



**Corrosion-Resistant  
Door Closers**

# **DORMA STA**

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**Technical Drawing (Symbols and Notes)**

**REDUCED OPENING FORCE INSTALLATIONS CAUTION:**  
Manual door closers, including closers certified to conform to ANSI/BHMA 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.

**NOTE:** The 8900 and 8600 **backcheck positioning** adjustment is specifically designed for parallel arm applications. It advances the backcheck to an approximate ANSI range similar to regular and top jamb applications. The backcheck range(s) within each parallel arm technical drawing reflect an **on** status. Regular and top jamb ranges reflect an **off** status. STA 8900 and STA 8600 Series closers are shipped with the backcheck positioning valve off.

- – Recommended application
- N/A – Not applicable / application not recommended
- ♿ – Opening force 5 lb or less on interior doors; 8.5 lb or less on exterior doors where door without closer attached requires 1/2 lb opening force or less.

**How to Order**

**Spring Size**

<b>Model</b> Stainless-All exposed components are corrosion resistant	Adjustable 5-6 (8956)	56	<b>Arm Type</b> Round Form Non-Hold Open Stainless, Tri-Pack	Delay	Round Form Non-Hold Open Stainless, Reg./TJ 0"-4" Reveal	<b>Fastener Pack</b>	SN2 – Sex Nuts 1-3/4" SN1 – Sex Nuts 1-3/8"
	Adjustable 3-6 (7436)	36					
	Adjustable 1-6 (8916/8616)	16					
	Adjustable 1-4 (7414)	14					

**Series**

STA	74	14	DA	ARP	AR	SN1	689
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**Cover**

7400	74	Full Metal Stainless Cover	FMC	630	Satin Stainless
8600	86	Full Plastic Slotted Cover	FCSL	600	Primed
8900	89	Full Plastic Cover	FC	689	Aluminum
		Slim Plastic Cover	COV	690	Dark (Statuary) Bronze
				691	Light (Dull) Bronze
				693	Black
				695	Dark (Duranodic) Bronze
				696	Satin Brass (Gold)

**Architectural Finish (STA FMC only)**

**Painted**

**NOTE:** Because STA is specified in the beginning of the model description, it does not need to be specified at the component level.

**Example:** STA7414 ARP FC SN1 689

## The DORMA STA 8900 Series surface closers combine the versatility and flexibility of the popular 8900 Series with maximum corrosion-resistance.

Ideal for use in severe climate conditions, or where there is exposure to corrosive environments. Recommended applications include seashore and swimming pool areas, offshore oil rigs, ships, chemical plants, sewage treatment facilities, or anywhere rust and corrosion present a problem.

### Technical Details:

- Ideal for corrosive environments.
- Available as 8916/8956 closers for interior or exterior doors. Meets barrier-free requirements (adjustable size 1–6 or 5–6 +50%).
- Non-handed for regular, top jamb, and parallel arm applications.
- Backcheck standard. Controls opening motion during abusive or abrupt openings.
- Backcheck positioning valve standard. Maintains effective backcheck range on parallel arm applications. Valve is accessible with closer installed.
- Optional delayed action adjustable with a separate valve.
- Corrosion-resistant aluminum closer body.
- Stainless steel fasteners — all standard.
- Furnished with wood screws and machine screws.
- Stainless steel pinion.
- Stainless steel spring adjusting screw.
- Stainless steel arm assembly.
- Stainless steel parallel arm bracket (specify P).
- Plastic full cover (FC).
- Optional stainless steel full cover (STA FMC) or full plastic slotted cover (FCSL).
- Available in non-hold open applications only.

### Certification:

The DORMA STA 8900 Series is listed by U.L. and C.U.L. under their continuing reinspection programs. The STA 8900 Series is certified to conform to the requirements of ANSI/BHMA A156.4 Grade 1. Meets the requirements for UL10C and UBC 7.2 (1997) for positive pressure. MEA and California State Fire Marshall (CSFM) approved. The STA 8916 meets the standards of ANSI/BHMA A117.1 for barrier-free accessibility.



The quality management system at the Reamstown, PA facility is certified to ISO-9001:2008.\*



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



### Specification:

All closers shall be DORMA STA 8900 Series corrosion-resistant units. The closers will have aluminum alloy bodies with high compression steel springs and hardened piston racks. The closer pinion shall be stainless steel. All closers shall have a hydraulic backcheck to prevent uncontrolled opening of the door from 60°. All STA 8916 closers shall have adjustable spring power sizes 1–6 capable of compliance with barrier-free code restrictions and shall have adjustability to meet on site conditions. The 8956 shall have adjustable spring power sizes 5–6 +50% additional closing force over size 6. The regular arm assembly, main arm, adjustment arm, and rod and shoe shall be constructed of stainless steel. Closers and related components shall be finished with a prime coat and color top coat.

### Optional Specifications:

All closers to be furnished with stainless steel full covers or slotted plastic full covers.  
All closers to have delayed action to provide delayed closing for unrestricted egress. The delayed action valve functions and adjusts independently of all other valves.

### Standard Sprayed Finishes:

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

### Optional Finishes:

Stainless: 630 (Satin).

NOTE: Satin stainless steel finishes must be ordered with full metal cover (FMC) option.

## The DORMA STA 8600 Series surface closers combine the versatility and flexibility of the popular 8600 Series with maximum corrosion-resistance.

Ideal for use in severe climate conditions, or where there is exposure to corrosive environments. Recommended applications include seashore and swimming pool areas, offshore oil rigs, ships, chemical plants, sewage treatment facilities, or anywhere rust and corrosion present a problem.

### Technical Details:

- Ideal for corrosive environments.
- ♿ Available as 8616 closers for interior or exterior doors. Meets barrier-free requirements (adjustable size 1–6).
- Non-handed for regular, top jamb, and parallel arm applications.
- Backcheck standard. Controls opening motion during abusive or abrupt openings.
- Backcheck positioning valve standard. Maintains effective backcheck range on parallel arm applications. Valve is accessible with closer installed.
- Optional delayed action adjustable with a separate valve.
- Corrosion-resistant aluminum closer body.
- Stainless steel fasteners — all standard.
- Furnished with wood screws and machine screws.
- Stainless steel pinion.
- Stainless steel spring adjusting screw.
- Stainless steel arm assembly.
- Stainless steel parallel arm bracket (specify P).
- Plastic dust cap.
- Plastic slim style cover (COV).
- Optional stainless steel full cover (STA FMC), plastic full cover (FC), or full plastic slotted cover (FCSL).
- Available in non-hold open applications only.

### Certification:

The DORMA STA 8600 Series is listed by U.L. and C.U.L. under their continuing reinspection programs. The STA 8600 Series is certified to conform to the requirements of ANSI/BHMA A156.4 Grade 1. Meets the requirements for UL10C and UBC 7.2 (1997) for positive pressure. MEA and California State Fire Marshall (CSFM) approved. The STA 8616 meets the standards of ANSI/BHMA A117.1 for barrier-free accessibility.



The quality management system at the Reamstown, PA facility is certified to ISO-9001:2008.\*



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



### Specification:

All closers shall be DORMA STA 8600 Series corrosion-resistant units. The closers will have aluminum alloy bodies with high compression steel springs and hardened piston racks. The closer pinion shall be stainless steel. All closers shall have a hydraulic backcheck to prevent uncontrolled opening of the door from 60°. All STA 8616 closers shall have adjustable spring power sizes 1–6 capable of compliance with barrier-free code restrictions and shall have adjustability to meet on site conditions. The regular arm assembly, main arm, adjustment arm, and rod and shoe shall be constructed of stainless steel. Closers and related components shall be finished with a prime coat and color top coat.

### Optional Specifications:

All closers to be furnished with stainless steel full covers or plastic full covers.

All closers to have delayed action to provide delayed closing for unrestricted egress. The delayed action valve functions and adjusts independently of all other valves.

### Standard Sprayed Finishes:

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

### Optional Finishes:

Stainless: 630 (Satin).

NOTE: Satin stainless steel finishes must be ordered with full metal cover (FMC) option.

## The DORMA STA 7400 Series surface closers combine the versatility and flexibility of the popular 7400 Series with maximum corrosion-resistance.

Ideal for use in severe climate conditions, or where there is exposure to corrosive environments. Recommended applications include seashore and swimming pool areas, offshore oil rigs, ships, chemical plants, sewage treatment facilities, or anywhere rust and corrosion present a problem.

### Technical Details:

- Ideal for corrosive environments.
- ♿ Available as 7414 closers for barrier-free requirements (adjustable size 1–4).
- Available as 7436 closers for greater closing force (adjustable size 3–6).
- Non-handed for regular, top jamb, and parallel arm applications.
- Backcheck standard. Controls opening motion during abusive or abrupt openings.
- Optional delayed action adjustable with a separate valve.
- Corrosion-resistant aluminum closer body.
- Stainless steel fasteners — all standard.
- Furnished with wood screws and machine screws.
- Stainless steel pinion.
- Stainless steel spring adjusting screw.
- Stainless steel arm assembly.
- Stainless steel parallel arm bracket (specify P).
- Plastic dust cap.
- Optional stainless steel full cover (STA FMC), plastic full cover (FC), full plastic slotted cover (FCSL), or plastic slim style cover (COV).
- Available in non-hold open applications only.

### Certification:

The DORMA STA 7400 Series is listed by U.L. and C.U.L. under their continuing reinspection programs. The STA 7400 Series is certified to conform to the requirements of ANSI/BHMA A156.4 Grade 1. Meets the requirements for UL10C and UBC 7.2 (1997) for positive pressure. MEA and California State Fire Marshall (CSFM) approved. The STA 7400 meets the standards of ANSI/BHMA A117.1 for barrier-free accessibility.



The quality management system at the Reamstown, PA facility is certified to ISO-9001:2008.\*



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



### Specification:

All closers shall be DORMA STA 7400 Series corrosion-resistant units. The closers will have aluminum alloy bodies with high compression steel springs and hardened piston racks. The closer pinion shall be stainless steel. All closers shall have a hydraulic backcheck to prevent uncontrolled opening of the door from 60°. All STA 7414 closers shall have adjustable spring power sizes 1–4 to meet on site conditions and shall be capable of compliance with barrier-free code restrictions. All STA 7436 closers shall have adjustable spring power from sizes 3–6 to meet on site conditions. The regular arm assembly, main arm, adjustment arm, and rod and shoe shall be constructed of stainless steel. Closers and related components shall be finished with a prime coat and color top coat.

### Optional Specifications:

All closers to be furnished with stainless steel full covers, plastic full covers, or plastic slim style covers.

All closers to have delayed action to provide delayed closing for unrestricted egress. The delayed action valve functions and adjusts independently of all other valves.

### Standard Sprayed Finishes:

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

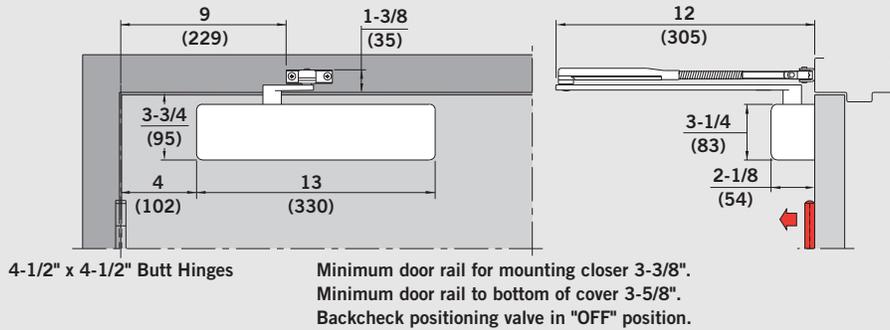
### Optional Finishes:

Stainless: 630 (Satin).

NOTE: Satin stainless steel finishes must be ordered with full metal cover (FMC) option.

## Regular x Round Form Arm

STA 8916 AR  
STA 8956 AR



### Size Selection Chart

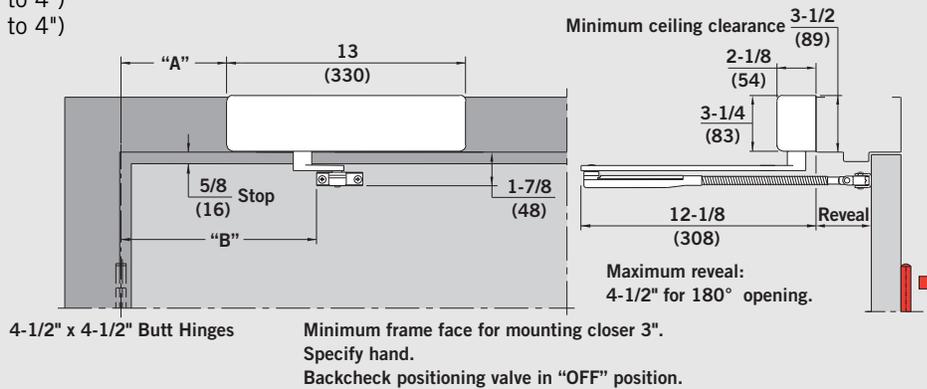
CLOSER	INTERIOR/ EXTERIOR	DOOR WIDTH						
		2'-0" min.	2'-6" max.	3'-0" max.	3'-6" max.	4'-0" max.	4'-6" max.	5'-0" max.
STA 8916	INTERIOR	•	•	⊗	⊗	⊗	⊗	N/A
	EXTERIOR	•	•	⊗	⊗	⊗	N/A	N/A
STA 8956	INTERIOR	N/A	N/A	N/A	N/A	•	•	•
	EXTERIOR	N/A	N/A	N/A	•	•	•	N/A

MAXIMUM OPENING	APPROX. BACKCHECK*	APPROX. DELAYED ACTION
180°	65°-180°	180°-65°

\* Backcheck is advanced approximately 15° with positioning valve on.

## Top Jamb x Round Form Arm

STA 8916 AR (0" to 4")  
STA 8956 AR (0" to 4")



### Size Selection Chart

CLOSER	INTERIOR/ EXTERIOR	DOOR WIDTH						
		2'-0" min.	2'-6" max.	3'-0" max.	3'-6" max.	4'-0" max.	4'-6" max.	5'-0" max.
STA 8916	INTERIOR	•	•	⊗	⊗	⊗	⊗	N/A
	EXTERIOR	•	•	⊗	⊗	⊗	N/A	N/A
STA 8956	INTERIOR	N/A	N/A	N/A	N/A	•	•	•
	EXTERIOR	N/A	N/A	N/A	•	•	•	N/A

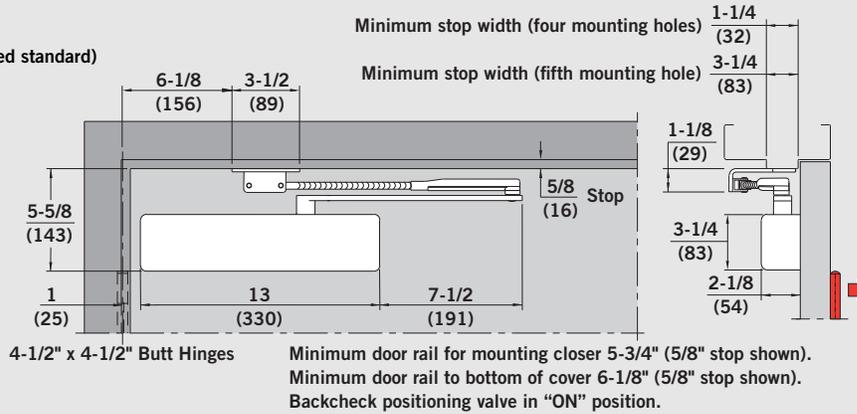
TEMPLATE REFERENCE	DIM "A"	DIM "B"	REVEAL	ARM	APPROX. MAXIMUM OPENING	APPROX. BACKCHECK*	APPROX. DELAYED ACTION
TO 100°	5-3/4" (146)	12-3/8" (314)	0"	AR	115°	70°-115°	115°-60°
	4"	4"	4"	AR	120°	75°-120°	120°-70°
OVER 100°	1-3/4" (44)	8-3/8" (213)	0"	AR	180°	85°-180°	180°-80°
	4"	4"	4"	AR	180°	95°-180°	180°-95°

\* Backcheck is advanced approximately 15° with positioning valve on.

## Parallel Arm x Round Form Arm

STA 8916 ARP  
STA 8956 ARP

(STA P86 bracket furnished standard)

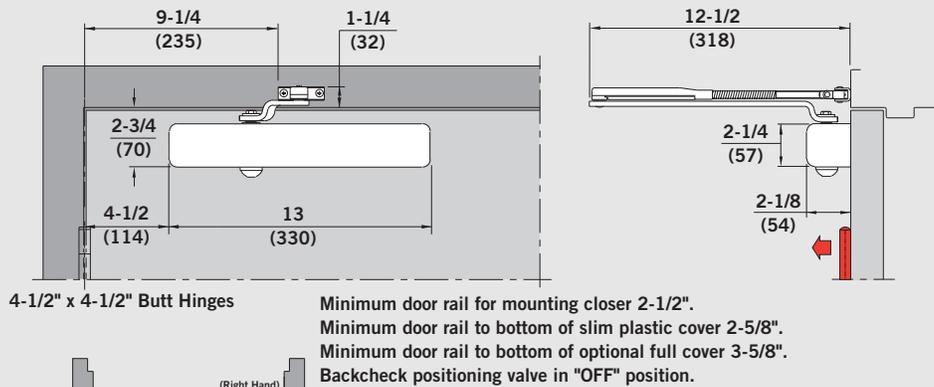


### Size Selection Chart

CLOSER	INTERIOR/ EXTERIOR	DOOR WIDTH						MAXIMUM OPENING	APPROX. BACKCHECK	APPROX. DELAYED ACTION	MINIMUM DOOR WIDTH
		2'-0" min.	2'-6" max.	3'-0" max.	3'-6" max.	4'-0" max.	4'-6" max.				
STA 8916	INTERIOR	•	•	♿	♿	♿	N/A	180°	60°-180°	180°-70°	24"
	EXTERIOR	•	•	♿	♿	N/A	N/A				
STA 8956	INTERIOR	N/A	N/A	N/A	•	•	•	180°	60°-180°	180°-70°	24"
	EXTERIOR	N/A	N/A	•	•	•	N/A				

## Regular x Round Form Arm

STA 8616 AR



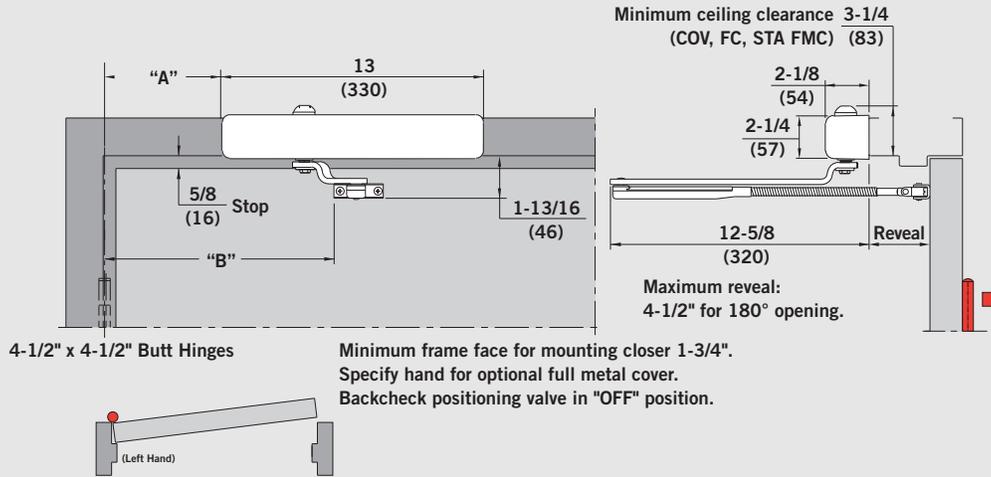
### Size Selection Chart

CLOSER	INTERIOR/ EXTERIOR	DOOR WIDTH					MAXIMUM OPENING	APPROX. BACKCHECK*	APPROX. DELAYED ACTION
		2'-0" min.	2'-6" max.	3'-0" max.	3'-6" max.	4'-0" max.			
STA 8616	INTERIOR	•	•	♿	•	•	180°	65°-180°	180°-65°
	EXTERIOR	•	•	♿	•	•			

\* Backcheck is advanced approximately 15° with positioning valve on.

## Top Jamb x Round Form Arm

STA 8616 AR (0" to 4" reveal)



### Size Selection Chart

CLOSER	INTERIOR/ EXTERIOR	DOOR WIDTH			
		2'-0" min.	2'-6" max.	3'-0" max.	3'-6" max.
STA 8616	INTERIOR	•	•	•	•
	EXTERIOR	•	•	•	•

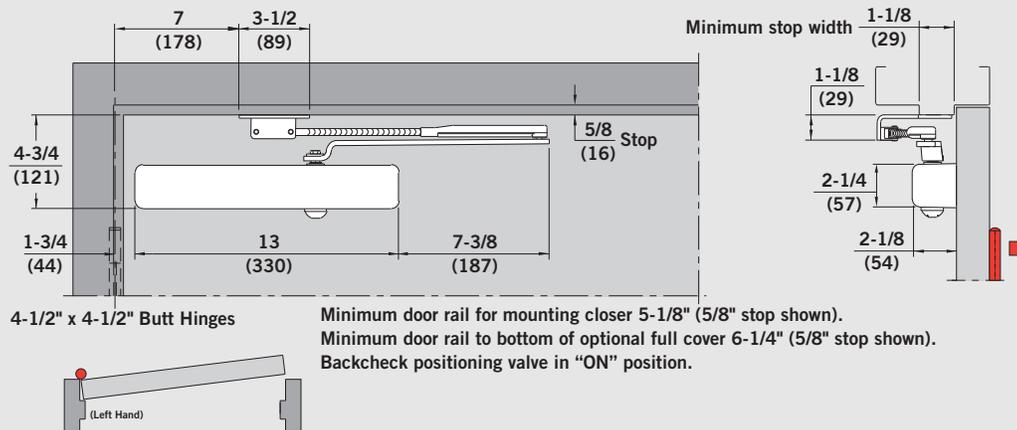
TEMPLATE REFERENCE	DIM "A"	DIM "B"	REVEAL	ARM	APPROX. MAXIMUM OPENING	APPROX. BACKCHECK*	APPROX. DELAYED ACTION
TO 180°	4-1/2" (114)	9-1/4" (235)	0"	AR	180°	70°-180°	180°-70°
			4"	AR	180°	75°-180°	180°-75°

\* Backcheck is advanced approximately 15° with positioning valve on.

## Parallel Arm x Round Form Arm

STA 8616 ARP

(STA P86 bracket furnished standard)



### Size Selection Chart

CLOSER	INTERIOR/ EXTERIOR	DOOR WIDTH			
		2'-0" min.	2'-6" max.	3'-0" max.	3'-6" max.
STA 8616	INTERIOR	•	•	•	•
	EXTERIOR	•	•	•	•

MAXIMUM OPENING	APPROX. BACKCHECK	APPROX. DELAYED ACTION	MINIMUM DOOR WIDTH
180°	60°-180°	180°-75°	24"

## Regular x Round Form Arm

STA 7414 AR  
STA 7436 AR

4-1/2" x 4-1/2" Butt Hinges

Minimum door rail for closer 2-1/2".  
Minimum door rail to bottom of slim plastic cover 2-5/8".  
Minimum door rail to bottom of optional full plastic cover 3-5/8".

(Right Hand)

**Size Selection Chart**

CLOSER	INTERIOR/ EXTERIOR	DOOR WIDTH					TEMPLATE REFERENCE	DIM "A"	DIM "B"	APPROX. MAXIMUM OPENING	APPROX. BACKCHECK	APPROX. DELAYED ACTION
		2'-0" min.	2'-6" max.	3'-0" max.	3'-6" max.	4'-0" max.						
STA 7436	INTERIOR	N/A	N/A	•	•	•	TO 180°	4-5/8" (117)	9-1/4" (235)	180°	65°-180°	180°-65°
	EXTERIOR	N/A	•	•	♿	♿						
STA 7414	INTERIOR	•	•	♿	♿	N/A						
	EXTERIOR	•	•	♿	N/A	N/A						

## Top Jamb x Round Form Arm

STA 7414 AR (0" to 4" reveal)  
STA 7436 AR (0" to 4" reveal)

4-1/2" x 4-1/2" Butt Hinges

Minimum frame face for closer 1-3/4".  
Specify hand for optional full plastic cover.

Minimum ceiling clearance 3-1/4 (82)  
(No cover, COV, FCOV)

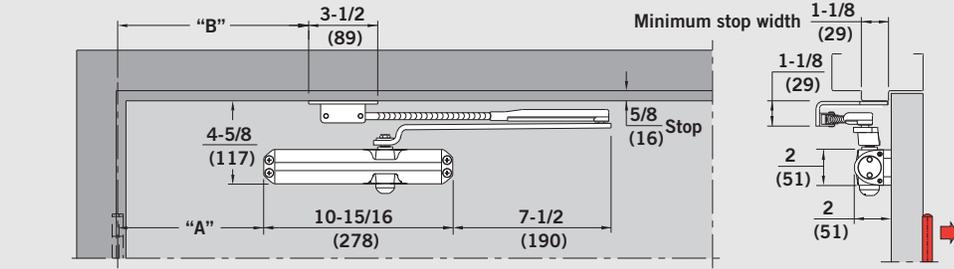
(Left Hand)

**Size Selection Chart**

CLOSER	INTERIOR/ EXTERIOR	DOOR WIDTH					TEMPLATE REFERENCE	DIM "A"	DIM "B"	REVEAL	ARM	APPROX. MAXIMUM OPENING	APPROX. BACKCHECK	APPROX. DELAYED ACTION
		2'-0" min.	2'-6" max.	3'-0" max.	3'-6" max.	4'-0" max.								
STA 7436	INTERIOR	N/A	N/A	•	•	•	OVER 120°	4-5/8" (117)	9-1/4" (235)	0"	AR	180°	70°-180°	180°-60°
	EXTERIOR	N/A	•	•	♿	♿				4"	AR	180°	75°-180°	180°-70°
STA 7414	INTERIOR	•	•	♿	♿	N/A								
	EXTERIOR	•	•	♿	N/A	N/A								

# Parallel Arm x Round Form Arm

STA 7414 ARP  
 STA 7436 ARP  
 (STA P86 bracket furnished standard)

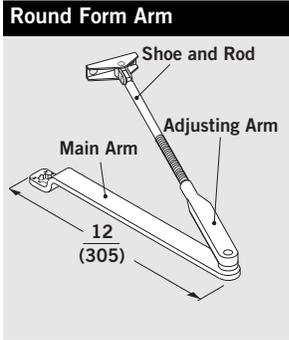


4-1/2" x 4-1/2" Butt Hinges      Minimum door rail mounting closer 5-1/8" (5/8" stop shown).  
 Minimum door rail to bottom of optional slim plastic cover 5-1/4" (5/8" stop shown).  
 Minimum door rail to bottom of optional full plastic cover 6-1/4" (5/8" stop shown).



### Size Selection Chart

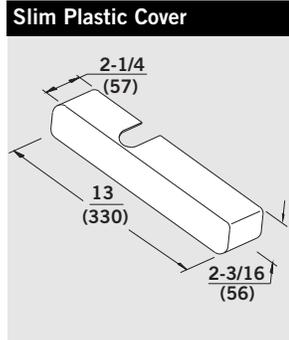
CLOSER	INTERIOR/ EXTERIOR	DOOR WIDTH			TEMPLATE REFERENCE	DIM "A"	DIM "B"	APPROX. MAXIMUM OPENING	APPROX. BACKCHECK	APPROX. DELAYED ACTION	MINIMUM DOOR WIDTH
		2'-6" max.	3'-0" max.	3'-6" max.							
STA 7436	INTERIOR	•	•	•	TO 180°	3-5/8" (92)	7" (178)	180°	75°-180°	180°-75°	26"
	EXTERIOR	•	♿	♿							
STA 7414	INTERIOR	•	♿	N/A							
	EXTERIOR	•	N/A	N/A							



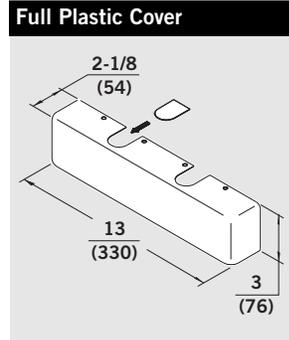
**STA AR** — Complete stainless steel arm assembly (0"-4" [0 mm–102 mm] reveal) with 10 mm rod. Arm is non-handed.

**STA ARP** — Parallel round form stainless steel arm complete (Tri-Pack) (0"-4" [0 mm–102 mm] reveal). STA P86 included.

**STA AMR04** — Regular non-hold open stainless steel main arm and adjusting arm. Accepts 10 mm rod.

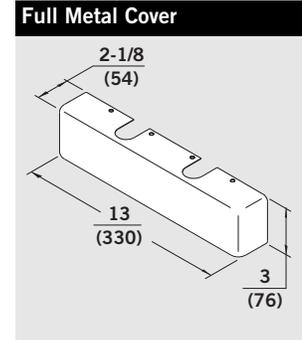


**COV** — Slim plastic cover furnished standard with STA 8600 Series closers.

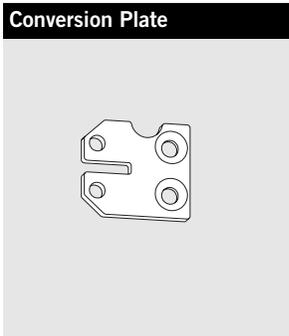


**FC** — Full plastic cover with interchangeable tab furnished standard with STA 8900 Series closers.

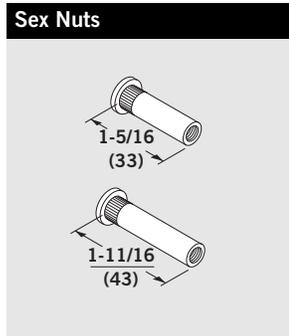
**FCSL** — Full plastic slotted cover with interchangeable tab. Mounting holes slotted for low ceiling conditions.



**STA FMC** — Full stainless steel metal cover. Specify hand for top jamb applications.

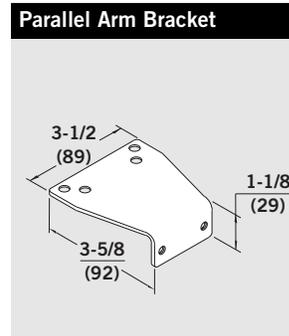


**STA BP640C** — For regular, top jamb, or parallel arm mounts. Permits replacement of existing 642–646/641/640 STA Series closers with STA 7400 Series closers. Eliminates the need to remachine the door and frame. Totally concealed when installed. Uses all stainless steel fasteners.



**SNB1** — Sex nuts for 1-3/4" (44 mm) door.

**SNB2** — Sex nuts for 1-3/8" (35 mm) door. Required for use on unreinforced doors and wood or composite labeled fire doors for securely attaching hardware to the door.



**STA P86** — Furnished standard with STA 8900/8600/7400 ARP closers for parallel arm applications.



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