




# **DORMA TS93**

## The TS93 System in Contur Design represents the pinnacle of surface applied closers because of its unique cam and roller design.

Doors equipped with the TS93 will open much easier than doors with rack and pinion closers with track arms. The TS93 is a closer with regular arm operating efficiency and track arm aesthetics. When necessary, push side installation provides the benefits of track arm assemblies with the closer mounted to the door and the track mounted to the stop, creating a more tamper-resistant application.

### Technical Details:

-  Available as TS93-1 closers for interior and exterior barrier-free requirements (adjustable size 1–5).
- Available as TS93-5 closers for greater closing force for exceptionally wide, tall, or heavy doors (size 5–6 +50% adjustment).
- Adjustable backcheck prevents uncontrolled opening of the door.
- Adjustable delayed action extends the closing cycle to allow unobstructed passage through opening.
- Optional hold open inserts into track. Adjustable for degree of hold open and hold open force. Hold open is selectable on or off.
- SN3 sex nuts supplied standard for 1-3/4" thick door.
- Optional (CS) cushion limit stay to assist slowing door in opening cycle (auxiliary stop required by others).

### Certification:

The DORMA TS93-1/TS93-5 Series are listed by U.L. and C.U.L. under their continuing reinspection programs. The TS93-1/TS93-5 Series are certified to the requirements of ANSI A156.4 Grade 1. The TS93 is compliant with UL10C and UBC 7.2 (1997) for positive pressure. The TS93-1 versions meet the requirements of ANSI A117.1 and A.D.A. for barrier-free accessibility. California State Fire Marshall Approved (CSFM).

### Specification:

The TS93 System in Contur Design hydraulic surface applied closer with steel cam, roller, and adjustable spring, incorporating a track arm assembly. The TS93 will have two separate temperature compensating, noncritical adjustment valves to control sweep and latch closing speeds. Adjustable backcheck will take effect at approximately 65°. Adjustable hydraulic delayed action will be effective from approximately 120° to approximately 70°. The TS93-1 will be available with field-adjustable spring power from size 1 to 5 for barrier-free requirements. The TS93-5 will be adjustable from size 5 to 6 with 50% adjustment. Maximum opening range will be approximately 175° for pull side installations and 110° for push side installations. Install the TS93 closer body on the door and the track arm assembly on the stop surface with the supplied bracket for push side applications. The TS93 will be non-handed.



### Optional Specifications:

All TS93 closers to have hold open. Adjustable for degree of hold open and hold open force. All TS93 closers to have optional cushion stops to assist slowing the door in the opening cycle. Auxiliary stops required by others.

**Warranty:** 25 years.

### Finishes:

#### 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.

#### Optional Plated Finishes (Size TS93-1 only):

Brass: 605 (Bright) or 606 (Satin).  
Bronze: 612 (Satin) or 613 (Oxidized Satin Bronze Oil Rubbed).  
Chrome: 625 (Bright).  
Stainless: 630 (Satin).

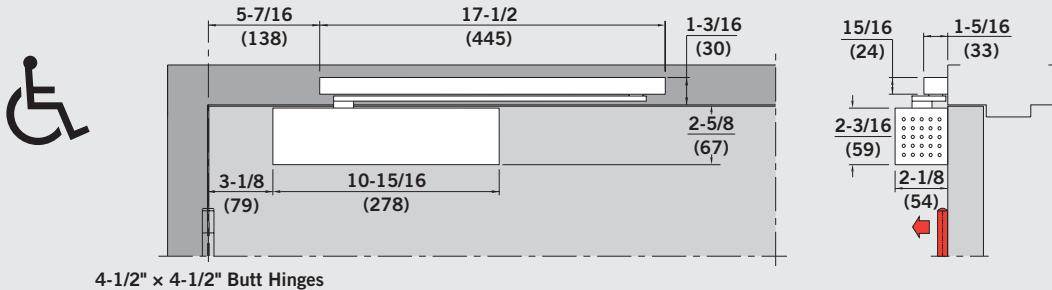
Closer cover, arm, and track channel are plated. Cover end caps and track end caps are sprayed complementary or contrasting color.

Features	TS93-1 T	TS93-5 T	TS93-1 PT	TS93-5 PT
Adjustable spring size	1–5	5–6 +50%	1–5	5–6 +50%
Push side application	-	-	•	•
Pull side application	•	•	-	-
Controlled closing with two adjustment valves	175°–0° 7°–0°	175°–0° 7°–0°	110°–0° 7°–0°	110°–0° 7°–0°
Hydraulic backcheck	•	•	•	•
Hydraulic delayed action	•	•	•	•
Hold open mechanism (inserts into track)	◦	◦	◦	◦

• yes    - no    ◦ option

## Track Installation x Jamb Mounted Slide Track Arm

TS93-1 T  
TS93-1 THO



### Size Selection Chart

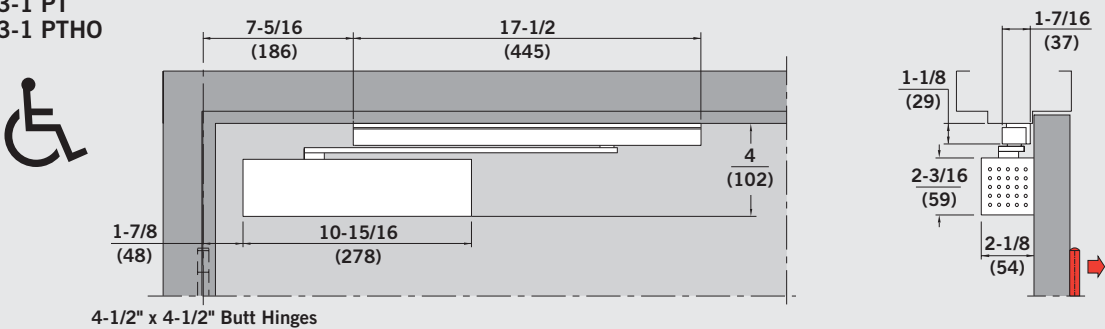
CLOSER	INTERIOR/ EXTERIOR	DOOR WIDTH					MAXIMUM OPENING	APPROX. BACKCHECK	APPROX. DELAYED ACTION	MINIMUM HOLD OPEN	MAXIMUM HOLD OPEN	MINIMUM DOOR WIDTH
		2'-0" min.	2'-6" max.	3'-0" max.	3'-6" max.	4'-0" max.						
TS93-1	INTERIOR	•	•	♿	♿	♿	175°	65°-175°	120°-70°	50°	140°	24"

- – Recommended application.
- ♿ – Opening force 5 lb or less on interior doors/8.5 lb or less on exterior doors where door without closer attached is 1 lb opening force or less.

**NOTE:** Although DORMA TS93-1 Series closers have adjustable spring power to compensate for site conditions, it can not be guaranteed that adequate closing force will be obtained while complying with barrier-free opening force restrictions.

## Track Installation x Stop Mounted Slide Track Arm

TS93-1 PT  
TS93-1 PTHO



### Size Selection Chart

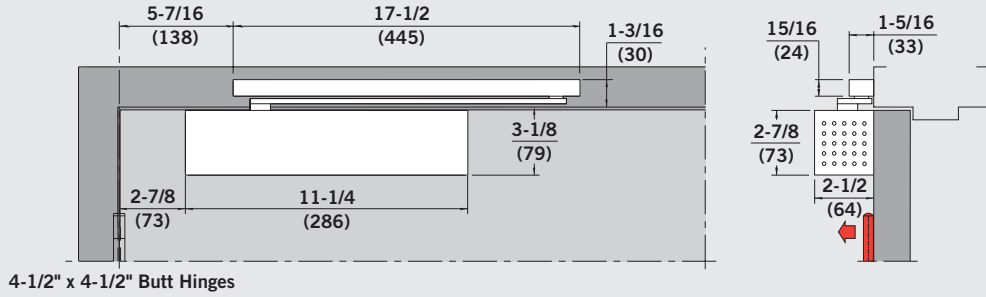
CLOSER	INTERIOR/ EXTERIOR	DOOR WIDTH					MAXIMUM OPENING	APPROX. BACKCHECK	APPROX. DELAYED ACTION	MINIMUM HOLD OPEN	MAXIMUM HOLD OPEN	MINIMUM DOOR WIDTH
		2'-2" min.	2'-6" max.	3'-0" max.	3'-6" max.	4'-0" max.						
TS93-1	INTERIOR	•	•	♿	♿	♿	110°	65°-110°	110°-70°	55°	105°	26"
	EXTERIOR	•	•	♿	♿	♿						

- – Recommended application.
- ♿ – Opening force 5 lb or less on interior doors/8.5 lb or less on exterior doors where door without closer attached is 1 lb opening force or less.

**NOTE:** Although DORMA TS93-1 Series closers have adjustable spring power to compensate for site conditions, it can not be guaranteed that adequate closing force will be obtained while complying with barrier-free opening force restrictions.

### Track Installation x Jamb Mounted Slide Track Arm

TS93-5 T  
TS93-5 THO



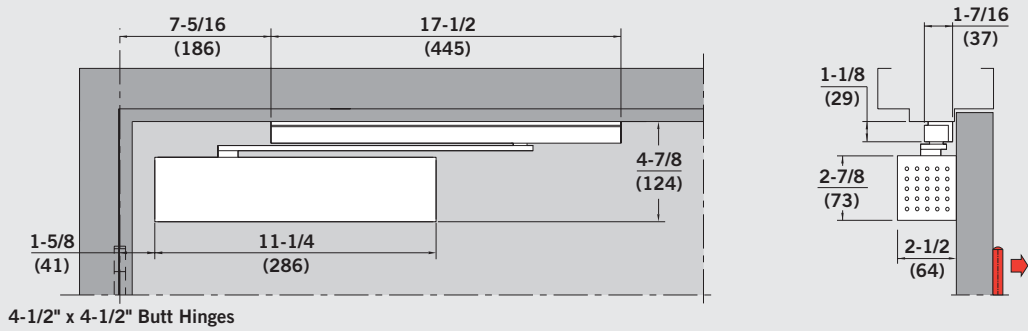
#### Size Selection Chart

CLOSER	INTERIOR/ EXTERIOR	DOOR WIDTH			MAXIMUM OPENING	APPROX. BACKCHECK	APPROX. DELAYED ACTION	MINIMUM HOLD OPEN	MAXIMUM HOLD OPEN	MINIMUM DOOR WIDTH
		4'-0" min.	4'-6" max.	5'-0" max.						
TS93-5	INTERIOR	•	•	•	175°	65°-175°	120°-70°	50°	140°	24"

• - Recommended application.

### Track Installation x Stop Mounted Slide Track Arm

TS93-5 PT  
TS93-5 PTHO



#### Size Selection Chart

CLOSER	INTERIOR/ EXTERIOR	DOOR WIDTH				MAXIMUM OPENING	APPROX. BACKCHECK	APPROX. DELAYED ACTION	MINIMUM HOLD OPEN	MAXIMUM HOLD OPEN	MINIMUM DOOR WIDTH
		3'-6" min.	4'-0" max.	4'-6" max.	5'-0" max.						
TS93-5	INTERIOR	N/A	•	•	•	110°	65°-135°	110°-70°	55°	105°	26"
	EXTERIOR	•	•	•	N/A						

• - Recommended application.

N/A - Not applicable/application not recommended.

## The TS93 PKT pocket door applications accommodate opening angles ranging from 90°–180° while providing concealed hardware for doors that must be flush with the wall.

### Technical Details (Pocket Doors):

- Available as TS93-1 (size 1–5 adjustment) and TS93-5 (size 5–6 +50% adjustment) closers for greater closing force for wider doors.
- Hardware is concealed when door is in pocket.
- Door surface is flush with corridor wall.
- No protruding edges.
- No dirt or debris buildup behind door.
- Open door fits completely into matched recessed wall pocket.
- Only 90° applications use pocket pivots.

### Certification:

The PKT applications are listed by U.L. under their continuing reinspection programs. DORMA PKT U.L. listings apply when used on doors that meet the specified door width and maximum weight.

### Specification:

DORMA pocket door closers for doors required to be flush with the corridor wall. The pocket door closers offer applications for 90°–180° opening angles. All pocket door closers combined with a DORMA EM Series wall magnet create a held open flush door until power is interrupted or the door is manually shut. The recommended method for hanging a 90° pocket door is via the use of DORMA pocket pivots 75520 or 75523 (fire rated). Doors beyond 90° up to 180° 4-1/2" x 4-1/2" ball bearing butt hinges are recommended.

**Warranty:** 25 years.

### Finishes:

#### 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.

#### Optional Plated Finishes:

##### TS93-1:

Brass: 605 (Bright) or 606 (Satin).

Bronze: 612 (Satin) or 613 (Oxidized Satin Bronze Oil Rubbed).

Chrome: 625 (Bright).

Stainless: 630 (Satin).

##### TS93-5:

Brass: 605 (Bright).

Stainless: 630 (Satin).

Closer cover, arm and track channel are plated. Cover end caps and track end caps are sprayed complementary or contrasting color.



### EM Series Wall Magnets

See individual product brochure for specific information.

Features (Pocket Doors)	TS93-1 PKT 90	TS93-5 PKT 90	TS93-5 PKT 90/119 OP	TS93-5 PKT 120/170	TS93-5 PKT 180
Adjustable spring size	1–5	5–6 +50%	5–6 +50%	5–6 +50%	5–6 +50%
Pull side application	•	•	•	•	•
Controlled closing with two adjustment valves	90°–0° 7°–0°	90°–0° 7°–0°	119°–0° 7°–0°	170°–0° 7°–0°	180°–0° 7°–0°
Hydraulic backcheck	•	•	•	•	•
Hydraulic delayed action	•	•	•	•	•

- yes

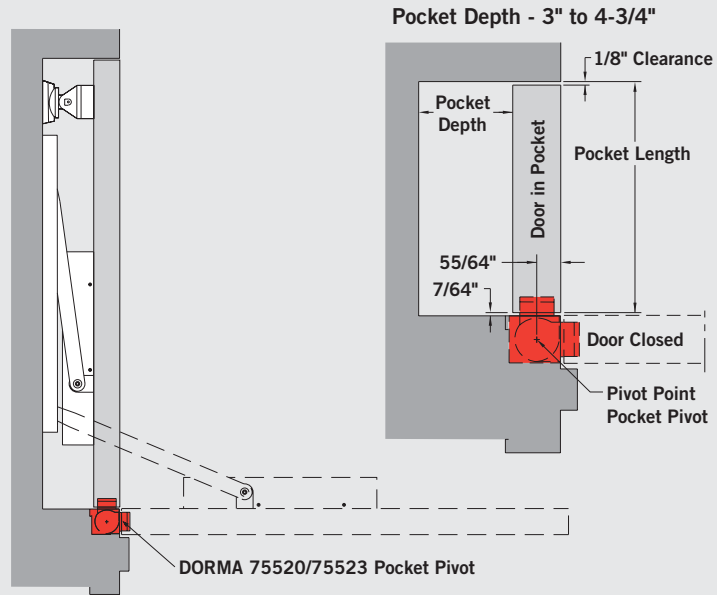
## 90° Pocket Installation

TS93-1 PKT 90  
TS93-5 PKT 90

### Size Selection Chart

CLOSER	DOOR WIDTH RANGE	MAXIMUM WEIGHT
TS93-1 PKT 90	2'-6" to 3'	125 lb
TS93-5 PKT 90	3'-1" to 4'-6"	250 lb

The recommended method for hanging a 90° pocket door is via the use of pocket pivots. Pocket pivots create optimum unobstructed space while creating a flush appearance with the door in line with the frame.



**NOTE:** The DORMA EM-504 has a 3-1/2" (89 mm) projection. EM-505 × ER-1.5 has a 4" (102 mm) projection. EM-508 has a 4-1/16" (103 mm) projection. EM-509 × ER-1.5 extension has a 3-5/16" (84 mm) projection. For pocket depths not equalling these projections, a shim by others is required for the door mounted catch plate.

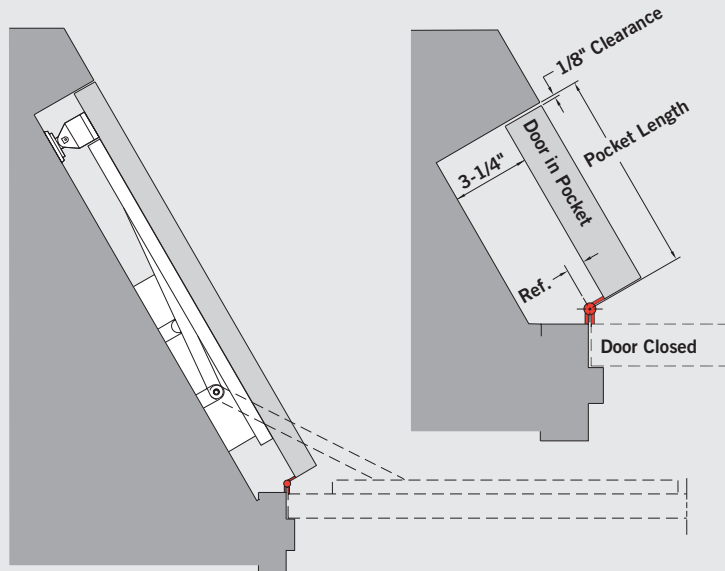
## 90° Through 119° Pocket Installation

TS93-5 PKT 90/119 OP

### Size Selection Chart

CLOSER	DOOR WIDTH RANGE	MAXIMUM WEIGHT
TS93-5 PKT 90/119 OP	2'-8" to 4'	150 lb

The recommended method for hanging the door is via the use of hinges. Hinges create optimum unobstructed space when the door is in the pocket. Alternatives, such as Offset Pivots, Swing Clear Hinges, and Continuous Hinges can be used. When using alternate methods, determine where the pivot point of the hinge or the pivot locates the door at the angle of opening when designing the pocket depth.



**NOTE:** The DORMA EM-505 wall magnet has a 2-1/2" (64 mm) projection. To create a 3-1/4" projection, a shim by others is required for the door mounted catch plate.

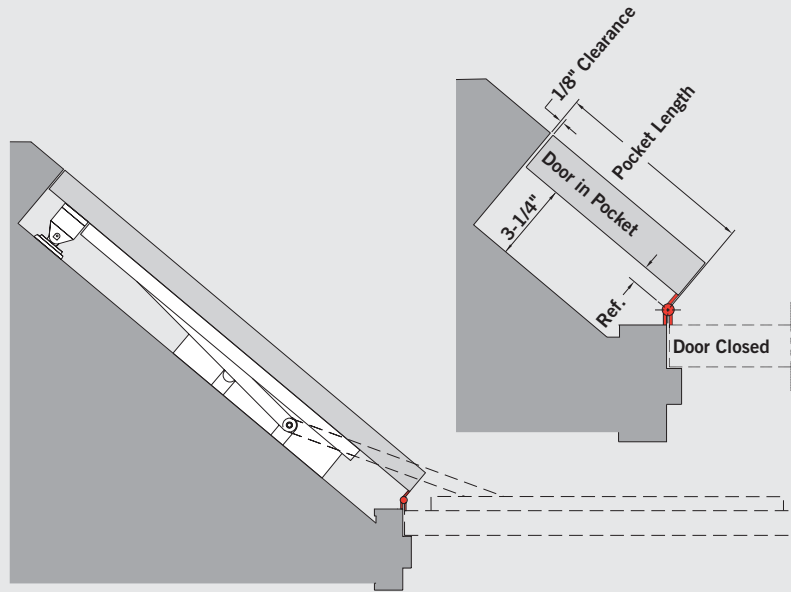
## 120° Through 170° Pocket Installation

### TS93-5 PKT 120/170

#### Size Selection Chart

CLOSER	DOOR WIDTH RANGE	MAXIMUM WEIGHT
TS93-5 PKT 120/170	2'-8" to 4'	150 lb

The recommended method for hanging the door is via the use of hinges. Hinges create optimum unobstructed space when the door is in the pocket. Alternatives, such as Offset Pivots, Swing Clear Hinges, and Continuous Hinges can be used. When using alternate methods, determine where the pivot point of the hinge or the pivot locates the door at the angle of opening when designing the pocket depth.



**NOTE:** The DORMA EM-505 wall magnet has a 2-1/2" (64 mm) projection. To create a 3-1/4" projection, a shim by others is required for the door mounted catch plate.

## 180° Pocket Installation

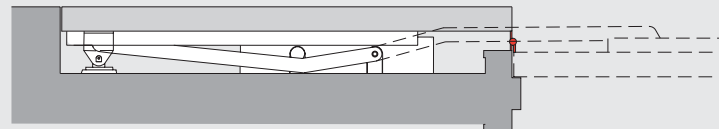
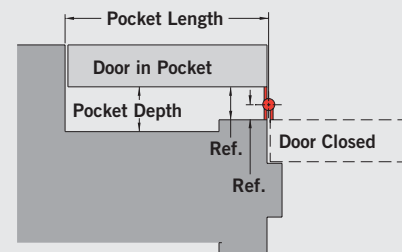
### TS93-5 PKT 180

#### Size Selection Chart

CLOSER	DOOR WIDTH RANGE	MAXIMUM WEIGHT
TS93-5 PKT 180	2'-8" to 4'	150 lb

The recommended method for hanging the door is via the use of hinges. Hinges create optimum unobstructed space when the door is in the pocket. Alternatives, such as Offset Pivots, Swing Clear Hinges, and Continuous Hinges can be used. When using alternate methods, determine where the pivot point of the hinge or the pivot locates the door at the angle of opening when designing the pocket depth.

#### Pocket Depth - 3" to 3-1/4"



**NOTE:** The DORMA EM-505 wall magnet has a 2-1/2" (64 mm) projection. To create a greater projection, a shim by others is required for the door mounted catch plate.

How to Order		Example
Size	Adjustable 1–5 Adjustable 5–6 + 50%	TS93-1 TS93-5
Application	Pull side mount	TS93-1 T/TS93-5 T
	Push side mount	TS93-1 PT/TS93-5 PT
	90° application, closer on door, track mounted on pocket wall	TS93-1 PKT 90
	90° application, closer on door, track mounted on pocket wall Includes closer assembly and (3) 75520 pocket pivots	TS93-1 PKT 90/D *
	90° labeled application, closer on door, track mounted on pocket wall Includes closer assembly and (3) 75523 pocket pivots	TS93-1 PKT 90/F *
	90° application, closer on door, track mounted on pocket wall	TS93-5 PKT 90
	90° application, closer on door, track mounted on pocket wall Includes closer assembly and (3) 75520 pocket pivots	TS93-5 PKT 90/D *
	90° labeled application, closer on door, track mounted on pocket wall Includes closer assembly and (3) 75523 pocket pivots	TS93-5 PKT 90/F *
	90° through 119° application, track mounted on door, closer on pocket wall	TS93-5 PKT 90/119 OP
	120° through 170° application, track mounted on door, closer on pocket wall	TS93-5 PKT 120/170
180° application, track mounted on door, closer on pocket wall ( <b>specify hand</b> )	TS93-5 PKT 180	
Options	HO - Hold open (not available with PKT packages)	TS93-1 THO
	CS - Cushion limit stay	TS93-1 CS
Finish	See DORMA finish information in this brochure Example: 689 = Aluminum	TS93-5 T 689

\* Packages include (3) pivots for doors up to 7'-6" tall. It is recommended that taller doors use (1) additional pivot for every 30" of door height or fraction thereof.

**REDUCED OPENING FORCE INSTALLATIONS CAUTION:** Manual door closers, including closers certified to conform to BHMA/ANSI Standard A156.4, when installed and adjusted to conform to ADA or other reduced opening force requirements, may not provide sufficient power to reliably close and latch a door.

Refer to catalog for information on ED800 Low Energy Operator to meet reduced opening force requirements without affecting closing power.



The quality management system at the Reamstown, PA facility is certified to ISO-9001.\*



\*DORMA Door Controls Inc., dba: DORMA Architectural Hardware

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