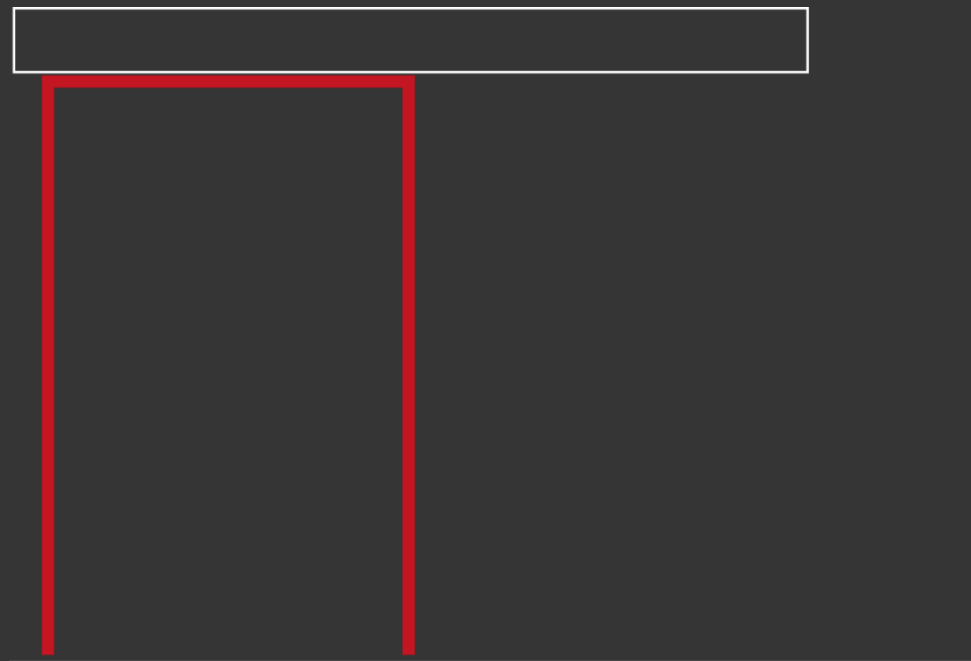
## Hermetic:

- Full hermetic sealing with lowering mechanism
- Sealed on four sides



## Airtight:

- Airtight door system without lowering mechanism
- Sealed on three sides



# Areas of Application «Clinics / Hospitals»

- Increasing demand for fully hermetical sealed doors in hospitals due to
  - New epidemics / pandemics
  - Radiotherapy
  - Higher requirements for hygienic solutions
- Main applications: Operating Theatres / Aseptic Suites / Recovery Rooms / Pharmacies / Delivery Rooms / Mortuaries

Operation Theatres



MRI-Room



Mortuaries



# Other Areas of Application

- Laboratories
- Clean rooms in research and industry
- Food industry
- Pharmaceutical and biotechnological industry
- Medical industry

# Highest Quality Standards for Special Areas

The new TORMAX Hermetic door system significantly raises and redefines the standards of quality for hermetic and airtight doors.

This has been made possible as TORMAX turned its attention to all the technical and functional details.

## Not noticeable in operation

- Slim, elegant design
- No disturbance due to extremely quiet operation
- Low-wear and long-lasting
- Reliable and smooth lowering/pressing mechanism
- Quick and safe opening/closing for undisturbed passages
- Optimal capacity utilization due to short intervention time

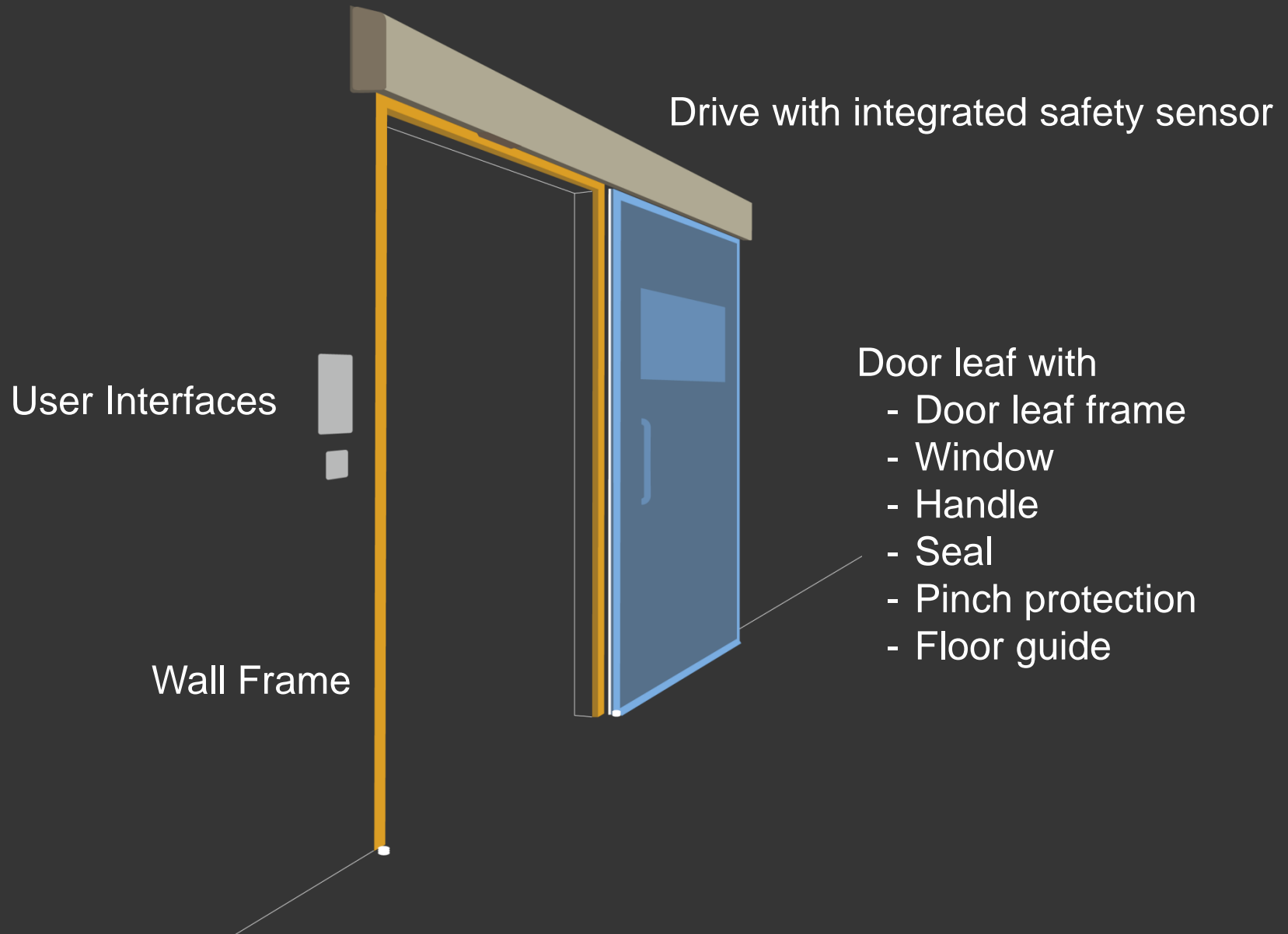
## Maximized patient safety

- Hygienic design
- Flush mounted, smooth and edgeless surfaces
- Bacteria repellent materials
- Easy to clean

## Safe hermetic sealing

- Unique multi-compound seal with pinch protection system
- All-round door leaf seal with welded corner connections, no torn edges
- Approved and certified to all safety standards

# System Overview



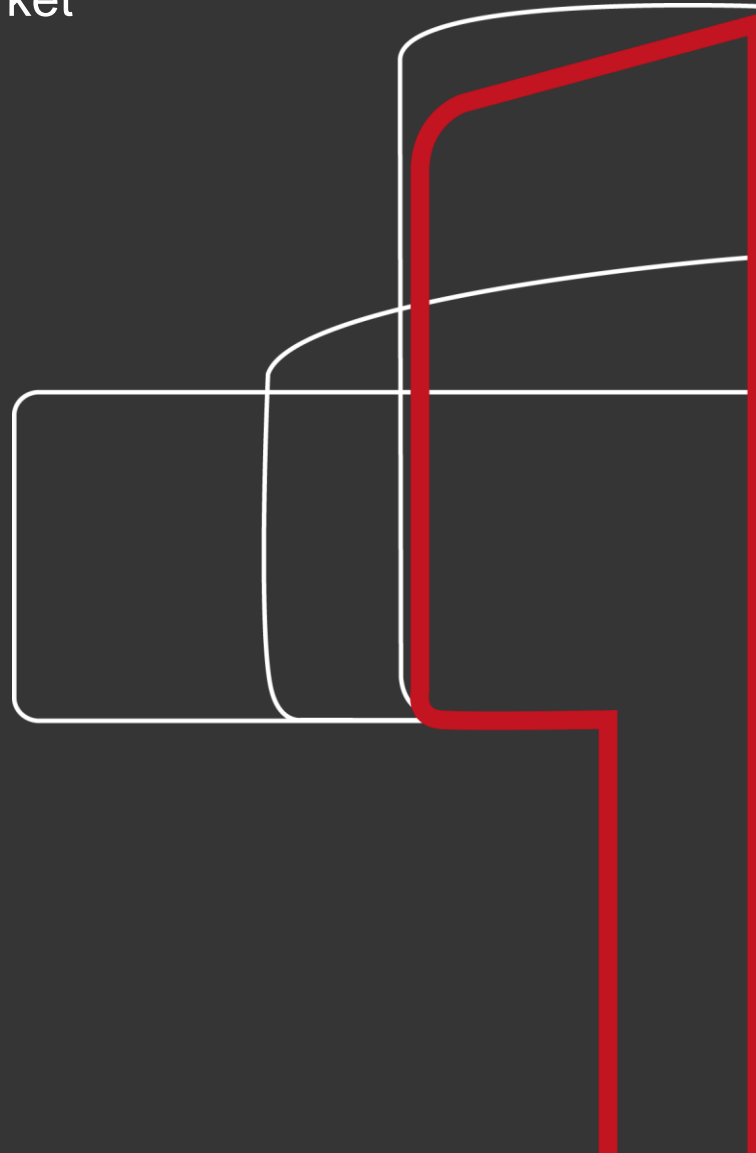
# All-round Hermetic Seal

- Certified air permeability: Hermetic door systems are independently tested and certified up to 100 Pa pressure (class 4, EN 12207)
- Specifically designed, multi-compound seal with soft edge, clean non-adherend surface, unique pinch protection system and durable corner connections (welded, not glued)



# Slim Drive Housing (1/2)

- Slimmest drive housing in the market with integrated safety sensor



## Slim Drive Housing (2/2)

- Elegant design with floating effect to make the door system look light and filigree
- Integrated active IR sensor for opening and safety



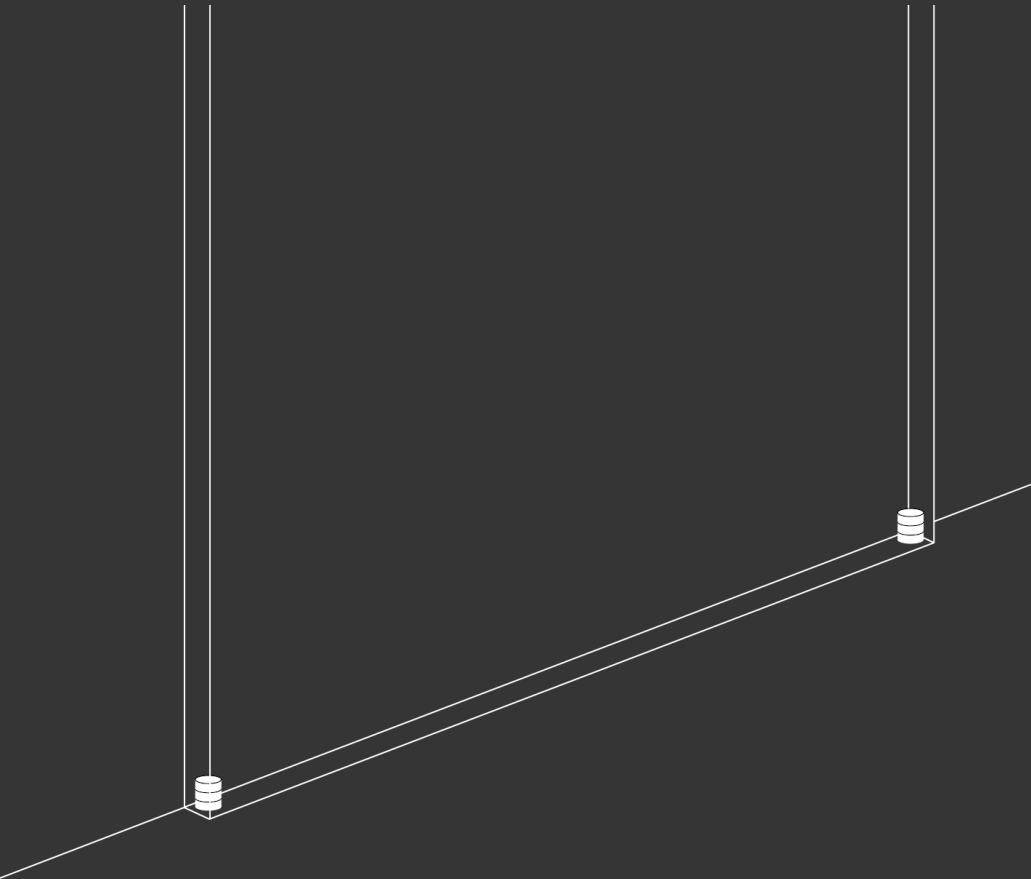
# Higher Patient Safety through Hygienic Design

- No joint line for door panels up to 2000 mm width for standard HPL doors (up to 1250 mm for antibacterial HPL doors) and 2500 mm height
- Flush transition between door panel and profile without sharp edges
- Sloping drive housing for better hygiene: reduced settlement of dust, easier to clean
- No ugly aprons at the bottom of door; pinch protection according to EN 16005 with unique, unobstrusive rubber profile



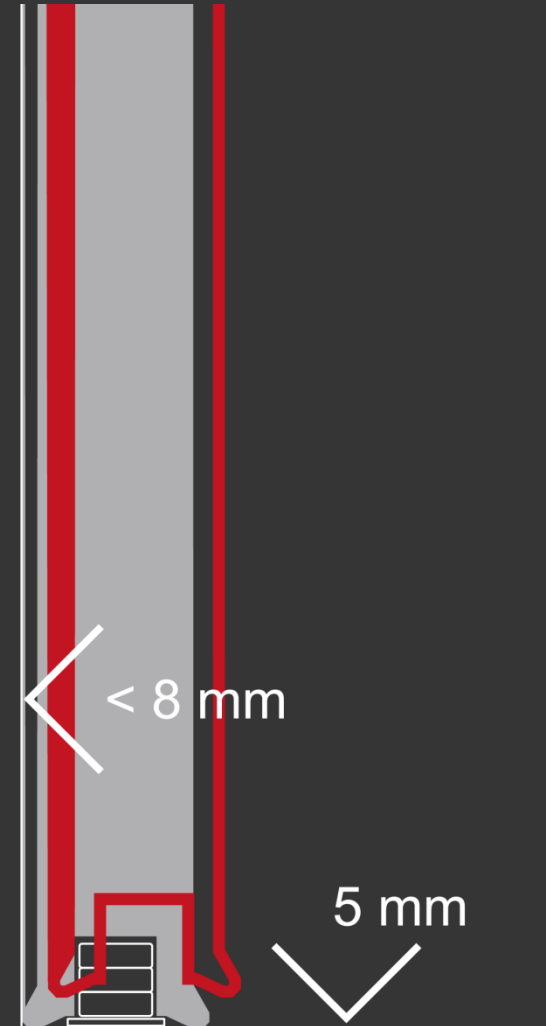
# Invisible Floor Guide

- Unrestricted access and easy cleaning due to guiding cams that are completely concealed and outside the clear opening width
- Stainless steel ball bearing cams for quiet and long-lasting operation



## Built-in Safety (1/2)

- Designed and equipped to maximum people safety
- Door leaf is lowered shortly before final closure; no dangerous shear movement
- Engineered to guarantee a maximum 8 mm safety distance between door leaf and wall (5 mm between door leaf and floor), no worries about delicate adjustments on site
- High-grade spiral cable, guided in a specific cable duct, for protective equipotential bonding of door leaf
- Innovative, unique pinch protection system
- Fully in compliance with current safety standards (→ safety distances according to EN 16005 / EN 13857)

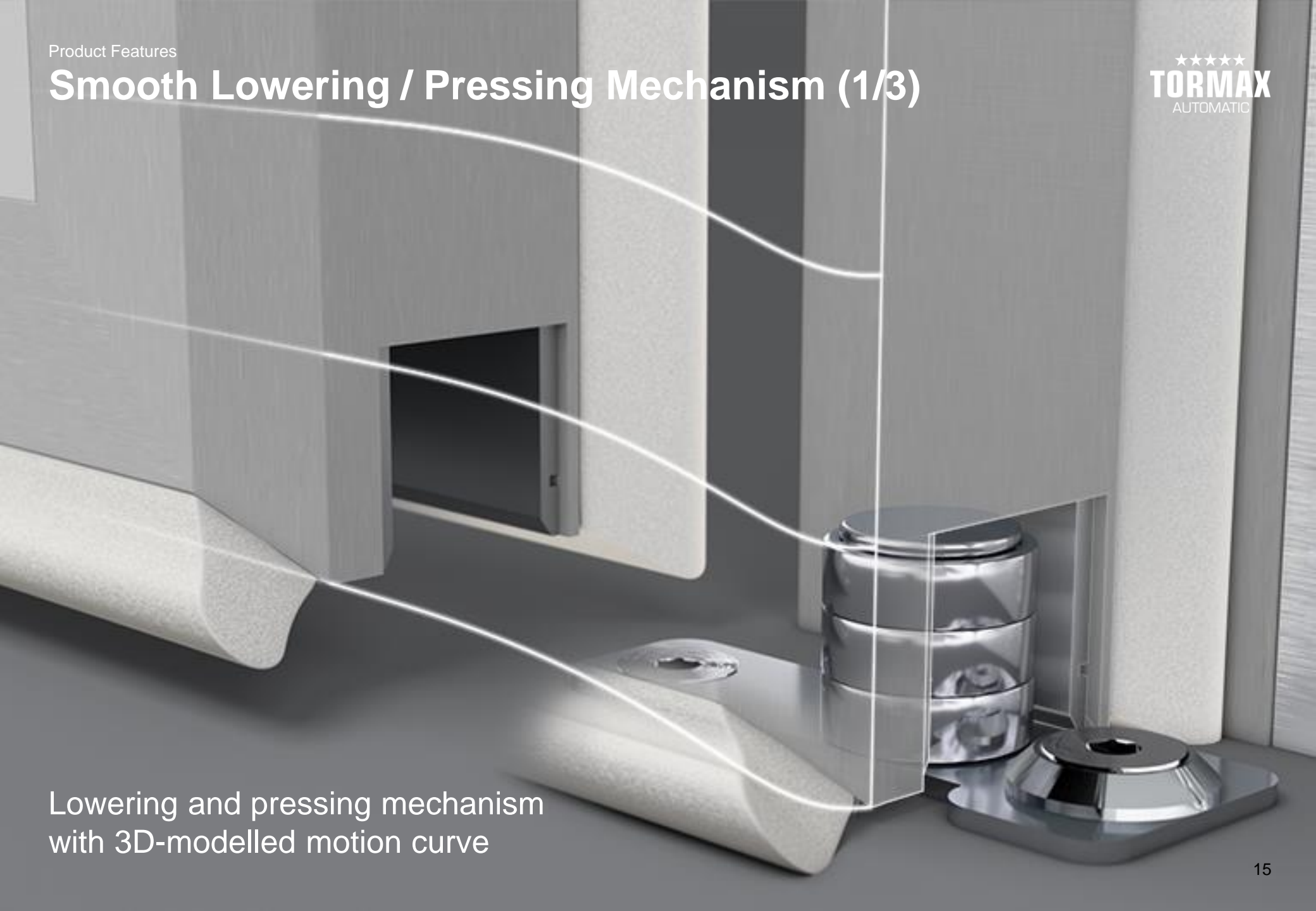


## Built-in Safety (2/2)

- Monitored combined active IR sensor TORMAX 7501 to detect motion and presence; with backward detection field to cover entire area between the doorposts
- Two ways obstacle recognition with programmable reversing function



# Smooth Lowering / Pressing Mechanism (1/3)

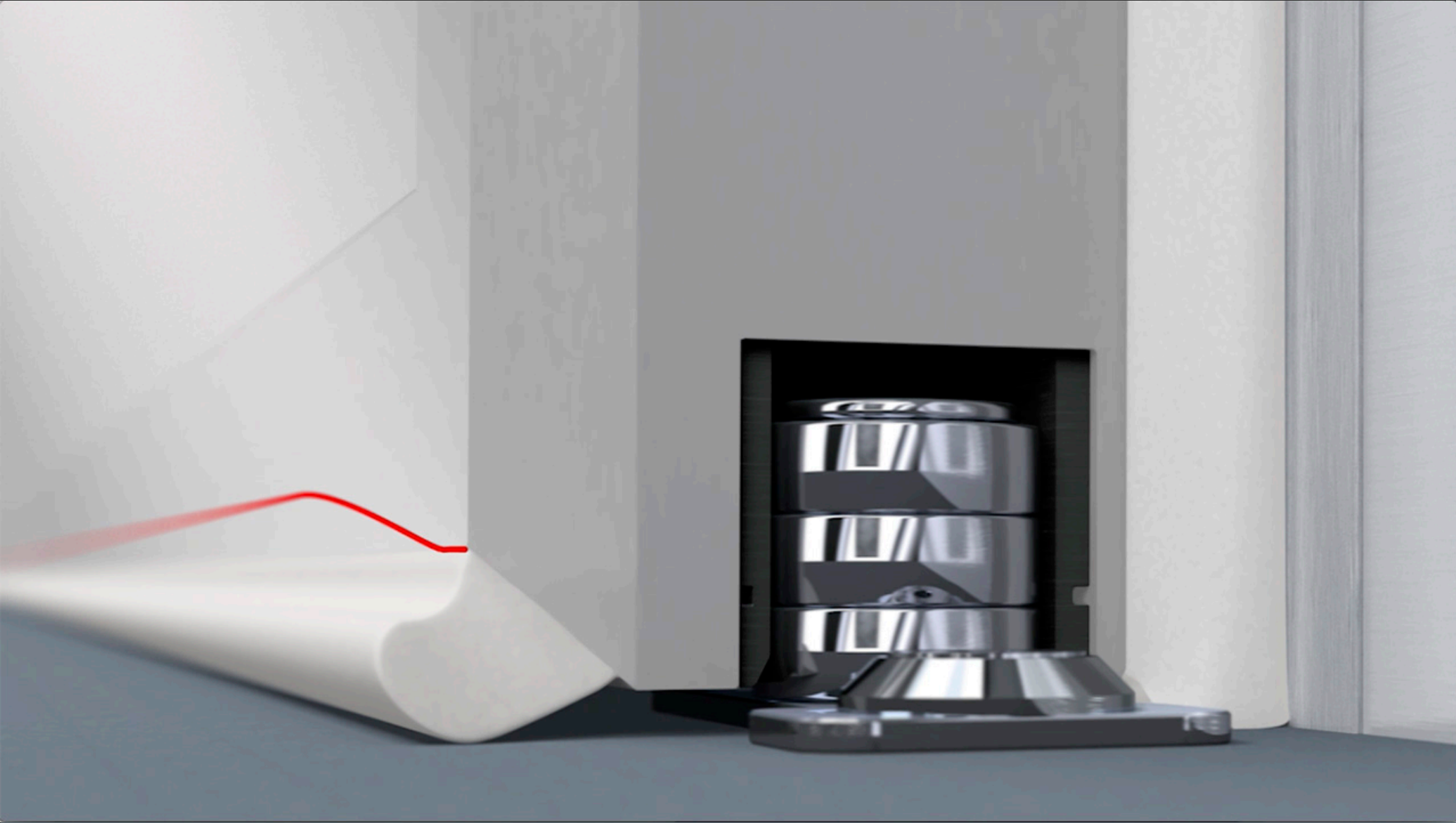


Lowering and pressing mechanism  
with 3D-modelled motion curve

Product Features

# Smooth Lowering / Pressing Mechanism (2/3)

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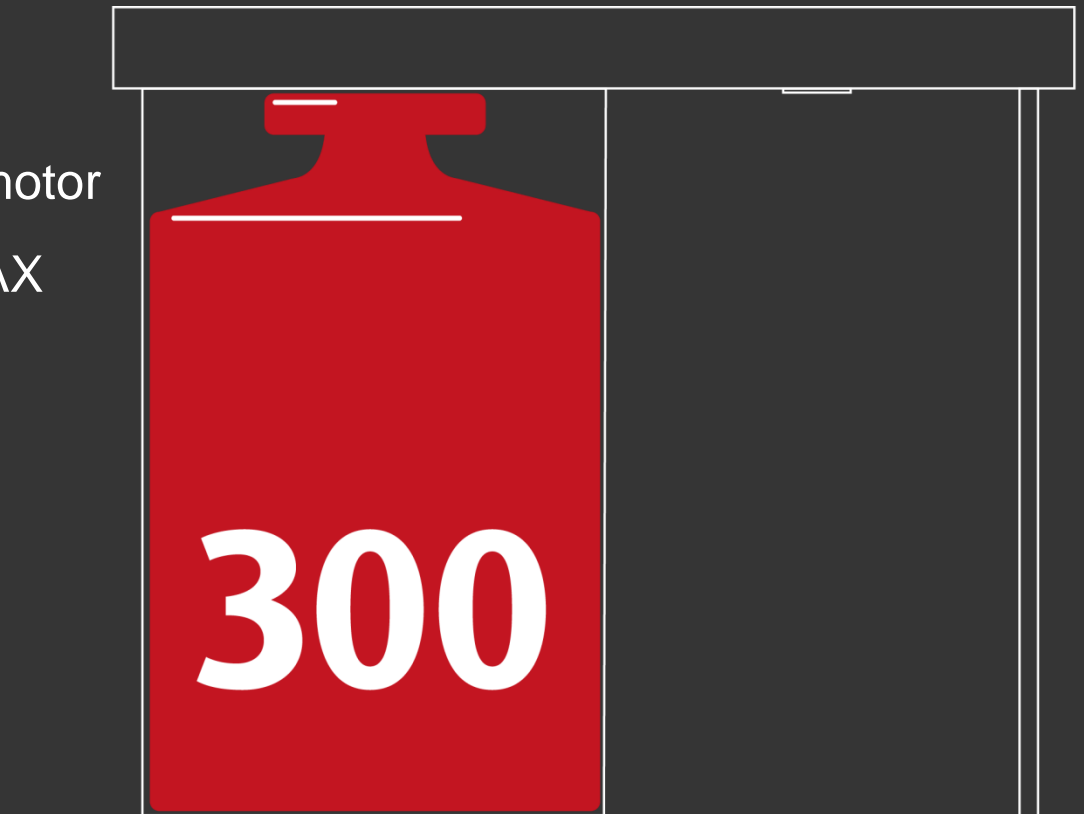
## Smooth Lowering / Pressing Mechanism (3/3)

No noise – No disturbance:

- Specific rail design with continuous transition from linear sliding to lowering
  - smoother operation
  - less stress on mechanical parts
  - longer durability
  - reduced maintenance cost
- Fully integrated in the drive and door leaf
- Vibration-absorbing components

# Powerful and Dynamic

- Fast and undisturbed passages thanks to extremely dynamic acceleration and movement
- High dynamics even for heavy door leaves up to 300 kg
- Re-enforced geared TORMAX DC motor
- Modular and programmable TORMAX micro-processor controls in order to fulfill your individual needs



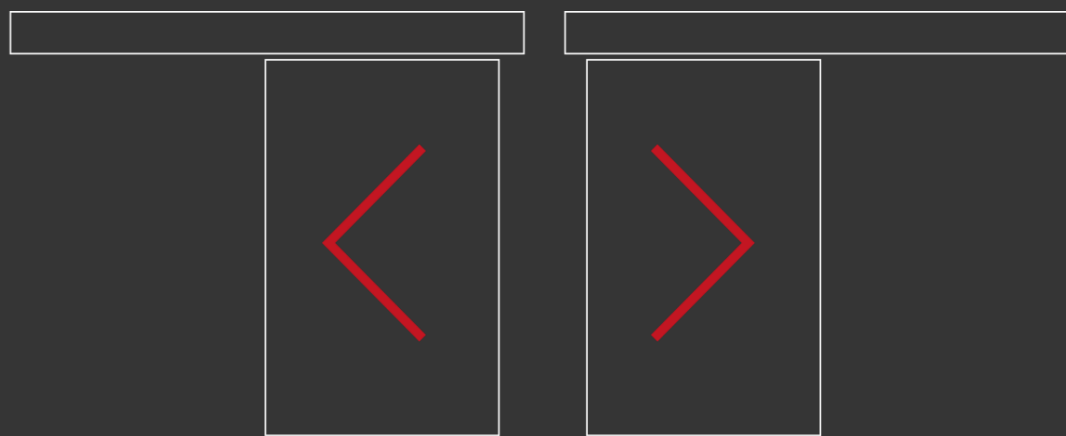
# Integration within Higher-level Systems



- Possibility to integrate various components of hospital management systems for status, access control and operation
- I/O and RS485 (Modbus)

# Individual Designs and Fittings (1/6)

- Made-to-measure



## Individual Designs and Fittings (2/6)

- 3 surface materials for door leaf
- No moisture absorption of door leaf core
- Option: inorganic door leaf core for wet areas

High Pressure Laminate (HPL),  
Standard or Antibacterial



Antibacterial Glass

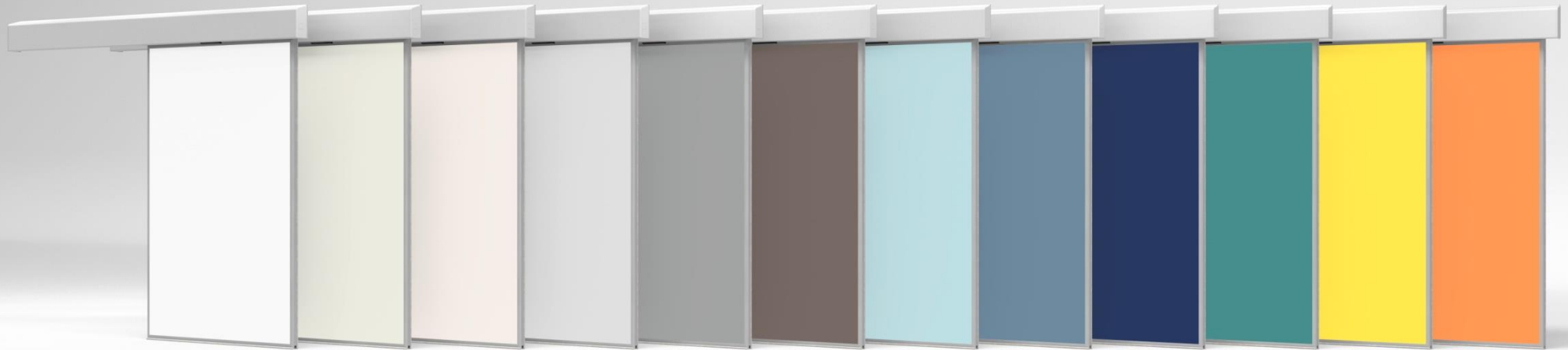


Brushed Stainless Steel



# Individual Designs and Fittings (3/6)

- Wide range of colours to match your specifications



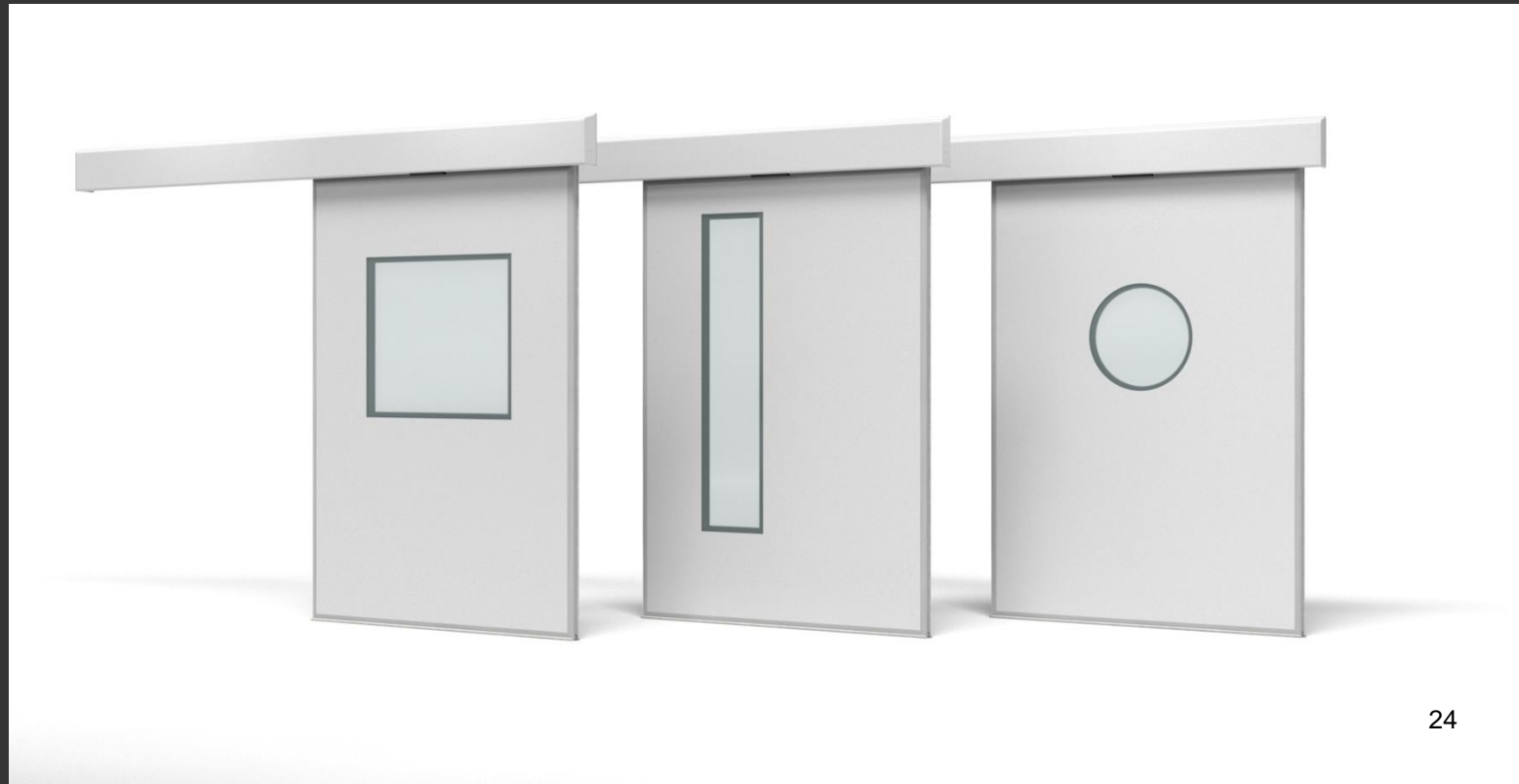
## Individual Designs and Fittings (4/6)

- Colours can be individually chosen for door leaf, door leaf frame, drive housing and wall frame



## Individual Designs and Fittings (5/6)

- Flush mounted windows in square, rectangular or circular shape
- Different glass types / glazing
- Option to install manual or electrical blinds





# Individual Designs and Fittings (6/6)

- Option: three different door handles

Flush Handle,  
Stainless Steel or Aluminium



Bow-type Handle (two sizes),  
Stainless Steel or Aluminium



Manual Lever,  
Stainless Steel



# Practical Functions for Easy Everyday Operation



- Intuitive and easy operation
- Multifunctional screen for operation as well as for display of status and occupation (in preparation)
- Basic functions: automatic, one-way, always open, closed, manual
- Intelligent additional functions included: i.e. step and time mode combined, function “Push & Go / Pull & Close” (door opens and closes automatically when being pushed or pulled)
- Individual opening widths and hold-open times
- Interlocking function (airlock): Compartment with controlled pressure and parallel sets of doors, to permit passage between areas of different pressures

## Reliable and Low Maintenance Costs

- Optimal capacity utilization due to ease of maintenance and short intervention time
- High-quality and durable materials
- Excellent accessibility due to flip up drive housing
- Door fully operational while housing in open position



# Options for the Drive Unit

- User interface with 3 and 6 operating modes
- Battery back-up (in preparation)
- Built-in mains switch with status LED
- Holding brake
- Modules with in and outputs
- Electro-mechanical lock (in preparation)

# The TORMAX quality pays off



Exceptionally long lifetime  
of door systems

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Low-wear  
mechanics

Reliable  
technology

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Less interruptions and  
service calls



Significantly lower life cycle costs  
than other systems

# Your Strong, Competent Partner



- Support by highly qualified technical advisers from design, production through to Installation
- Professional Service throughout the lifetime of your automatic door systems
- Full range of maintenance contracts to suit all requirements
- 24/7 Service
- Proven Swiss quality and reliability
- Delivery time TORMAX Hermetic: 9 weeks from receipt of signed drawings



# System Designations

Door Leaf Weight	up to 200 kg	200 - 300 kg
Hermetic	TORMAX 2353.HERM	TORMAX 2453.HERM
Airtight	TORMAX 2353.AIRTIGHT	TORMAX 2453.AIRTIGHT

# Technical Main Data

<b>Technical Data / Feature</b>	<b>TORMAX Hermetic</b>
Clear Passage Width*	800 - 2000 mm
Clear Passage Height*	Max. 2500 mm
Dimension Header (d x h)	135 x 280 mm
Max. Door Leaf Weight	300 kg
Opening Speed	Up to 0.7 m/s
Hold Open Time	Adjustable
Air Permeability	Class 4 / 100 Pa (EN 1026 & DIN EN12207)
Sound Insulation	Sound Protection Class 1 (SK1, 27 dB) EN-ISO717-2 & EN ISO10140-2 (SK 3, 37 dB), test certificate in preparation
Approvals	CE (EN 16005 / DIN 18650; TÜV certified)

\* Larger dimensions on request



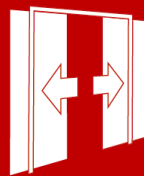
the passion to drive doors

## Your Contact

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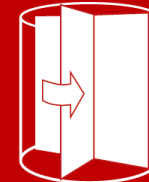
Swing Door Systems



Sliding Door Systems



Folding Door Systems



Revolving Door Systems