



Hager Companies offers a variety of surface door closers to meet a wide range of applications and uses. Heavy Duty, Grade 1 door closers are ideal for schools, hospitals, and other high-use environments while the Standard Duty, Grade 2 closer is ideal for less abusive commercial applications.

Surface door closers are easy to install, with only a few holes for the body and the arm, requiring a minimum amount of preparation of the door and frame. Not only are surface mounted door closers easier to install, they offer advantages with regard to adjustments that may need to be made because of variations in usage or environmental conditions.

There are a number of factors to consider when choosing how to mount your closer. These factors can be influenced by aesthetics, environment or application. The main things to consider when defining how to mount a surface door closer are:

- Appearance
- Accessibility to the closer arm
- Space limitations of the frame above the door
- Space limitations on the top rail of the door
- Closer position

There are three basic methods of mounting surface door closers to the door and frame and they are regular arm, parallel arm and top jamb mounts. All Hager Companies' door closers are supplied standard with a tri-pack for mounting any of the three types of applications.

Regular Arm

The regular arm application would be used when there is ample room on the top rail of the door and you are not concerned about the arm extending out away from the door. The closer body is mounted on the hinge side of the top rail of the door. The forearm is then mounted to the frame face by a mounting shoe.

The arm projects at approximately a 90° angle away from the door. The regular arm mount will make the closer more power-efficient than the parallel arm or top jamb mount.

Parallel Arm

The depth of the top rail is an important consideration when using this application. The closer body is mounted on the top rail of the door opposite the hinge side of the door. The forearm is mounted by a parallel arm bracket to the underside of the frame. The arm is parallel to the door, which makes it less likely to be damaged and aids in the overall aesthetics. This mounting application will, however, reduce the power-efficiency of the closer.

Top Jamb

This is the preferred method of mounting a closer if you are faced with a narrow rail on a door. The closer body is mounted to the frame face above the door, opposite the door hinge side. The forearm is then mounted to the top rail of the door. The top jamb mount is more power-efficient than the parallel arm application.

Door Handing

Hager Companies' surface door closers are all non-handed, meaning they can be placed on a door so that they will operate a left-opening or a right-opening door. Some of the accessories that can be ordered with these closers are handed and the hand of the door should be specified when ordering a closer with these components.

Closer Sizing

The American National Standards Institute (A.N.S.I.) has set the standard for sizing and ensured that each manufacturer's closers are tested on the same basis.

The accompanying chart shows the closer size required to fit your door size and application.

		Exterior (and Vestibule) Door Width				
		Minimum Door Width (24")				
		24"	30"	36"	42"	48"
		(610 mm)	(762 mm)	(914 mm)	(1067 mm)	(1219 mm)
Regular Arm & Top Jamb	Size 3 (0)	Size 4 (4cw)	Size 5 (8cw)	Size 6 (12cw)		
Parallel Arm	Size 3 (4cw)	Size 4 (8cw)	Size 5 (12cw)	-		

		Interior Door Width						
		Minimum Door Width (24")						
		24"	30"	34"	38"	48"	54"	60"
		(610 mm)	(762 mm)	(865 mm)	(965 mm)	(1219 mm)	(1372 mm)	(1524 mm)
Regular Arm & Top Jamb	Size 1 (8ccw)	Size 2 (4ccw)	Size 3 (0)	Size 4 (4cw)	Size 5 (8cw)	Size 6 (12cw)		
Parallel Arm	Size 1 (4ccw)	Size 2 (0)	Size 3 (4cw)	Size 4 (8cw)	Size 5 (12cw)	-		

Note: CW - Clockwise
CCW - Counter clockwise



Door Closers

General Information

Meeting ADA Requirements

Doors and doorways that are part of an accessible route shall comply with Section 404 of the ANSI 117.1 standard.

Doorways shall have a clear opening of 32" minimum. Clear opening of doorways with swinging doors shall be measured from the face of door and stop with the door open 90°.

Door closers shall be adjusted so that from the open position of 90°, the time required to move the door to an open position of 12° shall be 5 seconds minimum.

The maximum force for pushing open or pulling open doors other than fire doors shall be as follows:

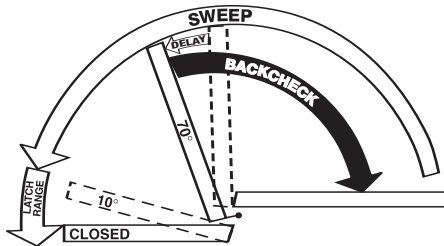
1. Interior hinged door: 5 lbs.
2. Exterior hinged door: 8.5 lbs.

Fire Doors

Fire doors shall have the minimum opening force allowable by the appropriate administrative authority.

Closer Adjustment

All Hager Companies' door closers are equipped with key control valves that allow for easy adjustments while decreasing the chances for tampering.



Sweep and Latching Speeds

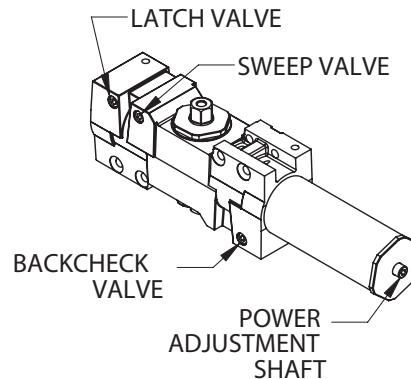
Two separate valves control the closing speed of the door. The sweep speed controls the speed of the door from full opening to within approximately 10" to 2" of the closed position. The latching speed valve controls the speed of the door from approximately 10" to 2" to full closing.

Backcheck

Backcheck starts at approximately 70° door opening and slows the door as it opens. This feature is not to be used as a positive stop. An auxiliary stop must be used.

Delayed Action

The delayed action feature is available for all applications. The closing time between 90° and 70° shall be a minimum of 20 seconds, but is adjustable to be even slower.



Adjustable Spring Feature

The 5100, 5200 and 5300 series closers offer an adjustable spring feature for sizing. Spring power of the closer can be increased by turning the power adjustment shaft clockwise.

Use of Door Stops

It is important to use an auxiliary door stop in order to protect the wall, trim, door and closer. A stop should be used even when a holder arm or closer with backcheck is used.

How to Select the Proper Closer

1. Size and Weight of Door

5100, 5200 and 5300 Closers are non-sized so that closing force can be adjusted in the field to accommodate various door sizes, weights and applications. Specify size when ordering 5400.

2. Interior Application

Where possible the standard Regular Arm application should be used as it is the most efficient in terms of power and control.

3. Exterior Application

Exterior doors require greater closing forces because of draft and wind conditions.

4. Degree of Opening

The closer should permit the door to open far enough to allow for easy traffic flow. The selection of the proper arm and position on the door are very important.

5. Function

Closers can be equipped with special arms that can serve many functions such as hold-open, positive stop or hold-open stop when necessary.

6. Abusive Environment

Closers can be equipped with Extra Heavy Duty arms that can withstand vandalism and extreme use.



HOW TO ORDER

5200

MLT

25

ALM

HD

SLC

RH

SX1G

BCK

Mount

MLT - MULTI-MOUNT
PAR - PARALLEL ARM
MOUNT

Finish

ALM - Sprayed Aluminum
BRZ - Sprayed Bronze
DBZ - Sprayed Dark Bronze
GOL - Sprayed Gold
US3 - Bright Brass
US4 - Satin Brass
US26 - Bright Chrome
US26D - Satin Chrome

Covers

SLC - Slim line Cover
FC - Full Cover
MC - Metal Cover
PC - Pinion Cap

Fastener Options

SX1G - Sex bolts for 1³/₈" door
SX2 - Sex bolts for 2" door
SX2D - Sex bolts for 2¹/₄" door

Product Group

5100 - Grade 1, CAST IRON, Grade 1
5200 - SLIM-BODY ALUMINUM, Grade 1
5300 - ALUMINUM, Grade 1
5400 - ALUMINUM, Grade 2

Arm Options

HD - Extra Heavy Duty Arm
HO - Hold Open Arm
HDS - Extra Heavy Duty Stop Arm
HDHO - Extra Heavy Duty Hold Open Arm
HDHOS - Extra Heavy Duty Hold Open Stop
Arm
LA - Long Arm

Miscellaneous

BCK - Backcheck (5400 Option)
DLY - Delayed Action

Size

02 - 2 Fixed (5400)
03 - 3 Fixed (5400)
04 - 4 Fixed (5400)
05 - 5 Fixed (5400)
25 - 2 Thru 5 Adj. (5200)
26 - 2 Thru 6 Adj. (5300 and 5100)
14 - 1 Thru 4 Adj. (5100, 5200, 5300) - ADA

Handing

RH - Right Hand
LH - Left Hand