

BTS80

—



Floor Concealed Door Closers

# BTS80 SERIES FLOOR-CONCEALED DOOR CLOSER

Dependable and Versatile Floor-Concealed Closer



The BTS80 Series of floor-concealed door closers offers adaptability to almost any installation.

The closer's compact body permits its use where a larger closer would be prohibitive. Versatility allows installation in thin slab concrete subfloor construction. A wide selection of

interchangeable spindles makes the BTS80 suitable for virtually any floor covering or threshold application. Because the BTS80 can control exceptionally heavy single- and double-acting doors, you can incorporate the floor closer into almost any design to meet most materials, size, and weight requirements.

Trouble-free performance under adverse climatic and traffic conditions makes the BTS80 floor-concealed closer dependable and a perfect choice for even the most rigorous applications. For total control and uncompromising creativity for any door opening, specify a BTS80 floor-concealed closer.

## CONTENTS

BTS80 Series Floor-Concealed Closer	<b>Overview</b>	2
	<b>Certification &amp; Specifications</b>	3
	How to Order	4
	Technical Details	5
	Applications	6
	Spindles	7

DORMA USA quality and environmental management systems in Reamstown, PA and Steeleville, IL are certified to ISO 9001:2008 and ISO 14001:2004.



Intertek



Intertek

Features	BTS80	BTS80	BTS80 F
ANSI Spring Size	3	4, 6	5
Non-handed unit suitable for both single-and double-acting doors	•	•	–
Controlled closing with two adjustable valves	175°–70° 70°–0°	175°–70° 70°–0°	180°–70° 7°–0°
Mechanical backcheck	–	•	•
Delayed Action	•	•	–
Multipoint hold open between 75° and 175°	•	•	–

• yes – no

## SPECIFICATIONS

### Certification

The DORMA BTS80 F Series is listed by U.L. and C.U.L. under their continuing reinspection programs.

The DORMA BTS80 Series is certified to the requirements of ANSI/BHMA A156.4 for grade 1 closers.

### Specifications

All floor-concealed door closers shall be DORMA BTS80 Series employing a cam and roller mechanism. The closers shall be capable of controlling interior or exterior doors weighing up to 660 lb and measuring up to 4'-0" wide exterior and 4'-6" interior. The closers will have selectable multipoint hold open between approximately 75° and 175°. The closers will have

selectable delayed action to allow delayed closing from 175° to 75°. The closers will have mechanical backcheck at approximately 70°. Dual valve adjustment will provide controlled closing speed from approximately 175° opening range, even in cold temperature conditions. The closer will provide adjustment within the cement case to allow lateral and longitudinal adjustment of 1/4" and vertical height adjustment of 5/32". Field interchangeable spindles will be available to provide bottom door clearances ranging from 5/16" to 2-5/16".

### Optional Specifications

The closers should be used with sealing compound SC2 to prevent water or cleaning solvent from entering the cement case.

Floor-concealed door closers for all fire doors shall be DORMA BTS80 F. The closers shall be single-acting and have controlled closing from a full 180°. A sweep range of 180°–0° and latch range of 7°–0° will help insure positive latching of the door.

### Finishes

#### Optional Plated Finishes

- Brass: 605 (Bright) or 606 (Satin).
- Bronze: 611 (Bright), 612 (Satin), or 613 (Oxidized Satin Oil Rubbed).
- Nickel: 618 (Bright) or 619 (Satin).
- Chrome: 625 (Bright) or 626 (Satin).

### Standard Sprayed Finishes

- Aluminum: 689.
- Bronze: 691 (Dull), 690 (Statuary), or 695 (Dark Duranodic).
- Gold: 696.
- Black: 693.

### Optional DORMA Custom Color or Designer Color Finishes

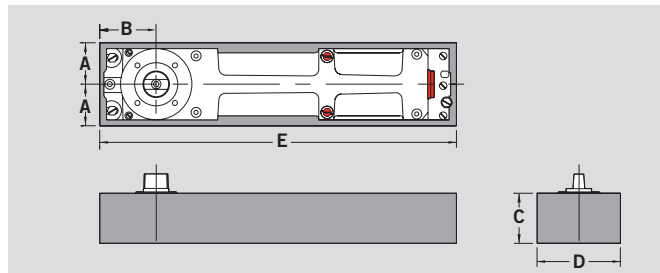
Contact Customer Service.

### Warranty

For details, refer to **DORMA Limited Warranty** on our website at [go.dorma.com/terms](http://go.dorma.com/terms).

### Size Selection Chart BTS80 / BTS80 F

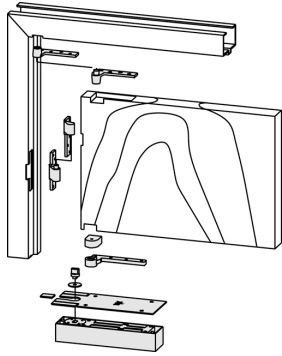
BTS80	BTS80 F	Exterior	Interior
ANSI Size 3		2'-6"-3'-0"	2'-6"-3'-6"
ANSI Size 4	ANSI Size 5	2'-6"-3'-6"	2'-6"-4'-0"
ANSI Size 6		3'-6"-4'-0"	4'-0"-4'-6"



Maximum door widths and recommended sizes shown are for average conditions. If there are unusual site conditions, e.g. high or exceptionally heavy doors or wind pressure, the next stronger spring size should be selected.

	A	B	C	D	E
Inches	1-13/32–1-21/32	2–2-1/4	2-3/8	3-1/8	13-7/16
Millimeters	36–42	51–57	60	78	341

# HOW TO ORDER BTS80 SERIES



**Series**

**BTS80**

**Spindle**

1-1/2" Pre-Loaded Spindle	<b>80030</b>
1-5/16" Pre-Loaded Spindle	<b>80025</b>
1-1/8" Pre-Loaded Spindle	<b>80020</b>
7/8" Pre-Loaded Spindle	<b>80015</b>
3/4" Pre-Loaded Spindle	<b>80010</b>
1/2" Pre-Loaded Spindle	<b>80005</b>
5/16" Pre-Loaded Spindle	<b>80003</b>
2-5/16" Spindle	<b>74050</b>
2-1/16" Spindle	<b>74045</b>
1-7/8" Spindle	<b>74040</b>
1-11/16" Spindle	<b>74035</b>
1-1/2" Spindle	<b>74030</b>
1-5/16" Spindle	<b>74025</b>
1-1/8" Spindle	<b>74020</b>
7/8" Spindle	<b>74015</b>
13/16" Spindle	<b>74012</b>
3/4" Spindle	<b>74010</b>
5/8" Spindle	<b>74007</b>
1/2" Spindle	<b>74005</b>
5/16" Spindle	<b>74003</b>

**Optional Accessories**

<b>E80624</b>	Through Wire CH Top Pivot (4 wire)
<b>E80622</b>	Through Wire CH Top Pivot (2 wire)
<b>HD8062</b>	Heavy Duty CH Top Pivot
<b>75200</b>	Through Wire Intermediate Pivot for 3/4" Offset
<b>15233</b>	3 h Intermediate Pivot for 1-1/2" Offset
<b>15222</b>	20 min Intermediate Pivot for 1-1/2" Offset
<b>15220</b>	Through Wire Intermediate Pivot for 1-1/2" Offset
<b>75243</b>	3 h Intermediate Pivot for Lead Lined 3/4" Offset (see note*)
<b>75242</b>	20 min Intermediate Pivot for Lead Lined 3/4" Offset (see note*)
<b>75240</b>	Intermediate Pivot for Lead Lined 3/4" Offset (see note*)
<b>75233</b>	3 h Intermediate Pivot for 3/4" Offset
<b>75222</b>	20 min Intermediate Pivot for 3/4" Offset
<b>75220</b>	Intermediate Pivot for 3/4" Offset
<b>SC2</b>	Sealing Compound
<b>TP80 CH</b>	Terrazo Pan CH and 1-1/2" Offset
<b>TP80</b>	Terrazo Pan for 3/4" Offset

**Hand**

Specify for Left Handed Units	<b>LH</b>
Specify for Right Handed Units	<b>RH</b>

**Deducts**

Less Cement Box	<b>LBX</b>
Less Floor Plate	<b>LFP</b>
Less Top Pivot	<b>LTP</b>

<b>BTS80</b>	<b>D</b>	<b>74010</b>	<b>RH</b>	<b>AMS</b>	<b>626</b>
--------------	----------	--------------	-----------	------------	------------

- A** CH Double Acting, Aluminum Door and Frame
- B** CH Double Acting, Wood or Steel Door and Frame
- C** CH Double Acting, Wood or Steel Door and Frame
- C-E** 1-1/2" Offset, Handed
- C-F** 1-1/2" Offset, 20 min Rated Handed
- D** 1-1/2" Offset, 3 h Rated Handed
- E** 1-1/2" Offset, 3 h Rated Handed
- F** 3/4" Offset, Handed
- G** 3/4" Offset, 20 min Rated Handed
- H** 3/4" Offset, 3 h Rated Handed
- I** CH Single Acting, Aluminum Door and Frame
- IF** CH Single Acting, Wood or Steel Door and Frame
- L** Independent Hung, Non-Handed
- L-E** Independent Hung, Up to 3 h Rated, Non-Handed
- L-F** 3/4" Offset Lead Lined, Handed\*
- L-E** 3/4" Offset Lead Lined, 20 min Rated Handed\*
- L-F** 3/4" Offset Lead Lined, 3 h Rated Handed\*
- P** Independent Hung On Pocket Pivots, Non-Handed
- PF** Independent Hung On Pocket Pivots, Non-Handed

**Spring Size**

<b>3</b>	Size 3, Light Opening Force, No Backcheck
<b>4</b>	Size 4, No Need to Specify
<b>5</b>	Size 5, for use w/Fire Pkgs, No Delay, No Hold Open
<b>6</b>	Size 6, Strong

**Fastener Packs**

<b>AMS</b>	All Metal Screws
<b>W2</b>	All Wood Screws
<b>W1</b>	1/2 Wood Screws
<b>AMSAWS</b>	All Metal Screws All Wood Screws

**Painted**

<b>600</b>	Primed
<b>689</b>	Aluminum
<b>690</b>	Statuary Bronze
<b>691</b>	Dull Bronze
<b>693</b>	Black
<b>695</b>	Dark Duranodic Bronze
<b>696</b>	Gold
<b>PNT</b>	Special Sprayed Finish (must specify)
<b>605</b>	Bright Brass
<b>606</b>	Satin Brass
<b>611</b>	Bright Bronze
<b>612</b>	Satin Bronze
<b>613</b>	Oxidized Satin Oil Rubbed
<b>618</b>	Bright Nickel
<b>619</b>	Satin Nickel
<b>625</b>	Bright Chrome
<b>626</b>	Satin Chrome

**Plated**

**\* "L" Package Door Thickness Note:**  
 The standard door thickness is 1-3/4", and is the default unless otherwise specified.

Other alternative sizes are

-2
-2-1/4
-2-1/2
-3

Examples: L-E-2-1/2....75242-2-1/2

Example above 20 min. lead lined package for 2-1/2" thick door.

**Package**

**NOTE:** All combinations of features and options are not available for all models.

# TECHNICAL DETAILS

## BTS80 Series

- Compact closer body and cement case 2-3/8" deep suited for thin slab concrete construction.
- Accommodates doors weighing up to 660 lb and 4'-6" wide interior and 4'-0" exterior.
- Closer adjustment in cement case provides lateral and longitudinal adjustment of 1/4" and height adjustment of 5/32".
- A pressure relief valve protects closer from damage caused by forced closing.
- Optional sealing compound SC2 prevents water or cleaning solvent from entering the cement case.
- **If door hardware or adjacent structures interfere with maximum opening, an auxiliary stop should be installed.**

## BTS80

- Closer body is non-handed.
- Mechanical backcheck at approximately 70° (excluding size 3, where backcheck is removed to meet barrier-free through 90° of opening for easier passage).
- Selectable delayed action between 175° and 75°. Extends the closing cycle to allow unobstructed passage.
- Delayed action is functional when hold open is not engaged.
- Dual thermostatic control valves combined with special hydraulic fluid provide controlled closing from 175°.
- Selectable multipoint hold open between approximately 75° and 175°.
- Adjustment for start of hold open range or when delayed action releases. Adjustable between 75° and 105°.

- 1 Valve adjustment 70°–0°.
- 2 (a) Valve adjustment 175°–70°. (b) Selectable multipoint hold open between 75° and 175°. (c) Selectable delayed action from 175° to 75°.
- 3 Mechanical backcheck at approximately 70° (except size 3).
- 4 Start of hold open/end of delayed action range adjustment. Adjustable between 75° and 105°.

**NOTE:** Clockwise turns create a longer delay time with a slower closing speed. Turning valve completely clockwise creates hold open and eliminates delayed action.

## BTS80 F



- U.L. listed for use with fire doors.
- Closer body is handed.
- Non-hold open only.
- Mechanical backcheck at approximately 70°.
- Dual thermostatic control valves combined with special hydraulic fluid provide controlled closing from 180°.
- Recommended for applications using a wall magnet to hold a door open at 180°.

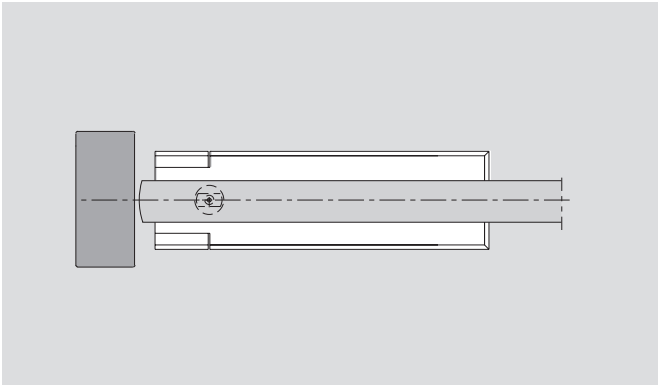
- 1 Valve adjustment 7°–0°.
- 2 Valve adjustment 180°–0°.
- 3 Mechanical backcheck at approximately 70°.

# APPLICATIONS

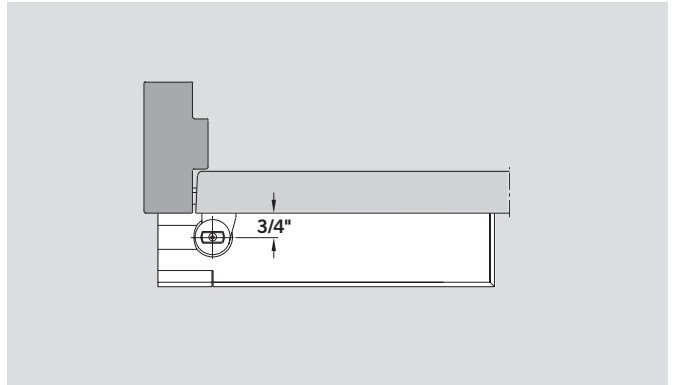
Accessory packages for the following applications are designated with an alpha suffix— "A" or "B," for example.

For application details and accessory illustrations, see **BTS Applications and Accessories** brochure.

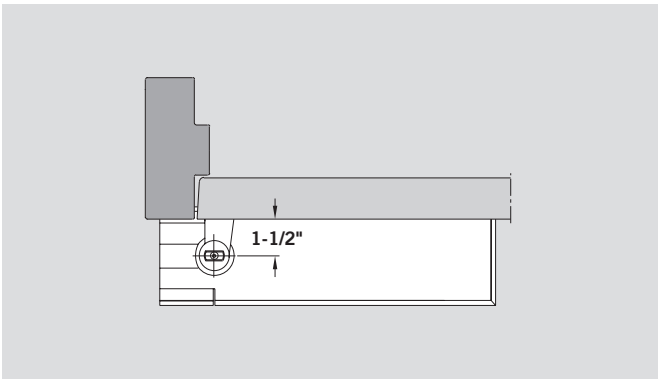
## Center Hung Packages (A, B, G, H)



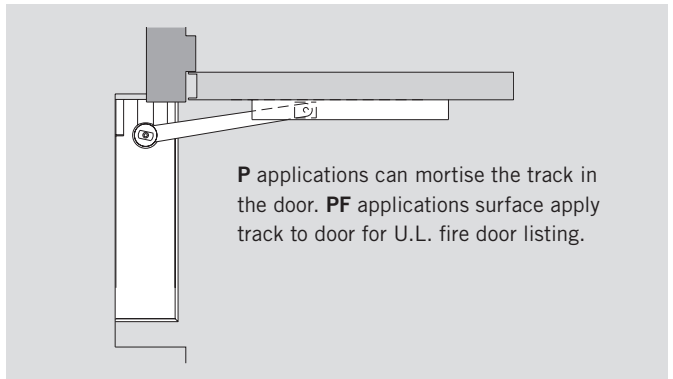
## 3/4" Offset Packages (D, E, F, L, L-E, L-F)



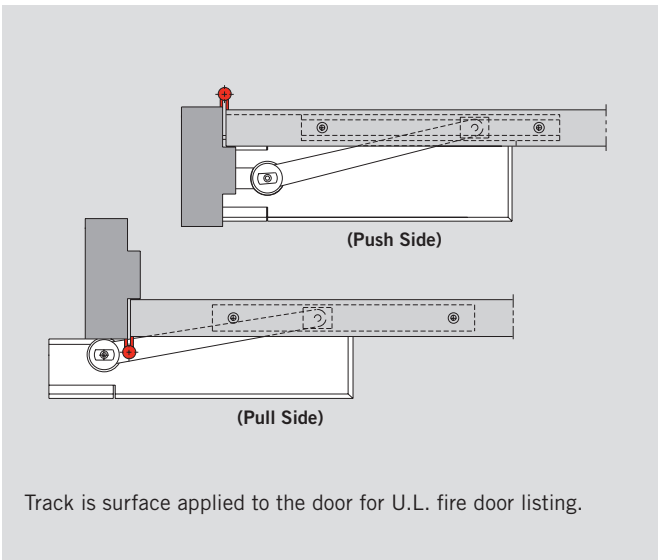
## 1-1/2" Offset Packages (C, C-E, C-F)



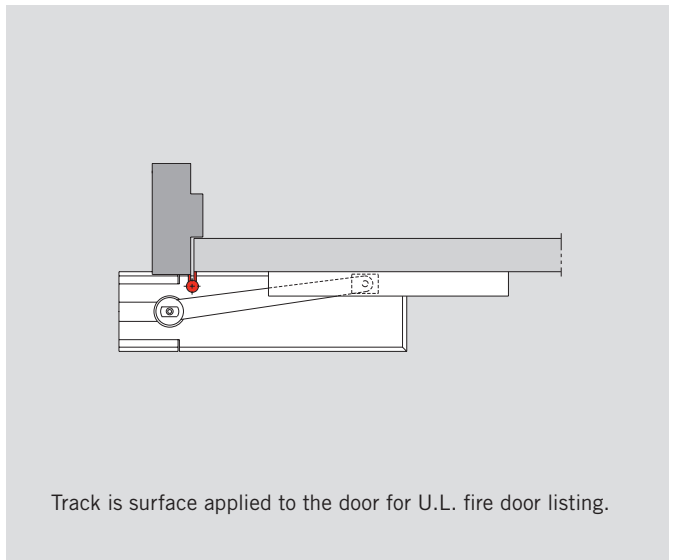
## Pocket Door Packages (P) / Pocket Fire Door Packages (PF)



## Independent Hung Door Packages (I)



## Independent Hung Fire Door Packages (IF)



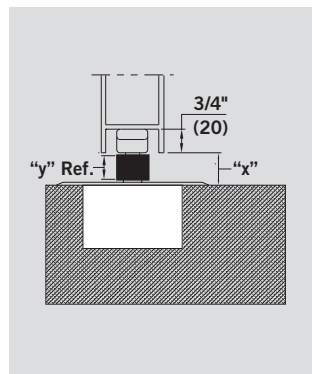
# SPINDLES

Spindle #	Dimension "x" (Door Clearance)	3° Offset Spindle No.	Dimension "y"
74003	5/16"	80003	1/8"
74005	1/2"	80005	5/16"
74007	5/8"	—	7/16"
(STD) 74010	3/4"	80010	1/2"
74012	13/16"	—	5/8"
74015	7/8"	80015	11/16"
74020	1-1/8"	80020	7/8"
74025	1-5/16"	80025	1"
74030	1-1/2"	80030	1-5/16"
74035	1-11/16"	—	1-1/2"
74040	1-7/8"	—	1-11/16"
74045	2-1/16"	—	1-7/8"
74050	2-5/16"	—	2-1/16"

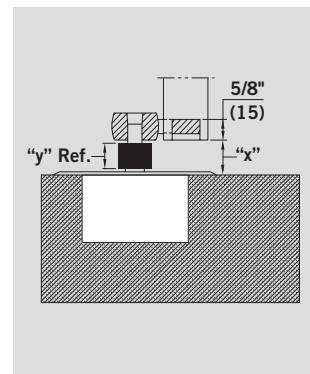
### Offset Spindles

Spindles are available with a 3° offset for additional pressure to hold door in the closed position. Normally, this is only necessary for center-pivoted single acting applications. However, they can also be used with other applications to compensate for templating errors. Specify hand of offset spindle when ordering.

### Center Hung Applications



### Offset Hung Applications



### Extended Spindle Insert

**NOTE: Closer and arm must be installed per template for door clearances shown to be valid.**

Closers with extended spindle inserts are used with thresholds, carpeted floors, or terrazzo pans, or in cases where more clearance between door and floor is required. All spindles are zinc plated.

### Cover Plate

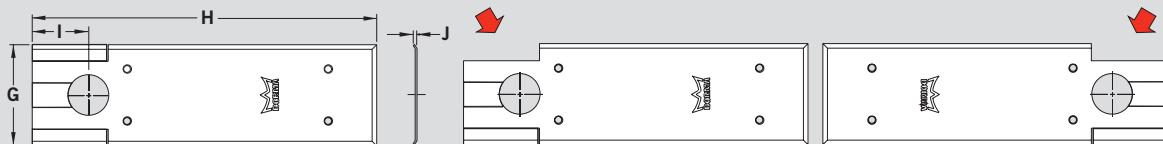
Universal cover plate **7410**, suitable for left hand/right hand, 3/4" offset, 1-1/2" offset, and

center pivoted doors. Material is stainless steel or brass depending on the plated finish specified.

### Center Pivoted Door

### R.H. Offset Pivoted Door

### L.H. Offset Pivoted Door



	G	H	I	J
<b>Inches</b>	4-1/8	14-3/32	2-9/32	3/32
<b>Millimeters</b>	105	358	58	2



[www.dorma.com](http://www.dorma.com)



DORMA USA, Inc.  
Dorma Drive, Drawer AC  
Reamstown, PA 17567  
Tel: 800 523 8483  
Fax: 800 274 9724  
[archdw@dorma-usa.com](mailto:archdw@dorma-usa.com)

DORMA Canada  
1680 Courtney Park Drive, Unit 13  
Mississauga, Ontario L5T 1R4  
Tel: 800 387 4938  
Fax: 905 670 5850  
[sales@dormacanada.com](mailto:sales@dormacanada.com)

DORMA Mexico  
Calle Sur 110 no. 63, Col. Tolteca  
01150 México, D.F.  
Tel: 5255 5272 6937  
Fax: 5255 5272 6948  
[operacion@dorma.com.mx](mailto:operacion@dorma.com.mx)