

Door closers

G-SR door coordinators

Concealed door closers

Floor spring sets

Floor spring components

# dormakaba 🞽

## TS 77

Rack and pinion projecting arm door closer Closing Force EN 3/4



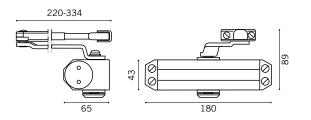
TS77Non hold openTS77 HOHold OpenTS77 PAParallel arm bracket included

Max door width - 1100mm Pull-side door leaf fixing (Standard)

Push-side transom fixing

Push-side door leaf fixing (Parallel arm bracket is required for this application)

Hydraulic speed control



## TS 68

Rack and pinion projecting arm door closer Closing Force EN 2/3/4



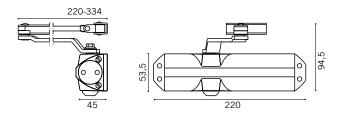
TS68 Non hold open TS68 HO Hold Open TS68 PA Parallel arm bracket included Max door width - 1100mm

Pull-side door leaf fixing (Standard)

Push-side transom fixing

Push-side door leaf fixing (Parallel arm bracket is required for this application)

Hydraulic speed control



## TS 71

Rack and pinion projecting arm door closer Closing Force EN 3/4

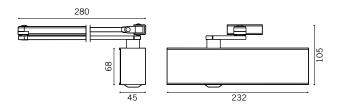


Max door width - 1100mm Pull-side door leaf fixing (Standard)

Push-side transom fixing

Push-side door leaf fixing (Parallel arm bracket is required for this application)

Hydraulic speed control



TS71	Non hold open
TS71 HO	Hold Open
TS71 PA	Parallel arm bracket included

## TS 73V

Rack and pinion projecting arm door closer Closing Force EN 2-4



TS73VNon hold openTS73V HOHold OpenTS73V PAParallel arm bracket includedTS73 DCDelayed closing

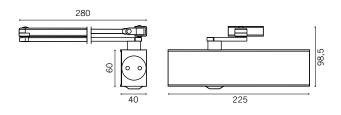
Max door width - 1100mm

Pull-side door leaf fixing (Standard)

Push-side transom fixing

Push-side door leaf fixing (Parallel arm bracket is required for this application)

Adjustable Strength. Hydraulic speed control



## TS 83

Rack and pinion projecting arm door closer Closing Force EN 3-6



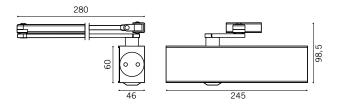
Max door width - 1400mm

Pull-side door leaf fixing (Standard)

Push-side transom fixing

#### Push-side door leaf fixing (Parallel arm bracket is required for this application)

Adjustable Strength. Hydraulic speed control. Back check



TS83	Non hold open
TS83 HO	Hold Open
TS83 PA	Parallel arm bracket included
TS83 DC	Delayed closing

## TS83 EN7

Rack and pinion projecting arm door closer Closing Force EN 7



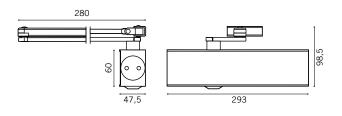
Max door width - 1600mm

Pull-side door leaf fixing (Standard)

Push-side transom fixing

Push-side door leaf fixing (Parallel arm bracket is required for this application)

Hydraulic speed control



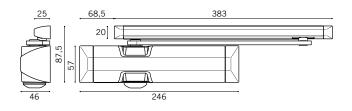
TS83 EN7 Non hold open TS83 EN7 HO Hold Open TS83 EN7 PA Parallel arm bracket included

## TS 90

Cam action slide channel door closer Closing Force EN 3/4



Max door width - 1100mm Pull-side door leaf fixing (Standard) Pull-side transom fixing Push-side transom fixing Push-side door leaf fixing (Standard) (Angle bracket may be required for this application) Hydraulic speed control



TS90 Non hold open TS90 HO Mechanical hold open Angle bracket

### Optional cushioned limit stay

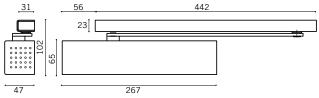
## TS 91B

Cam action slide channel door closer Closing Force EN 3



Max door width - 950mm Pull-side door leaf fixing (Standard) Push-side transom fixing

Hydraulic speed control



TS91BNon hold openTS91B HOMechanical hold openTS91B EMFElectro mechanical hold open

Optional cushioned limit stay. Optional integrated smoke detector-EMR

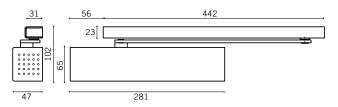
## TS 92B

Cam action slide channel door closer Closing Force EN 2-4V



Max door width - 1100mm Pull-side door leaf fixing (Standard) Push-side transom fixing

Adjustable strength. Hydraulic speed control



TS92B	Non hold open
TS92B HO	Mechanical hold open
TS92B EMF	Electro mechanical hold open

Optional cushioned limit stay. Optional integrated smoke detector-EMR. Optional frameless glass door saddle

## TS 92G

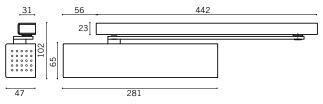
Cam action slide channel door closer Closing Force EN 2-4V



Max door width - 1100mm

Push-side door leaf fixing (Standard) (Angle bracket may be required for this application) Pull-side transom fixing

Adjustable strength. Hydraulic speed control



TS92GNon hold openTS92G HOMechanical hold openTS92G EMFElectro mechanical hold openAngle bracket

Optional cushioned limit stay. Optional integrated smoke detector-EMR. Optional frameless glass door saddle

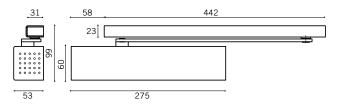
## TS 93B

Cam action slide channel door closer Closing Force EN 2-5V



Max door width - 1250mm Pull-side door leaf fixing (Standard) Push-side transom fixing

Adjustable strength. Hydraulic speed control. Backcheck. Delayed action



TS93B	Non hold open
TS93B HO	Mechanical hold open
TS93B EMF	Electro mechanical hold open

Optional cushioned limit stay. Optional integrated smoke detector-EMR

## TS 93G

Cam action slide channel door closer Closing Force EN 2-5V

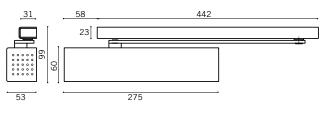


Max door width - 1250mm

Push-side door leaf fixing (Standard) (Angle bracket may be required for this application)

Pull-side transom fixing

Adjustable strength. Hydraulic speed control. Backcheck. Delayed action



TS93G Non hold open TS93G HO Mechanical hold open TS93G EMF Electro mechanical hold open Angle bracket

Optional cushioned limit stay. Optional integrated smoke detector-EMR

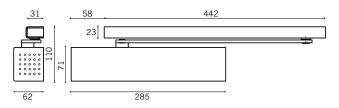
## TS 93B EN5-7

Cam action slide channel door closer Closing Force EN 5-7V



Max door width - 1600mm Pull-side door leaf fixing (Standard) Push-side transom fixing

Adjustable strength. Hydraulic speed control. Backcheck. Delayed action



TS93B EN5-7 Non hold open TS93B EN5-7 HO

Mechanical hold open

Optional cushioned limit stay. Optional integrated smoke detector-EMR

## TS 93G EN5-7

Cam action slide channel door closer Closing Force EN 5-7V



Max door width - 1600mm

Push-side door leaf fixing (Standard) (Angle bracket may be required for this application)

Pull-side transom fixing

Adjustable strength. Hydraulic speed control. Backcheck. Delayed action

. <u>31</u>	58	442	
	23]		
71			
		285	

TS93G EN5-7 Non hold open TS93G EN5-7HO Angle bracket

Mechanical hold open

Optional cushioned limit stay. Optional integrated smoke detector-EMR

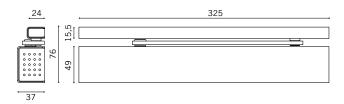
## TS 97

Cam action slide channel door closer Closing Force EN 2-4V



Max door width - 1100mm Pull-side door leaf fixing (Standard) Pull-side transom fixing

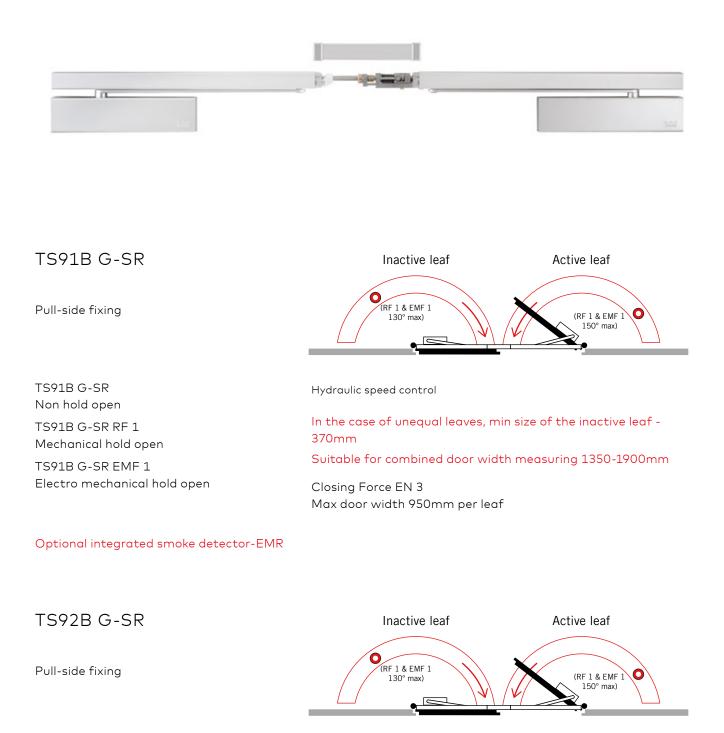
Adjustable strength. Hydraulic speed control. Optional cushioned limit stay



TS97 Non hold open TS97 HO Mechanical hold open

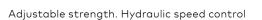
Optional frameless glass door saddle

# G-SR slide channel door coordinator



TS92B G-SR Non hold open TS92B G-SR RF 1 Mechanical hold open TS92B G-SR EMF 1 Electro mechanical hold open

Optional integrated smoke detector-EMR

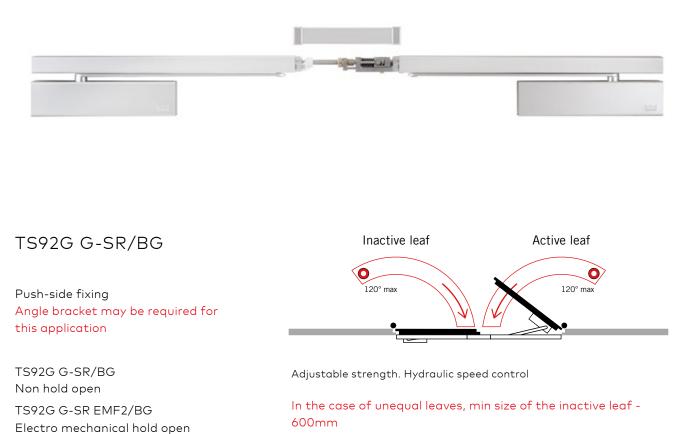


In the case of unequal leaves, min size of the inactive leaf - 370mm

Suitable for combined door width measuring 1350-2200mm Order VK version for combined door width measuring 1220-1350mm

Closing Force EN 2-4 Max door width 1100mm per leaf

# G-SR slide channel door coordinator



Suitable for combined door width measuring 1500-2200mm

Closing Force EN 2-4 Max door width 1100mm per leaf

Angle bracket

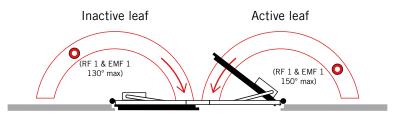
Optional integrated smoke detector-EMR



Pull-side fixing

TS93B G-SR Non hold open TS93B G-SR RF 1 Mechanical hold open TS93B G-SR EMF 1 Electro mechanical hold open

Optional integrated smoke detector-EMR



Adjustable strength. Hydraulic speed control. Back Check. Delayed action

In the case of unequal leaves, min size of the inactive leaf -370mm

Suitable for combined door width measuring 1350-2500mm Order VK version for combined door width measuring 1220-1350mm

Closing Force EN 2-5 Max door width 1250mm per leaf

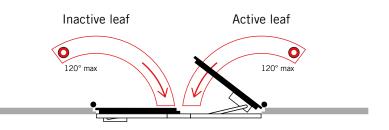
# G-SR slide channel door coordinator



TS93G G-SR/BG

Push-side fixing Angle bracket may be required for this application

TS93G G-SR/BG Non hold open TS93G G-SR EMF2/BG Electro mechanical hold open



Adjustable strength. Hydraulic speed control. Back Check. Delayed action

In the case of unequal leaves, min size of the inactive leaf - 600mm

Suitable for combined door width measuring 1500-2500mm

Closing Force EN 2-6 Max door width 1250mm per leaf

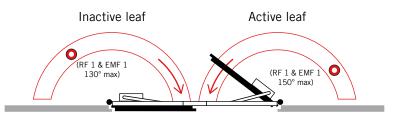
Angle bracket

Optional integrated smoke detector-EMR

### TS93B EN5-7 G-SR VL

Pull-side fixing

TS93B EN5-7 G-SR VL Non hold open



Adjustable strength. Hydraulic speed control. Back Check. Delayed action

Suitable for combined door width measuring 2500-3200mm

Closing Force EN 5-7 Max door width 1600mm per leaf

### Optional integrated smoke detector-EMR

# Concealed door closers

## ITS 96 2-4

Concealed cam-action door closer system Closing Force EN 2-4V

Max door width 1100mm

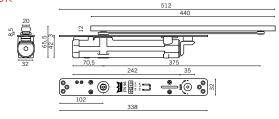
Min door thickness 40mm

Max door weight 130kg

Specify timber or aluminium frame

Adjustable strength. Hydraulic speed control. Cushioned limit stay

Available on request: Electro mechanical hold open. Integrated selector for double doors - ITS 96 GSR



ITS 96 2-4 Non hold open ITS 96 2-4 HO Mechanical hold open Optional Double Action Arm

Not recommended for hollow core or semi-solid doors

## ITS 96 3-6

Concealed cam-action door closer system Closing Force EN 3-6V



Max door width 1400mm

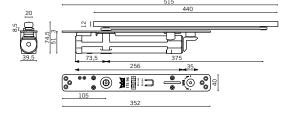
Min door thickness 50mm

Max door weight 180kg

Specify timber or aluminium frame

Adjustable strength. Hydraulic speed control. Cushioned limit stay

Available on request: Electro mechanical hold open. Integrated selector for double doors - ITS 96 GSR. Free swing unit - ITS  $\frac{96}{515}$  FL.



ITS 96 3-6 Non hold open ITS 96 3-6 HO Mechanical hold open Optional Double Action Arm

Not recommended for hollow core or semi-solid doors



# BTS 84 Floor Spring

## Double action floor spring



Technical data and	l Features			
Spring strength		EN 2	EN 3	EN 4
Standard and external doors <sup>1)2)</sup>	≤ 850 mm ≤ 950 mm ≤ 1100 mm	• - -	- • -	- - •
Closing speed variable by valve adjustment		•	•	•
Backcheck		-	-	_
Delayed action		_	_	_
Hold-open point 90°		Option	Option	Option
		Option	Option	Option
Dimensions	Length verall depth Height	Option	306 108 40	Option
Dimensions	verall depth	Option	306 108	Option
Dimensions in mm O	verall depth Height		306 108 40	

1) For applications involving particularly high or heavy doors, and doors which have to close against wind or draught

conditions, the next larger closer size or the DORMA BTS 80 should be selected.

2) Max. opening 130°.

Door stop necessary for doors which can open further than 130°.

### Key advantages

### For Users

- Thermo constant smooth operation
- High mechanical efficiency for easy door opening
- Optional single point hold-open
- Proven, robust unit for door weights up to 100 kg

### For Sellers

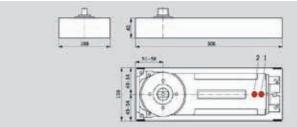
- Available with stronger and weaker springs for special requirements
- Concealed unit for invisible installation

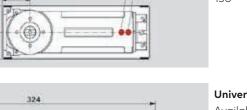
### **For Installers**

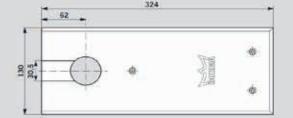
- Easy installation thanks to shallow design
- Easy to adapt to individual requirements with dual valve control 130° to 0° and 130° to 20°
- Minimum floor recess dimension

BTS 84 is developed to meet the special requirements of door closers for double action doors.

With the choice of two closing ranges and corresponding closer model, BTS 84 floor spring is able to meet practically any requirement.







# 1 Valve for closing speed adjustment 130° - 0° 2 Valve for increasing closing speed 130° - 20°

Universal cover plate

Available in stainless steel or satin brass

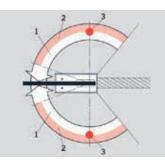
# **Standard and optional functions**

### **Closing ranges**

The floor spring has two controlled closing ranges: Valve 1: 130° – 0° sweep Valve 2: Increases the closing speed between 130° and 20°

### Hold-open

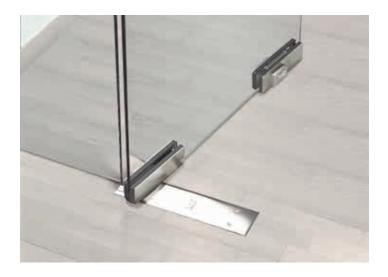
With the hold-open (optional extra), the door can be held at an angle of 90°.



- **1** First adjusting closing range (130°
- 0°)
  - 2 Second adjusting closing range (130° approx. 20°)
  - **3** Hold open at 90° (optional extra)



# BTS 75V Floor Spring Faster aligned fit



Technical data and	Features	
Spring strength		EN 1-4
Spring strength adjustme	ent	•
Standard and external doors	≤ 950 mm ≤ 1100 mm ≤ 1400 mm	- • -
Fire and smoke check doc	ors	•
Max. leaf weight (kg)		120
Non-handed, suitable for single and double action of	doors	•
Closing force variable by a adjustment screw		-
Closing speed adjustable by value	175° –  0° 175° – 15° 15° –  0°	-
Backcheck, mechanical		٠
Delayed action adjustable (selectable alternative to hold-open feature)		-
Hold-open	Adjustable Fixed 90° Fixed 105°	-
Coverplate secure to	cement box floor spring	-
Weight in kg		3.0
Dimensions in mm	Length Overall depth Height	285 82 50
Floor spring tested to EN 1154		٠
<b>CE</b> mark for construction (products with factory-fit open do not carry a <b>CE</b> m	tted hold-	•

### Key advantages

### For Users

- Constant, temperature-independent closing cycle
- Highly efficient mechanism gives maximum user convenience

### For Sellers

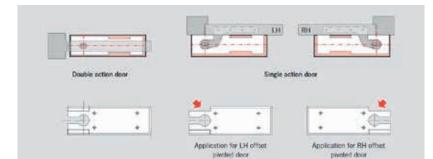
- Reduced stock requirements because of separate, interchangeable spindles
- Slim product range offering all key functions
- All essential functions provided

### **For Installers**

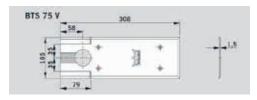
- Fast, precise alignment
- Simple to mount without additional spirit level
- Easy installation saves time and, consequently, money

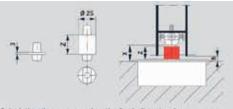
BTS 75 V is a highly adaptable floor spring suitable for all standard single and double action doors and for exterior doors with widths up to 1,100 mm.

# **Application and Installation**



# Accessories





Calculating the necessary length of spindle extension Extension = X – Floor clearance (normally 8 mm) Collar height Z of the extended spindle inserts = Spindle extension length + 3 mm (collar height of the standard spindle insert)

### Universal cover plate

Adaptable to right or left hand single action applications by simply snapping off the appropriate pre-blanked corner sections. For double action doors, the corner sections remain in place.

The universal cover plate is available in stainless steel or satin brass (material thickness 1.5 mm).

### Spindles

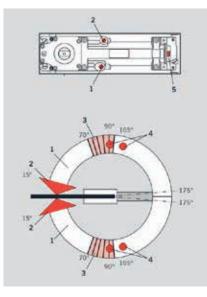
A range of interchangeable spindles is available to provide greater floor clearance if required (e.g. doors with thresholds, carpeted floors etc). Special spindles available on application: e.g. with flat face profile and 3° offset or square section; spindles for non-dormakaba-specific accessories are also available.

### dormakaba 2300 sealing compound

For filling cavities between the floor spring body and the cement box to protect against moisture penetration

Information about other accessories such as **door straps and top centers** can be found in the "Accessories for dormakaba BTS Floor Springs" leaflet

# **Standard and Optional Functions**



- 1 Adjustable closing speed in the range 175° 15°.
- Adjustable closing speed in the range 15° – 0°.
- **3** Mechanical backcheck (from approx. 70°).
- **4** Fixed hold-open at 90° or 105° (option).
- **5** Adjustable spring strength (EN 1-4).

### Closing speed

With two independently adjustable closing ranges (175° – 15° and 15° – 0°) the dormakaba BTS 75 V is ideally adaptable to different structural conditions.

### Backcheck

The integrated mechanical backcheck function protects the wall and door from damage caused by excessively vigorous opening.

### Fixed hold-open (option)

With the fixed hold-open function the door can be held open at an angle of 90° or 105°, depending on model. **Not suitable for use on Fire doors.** 

# **BTS 80 Floor Spring**

## Universal application, individual functions and

## assured quality



Technical data an	nd Features				
Spring strength		EN 1-4	EN 4	EN 6	
Spring strength adjustment			_		
Standard and external doors	≤ 950 mm ≤ 1100 mm ≤ 1400 mm	• - -	- • -	- - •	
Fire and smoke check	doors		_		
Max. leaf weight (kg)			300		
Non-handed, suitable single and double acti			•		
Closing force variable adjustment screw	by means of		_		
Closing speed adjustable by value	175° –  0° 175° – 15° 15° –  0°		• - -		
Backcheck, mechanica	al		٠		
Delayed action adjustable by valve (selectable alternative to the hold-open feature)			•		
Hold-open	Adjustable Fixed 90° Fixed 105°		• - -		
Coverplate secure to	cement box floor spring		-		
Weight in kg			7.1		
Dimensions in mm	Length Overall depth Height		341 78 60		
Floor spring tested to	EN 1154		٠		
<b>CE</b> mark for construction products (products with factory-fitted hold- open do not carry a <b>CE</b> mark)		-			

### Key advantages

### For Users

- Proven, robust design capable of withstanding leaf weights of up to 300 kg
- Constant, temperature-independent closing cycle
- Highly efficient mechanism gives maximum user convenience

### For Sellers

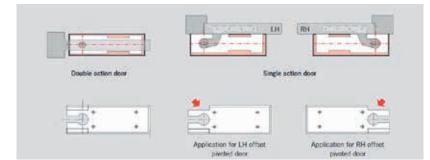
- Reduced stock requirements because of separate, interchangeable spindles
- Slim product range offering all key functions

### For Installers

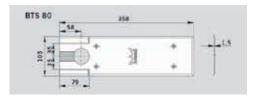
- Suitable for installation with LH or RH single and double action doors
- Interchangeable spindles enable easy adaptation to structural conditions-even when retrofitted

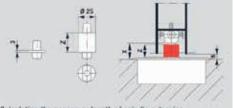
BTS 80 can control exceptionally heavy single- and double-acting doors. It is easilly installed into almost any design to meet most materials, size, and weight requirements.

# **Application and Installation**



# Accessories





Calculating the necessary length of spindle extension: Extension = X – Floor clearance (normally 8 mm) Coller height Z of the extended spindle inserts – Spindle extension length + 3 mm (collar height of the standard spindle insert)

### Universal cover plate

Adaptable to right or left hand single action applications by simply snapping off the appropriate pre-blanked corner sections. For double action doors, the corner sections remain in place.

The universal cover plate is available in stainless steel or satin brass (material thickness 1.5 mm).

### Spindles

A range of interchangeable spindles is available to provide greater floor clearance if required (e.g. doors with thresholds, carpeted floors etc).

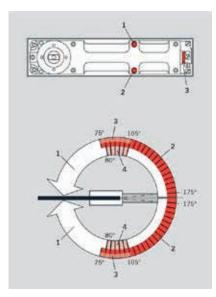
Special spindles available on application: e.g. with flat face profile and 3° offset or square section; spindles for non-dormakaba-specific accessories are also available.

### dormakaba 2300 sealing compound

For filling cavities between the floor spring body and the cement box to protect against moisture penetration

Information about other accessories such as **door straps and top centres** can be found in the "Accessories for dormakaba BTS Floor Springs" leaflet

# **Standard and Optional Functions**



- 1 Adjustable closing speed
- 2 Hold-open range or delayed action range
- 3 Adjustment range point at which hold-open begins, or end of delayed action range (approx. 75° to 105°).
- 4 Mechanical backcheck (from approx. 80°)

### Hydraulic hold-open

The integrated hold-open function allows the door tobe held open at any angle between 75° and 175°. The angle at which the holdopen function begins can be adjusted in the range of 75° to 105°.

### Backcheck

The integrated mechanical backcheck function protects the wall and door from damage caused by excessively vigorous opening.

### **Delayed** action

The delayed action function slows the door closing speed, thereby allowing disabled persons, mothers with pushchairs, staff with trolleys or hospital gurneys etc. to pass through the door without problem.