



Floor-Concealed
Door Closers with
Electromagnetic
Hydraulic Hold Open

DORMA

BTS80

EMB



Aesthetically Pleasing Floor Closer for Fire/Life Safety, Remote Release and Control, or Tempered Glass Door Applications

The BTS80 EMB Series of floor-concealed door closers provide an electromagnetic hydraulic hold open feature, allowing doors to self-close upon the interruption of electrical current, yet remain functional in noncritical situations.

The BTS80 EMB includes a selective type hold open with a range of approximately 65° to 175°. This closer is an ideal solution in applications where surface applied life safety products cannot be installed or are objectionable due to aesthetics.

The BTS80 EMB is specifically designed to be used in fire/life safety applications where the hold open is electrically controlled by a fire alarm contact. The closer is typically placed into the hold open position until a fire alarm condition.

When installed in conjunction with a maintained control switch, the BTS80 EMB can be used as a hold open/privacy function. The switch controls the power on (hold open) or off (privacy) to the closer, giving an application, such as in a classroom, two functional characteristics. Use the hold open feature during setup of the room or as occupants enter and exit between sessions. Use the privacy feature during class. Power is out when using the privacy feature, preventing doors from being accidentally caught in the hold open position as occupants exit and re-enter as needed.

In an office setting, the BTS80 EMB can be used to maintain the hold open position of a door until interrupted by a momentary switch located near or on the occupant's desk when privacy is desired. This office function can be set up as a hard-wired or wireless connection.

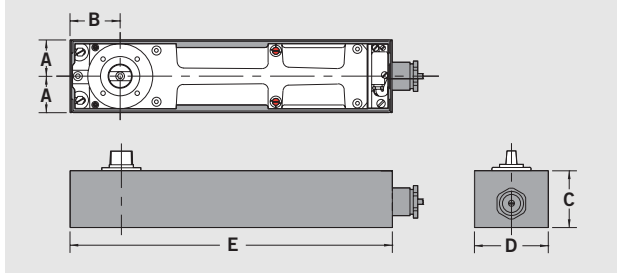
The BTS80 EMB can also be used with tempered glass door applications, using the same guidelines as for the other functions described previously.

NOTE: Since they are not typically fire-rated, tempered glass door applications are not used for life safety installations.

Features	
Spring Size	5U
Controlled closing with two hydraulic valves	180°–0° 7°–0°
Mechanical backcheck	approx. 70°
Multipoint hold open	65°–175°

Door Ranges

Size	Door Width	
	Exterior	Interior
5U	2'6"-3'6"	2'6"-4'0"



	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

Certification:

The DORMA BTS80 EMB Series is listed by U.L. and C.U.L. under their continuing reinspection programs. California State Fire Marshall (CSFM) approved.

Specifications:

All floor-concealed door closers shall be DORMA BTS80 EMB Series employing a cam and roller mechanism. The closers shall have electromagnetic hydraulic multipoint hold open between 65° and 175°. The closers shall be capable of controlling interior or exterior doors weighing up to 660 pounds and measuring up to 3'-6" wide exterior and 4'-0" interior. The closers have mechanical backcheck at approximately 70°. Dual valve adjustment will provide controlled closing speed from

approximately 180° 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". Operating voltage shall be 24 VDC.

Optional Specifications:

A sealing compound should be used with the closers to prevent water or cleaning solvent from entering the cement case. Specify SC-1.

Operation:

24 VDC at 125 mA +10% -15%.

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:

2 Years.

How to Order BTS80 EMB Series **Example**

Closer	BTS80 EMB (specify hand) (see BTS Applications and Accessories brochure for specific handing of accessories)	BTS80 EMB (LH)
Package	Center-pivoted single-acting aluminum door and frame	BTS80 EMB/G (RH)
Size	Size 5U	BTS80 EMB/G - 5U (LH)
Accessories	Specify the accessory (see BTS Applications and Accessories brochure)	BTS80 EMB/G (LH) x SC-1
Spindle	74010 or 80010 are furnished standard unless otherwise specified (see Spindles on page 6)	BTS80 EMB/G x 74025
Finish	Bright Brass	BTS80 EMB/G (LH) (605)

Technical Details:

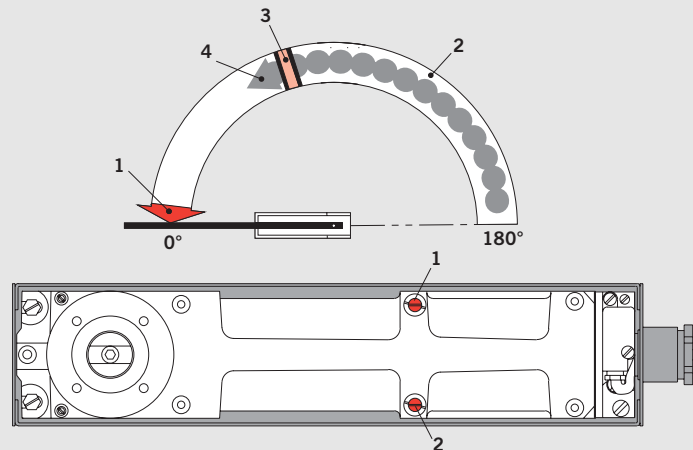
- Door can be manually removed from hold open when current is applied to the unit.
- When no current is applied to unit, it will act as standard hydraulic floor closer.
- Loss of electrical current due to a signal from a smoke detector or other signaling device will open an electromagnetically controlled valve in the closer and close the door under full hydraulic control.
- Operating voltage 24 VDC at 125 mA +10% -15%.
- Compact closer body and cement case 2-3/8" deep suited for thin slab concrete construction.
- Closer body is handed.
- Accommodates doors weighing up to 660 pounds and measuring up to 3'-6" wide exterior and 4'-0" interior.
- Mechanical backcheck at approximately 70°.
- Dual thermostatic control valves combined with special hydraulic fluid provide controlled closing from 180°.
- Multipoint hold open between approximately 65° and 175° when current is applied.
- A secondary regulation system protects closer from damage caused by forced closing.
- Closer adjustment in cement case provides lateral and longitudinal adjustment of 1/4" and height adjustment of 5/32".
- Optional sealing compound SC-1 prevents water or cleaning solvent from entering the cement case.
- When considering hold open angle, allow approximately 4° of fall away.
- Unit is provided with approximately 10 feet of power cable.
- Fire door applications require power to be supplied through a U.L. listed fire alarm control panel.
- **If door hardware or adjacent structures interfere with maximum opening, or maximum opening is greater than 180°, an auxiliary stop is required.**

1 Valve adjustment 7°-0°

2 Valve adjustment 180°-0°

3 Mechanical backcheck at approximately 70°

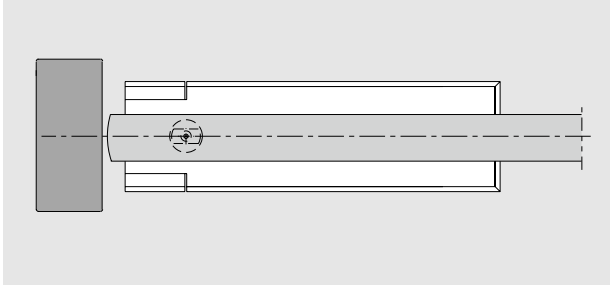
4 Multipoint hold open between 65° and 175°



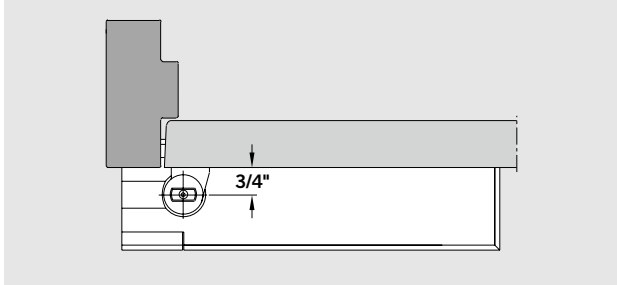
Applications

Accessory packages for the following applications are designated with an alpha suffix, i.e. "G," "H." For application details and accessory illustrations, see **BTS Applications and Accessories** brochure.

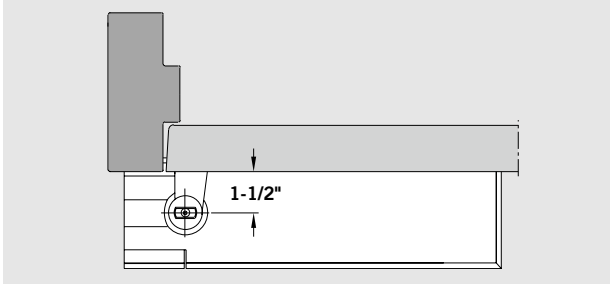
Center Hung Packages (G,H)



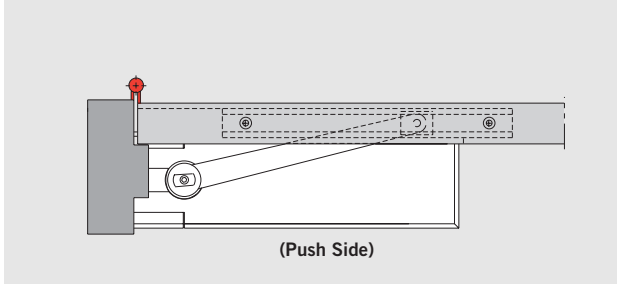
3/4" Offset Packages (D,E,F,L,L-E,L-F)



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

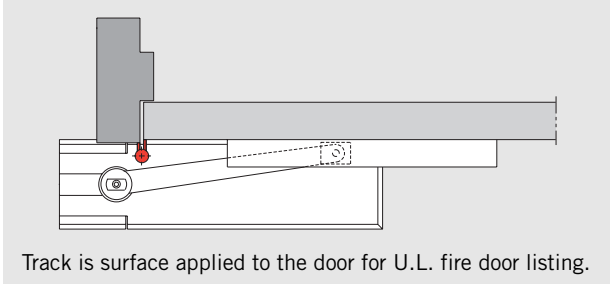


Independent Hung Packages (I)

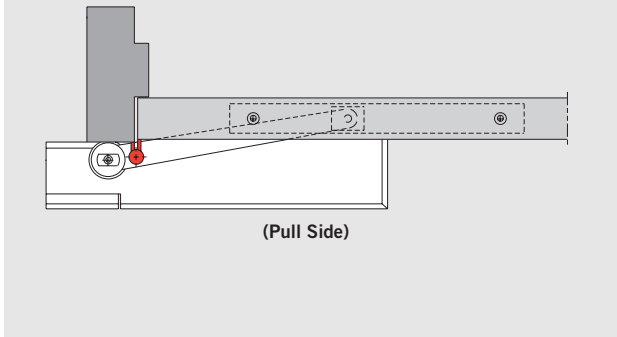


(Push Side)

Independent Hung Fire Door Packages (IF)



Track is surface applied to the door for U.L. fire door listing.



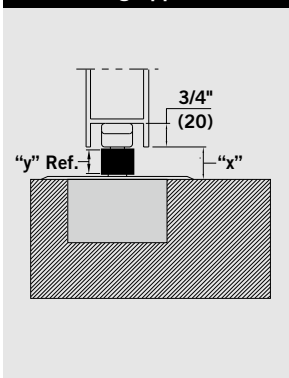
(Pull Side)

Spindles			
Spindle No.	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"

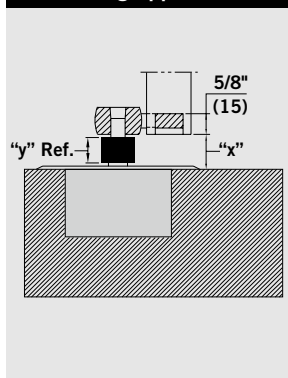
Offset Spindles

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



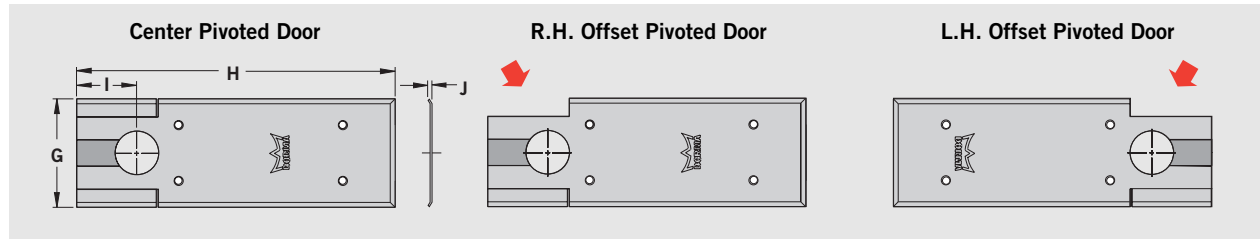
Extended Spindle Insert

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.

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



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