ASSA ABLOY Floor Springs
Features & Benefits

**Floor Spring**

**Key features:**
- Non-handed system
- Up to 1 million cycles tested
- Fire rated
- Concealed mounting
- Cam Motion system

**Technical details:**
- Various power sizes
- Suitable for wood, glass, metal and fire rated doors
- Available finishes - SSS, PSS and customized finishes available on request

**Functions:**
- Back-check
- Hold-open
- Controlled closing speed
- Thermodynamic valves
- Independent hydraulic circuit

**Benefits:**
- Versatile usage
- High durability
- Suitable for fire doors
- Modern & compact design
- Energy conservation

This new range of product is based on a new modular concept and a common design, under a unique platform for both premium and standard floor spring.
ASSA ABLOY Floor Springs
Features & Benefits

Key Features

Cam Motion® Technology:
This technology enables floor springs to comply with CEN TR 15894 requirements and ensures that the force which a user needs to apply to open the door up to 60° must be reduced by 40%.

1 Million Cycles:
The required durability according to EN1154 is 5,000,000 test cycles. ASSA ABLOY floor springs are tested to 1,000,000 cycles for improved durability and performance.

Independent hydraulic circuits:
The hydraulic circuits in floor spring, for the closing and latching speed adjustment, enable to regulate (slow down or speed up) the closing and latching speed precisely and independently from each other by thermodynamic valves.

Thermodynamic valves:
The thermodynamic valves enable the consistent performance of a floor spring in case of temperature fluctuation.

Metal eyelet:
Cover plate and eyelet are made from Stainless Steel and in the same color design for a consistent aesthetic appeal. Additionally, the eyelet cannot be removed after it is installed.

Back-check:
Integrated back-check function hydraulically slows down the opening motion from an opening angle of about 75°.

Floor Spring
Overview of functions

<table>
<thead>
<tr>
<th>EN Size</th>
<th>DC475</th>
<th>DC477</th>
<th>DC420</th>
<th>DC460</th>
<th>DC450</th>
<th>AF-200F</th>
<th>AF224P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recommended door max. width (mm)</td>
<td>EN3 - EN4</td>
<td>EN2 - EN4</td>
<td>EN3/EN4</td>
<td>EN2/EN3/EN4</td>
<td>EN2/EN3/EN4</td>
<td>EN3 - EN6</td>
<td>EN2 - EN4</td>
</tr>
<tr>
<td>Max. weight of door (kg)</td>
<td>≤100kg</td>
<td>≤131kg</td>
<td>≤108kg</td>
<td>≤112kg</td>
<td>≤128kg</td>
<td>≤128kg</td>
<td>≤128kg</td>
</tr>
<tr>
<td>Applications</td>
<td>Heavy doors, high traffic doors, exterior doors</td>
<td>Recommended for glass doors</td>
<td>Recommended for light-duty interior doors</td>
<td>Recommended for light-duty interior doors</td>
<td>Recommended for light-duty interior doors</td>
<td>Recommended for light-duty interior doors</td>
<td></td>
</tr>
<tr>
<td>Opening angle (incl. hold-open)</td>
<td>15° - 175°</td>
<td>15° - 175°</td>
<td>15° - 175°</td>
<td>15° - 175°</td>
<td>15° - 175°</td>
<td>15° - 175°</td>
<td>15° - 175°</td>
</tr>
<tr>
<td>Hinge distance (mm)</td>
<td>36 - 62</td>
<td>54 - 97</td>
<td>36 - 46</td>
<td>48 - 54</td>
<td>48 - 54</td>
<td>(in preparation)</td>
<td></td>
</tr>
<tr>
<td>Dimensions (min) L x W x H (mm)</td>
<td>345 x 78 x 82</td>
<td>277 x 110 x 70</td>
<td>306 x 82 x 47</td>
<td>108 x 108 x 40</td>
<td>277 x 108 x 40</td>
<td>310 x 108 x 40.5</td>
<td>319 x 82 x 49.5</td>
</tr>
</tbody>
</table>

Fire doors (CE)

<table>
<thead>
<tr>
<th>Back-check</th>
<th>Single-action</th>
<th>Double-action</th>
<th>Fire doors (CE)</th>
<th>Hinge distance (mm)</th>
<th>Dimensions (min) L x W x H (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single-action</td>
<td><img src="image1" alt="Diagram" /></td>
<td><img src="image2" alt="Diagram" /></td>
<td><img src="image3" alt="Diagram" /></td>
<td><img src="image4" alt="Diagram" /></td>
<td><img src="image5" alt="Diagram" /></td>
</tr>
</tbody>
</table>
ASSA ABLOY Floor Spring DC475

Floor Spring with Cam Motion® technology and adjustable closing force for large or very heavy doors

ASSA ABLOY DC475:
- Floor spring with adjustable closing force for large and very heavy doors
- In compliance with EN1154 size EN3-6
- 1,000,000 cycles tested
- Suitable for fire and smoke protection doors
- For single and double action door up to 300kg

Characteristics of DC475:
- Closing from 175° in both door swing directions with hydraulic control from 175°
- Two thermodynamic valves for consistent performance
- Adjustable door speed and latching speed through top regulating valves
- Back-check
- Cast Iron body
- Adjustments in all directions within the cement box
- Cement box is hot zinc plated
- Cover plates and eyelets made in polished or Satin Satinless Steel and Polished Brass
- Interchangeable spindle from 0 to 30mm
- Available without hold-open or with hold-open angle 90° and 105°

Speed adjustment:
1 variable closing speed 175° - 15°
2 variable latching speed 15° - 0°

All dimensions are in mm
# Floor Spring

## DC475

### Technical details:

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adjustable closing force</td>
<td>EN3-6</td>
</tr>
<tr>
<td>Door width up to</td>
<td>1400mm</td>
</tr>
<tr>
<td>Door weight up to</td>
<td>300 kg</td>
</tr>
<tr>
<td>Max. opening angle</td>
<td>175°</td>
</tr>
<tr>
<td>Closing speed</td>
<td>Variable between 175°-15°</td>
</tr>
<tr>
<td>Latching speed</td>
<td>Variable between 15°-0°</td>
</tr>
<tr>
<td>Back-check</td>
<td>Mechanical</td>
</tr>
<tr>
<td>Weight</td>
<td>7.3kg</td>
</tr>
<tr>
<td>Height</td>
<td>82mm</td>
</tr>
<tr>
<td>Length</td>
<td>345mm</td>
</tr>
<tr>
<td>Width</td>
<td>78mm</td>
</tr>
<tr>
<td>Body adjustment within cement box</td>
<td>Vertical 9mm, side 6mm, front 5mm, angular 2°</td>
</tr>
<tr>
<td>DIN-direction</td>
<td>Left/Right-handed doors or double action</td>
</tr>
<tr>
<td>Hold-open mode</td>
<td>90°/105°/Non hold-open</td>
</tr>
<tr>
<td>In compliance with</td>
<td>EN1154</td>
</tr>
<tr>
<td>CE Marking for building products</td>
<td>Yes</td>
</tr>
<tr>
<td>Fire and smoke protection</td>
<td>Yes</td>
</tr>
</tbody>
</table>

### The advantages at a glance:

<table>
<thead>
<tr>
<th>Customer segment</th>
<th>Advantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project planners</td>
<td>- Extensive range of uses: Fire and smoke protection doors as well as standard doors</td>
</tr>
<tr>
<td></td>
<td>- Hold-open at 90°, 105° and non hold-open</td>
</tr>
<tr>
<td></td>
<td>- Variety of available spindles: squared Italian, rectangular German</td>
</tr>
<tr>
<td></td>
<td>- Architectural finishes: Cover plates and eyelets in Polished Satinless Steel Polished Brass</td>
</tr>
<tr>
<td>Builders</td>
<td>- Universal for left/right handed and double-action doors</td>
</tr>
<tr>
<td></td>
<td>- Overpressure relief valve to protect unit against abuse</td>
</tr>
<tr>
<td></td>
<td>- Large range of adjustment within cement box to solve possible alignment problems on the site without taking down the door</td>
</tr>
<tr>
<td>Trade</td>
<td>- Reduced inventory costs due to modular product range</td>
</tr>
<tr>
<td></td>
<td>- One single product suitable for a large variety of mounting positions</td>
</tr>
<tr>
<td></td>
<td>- Complementary accessories available for the whole product range</td>
</tr>
<tr>
<td>User</td>
<td>- Adjustable operating force to meet door construction requirements and user needs</td>
</tr>
<tr>
<td></td>
<td>- Easier door opening and improved accessibility due to Cam Motion® technology</td>
</tr>
<tr>
<td></td>
<td>- Back-check feature offers optimum protection for doors and walls</td>
</tr>
</tbody>
</table>

Our service for you:

Here you can see the individual advantages of our floor spring models for your respective fields of business.
DC475

Floor Spring
Dimensional drawings for DC475

Double-action door mounting

Right-handed door mounting

Left-handed door mounting
**Floor Spring**

Accessories for DC475

**AC269**
Available in Satin Satinless Steel, Polished Satinless Steel and Polished Brass.

**AC115**
Reversible bottom arm in steel for double action doors, socket for Italian squared spindle.

**AC393**
Reversible bottom arm in steel for double action doors, socket for German rectangular spindle.

**AC8**
Double action top pivot

**AC375**
Double action top pivot in full steel with self lubricating bushing
Floor Spring
Accessories for DC475

AC583
Right and left bottom arm in steel for single-action doors, 36mm offset. Socket for Italian squared spindle, Silver or Black painted.

AC392
Right and left bottom arm in steel for single action doors, 36mm offset, socket for German rectangular spindle, Silver and Black painted ABS covers.

AC384
Right and left top arm in full steel, 36mm offset with Silver or Black painted ABS cover.

AC612
Sealing compound for floor springs

1-2mm
Floor Spring

Accessories and order placement information for DC475

Specifications for DC475:
ASSA ABLOY Floor spring DC475 featuring Cam Motion® technology is in compliance with EN1154
- 1,000,000 cycles tested
- Closing power variable adjustable, size EN3-6, for doors up to 1400mm wide
- Closing speed, latching speed adjustable through top regulating valves
- CE approved
- 9mm height adjustable within cement box
- Suitable for left/right handed double-action doors

Accessories:
- AC115 - Reversible bottom arm Italian spindle
- AC393 - Reversible bottom arm German spindle
- AC8 - Double action top pivot
- AC375 - Double action top pivot
- AC583 - Right and left bottom arm. Socket for Italian square spindle.
- AC392 - Right & left bottom arm. Socket for German rectangular spindle.
- AC384 - Top pivot for left or right doors
- AC612 - Sealing compound for floor springs
- AC269 - Cover plate for DC475

Colour:
- Polished Stainless Steel
- Satin Stainless Steel
- Polished Brass

You can find the complete specifications on the internet at: www.assaabloy.com, under "Service" in the support section.

Detachable spindles
Italian spindle - square shape (left image)
German spindle - flat-conical shape (right image)
ASSA ABLOY Floor Spring DC477

ASSA ABLOY DC477:
- Floor spring with adjustable closing force for large and heavy doors
- In compliance with EN1154, size EN2-4
- 1,000,000 cycles tested
- Suitable for fire and smoke protection doors
- For single and double action doors up to 170kg

Characteristics of DC477:
- From 175° in both door swing directions with hydraulic control from 150°
- Two thermodynamic valves for consistent performance
- Adjustable door speed and latching speed through top regulating valves
- Back-check
- Cast Iron body
- Adjustments in all directions within the cement box
- Cement box is hot zinc plated
- Cover plates and eyelets made in polished or Satin Satinless Steel and Polished Brass
- Interchangeable spindle from 0 to 30mm
- Available without hold-open or with hold-open angle 90°, 105°

All dimensions are in mm
### Technical details:

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adjustable closing force</td>
<td>EN2-4</td>
</tr>
<tr>
<td>Door width up to</td>
<td>1100mm</td>
</tr>
<tr>
<td>Door weight up to</td>
<td>170kg</td>
</tr>
<tr>
<td>Max. opening angle</td>
<td>175° (Max. 150° in case of no hold-open)</td>
</tr>
<tr>
<td>Closing speed</td>
<td>Variable between 150°-15°</td>
</tr>
<tr>
<td>Latching speed</td>
<td>Variable between 15°-0°</td>
</tr>
<tr>
<td>Back-check</td>
<td>Mechanical</td>
</tr>
<tr>
<td>Weight</td>
<td>5.4kg</td>
</tr>
<tr>
<td>Height</td>
<td>70mm</td>
</tr>
<tr>
<td>Length</td>
<td>277mm</td>
</tr>
<tr>
<td>Width</td>
<td>110mm</td>
</tr>
<tr>
<td>Body adjustment within cement box</td>
<td>Vertical 9mm, side 4mm, front 10mm, angular 4°</td>
</tr>
<tr>
<td>DIN-direction</td>
<td>Left/Right handed double-action doors</td>
</tr>
<tr>
<td>Hold-open mode</td>
<td>90°/105°/Non hold-open</td>
</tr>
<tr>
<td>In compliance with</td>
<td>EN1154</td>
</tr>
<tr>
<td>CE marking for building products</td>
<td>Yes</td>
</tr>
<tr>
<td>Fire and smoke protection</td>
<td>Yes</td>
</tr>
</tbody>
</table>

### The advantages at a glance:

#### Customer segment

**Project planners**

- Extensive range of uses: Fire and smoke protection doors as well as standard doors
- Hold-open at 90°, 105° and non hold-open version
- Variety of available spindles: squared Italian, rectangular German
- Architectural finishes: Cover plates and eyelets in Polished Satinless Steel, Satin Satinless Steel, Polished Brass

**Builders**

- Universal for left/right handed and double-action door
- Overpressure relief valve to protect unit against abuse
- Large range of adjustment within cement box to solve possible alignment problems on the site without taking down the door

**Trade**

- Reduced inventory costs due to modular product range
- One single product suitable for a large variety of mounting positions
- Complementary accessories available for the whole product range

**User**

- Ideal for residential interiors, thanks to adjustable opening/closing force that makes opening/closing easy
- Adjustable operating force to meet door construction requirements and user needs
- Back-check feature offers optimum protection for doors and walls
- Easier door opening and improved accessibility due to rapidly decreasing opening force (Cam Motion®)

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**Our service for you:**

Here you can see the individual advantages of our floor spring models for your respective fields of business.
Floor Spring
Dimensional drawings for DC477

Double-action door mounting

Right-handed double-action door with patch fitting V500 bottom hinge for centre-hung doors

Left-handed double-action door with patch fitting V500 bottom hinge for centre-hung doors
Floor Spring
Accessories for DC477

AC534
Available in Satin Satinless Steel, Polished Satinless Steel and Polished Brass.

AC115
Reversible bottom arm in steel for double action doors, socket for Italian squared spindle.

AC393
Reversible bottom arm in steel for double action doors, socket for German rectangular spindle.

AC8
Double action top pivot

AC375
Double-action top pivot in full steel with self-lubricating bushing
Floor Spring
Accessories for DC477

AC583
Right and left bottom arm in steel for single action doors, 36mm offset, socket for Italian square spindle, Silver or Black painted ABS covers.

AC392
Right and left bottom arm in steel for single action doors, 36 mm offset, socket for German rectangular spindle, Silver and Black painted ABS covers.

AC384
Right and left top arm in full steel, 36mm offset, Silver or Black painted ABS cover.

AC612
Sealing compound for floor springs
Specifications for DC477:
ASSA ABLOY Floor spring DC477 featuring Cam Motion® technology is in compliance with EN1154
- Closing power size EN2-4 for doors up to 1100mm wide
- 1,000,000 cycles tested
- Closing speed, latching speed adjustable through regulating valves
- CE approved
- 9mm height adjustable within cement box
- Suitable for left/right handed double action doors

Colour:
- Polished Stainless Steel
- Satin Stainless Steel
- Polished Brass

Detachable spindles:
Italian spindle - square shape (left image)
German spindle - flat-conical shape (right image)

Accessories:
- AC115 - Reversible bottom arm Italian spindle
- AC393 - Reversible bottom arm German spindle
- AC8 - Double action top pivot
- AC375 - Double action top pivot
- AC583 - Right and left bottom arm. Socket for Italian square spindle.
- AC392 - Right & left bottom arm. Socket for German rectangular spindle.
- AC384 - Top pivot for left or right doors
- AC612 - Sealing Compound for floor springs
- AC537 - Cover plate for DC477
- AC534 - Cover plate for DC477

You can find the complete specifications on the internet at: www.assaabloy.com, under “Service” in the support section.
ASSA ABLOY Floor Spring DC420

*Floor Spring with Cam Motion® technology and fixed closing force for thin slabs*

**ASSA ABLOY DC420:**
- Floor spring with fixed closing force for thin slabs
- In compliance with EN1154, size EN3/EN4 cycle test over 1,000,000 cycles
- Suitable for fire and smoke protection doors
- For single and double action doors up to 100kg

**Characteristics of DC420:**
- Same dimensions for two bodies according to fix size EN3/EN4
- Hydraulic control over 175° in both door swing directions
- Adjustable door speed and latching speed from top regulating valves
- Cast Iron body
- Adjustments in all directions within the cement box
- Cement box hot zinc plated
- Cover plates and eyelets made in Polished or Satin Stainless Steel
- Interchangeable spindle from 0 to 30mm
- Available without hold-open or with hold-open angle 90°, 105°

All dimensions are in mm
Floor Spring
DC420

Technical details:

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fix closing force</td>
<td>EN3/EN4</td>
</tr>
<tr>
<td>Door width up to</td>
<td>950mm/1100mm</td>
</tr>
<tr>
<td>Door weight up to</td>
<td>100kg</td>
</tr>
<tr>
<td>Max. opening angle</td>
<td>175°</td>
</tr>
<tr>
<td>Closing speed</td>
<td>Variable between 175°-15°</td>
</tr>
<tr>
<td>Latching speed</td>
<td>Variable between 15°-0°</td>
</tr>
<tr>
<td>Back-check</td>
<td>No</td>
</tr>
<tr>
<td>Weight</td>
<td>3.9kg</td>
</tr>
<tr>
<td>Height</td>
<td>47mm</td>
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<tr>
<td>Length</td>
<td>306mm</td>
</tr>
<tr>
<td>Width</td>
<td>82mm</td>
</tr>
<tr>
<td>Body adjustment within cement box</td>
<td>Vertical 5mm, side 10mm, front 10mm, angular 6°</td>
</tr>
<tr>
<td>DIN-direction</td>
<td>Left/Right handed double-action doors</td>
</tr>
<tr>
<td>Hold-open mode</td>
<td>90°/105°/Non hold-open</td>
</tr>
<tr>
<td>In compliance with</td>
<td>EN1154</td>
</tr>
<tr>
<td>CE marking for building products</td>
<td>Yes</td>
</tr>
<tr>
<td>Fire and smoke protection</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Our service for you:
Here you can see the individual advantages of our floor spring models for your respective fields of business.

The advantages at a glance:

<table>
<thead>
<tr>
<th>Customer segment</th>
<th>Advantages</th>
</tr>
</thead>
</table>
| Project planners | - Extensive range of uses: Fire and smoke protection doors as well as standard doors  
|                   | - Particularly suitable in case of double-action glass doors  
|                   | - Recommended for thin slabs  
|                   | - Hold-open at 90°,105° and non hold-open  
|                   | - Variety of available spindles: squared Italian, rectangular German  
|                   | - Architectural finishes: Cover plates and eyelets in Polished Satinless Steel, Satin Satinless Steel, Polished Brass |
| Builders          | - Universal for left/right handed and double-action doors  
|                   | - Large range of adjustment within cement box to solve possible alignment problems on the site without taking down the door |
| Trade             | - Reduced inventory costs due to modular product range  
|                   | - One single product suitable for a large variety of mounting positions |
| User              | - Complementary accessories available for the whole product range  
|                   | - Easier door opening and improved accessibility due to rapidly decreasing opening force (Cam Motions®)  

Our service for you:
Here you can see the individual advantages of our floor spring models for your respective fields of business.
**Floor Spring**

**Dimensional drawings for DC420**

Double-action door mounting

Right-handed door mounting

Left-handed door mounting
**Floor Spring**

**Accessories for DC420**

**AC307**
Available in Satin Stainless Steel, Polished Stainless Steel and Polished Brass.

**AC115**
Reversible bottom arm in steel for double action doors, socket for Italian squared spindle.

**AC393**
Reversible bottom arm in steel for double action doors, socket for German rectangular spindle.

**AC8**
Double action top pivot

**AC375**
Double action top pivot in full steel with self-lubricating bushing.
**Floor Spring**

**Accessories for DC420**

**AC583**
Right and left bottom arm in steel for single action doors, 36mm offset, socket for Italian squared spindle, Silver or Black painted.

**AC392**
Right and left bottom arm in steel for single action doors, 36mm offset, socket for German rectangular spindle, Silver and Black painted ABS covers.

**AC384**
Right and left top arm in full steel, 36mm offset, Silver or Black painted ABS cover.

**AC612**
Sealing compound for floor springs.
Specifications for DC420:
ASSA ABLOY Floor spring DC420 featuring Cam Motion® technology is in compliance with EN1154
- Closing power sizes EN3/4 for doors up to 1100mm wide
- 1,000,000 cycles tested
- Closing speed, latching speed adjustable through top regulating valves
- CE approved
- 5mm height adjustable within cement box
- Suitable for left/right handed and double-action doors

Colour:
- Polished Stainless Steel
- Satin Stainless Steel
- Polished Brass

Accompanying accessories:
- AC115 - Reversible bottom arm Italian spindle
- AC393 - Reversible bottom arm German spindle
- AC8 - Double action top pivot
- AC375 - Double action top pivot
- AC583 - Right and left bottom arm. Socket for Italian square spindle.
- AC392 - Right & left bottom arm. Socket for German rectangular spindle.
- AC384 - Top pivot for left or right doors
- AC612 - Sealing compound for floor springs
- AC307 - Cover plate

You can find the complete specifications on the Internet at: www.assaabloy.com, under “Service” in the support section.

Ordering details for DC420:
<table>
<thead>
<tr>
<th>Ordering no.</th>
<th>Product description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC420 EN3</td>
<td>ASSA ABLOY DC420 Floor spring size 3</td>
</tr>
<tr>
<td>DC420 EN4</td>
<td>ASSA ABLOY DC420 Floor spring size 4</td>
</tr>
</tbody>
</table>
ASSA ABLOY Floor Spring DC460

**ASSA ABLOY DC460:**
- Floor spring with fixed closing force for very thin slabs
- In compliance with EN1154, size EN2/3/4
- Suitable for fire and smoke protection doors
- For single and double-action doors up to 120kg

**Characteristics of DC460:**
- Same dimensions for three bodies according to fix size EN2/EN3/EN4
- Hydraulic control over 130° in both door swing directions
- Adjustable closing speed and latching speed through top regulating valves
- Cast Iron body
- Adjustments in all directions within the cement box
- Cement box is painted black and only 40mm high cement box
- Cover plates and eyelets are made in Polished or Satin Satinless Steel
- Interchangeable spindle from 0 to 30mm
- Available without hold-open or with hold-open angle 90°, 105°

All dimensions are in mm
**Floor Spring**

**DC460**

**Technical details:**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fix closing force</td>
<td>EN2/EN3/EN4</td>
</tr>
<tr>
<td>Door width up to</td>
<td>850mm/950mm/1100mm</td>
</tr>
<tr>
<td>Door weight up to</td>
<td>120kg</td>
</tr>
<tr>
<td>Max. opening angle</td>
<td>130°</td>
</tr>
<tr>
<td>Closing speed</td>
<td>Variable between 130°-15°</td>
</tr>
<tr>
<td>Latching speed</td>
<td>Variable between 15°-0°</td>
</tr>
<tr>
<td>Back-check</td>
<td>No</td>
</tr>
<tr>
<td>Weight</td>
<td>5kg</td>
</tr>
<tr>
<td>Height</td>
<td>40mm</td>
</tr>
<tr>
<td>Length</td>
<td>308mm</td>
</tr>
<tr>
<td>Width</td>
<td>108mm</td>
</tr>
<tr>
<td>Body adjustment within cement box</td>
<td>Vertical 4mm, side 6mm, front 8mm, angular 2°</td>
</tr>
<tr>
<td>DIN-direction</td>
<td>Left/Right handed double-action doors</td>
</tr>
<tr>
<td>Hold-open mode</td>
<td>90°/105°/Non hold-open</td>
</tr>
<tr>
<td>In compliance with</td>
<td>EN1154</td>
</tr>
<tr>
<td>CE marking for building products</td>
<td>Yes</td>
</tr>
<tr>
<td>Fire and smoke protection</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**Our service for you:**

*Here you can see the individual advantages of our floor spring models for your respective fields of business.*

**The advantages at a glance:**

<table>
<thead>
<tr>
<th>Customer segment</th>
<th>Advantages</th>
</tr>
</thead>
</table>
| Project planners | - Extensive range of uses: Fire and smoke protection doors as well as standard doors  
|                   | - Particularly suitable in case of double-action glass doors                 |
|                   | - Recommended for thin slabs                                                |
|                   | - Hold-open at 90°, 105° and non hold-open                                   |
|                   | - Variety of available spindles: squared Italian, rectangular German        |
|                   | - Architectural finishes: Cover plates and eyelets in Polished Satinless Steel, Satin Satinless Steel, Polished Brass |
| Builders          | - Universal for left/right handed and double-action doors                   |
|                   | - Large range of adjustment within cement box to solve possible alignment problems on the site without taking down the door |
| Trade             | - Reduced inventory costs due to modular product range                     |
|                   | - One single product suitable for a large variety of mounting positions     |
| User              | - Complementary accessories available for the whole product range           |
|                   | - Easier door opening and improved accessibility due to Cam Motion® technology |
Floor Spring

Dimensional drawings for DC460

Double-action door mounting

Left-hand door mounting special installation below door frame

Right-hand door mounting special installation below door frame
**Floor Spring**

**Accessories for DC460**

**AC616**
Available in Satin Satinless Steel, Polished Satinless Steel and Polished Brass.

**AC115**
Reversible bottom arm in steel for double-action doors, socket for Italian squared spindle.

**AC393**
Reversible bottom arm in steel for double-action doors, socket for German rectangular spindle.

**AC8**
Double action top pivot

**AC375**
Double action top pivot in full steel with self-lubricating bushing
**Floor Spring**

**Accessories for DC460**

**AC583**
Right and left bottom arm in steel for single action doors, 36mm offset, socket for Italian square spindle. Silver or Black painted.

**AC392**
Right and left bottom arm in steel for single action doors, 36mm offset, socket for German rectangular spindle. Silver and Black painted ABS covers.

**AC384**
Right and left top arm in full steel, 36mm offset, Silver or Black painted ABS cover.

**AC612**
Sealing compound for floor springs
Specifications for DC460:
ASSA ABLOY Floor spring DC460 featuring Cam Motion® technology is in compliance with EN1154
- Closing power size EN2/3/4 for doors up to 120kg and 1100mm wide
- Closing speed, latching speed adjustable through top regulating valves
- 40mm high cement box
- CE approved
- Suitable for left/right handed and double-action doors

Colour:
- Polished Satinless Steel
- Satin Satinless Steel

Accessories:
- AC115 - Reversible bottom arm Italian spindle
- AC393 - Reversible bottom arm German spindle
- AC8 - Double action top pivot
- AC375 - Double action top pivot
- AC583 - Right and left bottom arm. Socket for Italian square spindle.
- AC392 - Right and left bottom arm. Socket for German rectangular spindle.
- AC384 - Top pivot for left or right doors
- AC612 - Sealing compound for floor springs
- AC616 - Cover plate

You can find the complete specifications on the internet at: www.assaabloy.com, under “Service” in the support section.

Ordering details

<table>
<thead>
<tr>
<th>Ordering no.</th>
<th>Product description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC460 EN2</td>
<td>ASSA ABLOY DC460 Floor Spring size 2</td>
</tr>
<tr>
<td>DC460 EN3</td>
<td>ASSA ABLOY DC460 Floor Spring size 3</td>
</tr>
<tr>
<td>DC460 EN4</td>
<td>ASSA ABLOY DC460 Floor Spring size 4</td>
</tr>
</tbody>
</table>
ASSA ABLOY Floor Spring DC450

Floor Spring with Cam Motion® technology and fixed closing force for very thin slabs

ASSA ABLOY DC450:
- Floor spring with fixed closing force for very thin slabs
- In compliance with EN1154, size EN3/EN4
- Suitable for fire and smoke protection doors
- For single and double-action doors up to 120 kg

Characteristics of DC450:
- Same dimensions for two bodies according to fix size EN3/EN4
- Hydraulic control over 130° in both door swing directions
- Adjustable door speed and latching speed through top regulating valves
- Cast Iron body
- Adjustments in all directions within the cement box
- Cement box is hot zinc plated and only 40 mm high
- Cover plates and eyelets are made in Polished or Satin Stainless Steel
- Interchangeable spindle from 0 to 30 mm
- Available without hold-open or with hold-open angle 90°, 105°

All dimensions are in mm
**Technical details:**

<table>
<thead>
<tr>
<th>Specification</th>
<th>DC450</th>
</tr>
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<tbody>
<tr>
<td>Fix closing force</td>
<td>EN3/EN4</td>
</tr>
<tr>
<td>Door width up to</td>
<td>950mm/1100mm</td>
</tr>
<tr>
<td>Door weight up to</td>
<td>120kg</td>
</tr>
<tr>
<td>Max. opening angle</td>
<td>130°</td>
</tr>
<tr>
<td>Closing speed</td>
<td>Variable between 130°-15°</td>
</tr>
<tr>
<td>Latching speed</td>
<td>Variable between 15°-0°</td>
</tr>
<tr>
<td>Back-check</td>
<td>No</td>
</tr>
<tr>
<td>Weight</td>
<td>3.8kg</td>
</tr>
<tr>
<td>Height</td>
<td>40 mm</td>
</tr>
<tr>
<td>Length</td>
<td>277 mm</td>
</tr>
<tr>
<td>Width</td>
<td>108 mm</td>
</tr>
<tr>
<td>Body adjustment within cement box</td>
<td>Vertical 2mm, side 6mm, front 7mm, angular 4°</td>
</tr>
<tr>
<td>DIN-direction</td>
<td>Left/Right handed or double-action</td>
</tr>
<tr>
<td>Hold-open mode</td>
<td>90°/105°/Non hold-open</td>
</tr>
<tr>
<td>In compliance with</td>
<td>EN1154</td>
</tr>
</tbody>
</table>

**The advantages at a glance:**

<table>
<thead>
<tr>
<th>Customer segment</th>
<th>Advantages</th>
</tr>
</thead>
</table>
| **Project planners** | - Extensive range of uses: Fire and smoke protection doors as well as standard doors  
- Particularly suitable in case of double-action glass doors  
- Recommended for thin slabs  
- Hold-open at 90°,105° and non hold-open  
- Variety of available spindles: squared Italian, rectangular German  
- Architectural finishes: Cover plates and eyelets in Polished Satinless Steel, Satin Satinless Steel, Polished brass |
| **Builders** | - Universal for left/right handed and double action doors  
- Large range of adjustment within cement box to solve possible alignment problems on the site without taking down the door |
| **Trade** | - Reduced inventory costs due to modular products range  
- One single product suitable for a large variety of mounting positions |
| **User** | - Complementary accessories available for the whole product range  
- Easier door opening and improved accessibility due to Cam Motion® technology |
Floor Spring
Dimensional drawings for DC450

Double-action door mounting

Left-hand door mounting special installation below door frame

Right-hand door mounting special installation below door frame
Floor Spring
Accessories for DC450

**AC619**
Available in Satin Satinless Steel, Polished Satinless Steel and Polished Brass.

**AC115**
Reversible bottom arm in steel for double action doors, socket for Italian squared spindle.

**AC393**
Reversible bottom arm in steel for double action doors, socket for German rectangular spindle.

**AC8**
Double-action top pivot

**AC375**
Double-action top pivot in full steel with self-lubricating bushing
Floor Spring

Accessories and order placement information for DC450

AC583
Right and left bottom arm in steel for single action doors, 36mm offset, socket for Italian square spindle, Silver or Black painted.

AC392
Right and left bottom arm in steel for single action doors, 36 mm offset, socket for German rectangular spindle, Silver and Black painted ABS covers.

AC384
Right and left top arm in full steel, 36mm offset. Silver or Black painted ABS cover.

AC612
Sealing compound for floor springs
**Floor Spring**

**Accessories and order placement information for DC450**

**Specifications for DC450:**
ASSA ABLOY Floor spring DC450 featuring Cam Motion® technology is in compliance with EN1154.
- Closing power size EN3/4 for doors up to 120 kg and 1100mm wide
- Closing speed, latching speed adjustable through top regulating valves
- 40mm high cement box
- Suitable for left/right handed and double-action doors

**Colour:**
- Polished Satinless Steel
- Satin Satinless Steel

**Detachable spindles**
- Italian spindle - square shape (left image)
- German spindle - flat-conical shape (right image)

**Accessories:**
- AC115 - Reversible bottom arm Italian spindle
- AC393 - Reversible bottom arm German spindle
- AC8 - Double action top pivot
- AC375 - Double action top pivot
- AC583 - Right and left bottom arm. Socket for Italian squared spindle
- AC392 - Right & left bottom arm. Socket for German rectangular spindle
- AC384 - Top pivot for left or right doors
- AC612 - Sealing compound for floor springs
- AC616 - Cover plate

**Floor Spring**

**Ordering details for DC450**

<table>
<thead>
<tr>
<th>Ordering no.</th>
<th>Product description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC450 EN3</td>
<td>ASSA ABLOY DC450 Floor Spring size 3</td>
</tr>
<tr>
<td>DC450 EN4</td>
<td>ASSA ABLOY DC450 Floor Spring size 4</td>
</tr>
</tbody>
</table>
The following table shows the product and accessories overview and enables to select the right accessories for ASSA ABLOY floor springs. The table below shows how to choose the correct replaceable spindle. The distance between the door leaf and the floor can be enlarged if needed by means of various heights of replaceable spindles.

<table>
<thead>
<tr>
<th>Floor Spring</th>
<th>Hold open</th>
<th>Article Number</th>
<th>Max. door leaf width</th>
<th>Max door leaf weight</th>
<th>Max opening angle</th>
<th>Double/Single action</th>
<th>Interior/Exterior</th>
<th>Polished Brass</th>
<th>Satin Stainless Steel</th>
<th>Polished Satinless Steel</th>
<th>Ceiling Compound</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC450 EN3</td>
<td>DCE7293TS0</td>
<td>≤950mm</td>
<td>120 kg</td>
<td>15˚</td>
<td>Single/Double action</td>
<td>Interior</td>
<td>DCA0619QR</td>
<td>DCA0619R</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>DCE7294TS0</td>
<td>≤1100mm</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DC46 EN2</td>
<td>DCE6092TSW</td>
<td>≤850mm</td>
<td>120 kg</td>
<td>15˚</td>
<td>Single/Double action</td>
<td>Interior</td>
<td>DCA0616W</td>
<td></td>
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<tr>
<td></td>
<td>DCE6101TSW</td>
<td>≤1100mm</td>
<td></td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>DC475 EN3-6</td>
<td>DCE7490TSR</td>
<td>≤1400mm</td>
<td>300 kg</td>
<td>15˚</td>
<td>Single/Double action</td>
<td>Interior + Exterior</td>
<td>DCA0269PR</td>
<td>DCA0269HR</td>
<td>DCA0269R</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>DCE7410TSR</td>
<td>≤1100mm</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DC477 EN2-4</td>
<td>DCE7980TSR</td>
<td>≤1100mm</td>
<td>170 kg</td>
<td>15˚</td>
<td>Single/Double action</td>
<td>Interior + Exterior</td>
<td>DCA0534PR</td>
<td>DCA0534HR</td>
<td>DCA0534R</td>
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<td></td>
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<tr>
<td></td>
<td>DCE7910TSR</td>
<td>≤1100mm</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DC420 EN3</td>
<td>DCE4293TSR</td>
<td>≤950mm</td>
<td>100 kg</td>
<td>15˚</td>
<td>Single/Double action</td>
<td>Interior + Exterior</td>
<td>DCA0307PR</td>
<td>DCA0307HR</td>
<td>DCA0307R</td>
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<tr>
<td></td>
<td>DCE4213TSR</td>
<td>≤1100mm</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Legend:
- HA = Height adjustment within the cement box
- SH = Spindle Height
- X = Floor clearance

Formula Example
- X = HA + SH
- X = 34.5mm
- Floor Spring = DC420
- HA min = 5.5
- HA max = 10.5

34.5mm = (5.5mm or 10.5mm) + SH;
SH max = 29mm AC345/AC365;
SH min = 24.5mm AC344/AC364

Ordering matrix and replaceable spindle calculation

<table>
<thead>
<tr>
<th>Floor Spring</th>
<th>HA min</th>
<th>HA max</th>
<th>AC340/AC360</th>
<th>AC341/AC361</th>
<th>AC342/AC362</th>
<th>AC343/AC363</th>
<th>AC344/AC364</th>
<th>AC345/AC365</th>
<th>AC346/AC366</th>
<th>X min</th>
<th>X max</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC420</td>
<td>5.5mm</td>
<td>10.5mm</td>
<td>0mm</td>
<td>5mm</td>
<td>10mm</td>
<td>15mm</td>
<td>20mm</td>
<td>25mm</td>
<td>30mm</td>
<td>5.5mm</td>
<td>40.5mm</td>
</tr>
<tr>
<td>DC460</td>
<td>9.5mm</td>
<td>13.5mm</td>
<td>0mm</td>
<td>5mm</td>
<td>10mm</td>
<td>15mm</td>
<td>20mm</td>
<td>25mm</td>
<td>30mm</td>
<td>9.5mm</td>
<td>43.5mm</td>
</tr>
<tr>
<td>DC477</td>
<td>5.5mm</td>
<td>13.5mm</td>
<td>0mm</td>
<td>5mm</td>
<td>10mm</td>
<td>15mm</td>
<td>20mm</td>
<td>25mm</td>
<td>30mm</td>
<td>5.5mm</td>
<td>45mm</td>
</tr>
<tr>
<td>DC475</td>
<td>4mm</td>
<td>13.5mm</td>
<td>0mm</td>
<td>5mm</td>
<td>10mm</td>
<td>15mm</td>
<td>20mm</td>
<td>25mm</td>
<td>30mm</td>
<td>4mm</td>
<td>43.5mm</td>
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</table>
### Extended Spindle (0 - 30mm)

<table>
<thead>
<tr>
<th>Spindle Type</th>
<th>Square type (Italian)</th>
<th>Flat-conical type (German)</th>
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</thead>
<tbody>
<tr>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Extension</th>
<th>Name</th>
<th>Art. no.</th>
<th>Name</th>
<th>Art. no.</th>
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<tbody>
<tr>
<td>0mm</td>
<td>AC360</td>
<td>MA0360S0</td>
<td>AC340</td>
<td>MA0340S0</td>
</tr>
<tr>
<td>5mm</td>
<td>AC361</td>
<td>MA0361S0</td>
<td>AC341</td>
<td>MA0341S0</td>
</tr>
<tr>
<td>10mm</td>
<td>AC362</td>
<td>MA0362S0</td>
<td>AC342</td>
<td>MA0342S0</td>
</tr>
<tr>
<td>15mm</td>
<td>AC363</td>
<td>MA0363S0</td>
<td>AC343</td>
<td>MA0343S0</td>
</tr>
<tr>
<td>20mm</td>
<td>AC364</td>
<td>MA0364S0</td>
<td>AC344</td>
<td>MA0344S0</td>
</tr>
<tr>
<td>25mm</td>
<td>AC365</td>
<td>MA0365S0</td>
<td>AC345</td>
<td>MA0345S0</td>
</tr>
<tr>
<td>30mm</td>
<td>AC366</td>
<td>MA0366S0</td>
<td>AC346</td>
<td>MA0346S0</td>
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</table>

### TOP PIVOT

<table>
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<tr>
<th>Single/Double</th>
<th>Pivot name</th>
<th>Art. no.</th>
<th>Art. no.</th>
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<tbody>
<tr>
<td>Single Action</td>
<td>A384</td>
<td>A8</td>
<td>A118</td>
</tr>
<tr>
<td>Double Action</td>
<td>AC583</td>
<td>AC392</td>
<td>AC2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Material</th>
<th>Steel</th>
<th>Zamac</th>
<th>Zamac</th>
<th>Steel</th>
<th>Steel</th>
<th>Brass</th>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Max. Door Wt.</td>
<td>≤300kg</td>
<td>≤100kg</td>
<td>≤170kg</td>
<td>≤300kg</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Spindle type</th>
<th>Square type</th>
<th>Flat-conical</th>
<th>Square type</th>
<th>Flat-conical</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Cover plates in Polished Brass, Satin Satinless Steel and Polished Satinless Steel:**

![Image of cover plates]
Floor Spring AF-200F

**Floor Spring AF-200F:**
- Floor spring with fixed closing force for very thin slab
- Certified EN1154, size EN3
- 5,000,000 cycles tested
- Suitable for fire and smoke protection doors
- Maximum door weight 120 kg

**Characteristics of AF-200F:**
- CE Mark product
- Easy installation with thin body design
- Closing speed adjustable (1) - 120°-15°
- Latching speed (2) - 15°-0°
- Standard 90° hold-open, optional - Non hold-open
- Maximum door weight 120kg
- Suitable for wooden/glass/Aluminium profile doors application
- Body adjustable inside cement box with height up to 4mm, width up to 5mm, length up to 7mm
## Technical details:

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixed closing force</td>
<td>EN3</td>
</tr>
<tr>
<td>Door width up to</td>
<td>950mm</td>
</tr>
<tr>
<td>Door weight up to</td>
<td>120 kg</td>
</tr>
<tr>
<td>Max. opening angle</td>
<td>120°</td>
</tr>
<tr>
<td>Closing speed</td>
<td>Variable between 120°-15°</td>
</tr>
<tr>
<td>Latching speed</td>
<td>Variable between 15°-0°</td>
</tr>
<tr>
<td>Back-check</td>
<td>No</td>
</tr>
<tr>
<td>Height</td>
<td>40.5mm</td>
</tr>
<tr>
<td>Length</td>
<td>319mm</td>
</tr>
<tr>
<td>Width</td>
<td>108mm</td>
</tr>
<tr>
<td>Body adjustment within cement box</td>
<td>Body adjustable inside cement box with height up to 4mm, width up to 5mm, length up to 7mm</td>
</tr>
<tr>
<td>DIN-direction</td>
<td>Left/Right handed doors or double action</td>
</tr>
<tr>
<td>Hold-open mode</td>
<td>90° Non hold-open</td>
</tr>
<tr>
<td>In compliance with</td>
<td>EN1154</td>
</tr>
<tr>
<td>CE Marking for building products</td>
<td>Yes</td>
</tr>
<tr>
<td>Fire and smoke protection</td>
<td>Yes</td>
</tr>
</tbody>
</table>

## Customer segment

- **Advantages**
  - Extensive range of uses: Fire and smoke protection doors as well as standard doors
  - Particularly suitable in case of double-action glass doors
  - Recommended for thin slabs
  - Hold-open at 90° and non hold-open
  - Available with high quality rectangular German spindle
  - Architectural finishes: Satin Satinless Steel
  - Universal for left/right handed and double-action doors

## Project planners

- Large range of adjustment within cement box to solve possible alignment problems on the site without taking down the door
- Reduced inventory costs due to modular product range

## Builders

- One single product suitable for a large variety of mounting positions
- Complementary accessories available for the whole product range

## Trade

- Easier door opening and improved accessibility due to Cam Motion® technology

---

**Our service for you:**

Here you can see the individual advantages of our floor spring models for your respective fields of business.
Floor Spring AF-224P

ASSA ABLOY AF-224P:
- Floor spring with adjustable closing force for very thin slab
- Certified EN1154, size EN2-4
- 5,000,000 cycles tested
- Suitable for fire and smoke protection doors
- Maximum door weight 150kg

Characteristics of AF-224P:
- CE Mark product
- Easy installation with thin body design
- Closing speed adjustable (1) - 145°-15°
- Latching speed (2) - 15°-0°
- Standard 90° hold-open, optional - Non hold-open
- Maximum door weight 150 kg
- Suitable for wooden/glass/aluminium profile doors application
- Body adjustable inside cement box with height up to 4mm, width up to 4mm, length up to 4mm
Floor Spring AF-224P

Technical details:

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adjustable closing force</td>
<td>EN2-4</td>
</tr>
<tr>
<td>Door width up to</td>
<td>850mm -1100mm</td>
</tr>
<tr>
<td>Door weight up to</td>
<td>150 kg</td>
</tr>
<tr>
<td>Max. opening angle</td>
<td>145°</td>
</tr>
<tr>
<td>Closing speed</td>
<td>Variable between 145°-15°</td>
</tr>
<tr>
<td>Latching speed</td>
<td>Variable between 15°- 0°</td>
</tr>
<tr>
<td>Back-check</td>
<td>No</td>
</tr>
<tr>
<td>Height</td>
<td>49.5mm</td>
</tr>
<tr>
<td>Length</td>
<td>309mm</td>
</tr>
<tr>
<td>Width</td>
<td>82mm</td>
</tr>
<tr>
<td>Body adjustment within cement box</td>
<td>Body adjustable inside cement box with height up to 4mm, width up to 4mm, length up to 4mm</td>
</tr>
<tr>
<td>DIN-direction</td>
<td>Left/Right handed or double action</td>
</tr>
<tr>
<td>Hold-open mode</td>
<td>90° Non hold-open</td>
</tr>
<tr>
<td>In compliance with</td>
<td>EN1154</td>
</tr>
<tr>
<td>CE Marking for building products</td>
<td>Yes</td>
</tr>
<tr>
<td>Fire and smoke protection</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Our service for you:
Here you can see the individual advantages of our floor spring models for your respective fields of business.

The advantages at a glance:

<table>
<thead>
<tr>
<th>Customer segment</th>
<th>Advantages</th>
</tr>
</thead>
</table>
| Project planners | - Extensive range of uses: Fire and smoke protection doors as well as standard doors  
|                   | - Particularly suitable in case of double-action glass doors  
|                   | - Recommended for thin slabs  
|                   | - Hold-open at 90° and non hold-open  
|                   | - Available with high quality rectangular German spindle  
|                   | - Architectural finishes: Satin Satinless Steel  
|                   | - Universal for left/right handed and double-action doors  
| Builders          | - Large range of adjustment within cement box to solve possible alignment problems on the site without taking down the door  
|                   | - Reduced inventory costs due to modular product range  
| Trade             | - One single product suitable for a large variety of mounting positions  
|                   | - Complementary accessories available for the whole product range  
| User              | - Easier door opening and improved accessibility due to Cam Motion® technology  

The advantages at a glance:
Floor Spring - Accessories

**Floor Spring Accessories**

- **AC200F-TP**
  - **Model no.**: AC200F-TP
  - **Description**: Top Pivot (Iron - double action) for AC200F

- **AC224P-TP**
  - **Model no.**: AC224P-TP
  - **Description**: Top Pivot (Iron - double action) for AF-224P

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**Floor Spring Accessories**

- **AC200FA/B-C**
  - **Model no.**: AC200FA/B-C
  - **Description**: Top Pivot & Bottom Arm (Iron - double action), Standard parts for AF-200F

- **ACC224PA/B-C**
  - **Model no.**: ACC224PA/B-C
  - **Description**: Top Pivot & Bottom Arm (Iron - double action), Standard parts for AF-224P

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**Floor Spring Accessories**

- **AC200FA/B-O**
  - **Model no.**: AC200FA/B-O
  - **Description**: Top Pivot & Bottom Arm (Iron - single action), Standard parts for AF-200F

- **ACC224PA/B-O**
  - **Model no.**: ACC224PA/B-O
  - **Description**: Top Pivot & Bottom Arm (Iron - single action), Standard parts for AF-224P