

# BTS 80 System

## V/VF/EMB/FLB/BSR

### Floor Spring





Concealed floor springs provide a discreet yet robust solution for commercial and industrial buildings. Engineered for heavy doors up to 300 kg and 1,400 mm wide, it offers flexible options including integrated hold-open or barrier-free swing functions.

Reliable, adaptable and virtually maintenance-free, the BTS 80 System delivers safety, comfort and efficiency without compromising design.

BTS 80 System for 1-leaf and 2-leaf single-action and double-action doors	4
Features and functions	5
BTS 80 System concealed floor-spring	6
BSR door coordinator for 2-leaf doors	8
BTS 80 BSR configuration examples	9
Application and installation, accessories	10
Scope of delivery and article overview	11
Tender specifications texts	12



# BTS 80 System for 1-leaf and 2-leaf single-action and double-action doors

**The BTS 80 System floor springs satisfy all requirements in terms of both comfort and safety in a visually unobtrusive way and are suited for doors weighing up to 300 kg.**

The floor spring technology is recessed practically invisibly in the floor. The BTS 80 floor-concealed door closer system with its product variants BTS 80 V (with closing force adjustment), BTS 80 VF (for fire and smoke check doors with closing force adjustment), BTS 80 EMB (with electro-hydraulic hold-open function), BTS 80 FLB (with free-swing function) and the wide range of accessories allows easy adaptation to different door designs and functions.

In combination with the BSR door applications, 2-leaf door solutions are also easy to implement.

## Benefits instead of Efficiency

- Lean product range including compatible, standardised BTS accessories covers almost to all requirements
- The BTS 80 V and BTS 80 VF variants offer infinitely variable adjustability of closing force rating EN 3 to 6
- Quick and safe installation thanks to integrated level indicator for precise levelling of the floor-concealed door closer (BTS 80 V and BTS 80 VF)
- Easy adaptation to suit site conditions, also retrospectively, thanks to interchangeable spindle inserts

## Simplicity for the planner

- Concealed closing of even very heavy doors weighing up to 300 kg
- Demand-driven functions in proven, robust design and quality
- Type-tested, quality-inspected and approved by the MPA Dortmund & the DiBt Berlin

## Safety for the operator/user

- Consistent closing speed immune to temperature fluctuations
- Comparatively easy door access due to maximum mechanical efficiency and adjustable power
- Long service life ensured by reliable quality in material and manufacturing



BTS 80 V / BTS 80 VF

**Model variants**

		BTS 80 V	BTS 80 VF	BTS 80 EMB	BTS 80 FLB
Closing force/door width				EN 4	EN 4
	≤ 1100 mm			EN 5	EN 5
	≤ 1250 mm			EN 6	EN 6
	≤ 1400 mm				
	950 - 1400 mm	EN 3-6	EN 3-6		
LH DIN-L (opening angle max. 180°)		● <sup>1)</sup>	●	●	●
RH DIN-R (opening angle max. 180°)		● <sup>1)</sup>	●	●	●
Double-action door (opening angle max. 175°)		●	●	●	—
Maximum door leaf weight <sup>2)</sup>	300 kg	300 kg	300 kg	300 kg	300 kg

01 Level indicator for precise alignment of the closing unit  
 02 Adjusting valves  
 03 Adjusting the closing force (EN 3 to 6)

**Features and functions**

Fire and smoke check doors	—	●	●	●
Closing force infinitely adjustable by setting screw	●	●	—	—
Closing speed infinitely adjustable by valve	●	●	●	●
Delayed closing	●	—	—	—
Latching action infinitely adjustable by valve (7° – 0°)	—	●	●	—
Backcheck, mechanical	●	●	●	—
Hold-open function (adjustable)	●	—	—	—
Hold-open function, electro-hydraulic	—	—	●	—
Hold-open point infinitely adjustable 75° to 170° <sup>3)</sup>	—	—	●	—
Fail-safe 0° – 180°	—	—	—	●

**Tests and certifications**

Classification tested to EN 1154	●	●	●	●
Controlled closing on alarm signal to EN 1155	—	—	●	●
CE-Identification for construction products	—	●	●	●

**Technical data**

Dimensions incl. cement box	341 / 78 / 60 mm			
Weight	7.2 kg	7.2 kg	7.7 kg	7.7 kg
Power input	—	—	2.3 W	2.3 W
Operating voltage (± 15 %)	—	—	24 V DC	24 V DC
On-load factor	—	—	100 %	100 %

● yes – no

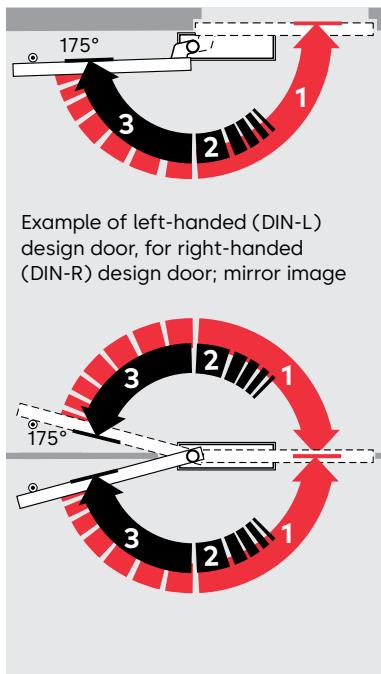
<sup>1)</sup> Max. opening angle 175°

<sup>2)</sup> Observe load-bearing capacity of the accessories and door situation

<sup>3)</sup> Door opening angle of 180° possible. Use holding magnet for hold-open angle of 180°.

# BTS 80 System

## concealed floor-spring



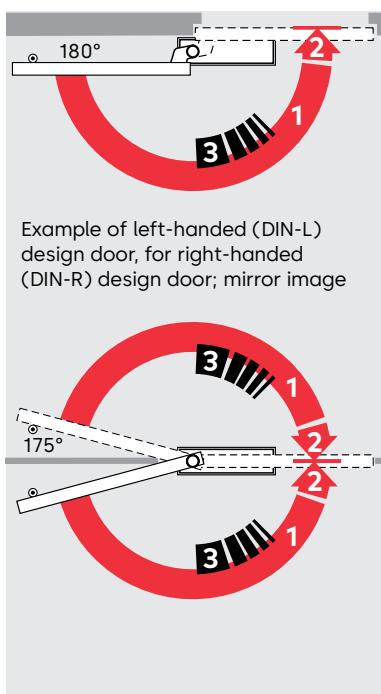
### BTS 80 V with backcheck, delayed closing and door hold-open function

The concealed floor-spring closes the door automatically and its backcheck protects both wall and door from damage should the door be thrown open violently.

The delayed closing extends the door closing time by initially reducing the closing speed.

**The BTS80V is designed for non-fire-rated applications, while the BTS80VF is suitable for fire and smoke door installations.**

- 1 Automatic closing and infinitely adjustable closing speed
- 2 Mechanical backcheck
- 3 Hold-open point selectable up to 170° (fallback approx. 3°), start of hold open/end of delayed action range adjustable between 75° and 105°



### BTS 80 VF with backcheck and latching action

The concealed floor-spring closes the door automatically and its backcheck protects both wall and door from damage should the door be thrown open violently.

The latching action controls the closing speed from an angle of approx. 7° until the door is completely closed in order to overcome possible resistance and to ensure the door is fully closed.

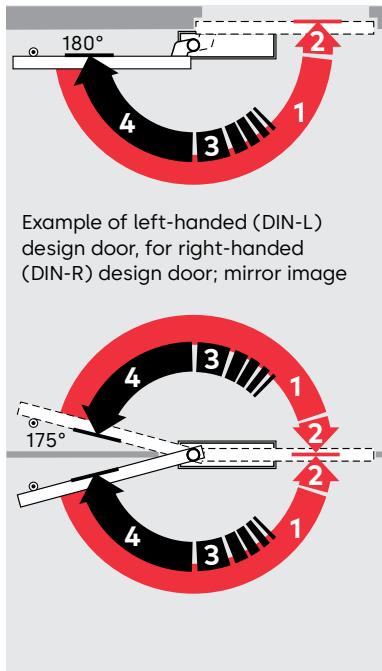
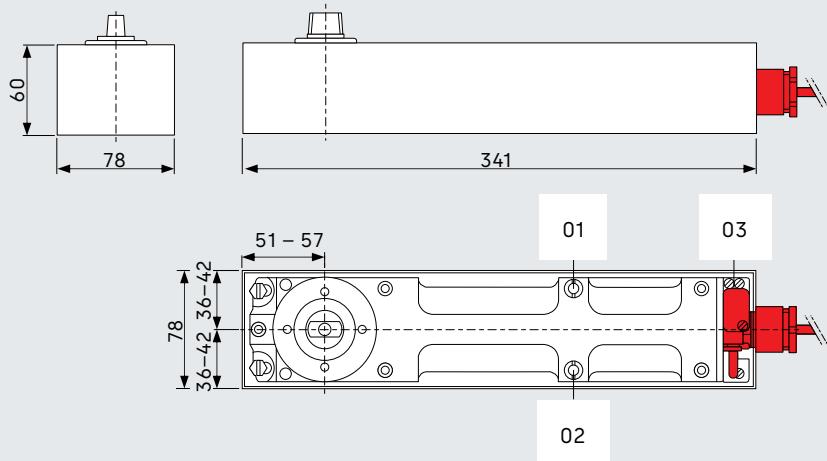
- 1 Automatic closing and infinitely adjustable closing speed
- 2 Adjustable latching action
- 3 Mechanical backcheck

#### Use on fire protection barriers

The BTS 80 VF is suitable for use on fire and smoke check doors, provided the door system is specifically designed for connection to a floor spring with a 36 mm pivot point offset.

An additional certificate of suitability is required for the relevant fire or smoke door application.

When used on officially approved fire protection barriers, all requirements of the applicable approval certificates must be observed.



## BTS 80 EMB with backcheck and electro-hydraulic hold-open function

In addition to the integrated backcheck, the concealed floor-spring is also equipped with an electro-hydraulic hold-open function that can be activated or deactivated as needed or in the event of an alarm. The door closes automatically upon receipt of an electrical signal from the fire alarm system.

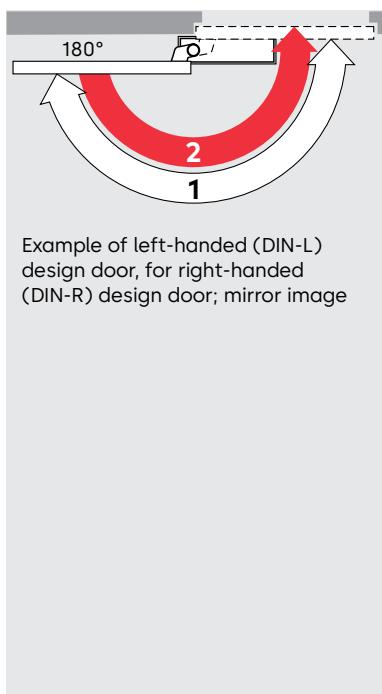
- 1 Automatic closing at infinitely adjustable closing speed
- 2 Adjustable latching action
- 3 Mechanical backcheck
- 4 Hold-open point selectable up to 170° (fallback approx. 3°). Hold-open point infinitely adjustable 75° to 170°

### Use on fire protection barriers

The BTS 80 EMB is suitable for use on fire and smoke check doors. The doors must be specifically designed for connection to the floor spring (pivot point offset of 36 mm).

An additional certificate of suitability is required for the relevant fire or smoke door application.

When used on officially approved fire protection barriers, all requirements of the applicable approval certificates must be observed.



## BTS 80 FLB with barrier-free free-swing function

The free-swing function (electro-hydraulic spring detent) of the concealed floor-spring allows opening the door with little effort (DIN 18040). The door closes automatically upon receipt of an electrical signal from the fire alarm system.

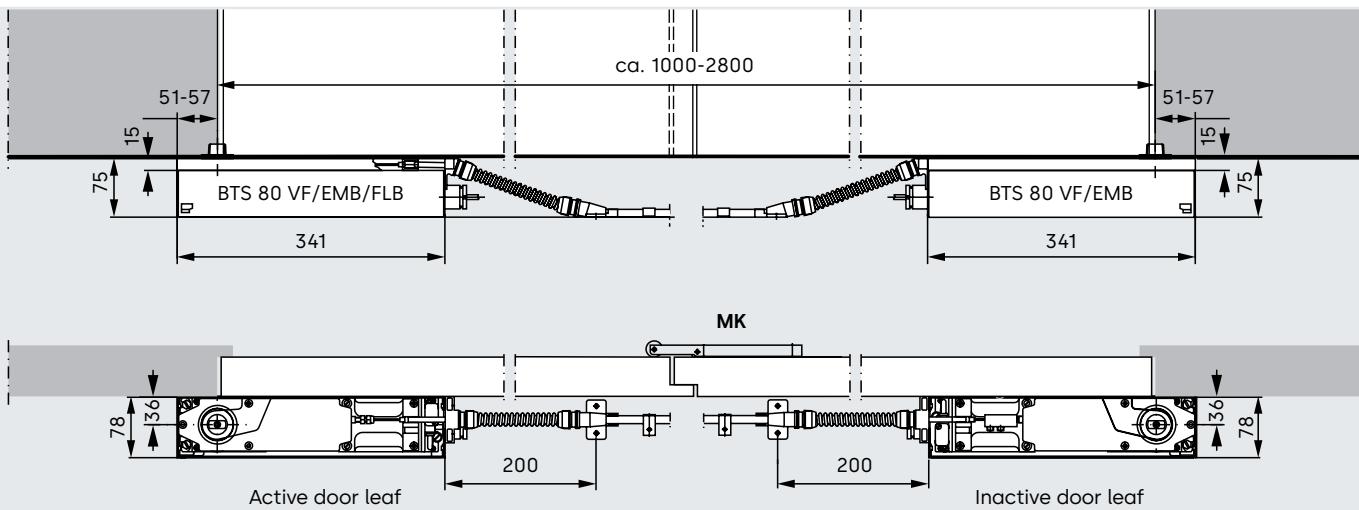
- 1 Free-swing range: The door responds like a manual door, without resistance.
- 2 Automatic closing in the event of an alarm or an interruption in the power supply

### Use on fire protection barriers

The BTS 80 FLB is suitable for use fire and smoke check doors. The doors must be specifically designed for connection to the floor spring (pivot point offset of 36 mm).

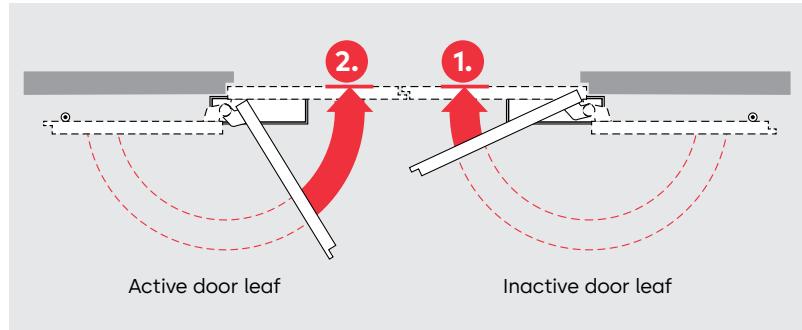
An additional certificate of suitability is required for the relevant fire or smoke door application.

When used on officially approved fire protection barriers, all requirements of the applicable approval certificates must be observed.



## BSR door coordinator for 2-leaf doors

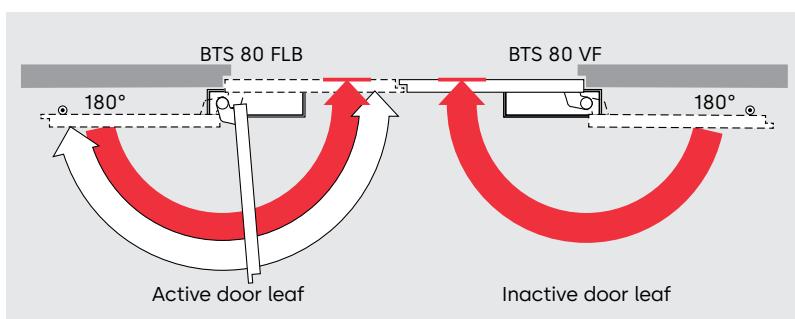
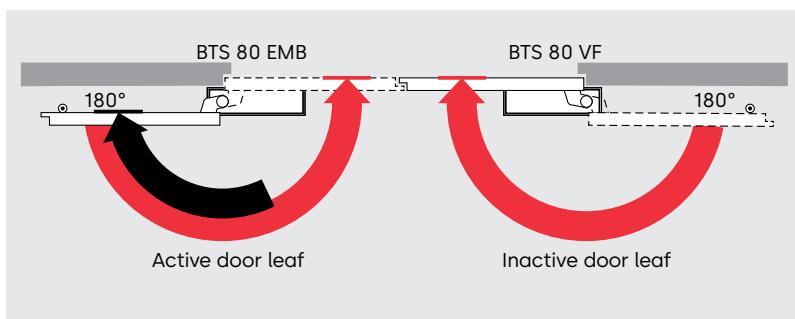
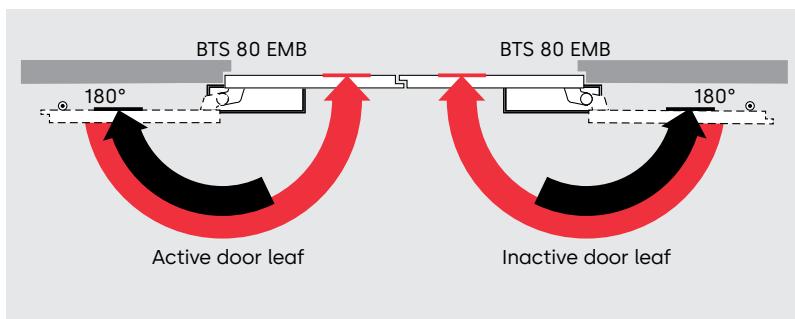
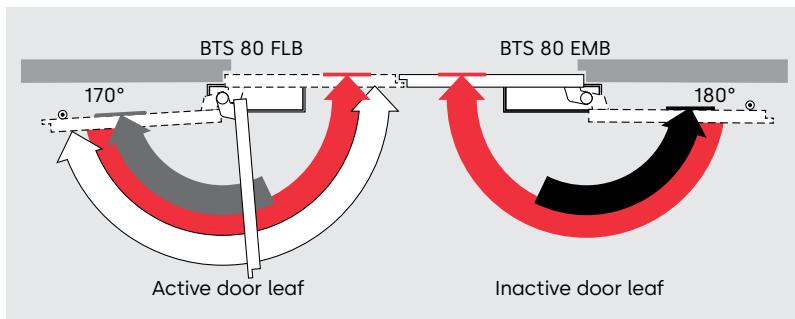
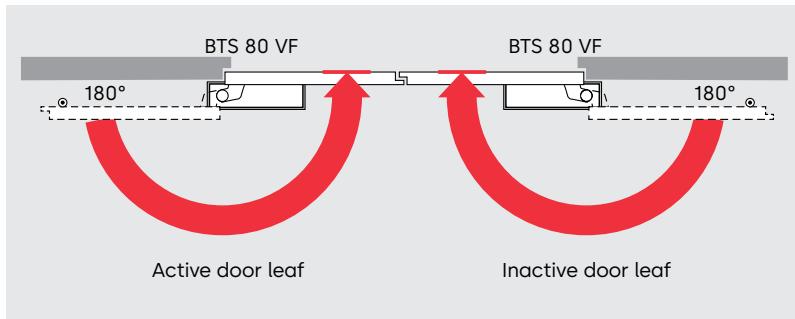
- Can be combined with floor-concealed door closer systems BTS 80 VF, BTS 80 EMB, BTS 80 FLB
- Resilient solution for the building sector



The BSR door coordinator ensures that the active leaf on 2-leaf doors always closes after the inactive leaf. The BSR door coordinator operates independently of the door closer hydraulics and consists of one mechanism each for the active and inactive leaf, which are connected via a bowden cable. The BSR door coordinator can be used on LH and RH doors and is combined with concealed floor spring models BTS 80 VF/EMB/FLB. On doors with full panic exit devices, the inactive leaf must be equipped with a MK carry bar.

## BTS 80 BSR configuration examples

- ◀ Automatic closing
- ◀ Door hold-open function parallel with inactive leaf
- ◀ Door hold-open function
- ↔ Free-swing function



<sup>3)</sup> Door opening angle of 180° possible.  
Use holding magnets for hold-open angle of 180°.

### BSR VF

- Automatic closing of doors

The BTS 80 VF floor-concealed door closer closes the doors automatically. The BSR door coordinator ensures the correct order during closing: inactive leaf before active leaf.

### BSR EMB 1

- Hold-open action for both doors
- Controlled closing in the event of alarm/power failure
- Free-swinging active leaf with inactive leaf closed

This door coordinator enables both door leaves to be locked with just one locking device for the passive door leaf. The passive door leaf can be set to a hold-open point of between approx. 75° and 170° <sup>3)</sup> (fallback approx. 3°). The active door leaf is fixed at any angle up to approx. 170° via the door coordinator.

### BSR EMB 2

- Hold-open action for both doors
- Active leaf can be held open individually
- Controlled closing in the event of alarm/power failure

With this door coordinator, the active door leaf can be locked independently of the passive door leaf. The hold-open points for both door leaves are between approx. 75° and 170° <sup>3)</sup> (fallback approx. 3°).

### BSR EMB 1 G / VF 1 S

- Hold-open action for active leaf only with inactive leaf closed
- Controlled closing of active leaf in the event of alarm/power failure

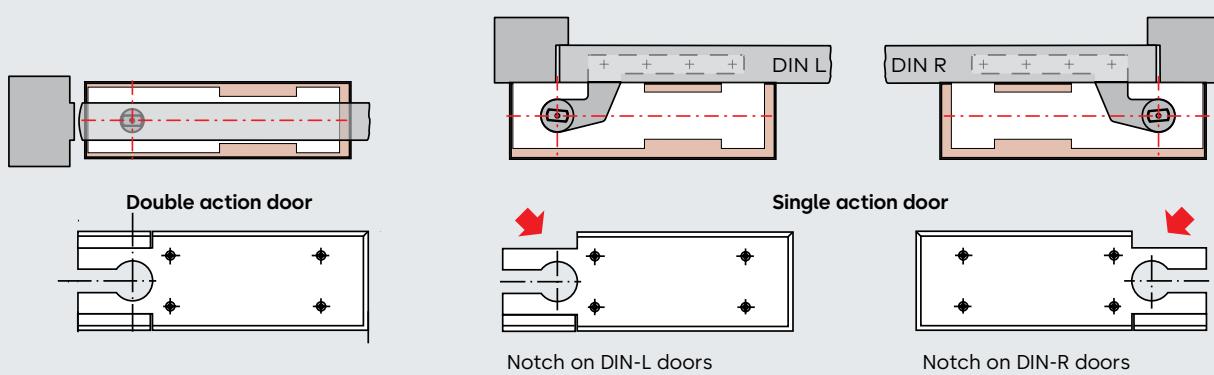
Using this door coordinator, the active door leaf can be locked independently in special door constructions, e.g. fixed side leaf, narrow passive door leaf with asymmetrical doors, etc. The hold-open point is between approx. 75° and 170° <sup>3)</sup> (fallback approx. 3°)

### BSR FLB 1 G / VF 1 S

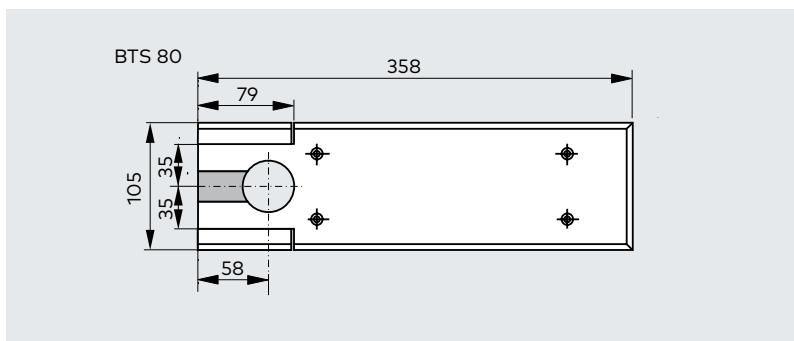
- Free-swinging active leaf with inactive leaf closed
- Controlled closing of active leaf in the event of alarm/power failure

This door coordinator with fail-safe on the active door leaf can also be used where doors need to remain freely movable but must close safely in the event of a fire.

## Application and installation

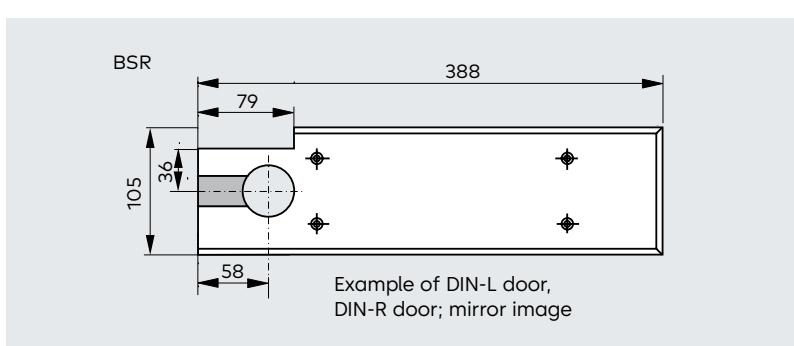


## Accessories



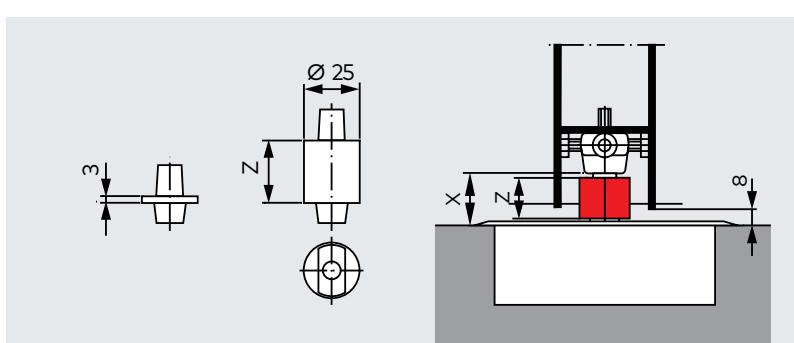
### Universal cover plate

The universal cover plate can be used on both left-handed (DIN-L) and right-handed (DIN-R) design doors by simply ejecting the prepunched corner parts. In the case of double action doors, it is mounted as delivered. The cover plate is optionally available in stainless steel or satin brass (material thickness 1.5 mm).



### BSR cover plate

The cover plates for the BSR application are available for DIN-L and DIN-R doors. The cover plates are optionally available in stainless steel or satin brass (material thickness 1.5 mm).



### Calculation of the required axle extension:

Extension =  $X$  – floor clearance  
(normally 8 mm)

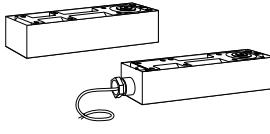
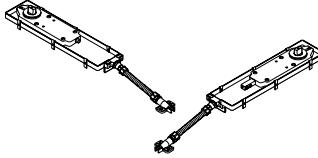
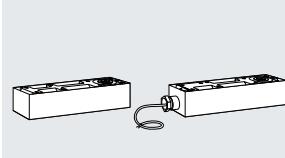
Collar height  $Z$  of the extended spindles =  
axle extension + 3 mm  
(collar height of the normal spindle)

For additional accessories such as door levers and pivot hinges see technical brochure „Accessories for floor springs“ dormakaba BTS.

### Sealing compound 2300 Top

For filling the cavities between the closer housing and the cement box to prevent the ingress of moisture.

## Scope of delivery and article overview

Floor spring BTS	Spindles															Sealing compound 2300 Top
	Extension in mm															
	normal	5	7,5	10	12,5	15	20	25	28	30	35	40	45	50		
		45200401	45200402	45200403	45200404	45200419	45200405	45200406	45200407	45200414	45200408	45200409	45200410	45200411	45200412	45090087
																
<b>BTS 80 V</b>																
EN 3-6	DIN-L <sup>1)</sup>	8018000x	(△)	△	△	△	△	△	△	△	△	△	△	△	△	△
	DIN-R <sup>1)</sup>	8018000x														
	Pendulum <sup>1)</sup>	8018000x														
<b>BTS 80 VF</b>																
EN 3-6	DIN-L	8028010x	(△)	△	△	△	△	△	△	△	△	△	△	△	△	△
	DIN-R	8028020x														
	Pendulum <sup>1)</sup>	8028000x														
<b>x = 1</b> Supplied without spindle insert <b>x = 0</b> Supplied with standard spindle insert																
<b>BTS 80 EMB</b>																
EN 4	DIN-L	82224101	△	△	△	△	△	△	△	△	△	△	△	△	△	△
	DIN-R	82224201														
	Pendulum <sup>1)</sup>	82224001														
EN 5	DIN-L	82214101	△	△	△	△	△	△	△	△	△	△	△	△	△	△
	DIN-R	82214201														
	Pendulum <sup>1)</sup>	82214001														
EN 6	DIN-L	82234101	△	△	△	△	△	△	△	△	△	△	△	△	△	△
	DIN-R	82234201														
	Pendulum <sup>1)</sup>	82234001														
<b>BTS 80 FLB</b>																
EN 4	DIN-L	82124101	△	△	△	△	△	△	△	△	△	△	△	△	△	△
	DIN-R	82124201														
EN 5	DIN-L	82114101	△	△	△	△	△	△	△	△	△	△	△	△	△	△
	DIN-R	82114201														
EN 6	DIN-L	82134101	△	△	△	△	△	△	△	△	△	△	△	△	△	△
	DIN-R	82134201														
<b>Universal cover plate</b>																
Stainless steel	46700000															△
Satin brass	46700100															
<sup>1)</sup> Not approved for fire doors in Germany																
Door coordinator BSR		Floor spring			Spindles BSR				Cover plates BSR							
					  				<b>DIN-L</b> Stainless steel 46700080 Satin brass 46700280							
Versions		45700900			normal Extension in mm 5 25				<b>DIN-R</b> Stainless steel 46700081 Satin brass 46700281							
BSR VF		1 x			  				△ 1 x DIN-L 1 x DIN-R							
BSR EMB 1		1 x			-				△ 1 x DIN-L 1 x DIN-R							
BSR EMB 2		1 x			-				△ 1 x DIN-L 1 x DIN-R							
BSR EMB 1 G / VF 1 S		1 x			1 x				△ 1 x DIN-L 1 x DIN-R							
BSR FLB 1 G / VF 1 S		1 x			1 x				△ 1 x DIN-L 1 x DIN-R							

△ Accessories

## Specification texts

### BTS 80 VF

Floor spring with adjustable closing force from EN 3 to 6 to EN 1154 with CE mark, with fully hydraulically controlled closing action starting at 180°, adjustable latching action and mechanical backcheck. Load-bearing capacity up to 300 kg, with bubble level, including cement box. For left-handed (DIN-L), right-handed (DIN-R) and double action doors.

#### Closing force

EN 3-6

#### Version

DIN left  
 DIN right  
 Double action (not approved for fire doors in Germany)

#### Accessories

Universal cover plate (1.5 mm thick)  
 Stainless steel  
 Satin brass  
 Spindle  
 Standard  
 . . . mm extension  
 Sealing compound 2300 Top

#### Make:

dormakaba BTS 80 VF

### BTS 80 EMB

Floor spring to EN 1154 and ANSI A 156.15, with CE mark, with electro-hydraulic hold-open to EN 1155 and integrated pressure compensation for constant, adjustable, temperature-immune hold-open between door opening angles of approximately 75° and 170° (fallback approx 3°).

With adjustable closing speed under full hydraulic control, adjustable latching action and mechanical backcheck. Including cement box. For left-handed (DIN-L), right-handed (DIN-R) and double action doors.

Operating voltage: 24 V DC  
 Power consumption: 2.3 W

#### Closing force

EN 4  
 EN 5  
 EN 6

#### Version

DIN left  
 DIN right  
 Double action (not approved for fire doors in Germany)

#### Accessories

Universal cover plate (1.5 mm thick)  
 Stainless steel  
 Satin brass  
 Spindle  
 Standard  
 . . . mm extension  
 Sealing compound 2300 Top

#### Make:

dormakaba BTS 80 EMB

### BTS 80 FLB

Floor spring to EN 1154 with CE -marking, with electrohydraulic free-swing function (to EN 1155) between door opening angle of 0° and approximately 180°, closer function (nonpowered) effective from 180°, including cement box.

Operating voltage: 24 V DC  
 Power consumption: 2.3 W

#### Closing force

EN 4  
 EN 5  
 EN 6

#### Version

DIN left  
 DIN right

#### Accessories

Universal cover plate (1.5 mm thick)  
 Stainless steel  
 Satin brass  
 Spindle  
 Standard  
 . . . mm extension  
 Sealing compound 2300 Top

#### Make:

dormakaba BTS 80 FLB



## Specification texts

### BSR VF (VF/VF)

Floor spring with adjustable closing force from EN 3 to 6 tested in accordance with EN 1154, with CE mark, load-bearing capacity up to 300 kg. Both floor springs have fully hydraulically controlled closing action starting at 180°, adjustable latching action and mechanical backcheck. Door coordination function operates to EN 1158, operating independently of the door closer hydraulics. The system comprises an active leaf and an inactive leaf mechanism interconnected by a bowden cable. Including cement box. For left-handed (DIN-L) and right-handed (DIN-R) doors.

#### Closing force

Active door leaf  
 EN 3-6  
 Inactive door leaf  
 EN 3-6

#### Version active leaf

DIN left  
 DIN right

#### Accessories

Door coordinator BSR  
 Cover plate BSR (1.5 mm thick)  
 Stainless steel  
 Satin brass  
 Spindle BSR  
 Standard  
 . . . mm extension  
 Sealing compound 2300 Top

#### Make:

dormakaba BTS 80 VF  
 dormakaba BTS 80 VF

### BSR EMB 1 (FLB/EMB)

Floor spring to EN 1154 and with CE mark. Active leaf (BTS 80 FLB) with electro-hydraulic free-swing function to EN 1155 between door opening angle of 0° and 180°, closer function (nonpowered) effective from 180°.

Inactive leaf (BTS 80 EMB) with integrated electro-hydraulic hold-open to EN 1155 and integrated pressure compensation for constant, adjustable, temperature-immune hold-open between door opening angles of approx. 75° and 170° (Door opening angle of up to 180° is possible by using holding magnet). With adjustable latching action and mechanical backcheck.

Both floor springs (BTS 80 FLB and BTS 80 EMB) have the features of adjustable closing speed under full hydraulic control starting at 180°. Door coordination function conforming to EN 1158, operating independently of the door closer hydraulics. The system comprises an active leaf and an inactive leaf mechanism interconnected by a bowden cable. Including cement box. For left-handed (DIN-L) and right-handed (DIN-R) doors.

Operating voltage: 24 V DC

Power consumption: 2 x 2.3 W

#### Closing force

Active door leaf  
 EN 4  
 EN 5  
 EN 6  
 Inactive door leaf  
 EN 4  
 EN 5  
 EN 6

#### Version active leaf

DIN left  
 DIN right

#### Accessories

Door coordinator BSR  
 Cover plate BSR (1.5 mm thick)  
 Stainless steel  
 Satin brass  
 Spindle BSR  
 Standard  
 . . . mm extension  
 Sealing compound 2300 Top

#### Make:

dormakaba BTS 80 FLB  
 dormakaba BTS 80 EMB

### BSR EMB 2 (EMB/EMB)

Floor spring to EN 1154 and with CE mark. Active and inactive leaves installed with the BTS 80 EMB, with integrated electro-hydraulic hold-open to EN 1155 and integrated pressure compensation for constant, adjustable, temperature-immune hold-open between door opening angles of approx. 75° and 170° (Door opening angle of up to 180° is possible by using holding magnet).

Both floor springs (BTS 80 EMBs) have the features of adjustable closing speed under full hydraulic control starting at 180°, adjustable latching action and mechanical backcheck. Door coordination function conforming to EN 1158, operating independently of the closer hydraulics. The system comprises an active leaf and an inactive leaf mechanism interconnected by a bowden cable. Including cement box. For left-handed (DIN-L) and right-handed (DIN-R) doors.

Operating voltage: 24 V DC

Power consumption: 2 x 2.3 W

The BSR door coordinator has been tested by Afnor Certification for use on double-leaf doors.

#### Closing force

Active door leaf  
 EN 4  
 EN 5  
 EN 6  
 Inactive door leaf  
 EN 4  
 EN 5  
 EN 6

#### Version active leaf

DIN left  
 DIN right

#### Accessories

Door coordinator BSR  
 Cover plate BSR (1.5 mm thick)  
 Stainless steel  
 Satin brass  
 Spindle BSR  
 Standard  
 . . . mm extension  
 Sealing compound 2300 Top

#### Make:

dormakaba BTS 80 EMB  
 dormakaba BTS 80 EMB

**BSR EMB 1 G / VF 1 S (EMB/VF)**

Floor spring to EN 1154 and with C € mark. Active leaf (BTS 80 EMB) with integrated electro-hydraulic hold-open to EN 1155 and integrated pressure compensation for constant, adjustable, temperature-immune hold-open between door opening angles of approx. 75° and 170° (Door opening angle of up to 180° is possible by using holding magnet).

Inactive leaf (BTS 80 VF) with adjustable closing force from EN 3 to 6 with fully hydraulically controlled closing action starting at 180°, and bubble level.

Both floor springs (BTS 80 EMB and BTS 80 VF) have the features of adjustable closing speed under full hydraulic control starting at 180°, adjustable latching action and mechanical backcheck.

Door coordination function conforming to EN 1158, operating independently of the closer hydraulics. The system comprises an active leaf and an inactive leaf mechanism interconnected by a bowden cable. Including cement box. For left-handed (DIN-L) and right-handed (DIN-R) doors.

Operating voltage: 24 V DC

Power consumption: 2.3 W

**Closing force**

Active door leaf

- EN 4
- EN 5
- EN 6
- EN 3-6

**Version active leaf**

- DIN left
- DIN right

**Accessories**

- Door coordinator BSR
- Cover plate BSR (1.5 mm thick)
  - Stainless steel
  - Satin brass
- Spindle BSR
  - Standard
  - ... mm extension
- Sealing compound 2300 Top

**Make:**

dormakaba BTS 80 EMB

dormakaba BTS 80 VF

**BSR FLB 1 G / VF 1 S (FLB/VF)**

Floor spring to EN 1154 and with C € mark. Active leaf (BTS 80 FLB) with electro-hydraulic free-swing function to EN 1155 between door opening angle of 0° and 180°, closer function (nonpowered) effective from 180°.

Inactive leaf (BTS 80 VF) with adjustable closing force from EN 3 to 6 with adjustable latching action, bubble level and mechanical backcheck.

Both floor springs (BTS 80 FLB and BTS 80 VF) have the features of adjustable closing speed under full hydraulic control starting at 180°. Door coordination function conforming to EN 1158, operating independently of the closer hydraulics. The system comprises an active leaf and an inactive leaf mechanism interconnected by a bowden cable. Including cement box. For left-handed (DIN-L) and right-handed (DIN-R) doors.

Operating voltage: 24 V DC

Power consumption: 2.3 W

**Closing force**

Active door leaf

- EN 4
- EN 5
- EN 6
- EN 3-6

**Version active leaf**

- DIN left
- DIN right

**Accessories**

- Door coordinator BSR
- Cover plate BSR (1.5 mm thick)
  - Stainless steel
  - Satin brass
- Spindle BSR
  - Standard
  - ... mm extension
- Sealing compound 2300 Top

**Make:**

dormakaba BTS 80 FLB

dormakaba BTS 80 VF



Door  
Hardware



Electronic  
Access & Data



Mechanical  
Key Systems



Lodging  
Systems



Entrance  
Systems



Interior Glass  
Systems



Safe  
Locks



Service

## Our Sustainability Commitment

We are committed to fostering sustainable practices along our entire value chain in line with our economic, environmental and social responsibilities now and into the future. We seek to engage in open and transparent dialogue with all our stakeholders to develop strategies and actions based on clear targets and a continuous improvement approach, we will also actively report on our progress.



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### Important information

This Product Guide is intended to provide general information on the installation of dormakaba products and should not be used as a substitute for professional advice. There are many variables that can influence construction projects which affect whether a particular construction technique is appropriate. Before proceeding with any project, we recommend you obtain professional advice to ascertain the appropriate construction techniques to suit the circumstances of your project. We recommend you use qualified tradespersons to install these products. As of December 2025.

The printed colours indicating the surface finishes are not 100% accurate, but do provide a useful guide.

Statements made with regard to the nature or use of the products are for the purposes of descriptions. Assent with regard to the existence of particular properties or particular uses always requires special written agreement. Pictures may show special designs which are different to the standard scope of delivery.