

9500 SERIES

Cast Iron Door Closer



Norton[®]
ASSA ABLOY

ASSA ABLOY, the global leader
in door opening solutions

INTRODUCTION

Ideal for high use openings, the Norton 9500 Series Cast Iron door closer offers the durability, flexibility and strength required to meet the needs of your facility. For interior or exterior doors, this ANSI/BHMA Grade 1 closer features a clean, modern cover aesthetic and durable cast iron body that can be used in a variety of institutional environments requiring ADA compliance.



FEATURES

- Cast iron closer body
- Clean, modern cover design featuring Norton branding
- Non-handed
- Rack-and-pinion design
- Staked valves
- 2-1/4" (57mm) projection
- 1-1/2" (38mm) diameter piston
- 5/8" (16mm) diameter pinion journals
- Closer mounting plate for easy installation
- Tri-style® packaging: packed for regular, top jamb or parallel arm mounting
- Adjustable spring sizes 1-6
- Molded ABS plastic cover
- All standard arm applications allow doors to swing 180°, conditions permitting
- Heavy-duty arms: Regular Rigid, Parallel Rigid, CloserPlus®, Parallel Rigid Offset and Unitrol®
- Slide Tracks: push or pull side mounting
- Metal covers (optional)
- 25 year limited warranty
- Exceeds 25 million cycles (witnessed and verified by U.L.)

FUNCTIONS

- Standard, separate and independent, latch, sweep and backcheck intensity valves
- Pressure relief valves for both opening and closing cycles protect the door and frame from damage and reduces maintenance costs
- Delayed Action (optional)

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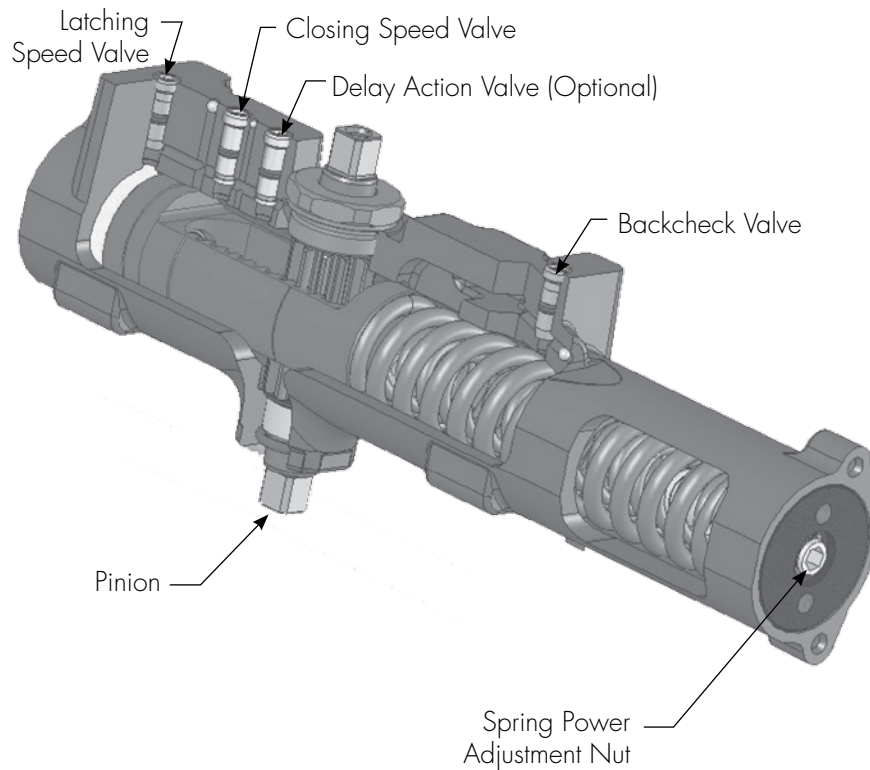
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OVERVIEW



CERTIFICATIONS

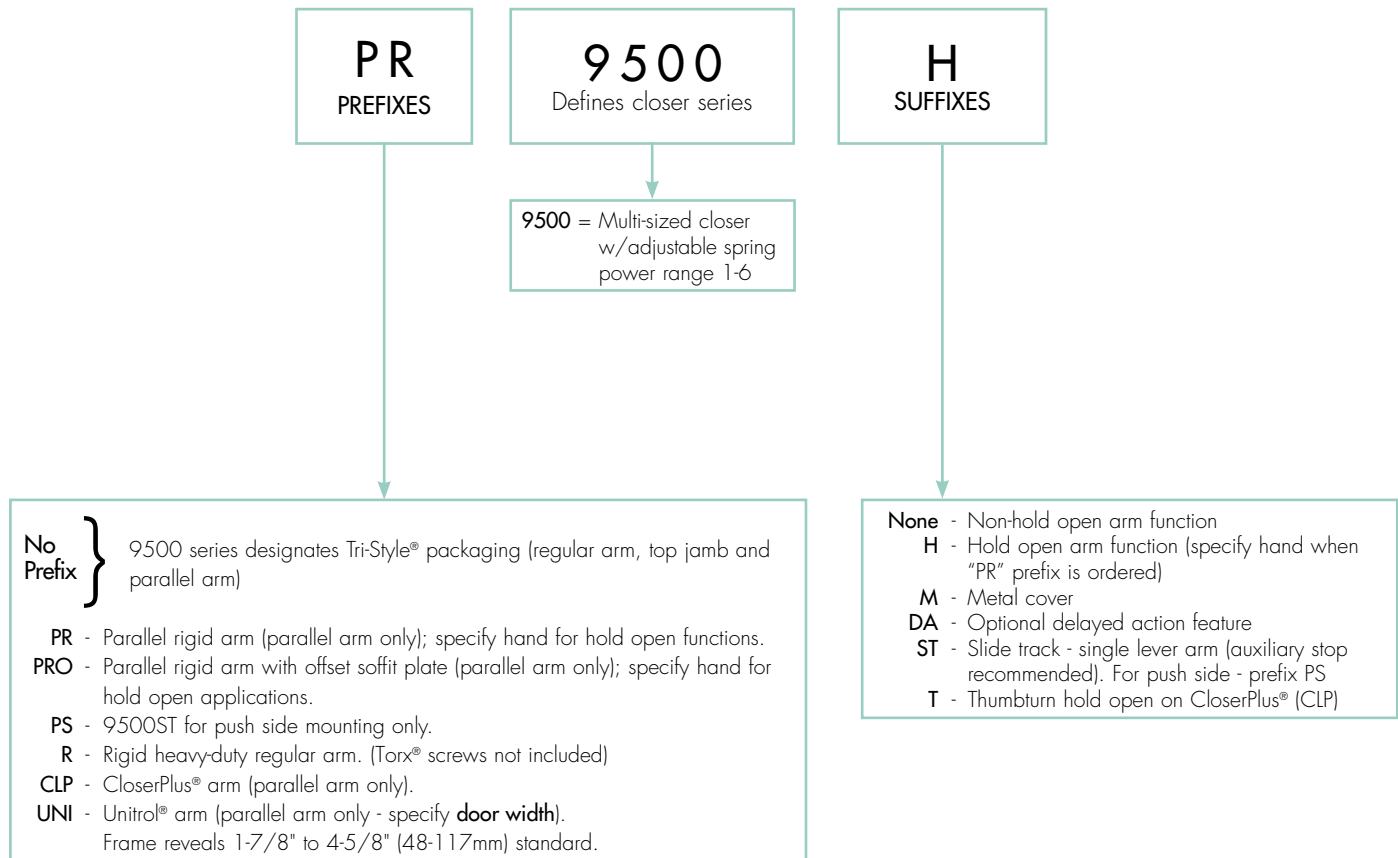
- ANSI/BHMA A156.4, Grade 1 certified 
- UL / cUL listed for use on fire rated doors 
- UL10C listed for positive pressure fire test
- Comply with requirements for the Americans with Disabilities Act (A.D.A) and ANSI standard A117.1 
- This product is manufactured in an ISO 9001 facility

CAUTION: Door Closers for Low Opening Force Applications:

Door closers installed in openings required to meet the requirements of the Americans with Disabilities Act or ANSI/BHMA Standard A117.1, when adjusted to meet those requirements, may not provide adequate closing power to dependably close and latch the door.

HOW TO ORDER

NOTE: For optimum protection of door and frame assemblies, always use auxiliary wall, floor, or overhead door stop.



Notes:

- Door closer warranty becomes void if it is installed on the exterior side of a door in the exterior wall of a building
- It is strongly recommended, and it is required on fire door assemblies, that doors having a door closer be hung on ball-bearing or anti-friction hinges or pivots
- Failure to use the provided type and size fasteners may void factory warranty
- Fasteners for fire/smoke door assemblies must conform to NFPA 80. In some applications additional fasteners may be mandated by NFPA 80 that are not shipped with Norton's standard product.

9500 SERIES

CAST IRON DOOR CLOSER

FASTENERS

Self drilling screws (for properly reinforced wood and metal doors) are supplied standard.

Sleeve nuts and bolts (SNB) are supplied standard with Parallel Rigid, CloserPlus® and Unitrol® arms and Slide Track (push and pull) closers. SNB's are optional for Tri-Style® packed closers (Regular, Top Jamb and Parallel arms).

Torx® machine screws are optional for all 9500 series.

FINISHES

Norton offers waterborne acrylic, polyester powder coat and plated finishes. Custom finishes are available on special order. A sample and approval is required.

Waterborne acrylic and polyester powder coat will withstand 100 hours of salt spray (ANSI requires 25 hours).

ANSI/BHMA	Description
600*	Prime Coat
605	Bright Brass
606	Satin Brass
611	Bright Bronze
612	Satin Bronze
613E	Dark Oxidized Satin Bronze - Equivalent
619	Satin Nickel
625	Bright Chrome
626	Satin Chrome
689	Aluminum
690	Statuary Bronze
691	Dull Bronze
693	Black
694	Medium Amber
696	Gold
N/A	556 White

- * 600 is a special rust-inhibiting prime coat. Closers can be ordered prime coat only (specify closer x 600). An additional charge applies if finish coat is required over prime coat.
- Norton closer bodies and plastic covers are available in waterborne acrylic finishes. Arms and metal covers are available in powder coat or plated finishes.
- When a plated finish is ordered, arm and cover will be plated unless "cover only" is specified.

SUGGESTED SPECIFICATIONS

Door closers shall be of full rack and pinion construction with a cold headed heat-treated steel spindle and a forged steel piston precision machined and heat treated. The case shall be of cast iron. All closers for both interior and exterior doors shall be the product of one manufacturer.

Surface closers shall be adjustable to provide sizes 1 through 6 and comply with ADA. All sizes shall be accommodated in one closer body.

Closing shall be controlled by two valves — one to control closing speed and one to control latching speed. Valves shall be concealed against unauthorized adjustment and be non-critical with "O" ring seals. Delayed action shall be available and shall be accomplished with a separate valve.

All arms shall be finely finished with heavy duty forged steel main arm. All closers shall be suitable for regular arm, top jamb, and parallel arm mounting and track type applications when provided with proper brackets and arms. Hold open and heavy duty arms are available. Closers mounted regular arm, top jamb and parallel arm shall allow for full 180° door opening, trim permitting.

Closers shall be available with an adjustable backcheck intensity valve with a safety feature that automatically relieves internal pressure when backcheck has reached the desired adjustment level. Valves shall be accessible without removing the closer from the door.

Closers shall be available with a backcheck intensity valve. Backcheck begins at approximately 70° of door opening for all applications. This valve shall be operative on regular, top jamb, parallel arm, and track type mountings.

Closer covers shall be non-handed to meet a variety of door conditions and design requirements. Closer covers shall be of high impact plastic material of flame retardant grade, secured by machine screws. Projection of the closer body from the door shall not exceed 2-1/4". Closers shall be capable of mounting on 1-3/4" top rail or inverted mounting on 1-3/4" top jamb. Metal covers shall be available. All closers with metal covers shall be available in architectural finishes to match corresponding door hardware

Closers without hold open shall be regularly furnished with power adjustment arm bracket capable of providing a 15% power adjustment.

A mounting bracket to attach the closer shall be regularly furnished.

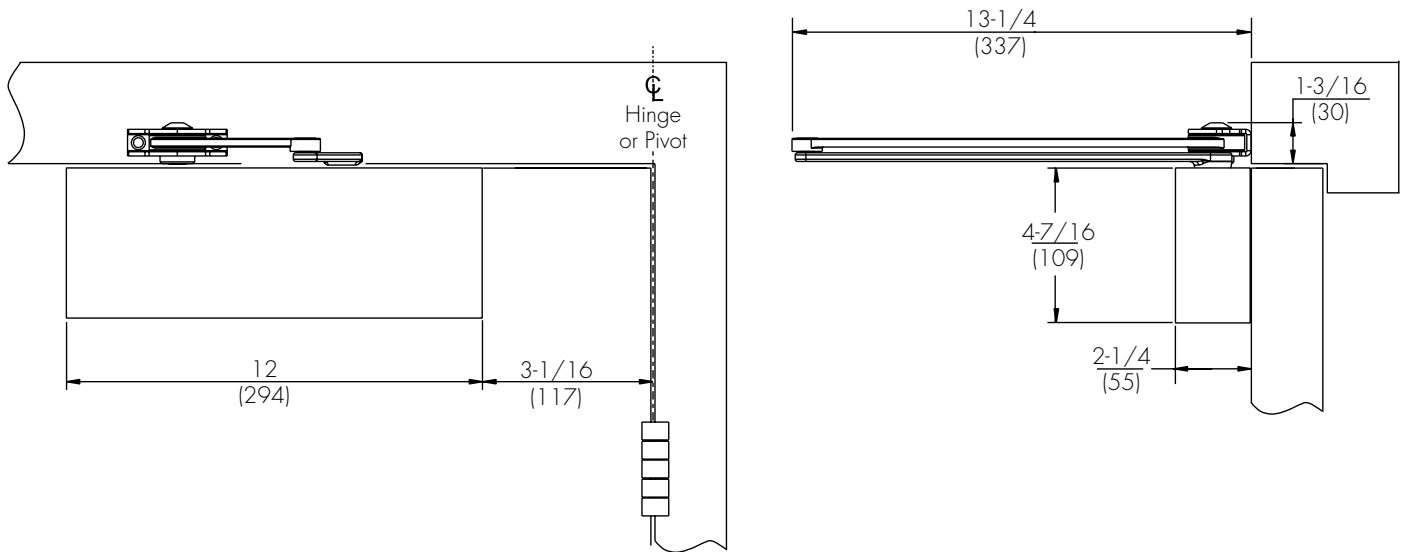
Hydraulic fluid shall be of a type requiring no seasonal valve readjustment due to extreme temperature variations.

Closer shall have a 25-year limited warranty.

Closers with non-hold open arms shall be listed by Underwriters Laboratories.

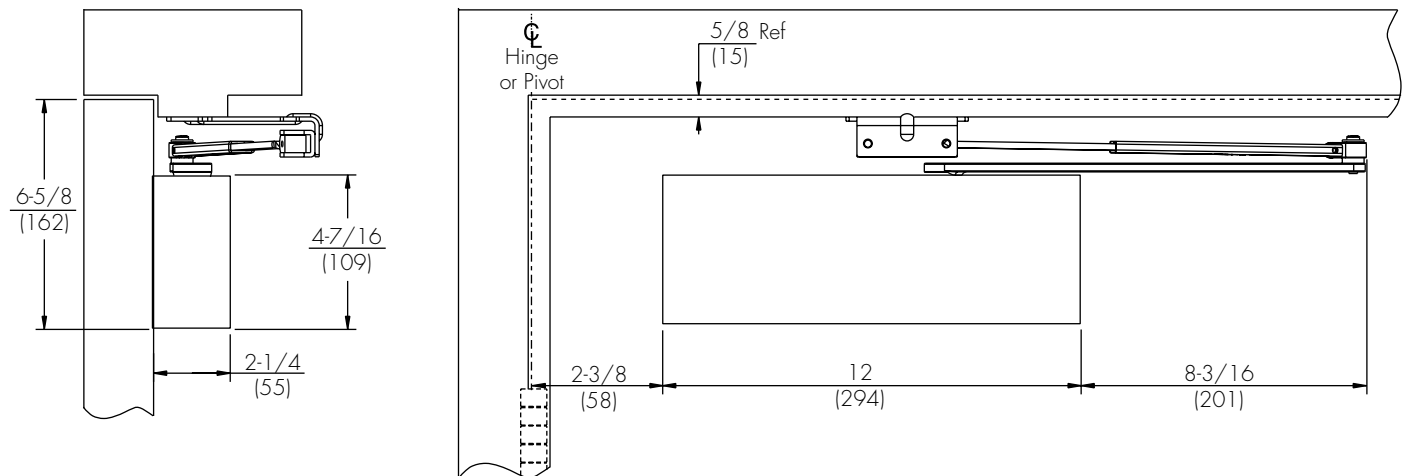
9500 SERIES CAST IRON DOOR CLOSER

TECHNICAL DETAILS - REGULAR ARM



Arm Function	Minimum Header	Minimum Top Rail	Maximum Door Swing
Non-Hold Open	1-1/2" (38)	3" (76)	180° (trim permitting)
Hold Open	1-11-16" (43)		90°-180°

TECHNICAL DETAILS - PARALLEL ARM

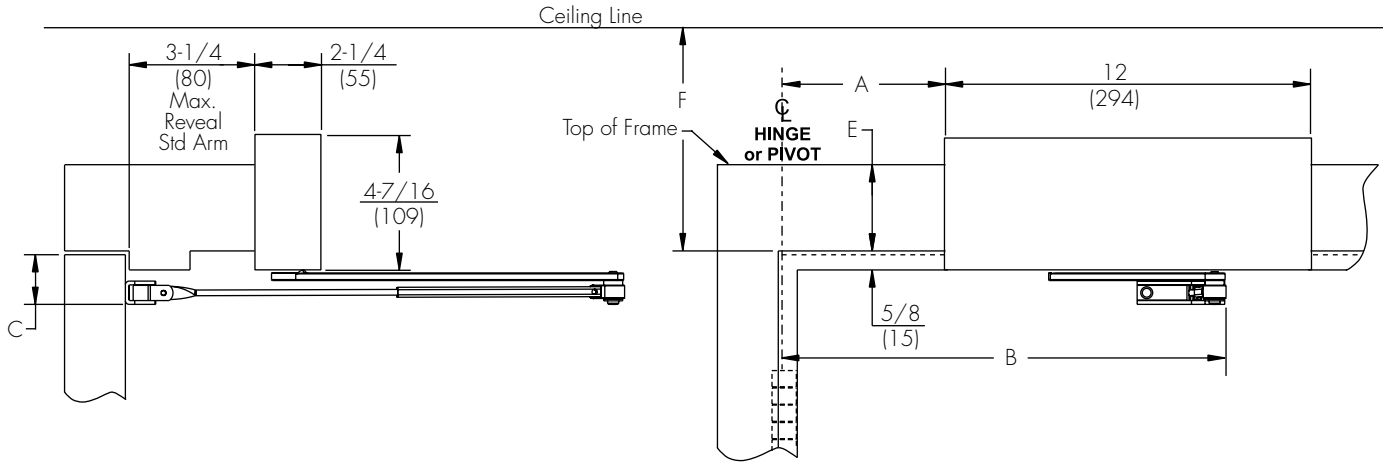


Arm Function	Minimum Top Rail
Non-Hold Open	5-1/4" (133)
Hold Open	

Notes:

- Mounting holes for mounting bracket are spaced 1" (25mm) x 10" (254mm).
- Closers are tri-packed for regular arm, parallel arm and top jamb mounting. Parallel arm bracket is included.
- Consult factory if door weight exceeds 250lbs.

TECHNICAL DETAILS - TOP JAMB



Maximum Opening	A	B	Hinge Condition
110°	7" (172)	16-1/16" (394)	Butts, Offset Pivots, and Swing Clear Hinges
140°	5-1/2" (135)	14-5/16" (351)	
180°	4" (98)	13-1/16" (320)	
140°	5-1/2" (135)	14-7/16" (354)	^Center Hung

Header Width	C Minimum Top Rail	E Header	F Ceiling Clearance
Standard	1-7/8" (48)	2-1/8" (54)	4" (102)
Narrow	2-1/4" (57)	2" (49)	3-5/8" (92)

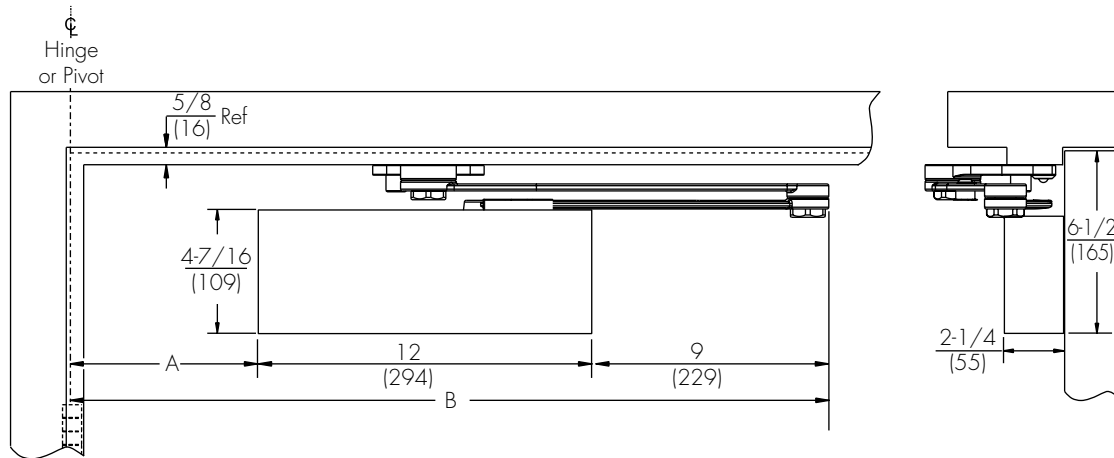
Dimensions "A" and "B" are taken from centerline of hinge as shown and apply to pivot point of swing clear hinges. Offset and center hung pivots.
 ^Must be singleacting door.

Notes:

- Mounting holes for mounting bracket are spaced 1" (25mm) x 10" (254mm).
- Closers are tri-packed for regular arm, parallel arm and top jamb mounting. Parallel arm bracket is included.
- Consult factory if door weight exceeds 250lbs.

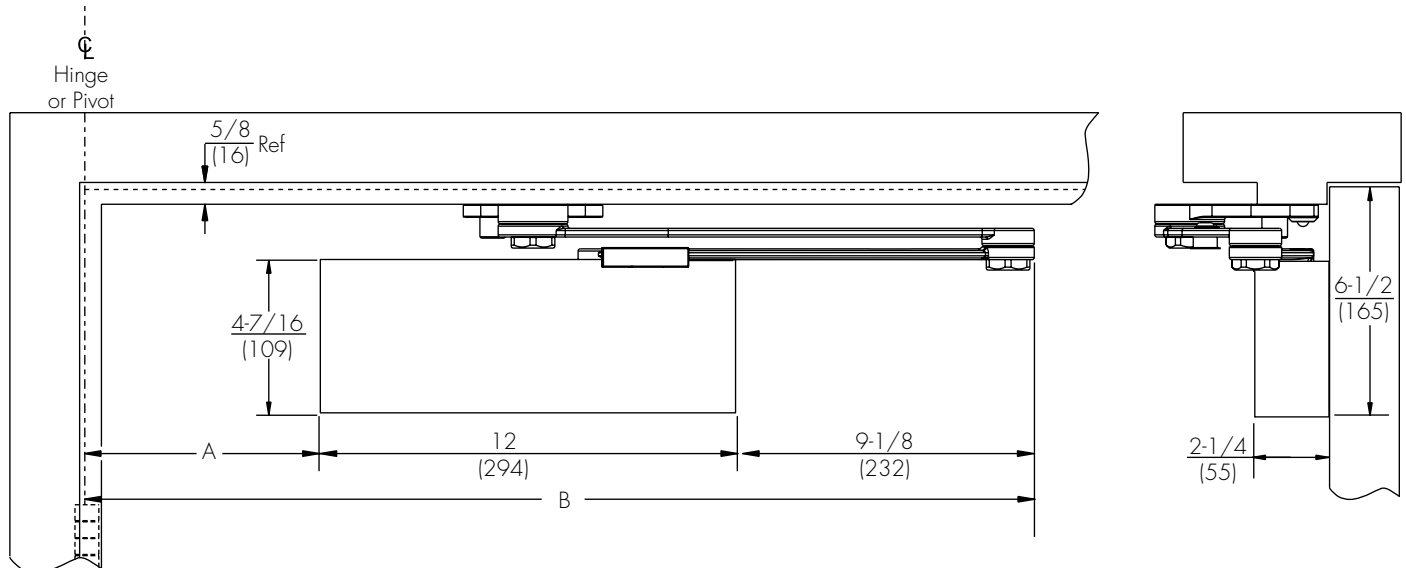
9500 SERIES CAST IRON DOOR CLOSER

TECHNICAL DETAILS - PARALLEL RIGID ARM



Maximum Opening	A	B	Minimum Top Rail
90°	6-7/8" (175)	27-7/8" (708)	5" (127)
180°	2-7/8" (73)	23-7/8" (606)	

TECHNICAL DETAILS - PARALLEL RIGID, FRICTION HOLD OPEN ARM

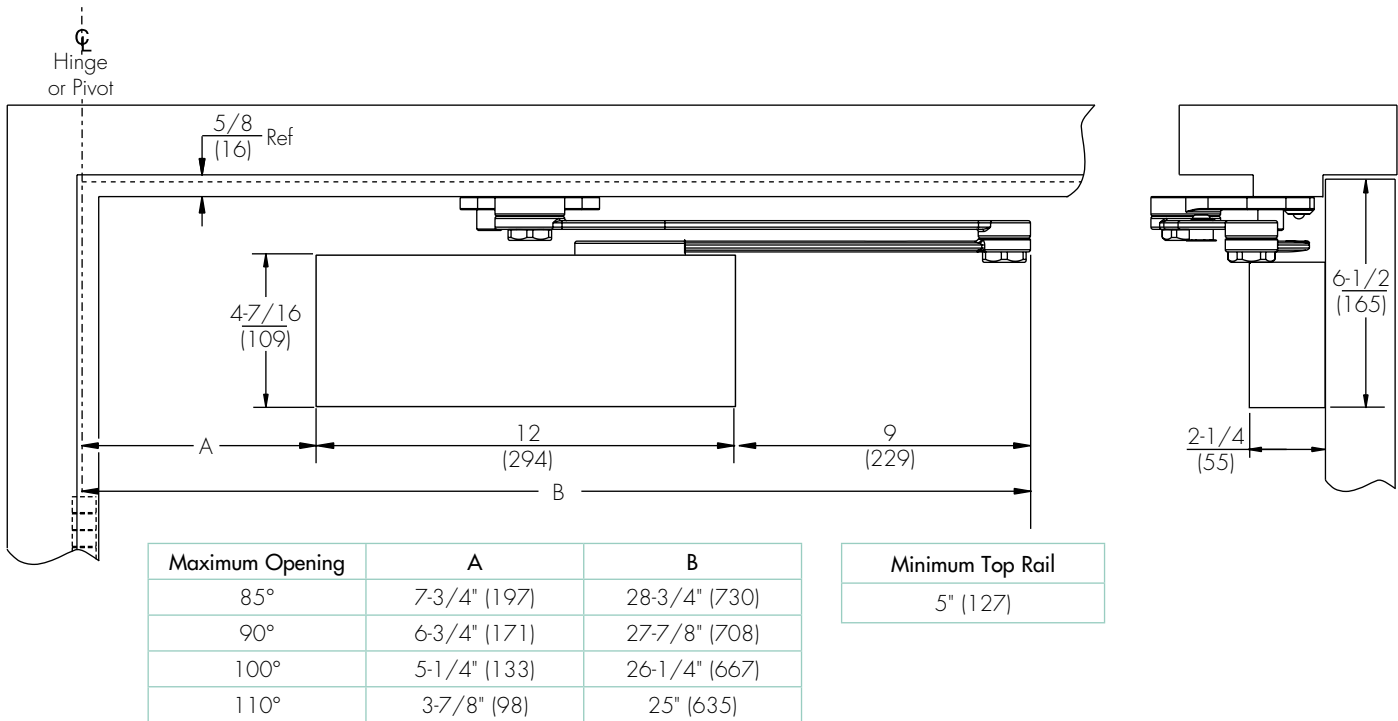


Maximum Opening	A	B	Minimum Top Rail
90°	6-1/2" (165)	27-5/8" (702)	5" (127)
180°	2-1/2" (64)	23-5/8" (600)	

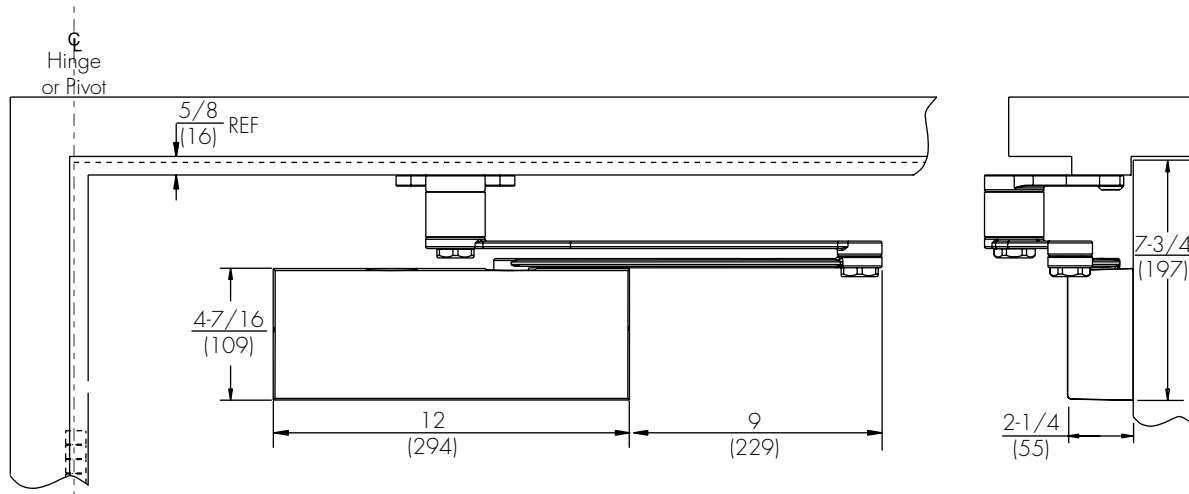
Notes:

- Mounting holes for mounting bracket are spaced 1" (25mm) x 10" (254mm).
- Consult factory if door weight exceeds 250lbs.

TECHNICAL DETAILS - CLOSERPLUS® ARM



TECHNICAL DETAILS - PARALLEL RIGID OFFSET ARM

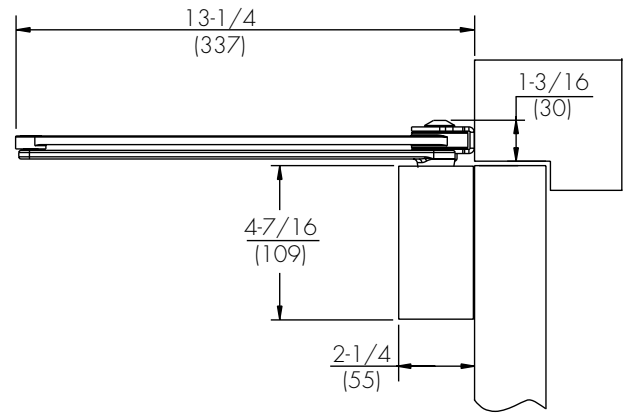
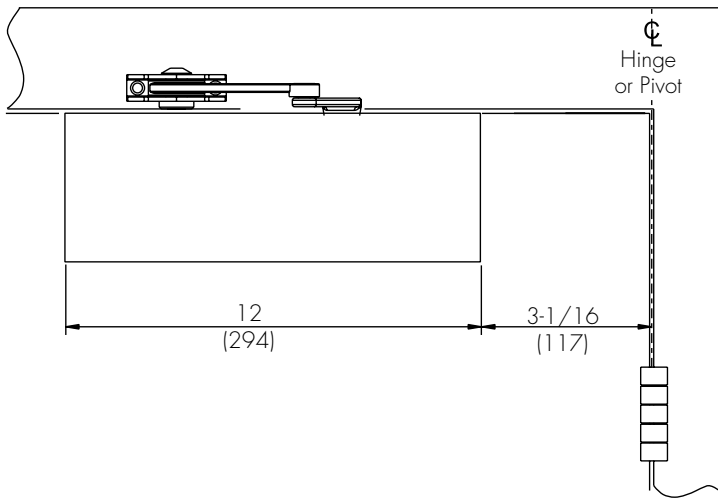


Minimum Top Rail of Door with 5/8" (16mm) Frame Stop	
Without 9500-1/2SP Spacer	With 9500-1/2SP Spacer
6-7/8" (175)	7-3/8" (187)

- Notes:**
- Mounting holes for mounting bracket are spaced 1" (25mm) x 10" (254mm).
 - Consult factory if door weight exceeds 250lbs.

9500 SERIES CAST IRON DOOR CLOSER

TECHNICAL DETAILS - REGULAR RIGID ARM

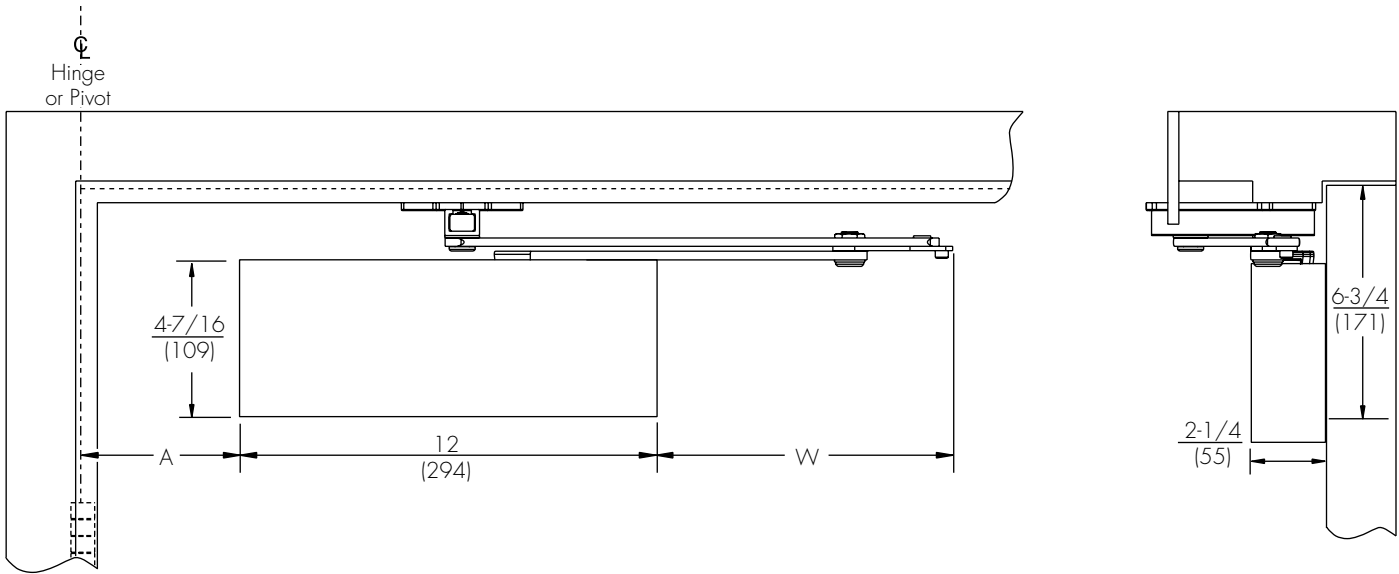


Minimum Header	Minimum Top Rail
1-5/8" (41)	3" (76)

Notes:

- Mounting holes for mounting bracket are spaced 1" (25mm) x 10" (254mm).
- Consult factory if door weight exceeds 250lbs.

TECHNICAL DETAILS - UNITROL® PARALLEL ARM



Opening		Doors 28" - 32"		Doors 33" - 41"		Doors 42" - 48"	
Hold Open	Dead Stop	A	W	A	W	A	W
85°	90°	4-3/4" (121)	8-1/2" (216)	5-3/8" (137)	10" (254)	5-7/8" (149)	11-3/8" (289)
90°	95°	4-1/4" (108)		4-7/8" (124)		5-3/8" (137)	
95°	100°	3-3/4" (95)		4-3/8" (111)		4-7/8" (124)	
100°	105°	3-3/8" (86)		3-7/8" (98)		4-3/8" (111)	
105°	110°	3" (76)		3-1/2" (89)		4" (102)	
110°	115°	2-3/4" (70)		3-1/4" (82)		3-5/8" (92)	

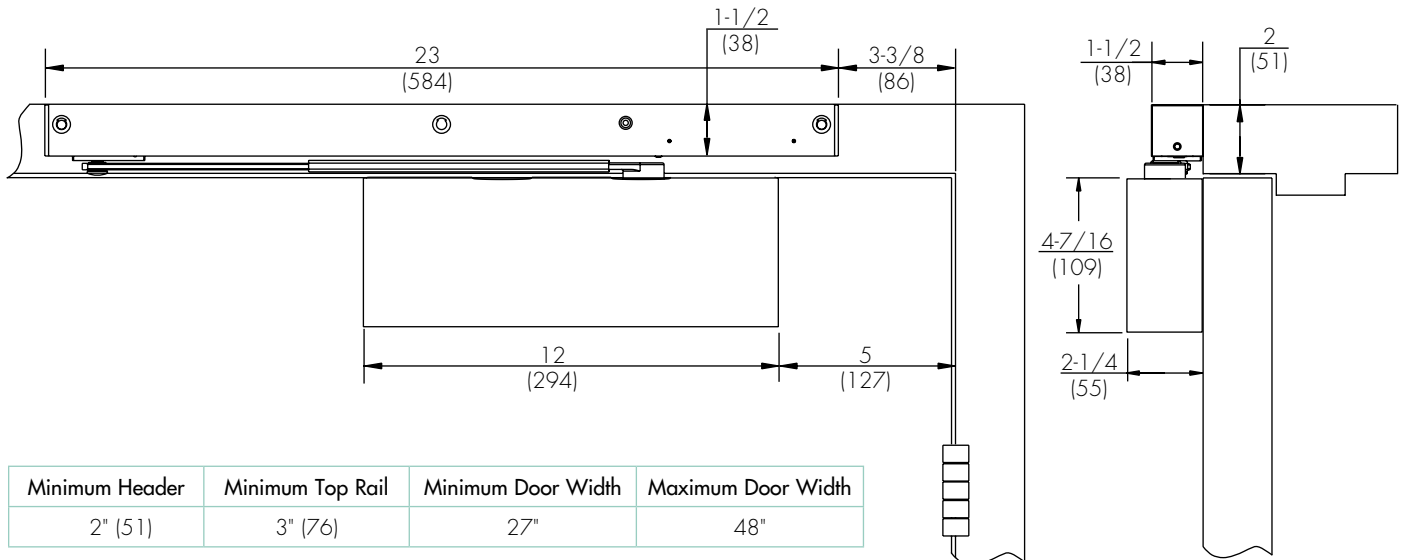
Minimum Top Rail
5" (127)

Notes:

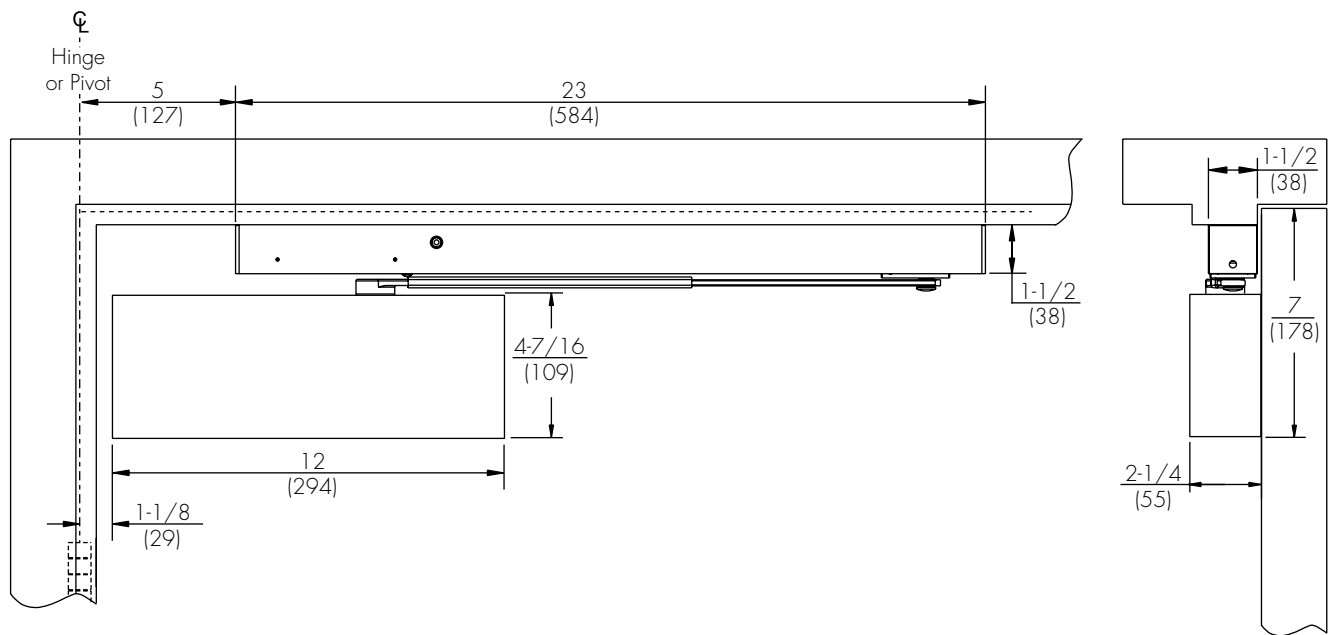
- Mounting holes for mounting bracket are spaced 1" (25mm) x 10" (254mm).
- Consult factory if door weight exceeds 250lbs.

9500 SERIES CAST IRON DOOR CLOSER

TECHNICAL DETAILS - PULL SIDE MOUNTING



TECHNICAL DETAILS - PUSH SIDE MOUNTING



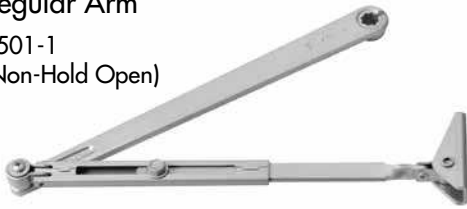
Notes:

- Mounting holes for mounting bracket are spaced 1" (25mm) x 10" (254mm).
- Consult factory if door weight exceeds 250lbs.

ARM OPTIONS

Regular Arm

9501-1
 (Non-Hold Open)



9501-3
 (Hold Open*)

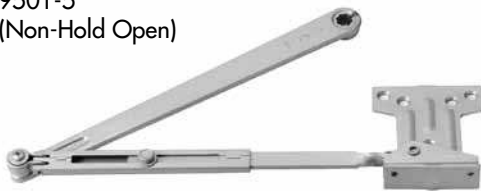


- Used with Regular Arm mounting (pull side) and Top Jamb mounting (push side)
- Available in painted or plated finishes

	Part Number	Description
Non-Hold Open	9501-1W	Main arm & tube assembly
	9501-11	Rod & shoe assembly
	9500-HS	Hex screw package
Hold Open	9501-3W	Main arm & rod assembly
	9501-13	Hold open bracket assembly

Parallel Arm

9501-5
 (Non-Hold Open)



9501-8
 (Hold Open*)



- Mounted on push side
- Non-hold open arm – combines regular arm with parallel arm mounting bracket
- Hold open arm – combines regular hold open arm with parallel arm mounting bracket
- Available in painted or plated finishes

Top Jamb (Deep Reveal)



- Accommodates top jamb mounting for reveals from 3-3/8" (86mm) up to 7-1/4" (184mm), depending on door and frame conditions
- Mounted on push side
- Available in painted or plated finishes

	Part Number	Description
Non-Hold Open	9501-1B	Arm Assembly
	9501-2W	Main arm & arm tube assy
	9501-11B	Rod & shoe assembly
Hold Open	9501-3B	Arm Assembly
	9501-3WB	Main arm & rod assy
	9501-13	Hold open bracket assy

Specify finish when ordering arms. *Not allowed by code on fire doors.

ARM OPTIONS

Parallel Rigid Arm

PR9501-5
(Non-Hold Open)



- Recommended for high-use, high-abuse environments
- Tamper-resistant, solid forged steel riveted arm
- Mounted on push side
- Not available in plated finishes

Parallel Rigid - Friction Hold Open Arm*

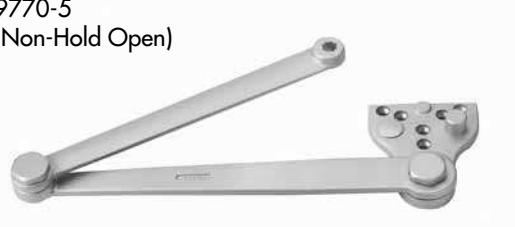


- Recommended for high-use, high-abuse environment
- Requires auxiliary stop
- Allows door to swing 180°, conditions permitting
- Handed
- Mounted on push side
- Not available in plated finishes

Arm Assemblies	Handing
PR9501-8R	Right Hand
PR9501-8L	Left Hand

CloserPlus[®] Arm

9770-5
(Non-Hold Open)



9870T-8
(Hold Open)*



- Recommended for high-use, high-abuse environments
- Tamper-resistant, solid forged steel riveted arm (mounted on push side)
- Field-reversible steel lug restricts degree of opening to protect door, wall and hardware
- Requires both backcheck valves on closer
- Shipped standard as left hand. Handing can be reversed in the field
- Not available in plated finishes

Specify finish when ordering arms. *Not allowed by code on fire doors.

ARM OPTIONS

Parallel Rigid Offset Arm



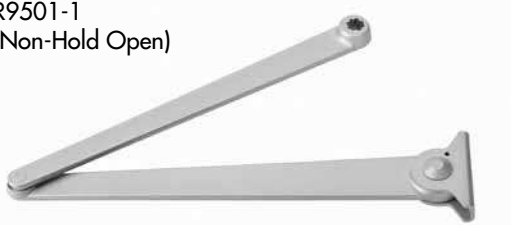
Arm Assemblies	Arm Function
PRO9501-5	Non-Hold Open
PRO9501-8R	Hold Open, Right Hand
PRO9501-8L	Hold Open, Left Hand

Standard Clearance	Blade Spacer Part Number	Total Clearance
1-3/4"	9500-1/2SP	2-1/4"
	9500-5/8SP	2-3/8"

- Recommended for high-use, high-abuse environments
- Provides additional vertical clearance
- Mounted on push side
- Not available in plated finishes

Regular Rigid Arm

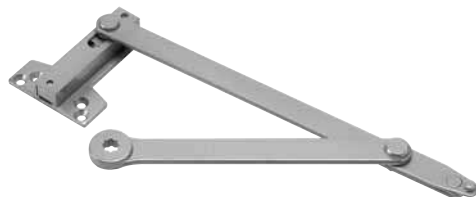
R9501-1
 (Non-Hold Open)



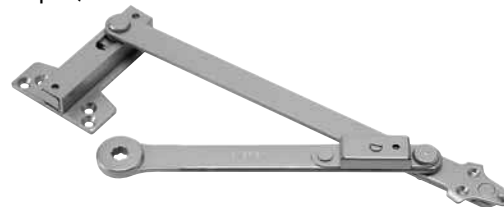
- Recommended for high-use, high-abuse environments
- Tamper-resistant, solid forged steel riveted arm
- Mounted on pull side
- Not available in plated finishes

Unitrol® Parallel Arm

(Non-Hold Open)



(Hold Open)



- Recommended for high-use, high-abuse environments
- Integrates a door closer, shock absorber and auxiliary heavy-duty overhead stop
- Requires both backcheck valves on the closer
- Hold open*
 - Holder mechanism tension adjustable
 - Hold open can be engaged/disengaged with a 1/4 turn of the mechanism with a standard blade type screwdriver
- Not available in plated finishes

Door Width	Arm Assemblies	
	Non-Hold Open	Hold Open*
28" - 32" (71cm - 81cm)	9100-11	9100-1
33" - 41" (84cm - 104cm)	9100-13	9100-3
42" - 48" (107cm - 122cm)	9100-14	9100-4

Specify finish when ordering arms. *Not allowed by code on fire doors.

TRACK OPTIONS

Pull Side Track



- Provides a clean aesthetic look with maximum 100° door swing and a minimum door width of 28" (71cm)
- Mounted on pull side
- Hold open can be set for 85°, 90°, 95°, or 100°
- Not available in plated finishes

Arm/Track Function	Part Numbers	
	Track Only	Arm Only
Non-Hold Open	9501ST-1T	9501ST-1A
Hold Open*	9501ST-3T	

Push Side Track



- Clean aesthetic look for doors opening a maximum of 100° and a minimum door width of 32" (81cm)
- Backcheck option recommended
- Mounted on push side
- Hold open*
 - From 85° to 100°
 - Turn knob offers the use the option of turning hold open on or off
- Not available in plated finishes

Arm/Track Function	Part Numbers	
	Track Only	Arm Only
Non-Hold Open	9501ST-5T	9501ST-1A
Hold Open*	9501ST-8T	

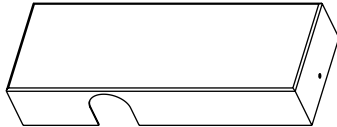
Specify finish when ordering arms or tracks. *Not allowed by code on fire doors.

COVERS AND PLATES

Full Plastic Cover

9500P

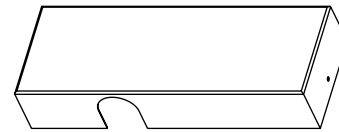
- Completely covers closer body
- Non-handed
- Dimensions: 12" (294) x 4-7/16" (109) x 2-1/4" (55)
- Available in painted finishes only



Full Metal Cover

- For use in high-abuse applications
- Specify hand; not field reversible
- Dimensions: 12" (294) x 4-7/16" (109) x 2-1/4" (55)
- Available in painted and plated finishes

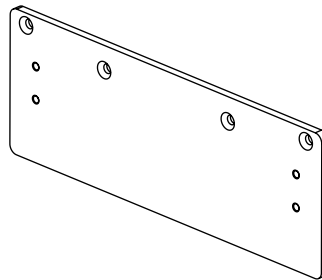
Part Numbers	Handing
9500M-R	Right Hand
9500M-L	Left Hand



Drop Plate

- Permits parallel arm or top jamb mounting on door when top rail is too narrow to install closer in the regular manner
- Minimum 2" (51mm) top rail required
- To order separately, specify Part No. x Finish

Drop Plate	Used with:
9586	Regular Arm or Pull Side Track
9587	Top Jamb
9588	Parallel Arm or Push Side Track



MOUNTING BRACKETS

Mounting Bracket

9500-CMB

- Standard on all closers
- Reduces installation time
- Ensures correct mounting
- Bracket is first mounted to door or frame, then closer is attached
- Bracket size: 3-5/8" (92mm) x 11-1/2" (292mm)
- Hole spacing: 1" (25mm) x 10" (254mm)



Parallel Arm Hold Open Bracket

9528H

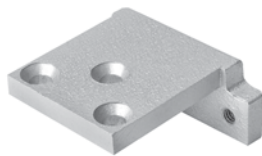
- Converts regular arm hold open to parallel arm hold open closer
- Standard with parallel arm hold open mounting



Mortise Arm Bracket for Regular Arm Mounting

9500-MAB

- For regular arm mounting where frame requires reinforcement, i.e., on frames with bull nose trim
- Not available in plated finishes



Parallel Arm Offset Bracket

9500-OB

- Required when parallel arm is used in conjunction with an overhead door holder



Parallel Arm Non-Hold Open Bracket

9518

- Converts regular arm to parallel arm closer
- Standard with parallel arm mounting



Parallel Arm Flush Transom Bracket

9500-PFTB

- Required when parallel arm mounting is used on a flush transom application
- Not available in plated finishes



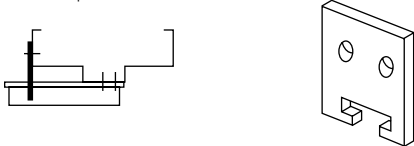
Specify finish when ordering parts.

BRACKETS

Reinforcing Bracket

9500-RB

- Supplied as standard for use with Unitrol® arms
- Provides additional support to the soffit plate on installations with door frame reveals from 1-7/8" to 4-5/8" (48 to 117mm)
- Not available in plated finishes



Flush Transom Bracket

9500-FTB

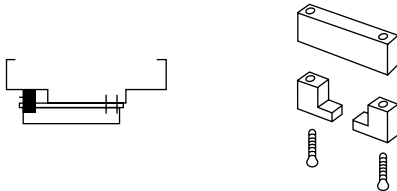
- Available separately for mounting Parallel Rigid and CloserPlus® arms rabbeted or flush transom conditions
- Not available in plated finishes



Deep Reveal Reinforcement Kit

9500-DRK

- For use with Unitrol® arms
- Used to support the soffit plate on installations with wide frames. Clamps may be used with or without the spacer block, depending on frame conditions
- Not available in plated finishes
- For frames deeper than 4-5/8" (117mm), specify closer x 9500-DRK



Blade Stop Spacer*

Spacer Size	Part Number
1/2"	9500-1/2SP
5/8"	9500-5/8SP

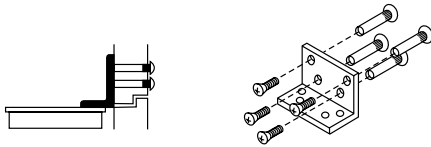
*Not for use with Unitrol arms



Flush Partition Bracket

9500-FPB

- For use with Unitrol® arms where rabbeted or flush transom conditions prevent installation of the soffit plate assembly
- Bracket fastens to the overhead transom to provide a mounting surface for the soffit plate assembly
- Specify closer x 9500-FPB



Power Adjustment Arm Bracket

- Standard on all closers without hold open, except heavy-duty and track type
- In regular arm or top jamb mounting, bracket may be reversed to increase closing power 15%

Maximum Power



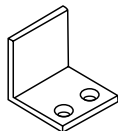
Normal Power



Angle Support Bracket

9500-AB

- Available separately for mounting Parallel Rigid and CloserPlus® arms heavy-duty arms on narrow frame or soffit conditions
- Specify closer x 9500-AB



Specify finish when ordering parts.

9500 SERIES CAST IRON DOOR CLOSER

PARTS LIST

DOOR CLOSER BODY ASSEMBLIES

Part Number	Description
9500LAP	Multi-Size Closer Body

LAP = Less All Parts

SCREW PACKS

SP9500	Standard screw package
SP9500SN	Standard screw pack (includes sex nuts)
SP9500SNB	Sex Nuts and Bolts (SNB) for 1-3/4" door
95ASW	Main arm screw & washer
SP9500COV	Cover screw pack

TORX[®] SCREW PACKS

Arm Type	Part Number
Regular, Top Jamb & Parallel	TX95
Parallel Rigid, CloserPlus [®]	PRTX95
Regular Rigid Heavy-Duty	RTX95
Unitrol [®] Arm	UNITX95
Slide Track	TXTK95
70TK	Torx [®] tool kit

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For a complete listing of products and applications please visit our web site.
www.nortondoortcontrols.com
www.assaabloy.ca

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