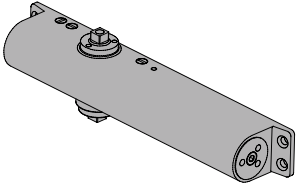


SC80 SERIES

ARCHITECTURAL DIAGRAMS



SC80 Series

Medium-duty applications like retail storefronts, cafes and clinics that need a closer that makes door operation smooth and secure. The Falcon SC80 Series brings ANSI Grade 1 durability and reliable performance to interior and exterior aluminum storefronts. An adjustable design ensures flexible installation and ADA compliance.

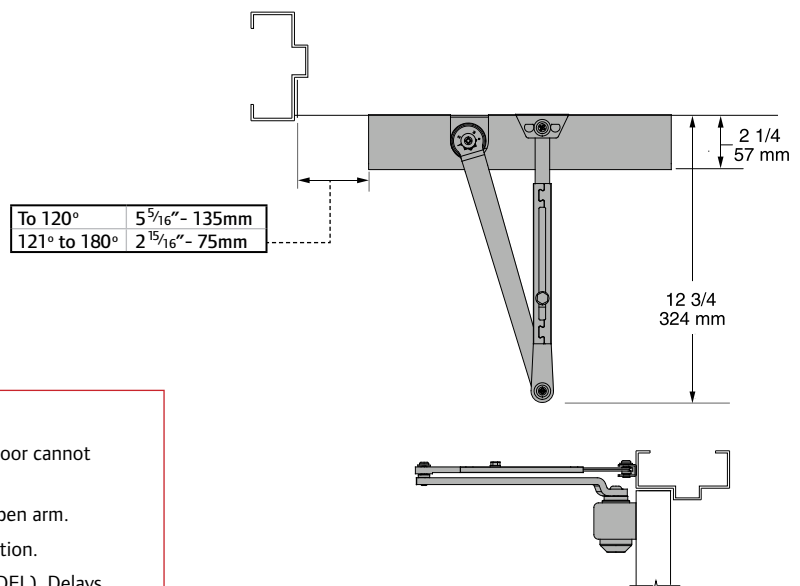
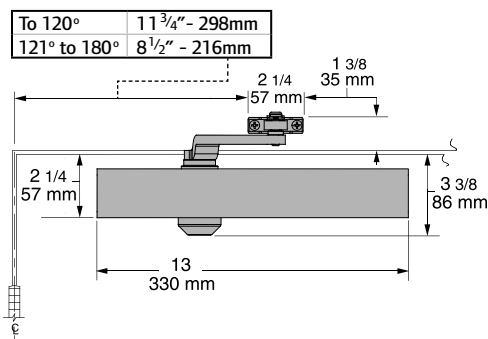
Standard Features

- Meets ANSI A117.1
- ANSI/BHMA A156.4, Grade 1
- UL Listed
- 1¹/₄" diameter piston
- Closer mounts hinge side, top jamb or parallel arm when either the Rw/PA or Hw/PA arm is specified.
- **New for 2009** - adjustable sizes 1-6
- Single piece cast aluminum body
- Non-handed for left or right swinging doors
- Separate adjustable general speed, latch speed and backcheck
- Heat-treated steel piston
- Heat-treated pinion
- Cover is high-impact UL Listed fire retardant plastic that meets UL 10C and UBC 7-2 (1997) fire test
- UL 10C approved fluid
- Universal screw pack
- 10-year warranty

Listings and Certifications

The Falcon SC81 is UL approved and compliant with the UL 10C and UBC 7-2 (1997) fire test. Additionally, the SC81 is designed to meet the American Disabilities Act (ADA) and ANSI A117.1. The SC81 is ANSI/BHMA A156.4, Grade 1 certified.

SC80 Series Hinge (Pull Side)



Butt Hinges should not exceed 5" (127mm) in width.

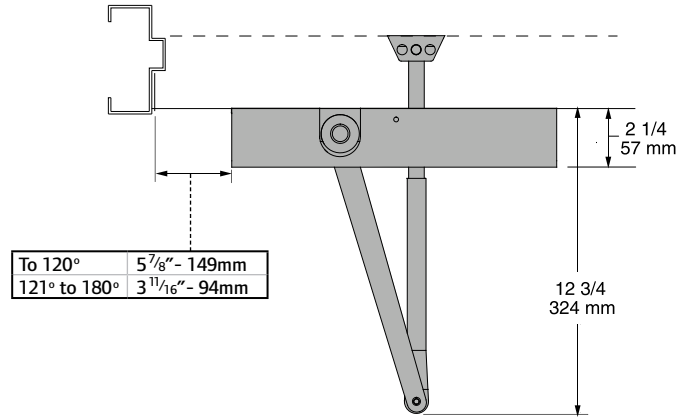
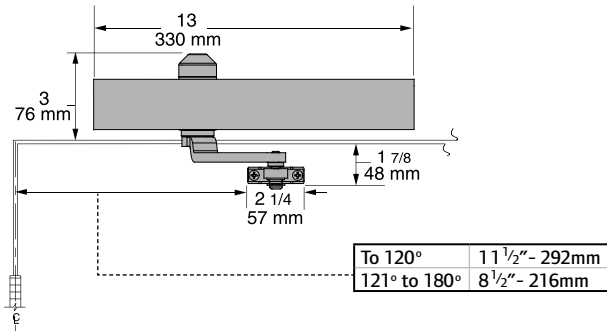
Auxiliary Stop is recommended at hold-open point or where a door cannot swing 180°.

Reveal should not exceed 3/4" (19mm) for regular arm or hold-open arm.

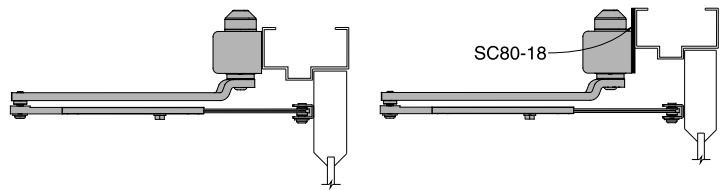
Clearance of 2¹/₄" (57mm) behind door required for 90° installation.

Delayed Action add suffix "DEL" to selected cylinder (ex. SC80 DEL). Delays closing from maximum opening to approximately 70°, with adjustable delay time.

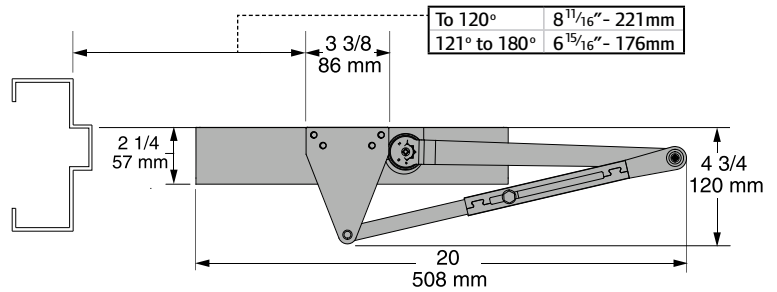
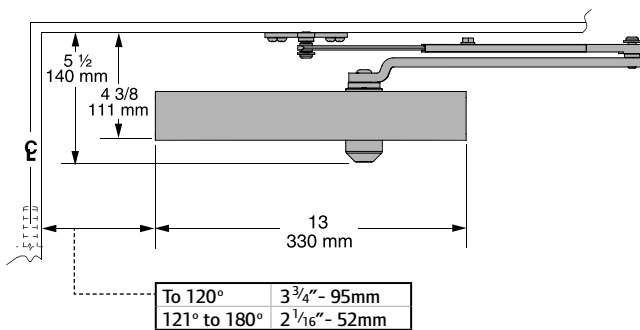
SC80 Series Top Jamb (Push Side)



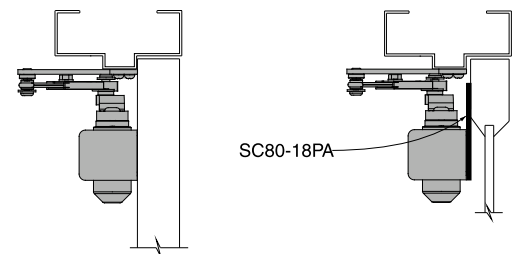
Butt Hinges should not exceed 5" (127mm) in width.
Auxiliary Stop is recommended at hold-open point or where a door cannot swing 180°.
Reveal should not exceed 3 1/4" (83mm) for regular arm or hold-open arm.
Head Frame less than 1 3/4" (44mm) requires plate SC80-18.
Delayed Action add suffix "DEL" to selected cylinder (ex. SC80 DEL). Delays closing from maximum opening to approximately 70°, with adjustable delay time.



SC80 Series Parallel (Push Side)

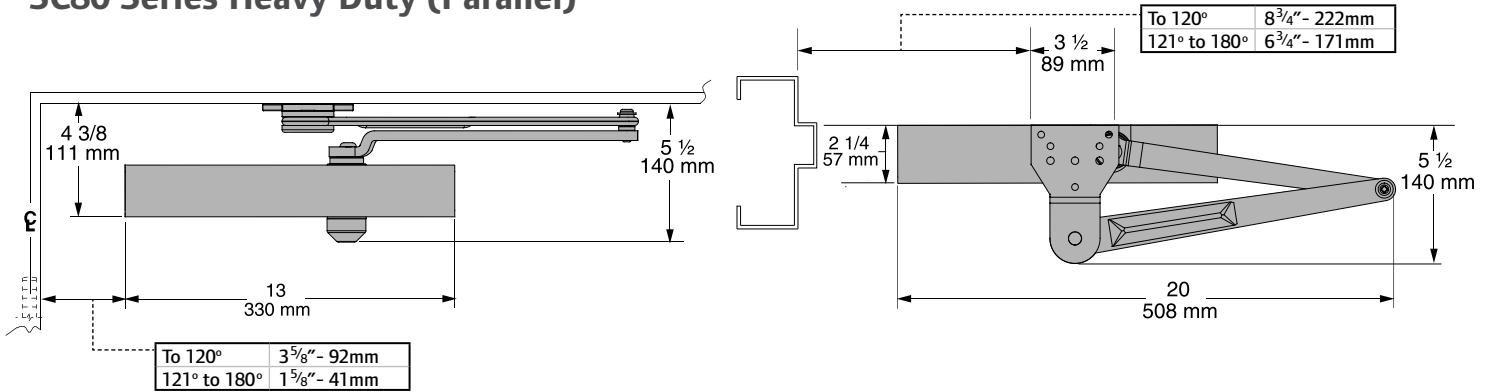


Butt Hinges should not exceed 5" (127mm) in width.
Auxiliary Stop is recommended at hold-open point or where a door cannot swing 180°.
Top Rail less than 4 3/8" (111mm) measured from stop requires plate SC80-18PA.
Delayed Action add suffix "DEL" to selected cylinder (ex. SC80 DEL). Delays closing from maximum opening to approximately 70°, with adjustable delay time.



SC80 SERIES ARCHITECTURAL DIAGRAMS

SC80 Series Heavy Duty (Parallel)

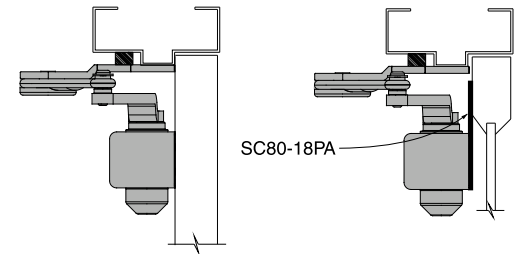


Butt Hinges should not exceed 5" (127mm) in width.

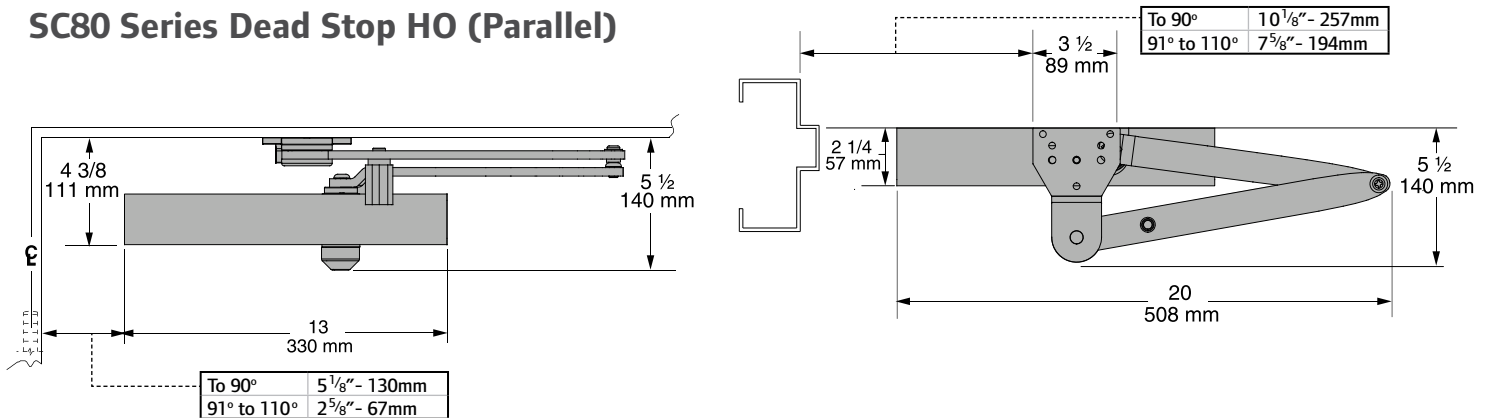
Auxiliary Stop is recommended at hold-open point, where a door cannot swing 180°, or where Dead Stop or Spring-n-Stop arm is not used.

Top Rail less than 4 3/8" (111mm) measured from stop requires plate SC80-18PA.

Delayed Action add suffix "DEL" to selected cylinder (ex. SC80 DEL). Delays closing from maximum opening to approximately 70°, with adjustable delay time.



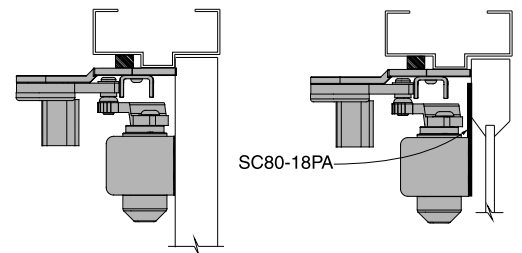
SC80 Series Dead Stop HO (Parallel)



Butt Hinges should not exceed 5" (127mm) in width.

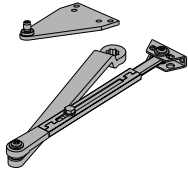
Top Rail less than 4 3/8" (111mm) measured from stop requires plate SC80-18PA.

Delayed Action add suffix "DEL" to selected cylinder (ex. SC80 DEL). Delays closing from maximum opening to approximately 70°, with adjustable delay time.

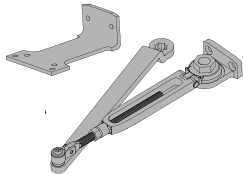


All SC80 Series closers come with slim cover, standard arm and screw pack.

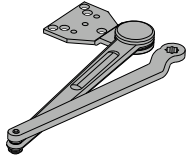
Arm Types



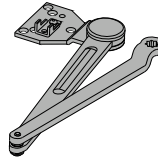
Regular Arm, SC80-3077PA
Non-handed arm with adjustable forearm assembly to accommodate a range of doors and frame reveal conditions. Mounts hinge side, top jamb or parallel arm. PA shoe included to allow installation in a parallel arm configuration.



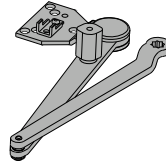
Hold-Open Regular Arm, SC80-3049PA
Optional, non-handed, hold open arm with adjustable forearm assembly to accommodate a range of doors and frame reveal conditions. Mounts hinge side, top jamb or parallel arm. PA shoe included to allow installation in a parallel arm configuration.



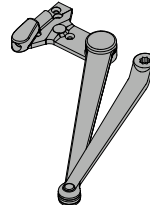
Heavy Duty Arm, SC80-3077HD
Optional, non-handed, stamped, heavy duty, parallel arm for use in high-traffic applications.



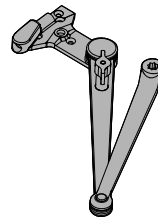
Dead Stop Arm, SC80-3077DS
Optional, non-handed, stamped, heavy duty, parallel arm includes a positive mechanical stop and non-adjustable forearm assembly for high volume traffic or potentially abusive installation conditions.



Dead Stop Hold-Open Arm, SC80-3049DS
Optional, non-handed, stamped, heavy duty, hold-open parallel arm includes a positive mechanical stop and non-adjustable forearm assembly for high volume traffic or potentially abusive installation conditions. Also includes a manually selective hold-open function.



Spring-n-Stop Arm, SC80-3077SS
Optional, non-handed, extra heavy-duty, forged parallel arm includes an integral spring stop and non-adjustable forearm assembly for high volume traffic or potentially abusive installation conditions.

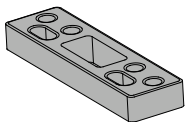


Spring-n-Stop Hold-Open Arm, SC80-3049SS
Optional, non-handed, extra heavy-duty, forged parallel arm includes an integral spring stop and non-adjustable forearm assembly for high volume traffic or potentially abusive installation conditions. Also includes a manually selective hold-open function.

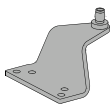
Installation Accessories



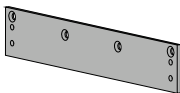
Soffit Shoe Support, SC80-30
Provides anchorage for fifth screw used with soffit shoe, where reveal is less than 3 1/16" (78mm).



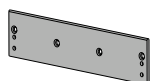
Blade Stop Spacer, SC80-61
Required to lower parallel arm shoe to clear 1/2" (13mm) blade stop.



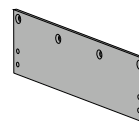
Auxiliary Shoe, SC80-62A
Requires a top rail of 7" (178mm). Optional shoe replaces PA shoe for parallel arm mounting of regular arm with overhead holder/stop.



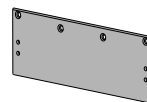
Plate, SC80-18
Required for top jamb mounting where head frame is less than 1 3/4" (44mm) or flush ceiling conditions exist.



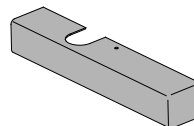
Plate, SC80-18FC
Required for top jamb mounting where head frame is less than 1 3/4" (44mm) or flush ceiling conditions exist. To be used with a full cover SC80-72FC.



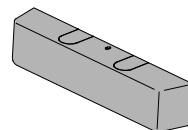
Plate, SC80-18PA
Required for parallel arm mounting where top rail is less than 4 3/8" (111 mm), measured from the stop. Plate requires 1 7/8" (48mm) minimum top rail measured from stop.



Plate, SC80-18PAFC
Required for parallel arm mounting where top rail is less than 4 3/8" (111mm), measured from the stop. Plate requires 1 7/8" (48mm) minimum top rail measured from stop. To be used with a full cover SC80-72FC.



Cover, SC80-72
Standard, non-handed, slim line plastic cover encloses the closer body with a cap on the unused pinion shaft.



Cover, SC80-72FC
Optional non-handed, full plastic cover encloses the closer body.

How to Order SC80 Series

| | | Cylinder | Size | Cover | Finish | Arm | Accessories |
|------------------------------|--------------------------------------|----------|------|-------|--------|-----|-------------|
| STD | Standard | | | | | | |
| DEL | Delay | | | | | | |
| 1-6 | SC81 | | | | | | |
| Slim | SC80-72 | | | | | | |
| Full | SC80-72FC (optional, please specify) | | | | | | |
| Aluminum | | | | | | | |
| Dark Bronze | | | | | | | |
| Brass | | | | | | | |
| Rw/PA | Regular with Parallel Arm Shoe | | | | | | |
| Hw/PA | Hold Open with Parallel Arm Shoe | | | | | | |
| HD | Heavy Duty Arm | | | | | | |
| DS | Dead Stop Arm | | | | | | |
| DS/HO | Dead Stop Hold Open Arm | | | | | | |
| SS | Spring Stop Arm | | | | | | |
| SS/HO | Spring Stop Hold Open Arm | | | | | | |
| Soffit Shoe Support | SC80-30 | | | | | | |
| Blade Stop Spacer | SC80-61 | | | | | | |
| Auxiliary Shoe | SC80-62A | | | | | | |
| Plate | SC80-18 | | | | | | |
| Plate - Full Cover | SC80-18FC | | | | | | |
| Plate PA | SC80-18PA | | | | | | |
| Plate PA - Full Cover | SC80-18PAFC | | | | | | |

How to Order SC90 Series

| | | Cylinder | Size | Cover | Finish | Arm | Accessories |
|--------------------|---|----------|------|-------|--------|-----|-------------|
| STD | Standard | | | | | | |
| 1 | SC91 | | | | | | |
| 3 | SC93 | | | | | | |
| 4 | SC94 | | | | | | |
| Full | SC90-72 (optional, available with SC93/94 only, please specify) | | | | | | |
| Aluminum | | | | | | | |
| Dark Bronze | | | | | | | |
| Brass | | | | | | | |
| Rw/PA | Regular with Parallel Arm Shoe | | | | | | |
| Hw/PA | Hold Open with Parallel Arm Shoe | | | | | | |
| Plate | SC90-18 (available with SC93/94 only) | | | | | | |
| Plate PA | SC90-18PA (available with SC93/94 only) | | | | | | |

How to Order OHC100 Series

| | | Cylinder | Size | Arm Finish | Arm | Accessories |
|--------------------|----------------------------------|----------|------|------------|-----|-------------|
| STD 90° | Standard | | | | | |
| HO 90° | Hold Open | | | | | |
| 3 | OHC100 | | | | | |
| 2-4 | OHC100A | | | | | |
| STD 105° | Standard | | | | | |
| HO 105° | Hold Open | | | | | |
| | Fixed | | | | | |
| | Adjustable | | | | | |
| Aluminum | | | | | | |
| Dark Bronze | | | | | | |
| S | Side Load Arm | | | | | |
| A | End Load Arm | | | | | |
| VO | Offset Arm and Track | | | | | |
| FK Bracket | | | | | | |
| AFK Bracket | | | | | | |
| GE Pivot | (not available with VO arm type) | | | | | |
| DP Pivot | (not available with VO arm type) | | | | | |

COMPETITIVE CROSS REFERENCE AND SAMPLE SPECIFICATIONS

Competitive Cross Reference

Surface Closer Cross Reference

| Dor-O-Matic | SC71 ¹ | SC80 ² , SC81 ² | SC60 ³ , SC61 ³ | SC94 ⁴ , SC91 |
|-------------|-------------------------|---------------------------------------|---|----------------------------|
| Corbin | DC6000 | 3210M76 (3210) | | 4604M70 |
| Dorma | 8916 | 86162 ² | 640BCPA ³ /7302 ³ | 644BCPA ⁴ /7203 |
| Norton | 7500 ¹ /7700 | P8300 (P8500) ² | P1600BC ³ | P9304BC ⁴ |
| Sargent | 351 | 1430/1330 ² | 11303 ³ | |
| Stanley | D-4550 | D-3550 | 1650 | |
| Yale | P400 | P3300 (P3500) ² | P51BC ³ | P2304BC ⁴ |

¹Indicates identical footprint, ²Indicates identical footprint, ³Indicates identical footprint, ⁴Indicates identical footprint

Concealed Closer Cross Reference

| Dor-O-Matic | OHC100 Series |
|---------------|---------------------------|
| Dorma | RTS88 |
| Global | TC7000 |
| International | Series 100 and Series 200 |
| Jackson | 20-330 |
| Kawneer | Husky II |
| Rixson | 608, 0608, 700, 0700, 800 |
| Sentinel | 30 Series |
| Stanley | 30 Series |

Sample Specifications

Large Cylinder Closer

2.01 Closers and Door Control Devices

- A. Where manual closers are indicated for doors required to be accessible to the physically challenged, provide adjustable units complying with ANSI A117.1 provisions for door opening force and delayed action closing.
- B. Shall conform to ANSI A156.4, Grade 1, NFPA 80, NFPA 101 and UL10C.
- C. Closers shall be aluminum construction with steel lever arms, independent adjusting valves for closing, latching and back check. Hydraulic regulation controlled by tamper-proof, non-critical screw valves. All closer adjustments shall be shielded by plastic cover after installation. Pressure relief valve, PRV, doors closers will not be permitted.
- D. Full rack-and-pinion type closer, single-piece forged piston, chrome silicon steel spring, non-critical screw valves; backcheck, main speed and latch.
- E. Closers to be non-sized, field adjustable from size 1 to 6.
- F. Furnish all large cylinder non-sized closers with minimum 1 ½" diameter piston.
- G. Install closers to allow maximum degree of opening, position backcheck to activate well in advance of the stop position to cushion the swing and prevent door and frame damage. Do not use door closer to stop door travel. Unless specified, install closers with thru-bolt mounting method on metal and wood doors. Do not thru bolt if there has been special blocking specified in the wood door specification. Coordinate with the wood door specification.
- H. Available manufacturers: Subject to compliance with requirements. See competitive cross reference above.

Cylinder Options

Standard Cylinder (STD) – Standard cylinder provides a main speed function to control the motion of the door from maximum opening angle until the door is a few inches from the latch where latch function controls the final closing motion. The opening swing is controlled by the hydraulic backcheck function from about 70° to maximum opening angle.

Without Backcheck (WOBC) – Special cylinder provides a main speed function to control the motion of the door from maximum opening angle until the door is a few inches from the latch where latch function controls the final closing motion.

Delayed Action Cylinder – Special cylinder provides a separate adjustable delayed closing motion from maximum opening angle to approximately 70°. Then the main speed function controls the door motion until the door is a few inches from the latch where latch function controls the final closing motion. During the opening swing the door is controlled by the hydraulic backcheck function from about 70° to maximum opening angle.

WARRANTY

Falcon Door Hardware warrants its mechanical offering of locks, exit devices and door controls products manufactured to be free from defects in materials and workmanship for a period of **TEN (10) YEARS** from the date of manufacture with the exception of the products detailed in the table below. The terms and conditions of this new warranty apply to Falcon Door Hardware shipments made on or after November 1st, 2008.

This limited warranty does not cover products that (i) are not the proper size for the application; (ii) are not installed in accordance with Falcon’s published installation instructions; (iii) are installed with improper or incorrect parts; (iv) have been, in the opinion of Falcon, modified, repaired, or altered in any way without the express written consent of Falcon; (v) are used for purposes which they are not designed or intended; (vi) are subjected to misuse, abuse, negligence, or accident; or (vii) are grade 2 products used in educational facilities. The following costs and expenses are not covered by the provisions of this limited warranty; (i) labor costs for the removal and reinstallation of products; (ii) shipping and freight expenses required to return products to Falcon; (iii) normal maintenance; and (iv) economic losses. **THE PREVISIONS OF THIS WARRANTY DO NOT APPLY TO FINISHES.**

Falcon will replace the products which, in the opinion of Falcon, are found to be defective, provided said products are returned to Falcon.

FALCON SHALL IN NO EVENT BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL, INDIRECT, SPECIAL, OR PUNITIVE DAMAGES FOR ANY CLAIM WHETHER BASED ON CONTRACT; WARRANTY, TORT (INCLUDING, BUT NOT LIMITED TO, STRICT LIABILITY OR NEGLIGENCE), PATENT INFRINGEMENT, OR OTHERWISE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

This limited warranty is in place of all other warranties, expressed or implied, and excludes any warranties of fitness for a particular purpose or merchantability. No agent, representative, dealer, or employee of Falcon has the authority to increase or alter the obligations of this limited warranty.

Note: Should the Product be considered a “consumer product” as may be covered by the Magnuson-Moss Federal Warranty Act, please be advised that: (1) Some states do not allow limitations on incidental or consequential damages or how long an implied warranty lasts, so that the above limitations may not fully apply; and (2) This warranty gives specific legal rights and a user may have rights which may vary from state to state.

Falcon, Ingersoll Rand Security Technologies, 121 West Railroad Avenue, Princeton, IL 61356

| PRODUCT EXCEPTION | WARRANTY |
|---------------------------|----------|
| OHC100A CONCEALED CLOSERS | 5 YEARS |
| ELECTRONICS/ELECTRIFIED | 1 YEAR |