

BELLEVUE  
ARCHITECTURAL

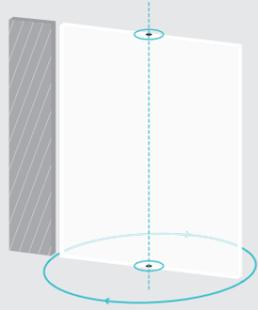
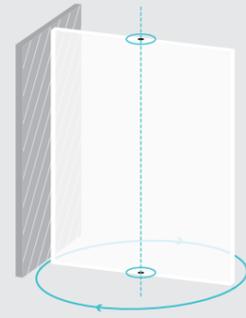
# SYSTEM 3

hidden perfection  
concealed sprung pivot system

FritsJurgens®

## SYSTEM 3 APPLICATIONS

System 3 is the perfect solution for 360° rotating doors:



Choose the pivot door system that meets all your needs. Please see our complete line of products on page 10 and 11.

## FRITSJURGENS BY BELLEVUE TABLE OF CONTENTS

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### WHERE TO BUY

Visit [bellevuearch.com.au](http://bellevuearch.com.au) or call us on +61 3 9571 5666 to find your nearest distributor.





## HIDDEN PERFECTION SYSTEM 3

A pivot door is a symbol of hidden perfection. No visible frame hinges, but an invisible vertical axis which allows the door to open both inwardly and outwardly.

Every FritsJurgens® pivot hinge system is fully-mortised into the top and bottom of the door—perfect in terms of functionality and appearance. System 3 provides heavy-duty closer function for 360° rotating doors and is perfect for space partitioning applications.

# SYSTEM 3 PERFECTION ALL AROUND



FritsJurgens® System 3 has an extensive arsenal of functions: rotation, closing and hold positions. System 3 can turn through 360° and is characterised by a hold position at every quarter of a circle.

Thanks to the patented bearing configuration of the System 3 pivot, relatively little force is required to get the door moving. The upper and bottom cam are working in the opposite direction. Therefore the force on the mid cam is nil. This creates a perfectly balanced system suitable for high-traffic use.





## SYSTEM 3 DESIGNED TO STAND THE TEST OF TIME

The System 3 hinge is virtually indestructible. Built from high performance materials, the system is maintenance-free. Our rigorous testing has shown that even after 1 million cycles (similar to 136 years of daily use) System 3 still behaves flawlessly.

System 3 packs the highest corrosion resistance (according to the standard EN 1154, class 4). Even the most diverse conditions do not affect the operation of this system. Thanks to a very compact housing and a cam made of duplex stainless steel, the System 3 has considerable power. This is a system truly designed for the ages: invisible, built-to-last and maintenance-free.

# FRITSJURGENS® OVERVIEW SYSTEMS

The FritsJurgens® pivot door range consists of three systems.

System One is the most compact system: the hinge is non sprung providing free movement.

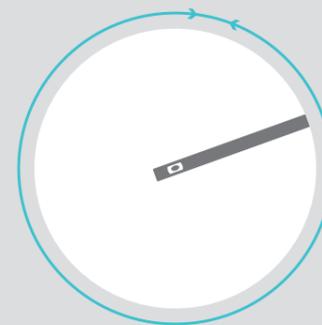
System 3 has three functions: rotation, closing and hold positions. System 3 can turn through 360° and is characterized by a hold position at every quarter of a circle including a self opening and self closing feature.

The System M adds a new dimension to the pivot door by creating the ultimate smoothness in: total control over the movement of the door making it ideal for 90° and 180° swing doors.

## SYSTEM ONE

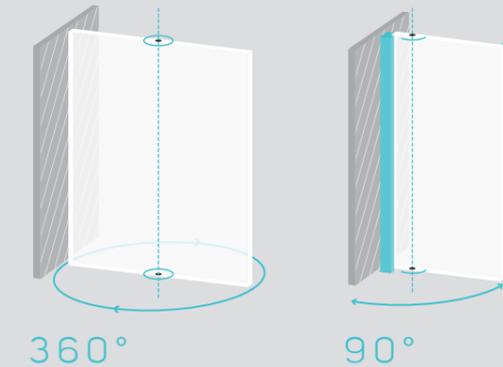


### MOVEMENT

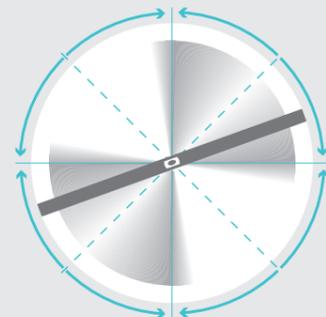


- Rotates 360°
- No hold open positions or self closure function

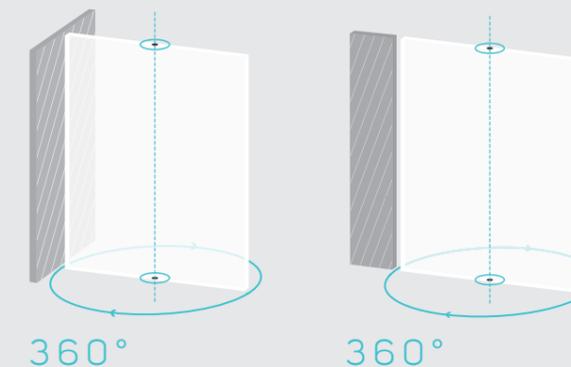
### POSITIONING



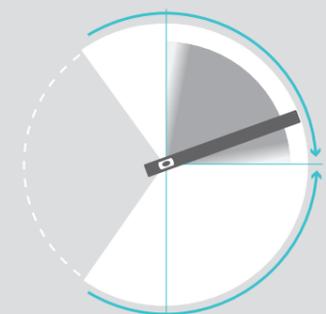
## SYSTEM 3



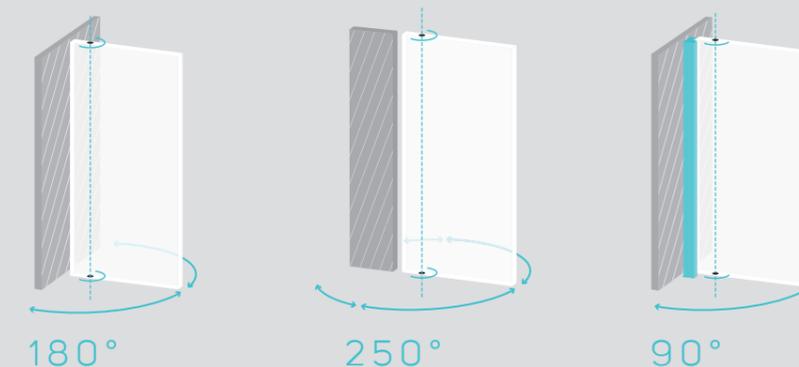
- Rotates 360°
- Hold open at 0°, 90°, 180° and 270°
- Self-opening - The door automatically moves from each 45° angle in both directions to the next hold position
- Self-closing - The door comes to rest in the desired hold position after a two overswing movements



## SYSTEM M



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





## FRITSJURGENS® SYSTEM 3

### NO STRUCTURAL ELEMENTS

All of our pivot systems are fully integrated into the top and bottom of the door: no structural elements live in the floor or ceiling; leaving a beautiful clean look and feel. The aesthetics of the environment are not diminished by unsightly traditional floor or ceiling plates.

### LOAD-BEARING CAPACITY: UP TO 500 KG

Incredibly, our pivot systems can support the heaviest doors, upto 500kg. Thanks to our purpose built, robust precision bearing system and the use of the highest quality materials like hardened stainless steel and anodized aluminum.

### MINIMUM DOOR THICKNESS: 40MM

The thickness of System 3 is only 34 mm.

### FOR NEW AND RETROFIT SITUATIONS

The floorplate spigots only need to be rebated 8mm into the floor, this means System 3 is ideal for in-slab Hydronic Heating.

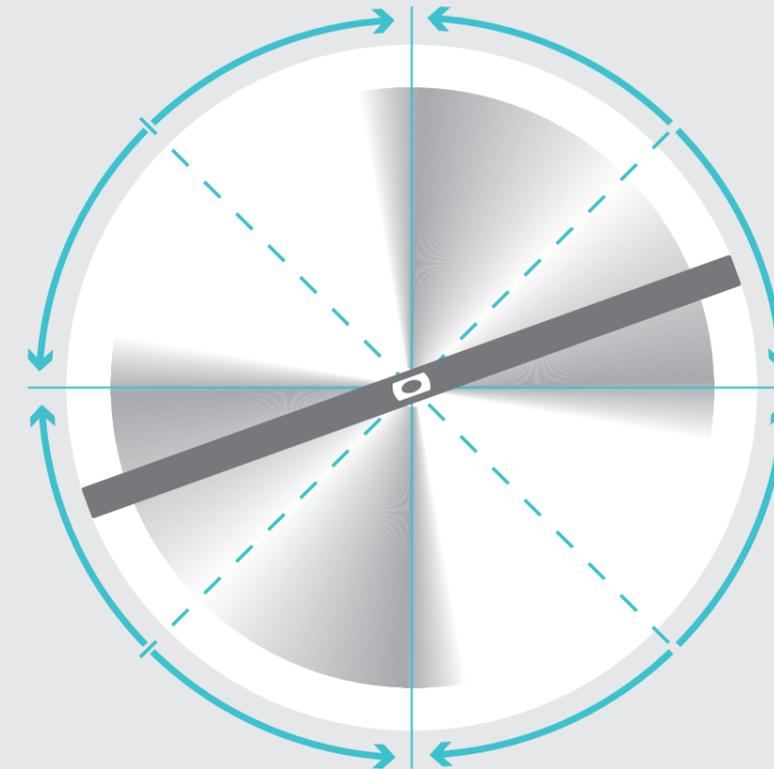
### EASILY-ADJUSTABLE

The innovative design of our pivot systems means the closing seam and the radial position can be easily adjusted whilst the door stays in place.

### SUITABLE FOR ALL TYPES OF DOORS

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

## SYSTEM 3 FOR 360° ROTATING DOORS



### ROTATES 360°

The door rotates 360° in both directions.

### HOLD POSITIONS AT 0°, 90°, 180° AND 270°

The door has a hold position at every 90°.

### SELF-OPENING

The door automatically moves from each 45° angle in both directions to the next hold position.

### SELF-CLOSING

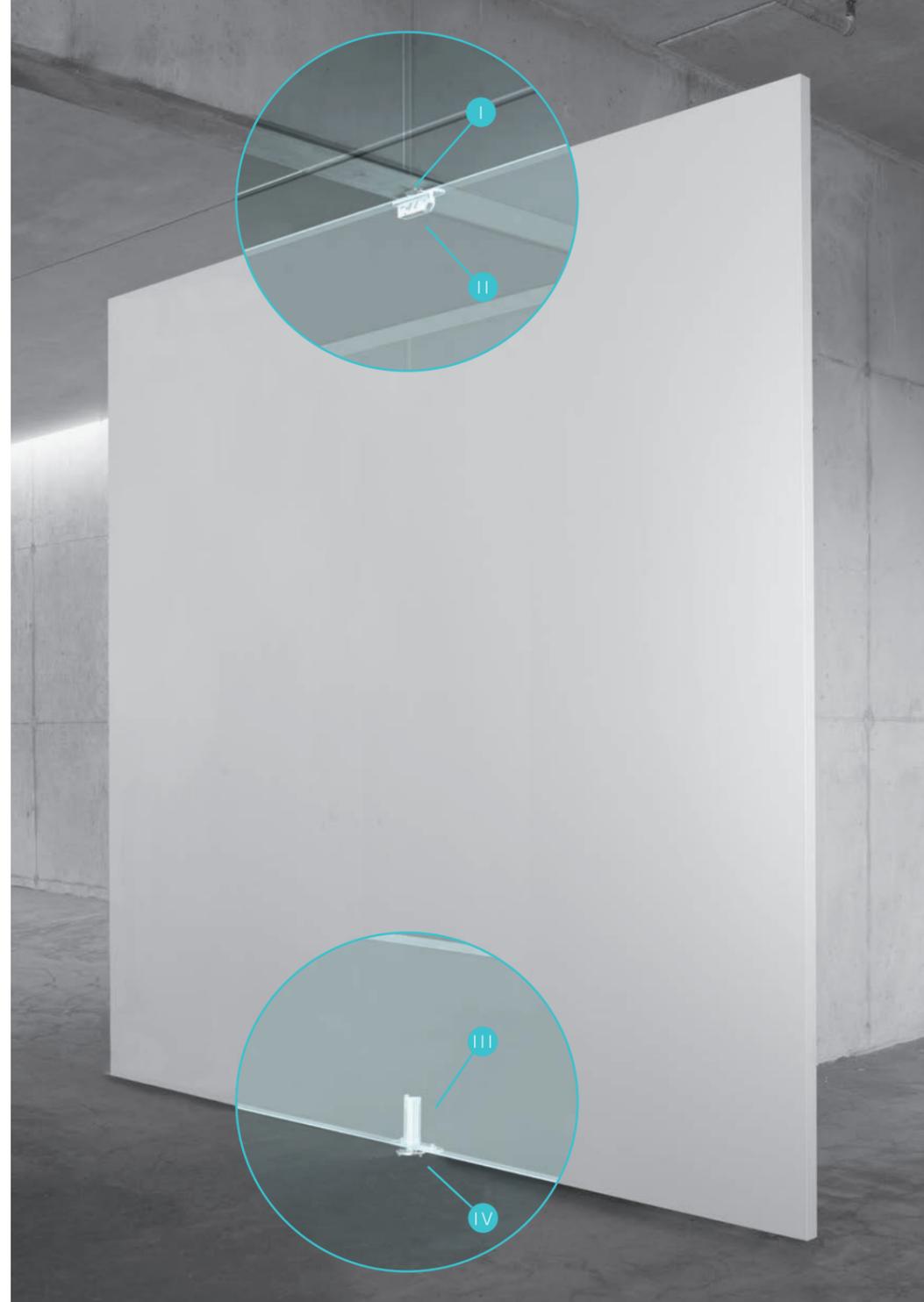
The door comes to rest in the desired hold position.

## NO STRUCTURAL ELEMENTS IN FLOOR AND CEILING

Due to the pivot being fully integrated into the top and bottom of the door; there is no imposing ceiling or traditional unsightly floor plate to distract from a beautifully crafted door and designer environment, the pivot becomes a virtually invisible system.

The FritsJurgens pivot door systems design is totally unique, in that there are no structural elements in the floor and the ceiling. As a result of its design, installation is quick and simple, without having to damage or cut blocks out of a concrete floor.

Due to the pivot being fully integrated into the top and bottom of the door; there is no imposing ceiling or traditional unsightly floor plate to distract from a beautifully crafted door and designer environment, the pivot becomes a virtually invisible system.



## SYSTEM 3 COMPONENTS

### I CEILING PLATE



### II TOP PIVOT



### III SYSTEM 3



### IV FLOOR PLATE



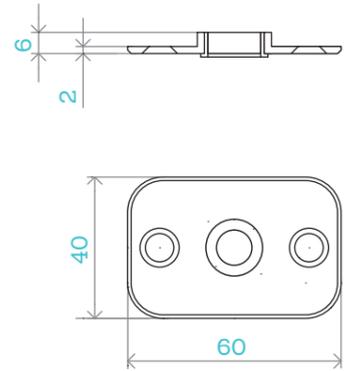


SYSTEM 3

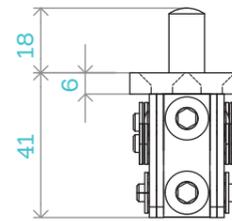
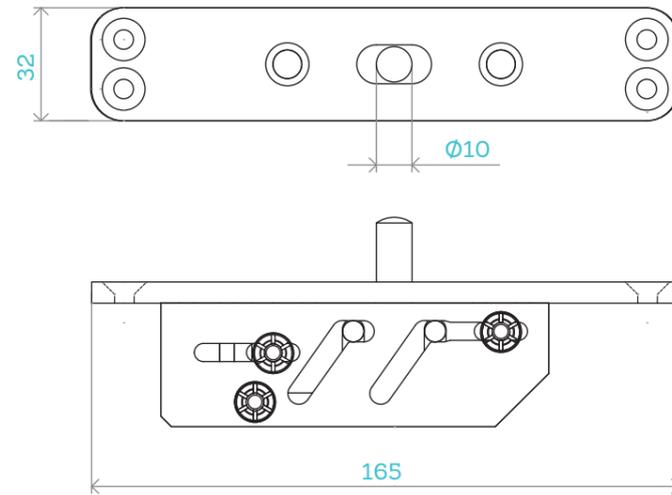
# TECHNICAL DOCUMENTATION

# SYSTEM 3 TECHNICAL DRAWINGS

CEILING PLATE

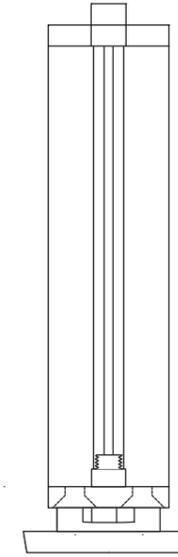
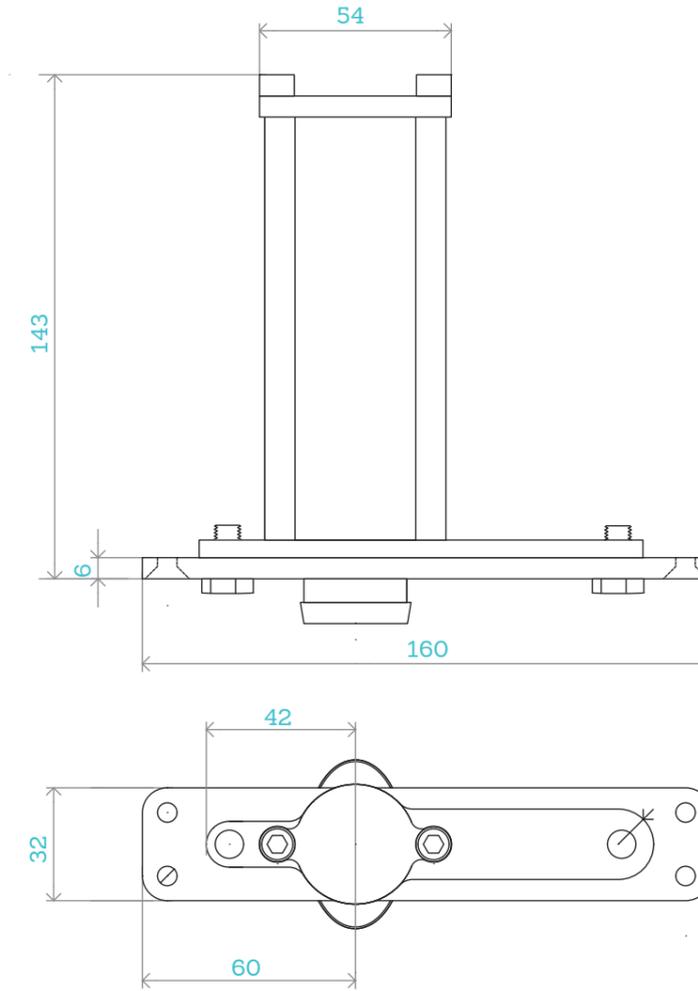


TOP PIVOT



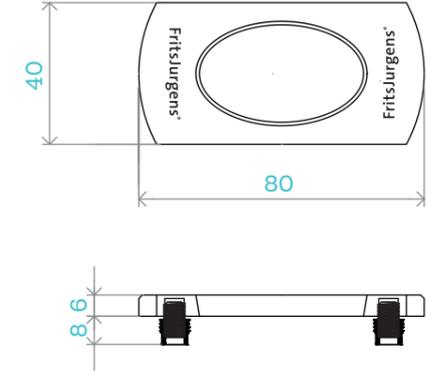
Note: When mounting in the door, use the milling drawing (page 20).

SYSTEM 3



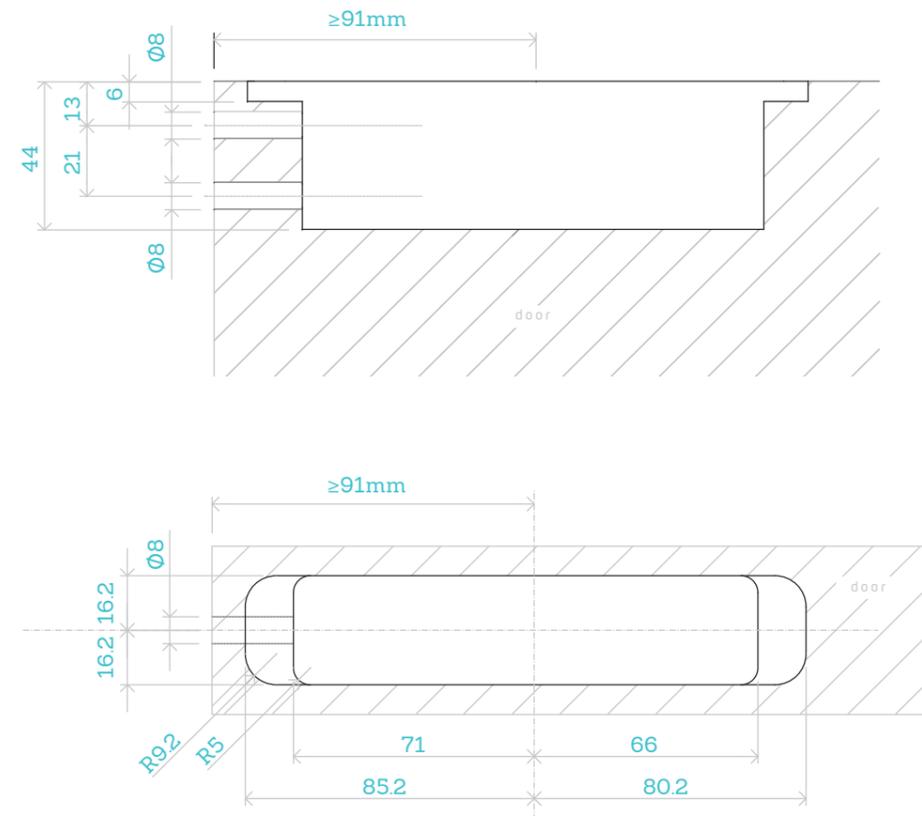
Note: When mounting in the door, use the milling drawing (page 20).

FLOOR PLATE

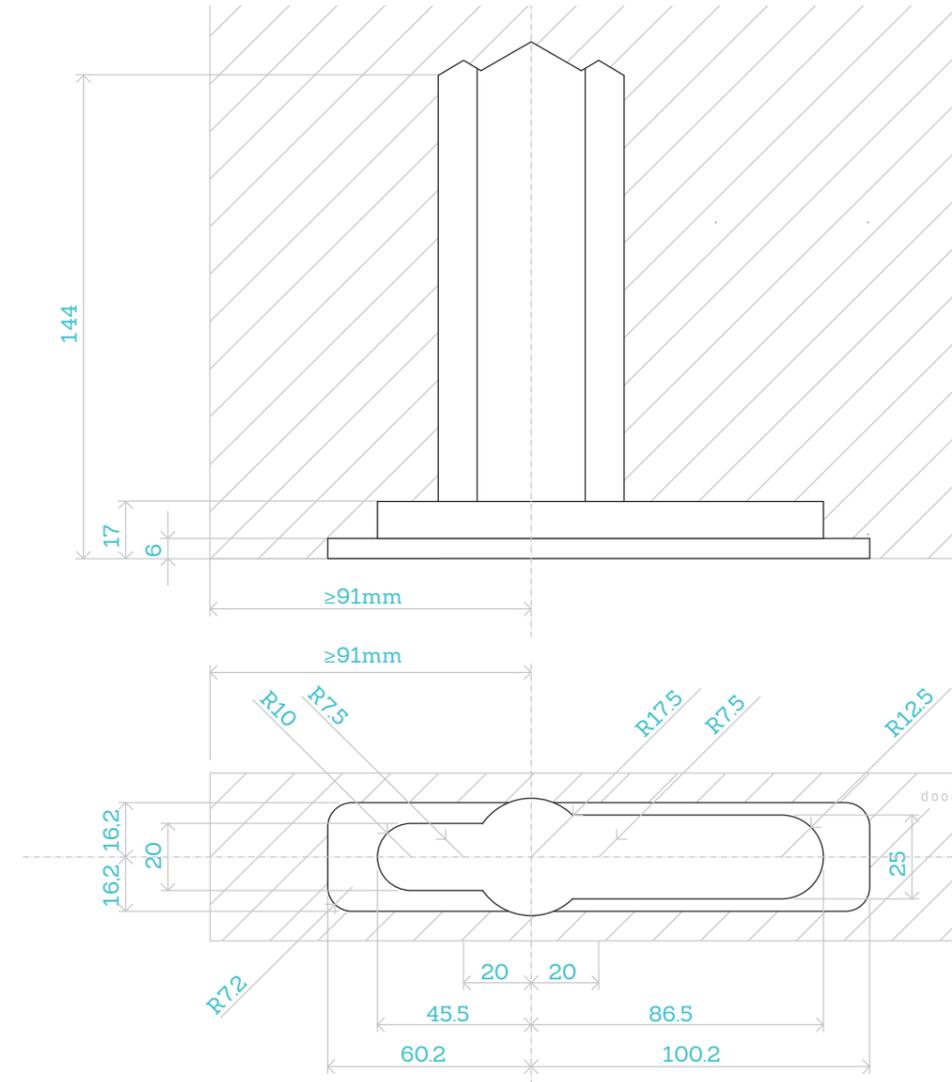


# SYSTEM 3 MILLING DRAWINGS

TOP PIVOT



SYSTEM 3



# SYSTEM 3 TYPE SELECTOR

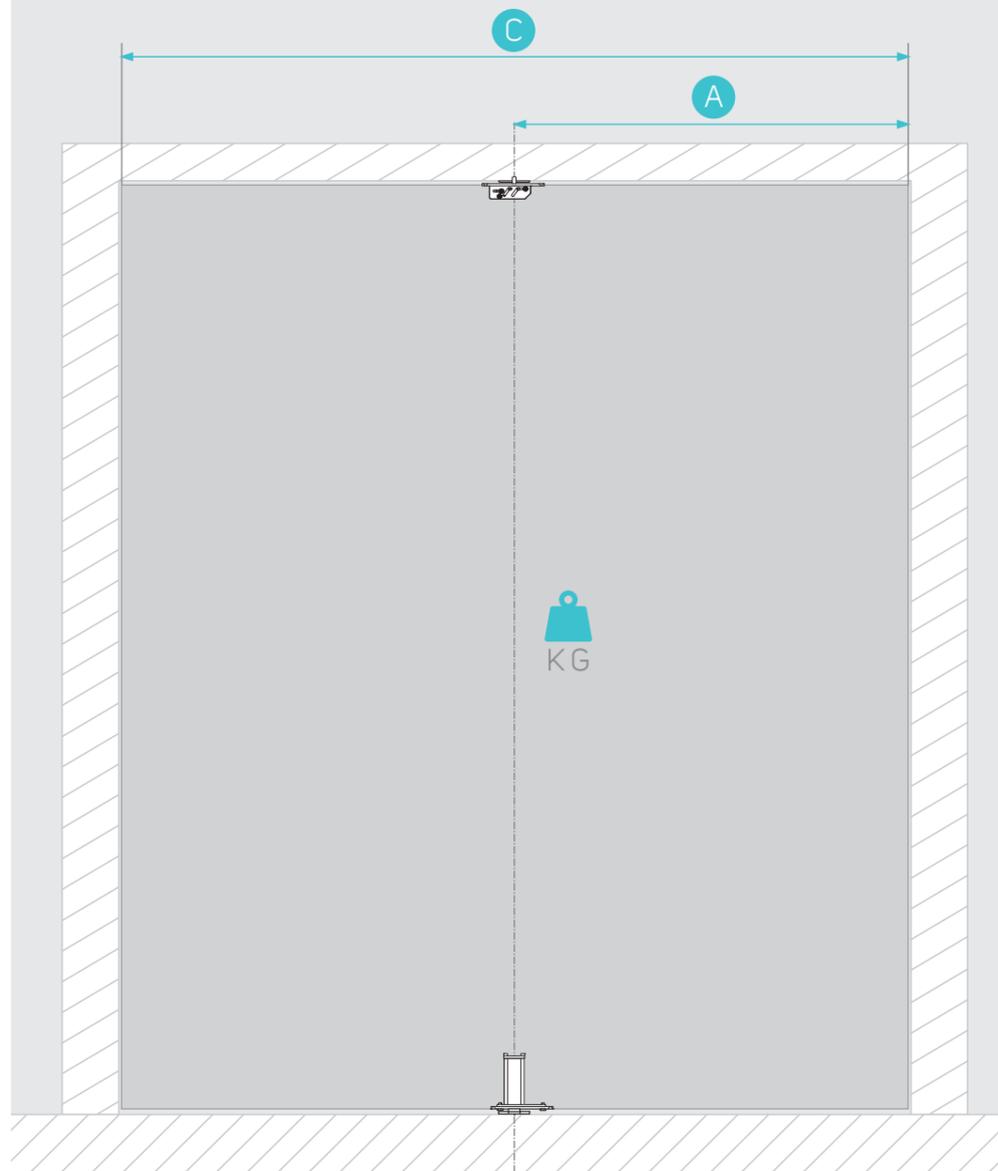
To ensure the desired door movement, System 3 is available in multiple versions depending upon the weight and width of the door. Using the chart on the page below you can easily select which model best matches your door specifications.

If you require a system for a pivot door outside these dimensions, please let us know. FritsJurgens has an in-house testing facility which enables us to determine whether our systems are suitable for your specific situation.

### ORDER CODE: PRODUCT DESCRIPTION

- FJS316K - 40Kg Fully Concealed Pivot Kit
- FJS320K - 70Kg Fully Concealed Pivot Kit
- FJS324K - 110Kg Fully Concealed Pivot Kit
- FJS328K - 200Kg Fully Concealed Pivot Kit

- Step 1: Determine C - width of the door
- Step 2: Determine A - distance of rotation point to the latch side of the door
- Step 3: Determine KG - weight of the door
- Step 4: Determine which system is suitable for your door



350	9024	9024	9024	9024	9024	9028	9028	9028											
300-349	9024	9024	9024	9024	9024	9024	9028	9028											
250-299	9020	9020	9020	9020	9024	9024	9024	9024	9028	9028	9028								
200-249	9016	9016	9020	9020	9024	9024	9024	9024	9028	9028	9028	9028	9028						
190-199	9016	9016	9020	9020	9024	9024	9024	9024	9028	9028	9028	9028	9028						
180-189	9016	9016	9020	9020	9024	9024	9024	9024	9028	9028	9028	9028	9028	9028	9028	9028			
170-179	9016	9016	9020	9020	9024	9024	9024	9024	9028	9028	9028	9028	9028	9028	9028	9028	9028		
160-169	9016	9016	9016	9016	9020	9020	9024	9024	9028	9028	9028	9028	9028	9028	9028	9028	9028	9028	
150-159	9016	9016	9016	9016	9020	9020	9024	9024	9028	9028	9028	9028	9028	9028	9028	9028	9028	9028	
140-149	9016	9016	9016	9016	9020	9020	9024	9024	9028	9028	9028	9028	9028	9028	9028	9028	9028	9028	
130-139	9016	9016	9016	9016	9020	9020	9024	9024	9028	9028	9028	9028	9028	9028	9028	9028	9028	9028	
120-129	9016	9016	9016	9016	9020	9020	9024	9024	9028	9028	9028	9028	9028	9028	9028	9028	9028	9028	
110-119	9016	9016	9016	9016	9020	9020	9024	9024	9028	9028	9028	9028	9028	9028	9028	9028	9028	9028	
100-109	9016	9016	9016	9016	9020	9020	9024	9024	9028	9028	9028	9028	9028	9028	9028	9028	9028	9028	
90-99	9016	9016	9016	9016	9020	9020	9024	9024	9028	9028	9028	9028	9028	9028	9028	9028	9028	9028	
80-89	9016	9016	9016	9016	9020	9020	9024	9024	9028	9028	9028	9028	9028	9028	9028	9028	9028	9028	
70-79	9016	9016	9016	9016	9020	9020	9024	9024	9028	9028	9028	9028	9028	9028	9028	9028	9028	9028	
60-69	9016	9016	9016	9016	9020	9020	9024	9024	9028	9028	9028	9028	9028	9028	9028	9028	9028	9028	
50-59	9016	9016	9016	9016	9020	9020	9024	9024	9028	9028	9028	9028	9028	9028	9028	9028	9028	9028	
40-49	9016	9016	9016	9016	9020	9020	9024	9024	9028	9028	9028	9028	9028	9028	9028	9028	9028	9028	
	min	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900			
	max	599	699	799	899	999	1099	1199	1299	1399	1499	1599	1699	1799	1899				

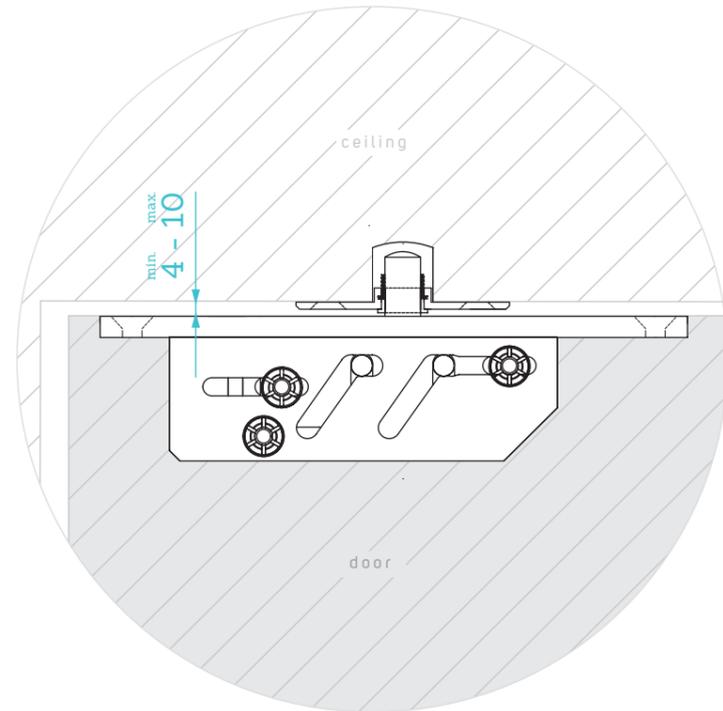
## EXAMPLE

Door specifications: Door width 2400 mm, Door height 3200 mm, Weight 165 kg.

1	Check the door width C	2400 mm
2	Determine distance to pivot point A (C: 2400 mm : 2)	1200 mm
3	Cross reference the weight KG	165 kg
!	For this door you would specify model	9024

# SYSTEM 3 DIMENSIONS AROUND THE DOOR

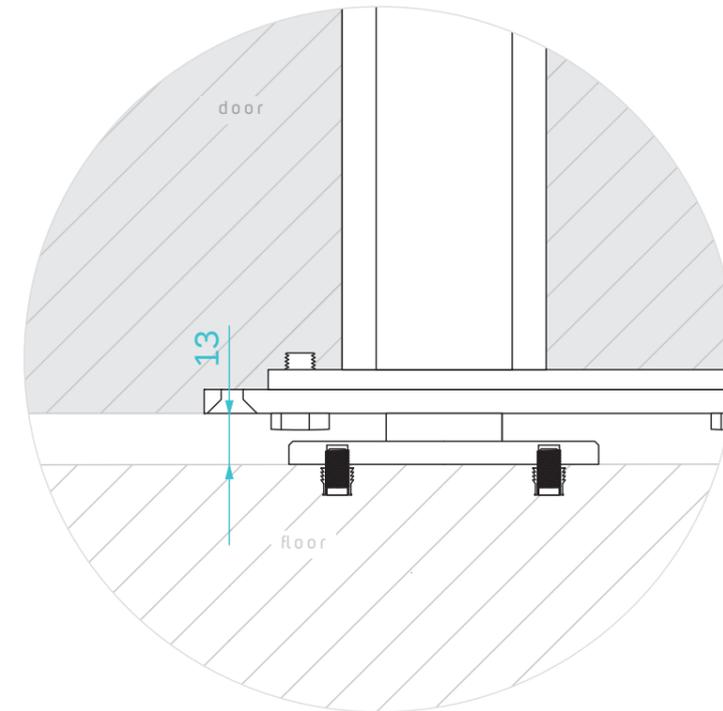
## TOP PIVOT



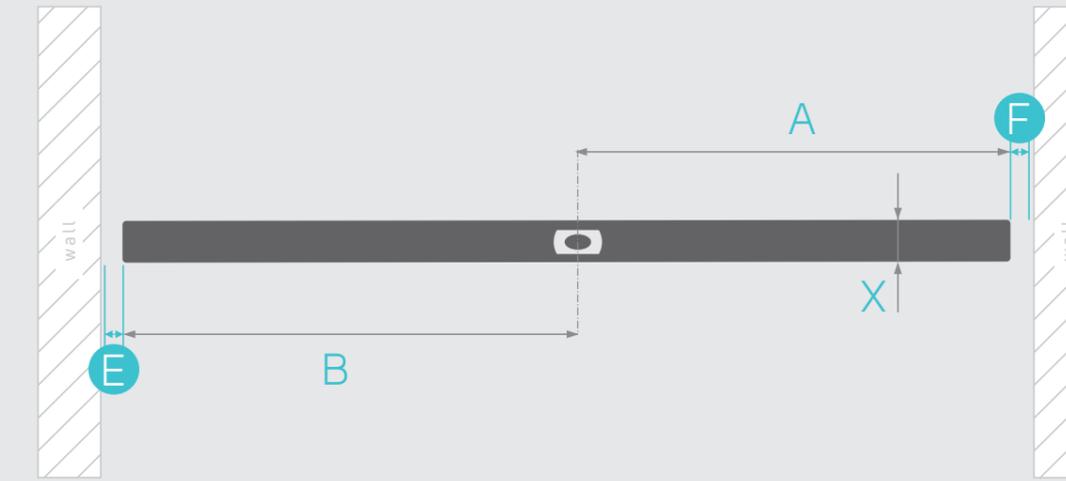
System 3 is designed to be virtually invisible with hardly any gaps between the door, wall and floor. The minimum installation dimensions are 4mm at the top (ceiling) and 13mm at the bottom (floor).

The minimum vertical dimensions for installation depends on the thickness (X) and the width of the door in relation to the positioning of the hinge (A and B).

## SYSTEM 3



# GAP CALCULATION



## EXAMPLE

X	Door thickness	40
A	Distance of rotation point to latch side of the door	1000
B	Distance pivot point to the start of the door	1000
E*	Minimum gap between door and wall	2.2
F*	Minimum gap between door and wall	2.2

E*	B	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

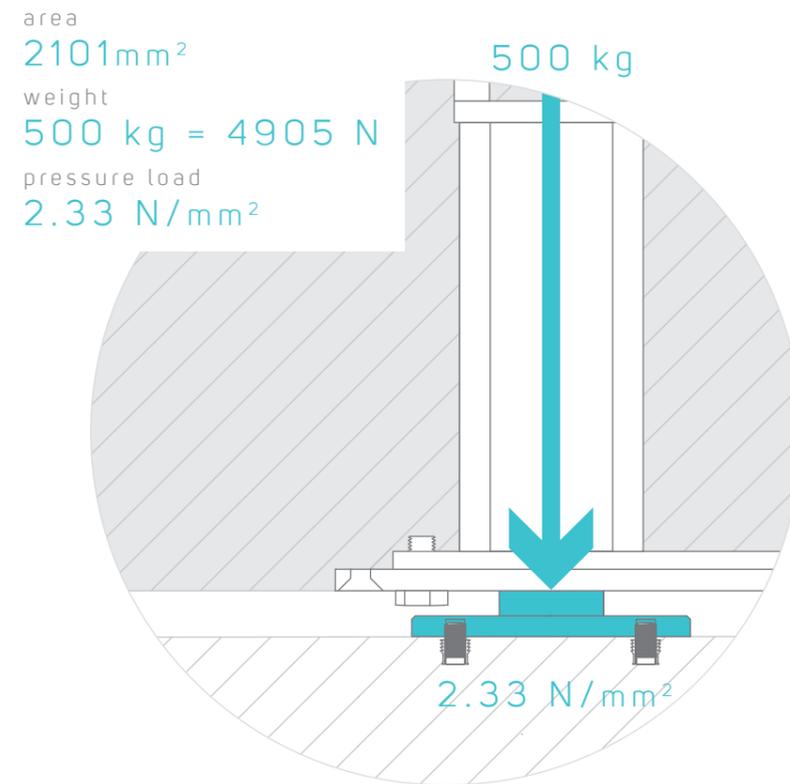
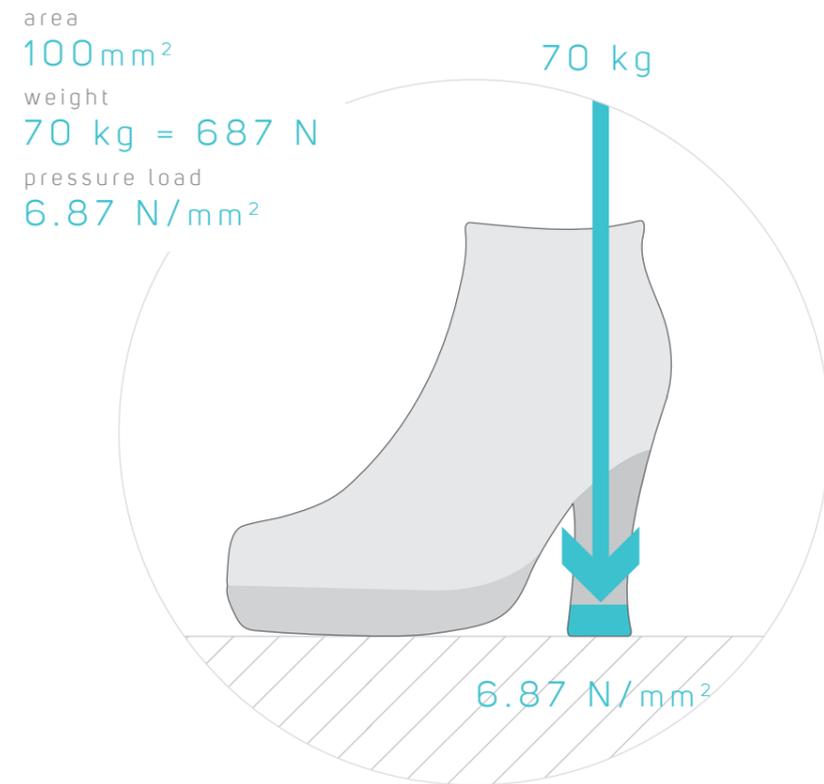
F*	A	X						
		40	50	60	70	80	90	100
500		2.4	2.6	2.9	3.2	3.6	4	4.5
1000		2.2	2.3	2.5	2.6	2.8	3	3.3
1500		2.1	2.2	2.3	2.4	2.5	2.7	2.8
2000		2.1	2.2	2.2	2.3	2.4	2.5	2.6

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

# SYSTEM 3 PRESSURE LOAD

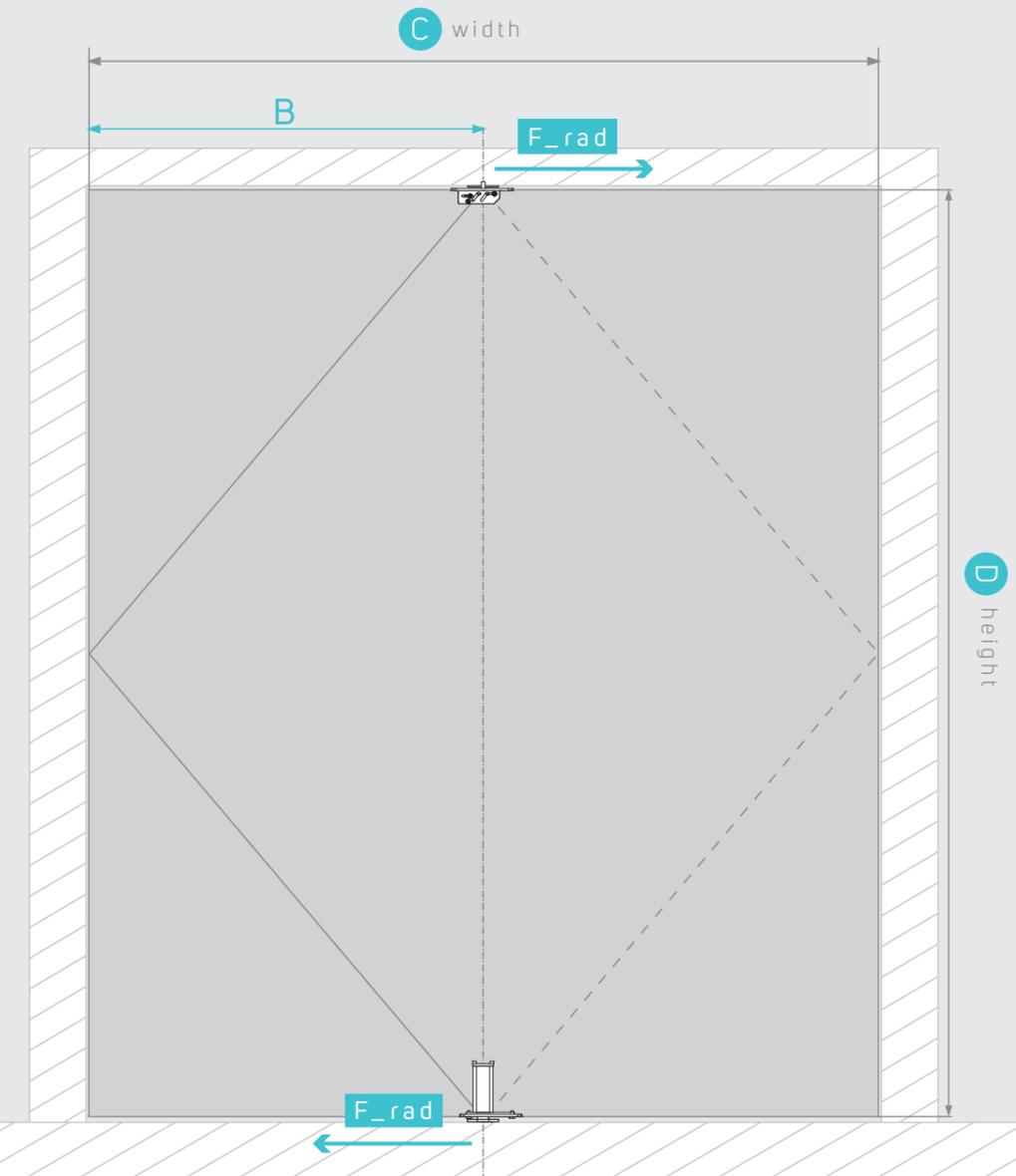
The Fritsjurgens® pivot door is fastened on a floorplate of 40 x 80mm and produces a pressure load (Fw) of 2.33 N/mm<sup>2</sup> with a door of 500 kg.

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



$$B = 1/2 \text{ width door}$$

At 1/2 door width  $F_{rad}$  has 0 N in all situations of height  $D$  - width  $C$ . The door is completely balanced because System 3 is placed in the middle. As a result, there is no extra lateral force on the floor and ceiling.

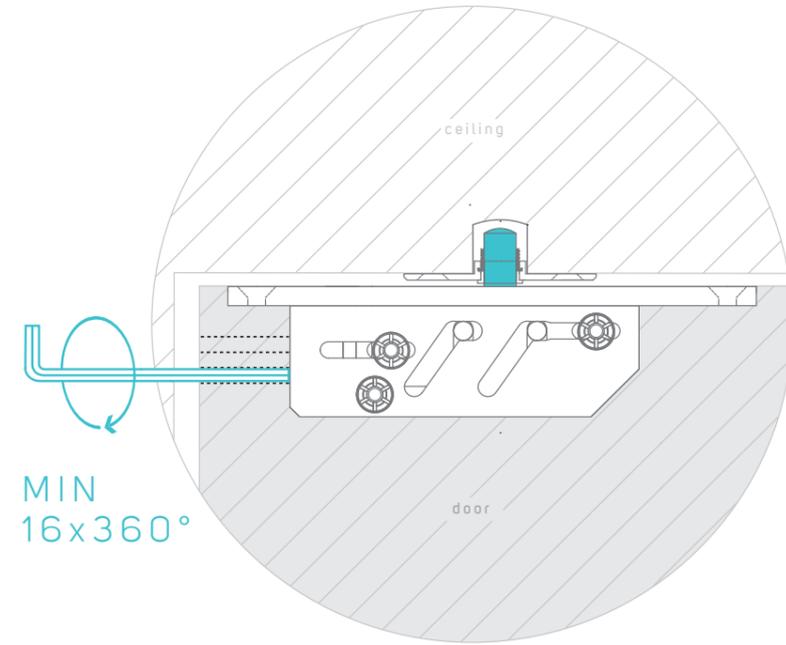
$$9.8 \text{ N} = 1 \text{ kg}$$

# SYSTEM 3 SETTING TOP PIVOT

## MOUNTING TOP PIVOT

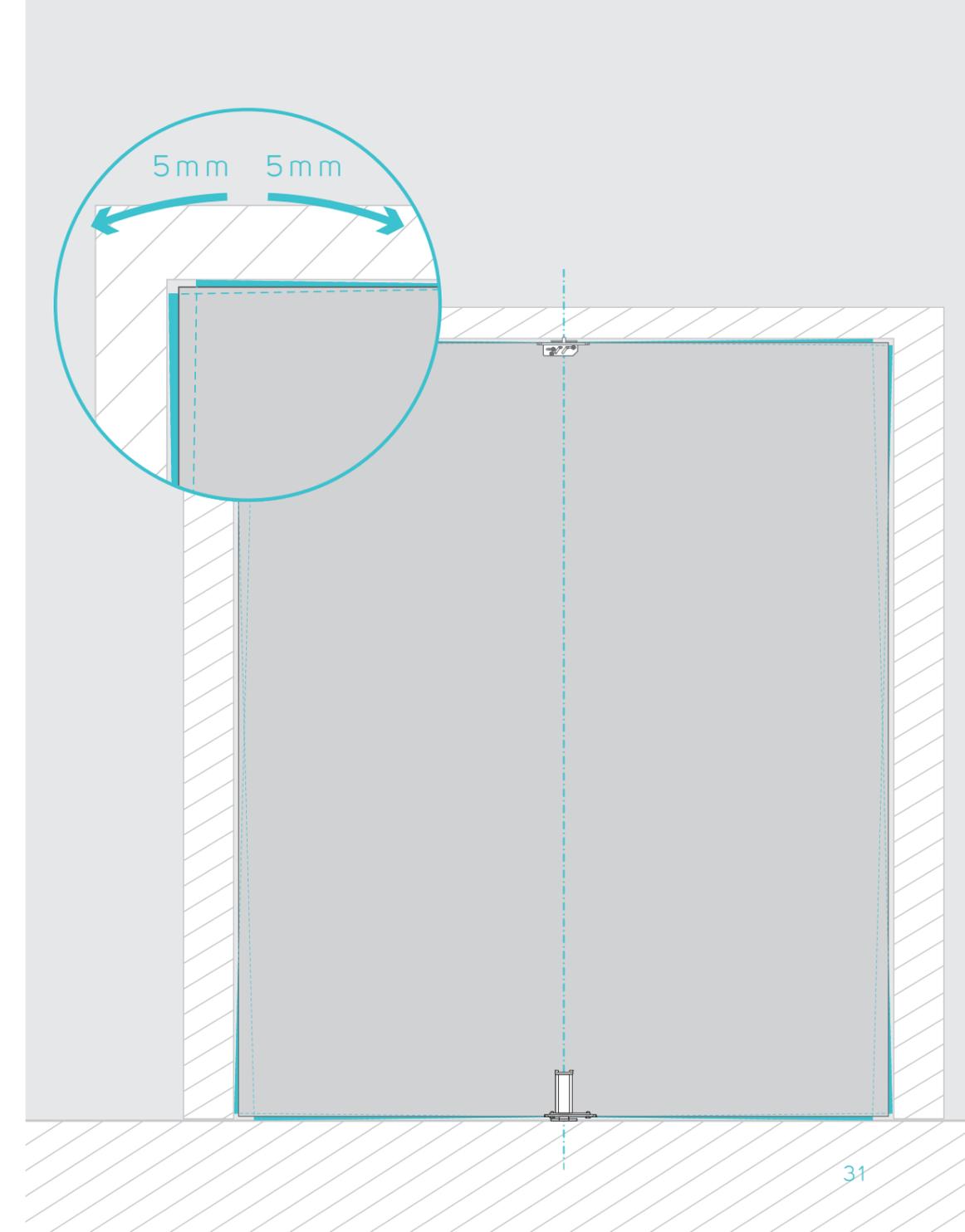
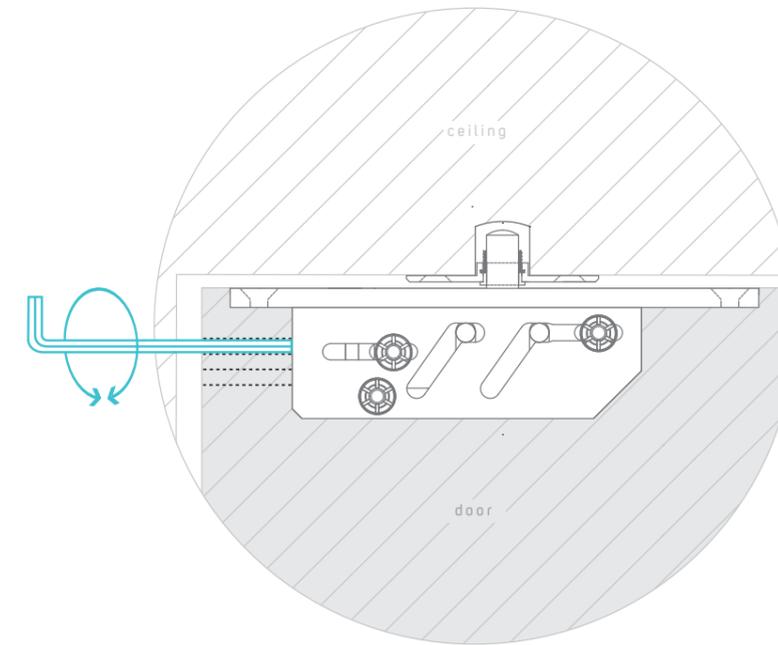
The top pivot can be engaged simply by inserting the 5mm hex key supplied into the bottom hole and twist.  
Turn to the right: raise the pivot.  
Turn to the left: lower the pivot.

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



## SETTING THE GAP

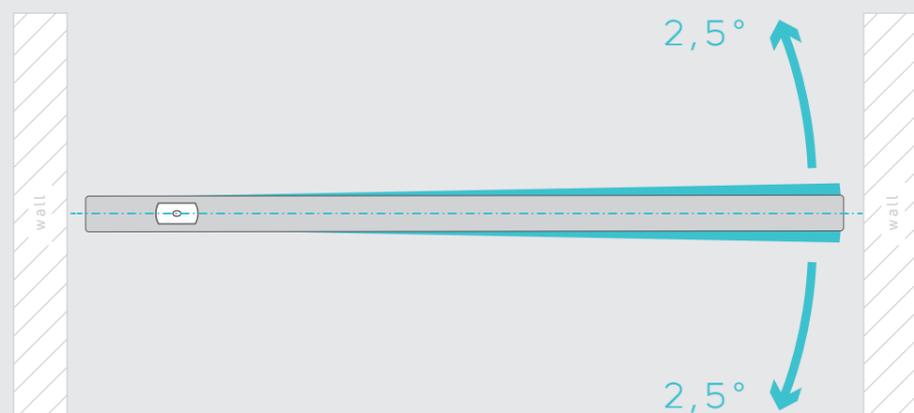
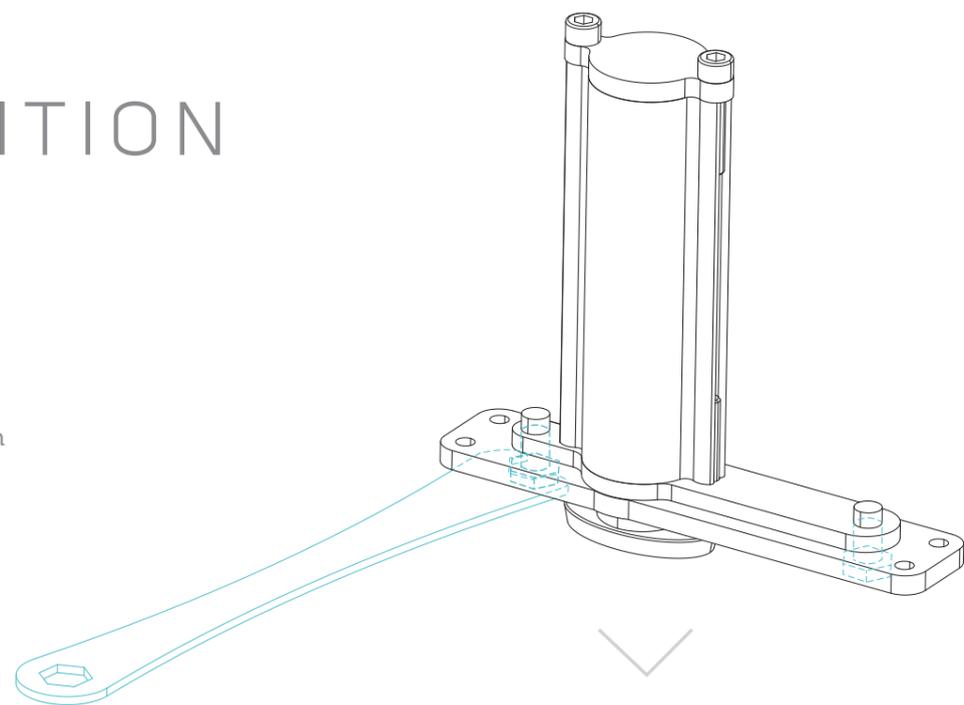
The closing seam can be adjusted simply by inserting the 5mm hex key supplied into the top hole and twist.



# SYSTEM 3 SETTING THE RADIAL POSITION

The radial position can be set using the supplied adjustment spanner.

Important: loosen the 2 screws before setting the radial position. Do not forget to turn them back on afterwards.



# FRITSJURGENS® SYSTEMS FEATURES

FritsJurgens provide pivot systems for multiple applications, all of which live in the door, not the floor. Depending on your door's movement requirements, you can select a pivot system where the door stands parallel or perpendicular to the wall, a doors that revolve 180° or 360°, a soft-closing door, doors with or without hold open positions including many other options.

Please contact us on Ph: +61 3 9571 5666 or e-mail: [info@bellevuearch.com.au](mailto:info@bellevuearch.com.au) if you need assistance in choosing the correct FritsJurgens pivot system for your requirements.

## FRITSJURGENS® SYSTEMS

- No structural elements in the floor or ceiling
- Quick and simple to install
- Maintenance-free
- For new and existing environments
- Easily adjustable with the door in place

## FRITSJURGENS® APPLICATION AREAS

- Timber, steel, massive and aluminium doors
- Massive clad custom doors
- Steel and timber framed glass doors
- Single and double action doors
- Internal and external 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	350 kg (According to schedule Type selector)	300 kg (See the datasheet of System M)

**BELLEVUE**  
ARCHITECTURAL

954 Glenhuntly Rd Caulfield South  
Melbourne Australia 3162  
+ 61 3 9571 5666  
[info@bellevuearch.com.au](mailto:info@bellevuearch.com.au)  
[www.bellevuearch.com.au](http://www.bellevuearch.com.au)

**FritsJurgens®**

+31 598 343 410  
[info@fritsjurgens.com](mailto:info@fritsjurgens.com)  
[www.fritsjurgens.com](http://www.fritsjurgens.com)