

**king<sup>®</sup>**

ASSA ABLOY

# FLOOR SPRING

Safety, Security, Stability

## ST80



The global leader in door opening solutions

Samhwa Precision Co.,Ltd./Korea  
ASSA ABLOY Group Company

# ST80 series

Floor spring with adjustable closing force for large and very heavy doors.  
 Certified in compliance with EN 1154 Adjustable size 3~6 or fixed 4, 5, 6  
 Suitable for fire and smoke protection doors (No fire test conducted yet)  
 For double and single action door up to 300kg

## Characteristics

- | Closing from 175° in both door swing directions with hydraulic control from 170°.
- | Three thermodynamic valves for consistent performance.
- | Adjustable closing speed (175°~15°) and latching speed (15°~0°) from top regulating valves.
- | Adjustable hold-open or delay action angle 80° ~ 175°.
- | Cast iron body.
- | Universal cover plate in stainless steel.
- | Standard built-in Back check function.
- | Cement box in hot zinc plated.
- | Extended spindle.

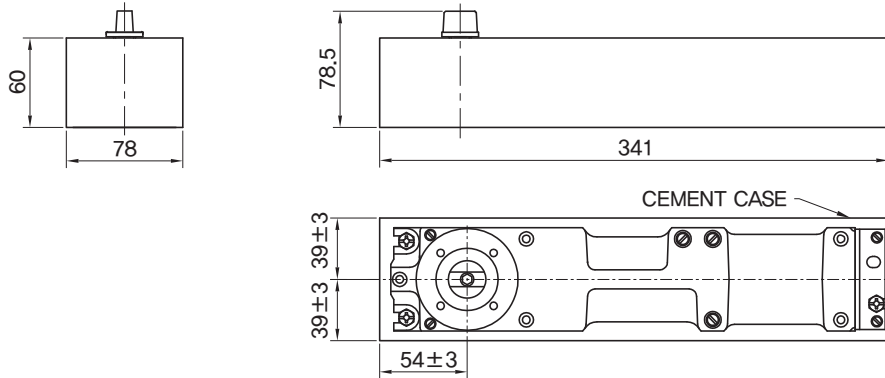
## The advantages at a glance

Project planners	Extensive range of uses: Fire and smoke protection doors as well as standard doors. Variable hold open between 80°~175° or delay action. Independent closing and latching valve for easy control. Variety of available spindles: square Italian, square French, rectangular German. Architectural finishes: coverplate in polished stainless steel, satin stainless steel, polished brass
Builders	Universal for left/right handed and double action doors. 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. Meet door weight up to 300kgs.
Traders	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. Extensive interchangeable
User	Adjustable operating force to meet door construction requirements and user needs. Easier door opening and improved accessibility due to Cam-Motion technology. Backcheck feature offers optimum protection for doors and walls. Independent closing and latching valve for easy control Variable hold open range

Technical attributes		ST80			ST80P
Spring strength (EN)		4	5	6	3~6
Spring strength adjustment		–	–	–	●
Standard and external doors	≤ 950mm	–	–	–	–
	≤ 1100mm	●	–	–	●
	≤ 1250mm	–	●	–	●
	≤ 1400mm	–	–	●	●
Max. leaf weight (kg)		300			
Non-handed, suitable for		●			
Single and double action doors		●			
Closing speed adjustable by valve	175° ~ 85°	●			
	85° ~ 15°	●			
	15° ~ 0°	●			
Backcheck, mechanical		●			
Delayed action adjustable by valve (selectable alternative to the hold-open feature)		●			
Hold-open	Adjustable	●			
Weight (kg)		9			
Dimensions in mm	Length	341			
	Width	78			
	Height	60			
Floor spring tested to EN 1154		●	○	○	●
CE mark for building products (products with factory-fitted hold-open do not carry a CE mark)		–	–	–	–
ANSI 156.4 Grade 1		○	–	–	○

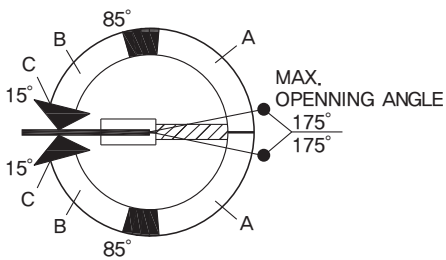
● : Yes    – : No    ○ : On going

**ST80**



**Standard and optional functions**

**Adjust Closing Speed**



- | VALVE "A" – controls closing speed from MAX. (OPENING - 85°)
- | VALVE "B" – controls closing speed from approx.. (85° ~ 15°)
- | VALVE "C" – controls closing speed from approx. (15° ~ 0°)
- | VALVE "D" – Adjustable closing force (EN3~6)

**BACK-CHECK**

The integrated mechanical back-check function offers optimum protection for doors and wall

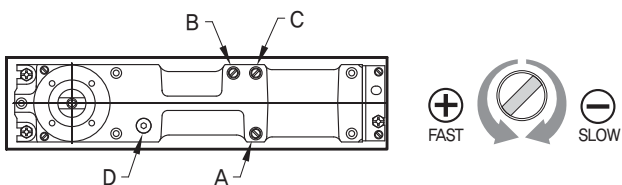
**DELAYED ACTION**

Turn valve "A" clockwise until desired delay time is obtained.

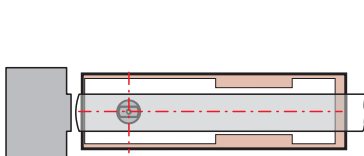
**HOLD OPEN**

Turn valve "A" completely clockwise. Door will hold at any point beyond approx. 85°. Allow for approx. 4° fall away when considering hold open position.

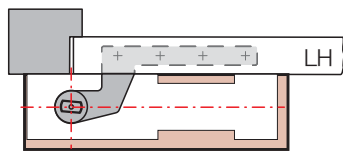
To release door, manually pull door closed a few inches.



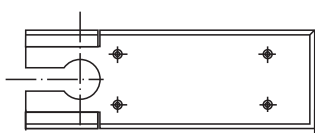
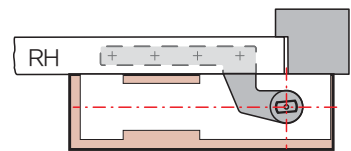
**Application and Installation**



Double action door mounting



Single action door mounting



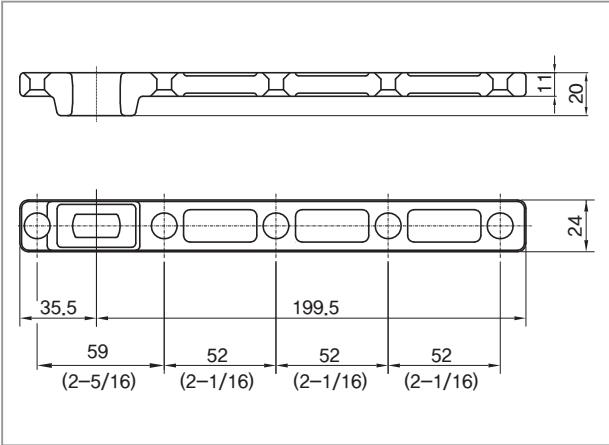
Application for LH offset pivoted door



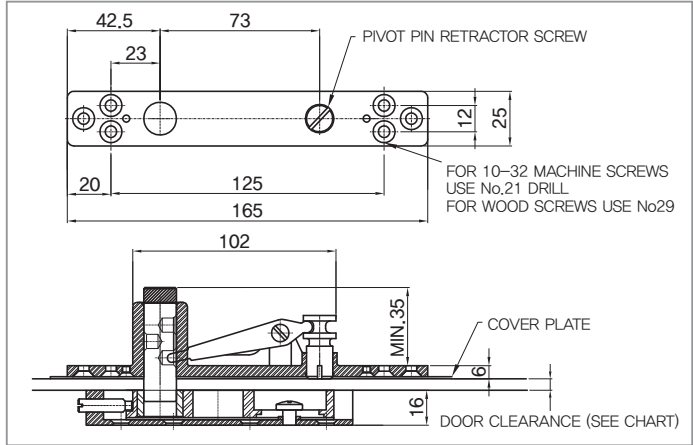
Application for RH offset pivoted door

Standard accessories

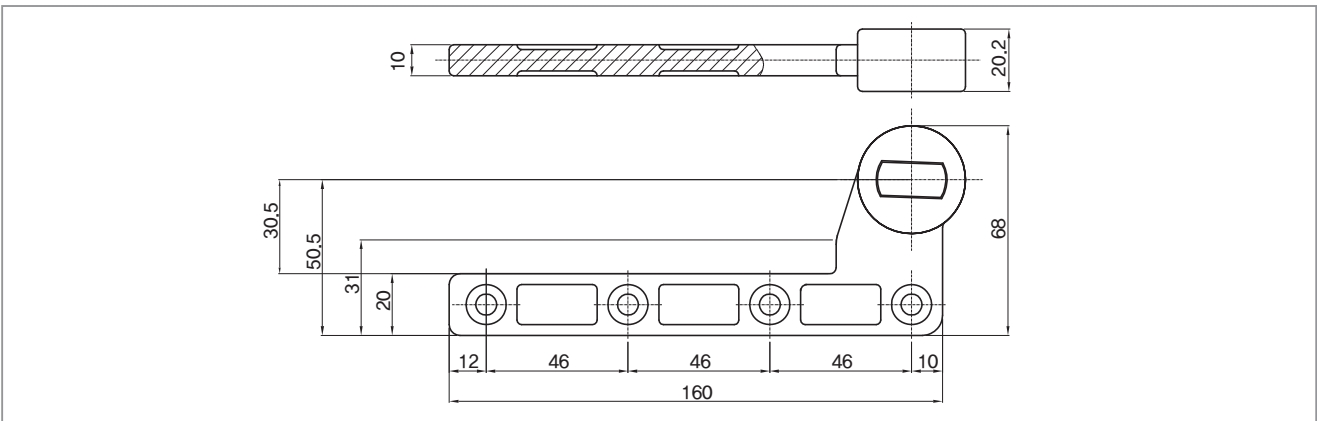
Standard bottom arm 8011



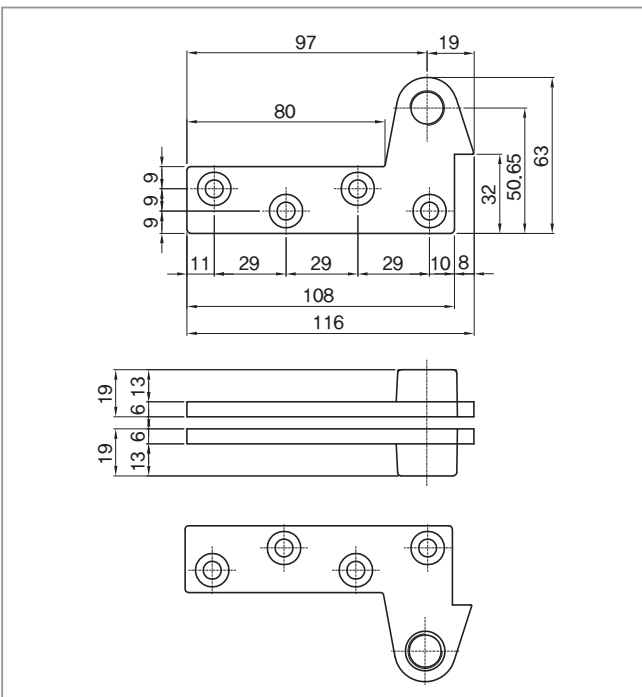
Standard top pivot 8012



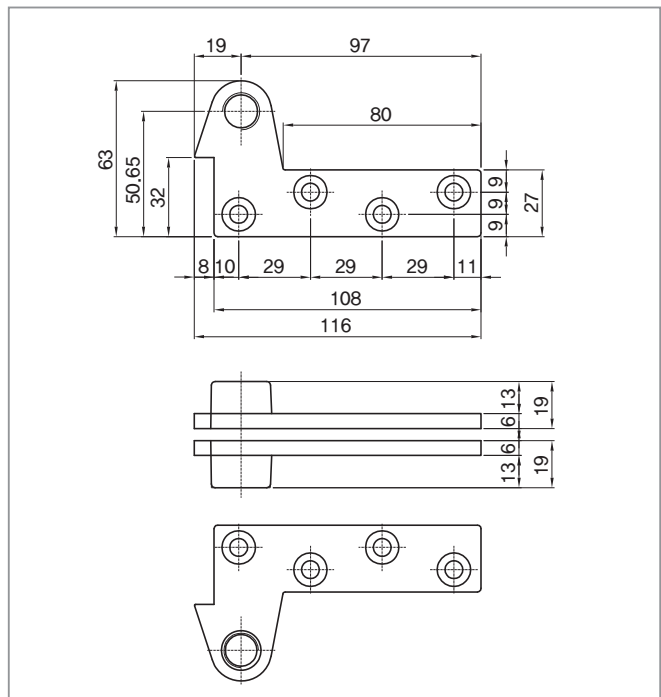
Offset arm (right & left) 8021



Offset top pivot (right) 8023

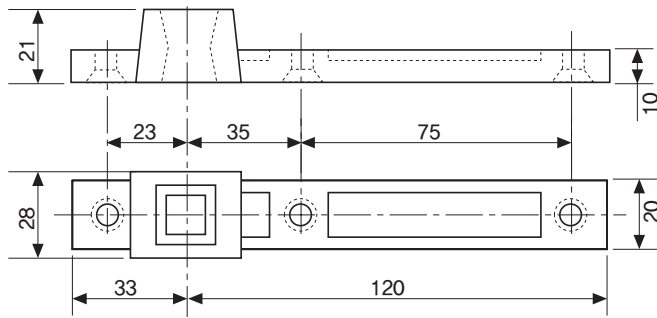
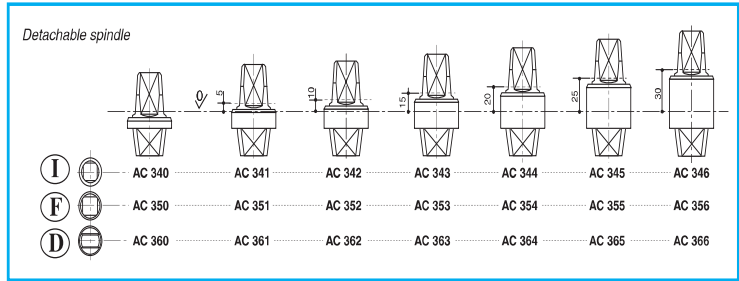
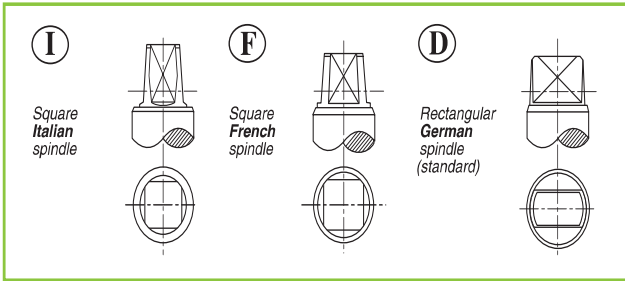


Offset top pivot (left) 8024



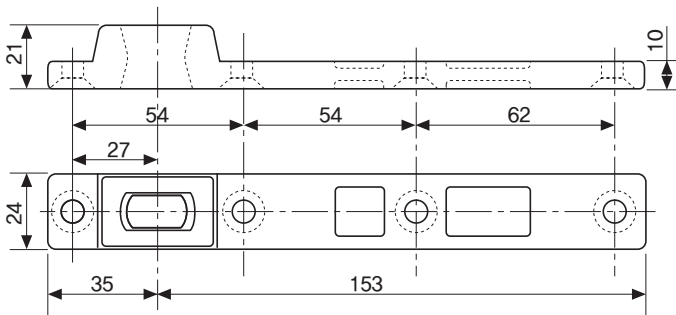
Other accessories

MAB TYPE



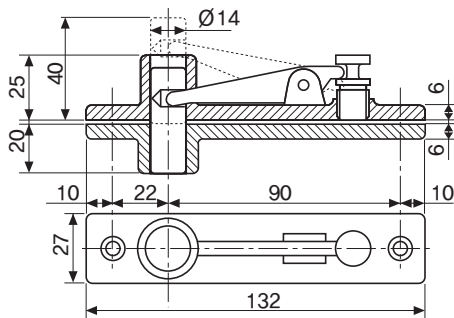
AC115

Reversible bottom arm in steel for double action doors.



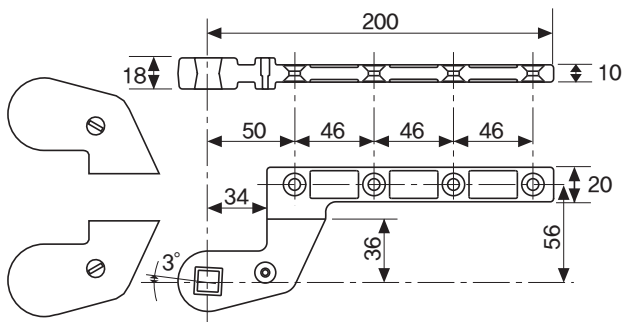
AC393

Reversible bottom arm in steel for double action doors.



AC8

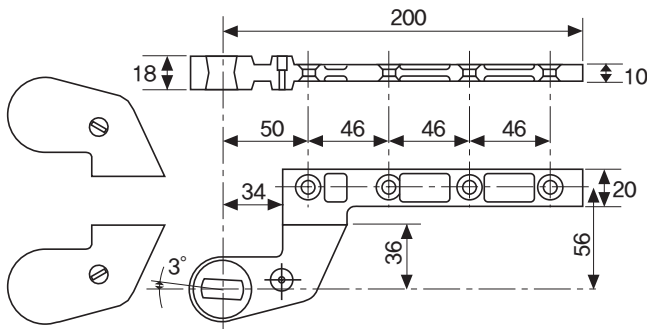
Double action top pivot.



AC583

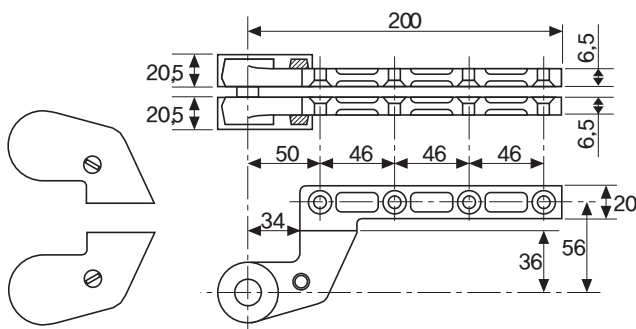
Right and left bottom arm in steel for single action doors, 36 mm offset. Square Italian spindle. Silver painted ABS covers.

Other accessories



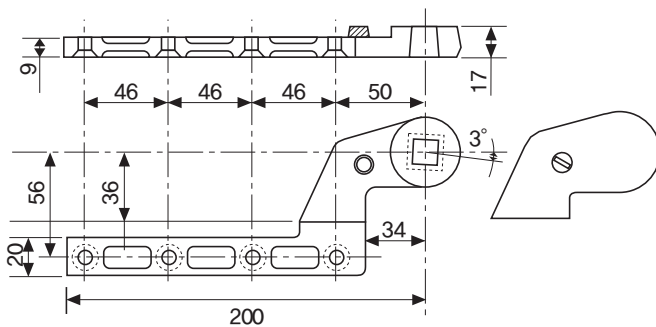
**AC392**

Right and left bottom arm in steel for single action doors, 36 mm off-set, Rectangular German socket. Silver painted ABS covers.



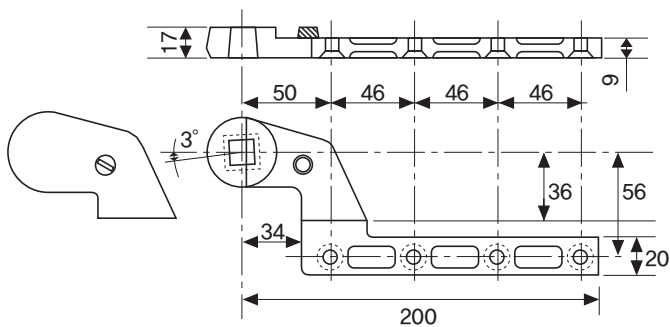
**AC384**

Double action top pivot in full steel 36 mm-off set, Silver painted ABS covers.



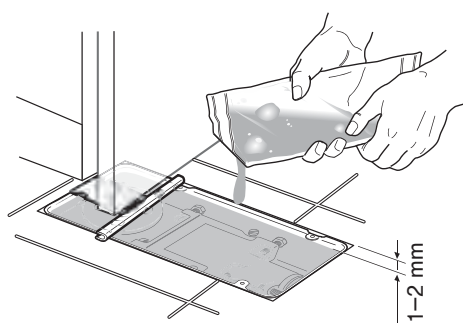
**AC373**

Right bottom arm in steel for single action doors, 36mm offset, Square French spindle. Silver painted ABS covers.



**AC374**

Left bottom arm in steel for single action doors, Square French spindle. Silver painted ABS cover.



**AC612**

Sealing Compound for floor springs.