



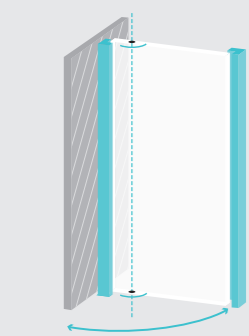
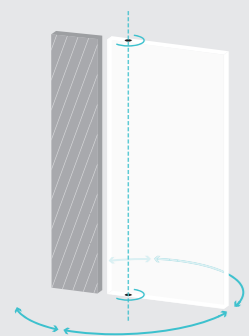
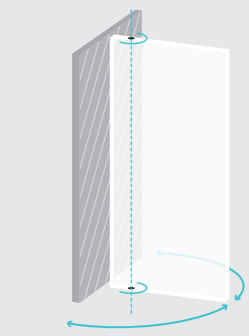
SYSTEM M

hidden perfection

FritsJurgens®

# SYSTEM M APPLICATIONS

System M is the perfect solution  
for single and double-acting doors.



Choose the pivot door system that  
meets all your needs. Please see our  
complete line of products on pages  
32 - 35.

## TABLE OF CONTENTS

### FRITSJURGENS® SYSTEM M

- 05 Improving upon perfection
- 06 Hidden perfection
- 09 Designed to stand the test of time
- 10 FritsJurgens® System M
- 11 Ultimate smoothness
- 13 Components

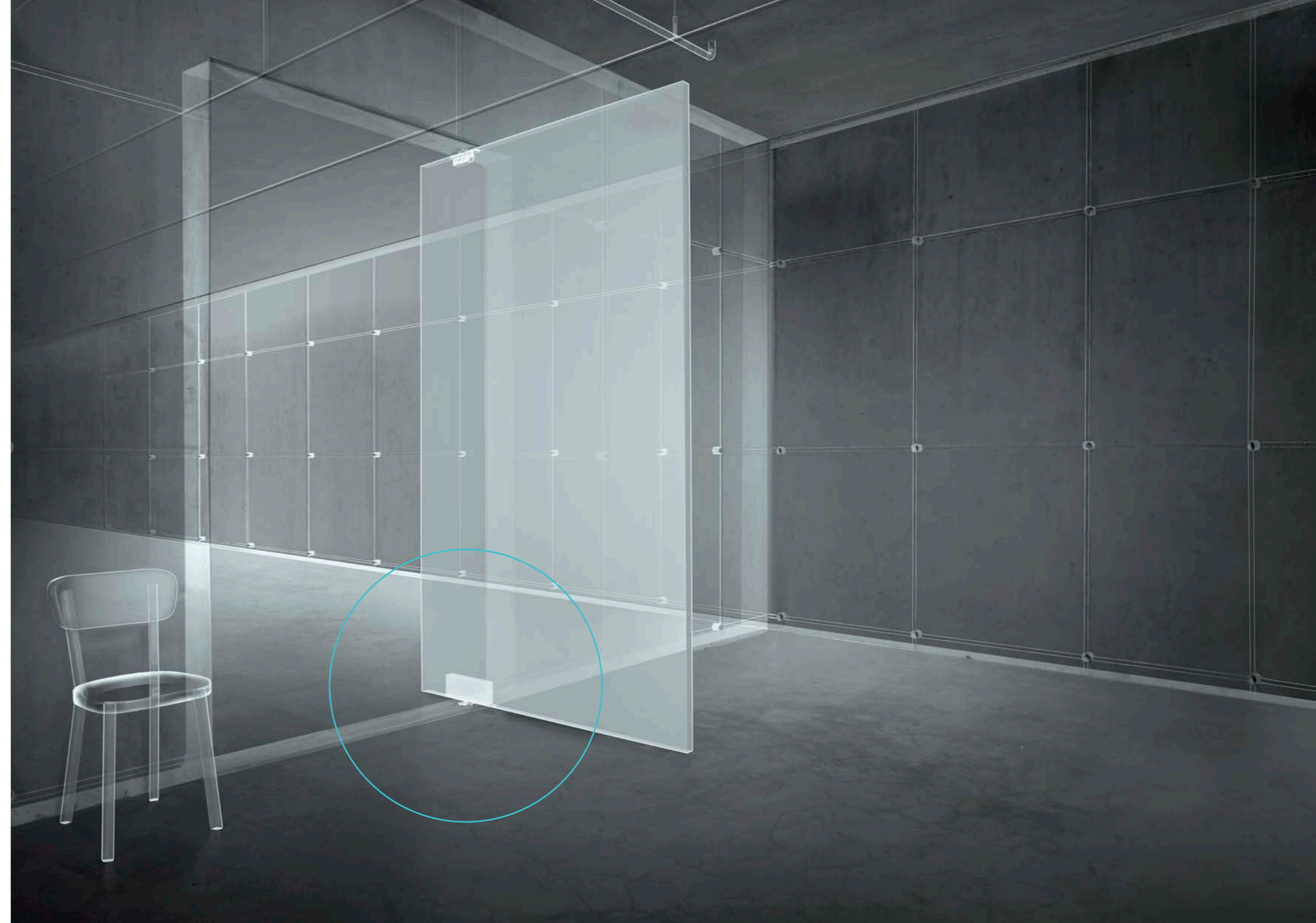
### TECHNICAL DOCUMENTATION

- 16 Technical drawings
- 18 Milling drawings
- 20 Type selector
- 22 Gaps around the door
- 24 Pressure load
- 27 Lateral force
- 28 Setting top pivot
- 30 Setting System M

### 32 OVERVIEW SYSTEMS

## WHERE TO BUY

Please visit [fritsjurgens.com](http://fritsjurgens.com) to find the contact details of partners and dealers in your area.







## IMPROVING UPON PERFECTION SYSTEM M

You value design and aesthetics. You appreciate beauty that surpasses current trends. You strive for the best. You are not only seeking the perfect door – the pivot door – but also the perfect movement: the ultimate in smoothness. At the touch of a finger you expect a single fluid movement.

Perfectly balanced. Fritsjurgens® System M offers all this and much more.



## SYSTEM M HIDDEN PERFECTION



System M adds quality to the design of any pivot door: total control over the flow of the movement.

The opening is as light as a feather, the movement extremely elegant, and the closing as soft as a whisper. This is thanks to our patented system consisting of two state-of-the-art dampers operating in seamless coordination.







## SYSTEM M DESIGNED TO STAND THE TEST OF TIME

The hinge system is extremely rigid and virtually indestructible. Our rigorous testing has shown that even after 1 million cycles (similar to 136 years of daily use) System M still behaves flawlessly. This is a system truly designed for the ages: invisible, built-to-last and maintenance-free.

System M packs an enormous amount of force into a compact space. To harness this power we have developed a casing out of a single piece of aluminum. We have also made the camshafts out of tempered steel for ultimate endurance.



# FRITSJURGENS® SYSTEM M

## NO STRUCTURAL ELEMENTS

The pivot hinges are fully mortised into the top and bottom of the door: no structural elements in floor and ceiling.

## LOAD-BEARING CAPACITY: UP TO 500 KG

Our systems can support large and heavy doors thanks to robust bearings and the use of high quality materials like hardened stainless steel and anodized aluminum. In order to select the desired door movement, please refer to the table on page 33.

## MINIMUM DOOR THICKNESS: 40MM

## MAINTENANCE - FREE

Built from materials of the highest quality, the system is maintenance-free.

## FOR NEW AND RETROFIT SITUATIONS

The floorplate bolts only need to mortise 8mm into the floor, which means System M can also be combined with underfloor heating.

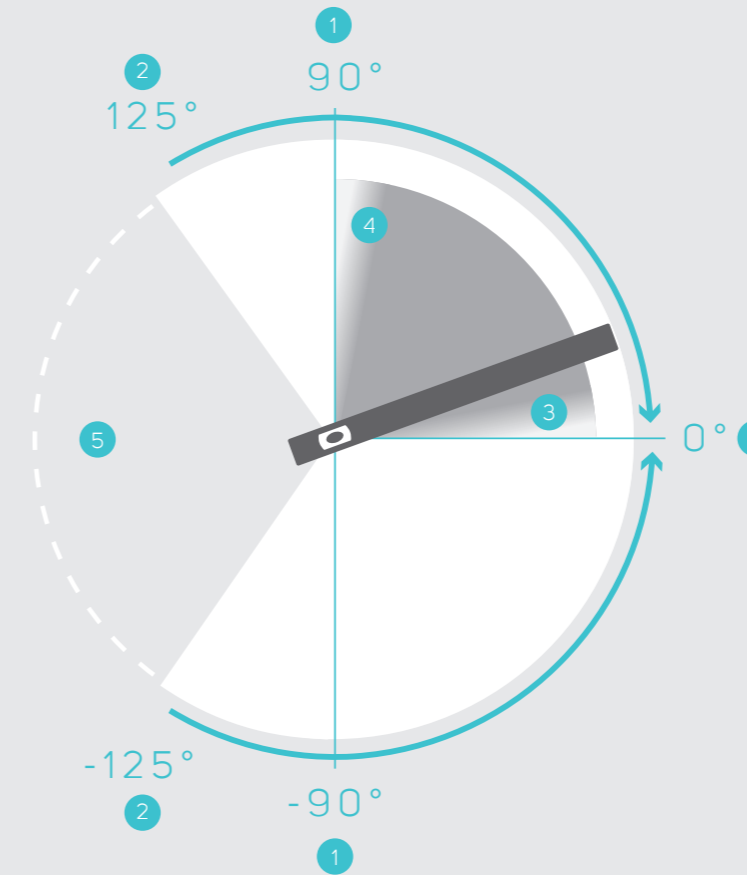
## EASILY-ADJUSTABLE

The innovative design of our hinge systems means the closing gap and the radial position can be easily adjusted while door remains installed.

## SUITABLE FOR ALL TYPES OF DOORS

Ideal for timber, steel, framed glass and massive clad doors. Perfect for interior and exterior doors, in both residential and commercial environments.

# SYSTEM M ULTIMATE SMOOTHNESS



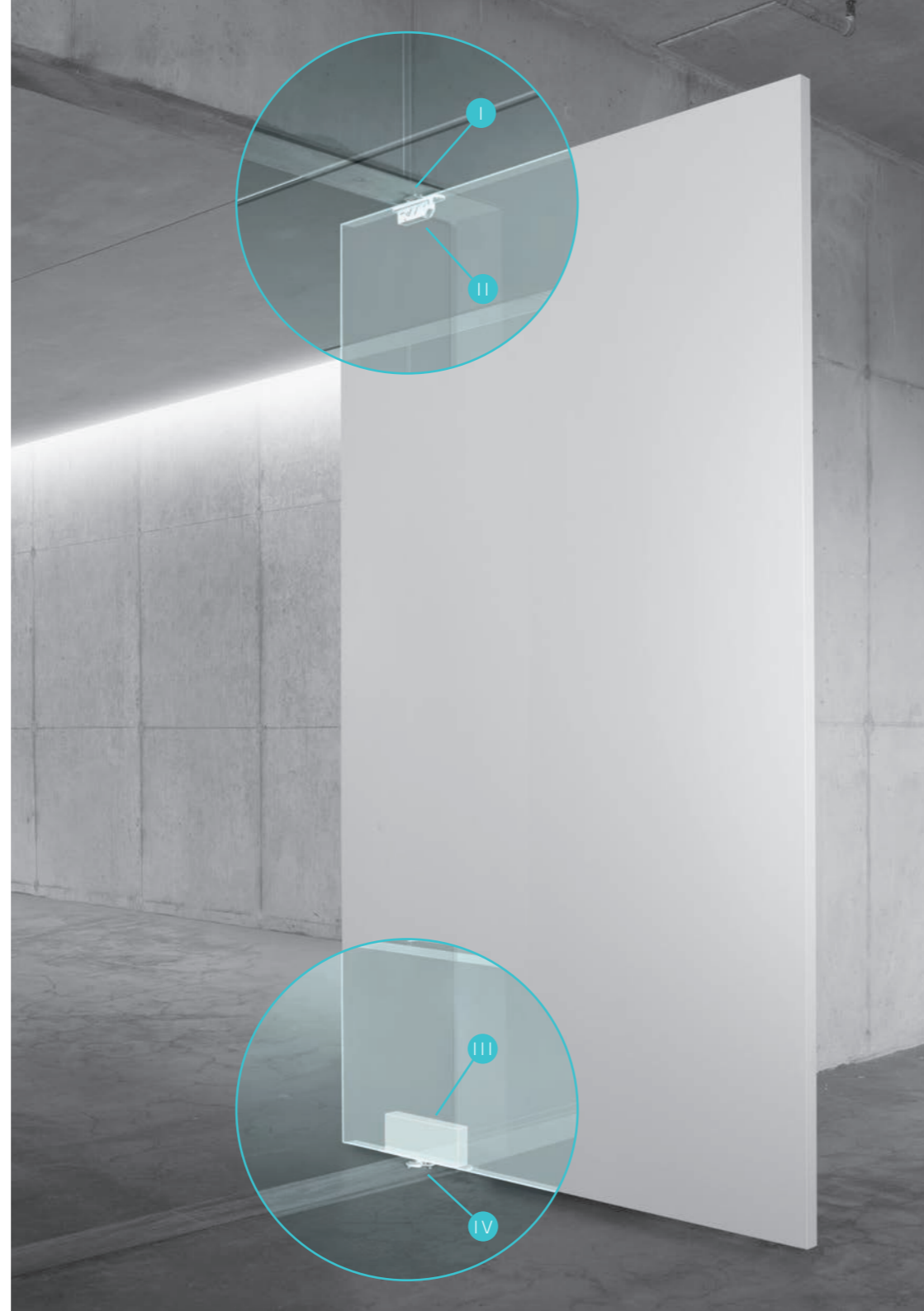
- 1 HOLD POSITION AT 0°, 90° AND -90°**  
The door can be placed in a hold position of 90° or -90°. Thanks to the self-closing function the door will return to the 0° position.
- 2 SELF-CLOSING FROM 125° AND -125°**  
After opening, the door returns smoothly to the 0° position unless set to the hold position at 90° or -90°.
- 3 ADJUSTABLE CLOSING DAMPING**  
The closing damping can be adjusted steplessly (soft close).
- 4 ADJUSTABLE HYDRAULIC BACKCHECK**  
On opening the door, the speed decreases starting at 70° to prevent knocking against any obstacles at 90°.
- 5 NO OPENING AND CLOSING FUNCTION**  
In this area the System M rotates free without the opening and closing function.



## NO STRUCTURAL ELEMENTS IN FLOOR AND CEILING

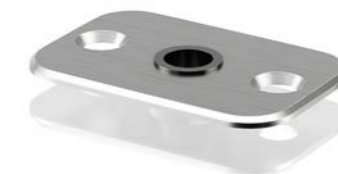
The FritsJurgens® pivot door system is unique in that there are no structural elements in the floor and the ceiling. The pivot hinges are fully mortised into the top and bottom of the door, so that only floor and ceiling plates need to be installed. A virtually invisible system.

The bottom hinge of System M and its floorplate are completely new and designed from the ground up. The system can be combined with existing FritsJurgens® top pivots.



## SYSTEM M COMPONENTS

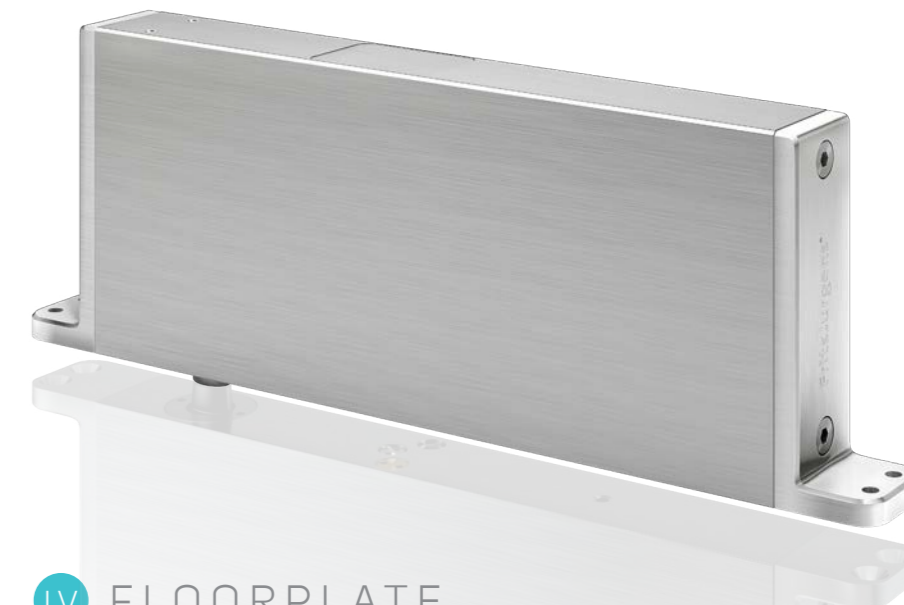
### I CEILING PLATE



### II TOP PIVOT



### III SYSTEM M



### IV FLOORPLATE





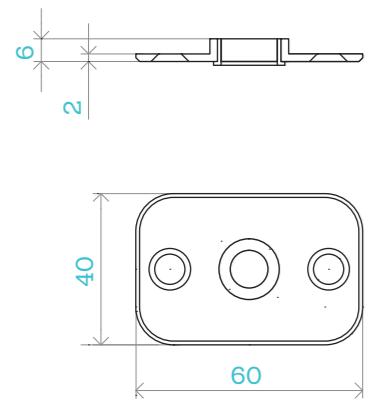
SYSTEM M

# TECHNICAL DOCUMENTATION

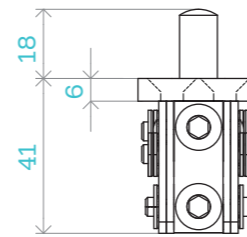
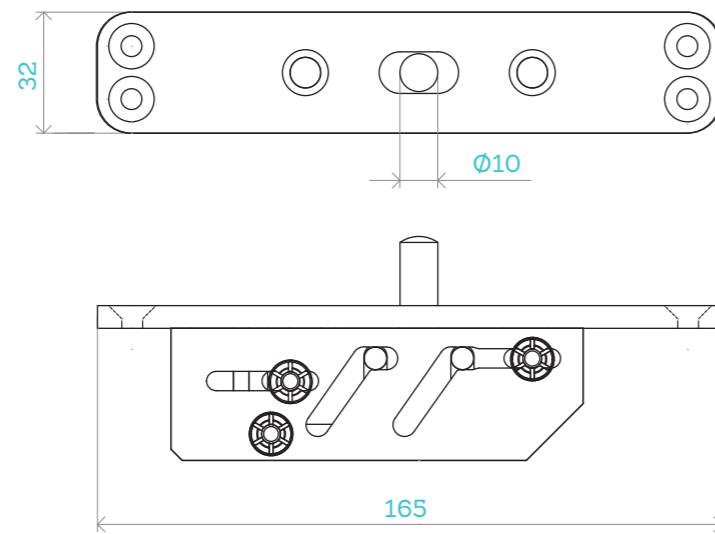


# SYSTEM M TECHNICAL DRAWINGS

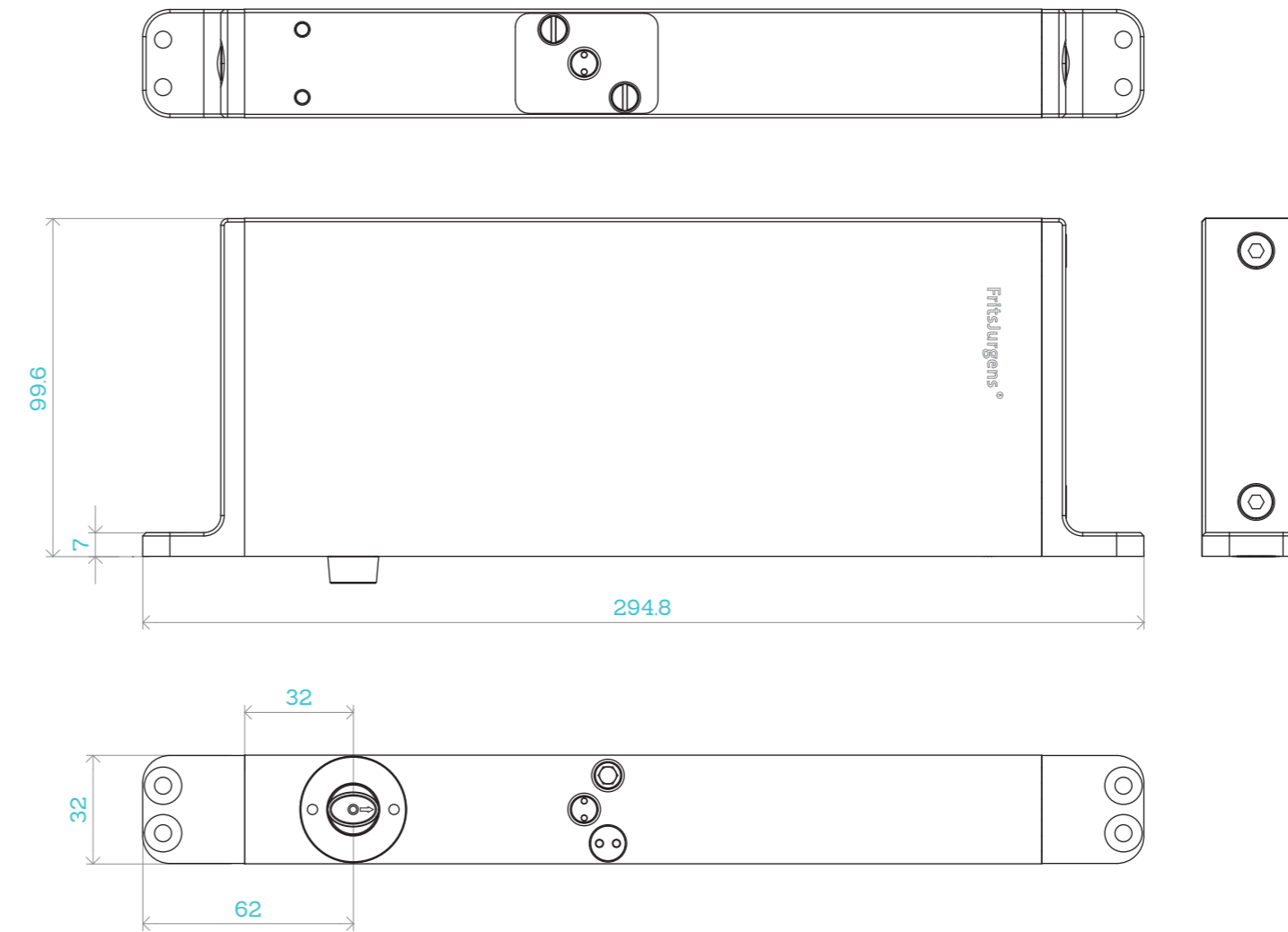
CEILING PLATE



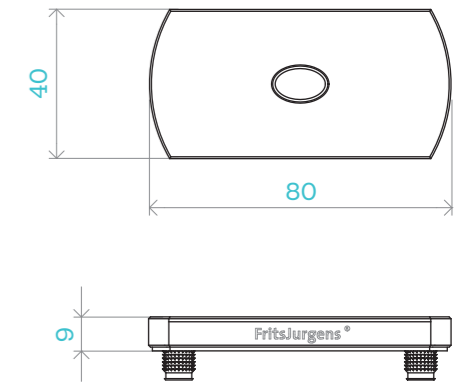
TOP PIVOT



SYSTEM M

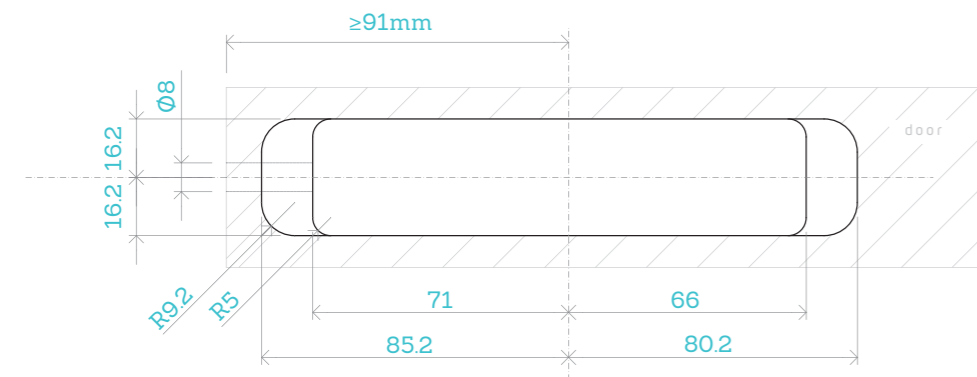
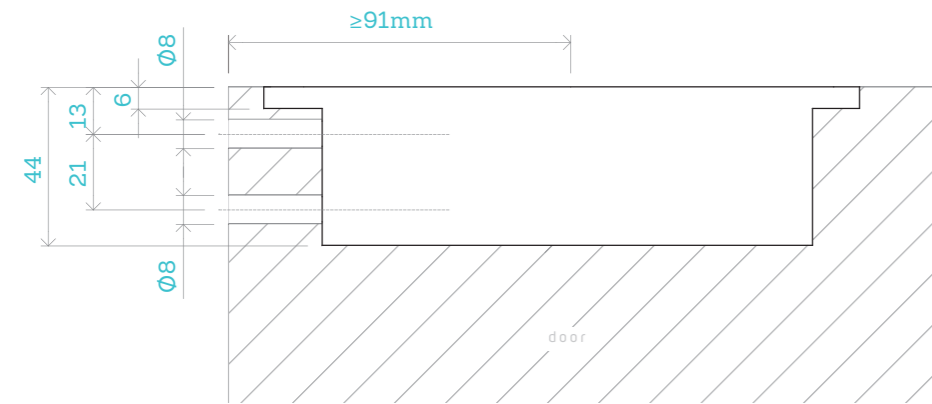


FLOORPLATE

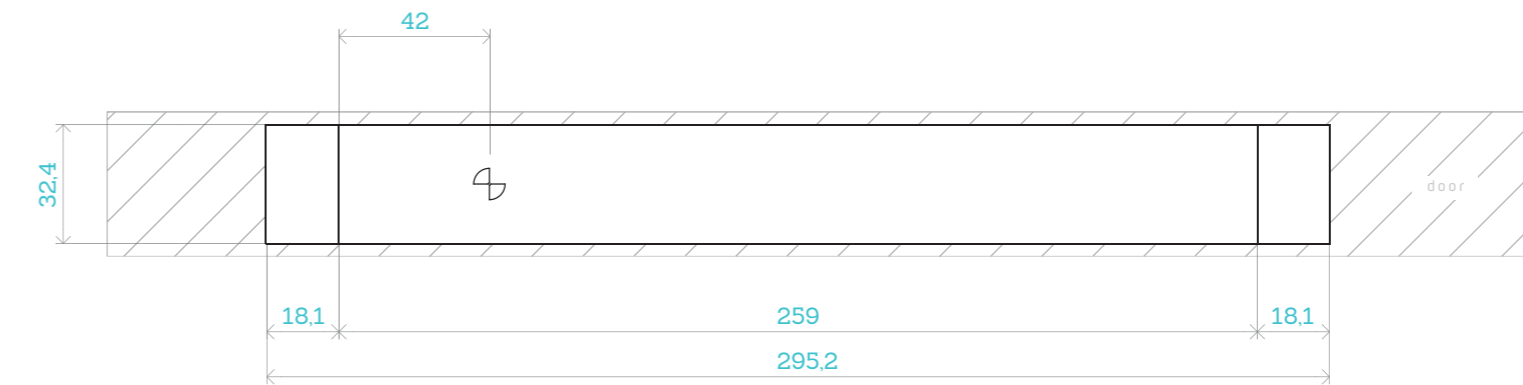
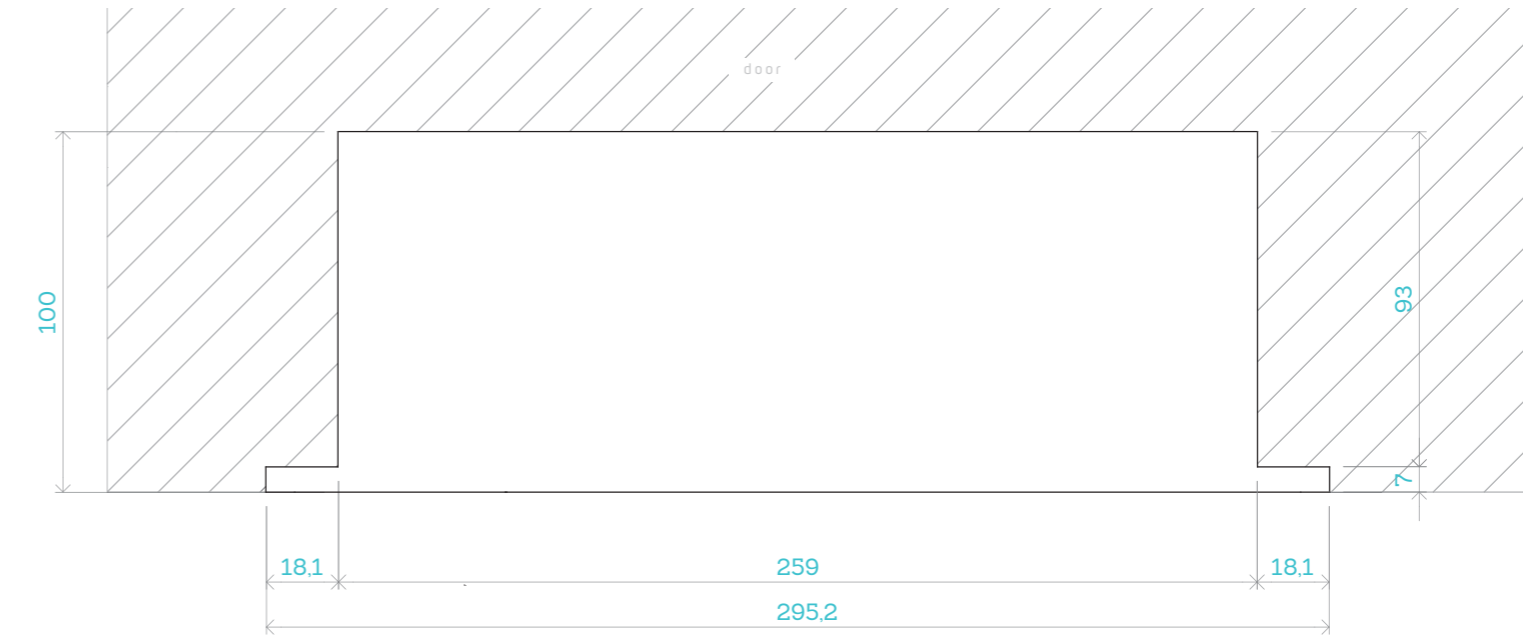


# SYSTEM M MILLING DRAWINGS

TOP PIVOT



SYSTEM M

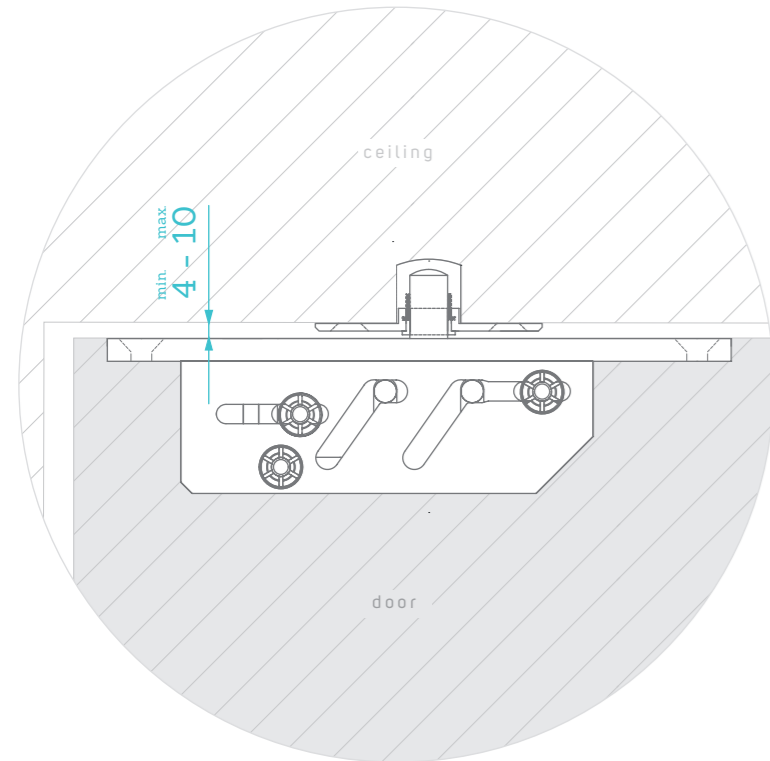






# SYSTEM M GAPS AROUND THE DOOR

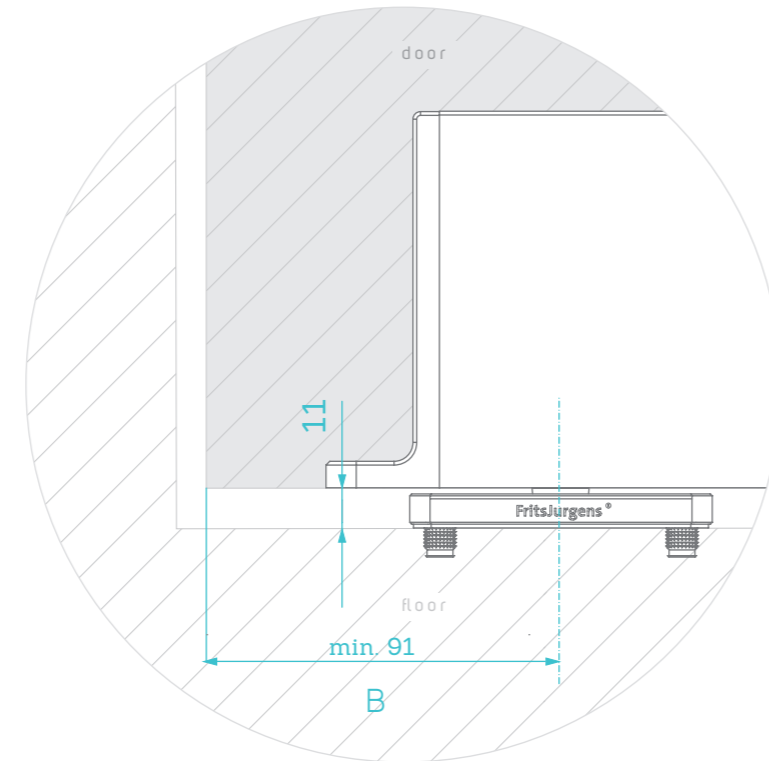
## TOP PIVOT



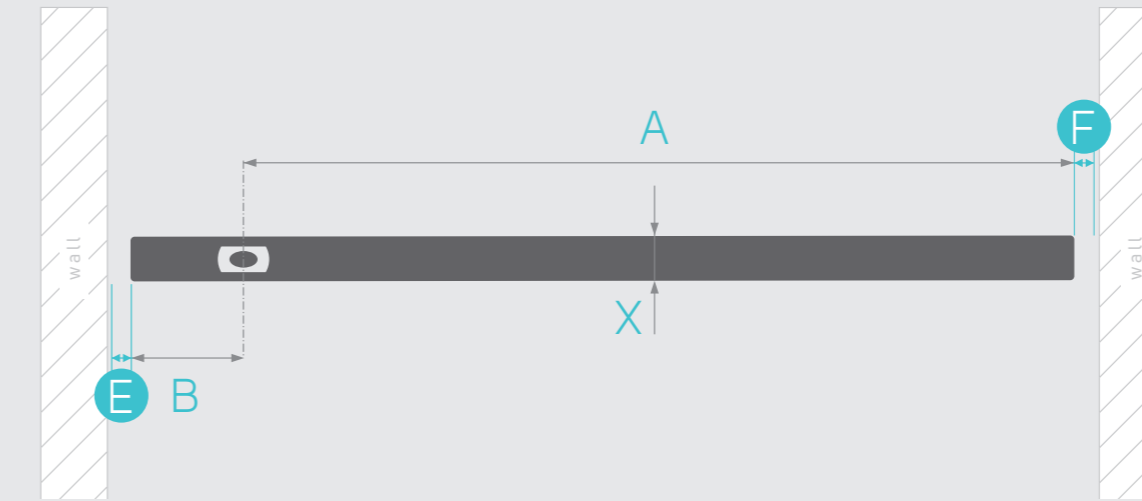
System M is designed to be virtually invisible. In addition, the system allows for minimal gaps all around the door. The minimum installation dimensions are 4mm at the top (ceiling) and 11mm at the bottom (floor).

The minimum vertical dimensions for installation depend on the thickness (X) and width of the door in relation to the positioning of the hinge (A and B). **Important:** the minimum distance from the pivot point of the hinge to the edge of the door (B) is 91mm.

## SYSTEM M



# GAP CALCULATION



## EXAMPLE

X	Door thickness	40
A	Distance of rotation point to latch side of the door	1500
B	Distance pivot point to beginning door	91
E*	Minimum gap between door and wall	4.2
F*	Minimum gap between door and wall	2.1

B	X						
	40	50	60	70	80	90	100
91	4.2	5.4	6.8	8.5	10.4	12.5	14.8
250	2.8	3.3	3.8	4.4	5.2	6	7
500	2.4	2.6	2.9	3.2	3.6	4	4.5
1000	2.2	2.3	2.5	2.6	2.8	3	3.3
1500	2.1	2.2	2.3	2.4	2.5	2.7	2.8
2000	2.1	2.2	2.2	2.3	2.4	2.5	2.6

A	X						
	40	50	60	70	80	90	100
500	2.4	2.6	2.9	3.2	3.6	4	4.5
1000	2.2	2.3	2.5	2.6	2.8	3	3.3
1500	2.1	2.2	2.3	2.4	2.5	2.7	2.8
2000	2.1	2.2	2.2	2.3	2.4	2.5	2.6

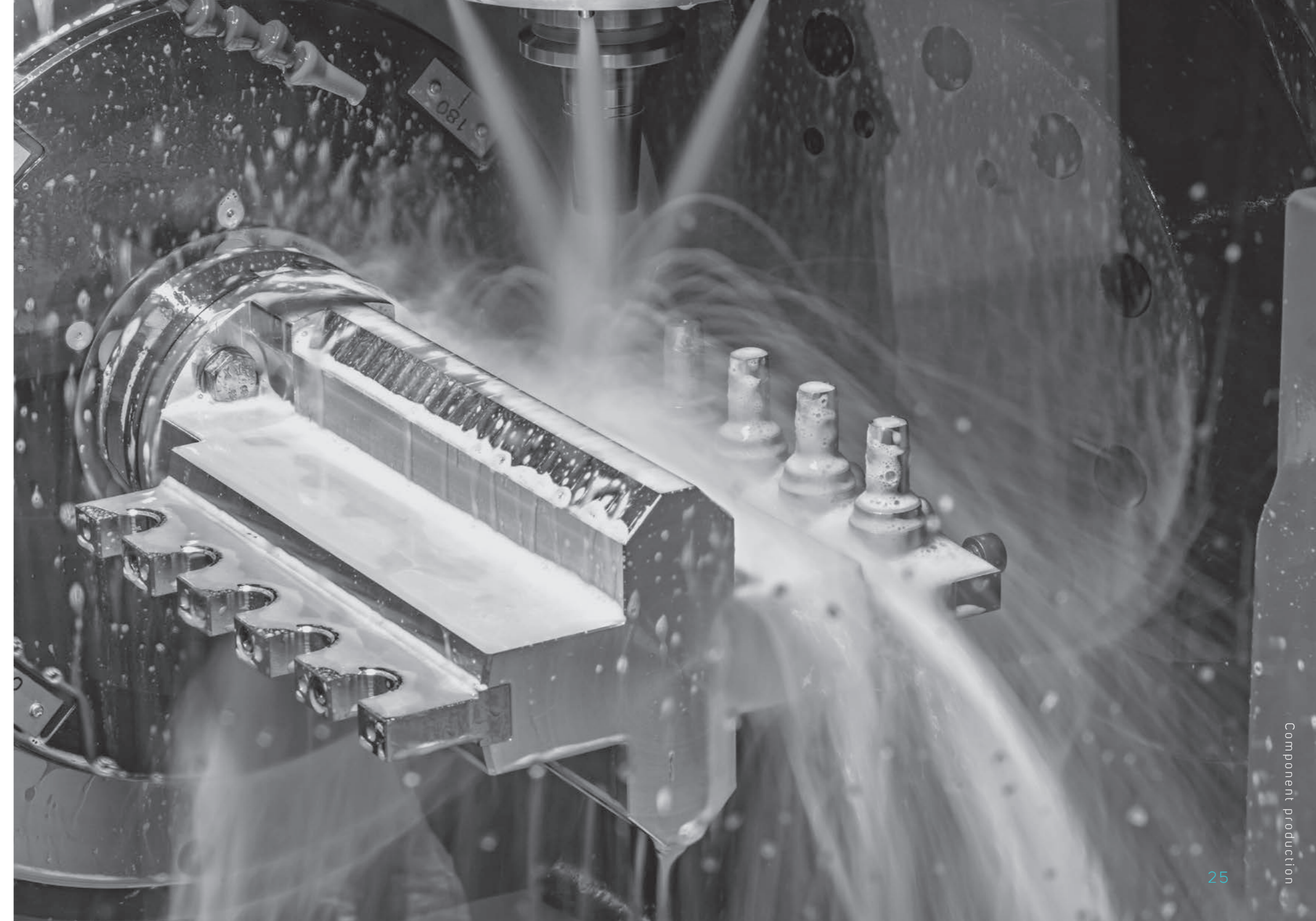
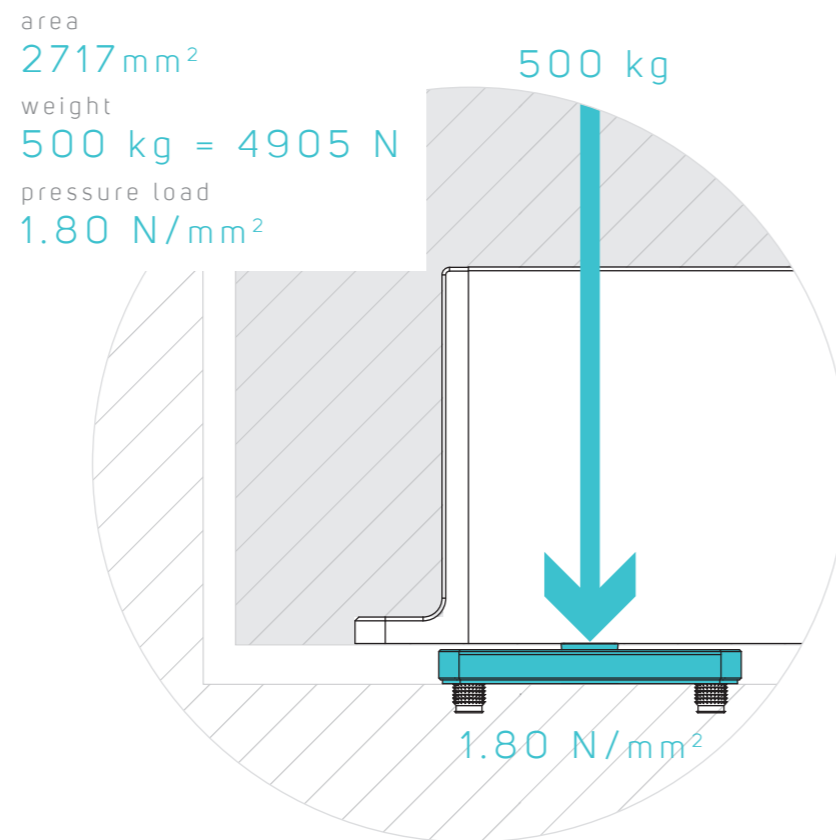
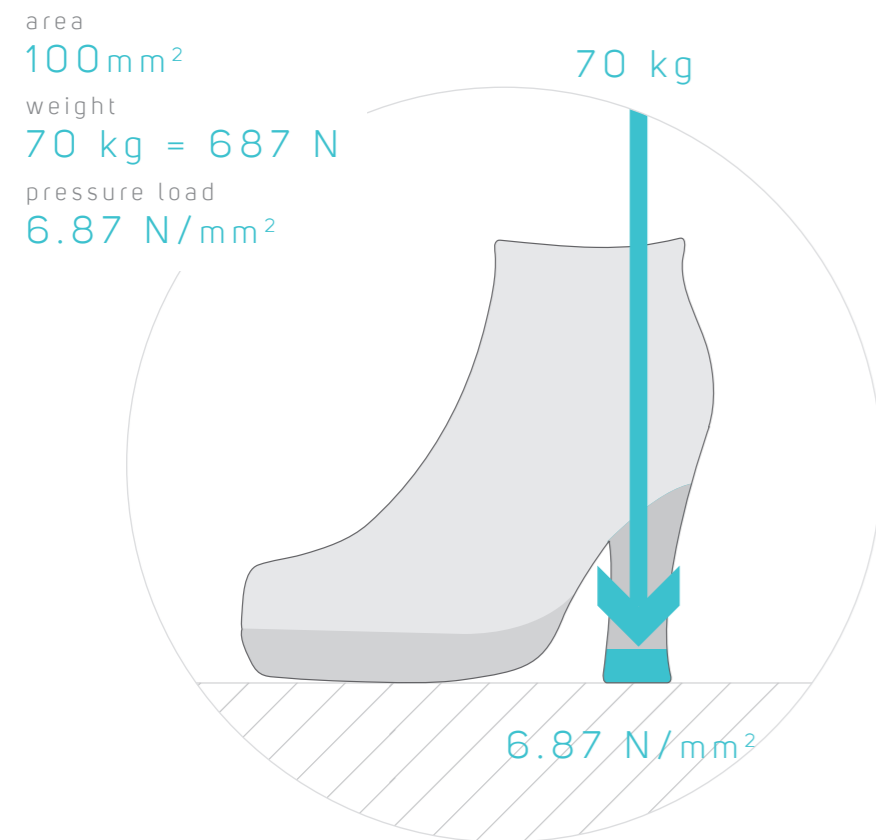
\* There is no need to add extra space for installing. The outcome for E and F includes a 2mm tolerance.



# SYSTEM M PRESSURE LOAD

The Fritsjurgens® pivot door stands on a floorplate of 40 x 80mm and produces a pressure load (Fw) of 1.80 N/mm<sup>2</sup> with a door of 500 kg.

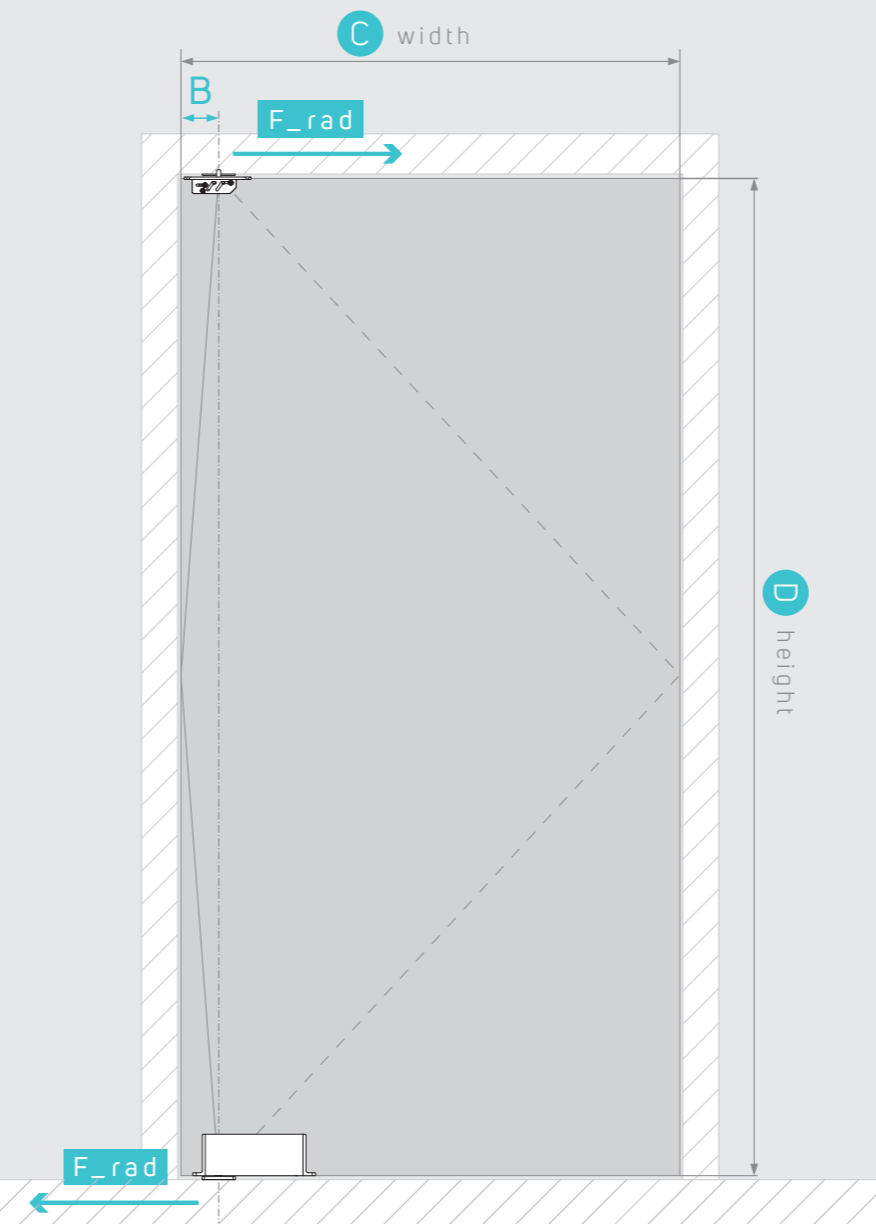
As a reference: a woman of circa 70 kg wearing high heels produces a pressure load (Fw) of 6.87 N/mm<sup>2</sup>. For application on your floor we refer to the specifications of the floor manufacturer.







# LATERAL FORCE



B = 91 mm

weight door: 500 kg

height (mm)	width (mm)						
	500	750	1000	1250	1500	1750	2000
2000	390 N	697 N	1003 N	1310 N	1616 N	1923 N	2229 N
2100	371 N	663 N	955 N	1247 N	1539 N	1831 N	2123 N
2200	355 N	633 N	912 N	1191 N	1469 N	1748 N	2027 N
2300	339 N	606 N	872 N	1139 N	1405 N	1672 N	1939 N
2400	325 N	580 N	836 N	1091 N	1347 N	1602 N	1858 N
2500	312 N	557 N	803 N	1048 N	1293 N	1538 N	1784 N
2600	300 N	536 N	772 N	1007 N	1243 N	1479 N	1715 N
2700	289 N	516 N	743 N	970 N	1197 N	1424 N	1651 N
2800	279 N	498 N	717 N	936 N	1154 N	1373 N	1592 N
2900	269 N	480 N	692 N	903 N	1115 N	1326 N	1538 N
3000	260 N	464 N	669 N	873 N	1078 N	1282 N	1486 N

B = 1/5 width door

weight door: 500 kg

height (mm)	width (mm)						
	500	750	1000	1250	1500	1750	2000
2000	368 N	552 N	736 N	920 N	1104 N	1288 N	1472 N
2100	350 N	526 N	701 N	876 N	1051 N	1226 N	1401 N
2200	334 N	502 N	669 N	836 N	1003 N	1171 N	1338 N
2300	320 N	480 N	640 N	800 N	960 N	1120 N	1280 N
2400	307 N	460 N	613 N	766 N	920 N	1030 N	1226 N
2500	294 N	442 N	589 N	736 N	883 N	1030 N	1177 N
2600	283 N	425 N	566 N	708 N	849 N	990 N	1132 N
2700	273 N	409 N	545 N	681 N	818 N	954 N	1090 N
2800	263 N	394 N	526 N	657 N	788 N	920 N	1051 N
2900	254 N	381 N	507 N	634 N	761 N	888 N	1015 N
3000	245 N	368 N	491 N	613 N	736 N	858 N	981 N

9.8 N = 1 kg

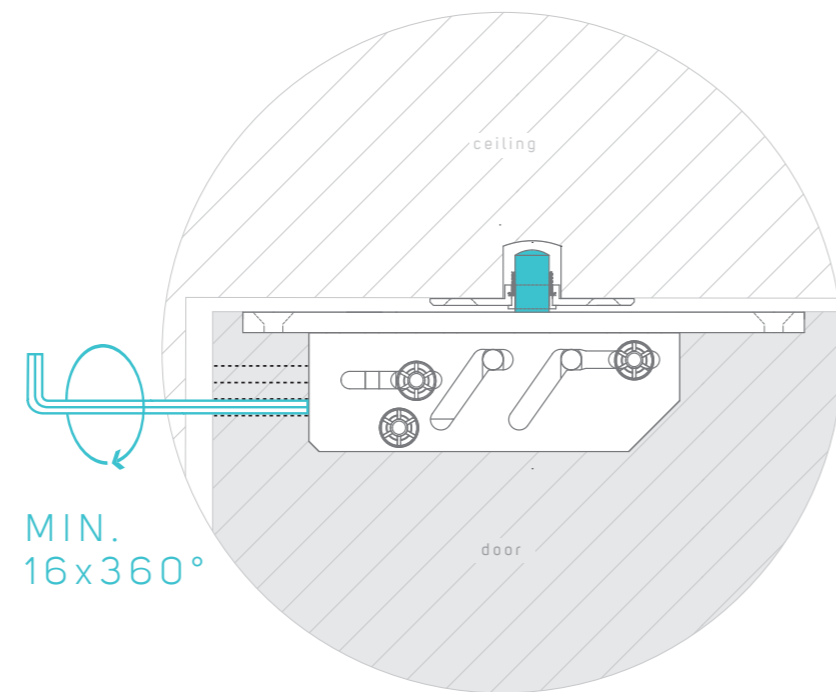


# SYSTEM M SETTING TOP PIVOT

## MOUNTING TOP PIVOT

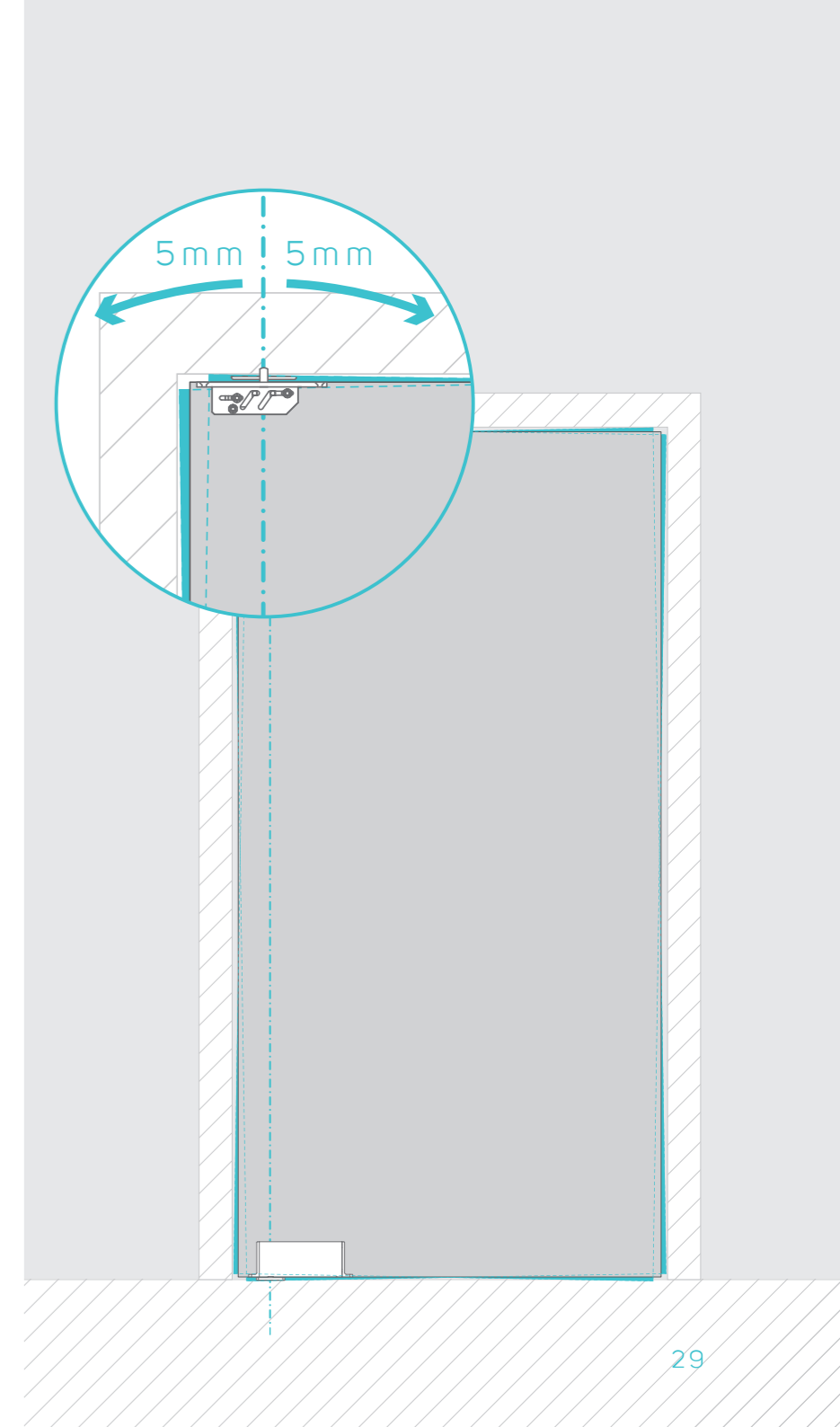
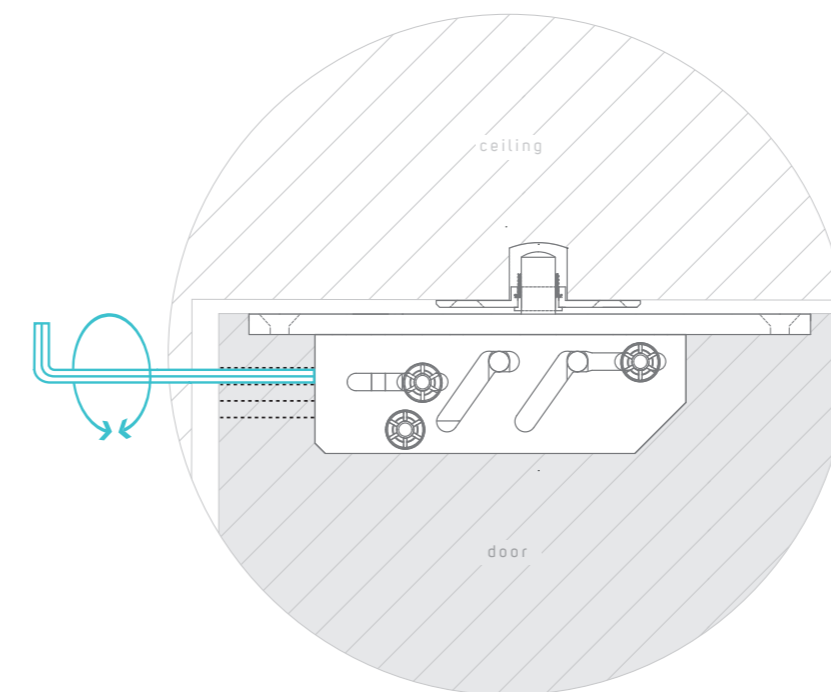
The top pivot can be set using a 5mm hex key in the bottom hole. To the right: assembly. To the left: disassembly.

Important: to ensure that the door is secured properly, a minimum of 16 rotations of 360° are required.



## SETTING THE GAP

Gaps around the door can be adjusted using a 5mm hex key in the top hole.

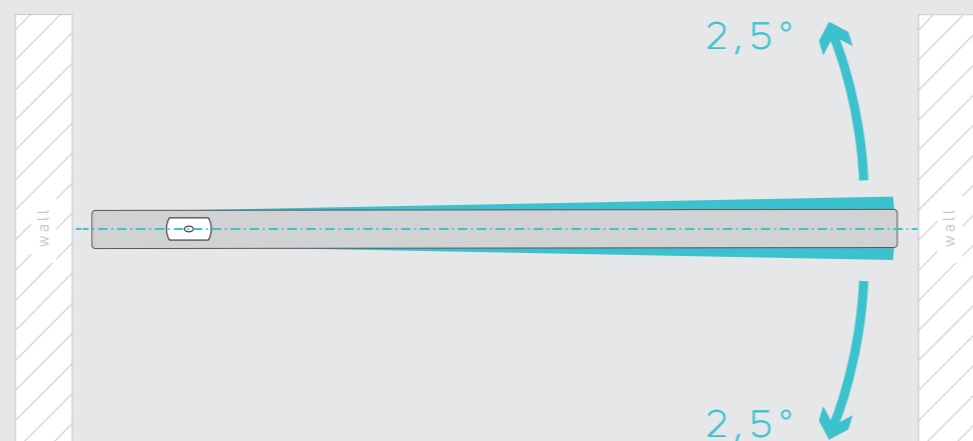
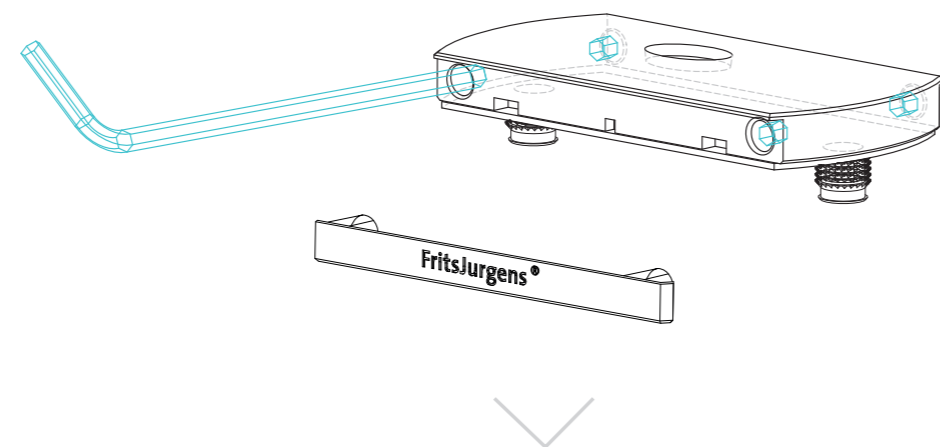


# SYSTEM M SETTING SYSTEM M

## SETTING THE RADIAL POSITION

Remove the small rectangular caps from the floorplate and adjust the angle of the door using a 3mm hex key. Afterwards put the caps back.

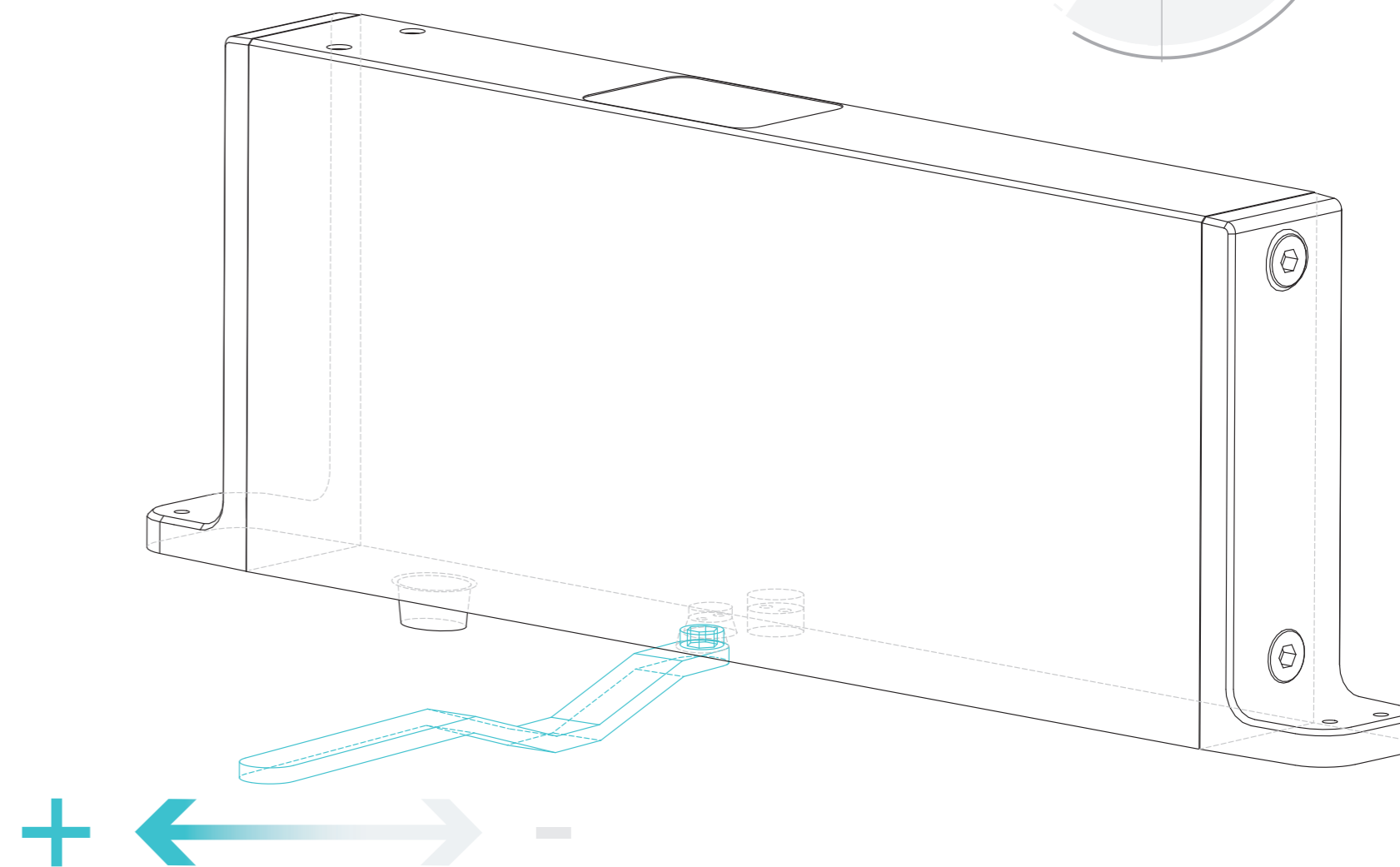
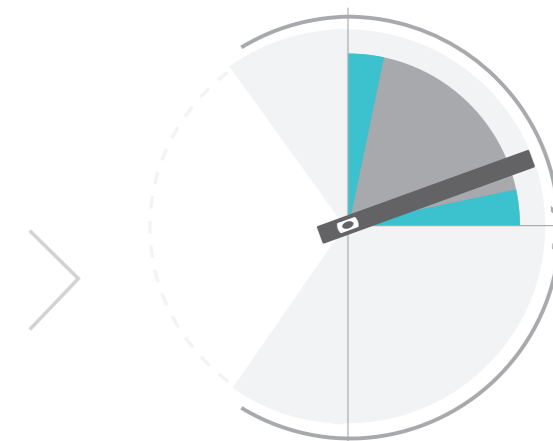
Important: all 4 screws need to be loosened before setting the radius. Don't forget to tighten them again after adjusting.



## SETTING THE CLOSING SPEED

The closing speed can be adjusted using the key included with System M.

- + Less opening and closing damping → faster speed
- More opening and closing damping → slower speed



# FRITSJURGENS® OVERVIEW SYSTEMS

Fritsjurgens® provides systems for multiple applications. You can choose systems for pivot doors that are assembled parallel or perpendicular to the wall, 180° and 360° revolving doors, soft-closing doors, doors with or without hold positions and many more.

Please contact us for assistance in choosing the appropriate pivot hinge system for your door.

## FRITSJURGENS® SYSTEMS

- No structural elements in the floor or ceiling
- Quick and simple to install
- Maintenance-free
- For new construction and retrofit situations
- Easily-adjustable

## FRITSJURGENS® APPLICATION AREAS

- Timber, steel and aluminium doors
- Massive clad custom doors
- Steel and timber framed glass doors
- Single and double-acting pivot doors
- Interior and exterior doors
- Commercial and residential



SYSTEM ONE



SYSTEM 3



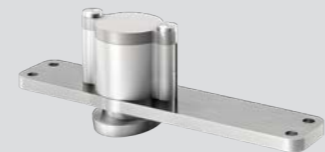
SYSTEM M

Rotation	360°	360°	-125° to 125°
System dimensions	160 x 34 x 39 mm	160 x 34 x 143 mm	294,8 x 32 x 99,6 mm
System weight	0,335 kg	0,75 kg	2,6 kg
Hold positions at every 90°	X	✓	X
Hold positions at 90° and -90°	X	X	✓
Self-opening	X	✓	X
Self-closing	X	✓	✓
Adjustable closing damping (soft-close)	X	X	✓
Adjustable hydraulic backcheck	X	X	✓
Suitable for single action doors	✓	X	✓
Suitable for double action doors	✓	✓	✓
Minimal number of movements tested	1.000.000	1.000.000	1.000.000
Minimum door thickness	40mm	40mm	40mm
Load-bearing capacity (up to)	500 kg	500 kg	500 kg
Maximum weight at latch force	NA	200 kg (See the datasheet of System 3)	300 kg (According to schedule Type selector)

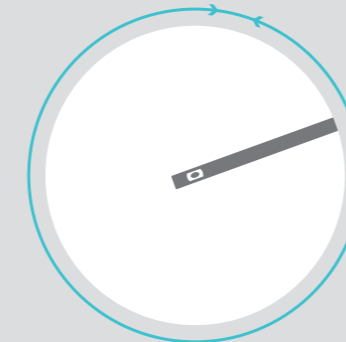




## SYSTEM ONE

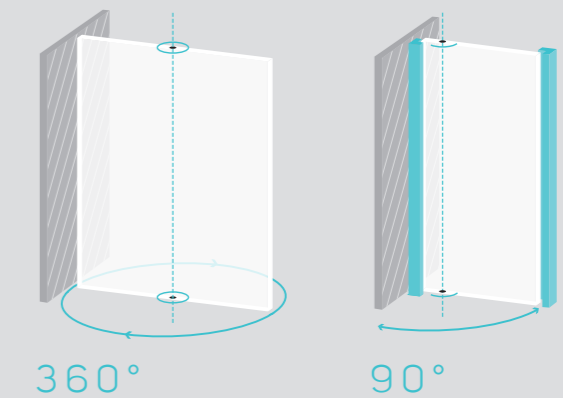


### MOVEMENT

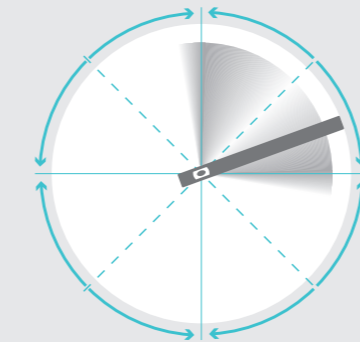


- Rotates 360°
- No hold positions or closing function

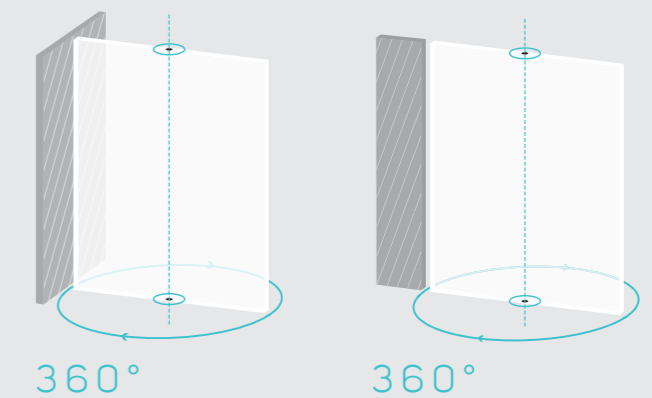
### POSITIONING



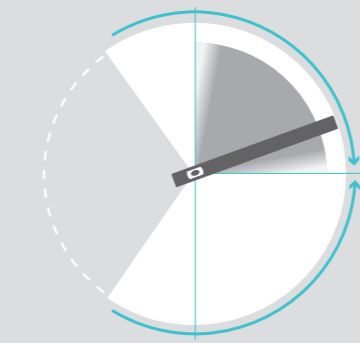
## SYSTEM 3



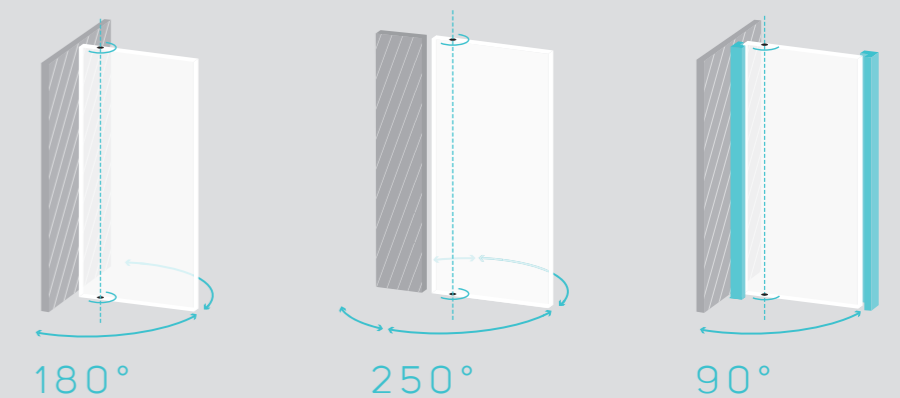
- Rotates 360°
- Hold positions at 0°, 90°, 180° and 270°
- Self-opening - The door automatically moves from each 45° angle in both directions to the next hold position
- Self-closing - The door comes to rest in the desired hold position after two movements



## SYSTEM M



- Hold positions at 0°, 90° and -90°
- Self-closing from -125° and 125° - After opening, the door returns smoothly to the 0° position unless set to the hold position at 90° or -90°
- Adjustable closing damping (soft close)
- Adjustable hydraulic backcheck



# FritsJurgens®

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