



3000 Series

Architectural Door Closer



An ASSA ABLOY Group brand

ASSA ABLOY



Introduction

CONTENTS

Introduction	2
Features & Benefits	3
Overview	4
Fasteners	5
Features	6
Optional Features	7
Finishes	8
How To Order	9
Applications.....	10-12
Technical Details	13-21
Accessories.....	22-33
Parts List	34-42
Suggested Specifications	43

3000 SERIES DOOR CLOSER

Yale 3000 Series Architectural Door Closers offer the perfect combination of reliability, aesthetics and durability in today's market. With features such as staked valves, self-drilling/self-tapping screws, rack and pinion design and precise valve adjustment, and a complete range of arm and cover options, the Yale 3000 Series can meet virtually any application challenge.

Offering sophisticated door control for any upscale commercial application, Yale Works for YouSM.



Features & Benefits



STANDARD FEATURES

- Exceeds 25 million cycles
- Cast aluminum body
- Adjustable spring sizes 1 through 6
- Tri-packed (regular arm, top jamb and parallel arm mounting)
- Non-handed
- Staked valves
- Rack & pinion design
- 1-1/4" (32mm) diameter piston
- 5/8" (16mm) diameter pinion journals
- Separate and independent, latch, sweep and backcheck intensity valves
- 2-1/8" (54mm) projection (standard covers)
- All standard arm applications (with slim, full or metal covers) allow doors to swing 180 degrees, conditions permitting

BENEFITS

- **Slim profile:** Seamless design blends into any building's aesthetic
- **Strong & durable:** ANSI/BHMA Grade 1 certified for long life and reliability

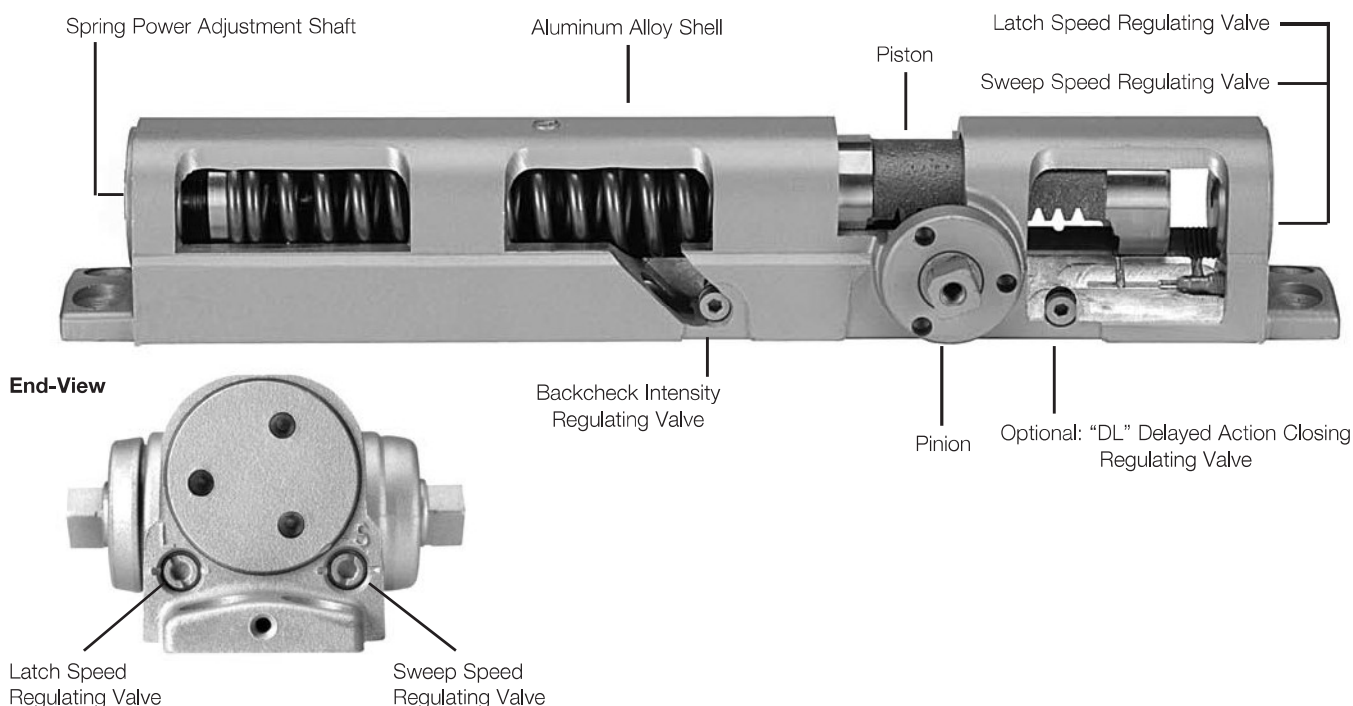
OPTIONAL FEATURES

- Metal and architectural covers (3500 or 3501 only)
- Heavy-duty arms: Parallel Rigid, Holder/Stop, Holder/Stop Spring, UNI Stop™
- Delayed action
- Lead-lined metal cover (suffix MLL)



Overview




CUTAWAY VIEW



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 Standard A117.1, when adjusted to meet those requirements, may not provide adequate closing power to dependably close and latch the door.

COMPLIANCE STANDARDS

 Series 3301 and 3501 door closers are designed to comply with requirements of the Americans with Disabilities Act (A.D.A.) and ANSI standard A117.1. All series 3301/3501 are ANSI/BHMA A156.4 Grade 1 certified.   All Yale® series 3301/3501 closers with non-hold open arms are listed by Underwriters Laboratories for labeled fire doors. This includes compliance to UL10C for 3-hour assemblies. The 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 Standard A117.1, when adjusted to meet those requirements, may not provide adequate closing power to dependably close and latch the door.



Fasteners

Type	Description	Arm							
		RA	PA	TJ	Low Profile	PR	Holder/Stop, Holder/Stop Spring	UNI	UNI-J
DOOR									
SDST	Self Drilling Self Tapping	S	S	S	S	S	S	S	S
MS	Machine Screw	S	S	S	S	S	S	S	S
SN	Sleeve Nut	O	O	O	O	S	S	S	S
TBGN	Through-Bolts & Grommet Nuts	O	O	O	O	O	O	O	O
SMS	Sheet Metal Screws	O	O	O	O	O	O	O	O
Torx®	Torx Drive Security Screw	O	O	O	O	O	O	O	O
FRAME									
SDST	Self Drilling Self Tapping	S	S	S	S	S	S	S	S
MS	Machine Screw	S	S	S	S	S	S	S	S
SMS	Sheet Metal Screws	O	O	O	O	O	O	O	O
Torx	Torx Drive Security Screw	O	O	O	O	O	O	O	O

S = standard; O = optional

SN are for use on unreinforced hollow metal doors or to prevent any hollow metal door from collapse/dimpling. They can also be used for thru bolting on wood doors. SN are supplied for 1-3/4" (44mm) thick doors unless specified for 2-1/4" (57mm) thick doors.

TBGN are an alternative to SN for wood doors. TBGN are supplied standard for 1-3/4" (44mm) thick doors. They can be specified for 1-3/8" (35mm) thick doors.

SMS - when specified, closer will be packed with sheet metal screws for the door AND sheet metal screws plus machine screws for the frame.

TORX screws with security pin are standard with Security Door Closers. Torx may be specified for all other series applications. Torx are only available with machine screw threads. Sheet metal screw threads or wood screw threads are not available.

Note: To order special fasteners with closers, specify model number x fastener (Ex: 3501 x 689 x TBGN)



Features

Aluminum Alloy Housing

Closer bodies are constructed of a special aluminum alloy, carefully selected to accommodate interactive steel components and operating conditions.

Rack & Pinion Operation

Provides a smooth constant control of the door through its full opening and closing cycle. 180° door swing can be achieved when door, frame, hardware and arm function do not interfere.

Non-handed

With few exceptions all series and series 3301/3501 door closers are non-handed and can be installed on either right or left hand swing doors. Pinion shaft extends vertically through the closer body in both directions. Some options, as noted on page 5, will require that the hand of the closer be specified.

Sweep Speed Control Valve

Allows adjustment of door speed from the door's full open position down to approximately 10° from the closed position.

Latch Speed Control Valve

Allows adjustment of door speed from approximately 10° down to the door's fully closed position.

Closer Fluid

All door closers are supplied with a temperature stable, multi-viscosity fluid. This fluid will permit the door closer to perform within a wide temperature range: from very high to as low as -40°F.

Tri-Packed

3301/3501 come with screws, brackets and soffit plates to allow for regular, top jamb, and parallel arm installations.

Adjustable Backcheck Valve

Provides control of the door in the opening cycle, beginning at approximately 75° of door opening. It cushions the door opening when the door is forcibly opened beyond its pre-adjusted limits.

Standard Molded Covers

Molded of high-impact U.L. listed material. Standard covers are non-handed for all applications. See page 5 for optional covers.

Warranty

Limited 25-year warranty for defects and life of the building on the aluminum housing.

DOOR CLOSER POWER OPTIONS

Series 3301/3501 Multi-Sized Door Closer

Adjustable through the power range of sizes 1 through 6, as outlined in ANSI/BHMA specification A156.4.

The series 3000 also conforms to the minimum opening force requirements of the Americans with Disabilities Act (A.D.A) and ANSI/BHMA standard A117.1 for interior doors.

OPTIONAL COVERS

Optional Metal Cover

This steel cover is non-handed for regular and parallel arm applications, but is handed for top jamb applications. Cover is available in sprayed or plated finishes.



Optional Architectural Covers*

Plastic: Architectural plastic covers are molded of high impact U.L. listed material. They are non-handed and available in sprayed finishes.

Metal: The architectural metal covers are steel and non-handed for all applications. These covers are available in sprayed or plated finishes.

* For Parallel Arm Applications — Consult factory for doors swinging more than 120°

Optional ABS Cover

Consult factory for details.





Optional Features

DELAYED ACTION

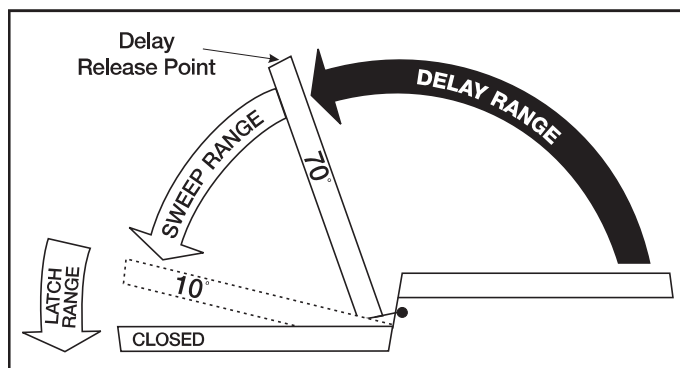
Adjustable Delayed Action Closing

An optional hydraulic feature that adds a third speed range to the closing cycle. This feature becomes effective when the door is opened and released at any point beyond 70°. The amount of time delay depends upon the combination of the angle of door release and valve adjustment. The valve can be adjusted with a 1/8" (3mm) hex key from no delay time up to maximum delay times of:

Door Opened and Released at	Approximate Time of Delay Cycle
180°	4-5 minutes
120°	2-3 minutes
90°	25-30 seconds

Pressure Relief Safety Valve

The delayed action hydraulic system contains a pressure relief valve. Any time the door is forced toward the closed direction while it is in the closing cycle, the valve will open and permit the door to close. This prevents damage to door, frame and closer.



Suggested Applications

Delayed Action closing allows slow-moving traffic to clear the opening before the door closer's normal closing cycle begins. This feature can be helpful in health care facilities such as hospitals and nursing homes. It provides sufficient time for persons on crutches or in wheelchairs to pass through a door without concern of it closing. At the same time, it can accommodate the facility's staff with movement of food service carts, beds, and other wheeled traffic.

Use of delayed action closers on many doors throughout industrial and commercial buildings can also assist the flow of traffic. Locations where additional time to clear the opening is advantageous are doors between office and factory/ warehouse facilities, doors to workshops or laboratories, kitchens and food processing areas.

ARMS

Non-Hold Open

Self-closes door every time door is opened. Auxiliary stop (by others) required except when using the Holder/Stop, Holder/Stop Spring or UNI Stop™ arms.

Hold Open

Achieved by means of friction or ball and detent/ roller. Friction hold open has a range of 90° to 180° using template location and mechanical adjustment. Ball and detent or roller hold open is effective in a range of 85° to 110°.

Hold open arm door closers are not permitted to be used on fire door assemblies.

Door Opening Degrees

Arm Function	Regular Arm, Top Jamb, Parallel Arm	Parallel Rigid Arm	Holder/Stop Parallel Arm	Holder/Stop Spring Parallel Arm	UNI Stop™ Parallel Arm	UNI Stop™ Top Jamb	Low Profile
Non-Hold Open	✓	✓	85° to 110°	85° to 110°	85° to 110°	85° to 110°	✓
Hold Open	90° to 180°	85° to 180°	85° to 110°	85° to 110°	85° to 110°	85° to 110°	N/A

✓=180° trim and template permitting