



PURCHASING DEPARTMENT
DIVISION OF BUDGET & FINANCE

PUR-1751
ADDENDUM NO. 3
INVITATION TO BID

HAGERSTOWN REGIONAL AIRPORT
EXPAND/REHABILITATE TERMINAL BUILDING EAST

DATE: Wednesday, June 18, 2025

BIDS DUE: Friday, June 27, 2025
2:00 P.M.(EDT/EST)

To Bidders:

This Addendum is hereby made a part of the Contract Documents on which all bids will be based and is issued to correct and clarify the original documents.

Please acknowledge receipt of this Addendum at the appropriate space on the Proposal Form. This Addendum consists of six (6) pages and five (5) attachments.

NOTE: All Bidders must enter the Washington County Administration Complex through either the front door at the 100 West Washington Street entrance or through the rear entrance (w/blue canopy roof) which is handicap accessible and must use the elevator to access the Purchasing Department to submit their bid and/or to attend the Pre-Bid Conference. Alternate routes are controlled by a door access system. The general public will be subject to wand search and will be required to remove any unauthorized items from the building prior to entry. Prohibited items include but are not limited to: Weapons of any type; Firearms, ammunition, and explosive devices; Cutting instruments of any type - including knives, scissors, box cutters, work tools, knitting needles, or anything with a cutting edge, etc.; Pepper spray, mace, or any other chemical defense sprays; and Illegal substances.

ITEM NO. 1: Inquiry: Section 07 61 03-4, 2.1A 1 Manufactured Sheet Metal Roofing. The basis of design is a Fabral Model Prestige Standing Seam Panel. This is the name of an old panel no longer manufactured. Please provide a current Fabral panel.

Response: REVISE Article 2.1.A.1 to read “ Fabral Stand ‘N Seam (Basis of Design)”. Provide Fabral Stand ‘N Seam 16” wide, 24-gauge double lock standing seam 2-1/4” high. Stainless steel moveable clip. Prefinished galvalume panels.

ITEM NO. 2: Inquiry: Section 07 42 13-3, 2.2A Metal Wall Panels. The specifications call for a .040-inch aluminum panel, 12 inches wide with a 1" reveal. Drawing 3/A4.9 shows a 1 1/4" 24-gauge galvanize VEE RIB 36" wide panel. Please clarify the panel type.

Response: REVISE Article 2.2.A to read “Exterior Panel and Other Sheet Materials: Provide 24-gauge prefinished galvanized steel Vee Rib 36” wide panel.”

ITEM NO. 3: Inquiry: Section 07 42 13-3, 2.2B Soffit Panels. The above section calls for a .040-inch-thick aluminum panel with a 12-inch-wide profile with a 1-inch reveal. Section 07 61 03-5 calls for a 24-gauge steel panel with a 12-inch-wide profile and no reveal. Please clarify.

Response: REVISE Article 2.2.B to read “Soffit Panels: Provide 24-gauge galvalume steel with PVDF finish FP-12, 12” wide flush panel, 7/8” depth with J trim edges.

ITEM NO. 4: Inquiry: At the pre-construction bid meeting it was mentioned to match existing conditions. Please verify that the color selection for the metal roofing, soffit gutter and downspouts will be from the manufacturer's standard color selection and custom colors will not be required.

Response: The last addition Hold Room roofing was Drexel Metals 2” standing seam double lock, 24-gauge panel, DMC 2005 profile, 2” mechanically seamed, standard colors – Slate Gray SR41.

ITEM NO. 5: Inquiry: Please provide pipe size for the underground portion of the rain leader along Column Line 11 and the pipe size that pick-up the downspouts.

Response: Part 1 of Item No. 5 herein: Underground rain leader along column 11: 12” PVC

Response: Part 2 of Item No. 5 herein: Each 6” downspout shall connect to the 12” storm pipe via 6”x12” Wye fitting, with a 6” to 12” reducer if necessary.

ITEM NO. 6: Inquiry: I am reaching in regard to the above-mentioned project because we would like for you to review and consider our substitution request. (Attachment A)

Response: Requested substitution is not approved equal to specified.

ITEM NO. 7: Inquiry: Was the prebid meeting mandatory?

Response: No, attendance is not mandatory but is strongly encouraged.

ITEM NO. 8: Inquiry: Please see the attached substitution request. (Attachment B)

Response: The Schlage L will be acceptable when meeting the minimum attributes of the specification and key cylinders are compatible with the existing Corbin/Ruswin core.

ITEM NO. 9: Inquiry: Please furnish 3rd & 4th Quarter Flight Schedules for review.

(NOTE: The wording of all “Inquiries” submitted are displayed exactly as received.)

Response: The attached Flight Schedule runs through mid-February 2026. (Attachment D)

ITEM NO. 10: Inquiry: To comply with the project Alternates and utilizing Drawing A1.2 as the guide the following clarification is required:

1. Demolition Drawing D1.1 has Legend Notes #1 - #7. Base Bid is only Item#3 and One Item #2 at Column Line 10D. All other Items are Alternate#1?
2. How can you expect the Architectural Products, Masonry, Structural, Mechanical, Plumbing and Electrical to differentiate these Alternate Items from the Base Bid without proper documentation. Please advise!
3. Will there be additional time added to the schedule for these alternates?
4. Drawing S1.2, Note #7 adjacent to Column Line 10 D appears to be in error. Please verify.
5. Detail 8 on Drawing G2.2 – Is this the Temporary Security Fence?
6. Summary Specification 01 10 00 Item 1.10A – Builders Risk Insurance required?
7. Summary Specification 01 17 00 Item 1.17A – Full time Project Manager on site required?
8. Summary Specification 01 31 00 Item 1.6D3 – BIM Files required?
9. Summary Specification M100 Item 2.1 – Dedicated employee monitor airfield radio during execution of all work?
10. Form of Proposal page FP-2, Item2, **Subcontractors:** All bidders shall submit their list of subcontractors as part of their bid packet. Is this required with the bid or 48 hours after Bid Opening by the Low Bidder?

Response: Part 1 of Item No. 10 herein: DELETE Drawing D1.1 in its entirety and REPLACE with REVISED Drawing D1.1, dated 06.17.2025 (Attachment C). Base Bid includes removal of aluminum storefront and masonry walls for new doors on Frame Line 10 and Frame Line B exterior wall. All other items are Alternate No. 1.

Response: Part 2 of Item No. 1 herein: Refer to Drawing A1.2, Add Alternate No. 1 – Renovate existing space to add Break Room and additional Offices.

Response: Part 3 of Item No. 10 herein: Refer to response to ITEM NO. 24 in Addendum No. 2

(NOTE: The wording of all "Inquiries" submitted are displayed exactly as received.)

Response: Part 4 of Item No. 1 herein: Correct, Note #7 on S1.2 was an error. The drawings have been updated to remove this reference. (Attachment C)

Response: Part 5 of Item No. 10 herein: Yes, this is the temporary security fence to be installed during construction.

Response: Part 6 of Item No. 1 herein: Yes, builders risk insurance shall be included with the Contractor's bid.

Response: Part 7 of Item No. 10 herein: Article 1.7.A; DELETE in its entirety and REVISE as follows "The General Contractor shall assign a full-time superintendent for the complete duration of the project."

Response: Part 8 of Item No. 1 herein: DELETE Article 1.6.D.3 in its entirety.

Response: Part 9 of Item No. 10 herein: A dedicated employee will not need to monitor the airfield radio during construction since all work is outside the movement areas of the air operations area.

Response: Part 10 of Item No. 1 herein: Yes, all bidders shall submit their subcontractors list with their bid.

ITEM NO. 11: Inquiry: Section 07 54 19-2, 1.5G PVC Roofing
Is a manufacturer's full-time inspector required to submit daily inspection reports? This is a service usually not provided by most roofing manufacturers.

Response: A full-time manufacturer inspector is not required. The General Contractor Field Superintendent will coordinate with the roofing subcontractor.

ITEM NO. 12: Inquiry: Section 07 54 19-12, 3.8 Field Quality Control
Is a manufacturer's full-time inspector required to be on site for nine hours each per every five days worked and submit inspection reports with photographs? This is a service usually not provided by most roofing manufacturers.

Response: DELETE Article 3.8.A in its entirety and REPLACE as follows:
"A. Inspection: Technical Inspector shall visit the site and conduct a final inspection in order to provide a 20-year warranty. The Technical Inspector must have been employed by the manufacturer for a 5-year period."

ITEM NO. 13: Inquiry: Section 07 54 19-9, 3.1 Examination
Please verify that the deck is steel and not concrete.

Response: Deck is steel per structural drawings.

ITEM NO. 14: Inquiry: Will the sign in sheet be included with the next addendum?

(NOTE: The wording of all "Inquiries" submitted are displayed exactly as received.)

Response: Pre-Bid Attendance List attached. (Attachment E)

ITEM NO. 15: Inquiry: The duration of the project needs to be extended beyond 240 days to allow time for the new terminal to be occupied prior to the Alternates to be started and completed. This is not enough time.

Response: The contract time has been extended to three hundred and sixty-five (365) Consecutive Calendar Days. It should be noted that this duration is after the Construction Notice To Proceed (NTP) and will include a separate Administrative NTP issued for the purposes of initiating submittals and materials procurement that is not included in the Contract Time.

REVISIONS TO PLANS (see corresponding reissued sheets in Attachment C):

ITEM NO. 16: Sheet No. CV1.0 Cover Sheet, general Construction and Safety Notes:

REVISE Grading Permit number on bottom of page.

REVISE Disturbed Area Quantities

REVISE Stormwater Management Narrative

ITEM NO. 17: Sheet No. CV1.1 Existing Conditions and Demolition Plan:

REVISE Grading Permit number on bottom of page.

ITEM NO. 18: Sheet No. CV1.2 Final Conditions Plan:

REVISE Grading Permit number on bottom of page.

ITEM NO. 19: Sheet No. CV1.3 Site Plan:

REVISE Grading Permit number on bottom of page.

REVISE Site Data Table for Terminal Area and Impervious Cover

ITEM NO. 20 Sheet No. CV1.4 Grading and Sediment Control Plan:

REVISE Grading Permit number on bottom of page.

ADD Limit of Disturbance to plan sheet and legend.

ITEM NO. 21: Sheet No. CV1.5 Drainage and Erosion and Sediment Control Notes and Details:

REVISE Grading Permit number on bottom of page.

ITEM NO. 22: Sheet No. CV5.1 Site Details 1:

REVISE Gate Number Sign Detail was adjusted to move text on top of sign

REVISE Grading Permit number on bottom of page.

(NOTE: The wording of all "Inquiries" submitted are displayed exactly as received.)

ITEM NO. 23: Sheet No. CV5.2 Site Details 2:

REVISE Grading Permit number on bottom of page.

ITEM NO. 24: Sheet No. A1.0 PARTITION TYPES

REVISE: Change Wall Type at Room 119 – Electric Room

ITEM NO. 25: Sheet No. A1.3 ENLARGED FLOOR PLAN AT NEW WORK

REVISE: Revised size and wall types of Room 119-Electric Room

ITEM NO. 26 Sheet No. A4.9 SECTION DETAILS

REVISE: Revised detail 1/A4.9

ITEM NO. 27: Sheet No. S1.1 FOUNDATION PLAN

REVISE: Coordinated with architectural revisions to electrical room extents

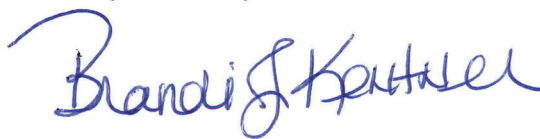
ITEM NO. 28: Sheet No. S1.2 ROOF FRAMING PLAN

REVISE: Revised callout to omit reference to note 7 at lintel near grid intersection D-10.

ATTACHMENTS:

- A. Substitution (Plumbing Fixtures) (4 pages)
- B. Substitution (Door Hardware) (153 pages)
- C. Contract Drawings (CV1.0, CV1.1, CV1.2, CV1.3, CV1.4, CV1.5, CV5.1, CV5.2, D1.1, A1.0, A1.3, A4.9, S1.1, and S1.2) (14 pages)
- D. HGR Flight Schedule (6 pages)
- E. Pre-Bid Meeting Attendance List (5 sheets)

By Authority of:



Brandi J. Kentner, CPPO
Director of Purchasing

SECTION 01 60 00: PRODUCT REQUIREMENTS

HAGERSTOWN REGIONAL AIRPORT – RICHARD A. HENSON FIELD | TERMINAL BUILDING EXPANSION
FAA ATP 3-24-0019-XXX-2025; MAA-GR-XX-XXX
BID NO. PUR-1751 | BID SET | MAY 2025

Attachment A



REQUEST FOR SUBSTITUTION

DATE OF REQUEST: 06/12/2025

PROJECT: Hagerstown Regional Airport – Terminal Building Renovation

CONTRACTOR: Excel Dryer Inc

TELEPHONE NO: 413-224-0093

FACSIMILE NO: _____

CONTACT: Princess Micabalo

CONTRACT PACKAGE: _____

1. Item for which substitution is being requested: Bradley Verge No. LVQD1

2. Reference Specification Section: 22 40 00: PLUMBING FIXTURES

3. Reference Drawing: L-1

4. Reason for Substitution Request: Substitution/Equal

5. Product Comparison:

Submit three copies of shop drawing, product data, color samples, utility requirements and certified test results attesting to the proposed product equivalence.

a. _____ Data substantiating compliance of proposed substitution with contract documents.

b. _____ Product identification, manufacturer's name, address and telephone number.

c. _____ Manufacturer's literature, warranty.

d. _____ Full color selection, showing colors Architect may select without additional cost.

e. _____ Samples

f. _____ Warranty

g. _____ References of product use.

h. _____ Itemized comparison of proposed substitution with product or method specified. Highlight all differences from specified item.

i. _____ All items listed Section 01 60 00-1.6.

j. _____ Cover letter stating benefits or equality of substitution and reason for substitution request.

6. If request is being submitted after the receipt of bids, attach price quotations of specified product and substituted products.

SECTION 22 40 00: PLUMBING FIXTURES

HAGERSTOWN REGIONAL AIRPORT – RICHARD A. HENSON FIELD | TERMINAL BUILDING EXPANSION
AIP 3-24-0019-XXX-2025; MAA-GR-XX-XXX
BID NO. PUR – 1751 | BID SET | MAY 2025



- I. All exposed piping to fixtures shall be chrome plated. Chrome traps and chrome tubing shall be 1/2" gauge minimum. All traps of all types, exposed and accessible concealed, shall each include cleanout. Chrome finishes shall not be required for fixtures that require insulation kits.
- J. All escutcheons shall be chrome, cast brass, set screw type, including on drain assemblies, water supplies at fixtures, and including piping inside fixture cabinets.
- K. Plumbing Contractor shall furnish templates to General Contractor for cut-out work for built-in sinks and lavatories. Confirm available cabinet sizes with the General Contractor or Equipment Supplier prior to ordering counter sinks or counter lavatories of any type.
- L. Supply piping to fixtures, faucets, wall hydrants, and hose bibbs shall be securely anchored to prevent movement.
- M. Contractor shall coordinate all installations with Architectural Drawing elevations and ADA required clearances.
- N. Wiring with conduit from transformers above ceiling to sensor-operated equipment shall be furnished and installed under the Plumbing Contract; refer to Section 220500.

PART 2 - PRODUCTS

2.1 FIXTURES

- A. L-1 – Wall-Mounted Single Station with **Hard-Wired** Faucet – ADA Height
 - 1. Bradley Verge No. LVQD1 wall hung lavatory, 30" x 21", with WashBar WB1. Mount at ADA Height.
 - 2. Drain shall be Zurn No. Z8746-PC flat perforated strainer drain with 1-1/4" offset tailpiece.
 - 3. P-Trap assembly shall be Zurn No. Z8701-9-PC, 1-1/4" x 1-1/2", with cleanout.
 - 4. Water supplies shall be Zurn Z8800-XL-LRLK-PC. Brass ball valve type "convertible" stops acceptable.
 - 5. Zurn No. Z8946-3-NT ADA compliant insulation kit for waste and hot and cold water assemblies, vandal-resistant; when exposed to users.
 - 6. Infrared faucet provided with sink.
- B. S-1 – Drop-In Double Bowl Stainless Steel Sink with Manual Faucet – ADA Height
 - 1. Elkay LRAD332250 Lustertone™ Classic Stainless Steel 33" x 22" x 5" Equal Double Bowl Drop-in ADA Sink. Sink is manufactured from 18 gauge 304 Stainless Steel with a Lustrous Satin finish, Rear Center drain placement, and Bottom only pads.
 - 2. Faucet shall be the Zurn No. Z831C4-ICT-XL, 'Lead Free', 8" centers, gooseneck spout, 4" wrist blade handles, and aerator.
 - 3. Elkay LK35 stainless steel drain and tailpiece assembly with 1-1/2" Schedule 40 PVC adjustable P-Trap and waste assembly.
 - 4. Water supplies shall be Zurn Z8800-XL-LRLK-PC. Brass ball valve type "convertible" stops acceptable.
 - 5. Zurn No. Z8946-3-NT ADA compliant insulation kit for waste and hot and cold water assemblies, vandal-resistant; when exposed to users.
 - 6. Sink countertop openings under General Contract. Sink set and sealed by Plumbing Contractor.

SINK. TO A NEW LEVEL.

D|13 Integrated Sink System Vs. Bradley Verge

The D|13 Sink System is the most advanced integrated sink system on the market. A masterpiece of form and function, providing the most hygienic, sustainable and cost-effective way to wash and dry hands. D|13 is more than a supplier. We are a design-assist partner working directly with architects, designers and clients. We fabricate our sink system to your specifications offering unparalleled customization providing the ultimate product solution. We provide a high-end custom product at a competitive price.

FEATURES	 D 13	 VERGE
USER EXPERIENCE: THE ULTIMATE DIFFERENTIATOR		
HAND DRYER	XLERATORSync® Hand Dryer, designed in collaboration with Excel Dryer and a world-renowned design firm. Unique “reverse airflow” design blows air/water flow away from the user, promoting hygiene and enhancing user experience.	Generic dryer fixture by Bradley.
	Electrostatic HEPA (eHEPA®) Filter with washable pre-filter. For WELL v2, the hand dryer qualifies for several WELL points. Details on Works with WELL Directory.	No.
	Sound suppression air delivery system.	No.
	Adjustable sound, speed and heat.	Adjustable speed only.
	LED illumination of drying area enhances visual experience identifying the optimal location for hand drying.	Blue LED and icons on WashBar indicating sink faucet, soap dispenser and hand dryer.
SINK BASIN	Choice of undermount or trough-style sink with infinity drain. Specifically engineered and designed to work with the XLERATORSync dryer, keeping airflow away from the user and water where it belongs.	Trough-style sink.
	Engineered without air dams or additional holes eliminating the resistance for tampering.	
INTUITIVENESS	Intuitive: Left to right functionality. Unique XLERATORSync dryer nozzle design.	One-piece for water, soap and dryer that is confusing to user.

SINK. TO A NEW LEVEL.

FEATURES	D 13	VERGE
SINK DECK	Standard and custom lengths and configurations. Materials include solid surface, granite, quartz and other stone material.	Basin made from mix of resin, quartz, granite and other "exotic" materials.
ENCLOSURE PANEL	Choice of sliding door panels with ball bearings or hanging panels with z-clips. Secure locking mechanism optional. Available in solid surface, stainless steel, laminated MDF or phenolic.	Stainless steel panel with swing-down access panel.
FAUCET	Compatible with many faucet models from several manufacturers. Choice of size, finish, flow rate and shape to complement your design.	Available with Verge faucets. Choice of finish and shape to compliment your design.
SOAP DISPENSER	Flexible soap dispenser models and soap configurations available.	Bradley soap dispenser pre-mounted to basin with no choice in different models.
WARRANTY	7-year warranty on XLERATORsync dryer. 15-year warranty on sink. 3-year warranty on countertop, enclosure panels and frame. Factory warranty on faucets and soap fixtures.	1-year sensor for dryer, 3-year warranty motor brushes, 10-year warranty for all other dryer components. 15-year warranty for Evero materials. 5-year warranty ndite power management module and photovoltaic cells. 10-year warranty on Terreon materials. 3-year warranty for Verge faucets. 1-year factory warranty on all other sink components.
INSTALLATION	Factory templates and custom 3D laser templating available to reduce installation time and ensure accurate fit. Factory installation available in most areas.	Installation guide available.
PURCHASING	Purchased and shipped directly from D 13 Group.	Sold through wholesale distribution and manufacturer reps adding layers of margin/overhead.



**SUBSTITUTION
REQUEST**

(During the Bidding Phase)

Project: Hagerstown Regional Airport Substitution Request Number: 087100
From: Maxx Townsend
To: Bushey Feight Morin Architects Date: 6/12/2025
Re: 087100 Hardware A/E Project Number: _____
Contract For: Door Hardware

Specification Title: 087100 Door Hardware Description: Approve Equal
Section: 2 Page: _____ Article/Paragraph: see page 2

Proposed Substitution: Competitive products as listed on the attachment
Manufacturer: Allegion Address: 11819 N Pennsylvania St, Carmel, IN Phone: 317-810-3700
Trade Name: Schlage Model No.: _____

Attached data includes product description, specifications, drawings, photographs, and performance and test data adequate for evaluation of the request; applicable portions of the data are clearly identified.

Attached data also includes a description of changes to the Contract Documents that the proposed substitution will require for its proper installation.

The Undersigned certifies:

- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product.
- Same warranty will be furnished for proposed substitution as for specified product.
- Same maintenance service and source of replacement parts, as applicable, is available.
- Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule.
- Proposed substitution does not affect dimensions and functional clearances.
- Payment will be made for changes to building design, including A/E design, detailing, and construction costs caused by the substitution.

Submitted by: Maxx Townsend
Signed by: _____
Firm: Allegion
Address: 11819 N Pennsylvania St, Carmel, IN 46032
Telephone: 317-810-3700

A/E's REVIEW AND ACTION

- ☐ Substitution approved - Make submittals in accordance with Specification Section 01330.
☐ Substitution approved as noted - Make submittals in accordance with Specification Section 01330.
☐ Substitution rejected - Use specified materials.
☐ Substitution Request received too late - Use specified materials.

Signed by:

Date:

Supporting Data Attached: ☐ Drawings ☒ Product Data ☐ Samples ☐ Tests ☐ Reports ☐ _____

Substitution Request for Divisions 087100

Cutsheets are attached for review. Submitted products are recognized as equal or better throughout the industry with millions of satisfactory installations and equal or better warranties than specified. The addition of these approved manufacturers will create a competitive pricing scenario in lieu of the currently specified single source products from only one parent company.

Section 087100 Door Hardware

2.2 HANGING DEVICES

A. Hinges: Please add IVES

B. Continuous Geared Hinges: Please add IVES

2.4 DOOR OPERATING TRIM: Please add IVES

2.5 CYLINDERS AND KEYING: Please add SCHLAGE L

2.6 MECHANICAL LOCKS AND LATCHING DEVICES: Please add SCHLAGE L

2.9 CONVENTIONAL EXIT DEVICES: Please add VON DUPRIN 33A/35A/70/98/99 SERIES & FALCON 24/25

2.10 DOOR CLOSERS: Please add LCN 4040/4110/4030

2.11 ARCHITECTURAL TRIM: Please add IVES

2.12 DOOR STOPS AND HOLDERS: Please add IVES and GLYNN JOHNSON

2.13 ARCHITECTURAL SEALS: Please add ZERO

General information - electrification options

Electrical through-wire (TW4 and TW8)

Provides electric power transfer from the frame to the door in order to supply power to an electrified mortise or cylindrical locks, exit devices with electric latch retraction, and/or electric strikes (pairs of doors). Through-wire is rated 50 volts AC/DC at 3.5 amp continuous and 16 amp pulse. Maximum pulse 400 milliseconds. Ives through-wire hinges are fully compatible with 4 wire (TW4) and 8 wire (TW8) installations. Available CON option comes with the Allegion Connect 8-pin Connector which makes it easy to connect to other electrical consumption devices.



- UL634 Listed
- Not available 3PB1, 3SP1, and 5PB1 models
- Not available on 3.5 x 3.5 size hinges
- Not available with security stud (SH) option
- Packaged one hinge per box with standard wood and machine screws
- Hinge is NRP as a standard
- High quality brass ferrules and plastic tubing protect the wires
- Through-wire hinges cycle tested to ensure durability
- Special wire gauge, number, and color configurations available, contact factory

Electrical Monitor (MON, TW4M, TW8M)

Provides door position monitoring. Monitor is rated 30 volts AC/DC at 0.5 amp. Fully compatible with through-wire hinges with 4 wire (TW4M) and 8 wire (TW8M) installations. Available CON option comes with the Allegion Connect 8-pin Connector which makes it easy to connect to other electrical consumption devices.

- UL634 Listed
- Not available 3PB1, 3SP1, and 5PB1 models
- Not available on 3.5 x 3.5 and 4X4 size hinges
- Not available with security stud (SH) option
- Packaged one hinge per box with standard wood and machine screws
- Hinge is NRP as a standard
- High quality brass ferrules and plastic tubing protect the wires
- Through-wire hinges cycle tested to ensure durability
- Special wire gauge, number, and color configurations available, contact factory

Ives Hinge number system

Please note: For availability of specific models, please refer to the item's catalog page or consult Customer Service.

How to order:

		5	-	BB	-	1	-	HW	-	SH	-	4.5x4.5	-	652	-	NRP
Number of knuckles:																
3	3 Knuckle															
5	5 Knuckle															
Function:																
PB	Plain bearing															
BB	Ball bearing															
CB	Concealed bearing															
SP	Spring Hinge															
Type:																
1	Full mortise															
2	Half mortise															
3	Full surface															
4	Half surface															
Weight / Type:																
Blank	Standard weight (BHMA Grade 2)															
HW	Heavy weight (BHMA Grade 1)															
SC	Swing clear															
BSC	Beveled swing clear															
SCHW	Swing clear, heavy weight															
BSCHW	Beveled swing clear, heavy weight															
WT	Wide throw															
Options:																
HT	Hospital tip															
SH	Security stud (includes NRP as a standard offering)															
Height	x	Width														
3.5	x	3.5														
4	x	4														
4.5	x	4, 4.5, 5, 6														
5	x	4.5, 5, 6, 7														
Consult model page for availability.																
Finish																
BHMA	Description	Substrate	Finish													
600	Primer paint	Steel	USP													
605	Bright brass	Brass	US3													
606	Satin brass	Brass	US4													
610	Satin bronze	Brass	US10													
613	Oil rubbed bronze	Brass	US10B													
614	Oxidized bronze	Brass	US10A													
616	Blackened bronze	Brass	US11													
619	Satin nickel	Brass	US15													
622	Matte black	Brass	B-BLK													
625	Bright chrome	Brass	US26													
626	Satin chrome	Brass	US26D													
643e/716	Aged bronze	Brass	B-643e/716													
629	Bright stainless	Stainless steel	US32													
630	Satin stainless	Stainless steel	US32D													
631	Matte black	Steel	F-BLK													
632	Bright brass	Steel	US3													
633	Satin brass	Steel	US4													
639	Satin bronze	Steel	US10													
640	Oil rubbed bronze	Steel	US10B													
641	Oxidized bronze	Steel	US10A													
643	Blackened bronze	Steel	US11													
646	Satin nickel	Steel	US15													
651	Bright chrome	Steel	US26													
652	Satin chrome	Steel	US26D													
643e/716	Aged bronze	Steel	F-643e/716													
For other colors, consult factory.																
Options 2																
NRP	Non-removable pin															
RC-1/4	Rounded corners 1/4"															
RC-5/8	Rounded corners 5/8"															
SEC	Security screws (hollow metal - hex head pin in socket)															
TW4	Thru-wire - four wire															
TW8	Thru-wire - eight wire															
MON	Monitor															
TW4M	Thru-wire - four wire with monitor															
TW8M	Thru-wire - eight wire with monitor															
CON	Allegion connect for wire options above															



3PB1 3 Knuckle, plain bearing full mortise hinge

- Recommended for standard weight doors
- Recommended for low frequency usage
- Not recommended for use with a door closer
- Packed with fasteners for hollow metal and wood doors
 - 12-24 x 1/2 UFPHMS, 12 x 1 1/4 FPHWS
 - 10-24 x 1/2 UFPHMS, 10 x 1 FPHWS (3.5x3.5 hinge size only)

Certifications

- Certified to ANSI/BHMA A156.1 for performance standards
- Meets ANSI/BHMA 156.7 for template hinge dimensions

Material substrate

- Made from brass, 1040 steel, or 304 series stainless steel

Options

- NRP Non-removable pin
- HT..... Hospital tip
- SH..... Security stud - comes standard with NRP
- RC-1/4, RC-5/8.... Rounded corners
- SEC Security fasteners - pin-in-socket

Dimensions

Height x Width	Size (mm)	Gauge
3.5 x 3.5	89 x 89	0.123
4 x 4	102 x 102	0.130
4.5 x 4	114 x 102	0.134
4.5 x 4.5	114 x 114	0.134
5 x 4.5	127 x 114	0.146

Refer to General Hinge Information page to determine proper hinge for application

3PB1 Finishes

BHMA	Description	Substrate	Finish
600	Primer paint	Steel	USP
605	Bright brass	Brass	US3
606	Satin brass	Brass	US4
610	Satin bronze	Brass	US10
613	Oil rubbed bronze	Brass	US10B
614	Oxidized bronze	Brass	US10A
616	Blackened bronze	Brass	US11
619	Satin nickel	Brass	US15
622	Matte black	Brass	B-BLK
625	Bright chrome	Brass	US26
626	Satin chrome	Brass	US26D
643e/716	Aged bronze	Brass	B-643e/716
629	Bright stainless	Stainless steel	US32
630	Satin stainless	Stainless steel	US32D
631	Matte black	Steel	F-BLK
632	Bright brass	Steel	US3
633	Satin brass	Steel	US4
639	Satin bronze	Steel	US10
640	Oil rubbed bronze	Steel	US10B
641	Oxidized bronze	Steel	US10A
643	Blackened bronze	Steel	US11
646	Satin nickel	Steel	US15
651	Bright chrome	Steel	US26
652	Satin chrome	Steel	US26D
643e/716	Aged bronze	Steel	F-643e/716

For other colors, consult factory.

A5
Hinges & pivots

B
Pulls & plates

C
Flush bolts & coordinators

D
Latches, catches & bolts

E
Stops

F
Exterior hardware

G
Miscellaneous hardware



3CBI 3 Knuckle, concealed bearing full mortise hinge

- Recommended for medium weight doors (<150 lbs)
- Recommended for medium frequency usage (<400 cycles per day)
- Made with two concealed nylon bearings
- Recommended for use with a door closer
- Packed with fasteners for hollow metal and wood doors
 - 12-24 x 1/2 UFPHMS, 12 x 1 1/4 FPHWS
 - 10-24 x 1/2 UFPHMS, 10 x 1 FPHWS (3.5x3.5 hinge size only)

Certifications

- Certified to ANSI/BHMA A156.1 for performance standards
- Meets ANSI/BHMA 156.7 for template hinge dimensions
- UL Classified for windstorm rated assemblies - R37965
- UL Listed, 3 hour fire doors

Material substrate

- Made from brass, 1040 steel, or 304 series stainless steel

Options

- NRP Non-removable pin
- HT..... Hospital tip
- SH..... Security stud - comes standard with NRP
- RC-1/4, RC-5/8... Rounded corners
- SEC Security fasteners - pin-in-socket
- TW4 Four wire
- TW4M Four wire with monitor
- TW8 Eight wire
- W8M..... Eight wire with monitor
- MON..... Monitor (not available on 3.5X3.5)

Dimensions

Height x Width	Size (mm)	Gauge
3.5 x 3.5	89 x 89	0.123
4 x 4	102 x 102	0.130
4.5 x 4	114 x 102	0.134
4.5 x 4.5	114 x 114	0.134
5 x 4.5	127 x 114	0.146
5 x 5	127 x 127	0.146

Refer to General Hinge Information page to determine proper hinge for application

3CBI Finishes

BHMA	Description	Substrate	Finish
600	Primer paint	Steel	USP
605	Bright brass	Brass	US3
606	Satin brass	Brass	US4
610	Satin bronze	Brass	US10
613	Oil rubbed bronze	Brass	US10B
614	Oxidized bronze	Brass	US10A
616	Blackened bronze	Brass	US11
619	Satin nickel	Brass	US15
622	Matte black	Brass	B-BLK
625	Bright chrome	Brass	US26
626	Satin chrome	Brass	US26D
643e/716	Aged bronze	Brass	B-643e/716
629	Bright stainless	Stainless steel	US32
630	Satin stainless	Stainless steel	US32D
631	Matte black	Steel	F-BLK
632	Bright brass	Steel	US3
633	Satin brass	Steel	US4
639	Satin bronze	Steel	US10
640	Oil rubbed bronze	Steel	US10B
641	Oxidized bronze	Steel	US10A
643	Blackened bronze	Steel	US11
646	Satin nickel	Steel	US15
651	Bright chrome	Steel	US26
652	Satin chrome	Steel	US26D
643e/716	Aged bronze	Steel	F-643e/716

For other colors, consult factory.



3CBIHW 3 Knuckle, concealed bearing, heavy weight full mortise hinge

- Recommended for heavier weight doors (>150 lbs)
- Recommended for high frequency usage (400 cycles per day)
- Made with two heavy duty concealed nylon bearings
- Recommended for use with a door closer
- Packed with fasteners for hollow metal and wood doors
12-24 x 1/2 UFPHMS, 12 x 1 1/4 FPHWS

Certifications

- Certified to ANSI/BHMA A156.1 for performance standards
- Meets ANSI/BHMA 156.7 for template hinge dimensions
- UL Classified for windstorm rated assemblies - R37965
- UL Listed, 3 hour fire doors

Material substrate

- Made from brass, 1040 steel, or 304 series stainless steel

Options

- NRPNon-removable pin
- HT.Hospital tip
- SH.Security stud - comes standard with NRP
- RC-1/4, RC-5/8.Rounded corners
- SECSecurity fasteners - pin-in-socket
- TW4.Four wire
- TW4M.Four wire with monitor
- TW8.Eight wire
- TW8MEight wire with monitor
- MON.....Monitor

Dimensions

Height x Width	Size (mm)	Gauge
4.5 x 4	114 x 102	0.180
4.5 x 4.5	114 x 114	0.180
5 x 4.5	127 x 114	0.190
5 x 5	127 x 127	0.190

Refer to General Hinge Information page to determine proper hinge for application

3CBIHW Finishes

BHMA	Description	Substrate	Finish
600	Primer paint	Steel	USP
605	Bright brass	Brass	US3
606	Satin brass	Brass	US4
610	Satin bronze	Brass	US10
613	Oil rubbed bronze	Brass	US10B
614	Oxidized bronze	Brass	US10A
616	Blackened bronze	Brass	US11
619	Satin nickel	Brass	US15
622	Matte black	Brass	B-BLK
625	Bright chrome	Brass	US26
626	Satin chrome	Brass	US26D
643e/716	Aged bronze	Brass	B-643e/716
629	Bright stainless	Stainless steel	US32
630	Satin stainless	Stainless steel	US32D
631	Matte black	Steel	F-BLK
632	Bright brass	Steel	US3
633	Satin brass	Steel	US4
639	Satin bronze	Steel	US10
640	Oil rubbed bronze	Steel	US10B
641	Oxidized bronze	Steel	US10A
643	Blackened bronze	Steel	US11
646	Satin nickel	Steel	US15
651	Bright chrome	Steel	US26
652	Satin chrome	Steel	US26D
643e/716	Aged bronze	Steel	F-643e/716

For other colors, consult factory.

3CB1WT 3 Knuckle, concealed bearing, wide throw full mortise hinge

- Recommended for medium weight doors (<150 lbs)
- Recommended for medium frequency usage (<400 cycles per day)
- Made with two concealed nylon bearings
- Recommended for use with a door closer
- Packed with fasteners for hollow metal and wood doors
12-24 x 1/2 UFPHMS, 12 x 1 1/4 FPHWS

Certifications

- Certified to ANSI/BHMA A156.1 for performance standards
- Meets ANSI/BHMA 156.7 for template hinge dimensions

Material substrate

- 1040 steel

Options

- NRPNon-removable pin
- HT.....Hospital tip
- SH.....Security stud - comes standard with NRP
- RC-1/4, RC-5/8...Rounded corners
- SECSecurity fasteners - pin-in-socket
- TW4Four wire
- TW4MFour wire with monitor
- TW8Eight wire
- TW8MEight wire with monitor
- MONMonitor

Dimensions

Height x Width	Size (mm)	Gauge
4.5 x 5	114 x 127	0.134
4.5 x 6	114 x 152	0.134
5 x 6	127 x 152	0.146
5 x 7	127 x 178	0.146
5 x 8	127 x 203	0.146

Refer to General Hinge Information page to determine proper hinge for application

3CB1WT Finishes

BHMA	Description	Substrate	Finish
600	Primer paint	Steel	USP
631	Matte black	Steel	F-BLK
632	Bright brass	Steel	US3
633	Satin brass	Steel	US4
639	Satin bronze	Steel	US10
640	Oil rubbed bronze	Steel	US10B
641	Oxidized bronze	Steel	US10A
643	Blackened bronze	Steel	US11
646	Satin nickel	Steel	US15
651	Bright chrome	Steel	US26
652	Satin chrome	Steel	US26D
643e/716	Aged bronze	Steel	F-643e/716

For other colors, consult factory.



3SP1 3 Knuckle, spring full mortise hinge

- For use with doors where self-closing is required
- Maximum door weight 120 lbs, max door width 36"
- Maximum labeled door size - 3'0" wide x 7'0" x 1 3/4" thick as set in NFPA #80
- Packed with fasteners for hollow metal and half metal / half wood applications
 - 12-24 x 1/2 UFPHMS, 12 x 1 1/4 FPHWS
 - Pin for setting spring tension
 - Adjusting wrench

Certifications

- Certified to ANSI/BHMA A156.4 for performance standards
- Meets ANSI/BHMA 156.7 for template hinge dimensions
- UL listed for use with fire rated doors

Material substrate

- Made from 1040 steel or 304 series stainless steel

Options

- RC-1/4, RC-5/8...Rounded corners
- SECSecurity fasteners - pin-in-socket

Dimensions

Height x Width	Size (mm)	Gauge
4 x 4	102 x 102	0.130
4.5 x 4	114 x 102	0.134
4.5 x 4.5	114 x 114	0.134

Refer to General Hinge Information page to determine proper hinge for application.

3SP1 Finishes

BHMA	Description	Substrate	Finish
600	Primer paint	Steel	USP
629	Bright stainless	Stainless steel	US32
630	Satin stainless	Stainless steel	US32D
631	Matte black	Steel	F-BLK
632	Bright brass	Steel	US3
633	Satin brass	Steel	US4
639	Satin bronze	Steel	US10
640	Oil rubbed bronze	Steel	US10B
641	Oxidized bronze	Steel	US10A
643	Blackened bronze	Steel	US11
646	Satin nickel	Steel	US15
651	Bright chrome	Steel	US26
652	Satin chrome	Steel	US26D
643e/716	Aged bronze	Steel	F-643e/716

For other colors, consult factory.



5PB1 5 Knuckle, plain bearing full mortise hinge

- Recommended for standard weight doors
- Recommended for low frequency usage
- Not recommended for use with a door closer
- Packed with fasteners for hollow metal and wood doors
 - 12-24 x 1/2 UFPHMS, 12 x 1 1/4 FPHWS
 - 10-24 x 1/2 UFPHMS, 10 x 1 FPHWS (3.5x3.5 hinge size only)

Certifications

- Certified to ANSI/BHMA A156.1 for performance standards
- Meets ANSI/BHMA 156.7 for template hinge dimensions

Material substrate

- Made from brass, 1040 steel, or 304 series stainless steel

Options

- NRP Non-removable pin
- HT Hospital tip
- SH Security stud - comes standard with NRP
- RC-1/4, RC-5/8... Rounded corners
- SEC Security fasteners - pin-in-socket

Dimensions

Height x Width	Size (mm)	Gauge
3.5 x 3.5	89 x 89	0.123
4 x 4	102 x 102	0.130
4.5 x 4	114 x 102	0.134
4.5 x 4.5	114 x 114	0.134
5 x 4.5	127 x 114	0.146

Refer to General Hinge Information page to determine proper hinge for application

5PB1 Finishes

BHMA	Description	Substrate	Finish
600	Primer paint	Steel	USP
605	Bright brass	Brass	US3
606	Satin brass	Brass	US4
610	Satin bronze	Brass	US10
613	Oil rubbed bronze	Brass	US10B
614	Oxidized bronze	Brass	US10A
616	Blackened bronze	Brass	US11
619	Satin nickel	Brass	US15
622	Matte black	Brass	B-BLK
625	Bright chrome	Brass	US26
626	Satin chrome	Brass	US26D
643e/716	Aged bronze	Brass	B-643e/716
629	Bright stainless	Stainless steel	US32
630	Satin stainless	Stainless steel	US32D
631	Matte black	Steel	F-BLK
632	Bright brass	Steel	US3
633	Satin brass	Steel	US4
639	Satin bronze	Steel	US10
640	Oil rubbed bronze	Steel	US10B
641	Oxidized bronze	Steel	US10A
643	Blackened bronze	Steel	US11
646	Satin nickel	Steel	US15
651	Bright chrome	Steel	US26
652	Satin chrome	Steel	US26D
643e/716	Aged bronze	Steel	F-643e/716

For other colors, consult factory.



5BB1 5 Knuckle, ball bearing full mortise hinge

- Recommended for medium weight doors (<150 lbs)
- Recommended for medium frequency usage (<400 cycles per day)
- Made with two ball bearing assemblies
- Recommended for use with a door closer
- Packed with fasteners for hollow metal and wood doors
 - 12-24 x 1/2 UFPHMS, 12 x 1 1/4 FPHWS
 - 10-24 x 1/2 UFPHMS, 10 x 1 FPHWS (3.5x3.5 hinge size only)

Certifications

- Certified to ANSI/BHMA A156.1 for performance standards
- Meets ANSI/BHMA 156.7 for template hinge dimensions
- UL Classified for windstorm rated assemblies - R37965
- UL Listed, 3 hour fire doors

Material substrate

- Made from brass, 1040 steel, or 304 series stainless steel

Options

- NRP Non-removable pin
- HT Hospital tip
- SH Security stud - comes standard with NRP
- RC-1/4, RC-5/8 Rounded corners
- SEC Security fasteners - pin-in-socket
- TW4 Four wire
- TW4M Four wire with monitor
- TW8 Eight wire
- TW8M Eight wire with monitor
- MON Monitor (not available on 3.5X3.5)

Dimensions

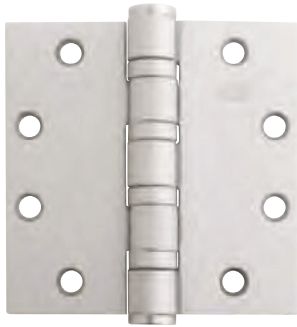
Height x Width	Size (mm)	Gauge
3.5 x 3.5	89 x 89	0.123
4 x 4	102 x 102	0.130
4.5 x 4	114 x 102	0.134
4.5 x 4.5	114 x 114	0.134
5 x 4.5	127 x 114	0.146
5 x 5	127 x 127	0.146

Refer to General Hinge Information page to determine proper hinge for application

5BB1 Finishes

BHMA	Description	Substrate	Finish
600	Primer paint	Steel	USP
605	Bright brass	Brass	US3
606	Satin brass	Brass	US4
610	Satin bronze	Brass	US10
613	Oil rubbed bronze	Brass	US10B
614	Oxidized bronze	Brass	US10A
616	Blackened bronze	Brass	US11
619	Satin nickel	Brass	US15
622	Matte black	Brass	B-BLK
625	Bright chrome	Brass	US26
626	Satin chrome	Brass	US26D
643e/716	Aged bronze	Brass	B-643e/716
629	Bright stainless	Stainless steel	US32
630	Satin stainless	Stainless steel	US32D
631	Matte black	Steel	F-BLK
632	Bright brass	Steel	US3
633	Satin brass	Steel	US4
639	Satin bronze	Steel	US10
640	Oil rubbed bronze	Steel	US10B
641	Oxidized bronze	Steel	US10A
643	Blackened bronze	Steel	US11
646	Satin nickel	Steel	US15
651	Bright chrome	Steel	US26
652	Satin chrome	Steel	US26D
643e/716	Aged bronze	Steel	F-643e/716

For other colors, consult factory.



5BB1HW 5 Knuckle, ball bearing, heavy weight full mortise hinge

- Recommended for heavier weight doors (>150 lbs)
- Recommended for high frequency usage (400 cycles per day)
- Made with four ball bearing assemblies
- Recommended for use with a door closer
- Packed with fasteners for hollow metal and wood doors
12-24 x 1/2 UFPHMS, 12 x 1 1/4 FPHWS

Certifications

- Certified to ANSI/BHMA A156.1 for performance standards
- Meets ANSI/BHMA 156.7 for template hinge dimensions
- UL Classified for windstorm rated assemblies - R37965
- UL Listed, 3 hour fire doors

Material substrate

- Made from brass, 1040 steel, or 304 series stainless steel

Options

- NRPNon-removable pin
- HT.....Hospital tip
- SH.....Security stud - comes standard with NRP
- RC-1/4, RC-5/8...Rounded corners
- SECSecurity fasteners - pin-in-socket
- TW4Four wire
- TW4MFour wire with monitor
- TW8Eight wire
- TW8MEight wire with monitor
- MONMonitor

Dimensions

Height x Width	Size (mm)	Gauge
4.5 x 4	114 x 102	0.180
4.5 x 4.5	114 x 114	0.180
5 x 4.5	127 x 114	0.190
5 x 5	127 x 127	0.190

Refer to General Hinge Information page to determine proper hinge for application

5BB1HW Finishes

BHMA	Description	Substrate	Finish
600	Primer paint	Steel	USP
605	Bright brass	Brass	US3
606	Satin brass	Brass	US4
610	Satin bronze	Brass	US10
613	Oil rubbed bronze	Brass	US10B
614	Oxidized bronze	Brass	US10A
616	Blackened bronze	Brass	US11
619	Satin nickel	Brass	US15
622	Matte black	Brass	B-BLK
625	Bright chrome	Brass	US26
626	Satin chrome	Brass	US26D
643e/716	Aged bronze	Brass	B-643e/716
629	Bright stainless	Stainless steel	US32
630	Satin stainless	Stainless steel	US32D
631	Matte black	Steel	F-BLK
632	Bright brass	Steel	US3
633	Satin brass	Steel	US4
639	Satin bronze	Steel	US10
640	Oil rubbed bronze	Steel	US10B
641	Oxidized bronze	Steel	US10A
643	Blackened bronze	Steel	US11
646	Satin nickel	Steel	US15
651	Bright chrome	Steel	US26
652	Satin chrome	Steel	US26D
643e/716	Aged bronze	Steel	F-643e/716

For other colors, consult factory.



5BB1WT 5 Knuckle, ball bearing, wide throw full mortise hinge

- Recommended for medium weight doors (<150 lbs)
- Recommended for medium frequency usage (<400 cycles per day)
- Made with two ball bearing assemblies
- Recommended for use with a door closer
- Packed with fasteners for hollow metal and wood doors
12-24 x 1/2 UFPHMS, 12 x 1 1/4 FPHWS

Certifications

- Certified to ANSI/BHMA A156.1 for performance standards
- Meets ANSI/BHMA 156.7 for template hinge dimensions

Material substrate

- 1040 steel

Options

- NRP Non-removable pin
- HT Hospital tip
- SH Security stud - comes standard with NRP
- RC-1/4, RC-5/8... Rounded corners
- SEC Security fasteners - pin-in-socket
- TW4 Four wire
- TW4M Four wire with monitor
- TW8 Eight wire
- TW8M Eight wire with monitor
- MON..... Monitor

Dimensions

Height x Width	Size (mm)	Gauge
4.5 x 5	114 x 127	0.134
4.5 x 6	114 x 152	0.134
5 x 6	127 x 152	0.146
5 x 7	127 x 178	0.146
5 x 8	127 x 203	0.146

Refer to General Hinge Information page to determine proper hinge for application

5BB1WT Finishes

BHMA	Description	Substrate	Finish
600	Primer paint	Steel	USP
631	Matte black	Steel	F-BLK
632	Bright brass	Steel	US3
633	Satin brass	Steel	US4
639	Satin bronze	Steel	US10
640	Oil rubbed bronze	Steel	US10B
641	Oxidized bronze	Steel	US10A
643	Blackened bronze	Steel	US11
646	Satin nickel	Steel	US15
651	Bright chrome	Steel	US26
652	Satin chrome	Steel	US26D
643e/716	Aged bronze	Steel	F-643e/716

For other colors, consult factory.



Meets ANSI/BHMA A156.1
A8122 – Steel
A5122 – Stainless Steel
A2122 – Brass

5BB1SC 5 Knuckle, ball bearing, swing clear full mortise hinge 5BB1BSC 5 Knuckle, ball bearing, beveled swing clear full mortise hinge

- Designed to completely clear the opening when door is opened 92°.
- Recommended for use in ADA door opening applications
- 5BB1SC made for square edge doors
- 5BB1BSC made for beveled edge doors
- Recommended for medium weight doors (<150 lbs)
- Recommended for medium frequency usage (<400 cycles per day)
- Made with two ball bearing assemblies
- Packed with fasteners for hollow metal and wood doors
12-24 x 1/2 UFPHMS, 12 x 1 1/4 FPHWS

Certifications

- Certified to ANSI/BHMA A156.1 for performance standards
- Meets ANSI/BHMA 156.7 for template hinge dimensions

Material substrate

- Made from 1040 steel or 304 series stainless steel

Options

- NRPNon-removable pin
- HT.....Hospital tip
- RC-1/4, RC-5/8...Rounded corners
- SECSecurity fasteners - pin-in-socket
- TW4Four wire
- TW4MFour wire with monitor
- TW8Eight wire
- TW8MEight wire with monitor
- MONMonitor

Dimensions

Height	Size (mm)	Gauge
4.5	114	0.134
5	127	0.146

Refer to General Hinge Information page to determine proper hinge for application

5BB1SC Finishes

BHMA	Description	Substrate	Finish
600	Primer paint	Steel	USP
629	Bright stainless	Stainless steel	US32
630	Satin stainless	Stainless steel	US32D
631	Matte black	Steel	F-BLK
632	Bright brass	Steel	US3
633	Satin brass	Steel	US4
639	Satin bronze	Steel	US10
640	Oil rubbed bronze	Steel	US10B
641	Oxidized bronze	Steel	US10A
643	Blackened bronze	Steel	US11
646	Satin nickel	Steel	US15
651	Bright chrome	Steel	US26
652	Satin chrome	Steel	US26D
643e/716	Aged bronze	Steel	F-643e/716

For other colors, consult factory.



5BB1SCHW 5 Knuckle, ball bearing, swing clear, heavy weight full mortise hinge
5BB1BSCHW 5 Knuckle, ball bearing, beveled swing clear, heavy weight full mortise hinge

- Designed to completely clear the opening when door is opened 92°.
- Recommended for use in ADA door opening applications
- 5BB1SCHW made for square edge doors
- 5BB1BSCHW made for beveled edge doors
- Recommended for heavier weight doors (>150 lbs)
- Recommended for high frequency usage (400 cycles per day)
- Made with four ball bearing assemblies
- Packed with fasteners for hollow metal and wood doors
12-24 x 1/2 UFPHMS, 12 x 1 1/4 FPHWS

Certifications

- Certified to ANSI/BHMA A156.1 for performance standards
- Meets ANSI/BHMA 156.7 for template hinge dimensions

Material substrate

- Made from 1040 steel or 304 series stainless steel

Options

- NRP.....Non-removable pin
- HT.....Hospital tip
- RC-1/4, RC-5/8...Rounded corners
- SECSecurity fasteners - pin-in-socket
- TW4Four wire
- TW4MFour wire with monitor
- TW8Eight wire
- TW8MEight wire with monitor
- MONMonitor

Dimensions

Height	Size (mm)	Gauge
4.5	114	0.180
5	127	0.190

Refer to General Hinge Information page to determine proper hinge for application

5BB1SCHW Finishes

BHMA	Description	Substrate	Finish
600	Primer paint	Steel	USP
629	Bright stainless	Stainless steel	US32
630	Satin stainless	Stainless steel	US32D
631	Matte black	Steel	F-BLK
632	Bright brass	Steel	US3
633	Satin brass	Steel	US4
639	Satin bronze	Steel	US10
640	Oil rubbed bronze	Steel	US10B
641	Oxidized bronze	Steel	US10A
643	Blackened bronze	Steel	US11
646	Satin nickel	Steel	US15
651	Bright chrome	Steel	US26
652	Satin chrome	Steel	US26D
643e/716	Aged bronze	Steel	F-643e/716

For other colors, consult factory.

Ives Continuous Hinges are designed to last the life of the building. The unique design distributes the weight of the door along the entire length of the frame, reducing the high amount of stress normally associated at top of door and frame on butt hinge applications.

Not only does this reduce hinge failure, it also keeps your door in constant alignment, greatly reducing the chance of door sag. These characteristics make continuous hinges suitable for high use/high traffic doors.

The design of a continuous hinge eliminates the gap between the door and the frame. The absence of gap also helps prevent finger from being pinched, making it a safer device than traditional hinges. These benefits result in higher efficiency and less maintenance, maximizing the value of your opening investment.

Continuous hinges are available in two styles; aluminum geared and pin and barrel in steel or stainless steel.



Aluminum geared

Geared continuous hinges utilize a single gear section for the leaf and a separate gear section for the frame side of the door. The two are held in place together by a full length cover channel and rotate on a series of bearings.

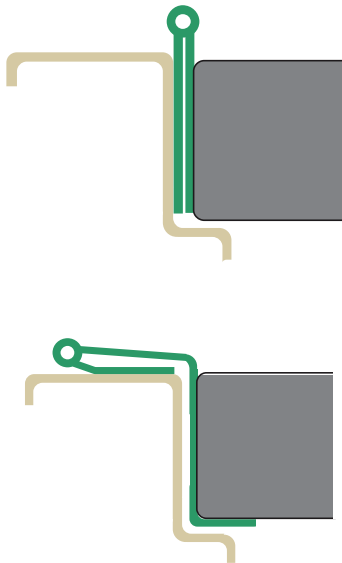
Ives provides two unique series of bearing designs. The HD model features a spread bearing design for lighter weight doors. The XY features a center load bearing design to help reduce frame issues and also has an available hospital tip cap and electric through wire panel with a continuous cover.



Pin and barrel

Pin and Barrel hinges share many of the same characteristics of a traditional hinge. Both have a center pin and rolled knuckles. However, a continuous Pin and Barrel hinge stretches along the entire length of the frame. Ives offers both stainless steel and primed steel to best match your specific application.

Ives also offers the CS series pin and barrel hinges which provides a patented solution that brings the clean aesthetic design of aluminum geared continuous hinge to the ruggedness and safety afforded by stainless pin and barrel continuous hinges.



Lifetime warranty

Ives continuous hinges carry a limited lifetime warranty, ensuring your opening will function to your satisfaction every time. Please refer to the price book for more detailed warranty information.

General hinge information

ANSI Certified

All Ives Aluminum geared hinges are certified to ANSI 156.26, Grade 1

XY Models Grade 1 150lb and 300lb door test

HD Models Grade 1 150lb door test

UL Listed

All Ives Aluminum geared hinges are tested and approved UL 10C (90 minutes).

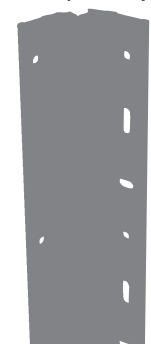
Material

6063-T6 Aluminum

Hinge duty

All Ives Aluminum geared hinges are heavy duty (XY and HD models)

XY Model -
Slot Adjustability



XY Model - Bearings



HD Model



XY Models:

- Rounded gear design for extended life and smoother operation.
- Patented, center loaded, interlocking bearing design which helps handle the opening and closing of the door better over time. All sizes have 37 Bearings.
- XY Mounting Slot Adjustability on all full and half surface models to help with installation.
- Frame guidance lip is extended further for retrofit applications to cover existing heavy weight architectural hinge preps.
- Improved aesthetics with a curved, articulating cover design which eliminates pinch points

HD Models

Features transmission gear design with bearings that are evenly spaced every 3" on center - Amount of bearings varies by size

- 83"32 Bearings

- 85"32 Bearings

- 95"36 Bearings

- 120"47 Bearings

Standard lengths

83", 85", 95", 119" (XY Models), 120" (HD Models) Custom lengths available up to 119", consult factory. Handing required for 224HD

Finishes

BHMA	US	Description	Base Material
628	US28	Clear aluminum anodized	Aluminum
710	313AN	Dark bronze anodized	Aluminum

Custom finishes available, consult factory.

Field modifications

Ives Aluminum geared continuous hinges can be cut to length from both ends during installation.

XY Models

The unique mounting pattern of the XY hinge allows it to be cut down to 69" while still having double row fasteners regardless of the original length of the hinge. Requires the hinge to be cut from both ends. Example: A 119" hinge can have 25" removed from each end to make it a 69" long hinge.

HD Models

The unique mounting pattern allows to cut up to 6" from bottom while still having double row fasteners. If cut more than 13.5", other modifications may be necessary.

Door weight

For doors up to 200 lbs, no door reinforcement is required. For doors between 200 and 450 lbs a 16 gauge channel in the frame is required. For doors up to 600 lb, rivet nuts are required in the frame in addition to the frame reinforcement. Max door width of 4'0".

Hospital tips

Hospital tip (HT) for XY models

The new XY models features a new ligature resistant and tamper resistant Hospital Tip Cap. The new design provides a single uniform 45° angle surface with no exposed edges or openings.

Hospital tips (HT) for HD models

The standard hospital tip option includes an angle machined channel cover and bearing to provide a flush angled surface. Recommended for HT retrofit applications only.



Mounting hardware

Standard hardware		
Full mortise hinges	12-24 x 3/4" Steel self drilling / self tapping phillips head screw	
Half surface hinges Includes 210XY	12-24 x 3/4" Steel self drilling / self tapping phillips head screw 12-24 x 3/4" Steel self drilling / self tapping hex head screw	
Full surface hinges 157XY Only	12-24 x 3/4" Steel self drilling / self tapping hex head screw	
Security screws - Hollow metal door and frame (SEC/HM)		
Full mortise hinges	12-24 X 1/2" Stainless steel socket security screw	
112HD and 224HD only Available as accessory parts kit for full mortise XY hinges (026XY, 027XY, 040XY, 041XY, 112XY, 114XY, 224XY)		
Security screws - 1/2 wood, 1/2 hollow metal (SEC/WD/HM)		
Full Mortise Hinges	12-24 X 1/2" Stainless steel socket security screw	
112HD and 224HD only	12 X 1 1/4" Stainless steel socket security wood screw	
Available as accessory parts kit for full mortise XY hinges (026XY, 027XY, 040XY, 041XY, 112XY, 114XY, 224XY)		
1/2 Self drill, self tap / 1/2 wood (TEK/WD)		
Full mortise hinges	12-24 x 3/4" Steel self drilling / self tapping phillips head screw	12 x 1 1/4" Phillips head wood screw
Half surface hinges	12-24 x 3/4" Steel self drilling / self tapping phillips head screw	1/4 x 1 1/2" Hex head lag screw
Full surface hinges	12-24 x 3/4" Steel self drilling / self tapping hex head screw	1/4 x 1 1/2" Hex head lag screw
Wood door and frame (WD)		
Full mortise hinges	12 x 1 1/4" Phillips head wood screw	
Half surface hinges Includes 210XY	12 x 1 1/4" Phillips head wood screw 1/4 x 1 1/2" Hex head lag screw	
Full surface hinges 157XY only	1/4 x 1 1/2" Hex head lag screw	
Thread forming (TF)		
Full mortise hinges	12-24 x 3/4" Steel thread forming phillips head screw	
112HD and 224HD only Available as accessory parts kit for full mortise XY hinges (026XY, 027XY, 040XY, 041XY, 112XY, 114XY, 224XY)		

A19
Hinges & pivots

B
Pulls & plates

C
Flush bolts & coordinators

D
Latches, catches & bolts

E
Stops

F
Exterior hardware

G
Miscellaneous hardware

General information - electrification options

Electric power transfer (EPT) available on HD and XY models

Electric power transfer provides the most secure and best solution for transferring power from the door frame to the edge of a swinging door. Ives Continuous Hinges provide standard cut outs to fit Von Duprin EPT-2, EPT-10 and PNT-1 devices. Consult factory for other electrical cut out options. Door handing is required.



NEW Electrical through-wire panel with Allegion Connect (TWP CON) (XY models only)

The most secure and best solution for powering your door. The redesigned XY Through-Wire Panel is heavy duty and easy-to-install. Hinge consists of single piece cover design for improved aesthetics and three sections with a standard bottom length and through wire panel location. The panel can quickly slip in and out of the the hinge for maintenance and replacement. Unlike all of the other manufacturer solutions, the XY through-wire panel maintains a one piece appearance on the cover side of the hinge. The new wire design features a teflon coated wire which greatly improves performance and durability. The new panel also comes standard with the Allegion Connect 8-pin Connector which makes it easy to connect to other electrical consumption devices. Warrantied for up to 5 years. Door handing is required.

Provides electric power transfer from the frame to the door in order to supply power to an electrified mortise or cylindrical locks, exit devices with electric latch retraction, and/or electric strikes (pairs of doors). Through-wire is rated 50 volts AC/DC at 3.5 amp continuous and 16 amp pulse. Maximum pulse 400 milliseconds. Ives through-wire hinges are fully compatible with 4 wire and 8 wire installations.

EPT 112HD



TWP XY Series



Electrical cutouts

Ives aluminum continuous hinges are available with factory modified cutouts to accommodate most electrical frame to door requirements. Special templates are required.

When ordering indicate the following:

1. Opening size.
2. Handing. LH, RH, LHR or RHR.
3. Manufacturer and model number of the electrical product being used. Example: Von Duprin ETPT2

Because clearances may vary between door and frame manufacturer, and locations can be influenced by the door hardware it is always recommend contacting Ives Customer Technical for specific template information.

Below are standard locations for Von Duprin EPT2 or EPT10, and monitor switch.

In accordance with industry standards, all cutouts are made from top edge of door to center line of cut-out

Note: See ordering guide in price book for proper placement.

Standard Length	HD	XY	XY
	EPT	EPT	TWP CON
83"	30"	30"	43.5"
85"	32"	32"	45.5"
95"	42"	42"	55.5"
119" (XY)	—	66"	79.5"
120" (HD)	67"	—	—

XY TWP CON is located 39.5 inches from bottom of the hinge. Consult factory for TWP locations on custom length hinges.

How to order

		112XY	HT	US28	83	TWP CON
Model						
026XY	Full mortise - narrow frame leaf, wide door leaf					
027XY	Full mortise - wide door leaf					
040XY	Full mortise - wide throw					
041XY	Full mortise - swing clear					
045XY	Half surface - narrow frame leaf, wide door leaf					
046XY	Half surface - wide door leaf					
053XY	Half surface - narrow frame leaf, narrow door leaf					
054XY	Half surface - narrow door leaf					
112XY	Full mortise - narrow frame and door leaf					
112HD	Full mortise - narrow frame and door leaf					
114XY	Full mortise - narrow frame leaf, door edge protector					
157XY	Full surface - center pivot					
210XY	Full surface - swing clear					
224XY	Full mortise - door edge protector					
224HD	Full mortise - door edge protector					
Option 1						
HT	Hospital tip (XY models only) (Only available on 026XY, 027XY, 040XY, 112XY, 114XY, 224XY)					
Finish						
US28	Clear Anodized Aluminum					
313AN	Dark Bronze Anodized Aluminum					
315AN	Black Anodized Aluminum (XY only)					
Custom finishes available, consult factory.						
Length						
83"						
85"						
95"						
119"(XY) / 120"(HD)						
Custom lengths available up to 119", consult factory. When specifying length, handing required.						
Option 2						
EPT	Electric power transfer prep (Only available on 026XY, 027XY, 112HD, 112XY, 114XY, 224HD, 224XY)					
TWP CON	Handing (LH and RH) Required for 026, 027, 114, and 224 models Through Wire Panel with Allegion Connect Standard (Only Available on 026XY, 027XY, 112XY, 114XY, 224XY)					
SECHM	Security fasteners - pin-in-socket					
SECWDHM	Security fasteners - pin-in-socket (half wood, half hollow metal)					
SECWDWD	Security fasteners - pin-in-socket (wood door and frame)					
WD	Wood door fasteners					
TEKWD	Half thread forming, half wood					
TF	Thread forming screws (pilot hole required) (Only available with 112HD and 224HD)					
TFWD	Half thread forming, half wood					

A21
Hinges & pivots

B
Pulls & plates

C
Flush bolts & coordinators

D
Latches, catches & bolts

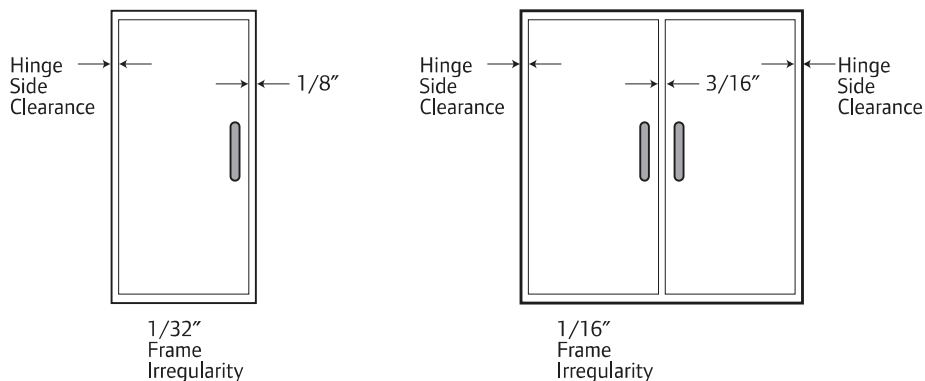
E
Stops

F
Exterior hardware

G
Miscellaneous hardware

Clearance requirements

Consult your local authority having jurisdiction for specific fire codes relating to fire rated doors. The table below is only recommended for non fire related doors.



Single door

Model	Hinge-side clearance	Lock-side clearance	Frame irregularity	Beveled door clearance	Door under-sizing	
					Square edged	Beveled edge
026XY	5/16"	1/8"	1/32"	1/32"	15/32"	1/2"
027XY	5/16"	1/8"	1/32"	1/32"	15/32"	1/2"
040XY	5/16"	1/8"	1/32"	1/32"	15/32"	1/2"
041XY	5/16"	1/8"	1/32"	1/32"	15/32"	1/2"
045XY	5/32"	1/8"	1/32"	1/32"	5/16"	11/32"
046XY	5/32"	1/8"	1/32"	1/32"	5/16"	11/32"
053XY	5/32"	1/8"	1/32"	1/32"	5/16"	11/32"
054XY	5/32"	1/8"	1/32"	1/32"	5/16"	11/32"
112HD	5/16"	1/8"	1/32"	1/32"	15/32"	1/2"
112XY	5/16"	1/8"	1/32"	1/32"	15/32"	1/2"
114XY	5/16"	1/8"	1/32"	1/32"	15/32"	1/2"
157XY	1/16"	1/8"	1/32"	1/32"	7/32"	1/4"
210XY	1/16"	1/8"	1/32"	1/32"	7/32"	1/4"
224HD	5/16"	1/8"	1/32"	1/32"	15/32"	1/2"
224XY	5/16"	1/8"	1/32"	1/32"	15/32"	1/2"

Pair of doors

Model	Hinge-side clearance (2 doors)	Lock-side clearance	Frame irregularity (2 doors)	Beveled door clearance (2 doors)	Door under-sizing			
					Square edge total	Square edge each door	Beveled edge total	Beveled edge each door
026XY	5/8"	3/16"	1/16"	1/16"	7/8"	7/16"	15/16"	15/32"
027XY	5/8"	3/16"	1/16"	1/16"	7/8"	7/16"	15/16"	15/32"
040XY	5/8"	3/16"	1/16"	1/16"	7/8"	7/16"	15/16"	15/32"
041XY	5/8"	3/16"	1/16"	1/16"	7/8"	7/16"	15/16"	15/32"
045XY	5/16"	3/16"	1/16"	1/16"	9/16"	9/32"	5/8"	5/16"
046XY	5/16"	3/16"	1/16"	1/16"	9/16"	9/32"	5/8"	5/16"
053XY	5/16"	3/16"	1/16"	1/16"	9/16"	9/32"	5/8"	5/16"
054XY	5/16"	3/16"	1/16"	1/16"	9/16"	9/32"	5/8"	5/16"
112HD	5/8"	3/16"	1/16"	1/16"	7/8"	7/16"	15/16"	15/32"
112XY	5/8"	3/16"	1/16"	1/16"	7/8"	7/16"	15/16"	15/32"
114XY	5/8"	3/16"	1/16"	1/16"	7/8"	7/16"	15/16"	15/32"
157XY	1/8"	3/16"	1/16"	1/16"	3/8"	3/16"	7/16"	7/32"
210XY	1/8"	3/16"	1/16"	1/16"	3/8"	3/16"	7/16"	7/32"
224HD	5/8"	3/16"	1/16"	1/16"	7/8"	7/16"	15/16"	15/32"
224XY	5/8"	3/16"	1/16"	1/16"	7/8"	7/16"	15/16"	15/32"

Templates and installation instructions available on line at www.allegion.com/us

General information - electrification options

Only available for the full mortise hinges

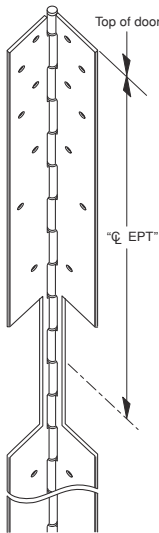
Electric power transfer (EPT) available on 600, 700, 705, 715, 700CS, 715CS models

Electric power transfer provides the most secure and best solution for transferring power from the door frame to the edge of a swinging door. Ives Pin and Barrel Hinges provide standard cut outs to fit Von Duprin EPT- 2, EPT-10 and PNT-1 devices. Consult factory for other electrical cut out options. Door handing is required.

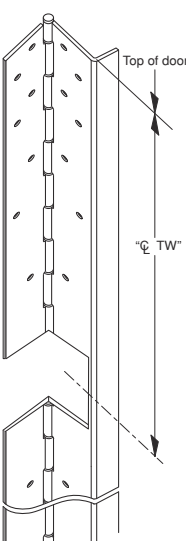
Electrical through-wire (TW8) for standard models (600, 700, 705, 715) only

Recommended for low frequency usage. Provides electric power transfer from the frame to the door cable in order to supply power to an electrified mortise or cylindrical locks, exit devices with electric latch retraction, and/or electric strikes (pairs of doors). Through-wire is rated 50 volts AC/DC at 3.5 amp continuous and 16 amp pulse. Maximum pulse 400 milliseconds. Ives through-wire hinges are fully compatible with 4 wire and 8 wire installations. Requires the door to be torn down for maintenance. Available CON option comes with the Allegion Connect 8-pin Connector which makes it easy to connect to other electrical consumption devices.

EPT 600/700/
700CS



TW8 600/700s



Note: See ordering guide in price book for proper placement.

Standard Length	EPT	TW	TWP
83"	30"	43-19/32"	43-13/16"
85"	32"	45-17/32"	44-29/32"
95"	42"	55-17/32"	55-9/32"
120"	67"	80-17/32"	79-1/2"

Electrical through-wire panel with Allegion Connect (TWP) (700CS models only)

The thru-wire panel solution works in the CS mortise hinge to maintain the clean aesthetic design of aluminum geared continuous hinges. Made with the same medical grade bearings of Ives other pin and barrel hinges, the CS Series brings thru-wire panel innovation to your continuous hinge application while keeping its great looks.

The CS Series thru-wire panel is a heavy duty, easy-to-install, stainless steel panel. Tested to 2.5 million cycles, the CS Series panel can quickly slip in and out of the hinge for maintenance and replacement.

Unlike all of the other manufacturer solutions the CS Series thru-wire panel maintains a one piece appearance on the cover side of the hinge. It installs with the same 5/16" clearance as aluminum geared hinges and works in all of the decorative cover finishes.

Provides electric power transfer from the frame to the door in order to supply power to an electrified mortise or cylindrical locks, exit devices with electric latch retraction, and/or electric strikes (pairs of doors). Thru-wire panel is rated 50 volts AC/DC at 3.5 amp continuous and 16 amp pulse. Maximum pulse 400 milliseconds. Ives through-wire hinges are fully compatible with 4 wire and 8 wire installations. Available CON option comes with the Allegion Connect 8-pin Connector which makes it easy to connect to other electrical consumption devices.

Electrical Cutouts

Ives Pin & Barrel Continuous Hinges are available with factory modified cutouts to accommodate most electrical frame to door requirements. Special templates are required.

When ordering indicate the following:

1. Opening size.
2. Handing. LH, RH, LHR or RHR.
3. Manufacturer and model number of the electrical product being used. Example; Von Duprin ETPT2

Because clearances may vary between door and frame manufacturer, and locations can be influenced by the door hardware it is always recommend contacting Ives Customer Technical for specific template information.

For your general information following are standard locations for Von Duprin EPT2 or EPT10, and TW (through wire).

In accordance with industry standards, all cutouts are made from Top Edge of Door to Center Line of Cut-out.

How to order

	700	HT	US32D	83	TW8 CON
Model					
Stainless steel					
700/700CS	Full Mortise				
702	Full Surface - Center Pivot				
705	Full mortise - full wrap				
711/711CS	Full surface - swing clear				
715/715CS	Full mortise - half wrap				
Steel					
600	Full mortise				
602	Full surface - center pivot				
611	Full surface - swing clear				
Option 1					
HT	Hospital tip (600 and 700 series only)				
Finish					
Stainless steel - only available on 700 Series					
US32D	Satin stainless steel				
Stainless steel / aluminum - only available on CS Series					
US32DAN	Satin stainless anodized				
USP	Grey primer paint				
US28	Clear aluminum anodized				
US4AN	Satin brass anodized				
US10AN	Satin bronze anodized				
313AN	Dark bronze anodized				
315AN	Black anodized				
US26AN	Bright chrome anodized				
US26DAN	Satin chrome anodized				
Steel - only available on 600 Series					
600	Grey primer paint				
Length					
83"					
85"					
95"					
120"					
Other lengths available up to 120", consult factory. Handing is required.					
Option 2					
EPT	Electric power transfer prep (600, 700, 705, 715, 700CS, 715CS models only) Handing (LH and RH) required for 026, 027, 114, and 224 models				
TWP	Through wire panel (only available on 700CS)				
TW8	Electric through Wire (600, 700, 705, 715 models only)				
CON	Allegion Connect (600, 700, 705, 715, 700CS models only)				
SECHM	Security fasteners - Torx				
SECWDHM	Security fasteners - Torx (half wood, half hollow metal)				
SECWDWD	Security fasteners - Torx (wood door and frame)				
WD	Wood door fasteners				

Hinges & pivots
A41

Pulls & plates
B

Flush bolts & coordinators
C

Latches, catches & bolts
D

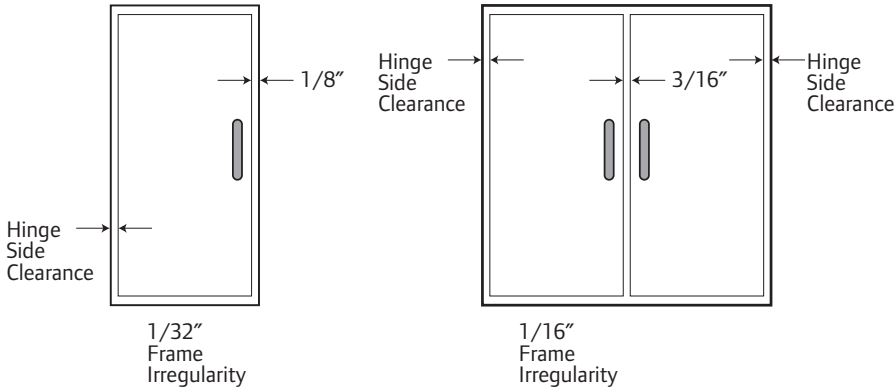
Stops
E

Exterior hardware
F

Miscellaneous hardware
G

Clearance requirements

Consult your local authority having jurisdiction for specific fire codes relating to fire rated doors. The table below is only recommended for non fire related doors.



Single door

Model	Hinge-side clearance	Lock-side clearance	Frame irregularity	Beveled door clearance	Door under-sizing	
					Square edged	Beveled edged
600	1/4"	1/8"	1/32"	1/32"	13/32"	7/16"
602	1/8"	1/8"	1/32"	1/32"	9/32"	5/16"
700	1/4"	1/8"	1/32"	1/32"	13/32"	7/16"
700CS	5/16"	1/8"	1/32"	1/32"	15/32"	1/2"
702	1/8"	1/8"	1/32"	1/32"	9/32"	5/16"
705	3/8"	1/8"	1/32"	1/32"	17/32"	9/16"
705*	1/2"	1/8"	1/32"	1/32"	21/32"	11/16"
711	7/32"	1/8"	1/32"	1/32"	3/8"	13/32"
711CS	3/8"	1/8"	1/32"	1/32"	17/32"	9/16"
715	1/4"	1/8"	1/32"	1/32"	13/32"	7/16"
715CS	5/16"	1/8"	1/32"	1/32"	15/32"	1/2"

* Use the Adjusta-Studs with 705

Pair of doors

Model	Hinge-side clearance	Lock-side clearance	Frame irregularity	Beveled door clearance	Door under-sizing			
					Square edge total	Square edge each door	Beveled edge total	Beveled edge each door
600	1/4"	3/16"	1/16"	1/16"	3/4"	3/8"	13/16"	13/32"
602	1/8"	3/16"	1/16"	1/16"	1/2"	1/4"	9/16"	9/32"
700	1/4"	3/16"	1/16"	1/16"	3/4"	3/8"	13/16"	13/32"
700CS	5/16"	3/16"	1/16"	1/16"	7/8"	7/16"	15/16"	15/32"
702	1/8"	3/16"	1/16"	1/16"	1/2"	1/4"	9/16"	9/32"
705	3/8"	3/16"	1/16"	1/16"	1"	1/2"	1-1/16"	17/32"
705*	1/2"	3/16"	1/16"	1/16"	1-1/4"	5/8"	1-5/16"	21/32"
711	7/32"	3/16"	1/16"	1/16"	11/16"	11/32"	3/4"	3/8"
711CS	3/8"	3/16"	1/16"	1/16"	1"	1/2"	1-1/16"	17/32"
715	1/4"	3/16"	1/16"	1/16"	3/4"	3/8"	13/16"	13/32"
715CS	5/16"	3/16"	1/16"	1/16"	7/8"	7/16"	15/16"	15/32"

* Use the Adjusta-Studs with 705



600 Full mortise pin and barrel continuous hinge - steel
700 Full mortise pin and barrel continuous hinge - stainless steel

- 1/4" diameter pin with nylon self-lubricating, medical grade split bearing
- For doors weighing up to 300 pounds without reinforcing. 600 pounds with reinforcing
- 1/8" Inset recommended for 1 3/4" doors
- 48" Maximum door width
- Non handed for custom cut lengths
- Bevel or square edge door

Certifications

- Meets ANSI 156.26
- UL10C certified

Standard lengths

- 83", 85", 95", 120"

Standard mounting hardware

- #10 X 1/2" Self Drilling, Self Tapping Screws
- #10 X 1" Wood Screws

Material

- 600 - 1012 Cold-rolled steel
- 700 - 14 Gauge Type 304 stainless steel

Finishes

BHMA	Description	Substrate	Finish
600	Grey primer paint	Steel	USP
630	Satin stainless steel	Stainless steel	US32D

Custom paint available on 600 series, consult factory.

Options

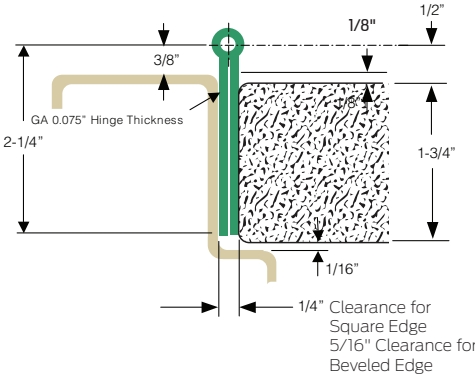
- HT.....Hospital tip
- EPTElectric power transfer
- TW8Electrical through wire
- CON.....Allegion Connect

Optional mounting hardware

- SECHM.....Security screws - hollow metal door and frame
- SECWDHM.....Security screws - 1/2 wood, 1/2 hollow metal
- SECWDWDSecurity screws - wood door and frame
- WD.....Wood door and frame

For single door applications:

For pairs of doors see chart and general information



Hinges & pivots
A43

Pulls & plates
B

Flush bolts & coordinators
C

Latches, catches & bolts
D

Stops
E

Exterior hardware
F

Miscellaneous hardware
G



700CS Full mortise pin and barrel continuous hinge w/ decorative cover

- Patented cover protects hinge knuckle and creates a cleaner and neater appearance
- XY adjustability feature allows for better door alignment during installation
- Patented, medical grade, nylon winged bearings
- For doors weighing up to 300 pounds without reinforcing. 600 pounds with reinforcing
- 1/16" door inset
- 48" Maximum door width
- Non handed
- Bevel or square edge door

Certifications

- Meets ANSI 156.26
- UL10C certified

Standard lengths

- 83", 85", 95", 120"

Standard mounting hardware

- 12-24 X 3/4" Self drilling, self tapping screws

Material

- 14 Gauge Type 304 stainless steel

Finishes

BHMA	Description	Substrate	Finish
441	Satin stainless anodized	Aluminum/Steel	US32DAN
600	Grey primer paint	Aluminum/Steel	USP
628	Clear aluminum anodized	Aluminum/Steel	US28
688	Satin brass anodized	Aluminum/Steel	US4AN
709	Satin bronze anodized	Aluminum/Steel	US10AN
710	Dark bronze anodized	Aluminum/Steel	313AN
711	Black anodized	Aluminum/Steel	315AN
712	Bright chrome anodized	Aluminum/Steel	US26AN
713	Satin chrome anodized	Aluminum/Steel	US26DAN

Custom paint available, consult factory. Standard custom paint is on cover only. Specify if paint on whole hinge is needed.

Options

- HT.....Hospital tip
- EPT.....Electric power transfer
- TW8.....Electrical through wire
- CON.....Allegion Connect

Optional mounting hardware

- SECHM.....Security screws - hollow metal door and frame
- WD.....Wood door and frame

For single door applications:

For pairs of doors see chart and general information



602 Full surface pin and barrel continuous hinge - steel

702 Full surface pin and barrel continuous hinge - stainless steel

- 1/4" diameter pin with nylon self-lubricating, medical grade split bearing
- For doors weighing up to 300 pounds without reinforcing. 600 pounds with reinforcing
- Flush mounted, no inset
- 48" Maximum door width
- Non handed for custom cut lengths
- Bevel or square edge door

Certifications

- Meets ANSI 156.26
- UL10C certified

Standard lengths

- 83", 85", 95", 120"

Standard mounting hardware

- #10 X 1/2" Self drilling, self tapping screws
- #10 X 1" Wood screws
- Cover clips

Material

- 602 - 1012 Cold-rolled steel
- 702 - 14 Gauge Type 304 stainless steel

Finishes

BHMA	Description	Substrate	Finish
600	Grey primer paint	Steel	USP
630	Satin stainless steel	Stainless steel	US32D

Custom paint available on 600 series, consult factory.

Options

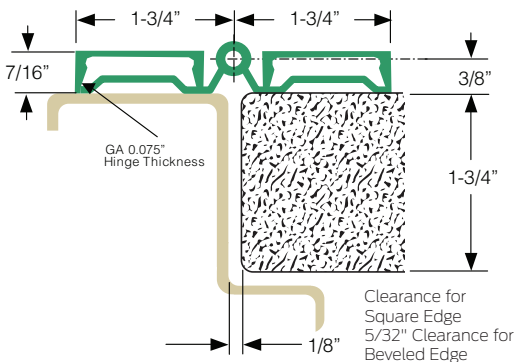
- HT.....Hospital tip

Optional mounting hardware

- SECHM.....Security screws - hollow metal door and frame
- SECWDHM.....Security screws - 1/2 wood, 1/2 hollow metal
- SECWDWD.....Security screws - wood door and frame
- WD.....Wood door and frame

For single door applications:

For pairs of doors see chart and general information



A45
Hinges & pivots

B
Pulls & plates

C
Flush bolts & coordinators

D
Latches, catches & bolts

E
Stops

F
Exterior hardware

G
Miscellaneous hardware



705 Full mortise, full wrap pin and barrel continuous hinge - stainless steel

- Full wrap edge guard
- Adjustable for undersized and out of square doors
- 1/4" diameter pin with nylon self-lubricating, medical grade split bearing
- For doors weighing up to 300 pounds without reinforcing. 600 pounds with reinforcing
- Flush mounted, no inset
- 48" Maximum door width
- Non handed, handing required for custom cut lengths
- Bevel or square edge door

Certifications

- Meets ANSI 156.26
- UL10C certified

Standard lengths

- 83", 85", 95", 120"

Standard mounting hardware

- #10 X 1/2" Self drilling, self tapping screws
- #10 X 1" Wood screws

Material

- 14 Gauge Type 304 stainless steel

Finishes

BHMA	Description	Substrate	Finish
630	Satin stainless steel	Stainless steel	US32D

Custom paint available, consult factory.

Options

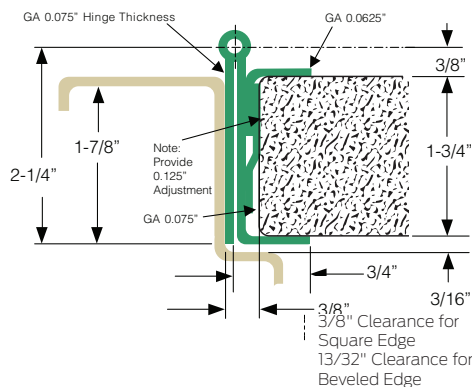
- HT.....Hospital tip
- EPTElectric Power Transfer
- TW8Electrical Through Wire
- CON.....Allegion Connect

Optional mounting hardware

- SECHM.....Security screws - hollow metal door and frame
- SECWDHM.....Security screws - 1/2 wood, 1/2 hollow metal
- SECWDWD.....Security screws - wood door and frame
- WD.....Wood door and frame

For single door applications:

For pairs of doors see chart and general information



* Adjusta-Stud allows up to 3/8" width adjustment which ensures proper alignment and easy installation. Adjusta-Stud also makes it possible for future adjustments of the door on the frame through repositioning.



611 Swing clear pin and barrel continuous hinge - steel
711 Swing clear pin and barrel continuous hinge - stainless steel

- Edge guard
- May be difficult to install on inside walls
- 1/4" diameter pin with nylon self-lubricating, medical grade split bearing
- For doors weighing up to 300 pounds without reinforcing. 600 pounds with reinforcing
- 48" Maximum door width
- Non handed, handing required for custom cut lengths
- Square edge door

Certifications

- Meets ANSI 156.26
- UL10C certified

Standard lengths

- 83", 85", 95", 120"

Standard mounting hardware

- #10 X 1/2" Self drilling, self tapping screws
- #10 X 1" Wood screws

Material

- 611 - 1012 cold-rolled steel
- 711 - 14 Gauge Type 304 stainless steel

Finishes

BHMA	Description	Substrate	Finish
600	Grey primer paint	Steel	USP
630	Satin stainless steel	Stainless steel	US32D

Custom paint available on 600 series, consult factory.

Options

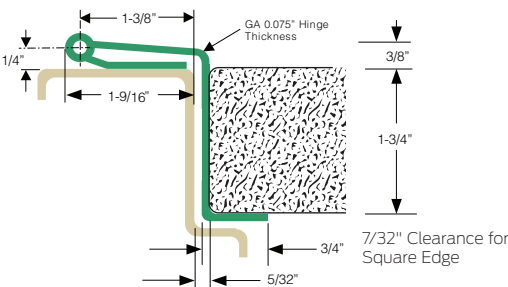
- HT.....Hospital tip

Optional mounting hardware

- SECHM.....Security screws - hollow metal door and frame
- SECWDHM.....Security screws - 1/2 wood, 1/2 hollow metal
- SECWDWD.....Security screws - wood door and frame
- WD.....Wood door and frame

For single door applications:

For pairs of doors see chart and general information



Hinges & pivots
A47

Pulls & plates
B

Flush bolts & coordinators
C

Latches, catches & bolts
D

Stops
E

Exterior hardware
F

Miscellaneous hardware
G



711CS Swing clear pin and barrel continuous hinge w/ decorative cover

- Patented cover protects hinge knuckle and creates a cleaner and neater appearance
- XY adjustability feature allows for better door alignment during installation
- Edge guard
- Easy to install mounting location on mortise end of frame
- 2-11/16" minimum frame face requirement
- Patented, medical grade, nylon winged bearings
- For doors weighing up to 300 pounds without reinforcing. 600 pounds with reinforcing
- 1/16" door inset
- 48" Maximum door width
- Non Handed, handing required for custom cut lengths
- Square edge door

Certifications

- Meets ANSI 156.26
- UL10C certified

Standard lengths

- 83", 85", 95", 120"

Standard mounting hardware

- 12-24 X 3/4" Self drilling, self tapping screws

Material

- 14 Gauge Type 304 stainless steel

Finishes

BHMA	Description	Substrate	Finish
441	Satin stainless anodized	Aluminum/Steel	US32DAN
600	Grey primer paint	Aluminum/Steel	USP
628	Clear aluminum anodized	Aluminum/Steel	US28
688	Satin brass anodized	Aluminum/Steel	US4AN
709	Satin bronze anodized	Aluminum/Steel	US10AN
710	Dark bronze anodized	Aluminum/Steel	313AN
711	Black anodized	Aluminum/Steel	315AN
712	Bright chrome anodized	Aluminum/Steel	US26AN
713	Satin chrome anodized	Aluminum/Steel	US26DAN

Custom paint available, consult factory. Standard custom paint is on cover only. Specify if paint on whole hinge is needed.

Optional mounting hardware

- SECHM.....Security screws - hollow metal door and frame
- WD.....Wood door and frame

For single door applications:

For pairs of doors see chart and general information



715 Full mortise, half wrap pin and barrel continuous hinge - stainless steel

- Half wrap edge guard
- 1/4" diameter pin with nylon self-lubricating, medical grade split bearing
- For doors weighing up to 300 pounds without reinforcing. 600 pounds with reinforcing
- 1/16" door inset
- 48" Maximum door width
- Non handed, handing required for custom cut lengths
- Square edge door

Certifications

- Meets ANSI 156.26
- UL10C certified

Standard lengths

- 83", 85", 95", 120"

Standard mounting hardware

- #10 X 1/2" Self Drilling, Self Tapping Screws
- #10 X 1" Wood Screws

Material

- 14 Gauge Type 304 Stainless Steel

Finishes

BHMA	Description	Substrate	Finish
630	Satin stainless steel	Stainless steel	US32D

Custom paint available on 600 series, consult factory.

Options

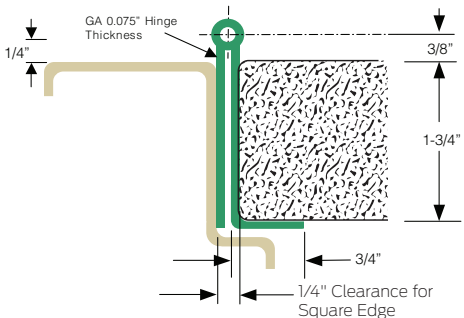
- HT.....Hospital tip
- EPTElectric power transfer
- TW8Electrical through wire
- CON.....Allegion Connect

Optional mounting hardware

- SECHM.....Security screws - hollow metal door and frame
- SECWDHM.....Security screws - 1/2 wood, 1/2 hollow metal
- SECWDWD.....Security screws - wood door and frame
- WD.....Wood door and frame

For single door applications:

For pairs of doors see chart and general information



A49
Hinges & pivots

B
Pulls & plates

C
Flush bolts & coordinators

D
Latches, catches & bolts

E
Stops

F
Exterior hardware

G
Miscellaneous hardware



715CS Full mortise, half wrap pin and barrel continuous hinge w/ decorative cover

- Patented cover protects hinge knuckle and creates a cleaner and neater appearance
- XY adjustability feature allows for better door alignment during installation
- Half wrap edge guard
- Patented, medical grade, nylon winged bearings
- For doors weighing up to 300 pounds without reinforcing. 600 pounds with reinforcing
- Flush mounted, no inset
- 48" Maximum door width
- Non handed, handing required for custom cut lengths
- Square edge door

Certifications

- Meets ANSI 156.26
- UL10C certified

Standard lengths

- 83", 85", 95", 120"

Standard mounting hardware

- 12-24 X 3/4" Self drilling, self tapping screws

Material

- 14 Gauge Type 304 stainless steel

Finishes

BHMA	Description	Substrate	Finish
441	Satin stainless anodized	Aluminum/Steel	US32DAN
600	Grey primer paint	Aluminum/Steel	USP
628	Clear aluminum anodized	Aluminum/Steel	US28
688	Satin brass anodized	Aluminum/Steel	US4AN
709	Satin bronze anodized	Aluminum/Steel	US10AN
710	Dark bronze anodized	Aluminum/Steel	313AN
711	Black anodized	Aluminum/Steel	315AN
712	Bright chrome anodized	Aluminum/Steel	US26AN
713	Satin chrome anodized	Aluminum/Steel	US26DAN

Custom paint available, consult factory. Standard custom paint is on cover only. Specify if paint on whole hinge is needed.

Options

- EPTElectric power transfer

Optional mounting hardware

- SECHM.....Security screws - hollow metal door and frame
- WD.....Wood door and frame

For single door applications:

For pairs of doors see chart and general information

The door rests on the bottom pivot in this application. This reduces the stress on the frame by distributing the weight of the door throughout the floor and structure. By taking advantage of the strength of the structure, this makes a pivot the ideal solution for your heavy doors. Center and pocket pivots also provide an aesthetic option for your opening.

Used in conjunction with rescue hardware, center hung pivots allows a bi-directional door swing in emergency situations. When a patient becomes trapped behind an inward swing door, the center tong depresses allowing the door to swing in the opposite direction without causing damage to the frame.



IVES® Push and pull plates

A	Hinges & pivots
B40	Pulls & plates
C	Flush bolts & coordinators
D	Latches, catches & bolts
E	Stops
F	Exterior hardware
G	Miscellaneous hardware

How to order:

PR8303-8 US32D 4X16 N 1-3/4"

		Single/Pair	Model	Center to center	Finish	Plate W X H	Mounting	Door thickness
		PR	8303	8	US32D	4 X 16	N	1-3/4"
Single/Pair								
"Blank"	Single pull machined with standard threads							
PR	Pair of pulls and plates - One pull machined with standard threads and one pull machined for back to back mounting							
Nsgl	Single pull machined for back to back mounting							
Model								
8200	Push Plate							
8300	Pull plate (less pull)							
8302	Pull plate (with 8102 pull)							
8303	Pull plate (with 8103 pull)							
8305	Pull plate (with 8105 pull)							
8311	Pull plate (with 8111 pull)							
Pull center to center								
5	5-1/4" (8111 only)							
6	6" (8102HD and 8105 only)							
8	8" (8102HD, 8103HD, 8105 only)							
0	10" (8102HD, 8103HD, 8105 only)							
2	12" (8103HD only)							
Finish								
605	Buff Brass		US3					
606	Satin Brass		US4					
612	Satin Bronze		US10					
613	Antique Bronze		US108					
619	Satin Nickel		US15					
625	Buff Chrome		US26					
626	Satin Chrome		US26D					
626-AM	Satin Chrome - Anti-Microbial		US260-AM					
628	Satin Clear Anodized		US28					
629	Buff Stainless		US32D					
630	Satin Stainless		US32D					
630-AM	Satin Stainless - Anti-Microbial		US32D-AM					
643e/716	Aged Bronze		---					
BLK	Matte black		---					
Plate width x height								
3X12	3" Wide X 12" High							
3.5X15	3-1/2" Wide X 15" High							
4X16	4" Wide X 16" High							
6X16	6" Wide X 16" High							
8X16	8" Wide X 16" High							
Mounting hardware								
STD	Thru-bolt with decorative washer							
A	Concealed mount - aluminum doors							
F	Thru-bolt with countersunk hole							
G	Concealed mount with pull plates							
I	Concealed mount - wood doors							
J	Back to back mount (8102 only)							
L	Concealed mount - hollow metal doors							
N	Back to back mount							
Door thickness								
1-3/4"	Standard							
2"	Optional							
2-1/4"	Optional							



8200 Push plate

8300 Pull plate, prep for pull (less pull)

Certifications

- Meets ANSI A156.6 for J301 Materials

Mounting

- Standard mounting package
 - #6X5/8 oval head screws
- Optional TEK/TORX package
 - #6X5/8 Self-drilling, Self-tapping screws
 - #6X5/8 Torx screws

Widths and heights

- 3" X 12"
- 3-1/2" X 15"
- 4" X 16"
- 6" X 16"
- 8" X 16"

Optional pull center to center spacing

- For 8300 pull plates, plates are prepped with 2 3/8" holes for pull machining
- For holes prepped for G mounting hardware, consult customer service.
 - 5-1/4"
 - 6"
 - 8"
 - 10"
 - 12"

Finishes

- Available in Aluminum, Brass, and Stainless Steel substrates. See general information section for specific BHMA finish code, finish description, US finish code, and substrate information.
- Standard finishes available; 605, 606, 612, 613, 619, 625, 626, 626-AM, 628, 630, 630-AM, BLK
- Custom finishes are available as engineering special, consult customer service.

Additional information

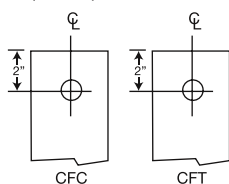
- Specify PR when ordering a set of plates for back to back mounting
- Custom widths, heights, and special cut-outs are available as engineering special, consult customer service.

Plates cut for cylinder or thumbturns

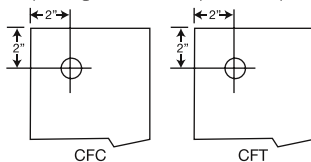
Plates are available with cutout for cylinder or thumbturn; standard cutout is 2" from top and centered on plates up to 4" wide. For plates wider than 4" cutout is located 2" from outer edge, specify LH or RH. When pull location interferes with standard cutout location a detail drawing should be furnished with the order.

- Standard cutout is 1-1/4" for cylinder and 3/8" for thumbturn.
- Specify CFC for cutout for cylinder or CFT for cutout for thumbturn.

For plates up to 4"



For plates greater than 4" (RH shown)



A
Hinges & pivots

B41
Pulls & plates

C
Flush bolts & coordinators

D
Latches, catches & bolts

E
Stops

F
Exterior hardware

G
Miscellaneous hardware



8302 Pull plate

Certifications

- Meets ANSI A156.06

Mounting

- Heavy duty mounting hardware exceeds industry standards
- 5/16-18 mounting hardware
- Specify door thickness. Standard mounting hardware for door thickness of 1-1/2" to 1-3/4" unless otherwise specified. Optional package available for 2" and 2-1/4" thick doors.
- Comes standard with thru-bolt screws and decorative washers.
- Optional mounting hardware available (see general information section for details) F, G, I, J, L
- Mounting hardware for other door thicknesses are available as engineering special, consult customer service.*
- Standard mounting package for plate
 - #6 X 5/8 oval head screws
- Optional TEK/TORX package
 - #6 X 5/8 Self-drilling, Self-tapping screws and
 - #6 X 5/8 Torx screws
- Plate prepped with 2 pull mounting holes spaced at 6", 8", or 10" center to center

Widths and heights

- 3-1/2" X 15"
- 4" X 16"
- 6" X 16"

Pull center to center

- 6"
- 8"
- 10"

Finishes

- Available in Aluminum, Brass, and Stainless Steel substrates. See general information section for specific BHMA finish code, finish description, US finish code, and substrate information.
- Standard finishes available; 605, 606, 612, 613, 619, 625, 626, 626-AM, 628, 630, 630-AM, 643e/716, BLK
- Custom finishes are available as engineering special, consult customer service.*

Additional information

- Specify PR when ordering a set of pulls for back to back mounting
- For one back to back machined pull, specify Js9l
- Custom widths, heights, and special cut-outs are available as engineering special, consult customer service.*



8303 Pull plate

Certifications

- Meets ANSI A156.06

Mounting

- Heavy duty mounting hardware exceeds industry standards
- 3/8-16 mounting hardware
- Specify door thickness. Standard mounting hardware for door thickness of 1-1/2" to 1-3/4" unless otherwise specified. Optional package available for 2" and 2-1/4" thick doors.
- Comes standard with thru-bolt screws and decorative washers.
- Optional mounting hardware available (see general information section for details) A, F, G, I, L, N
- Mounting hardware for other door thicknesses are available as engineering special, consult customer service.
- Standard mounting package for plate
 - #6 X 5/8 oval head screws
- Optional TEK/TORX package
 - #6 X 5/8 Self-drilling, Self-tapping screws and
 - #6 X 5/8 Torx screws
- Plate prepped with 2 pull mounting holes spaced at 8" or 10" center to center

Widths and heights

- 3-1/2" X 15"
- 4" X 16"
- 6" X 16"

Pull center to center

- 8"
- 10"

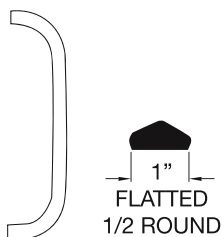
Finishes

- Available in Aluminum, Brass, and Stainless Steel substrates. See general information section for specific BHMA finish code, finish description, US finish code, and substrate information.
- Standard finishes available; 605, 606, 612, 613, 619, 625, 626, 626-AM, 628, 630, 630-AM, 643e/716, BLK
- Custom finishes are available as engineering special, consult customer service.

Additional information

- Specify PR when ordering a set of pulls for back to back mounting
- For one back to back machined pull, specify Nsgl
- Custom widths, heights, and special cut-outs are available as engineering special, consult customer service.

A	Hinges & pivots
B44	Pulls & plates
C	Flush bolts & coordinators
D	Latches, catches & bolts
E	Stops
F	Exterior hardware
G	Miscellaneous hardware



8305 Pull plate

Certifications

- Meets ANSI A156.06

Mounting

- 1/4-20 mounting hardware
- Specify door thickness. Standard mounting hardware for door thickness of 1-1/2" to 1-3/4" unless otherwise specified. Optional package available for 2" and 2-1/4" thick doors.
- Comes standard with thru-bolt screws and decorative washers.
- Optional mounting hardware available (see general information section for details)
- F
- Mounting hardware for other door thicknesses are available as engineering special, consult customer service.
- Standard mounting package for plate
 - #6 X 5/8 oval head screws
- Optional TEK/TORX package
 - #6 X 5/8 Self-drilling, Self-tapping screws and
 - #6 X 5/8 Torx screws
- Plate prepped with 2 pull mounting holes spaced at 6", 8", or 10" center to center

Widths and heights

- 3-1/2" X 15"
- 4" X 16"
- 6" X 16"

Pull center to center

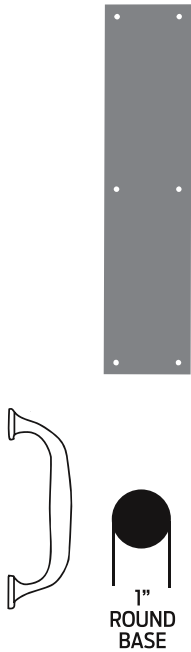
- 6"
- 8"
- 10"

Finishes

- Available in Aluminum, Brass, and Stainless Steel substrates. See general information section for specific BHMA finish code, finish description, US finish code, and substrate information.
- Standard finishes available; 605, 606, 612, 613, 619, 625, 626, 626-AM, 628, 630, 630-AM, 643e/716, BLK
- Custom finishes are available as engineering special, consult customer service.

Additional information

- Specify PR when ordering a set of pulls for back to back mounting
- For one back to back machined pull, specify Nsgl
- Custom widths, heights, and special cut-outs are available as engineering special, consult customer service.



8311 Pull plate

Certifications

- Meets ANSI A156.06

Mounting

- 1/4-20 mounting hardware
- Specify door thickness. Standard mounting hardware for door thickness of 1-1/2" to 1-3/4" unless otherwise specified. Optional package available for 2" and 2-1/4" thick doors.
- Comes standard with thru-bolt screws and decorative washers.
- Optional mounting hardware available (see general information section for details) F, G
- Mounting hardware for other door thicknesses are available as engineering special, consult customer service.
- Standard mounting package for plate
 - #6 X 5/8 oval head screws
- Optional TEK/TORX package
 - #6 X 5/8 Self-drilling, Self-tapping screws and
 - #6 X 5/8 Torx screws
- Plate prepped with 2 pull mounting holes spaced at 5-1/4" center to center

Widths and heights

- 3-1/2" X 15"
- 4" X 16"
- 6" X 16"

Pull center to center

- 5-1/4"

Finishes

- Available in Aluminum, Brass, and Stainless Steel substrates. See general information section for specific BHMA finish code, finish description, US finish code, and substrate information.
- Standard finishes available; 605, 606, 612, 613, 619, 625, 626, 626-AM, 628, 630, 630-AM, 643e/716, BLK
- Custom finishes are available as engineering special, consult customer service.

Additional information

- Specify PR when ordering a set of pulls for back to back mounting
- Custom widths, heights, and special cut-outs are available as engineering special, consult customer service.

A
Hinges & pivots

B45
Pulls & plates

C
Flush bolts & coordinators

D
Latches, catches & bolts

E
Stops

F
Exterior hardware

G
Miscellaneous hardware

A	Hinges & pivots
B46	Pulls & plates
C	Flush bolts & coordinators
D	Latches, catches & bolts
E	Stops
F	Exterior hardware
G	Miscellaneous hardware

Types of protection plates



Mop plates

- Protect the bottom of the pull side of door subject to cleaning and mopping procedures.
- Size Ranges: 4" to 6" high, 22" to 48" wide



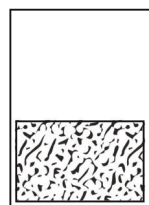
Kick plates

- Protect the bottom of the push side of doors subject to scuffing from foot traffic.
- Recommended for all doors subject to normal use (especially doors using a closer).
- Size Ranges: 8" to 24" high, 22" to 48" wide



Stretcher plates

- Protect doors at specific areas where consistent contact is made by stretchers, service carts or other equipment.
- Usually applied to push side of doors.
- Specify "B4E" Option for beveled edges.
- Size Ranges: 6" to 8" high, 22" to 48" wide



Armor plates

- Protect lower half of doors from abuse by hard carts, trucks and rough usage.
- Usually applied to push side of single doors and both sides of double acting doors.
- Size Ranges: 26" to 48" high, 22" to 48" wide

8400 Commercial protection plates

8402 UL Commercial protection plates

- Door protection plates are available in .050" thick brass, stainless steel or aluminum; and 1/8" thick high impact polyethylene in clear or black.
- All plates, metal and plastic, come standard with four beveled edges and countersunk mounting holes (B-CS).
- Protection plates must be ordered in 1/2" increments. Available in other sizes, consult customer service
- For 8402 UL Plates, UL mark appears in upper right corner. Not available on plastic protection plates.

Certifications

- Meets ANSI A156.6 for J301
- UL protection plates certified to UL10C

Mounting

- Standard mounting package, 16 per pack
 - #6 X 5/8 oval head screws
- Optional TEK/TORX package, specify TK-TX
 - #6 X 5/8 Self-drilling, Self-tapping screws
 - #6 X 5/8 Torx screws

Finishes

- Aluminum 5005 Series, Brass C26800 Series, Stainless Steel 300 Series, Plastic

BHMA	Description	Substrate	Finish	Max sizes
605	Bright Brass	Brass	US3	24"X48"
606	Satin Brass	Brass	US4	24"X48"
612	Satin Bronze	Brass	US10	24"X48"
613	Oil rubbed Bronze	Brass	US10B	36"X48"
619	Satin Nickel	Brass	US15	24"X48"
625	Bright Chrome	Brass	US26	36"X48"
626	Satin Chrome	Brass	US26D	24"X48"
628	Satin Aluminium	Aluminium	US28	48"X48"
629	Bright Stainless Steel	Stainless Steel	US32	48"X48"
630	Satin Stainless Steel	Stainless Steel	US32D	48"X48"
654	Satin Stainless Steel	Stainless Steel	US32D	48"X48"
BLK	Matte black	Stainless Steel	BLK	24"X48"
P-BLK	Black	Plastic	P-BLK	48"X48"
CLR	Clear	Plastic	CLR	48"X48"

- Custom finishes are available as engineering special, consult customer service.

Available options

- Specify B-NH for no mounting holes. (Not available on 8402. Available only with US32D, US32, US3, US4, US28, Clear, Black only)
- Specify B-NHA for no mounting holes with adhesive.
- Specify ERS prepped with extra row of screws.
- Special Cut-outs are available as engineering special, consult customer service.

Available accessory

- Gasket tape kit tape is recommended when using a brass plate on a metal door to reduce tarnishing from electrolytic oxidation. One tape pack will cover an the perimeters of a 8" x 34" kickplate. Order 8401 gasket tape.



Number of screw packs required by plate size (specify TEK Screws or TORK screws)

	22"-25"	26"-33"	34"-41"	42"-48"
4"-8"	1	1	1	1
9"-16"	1	1	1	1
17"-24"	1	1	1	2
25"-32"	1	1	2	2
33"-40"	1	2	2	2
41"-48"	2	2	2	2

The Schlage® L Series mortise locks

Security has always been at the heart of all our products. But, today we offer so much more. Since our beginning nearly 100 years ago, Schlage® has consistently delivered innovation and continuous improvement to the solutions you've grown to trust. And the L Series mortise locks are no exception.

Proven technology

The L Series is built to withstand the rigors of daily use without fail and is among the most durable, dependable and intelligent family of products on the market today. When you choose a Schlage lock you can have confidence you've chosen a solution that will provide protection at the most critical moments.

Comprehensive offering for every opening

Mechanical, wired electrified, wireless electronic and multi-point solutions allow a common aesthetic and consistent user experience throughout the building while lowering the total cost of ownership.

And, with an extensive list of functions, keying, trim, levers and finish options the L Series works for any application.



Mortise lock comparison

L mechanical

**Applications**

The Schlage L Series has long been the benchmark for mortise locks. Beyond strength and security – it offers tremendous flexibility to allow it to meet the needs of most every application.

The ability to suite across electronic, tubular, exit trim, and multi-point locks allows the Schlage L Series mortise lock to integrate seamlessly into any environment.

Key features

- Exceeds ANSI/BHMA Grade 1 operational and security standards
- Expansive list of configurations and options, including retrofit indicators
- 50 standard mechanical functions, custom functions also offered
- “The Original” universal lock case allows creation of 10 functions from a single lock body
- 14 finishes and 33 levers, two knobs, five roses and three escutcheon designs
- Supports standard, SFIC and FSIC cylinder formats
- Multiple key systems available – open, patented, restricted, geographic exclusive, UL 437

L wired electrified

**Applications**

The wired electrified L Series is ideal for new construction and high traffic areas where hardwired power ensures continuous operation and where electrified door prep, hinges and wiring can easily be incorporated into the building.

The electrified L Series is regularly used as part of an access control system for high security areas, or independently in areas that require a remote access switch.

Key features

All mechanical features plus:

- Auto-detect 12/24 VDC
- Selectable EL/EU
- 10 electrified functions
- Advanced features: RX, DPS, latchbolt monitor and deadbolt monitor for application flexibility
- Leading energy efficiency that eliminates “hot levers”
- Advanced motor-driven electrified functions – quieter, smoother, more secure operation

LE wireless electronic

**Applications**

The Schlage LE wireless mortise lock with ENGAGE™ technology is designed to affordably extend electronic access control deeper into the building beyond traditional perimeter and high security openings.

The LE is ideal for commercial real estate, K-12, higher education, assisted living, medical offices, or multi-family applications. Facilities can benefit from the enhanced security, efficiency, and convenience of upgrading to electronic credentials.

Key features

All mechanical features' plus:

- Six functions with LED indicator, deadbolt, and interior pushbutton options
- Sectional and escutcheon trim options
- 31 levers, 2 knobs and 9 finishes
- Integrated multi-technology card reader, door position sensor (DPS) and request to exit (RX)
- Built-in Bluetooth® enables wireless configuration from smart phones/tablets
- Built-in Wi-Fi® enables automatic daily updates sent directly from host software
- Capable of networked real-time communication with the ENGAGE Gateway and software alliances
- Up to 2 years of battery life



■ SMART

Smart means using innovation to make solutions more efficient, flexible, and easier to install and use.

- One platform, three solutions (mechanical, wired electrified, wireless electronic)—same look and feel throughout the building for a common user experience and lower cost of ownership
- Wired electrified lock has autodetecting 12/24V input and selectable EL/EU operation
- RX switch monitors the inside lever to balance security with lever actuation sensitivity
- Energy efficient design allows multiple locks on a single power supply with no "hot levers"
- Wireless electronic locks with ENGAGE™ can be managed with an access control system or with convenient ENGAGE web and mobile applications
- Wireless electronic locks provide the option to leverage existing network infrastructure for offline or real-time applications



More than just locks, Schlage delivers a complete portfolio and an infrastructure of support throughout the entire build and ownership process.

- From mechanical locks and keys to wireless electronic locks, readers and credentials, Schlage ensures you can create the most secure, efficient and convenient solution – all with a single brand
- Schlage products suite with other Allegion brands including Von Duprin® exit devices, LCN® door closers, Ives accessories and Steelcraft® doors and frames
- A trusted partner for nearly 100 years - consistently delivering proven and innovative solutions to serve the needs of our customers
- Comprehensive support from our sales offices including consultation, master key development and training; industry and code training, specification writing, and product service

L400 mechanical



Applications

L400 Series locks are designed for use as primary locks where no latching is required, such as restrooms and small doors to utility spaces.

It also offers optimum security when used as an auxiliary lock in other applications.

Key features

- Six available functions
- 12 finishes
- 1" (25 mm) stainless steel throw deadbolt
- Deeper retainer groove in cylinder shell increases security against wrenching and pullout; all cylinders backward compatible
- 6-pin Everest® 29 cylinder with patented keys standard
- Steel case and parts are corrosion resistant

LM9200 multi-point



Applications

The Schlage LM9200 series lock utilizes latches in the top and bottom of the door, rather than the side on single or double sets of doors.

Compatible with wood or hollow metal doors, the LM9200 Series is ideal for conference rooms, corridors, office suites, elevator lobbies, and openings where flush bolts and coordinators are not desired.

Key features

- Concealed vertical cables provide simple installation and reliable performance
- Compatible with sectional and escutcheon trim; does not require "backer plates" or metal wraps for fire protection
- Fire-rated for up to 60 minutes for wood door applications; 90 minute fire rating for hollow metal door applications
- 33 lever designs
- 13 functions (mechanical and electrified)
- Available without the bottom latch for single point latching

LM9300 multi-point



Applications

The LM9300 Series is part of a three-point locking system designed for tornado, hurricane or high security applications, providing superior protection with familiar operation.

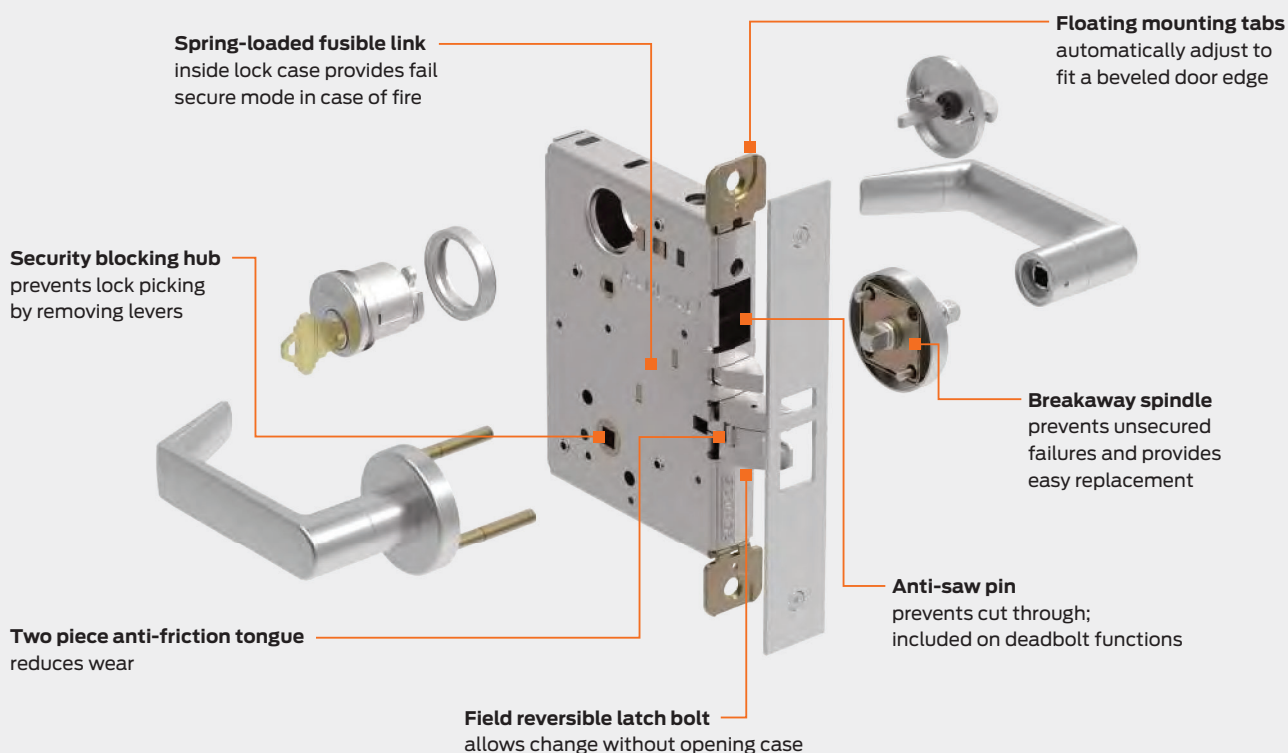
Latches at the top, side and bottom of the door provide protection from high wind speeds and 15-lb. projectile impacts up to 100 mph when paired with a Steelcraft Paladin tornado-resistant door.

Key features

- All three latches engage when the door is shut and retract simply by rotating the lever
- Compatible with sectional and escutcheon trim
- 33 lever designs
- Six available functions
- Complies with FEMA 361 and ICC500 tornado shelter guidelines and Florida Building Code Enhanced Protection Area (EHPA) standard when paired with appropriate Steelcraft doors
- Vertical rods ship pre-aligned and pre-installed with Steelcraft doors, enabling quick and simple installation

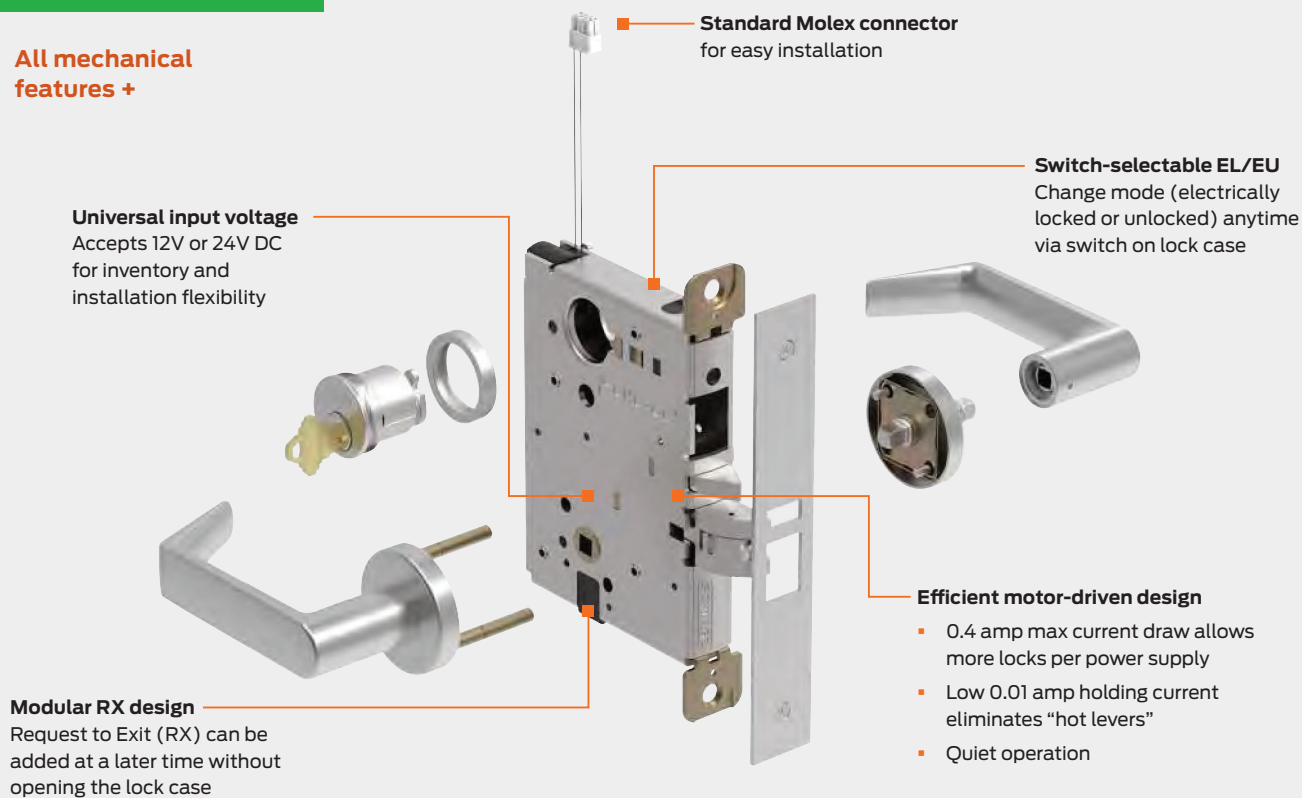
A detailed look...

L mechanical



L wired electrified

All mechanical features +



LE wireless electronic

Most mechanical features +

Integrated multi-technology reader
reads both 125 kHz proximity and 13.56 MHz smart credentials

Built-in No-Tour capability
eliminates the need to visit the locks by using smart credentials to update access rights

Mechanical key override
compatible with most popular key systems

Built-in Bluetooth®
enables wireless configuration from smart phones and tablets

Built-in Wi-Fi
enables automatic updates to access rights

Up to 2 years of battery life
with 4 AA batteries

Integrated door position switch
requires no additional prep on MS and MB chassis options

LM9200 multi-point

Fire protection
90 min hollow metal door fire rating;
60 min wood door fire rating with metal wrap

Concealed vertical cables
provide clean look and simple installation

Top and bottom locking points
allow both leafs of a pair of doors to be active via switch on lock case

Suites visually
with Schlage L Series and Von Duprin trim for design continuity

LM9300 multi-point

Vertical rods ship installed and aligned
in Steelcraft doors, enabling quick and simple installation

Flexible installation and removal of lock
can be done with door installed

Three locking points
provide added layer of protection and security

Suites visually
with Schlage L Series and Von Duprin trim for design continuity

Designs and finishes

The Standard Collection

The Standard Collection levers can be paired with exit devices and locks from our trusted Schlage and Von Duprin brands. And, they are built to the same exacting standards. Our Standard Collection levers offer a more traditional style that is appropriate for use in a number of commercial applications.

01



02



03



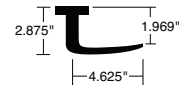
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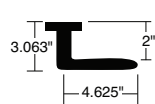
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07



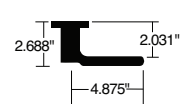
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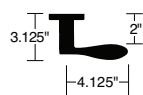
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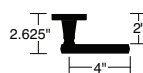
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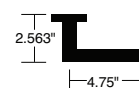
Accent



Asti



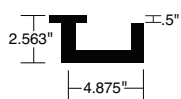
Latitude



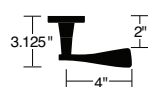
Note: Levers shown with Schlage L Series mortise "A" rose. Knobs shown with rose that is unavailable in the L Series. Additional rose and escutcheon designs available.

The Standard Collection

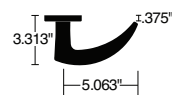
Longitude



Merano



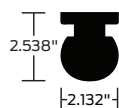
Omega



41



42



L Series finish options

Color	Bright brass	Satin brass	Antique bronze	Satin bronze	Oil rubbed bronze	Satin nickel	Matte black	Bright chrome	Satin chrome	Bright stainless steel	Satin stainless steel	Aged bronze
ANSI/BHMA	605	606	609	612	613	619	622	625	626/ 626AM	629	630/ 630AM	643e
US	US3	US4	US5	US10	US10B	US15	US19	US26	US26D	US32	US32D	US11
Mechanical	■	■	■	◆*	◆*	■	■	■	■	■**	■**	■
Wired electrified	■	■	■	◆*	◆*	■	■	■	■	■**	■**	■
Wireless electronic	■	■		◆*		■	■	■	■			■
Multi-point	■	■	■	◆*	◆*	■	■	■	■	■**	■**	■

◆ Standard levers only

* Not available on Latitude, Longitude, Accent, Asti, Merano

**Not available on Accent, Asti, Merano

Trim and special accessories

Escutcheons and roses

Three escutcheons and five roses are available to help to match the design and performance needed for your application.

Escutcheons



L full face

Specify by adding 'L' after lever design.

Material: Cold-forged brass, bronze or stainless steel

Finishes: 605, 606, 609, 612, 613, 619, 622, 625, 626, 629, 630, 643e

Size: 8" x 1 3/4" x 7/16"
(203 mm x 44 mm x 11 mm)



L concealed

Specify by adding 'C' suffix to function and by adding 'L' after lever design.

Material: Cold-forged brass, bronze or stainless steel

Finishes: 605, 606, 609, 612, 613, 619, 622, 625, 626, 629, 630, 643e

Size: 8" x 1 3/4" x 7/16"
(203 mm x 44 mm x 11 mm)



N full face

Specify by adding 'N' after lever design.

Material: Heavy wrought reinforced brass, bronze or stainless steel

Finishes: 605, 606, 609, 612, 613, 619, 622, 625, 626, 629, 630, 643e

Size: 8" x 2 9/16" x 7/16"
(203 mm x 65 mm x 11 mm)

Roses



A rose

2 1/8" (54 mm) diameter

Available for use on L Series knob and lever designs. Specify by adding 'A' after lever design.

Finishes: 605, 606, 609, 612, 613, 619, 622, 625, 626, 629, 630, 643e



B rose

2 9/16" (65 mm) diameter

Available for use on L Series knob and lever designs. Specify by adding 'B' after lever design.

Finishes: 605, 606, 609, 612, 613, 619, 622, 625, 626, 629, 630, 643e



C rose

2 5/8" (66 mm) diameter

Available for use on L Series knob and lever designs. Specify by adding 'C' after lever design.

Finishes: 605, 606, 609, 619, 622, 625, 626, 629, 630, 643e



AVA rose

2 5/8" (66 mm) diameter

Available for use on ACC lever, other levers upon request.

Finishes: 605, 606, 609, 619, 622, 625, 626, 643e



MER rose

2 5/8" (66 mm) diameter

Available for use on MER lever, other levers upon request.

Finishes: 605, 606, 609, 619, 622, 625, 626, 643e

Thumbturns and indicators

Choose from these variations of thumbturn locks that help you meet the demands of specialized projects.

Thumbturns



Standard turn
09-509



ADA turn
09-509 x L583-363
Available with all thumbturn-function L Series locks except L9463 and L463



Coin turn
L283-124
For lock functions L9044 and L9444 with rose trim.



Emergency button
K510-330
For lock functions L9040 and L9440



Ligature resistant turn
09-029



Cylinder turn
09-90x
For L463 and L9463 classroom function deadlocks

Indicators

The 180 degree visibility indicator offers unparalleled visibility and flexibility. The unique features of the indicator make it ideally suited for classroom security applications as well as traditional occupied/vacant applications.

- 2" x 1/2" display for easy viewing at a distance
- 180° window for visibility at any angle
- High-mount placement for quick assessment
- High contrast colors for ease of reading
- Available for over 30 functions, inside or outside of door (see Functions section for availability)
- Retrofit kit allows indicator upgrades to already installed L Series mortise locks
- Indicator text available in English or French

N escutcheon indicators



Cylinder



Thumbturn



Cointurn



Emergency key

Sectional indicators



Cylinder



Thumbturn



Cointurn



Emergency key

LOCKED	OCCUPIED	DO NOT DISTURB	
UNLOCKED	VACANT		

Inside trim	L283-711	L283-712	L283-713	L283-714
Outside trim	L283-721	L283-722	L283-723	L283-724

Legacy indicator

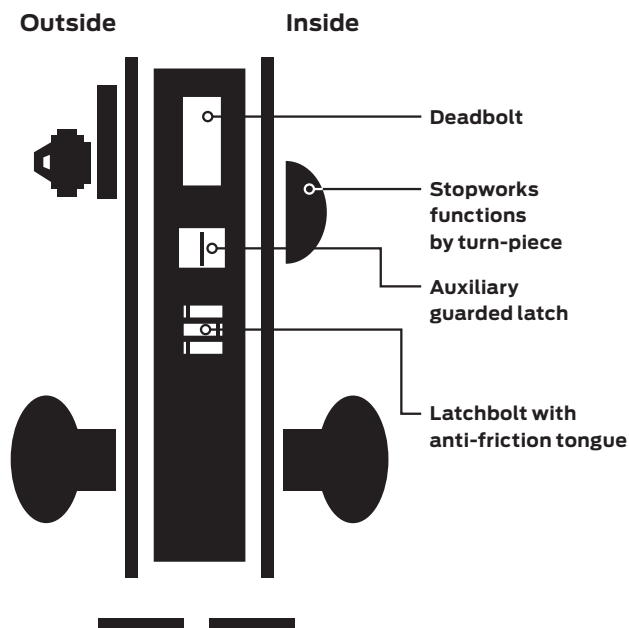


Hotel occupancy indicator
09-611

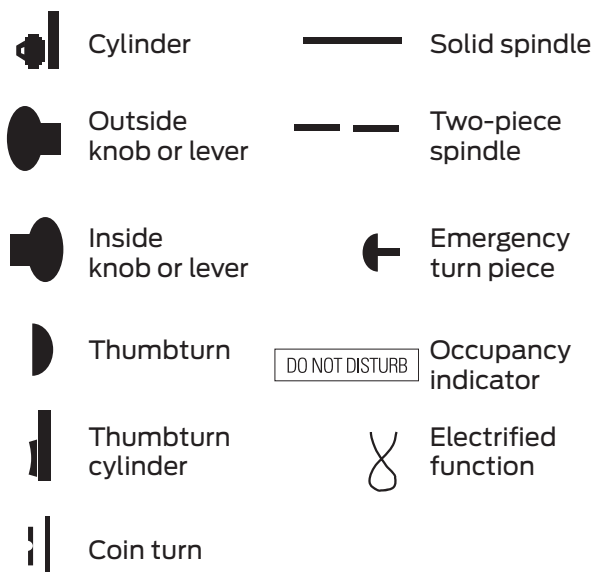
For lock function L9486P, used with A or B roses on section trim. Three available messages: "OCCUPIED", "DO NOT DISTURB" or "LOCKED".

L Series mechanical lock functions

Legend



Key

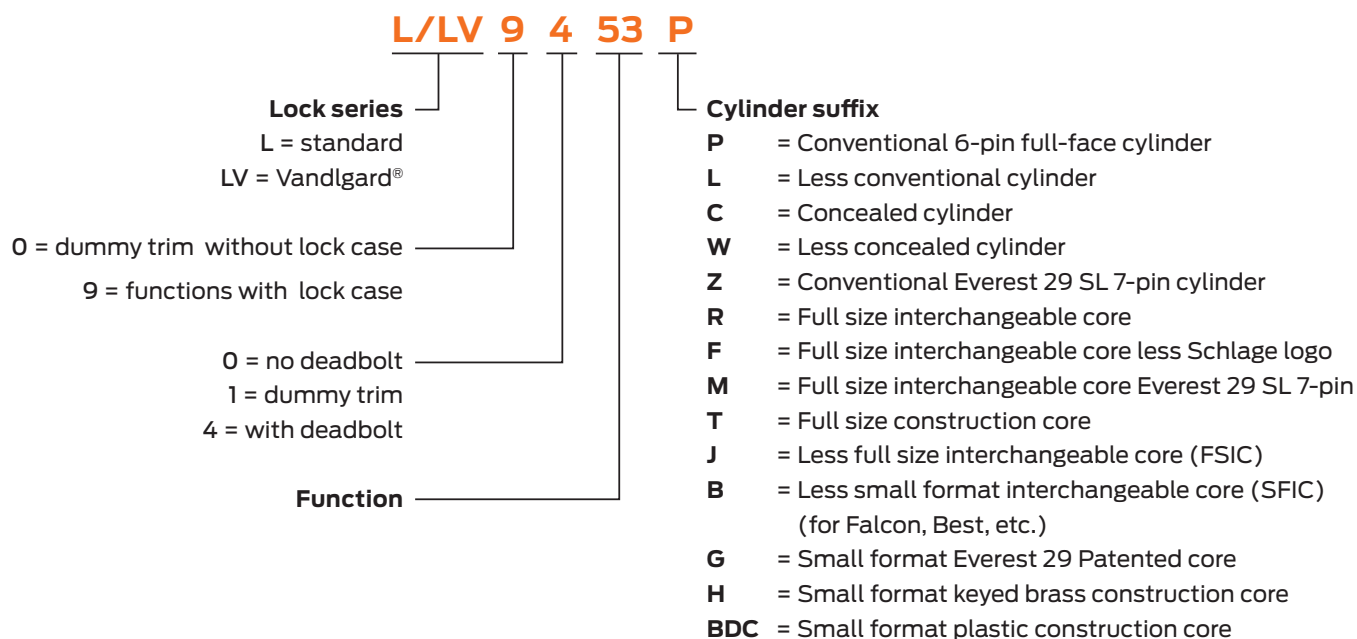


LV Vandlgard function allows exterior lever to rotate freely down, while remaining securely locked.



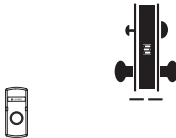
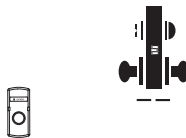
180 degree messaging indicator available. See options section in price book for details.

Product identification guide



L Series mechanical lock functions

Non-keyed functions

Schlage L9010 ANSI F01 Passage latch • Latchbolt retracted by lever/knob from either side at all times • Inside lever always free for immediate egress 	Schlage L9025 ANSI F31 Exit lock • No outside trim • Inside lever always free for immediate egress 	Schlage L9040 LV9040 ANSI F22 Bath/bedroom privacy lock • Latchbolt retracted by lever/knob from either side unless outside lever is locked by inside thumbturn • Actuating inside lever or closing door unlocks outside lever • To unlock from outside remove emergency button, insert emergency thumbturn in access hole and rotate • Inside lever always free for immediate egress 	Schlage L9044 LV9044 ANSI — Privacy with coin turn outside • Latchbolt retracted by lever/knob from either side unless outside lever is locked by inside thumbturn or outside coin turn • Actuating inside lever, closing door, or rotating outside coin turn unlocks outside lever 
Schlage L9440 LV9440 ANSI F19 Privacy with deadbolt • Latchbolt retracted by lever/knob from either side • Deadbolt actuated by inside thumbturn • Throwing deadbolt locks outside knob/lever • Inside lever retracts both deadbolt and latchbolt and unlocks outside lever • To unlock from outside remove emergency button, insert emergency thumbturn in access hole and rotate • Inside lever always free for immediate egress  	Schlage L9444 LV9444 ANSI — Privacy with deadbolt and coin turn outside • Latchbolt retracted by lever/knob from either side • Deadbolt actuated by inside thumbturn or outside coin turn • Throwing deadbolt locks outside knob/lever • Inside lever retracts both deadbolt and latchbolt and unlocks outside lever • Rotating coin turn retracts deadbolt and unlocks outside lever • Inside lever always free for immediate egress  		

L Series mechanical lock functions

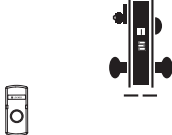
Non-keyed dummy functions

Schlage	ANSI	Schlage	ANSI	Schlage	ANSI	Schlage	ANSI
L0170	—	L0172	—	L9175	—	L9176	—
Half dummy trim		Full dummy trim		Half dummy trim with lock case		Full dummy trim with lock case*	
Fixed lever/knob on one side		Fixed lever/knob on both sides		- Fixed lever/knob on one side - Includes lock case and blank armor plate		- Fixed lever/knob on both sides - Includes lock case and blank armor plate	
							

*In a double-door application where the dummy will be used as the strike order 10-091 armored front strike separately.

L Series mechanical lock functions

Single cylinder non-deadbolt functions

Schlage	ANSI	Schlage	ANSI	Schlage	ANSI	Schlage	ANSI
L9026	—	L9050 LV9050	F04	L9056 LV9056	—	L9070 LV9070	F05
Exit lock with cylinder		Office and inner entry lock		L9050 with automatic unlocking		Classroom lock	
• No outside trim • Outside cylinder retracts latchbolt • Inside lever always free for immediate egress • Auxiliary latch deadlocks latchbolt when door is locked		• Latchbolt retracted by lever/knob from either side unless outside lever is locked by key or thumbturn • With outside locked, latchbolt retracted by key or inside lever • Outside lever locked until unlocked by thumbturn or key • Auxiliary latch deadlocks latchbolt when door is closed • Inside lever always free for immediate egress		• Latchbolt retracted by lever/knob from either side unless outside lever is locked by key or thumbturn • With outside locked, latchbolt retracted by key or inside lever • Outside lever locked until unlocked by thumbturn or key • Auxiliary latch deadlocks latchbolt when door is closed • Inside lever always free for immediate egress		• Latchbolt retracted by lever/knob from either side unless outside lever is locked by key • Unlocked from outside by key • Auxiliary latch deadlocks latchbolt when door is closed • Inside lever always free for immediate egress	
							
Schlage	ANSI	Schlage	ANSI	Single cylinder deadbolt functions		Schlage	ANSI
L9076 LV9076	F06	L9080 LV9080	F07			L9453 LV9453	F20
Classroom holdback lock		Storeroom lock				Entrance lock	
• Latchbolt retracted by lever/knob from either side unless outside lever is locked by key • When locked, latchbolt retracted by key or inside lever • Auxiliary latch deadlocks latchbolt when door is closed • Holdback feature activated by turning inside lever/knob and rotating key 360° • Inside lever always free for immediate egress		• Latchbolt retracted by lever/knob inside or key outside • Outside lever/knob is always inoperable • Auxiliary latch deadlocks latchbolt when door is closed • Inside lever always free for immediate egress				• Latchbolt retracted by lever/knob from either side unless outside locked by 20° thumbturn rotation • Deadbolt actuation through 90° thumbturn rotation • When locked, outside key or inside lever/knob retracts both deadbolt and latchbolt • Outside lever/knob locked until thumbturn is restored to vertical position • Throwing deadbolt locks outside lever/knob • Auxiliary latch deadlocks latchbolt when door is closed • Inside lever always free for immediate egress	
							

L Series mechanical lock functions

Single cylinder deadbolt functions

Schlage	ANSI	Schlage	ANSI	Schlage	ANSI	Schlage	ANSI
L9456 LV9456	F13	L9465	—	L9473	F21	L9480 LV9480	—
Corridor lock		Closet/storeroom lock		Dormitory/bedroom lock		Storeroom lock with deadbolt	
- Latchbolt retracted by lever/knob from either side - Deadbolt actuation by key or thumbturn rotation - Throwing deadbolt locks outside lever/knob - Turning inside knob/lever retracts both deadbolt and latchbolt and unlocks outside lever/knob - Inside lever always free for immediate egress		- Latchbolt retracted by lever/knob from either side - Deadbolt actuation by key		- Latchbolt retracted by lever/knob from either side - Deadbolt actuation by outside key or inside thumbturn		- Latchbolt retracted by outside key or inside knob/lever - Outside knob/lever always fixed - Deadbolt actuation by outside key or inside thumbturn - Inside knob/lever actuation retracts both deadbolt and latchbolt - Auxiliary latch deadlocks latchbolt when door is closed - Inside lever always free for immediate egress	
							
L9485 LV9485	—	L9486 LV9486	F15	L9486 x L583-375 LV9486 x L583-375	—	L9496	—
Faculty/hotel/restroom lock		L/LV9485 with 09-611 "DO NOT DISTURB" indicator for rose trim		L/LV9485 with "OCCUPIED" indicator for rose trim		Privacy with 09-611 "OCCUPIED" indicator for rose trim	
- Latchbolt retracted by outside key or inside knob/lever - Outside knob/lever always fixed - Deadbolt actuation by thumbturn - All keys (except emergency and display keys) inoperative when deadbolt is thrown - Inside knob/lever retracts both deadbolt and latchbolt - Auxiliary latch deadlocks latchbolt when door is closed - Inside lever always free for immediate egress		- Latchbolt retracted by outside key or inside knob/lever - Outside knob/lever always fixed - Deadbolt actuation by thumbturn - When deadbolt is thrown "DO NOT DISTURB" message is displayed and all keys (except emergency and display keys) become inoperative - Inside knob/lever retracts both deadbolt and latchbolt - Auxiliary latch deadlocks latchbolt when door is closed - Inside lever always free for immediate egress		- Latchbolt retracted by outside key or inside knob/lever - Outside knob/lever always fixed - Deadbolt actuation by thumbturn - When deadbolt is thrown "OCCUPIED" message is displayed and all keys (except emergency and display keys) become inoperative - Inside knob/lever retracts both deadbolt and latchbolt - Auxiliary latch deadlocks latchbolt when door is closed - Inside lever always free for immediate egress		- Latchbolt retracted by knob/lever from either side - Deadbolt actuation by outside key or inside thumbturn - Thrown deadbolt displays "OCCUPIED" message and locks outside lever - Inside knob/lever retracts both deadbolt and latchbolt and unlocks outside lever - Inside lever always free for immediate egress	
 		 		 		 	

L Series mechanical lock functions

Double cylinder non-deadbolt functions

Schlage	ANSI	Schlage	ANSI	Schlage	ANSI	Schlage	ANSI
L9060 LV9060	F09	L9071 LV9071	F32	L9077 LV9077	—	L9082 LV9082	F30
Apartment entrance lock		Classroom security lock		Classroom security holdback lock		Institution lock*	
• Latchbolt retracted by knob/lever from either side unless outside is locked by key from inside • When locked, latchbolt retracted by outside key or inside knob/lever • Auxiliary latch deadlocks latchbolt when door is closed • Inside lever always free for immediate egress		• Latchbolt retracted by knob/lever from either side unless outside is locked by key from either side • When locked, latchbolt retracted by outside key or inside knob/lever • Auxiliary latch deadlocks latchbolt when door is closed • Inside lever always free for immediate egress		• Latchbolt retracted by knob/lever from either side unless outside is locked by key from either side • When locked, latchbolt retracted by outside key or inside knob/lever • Auxiliary latch deadlocks latchbolt when door is closed • Rotate inside lever/knob and turn key 360° to enable holdback feature • Inside lever always free for immediate egress		• Latchbolt retracted by key from either side • Knob/lever on both sides always inoperative • Auxiliary latch deadlocks latchbolt when door is closed	
							

Double cylinder deadbolt functions	Schlage	ANSI	Schlage	ANSI	Schlage	ANSI
	L9457 LV9457	F33	L9458 LV9458	F34	L9466	F14
	Classroom security lock with deadbolt		Classroom security lock w/ deadbolt and auxiliary latch		Store/utility room lock with deadbolt*	
	• Latchbolt retracted by lever/knob from either side • Deadbolt actuated by either key • Throwing deadbolt locks outside lever/knob • Actuating inside lever/knob retracts both deadbolt and latchbolt and unlocks outside lever • Inside lever always free for immediate egress		• Latchbolt retracted by knob/lever from either side • Deadbolt actuated by either key • When door is locked outside lever inoperative • Inside lever retracts deadbolt and latchbolt and unlocks outside lever • Auxiliary latch deadlocks latchbolt when door is closed • Inside lever always free for immediate egress		• Latchbolt retracted by knob/lever from either side • Deadbolt actuated by either key	
						

* **Caution:** Double cylinder locks on residences and any door in any structure which is used for egress are a life safety hazard in times of emergency and their use is not recommended. Installation should be in accordance with existing codes only.

L Series mechanical lock functions

Mortise deadlock functions

Schlage L9460 Cylinder x thumbturn lock • Deadbolt actuated by key or thumbturn	ANSI F17	Schlage L9462 Double cylinder lock* • Deadbolt actuated by either key	ANSI F16	Schlage L9463 Classroom lock • Deadbolt actuated by key • Thumbturn retracts deadbolt but cannot extend it	ANSI F29	Schlage L9464 Cylinder lock • Deadbolt actuated by key • No trim opposite side	ANSI F18
							

Small mortise deadlock functions

Schlage L460 Cylinder x thumbturn lock • Deadbolt actuated by key or thumbturn	ANSI E06071	Schlage L462 Double cylinder lock* • Deadbolt actuated by either key	ANSI E06061	Schlage L463 Classroom lock • Deadbolt actuated by key • Thumbturn retracts deadbolt but cannot extend it	ANSI E06091	Schlage L464 Cylinder lock • Deadbolt actuated by key • No trim opposite side	ANSI E06081
							
Schlage L480 Door bolt • Deadbolt actuated by thumbturn • No trim opposite side	ANSI —	Schlage L496 Deadbolt with "OCCUPIED" indicator • Deadbolt actuated by key or thumbturn • When deadbolt is thrown "OCCUPIED" message is displayed	ANSI —				
							

* **Caution:** Double cylinder locks on residences and any door in any structure which is used for egress are a life safety hazard in times of emergency and their use is not recommended. Installation should be in accordance with existing codes only.

L Series mechanical lock functions

Special functions

Schlage	ANSI	Schlage	ANSI	Schlage	ANSI	Schlage	ANSI
L9110 x XL11-741	—	L9040 x XL11-446 LV9040 x XL11-446	—	L9066 x XL11-897	—	L9412 x XL11-907	—
Double dummy with active trim		Privacy with turn both sides		Storeroom lock*		Exit lock with deadbolt	
- Knobs/levers active - Lock case and armor front included - Can receive deadbolt with XL11-743 armor front		- Latchbolt retracted by either lever - Rotating either thumbturn locks outside lever - Actuating inside lever, closing door, or rotating either thumbturn unlocks outside lever		- Either key retracts latchbolt - Either key locks or unlocks both levers		- Latchbolt retracted by inside lever - Outside lever always fixed - Thumbturn actuates deadbolt - Inside lever retracts deadbolt and latchbolt - Auxiliary latch deadlocks latchbolt when door is locked	
							
L9460 x XL11-635	—	L9460, L9462, L9464 x XL11-886	—	L9482 x XL11-543 LV9482 x XL11-543	—	L9485 x XL11-557	—
L9460 with fixed dummy trim		Inside lever deadbolt retraction		Institution lock with deadbolt*		Prison function lock	
- Both knobs/levers fixed - Deadbolt actuation by key or thumbturn		- L9460 x XL11-886 - Deadbolt actuation by key or thumbturn - Outside lever always fixed - Inside lever active when deadbolt is thrown - Inside lever retracts deadbolt - L9462 x XL11-886 - Same as L9460 except deadbolt actuated by key from either side - L9464 x XL11-886 - Same as L9460 except deadbolt actuated by key from one side		- Latchbolt retracted by either key - Both levers always inoperative - Deadbolt actuated by either key - Auxiliary latch deadlocks latchbolt when door is locked		- Latchbolt retracted by outside key or inside knob/lever - Outside knob/lever always free spinning - Deadbolt actuation by guard key - Inside knob/lever fixed when deadbolt is thrown - Prisoner key only retracts latchbolt - Tamper resistant Torx screws standard	
							

* **Caution:** Double cylinder locks on residences and any door in any structure which is used for egress are a life safety hazard in times of emergency and their use is not recommended. Installation should be in accordance with existing codes only.

L Series mechanical lock

Universal transformation instructions

Instructions for base model L9050

Schlage ANSI L9050 Office with thumbturn Latchbolt operated by lever either side except when outside lever is made inoperative by a stop or other mechanical means other than key. When outside lever is locked, latchbolt is retracted by key from outside or by operating inside lever. Auxiliary deadlatch.  Transformation instructions Install cloverleaf cam cylinder on outside; install thumbturn assembly 09-509-027 on inside. No additional parts required.	Schlage ANSI L9010 Passage Latchbolt operated by lever from either side at all times.  Transformation instructions Do not install thumbturn unit 09-509-027 on inside or cylinder outside. Install chassis in the unlocked position. No additional parts required.	Schlage ANSI L9070 Classroom Latchbolt operated by lever either side except when outside lever is locked from outside by key or push button mechanism. When outside is locked latchbolt is retracted by key or by operating key or push button, and outside lever from outside or by operating inside lever. Auxiliary deadlatch.  Transformation instructions Install cloverleaf cam cylinder on outside; do not install thumbturn assembly 09-509-027 on inside. No additional parts required.
Schlage ANSI L9080 Storeroom Latchbolt operated by key outside or by operating inside lever. Outside lever always inoperative. Auxiliary deadlatch.  Transformation instructions Do not install thumbturn 09-509-027 on inside. Install chassis in the locked position. Replace cloverleaf cam L583-153 with straight cam B502-948 (Everest), L583-255 with K510-680 (IC and SFIC) and install on outside. Additional part(s) Cams B502-948 (Everest), K510-680 (IC and SFIC) or L583-476 or L583-477 for modular cylinders.     B502-948 K510-680 L583-476 L583-477	Schlage ANSI L9060 Apartment entrance Latchbolt operated by lever either side, except when made inoperative by key from inside. When outside is locked latchbolt is retracted by key from outside or by operating inside lever. Auxiliary deadlatch.  Transformation instructions Do not install thumbturn 09-509-027 on inside. Install cloverleaf cam cylinder on inside. Replace clover leaf cam L583-153 with straight cam B502-948 (Everest), L583-255 with K510-680 (IC and SFIC) and install on outside. Additional part(s) Mortise cylinder assembly and cams B502-948 (Everest), K510-680 (IC and SFIC) or L583-476 or L583-477 for modular cylinders.      Mortise cylinder assembly B502-948 K510-680 L583-476 L583-477	Schlage ANSI L9025 Exit lock Latchbolt operated by inside lever. Non-removable blank trim or no trim outside.  Transformation instructions Do not install thumbturn unit 09-509-027 on inside. Install chassis in the locked position. Install inside lever with L285-150 mounting plate; do not install outside lever or cylinder. Additional part(s) Mounting plate L283-150.  L283-150

L Series mechanical lock

Universal transformation instructions

Instructions for base model L9050

Schlage L9071 Classroom security Latchbolt retracted by lever either side except when outside lever is locked by key from inside or outside. When outside lever is locked latchbolt is retracted by key either side or by inside lever. Auxiliary deadlatch.  Transformation instructions Do not install thumbturn unit 09-509-027 on inside. Install cloverleaf cam cylinder on inside and outside. Additional part(s) Mortise cylinder assembly and cam L583-153.     Mortise cylinder assembly L583-153 L583-274 L583-275	ANSI F32	Schlage L9026 Exit lock with cylinder Latchbolt operated by key outside or by operating inside lever. No outside lever. Auxiliary deadlatch.  Transformation instructions Do not install thumbturn unit 09-509-027 on inside. Install chassis in the locked position. Replace cloverleaf cam L583-153 with straight cam B502-948 (Everest), L583-255 with K510-680 (IC and SFIC) and install on outside. Install inside lever with L285-150 mounting plate; do not install outside lever. Additional part(s) Cams B502-948 (Everest), K510-680 (IC and SFIC), mounting plate L283-150 or L583-476 or L583-477 for modular cylinders.      L283-150 B502-948 K510-680 L583-476 L583-477	ANSI —	Schlage L9080 Utility (less inside trim) Latchbolt retracted by key outside; outside lever always inoperative. No inside trim. Auxiliary deadlatch.  Transformation instructions Do not install thumbturn unit 09-509-027 on inside. Install chassis in the locked position. Replace cloverleaf cam L583-153 with straight cam B502-948 (Everest), L583-255 with K510-680 (IC and SFIC) and install on outside. Install inside lever on outside with L283-150 mounting plate; do not install inside lever. Additional part(s) Cams B502-948 (Everest), K510-680 (IC and SFIC), mounting plate L283-150 or L583-476 or L583-477 for modular cylinders.      L283-150 B502-948 K510-680 L583-476 L583-477	ANSI —
Schlage L9070 Closet (less inside trim) Latchbolt operated by lever on outside except when outside lever is locked from outside by key. When outside is locked latchbolt is retracted by key or by operating key from outside lever. Auxiliary deadlatch.  Transformation instructions Install cloverleaf cam cylinder on outside; do not install thumbturn assembly 09-509-027 on inside. Install inside trim on outside with L283-150 mounting plate. Additional part(s) Mounting plate L283-150.  L283-150	ANSI —				

VON DUPRIN®

33A/35A™ Series

Exit devices



Introduction

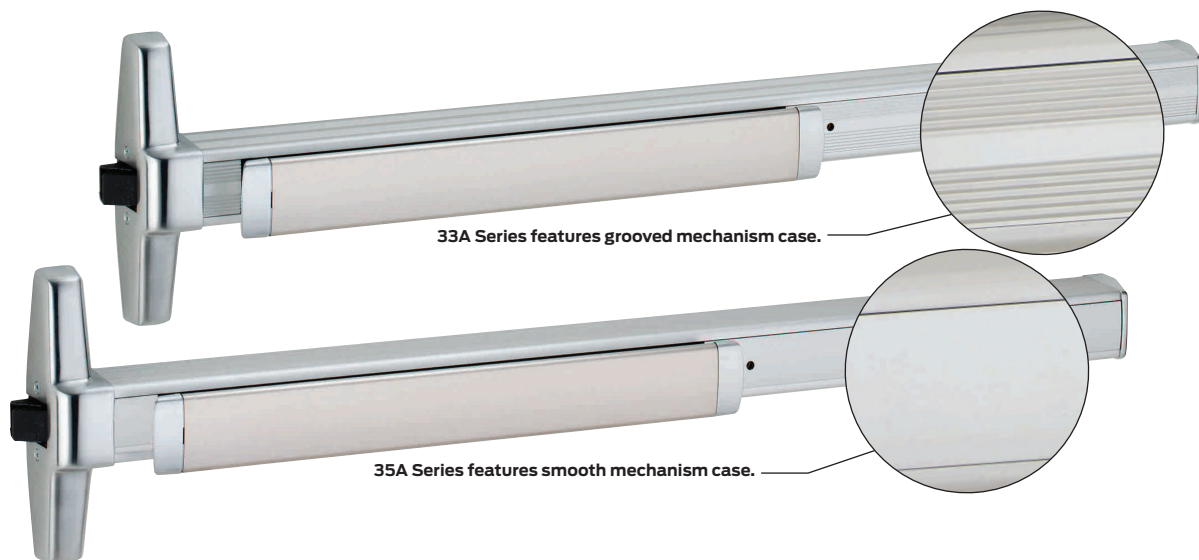
Invest in longevity

Von Duprin® devices are engineered to add value over time. The robust materials and unique engineering add to the longevity, while the flexible design improves the value. The universal center case allows users to change or upgrade features on their current device as security needs evolve.

The 33A/35A Series is a narrow stile push pad device popular for its vast application coverage. With many field configurable and upgradeable solutions available, it's easy to enhance the functionality of an existing device. Mechanical and electronic options include quiet electric latch retraction, delayed and controlled egress, concealed vertical cables and security indicators. It's one way Von Duprin protects its customers' investments long into the future.

Passion driving performance

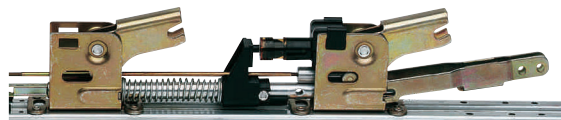
With superior products comes exceptional customer care. Von Duprin customers are supported by industry-leading expertise. Allegion's representatives average more than 15 years of experience, so you're assured to receive knowledgeable advice on fire and life safety codes, installation resources and more. And for those looking to take their skills to the next level, Allegion offers instructor-led workshops, videos and online courses. It's another way Von Duprin stands by our customers—today, tomorrow and for years to come.



Von Duprin pushpad exit devices are available in two external surface styles, designated 33A Series and 35A Series. The two styles are mechanically and dimensionally identical and provide a wide selection of appearance options.

The Quiet One®

A fluid damper decelerates the pushpad on its return stroke and eliminates most noise associated with exit device operations. Furnished on all 33A/35A Series exit devices.



VON DUPRIN
Administrative Offices
2720 Tobey Dr.
Indianapolis, IN 46219

Customer Service
877-671-7011
800-999-0328 - Fax

Technical Support
877-671-7011

Options and accessories

Applications & trim operation	Trim selection Optional trim
Trim options	Optional levers Optional trim Trim selection Operation options
Strike options	Optional strikes
Additional information	ANSI Grade, type & function Device dimensions Finishes Fire label ratings/applications Handing How-to-order information Nomenclature Popular double door applications Minimum stile information

Symbols



Indicates fire rated application



Indicates ADA products

How to order information

Rim devices, specify:

- Exit device model number with trim selection. Examples: 33A-EO (exit only with no outside trim). 33A-NL (includes 386NL trim). 33A-NL-OP (includes the 388 trim less pull).
- Size 4' (1219mm) for door sizes 2' 10" (940mm) to 4' (1219mm). Size 3' (914mm) for door sizes 2' 4" (792mm) to 3' (914mm) is shipped standard.
- Door thickness if other than 1 3/4" (44mm).
- Door and frame material if other than aluminum.
- Finish, see page 38.
- Handing required on "L", "SS", or "386NL". Specify LHR or RHR. See page 7.

Vertical rod devices, specify:

- Exit device model number with trim selection. Examples: 3327A-EO (exit only with no outside trim.) 3327A-TL-OP (includes 360T Control) 3327A-TL (includes 374T and 386DT).
- Size 2' (1219mm) for door sizes 2' (610mm). Size 3' (914mm) for door sizes 2' 2" (792mm) to 3' (914mm) is shipped standard. Size 4' (1219mm) for door sizes 2' 8" (940mm) to 4' (1219mm).
- Door thickness if other than 1 3/4" (44mm).
- Door height if greater than 7' (2134mm) surface vertical rod device (8' 4" for concealed devices) or extension rods will be supplied.
- Door and frame material if other than aluminum or hollow metal.
- Finish, see page 38.
- Handing required on "L", "SS", or "386NL". Specify LHR or RHR. See page 7.

Pullman latches are optional for 3327A/3527A and 3347A/3547A devices. Latchbolts remain extended at all times. Specify "Pullman Latch" when required.

Electrical options

ALK Exit alarm kit
CX Chexit delayed exit
RX Request to exit
WP-RX Request to exit
E-Trim
LX Latch bolt monitoring
EL Electric latch retraction
QEL Electric latch retraction
SS Signal switch
PN Pneumatic
LBR/LBL Less bottom rod/latch
PL Pullman Latch
RG-27 Vertical rod and latch guard
 Dummy pushpad
CD Cylinder dogging
CDK, HDK Cylinder dogging and Hex key dogging kits
GBK Glass bead kit
 Cylinders
CON Allegion Connect

Electrical accessories

Power supplies

PS902
PS914
EPT Electric power transfer

Device trim, cross-reference*:

33/35 Devices	Status	33A/35A Devices
333NL-TP	Replaced	386NL
333DT	Replaced	386DT
337NL-TP	Replaced	386NL
337DT	Replaced	386DT
334	Replaced	388
334 x 550	Replaced	388 x 550
370L	Replaced	360L
370T	Replaced	360T
372L	Replaced	360L
374T x 333DT	Replaced	374T x 386DT
—	New	374T x 392-6
376T x 337DT	Replaced	376T x 386DT
—	New	376T x 392-6
3308NL	Obsolete	—
3308DT	Obsolete	—
—	New	388 x Ives 8190 Series Pull
—	New	360T x Ives 8190 Series Pull

*New trims not compatible with old devices, neither are old trims with new devices.

Nomenclature – how to order

		EL	33	27A	-L	-16	-F	LBR	3'	US3	RHR
CD	Cylinder dogging - panic only										
CX	Chexit delayed egress										
EL	Electric latch retraction										
HD-EL	Electric latch retraction with hex dogging										
QEL	Quiet electric latch										
HH	Hurricane										
LD	Less dogging										
LX	Latchbolt monitoring										
LX-LC	Latch bolt monitor low current										
LX-RX	Latchbolt monitor / request to exit										
LX-RX-LC	Latchbolt monitor / request to exit low current										
PL	Pullman latch										
PN	Pneumatic										
RX	Request to exit										
RX-LC	Request to exit low current										
RX2	Request to exit double switch										
SS	Signal switch										
AX	Accessible device										
WP-RX	Waterproof request to exit										
35A	Series 35A-smooth										
33A	Series 33A-grooved										
A	Rim device										
27A	Surface mounted vertical rod device										
47A	Concealed vertical rod device										
48A	Concealed vertical rod device										
49A	Concealed vertical cable device										
DT	Dummy trim										
EO	Exit only										
L	Lever (classroom)										
L-BE	Lever-blank escutcheon (passage)										
L-DT	Lever-dummy trim										
NL	Night latch (key retracts latchbolt)										
NL-OP	Night latch cylinder assembly – optional pull										
T	Thumbturn										
TL	Turn Lever										
T-BE	Thumbturn-blank escutcheon										
TL-BE	Turn Lever-blank escutcheon (Passage)										
XX	Lever Style 06 standard Optional 01, 02, 02KN, 03, 03KN, 05, 06KN, 07, 12 (handed), 16, 17, 17KN, 18, ACC, AST, MER, STA										
F	Fire Exit Device - Rim, 27A, 47A, 48A, 49A Only										
LBR	Less Bottom Rod										
LBL	Less Bottom Latch										
ALK	Standard Alarm Kit										
CON	Allegion Connect										
2'	2' Device (2' Door Size) 27A, 47A or 49A only										
3'	3' Device (2' 4"– 3' Door Size)										
4'	4' Device (2' 10"– 4' Door size)										
Finishes	US3, US4, US10, US15 (35A only), US26, US26D, US26D-AM, US28, 313, 315										
HR	Handing – RHR or LHR										

Lever styles

Decorative Levers



M51
Knurling available



M52
Knurling available



M53



M54



M55



M56



M57¹



M61
(Handed)



M62¹
(Handed)



M63
(Handed)



M81
Knurling available



M82



M83



M84



M85
(Handed)



ME1²
(Handed)



ME2²
(Handed)



ME3²

1. Available in Stainless Steel substrate ONLY.
2. Designed with Gensler as product design consultant.

Standard Levers



01



02
Knurling available



03*
Knurling available



05



06*
Default lever
Knurling available



07



12
(Handed)



16
(Omega)



17*
Knurling available



18



ACC
(Accent)
(Handed)



AST
(Asti)
(Handed)



MER
(Merano)
(Handed)



LAT*
Latitude



LON*
Longitude

* Available in stainless steel - specify SS when ordering.

75 Series

Exit Device

OVERVIEW

Mid-Priced, But Beyond Expectations

Enjoy the quality and trust you expect from Von Duprin at a mid-price option. Von Duprin 70 Series exit devices provide reliable performance and peace of mind for applications like warehouse, industrial, office, multifamily, retail, and commercial real estate spaces. The 75 series device is a narrow-stile device available in a wide range of device types, lever designs, options, and finishes.

Von Duprin's 70 Series also can be configured with the Quiet Electric Latch Retraction (QEL) option, which provides electronic control of an exit device where limited operational noise is desired. Plus, quick shipping is an option for time-sensitive projects.



DEVICE TYPES



Rim device



27 Surface mounted
vertical rod device



47 Concealed vertical rod
device, 5/8" throw

FINISHES



605
Bright Brass



606
Satin Brass



612
Satin Bronze



619
Satin Nickel



625
Bright Chrome



626
Satin Chrome



628
Aluminum, Clear
Anodized



630
Satin Stainless



643e
Aged Bronze

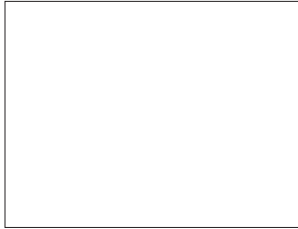


710
Dark Brown,
Anodized



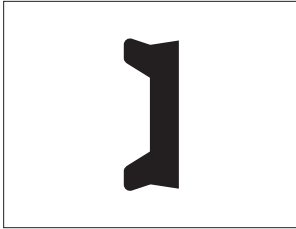
711
Matte Black

TRIM FUNCTIONS



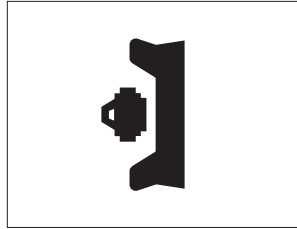
EO
No outside Trim

- Exit only



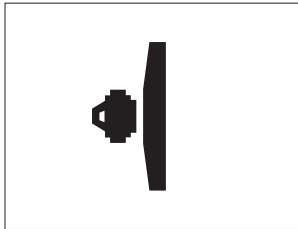
DT
Dummy Trim

- Pull when dogged (not recommended for fire device)



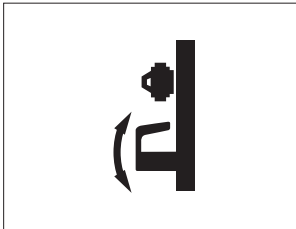
NL
Night latch

- Key retracts latch bolt
- Rim cylinder



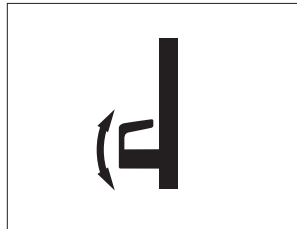
NLOP
Night latch

- Key retracts latch bolt, optional pull required



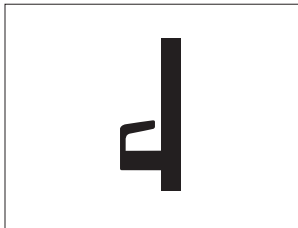
L
Lever

- Key locks and unlocks
- 1-1/4" mortise cylinder
- Handed, reversible lever
- E360 L BE only. No cylinder override available



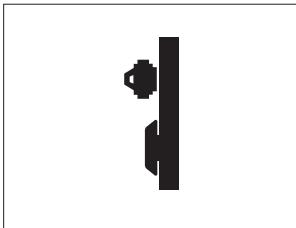
LBE
Lever, blank escutcheon

- Always operable (no cylinder)
- Electrified lever operation available



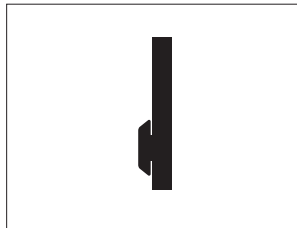
LDT
Lever, dummy trim

- Pull when dogged



TL
Turn lever

- Key locks and unlocks (use with DT trim)
- 1-1/4" mortise cylinder



TLBE
Turn lever, blank escutcheon

- Blank escutcheon always operable (no cylinder, use with DT trim)

TRIM STYLES



386



388



360L



374T x 386DT



376T x 386DT

Dimensions					
Trim Style	Base Width	Base Height	Projection	Grip Width	Grip Height
386/386DT	1-5/8"	7-15/32"	2-7/16"	4-5/16"	8-1/2"
388	1-11/16"	7-15/32"	1"		
360L	1-11/16"	7-1/2"	3"		
360T	1-11/16"	7-1/2"	1-13/16"		
374T	1-11/16"	7-1/2"	7/8"		
376T	1-11/16"	7-1/2"	7/8"		

LEVER STYLES

Standard Levers



01



02

- Knurling available



03

- Knurling available



05



06

- Default lever
- Suites with Schlage Rhodes
- Knurling available



07

- Suites with Schlage Athens



12

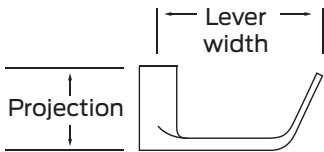
- Handed



16

- Suites with Schlage Omega

Dimensions		
Lever	Width	Projection
01	4.0"	2.1"
02	4.75"	2.3"
03	4.75"	2.813"
05	3.75"	2.8"
06	4.7"	2.1"
07	4.6"	2.3"
12	4.3"	2.9"
16	5.05"	2.66"



LEVER STYLES

Standard Levers



17

- Suites with Schlage Sparta
- Knurling available



18



Accent (ACC)

- Handed



Asti (AST)

- Handed



Merano (MER)

- Handed

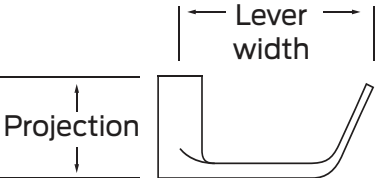


Latitude (LAT)



Longitude (LON)

Dimensions		
Lever	Width	Projection
17	4.7"	2.3"
18	4.75"	2.4"
Accent (ACC)	4.4"	3.1"
Asti (AST)	4.2"	2.5"
Merano (MER)	4.1"	2.5"
Latitude (LAT)	4.6"	2.3"
Longitude (LON)	4.9"	2.3"



LEVER STYLES

Decorative Levers



M51

- Knurling available



M52

- Knurling available



M53



M54



M55



M56



M57¹



M61

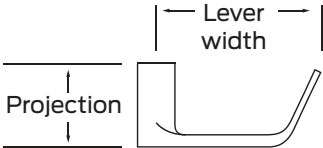
- Handed



M62¹

- Handed

Dimensions		
Lever	Width	Projection
M51	4.5"	2.5"
M52	4.5"	2.4"
M53	4.4"	2.4"
M54	4.4"	2.3"
M55	4.4"	2.7"
M56	4.5"	2.3"
M57	4.5"	2.7"
M61	4.5"	2.7"
M62	4.6"	2.4"



¹ Available in stainless steel substrate only

LEVER STYLES

Decorative Levers



M63

- Handed



M81

- Knurling available



M82



M83



M84



M85

- Handed



ME1¹

- Handed



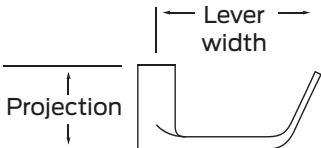
ME2¹

- Handed



ME3¹

Dimensions		
Lever	Width	Projection
M63	4.6"	2.6"
M81	4.8"	2.5"
M82	4.9"	2.5"
M83	4.7"	2.25"
M84	5.1"	2.2"
M85	4.9"	2.7"
ME1	5.4"	2.6"
ME2	5.2"	2.4"
ME3	5"	2.8"



¹ Designed with Gensler as product design consultant

ELECTROMECHANICAL OPTIONS

Switches	
LX	Latch Bolt Monitoring - Signals use of an opening - SPDT switch to monitor latch bolt 2 A maximum @ 24VDC; below 50 mA @ 24VDC for low current option
RX	Request to Exit - Signals use of an opening - SPDT switch to monitor pushpad 2 A maximum @ 24VDC; below 50 mA @ 24VDC for low current option
Miscellaneous	
ALK	Alarm Exit Kit - Unauthorized opening triggers 85-decibel horn - Set in armed or disarmed mode by key - Assembly includes both a 24VDC input and external inhibit
CON	Allegion Connect Common connectors to connect various door hardware all the way to the power supply
E360	Electric Locking and Unlocking Trim - Remains latched while unlocked - Remote electrical control - Voltage: 24VDC (Continuous Duty) - Current: 0.22 amps
Latch Retraction	
QEL	Quiet Electric Latch Retraction - Bolt retraction via switch - Converts exit door to push-pull operation - Voltage: 24VDC - Current: 1.0 A inrush (0.5 sec.) / 0.14 A holding

MECHANICAL OPTIONS

Dogging	
CD	Cylinder Dogging, Panic Only
HD	Hex Dogging, panic only
LD	Less Dogging
QEL	QEL options available
California Code	
AX	Accessible Device - UL certified to meet new 5 lb. maximum operating force requirement - Exceeds ANSI/BHMA requirements
Weatherized	
WH	Weep Holes Drainage (weep) holes in mechanism case

DEVICE OPTIONS MATRIX

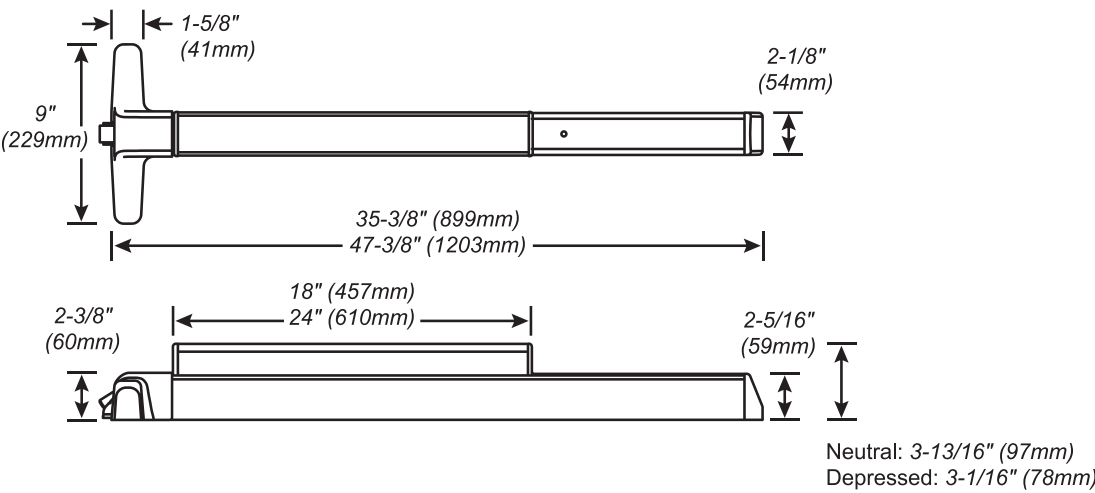
Matrix shows available options per device type, but does not represent compatibility across multiple options.

	Mechanical Options							E-Options					
	CD	HD	LD	WH	AX	LBR	F-LBR/ AFL	LX	RX	QEL	ALK	CON	E-TRIM
75-R	•	•	•	•	•			•	•	•	•	•	•
75-R-F				•	•			•	•	•	•	•	•
7527	•	•	•	•		•		•	•	•	•	•	•
7527-F				•			•	•	•	•	•	•	•
7547	•	•	•	•		•		•	•	•	•	•	•
7547-F				•			•	•	•	•	•	•	•

SPECIFICATIONS

Accessibility	- Force to depress push pad - AX device: 5 lbs - Standard device: 15 lbs - Push pad projection - Neutral: 3-13/16" (97mm) - Depressed: 3-1/16" (78mm)
Certifications/Approvals	All Von Duprin 75 exit devices are ANSI/BHMA Certified. Please refer to the BHMA Certified Products Directory for specific listings.
Mounting Height	39-13/16" (1011mm) 39-11/16" (1008mm) with mullion
Warranty	36 months from the date of placing the product in operation

DIMENSIONS



78 Series

Exit Device



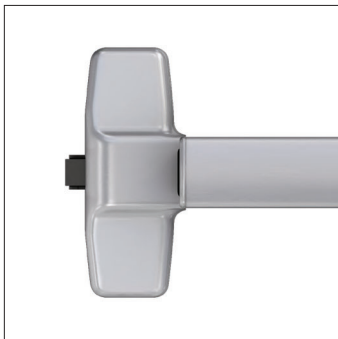
OVERVIEW

Mid-Priced, But Beyond Expectations

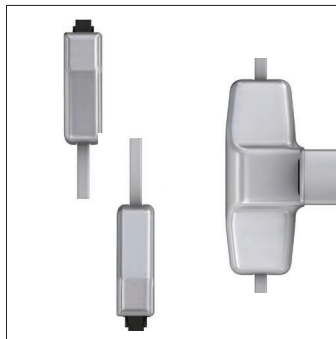
Enjoy the quality and trust you expect from Von Duprin at a mid-price option. Von Duprin 70 Series exit devices provide reliable performance and peace of mind for applications like warehouse, industrial, office, multifamily, retail, and commercial real estate spaces. The 78 series device is a wide-stile device available in a wide range of device types, lever designs, options, and finishes.

Von Duprin's 70 Series also can be configured with the Quiet Electric Latch Retraction (QEL) option, which provides electronic control of an exit device where limited operational noise is desired. Plus, quick shipping is an option for time-sensitive projects.

DEVICE TYPES



Rim device



27 Surface mounted vertical rod device



47 Concealed vertical rod device,
5/8" throw
5/8" top, 1-1/2" bottom throw

FINISHES



605
Bright Brass



606
Satin Brass



612
Satin Bronze



619
Satin Nickel



625
Bright Chrome



626
Satin Chrome



628
Aluminum, Clear
Anodized



630
Satin Stainless



643e
Aged Bronze

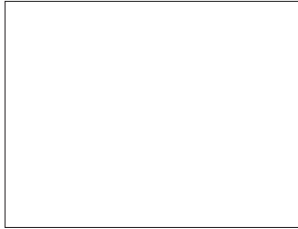


710
Dark Brown,
Anodized



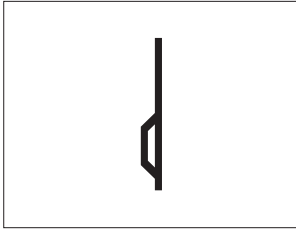
711
Matte Black

TRIM FUNCTIONS



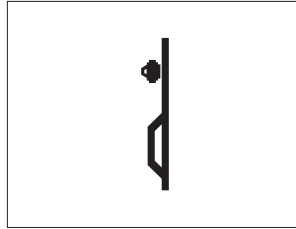
EO
No outside Trim

- Exit only



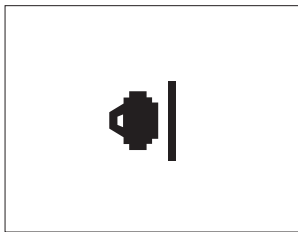
DT
Dummy Trim

- Pull when dogged
(not recommended for fire device)



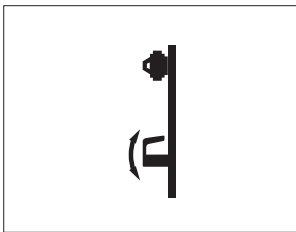
NL
Night latch

- Key retracts latch bolt
- Rim cylinder



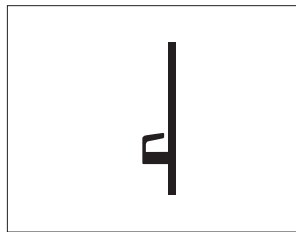
NLOP
Night latch

- Key retracts latch bolt, pull required
- Rim cylinder



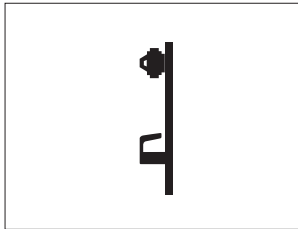
L
Lever

- Key locks and unlocks
- 1-1/4" mortise cylinder
- Handed, reversible lever
- Electrified lever operation available



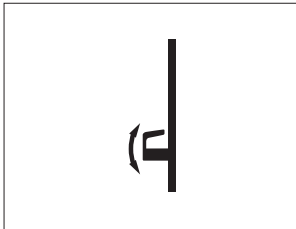
LDT
Lever, dummy trim

- Pull when dogged



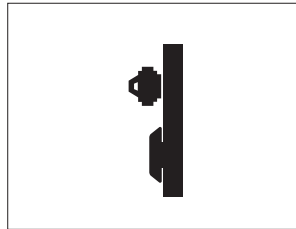
LNL
Lever, night latch

- Key retracts latch bolt
- 1-1/4" mortise cylinder
- Handed, reversible lever



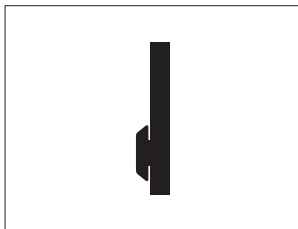
LBE
Lever, blank escutcheon

- Always operable (no cylinder)



TL
Turn lever

- Key locks and unlocks (use with DT trim)
- 1-1/4" mortise cylinder



TLBE
Turn lever, blank escutcheon

- Blank escutcheon always operable (no cylinder, use with DT trim)

TRIM STYLES



785 - EO/NL/DT



780 - L/L-BE/L-DT/L-NL



110MD/WD Trim



376T/T-BE



374T/T-BE

Dimensions				
Trim Style	Width	Height	Thickness	Projection
785	3"	14-3/16"	3/32"	2"
780	2-3/4"	10-3/4"	27/32"	2-7/8"
376T/T-BE	1-11/16"	7-1/2"	7/8"	2"
374T/T-BE	1-11/16"	7-1/2"	7/8"	2"

LEVER STYLES

Standard Levers



01



02

- Knurling available



03

- Knurling available



05



06

- Default lever
- Suites with Schlage Rhodes
- Knurling available



07

- Suites with Schlage Athens



12

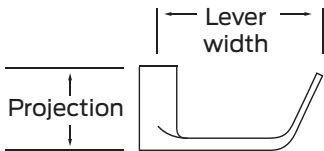
- Handed



16

- Suites with Schlage Omega

Dimensions		
Lever	Width	Projection
01	4.0"	2.1"
02	4.75"	2.3"
03	4.75"	2.813"
05	3.75"	2.8"
06	4.7"	2.1"
07	4.6"	2.3"
12	4.3"	2.9"
16	5.05"	2.66"



LEVER STYLES

Standard Levers



17

- Suites with Schlage Sparta
- Knurling available



18



Accent (ACC)

- Handed



Asti (AST)

- Handed



Merano (MER)

- Handed

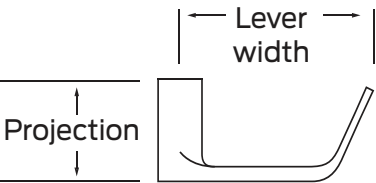


Latitude (LAT)



Longitude (LON)

Dimensions		
Lever	Width	Projection
17	4.7"	2.3"
18	4.75"	2.4"
Accent (ACC)	4.4"	3.1"
Asti (AST)	4.2"	2.5"
Merano (MER)	4.1"	2.5"
Latitude (LAT)	4.6"	2.3"
Longitude (LON)	4.9"	2.3"



LEVER STYLES

Decorative Levers



M51

- Knurling available



M52

- Knurling available



M53



M54



M55



M56



M57¹



M61

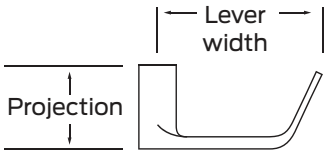
- Handed



M62¹

- Handed

Dimensions		
Lever	Width	Projection
M51	4.5"	2.5"
M52	4.5"	2.4"
M53	4.4"	2.4"
M54	4.4"	2.3"
M55	4.4"	2.7"
M56	4.5"	2.3"
M57	4.5"	2.7"
M61	4.5"	2.7"
M62	4.6"	2.4"



¹ Available in stainless steel substrate only

LEVER STYLES

Decorative Levers



M63

- Handed



M81

- Knurling available



M82



M83



M84



M85

- Handed



ME1¹

- Handed



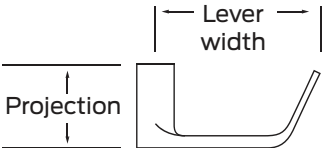
ME2¹

- Handed



ME3¹

Dimensions		
Lever	Width	Projection
M63	4.6"	2.6"
M81	4.8"	2.5"
M82	4.9"	2.5"
M83	4.7"	2.25"
M84	5.1"	2.2"
M85	4.9"	2.7"
ME1	5.4"	2.6"
ME2	5.2"	2.4"
ME3	5"	2.8"



¹ Designed with Gensler as product design consultant

ELECTROMECHANICAL OPTIONS

Switches	
LX	Latch bolt Monitoring
	• Signals use of an opening • SPDT switch to monitor latch bolt • 2 A maximum @ 24VDC; below 50 mA @ 24VDC for low current option
RX	Request to Exit
	• Signals use of an opening • SPDT switch to monitor pushpad • 2 A maximum @ 24VDC; below 50 mA @ 24VDC for low current option

Miscellaneous	
ALK	Alarm Exit Kit
	• Unauthorized opening triggers 85-decibel horn • Set in armed or disarmed mode by key • Assembly includes both a 24VDC input and external inhibit
CON	Allegion Connect
	• Common connectors to connect various door hardware all the way to the power supply
E-780L	Electric Locking and Unlocking Trim
	• Remains latched while unlocked • Voltage: 24VDC (Continuous Duty) • Current: 0.4 amps

Latch Retraction	
QEL	Quiet Electric Latch Retraction
	• Bolt retraction via switch • Converts exit door to push-pull operation • Voltage: 24VDC • Current: 1.0 A inrush (0.5 sec.) / 0.14 A holding

MECHANICAL OPTIONS

Dogging	
CD	Cylinder dogging, panic only
HD	Hex dogging, panic only
LD	Less dogging
QEL	QEL options available

Weatherized	
WH	Weep Holes
	• Drainage (weep) holes in mechanism case

California Code	
AX	Accessible Device
	• UL certified to meet new 5 lb. maximum operating force requirement • Exceeds ANSI/BHMA requirements

DEVICE OPTIONS MATRIX

Matrix shows available options per device type, but does not represent compatibility across multiple options.

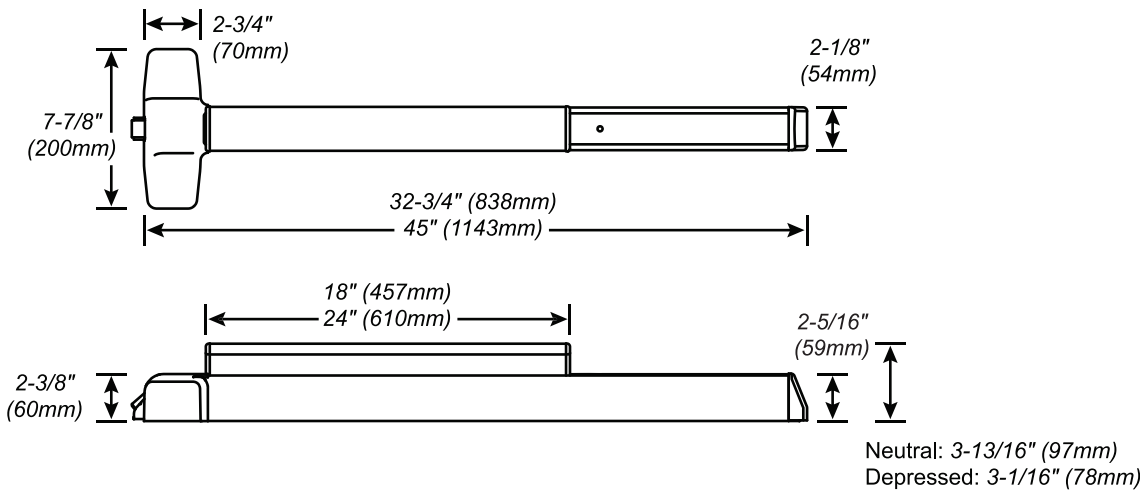
	Mechanical Options							E-Options					
	CD	HD	LD	WH	AX	LBR	F-LBR/ AFL	LX	RX	QEL	ALK	CON	E-TRIM
78-R	•	•	•	•	•			•	•	•	•	•	•
78-R-F				•	•			•	•	•	•	•	•
7827	•	•	•	•	•	•		•	•	•	•	•	•
7827-F				•	•		•	•	•	•	•	•	•
7847	•	•	•	•		•		•	•	•	•	•	•
7847-F				•			•	•	•	•	•	•	•

LBR

SPECIFICATIONS

Accessibility	- Force to depress push pad - AX device: 5 lbs - Standard device: 15 lbs - Push pad projection - Neutral: 3-13/16" (97mm) - Depressed: 3-1/16" (78mm)
Certifications/Approvals	All Von Duprin 78 exit devices are ANSI/BHMA Certified. Please refer to the BHMA Certified Products Directory for specific listings.
Mounting Height	39-13/16" (1011mm) 39-11/16" (1008mm) with mullion
Warranty	36 months from the date of placing the product in operation

DIMENSIONS



Introduction

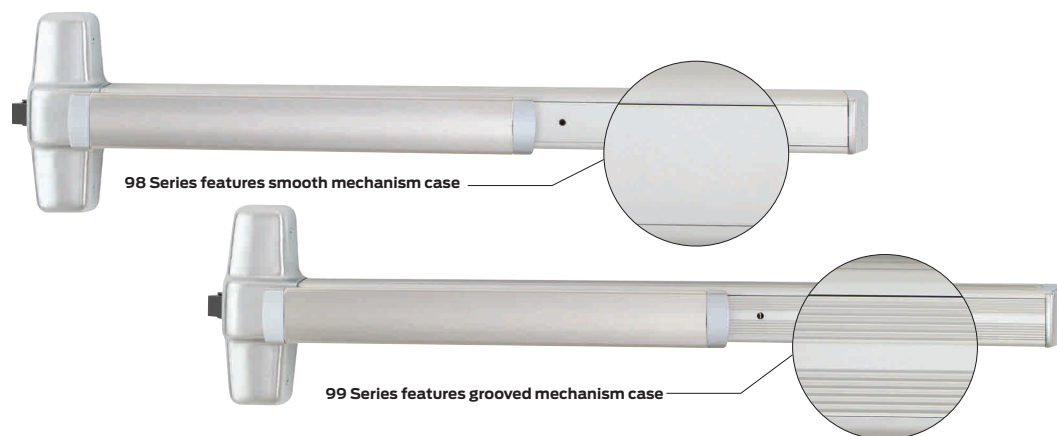
Engineered for value

Von Duprin® devices are designed with our customers in mind. The robust materials and unique engineering add to the longevity of our products, while the flexible design improves their value.

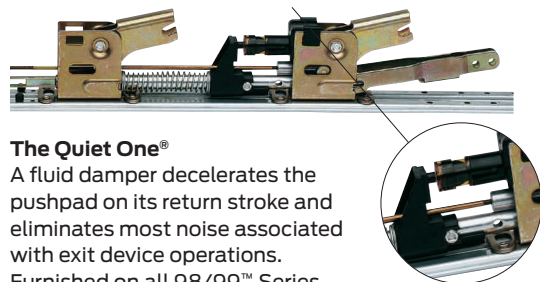
The universal center case provides a simple path to new technology without the cost of replacing the entire device. Whether it's adding trim, switching handing or introducing new features, Von Duprin makes it simple with a wide variety of upgradeable kits for the 98/99 Series. In addition to evolving with security needs, Von Duprin® exit devices are manufactured to meet the highest performance and safety standards.

Passion driving performance

With superior products comes exceptional customer care. Von Duprin customers are supported by industry-leading expertise. Allegion's representatives average more than 15 years of experience, so you're assured to receive knowledgeable advice on fire and life safety codes, installation resources and more. And for those looking to take their skills to the next level, Allegion offers instructor-led workshops, videos and online courses. It's another way Von Duprin stands by our customers—today, tomorrow and for years to come.

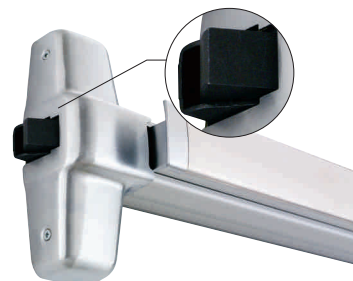


Von Duprin exit devices are available in two external surface styles, designated 98 and 99 Series.



The Quiet One®

A fluid damper decelerates the pushpad on its return stroke and eliminates most noise associated with exit device operations. Furnished on all 98/99™ Series exit devices.



Latch bolt

Deadlocking latchbolt provides security and improved performance at standard device cost.

VON DUPRIN
Administrative Offices
2720 Tobey Dr.
Indianapolis, IN 46219

Customer Service
877-671-7011
800-999-0328 - Fax

Technical Support
877-671-7011

Options and accessories

Applications and trim operation	Single and double door applications Door handing Outside trim operation Lever styles
--	---

Trim options	Knob Thumbpiece Lever Electrified outside lever trim (E996L) Breakaway lever Thumbturn control Hospital pull Offset pull Vandal resistant pull AD-Series adaptable electronic trim
---------------------	---

Strike options	Strike/Stile information Strikes
Dogging options	Cylinder dogging Cylinder dogging with Security Indicator Hex key dogging Hex dogging with Security Indicator Less dogging Dogging keys Special center case dogging Double cylinder Double cylinder with Security Indicator

Symbols



Indicates fire rated application

Indicates ADA products

Electrical options	RX Request to exit LX Latchbolt monitoring SS Signal switch CX Chexit® ALK Alarm kit E Electric mortise lock device EL Electric latch retraction QEL Quiet electric latch retraction CON Allegion Connect
Electrical accessories	Power supplies Electric power transfer

Mechanical options	XP98/99 rim exit device WS Surface vertical rod exit device Less bottom rod AX Accessible device Pullman latch Dummy push pad Braille, embossed, knurled and safety glow (Luminescent) touchpads
Pneumatic options	Pneumatic controlled exit devices Pneumatic power transfer

Device accessories	Glass bead kit Vertical rod and latch guard Cover plate kits Cylinders Mullions Sex bolts
---------------------------	--

Additional information	ANSI Function, grade and type UL fire labeling and opening size
-------------------------------	--

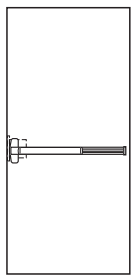
Finishes	Standard and special finishes
-----------------	-------------------------------

Nomenclature – how to order

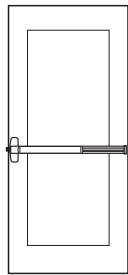
		EL	99	27	-L	-16	-F	LBR	3'	US3	RHR
None	Standard										
SD	Special dogging R/VR - panic only										
CD	Cylinder dogging - panic only										
CDSI	Cylinder dogging with Security Indicator										
HDSI	Hex dogging with Security Indicator										
CX	Chexit										
E	Electric locking mortise/lever										
QEL	Quiet electric latch retraction										
EL	Electric latch retraction										
LX	Latch bolt monitoring										
RX	Request to exit										
RX2	Double request to exit										
SS	Signal switch										
AX	Accessible device										
PL	Pullman latch										
PN	Pneumatic latch retraction										
XP	Heavy protection - rim										
WS	Tornado and hurricane tested										
98	Series 98-smooth										
99	Series 99-grooved										
None	Rim device										
27	Surface mounted vertical rod device										
47	Concealed vertical rod device										
47WDC	Concealed vertical rod wood door device										
48	Concealed vertical rod device										
49	Concealed vertical cable device										
50WDC	Concealed vertical cable wood door device										
57	Three-point latch device										
75	Mortise lock device										
AD	AD Trim (to come from client)										
DT	Dummy trim										
EO	Exit only										
HL	Hospital pull trim										
K	Knob										
K-BE	Knob - blank escutcheon										
K-DT	Knob, rigid - dummy trim										
K-NL	Knob, rigid - night latch										
L	Lever (classroom)										
L-BE	Lever - blank escutcheon										
L-DT	Lever, rigid - dummy trim										
L-NL	Lever, rigid - night latch										
NL	Night latch										
NL-OP	Night latch cylinder assembly, optional pull										
TL	Turn lever										
TL-BE	Turn lever - blank escutcheon										
TP	Thumbpiece										
TP-BE	Thumbpiece - blank escutcheon										
XX	Lever style 06 standard default Optional levers available										
F	Fire exit device										
-2	Double cylinder (rim and mortise only)										
-2SI	Double cylinder with Security Indicator										
LBR	Less bottom rod										
LBL	Less bottom latch										
SG	Safety glow (luminescent) touchpad										
ALK	Alarm kit										
CON	Allegion Connect										
2'	2' Device (2' door size) 27, 47 or 49 only										
3'	3' Device (2' 4"– 3' door size)										
4'	4' Device (2' 10"– 4' door size)										
Finishes	US3, US4, US10, US26, US26D, US28, 313, 315 US32D – 98 ONLY -AM Antimicrobial (available US26D and US32D)										
-LHR	Left hand reverse										
-RHR	Right hand reverse										

Popular double door applications

Single door applications

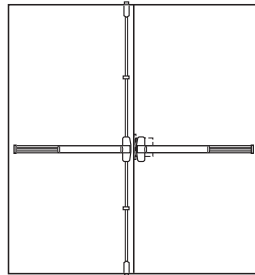


Single mortise lock device

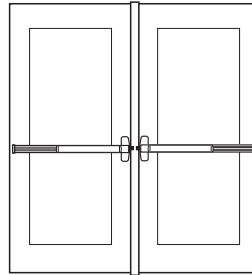


Single rim device

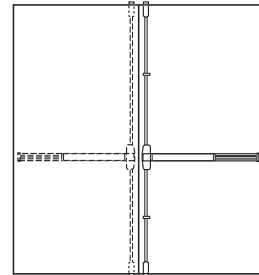
Double door applications



Mortise lock and surface mounted or concealed vertical cable/rod device combination—same direction

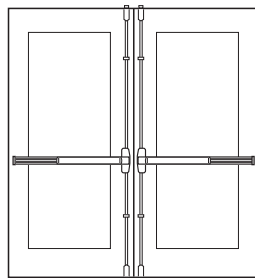
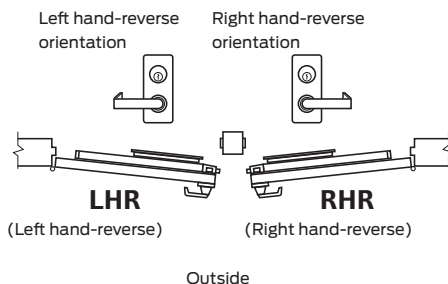


Two rim devices with mullion—same direction

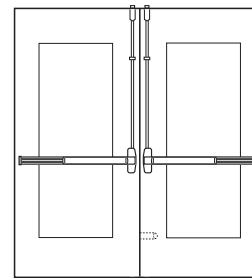


Two vertical rods—double egress

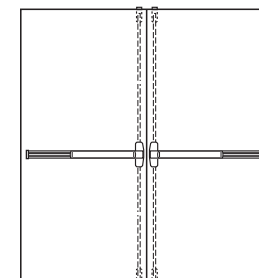
Door handing



Two surface mounted vertical rod devices—same direction (do not use with overlapping astragal)



Two fire exit hardware vertical cables/rods with auxiliary fire latch-LBR option



Two concealed vertical cables/rods

Outside trim operation

Trim operation lever or knob

Standard



Key locks and unlocks lever or knob, e.g., 996L (Classroom)

Night latch



Key retracts latch bolt. Lever or knob is rigid. Use NL suffix, e.g., 996LNL. (Storeroom)

Blank escutcheon



Lever or knob always active. Use BE suffix, e.g., 996L-BE. (Passage)

Dummy



Lever or knob rigid for pull operation. Use DT suffix, e.g., 996L-DT.

996L Breakaway™ lever



The 996L Breakaway trim has become the standard lever trim offering on the 98L/99L Series devices. The Breakaway design is especially effective in areas where vandalism to door hardware is a problem. The design intent is to discourage costly repairs from becoming necessary. The Breakaway feature is not available on the NL (night-latch) or DT (dummy trim) versions.

374T/376T Series thumbturn control



Standard operation, key locks and unlocks thumbturn. Optional operation, key unlocks thumbturn, re-locks when key is removed. This operation is created by changing the cylinder plate included with control. Use 1 1/4" mortise cylinder with a straight cam. Schlage cam reference L583-477. Use with a pull trim (990DT pictured).

Lever styles

Decorative Levers



M51
Knurling available



M52
Knurling available



M53



M54



M55



M56



M57¹



M61
(Handed)



M62¹
(Handed)



M63
(Handed)



M81
Knurling available



M82



M83



M84



M85
(Handed)



ME1²
(Handed)



ME2²
(Handed)



ME3²

1. Available in Stainless Steel substrate ONLY.
2. Designed with Gensler as product design consultant.

Standard Levers



01



02
Knurling available



03*
Knurling available



05



06*
Default lever
Knurling available



07



12
(Handed)



16
(Omega)



17*
Knurling available



18



ACC
(Accent)
(Handed)



AST
(Asti)
(Handed)



MER
(Merano)
(Handed)



LAT*
Latitude



LON*
Longitude

* Available in stainless steel - specify SS when ordering.

98/99 Rim exit device



The 299 Strike ships standard, optional strikes available

98 and 99 Rim exit devices for all types of single and double doors with mullion, UL listed for panic exit hardware. Devices are ANSI A156.3 – 2014 Grade 1. The 98 device has a smooth mechanism case and the 99 device has a grooved case. The rim device is non-handed except when the following device options are used: SD (special dogging), -2 (double cylinder) or SS (signal switch). See Opposite page for available outside trim and device functions. Covers stock hollow metal doors with 86 or 161 cutouts on single doors (may cover cutouts on pairs – consult template).

Finishes – US3, US3A, US4, US4A, US10, US26, US26D, US26D-AM Antimicrobial, US28, 313, 315 and 643E. US15 and US32D available with 98 Series only.

Hex key dogging comes standard on 98/99 Rim exit devices



Specifications

Device functions	Device ships EO/DT/NL. Field selectable. For TP, K or L remove NL drive screw from device.	
Device lengths	3'	2'4" to 3' (711mm to 914 mm) Door size
	4'	2'10" to 4' (864 mm to 1219 mm) Door size
Device centerline from finished floor	39 ¹³ / ₁₆ " (1011 mm) 39 ¹¹ / ₁₆ " (1008 mm) with mullion	
Center case	8" x 2 ³ / ₄ " x 2 ³ / ₈ " (203mm x 70mm x 60mm)	
Mechanism case	2 ¹ / ₄ " x 2 ¹ / ₄ " (57mm x 57mm)	
Projection	Pushbar neutral – 3 ¹³ / ₁₆ " (97 mm) Pushbar depressed – 3 ¹ / ₁₆ " (78 mm)	
Latch bolt	Deadlocking, 3/4" (19mm) throw	
Fasteners and sex bolts (SNB)	Includes screw pack for 1 ³ / ₄ " (44mm) and 2 ¹ / ₄ " (57mm) thick metal or wood doors. Optional 425 SNB available, see page 9 for quantities.	
Electric options	LX	Latchbolt monitor switch
	RX	Pushpad monitor switch
	RX2	Double pushpad monitor switch
	E	Electric locking and unlocking trim
	EL	Electric latch retraction
	QEL	Quiet electric latch retraction
	SS	Signal switch
	CX	Chexit delayed exit
	ALK	Alarm exit kit
	WP-RX	Waterproof request to exit
	CON	Allegion Connect
Mechanical options	-2	Double cylinder
	-2SI	Double cylinder with Security Indicator
	AX	Accessible device
	GBK	Glass bead kit
	PN	Pneumatic latch retraction
	XP	Extra protection
	SNB	Sex bolts
	SEC	Security screws
Dogging feature	Hex key dogging standard	
Dogging options	CD	Cylinder dogging
	CDSI	Cylinder dogging with Security Indicator
	HDSI	Hex dogging with Security Indicator
	SD	Special center case dogging
	LD	Less dogging
	DI	Dogging indicator
	CI	Cylinder dogging indicator
Strikes	299 – Dull black	

XP

Extra protection

- 90° latch-to-strike contact
- Force resistance of 2,000+ lbs.

CDSI

Cylinder dogging with Security Indicator

- Visual indication of whether device is dogged or undogged

QEL

Quiet electric latch retraction

- Bolt retraction via switch
- Converts exit door to push-pull operation

RX

Pushpad monitor switch

- Signals use of an opening
- SPDT switch to monitor pushpad

CX

Chexit delayed exit

- Meets NFPA 101 requirements
- Self-contained controls, locking, alarm

AX

Accessible device

- UL certified to meet new 5 lb. maximum operating force requirement
- Exceeds ANSI/BHMA requirements

EL

Electric latch retraction

- Enables remote unlatching
- Alternative to manual dogging

ALK

Alarm exit kit

- Unauthorized opening triggers 85-decibel horn
- Set in armed or disarmed mode by key

PN

Pneumatic latch retraction

- For areas where electrical devices banned
- Special linkage for mechanical or pneumatic dogging

CON

Allegion Connectors

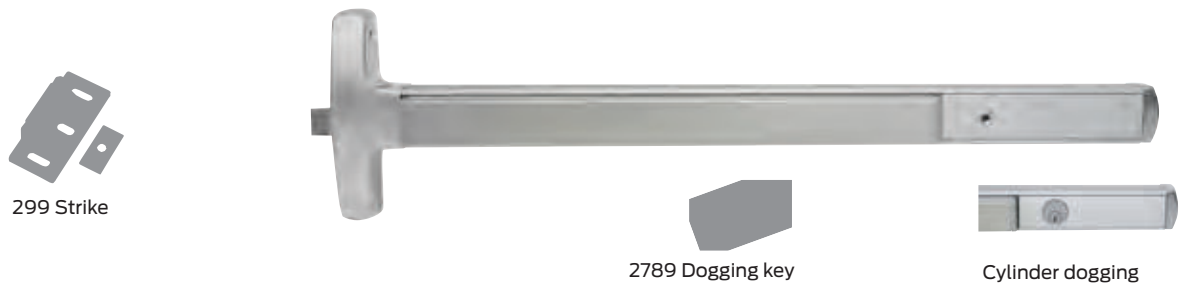
- Common connectors to connect various door hardware all the way to the power supply

24-R Series

Rim device

Panic exit hardware

The Falcon 24-R Series narrow stile rim device allows for application versatility in high-traffic installations. Standard features include a single-point, rim type latch and a streamlined touch bar design. This device can also be electrified for maximum ease of use and accessibility.



Single door application

Device	Door size	Door strike	Min stile (in)	Min door opening width
24-R	3'	299	3 1/2"	2' 7 1/2"
		264	3 3/8"	2' 7 3/8"
		1439	2 1/4"	2' 6 3/4"
		1606	2 3/4"	2' 7 1/8"
24-R	4'	299	3 1/2"	3' 1 1/2"
		264	3 3/8"	3' 1 3/8"
		1439	2 1/4"	3' 3/4"
		1606	2 3/4"	3' 1 1/8"

Double door application

Device	Door size	Door strike	Min stile (in)	Min door opening width
24-R	3'	299 x 2923	3 1/2"	2' 7 1/2"
		299 x 4023	4"	2' 7 1/2"
		264 x 2923	3 3/8"	2' 7 3/8"
		264 x 4023	3 5/8"	2' 7 3/8"
		1439 x 2923	3 1/2"	2' 7 1/8"
		1439 x 4023	3 3/4"	2' 7 1/8"
		1606 x 2923	3 1/2"	2' 7 1/8"
		1606 x 4023	3 3/4"	2' 7 1/8"
		4396 x 4423	2 1/8"	2' 6 5/8"
24-R	4'	299 x 2923	3 1/2"	3' 1 1/2"
		299 x 4023	4"	3' 1 1/2"
		264 x 2923	3 3/8"	3' 1 3/8"
		264 x 4023	3 5/8"	3' 1 3/8"
		1439 x 2923	3 1/2"	3' 1 1/8"
		1439 x 4023	3 3/4"	3' 1 1/8"
		1606 x 2923	3 1/2"	3' 1 1/8"
		1606 x 4023	3 3/4"	3' 1 1/2"
		4396 x 4423	2 1/8"	3' 5/8"

Specifications

Hand:	Non-handed
Functions:	24-EO (exit only) has all functions built in. Order trim with the device, or add it later (see trim selection chart on page 29).
Finishes:	US3 (605); US4 (606); US10 (612); US11 (643e); US15 (619); US19 (622); US26 (625); US26D (626); US32 (629); US32D (630); US28 (628), 313AN (710) (see page 29 for finishes)
Strikes:	299F strike standard. See page 27 for optional strikes.
Latchbolt:	Stainless steel, 3/4" throw.
Deadlocking latchbolt:	Optional. Specify "DL" prefix.
Dogging feature:	Half turn hex dogging standard. No threaded parts to wear out.
Stock sizes:	See chart to left.
Doors:	1 3/4" thick, wood or metal. Specify thickness if other than 1 3/4".
Projections:	2 3/4" maximum, 2" dogged.
Mounting height:	40" from CL to finished floor.
Electric functions:	Can be interfaced with building security systems. Latch retraction, security monitoring, delayed egress and exit alarm available (EL fail- secure only). Subject to code requirements, state and local (see pages 32-40 for details).
Fasteners:	All mounting screws are concealed.
Sex bolts:	Recommended when device is used with hollow core wood, composite or light gauge hollow metal doors. For EO device, specify 4 - 425 (#10-24) SNB and 2 - 325 (1/4"-20) SNB. For devices with trim, specify 4 - 425 (#10-24) SNB.
ANSI:	Certified ANSI A156.3-2001 grade 1 standards.
Center case & working parts:	Wrought steel with heavy wrought and sintered metal parts.
Shim kits:	For glass lite applications; 1/4" thick, specify SK24-R.

F-24-R Series

Rim device

🔥 Fire exit hardware

The Falcon F-24-R Series rim device combines sleek styling and durability with the protection of a fire-rated device. A narrow stile design allows for installation versatility. The F-24-R also features a single-point, rim type latch and can be electrified.



299F Strike



Single door application

Device	Door size	Door strike	Min stile (in)	Min door opening width
F-24-R	3'	299-F	3 1/2"	2' 7 1/2"
F-24-R	4'	299-F	3 1/2"	3' 1 1/2"

Double door application

Device	Door size	Door strike	Min stile (in)	Min door opening width
F-24-R	3'	299-F x F-4023	4"	2' 7 1/2"
F-24-R	4'	299-F x F-4023	4"	3' 1 1/2"

Specifications

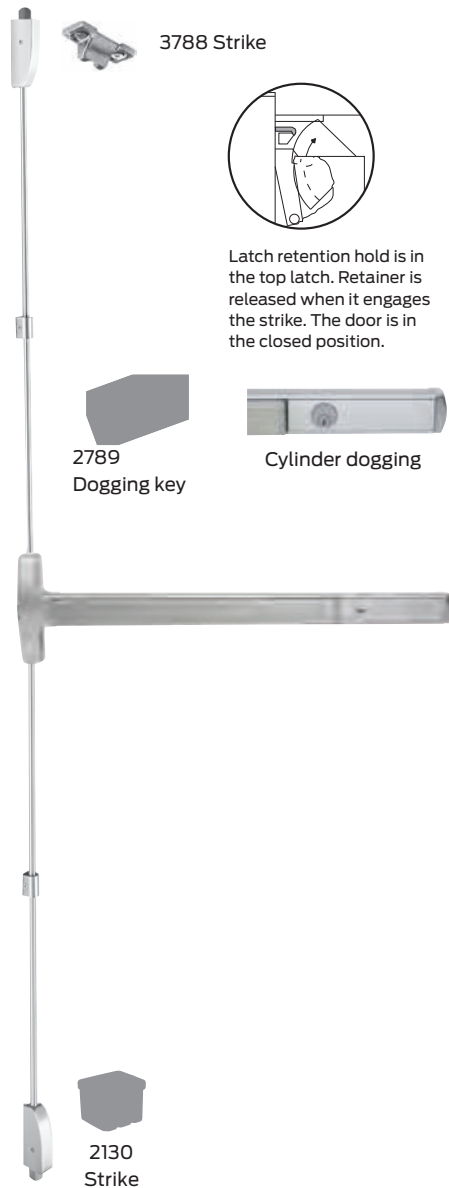
Hand:	Non-handed
UL:	"B" label (1 1/2 hr.); 4'0" x 8'0".
Functions	F-24-REO (Exit only) has all functions built in. Order trim with the device, or add it later. (see trim selection chart on page 29)
Finishes:	US3 (605); US4 (606); US10 (612); US11 (643e); US15 (619); US19 (622); US26 (625); US26D (626); US32 (629); US32D (630); US28 (628), 313AN (710) (see page 29 for finishes)
Strikes:	299F strike standard.
Latchbolt:	Stainless steel, 3/4" throw.
Deadlocking latchbolt:	Standard.
Stock sizes:	See chart to left.
Doors:	1 3/4" thick, wood or metal. Specify thickness if other than 1 3/4".
Projections:	2 3/4" maximum.
Mounting height:	40" from CL to finished floor.
Electric functions:	Can be interfaced with building security systems. Latch retraction, security monitoring, delayed egress and exit alarm available (EL fail-secure only). Subject to code requirements, state and local. (see pages 32-40 for details)
Fasteners:	All mounting screws are concealed. Furnished with all machine screws.
Sex bolts:	Required when used with wood, composite or non-reinforced hollow metal doors. For EO device, specify 4 - 425 (#10-24) SNB and 2 - 325 (1/4"-20) SNB. For devices with trim, specify 4 - 425 (#10-24) SNB.
ANSI:	Certified ANSI A156.3-2001 grade 1 standards.
Center case & working parts:	Investment-cast ferrous alloy with heavy wrought and sintered metal parts.
Shim kits:	For glass lite applications; 1/4" thick, specify SK24-R.

24-V Series

Vertical rod device

Panic exit hardware

High-traffic applications demand the added strength and protection that comes with a vertical rod device. The Falcon 24-V Series delivers with a surface-applied design that includes standard top latch and deadlocking. The narrow stile and sleek touch bar design ensure an attractive installation.



Specifications

Hand:	Field reversible.
Functions:	24-V-EO (exit only) has all functions built in. Order trim with the device, or add it later. (see trim selection chart on page 29)
Finishes:	US3 (605); US4 (606); US10 (612); US11 (643e); US15 (619); US19 (622); US26 (625); US26D (626); US32 (629); US32D (630); US28 (628), 313AN (710) (see page 29 for finishes)
Strikes:	3788 top strike is surface applied, 2130 bottom strike is mortised into floor.
Angle Bracket:	Use 4215 angle bracket in flush transom installations. Allow use of standard 3788 strike.
Latchbolt:	Top stainless steel, top latch $\frac{3}{4}$ " throw, bottom bolt $\frac{1}{2}$ " throw.
Deadlocking latchbolt:	Standard with top latch.
Latch retention hold:	Standard with top latch. On top latch.
Dogging feature:	Half turn hex dogging standard. No threaded parts to wear out.
Stock sizes:	See chart below.
Doors:	$1\frac{3}{4}$ " thick, wood or metal. Specify thickness if other than $1\frac{3}{4}$ " thick.
Projections:	$2\frac{3}{4}$ " maximum, 2" dogged.
Stile:	$1\frac{3}{4}$ " minimum when used in pairs.
Electric functions:	Can be interfaced with building security systems. Latch retraction, security monitoring, delayed egress and exit alarm available (EL fail-secure only). Subject to code requirements, state and local (see pages 32-40 for details).
Fasteners:	All mounting screws are concealed, sheet metal screws standard, machine screws available, specify AMS.
Sex bolts:	Recommended when device is used with hollow core wood, composite or light gauge hollow metal doors. For EO device, specify 8 - 425 (#10-24) SNB and 2 - 325 ($\frac{1}{4}$ "-20) SNB. For devices with trim, specify 8 - 425 (#10-24) SNB.
ANSI:	Certified ANSI A156.3-2001 grade 1 standards.
24-V:	Latch retention (LR) top latch and bottom square bolt. 3788 strike top, 2130 flush strike bottom.
24-V-LBR:	Less bottom rod vertical.
Vertical rods:	Furnished to length based on a 40" horizontal CL from finished floor and a 7'0" door standard. Variations from these standards must be specified when ordering.
Shim kits:	For glass lite applications; $\frac{1}{4}$ " thick, specify SK24-V.

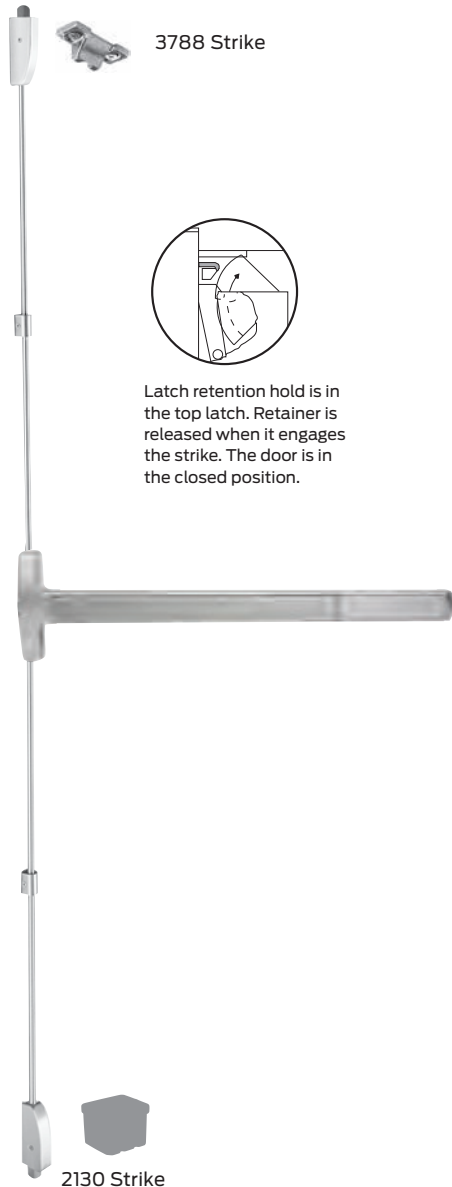
Device	Door size	Door strike	Min stile (in)	Min door opening width
24-V	3'	All	$2\frac{1}{8}$ "	$2'7\frac{1}{4}$ "
24-V	4'	All	$2\frac{1}{8}$ "	$3'1\frac{1}{4}$ "

F-24-V Series

Vertical rod device

Fire exit hardware

When your application requires strength and durability, plus fire-rated performance, the F-24-V Series is the total package. This surface-applied vertical rod device includes a sleek touch bar design with top latch and deadlocking standard, as well as a narrow stile that fits where you need it to.



Specifications

Hand:	Field reversible.
UL:	"A" Label (3 hr) - double egress - 8' x 10'; 90 min. same egress - 8' x 10'. Wood door: 20 min. 8' x 10'; 90 min. 8' x 9'. Consult door manufacturer for maximum rating.
Functions:	F-24-V-EO (exit only) has all functions built in. Order trim with the device, or add it later (see trim selection chart on page 29).
Finishes:	US3 (605); US4 (606); US10 (612); US11 (643e); US15 (619); US19 (622); US26 (625); US26D (626); US32 (629); US32D (630); US28 (628), 313AN (710) (see page 29 for finishes)
Strikes:	3788 top strikes are surface applied, 2130 bottom strike is mortised into floor.
Latchbolt:	Top stainless steel, top latch $\frac{3}{4}$ " throw, bottom bolt $\frac{1}{2}$ " throw.
Latch retention hold:	Standard with top latch.
Deadlocking latchbolt:	Standard with top latch.
Stock sizes:	See chart below.
Doors:	$1\frac{3}{4}$ " thick, wood or metal. Specify thickness if other than $1\frac{3}{4}$ " thick.
Projections:	$2\frac{3}{4}$ " maximum.
Stile:	$2\frac{1}{8}$ " minimum when used in pairs.
Electric functions:	Can be interfaced with building security systems. Latch retraction, security monitoring, delayed egress and exit alarm available (EL fail-secure only). Subject to code requirements, state and local. (See pages 32-40 for details.)
Fasteners:	All mounting screws are concealed. All machine (AMS) standard.
Sex bolts:	Recommended when device is used with hollow core wood, composite or light gauge hollow metal doors. For EO device, specify 8 - 425 (#10-24) SNB and 2 - 325 ($\frac{1}{4}$ -20) SNB. For devices with trim, specify 8 - 425 (#10-24) SNB.
ANSI:	Certified ANSI A156.3-2001 grade 1 standards.
F-24-V:	Latch retention (LR) top latch and bottom square bolt. 3788 strike top, 2130 flush strike bottom.
F-24-V-LBR:	Less bottom rod vertical device. "A" Label (3 hr) - 8' x 8'; 90 min. same egress - 8' x 8'. Wood Door: 20 minute minimum - 8' x 8' openings. Consult door manufacturer for maximum rating.
Vertical rods:	Furnished to length based on a 40" horizontal CL from finished floor and a 7'0" door standard. Variations from these standards must be specified when ordering.
Shim kits:	For glass lite applications; $\frac{1}{4}$ " thick, specify SK24-V.

Device	Door size	Door strike	Min stile (in)	Min door opening width
F-24-V	3'	All	$2\frac{1}{8}$ "	$2'7\frac{1}{4}$ "
F-24-V	4'	All	$2\frac{1}{8}$ "	$3'1\frac{1}{4}$ "

24-C Series

Concealed vertical rod device

Panic exit hardware

Concealed vertical rods add strength to the door, while maintaining an attractive appearance. The Falcon 24-C Series concealed vertical rod device offers great value, clean styling, a versatile narrow stile design and the security benefits of two-point latching. Falcon's patented center slide mechanism allows easy rod adjustment in the field.



Specifications

Hand:	Field reversible or specify handing.
Functions:	See trim selection chart on page 29. Delta trim only.
Finishes:	US3 (605); US4 (606); US10 (612); US11 (643e); US15 (619); US19 (622); US26 (625); US26D (626); US32 (629); US32D (630); US28 (628), 313AN (710) (see page 29 for finishes).
Strikes:	4188 mortised top and 2130 flush strike bottom, optional bottom 2126A and 4155.
Latchbolt:	Top stainless steel, top latch $\frac{3}{4}$ " throw. Bottom bolt $\frac{1}{2}$ " throw.
Deadlocking latchbolt:	Standard with top latch.
Latch retention hold:	Standard with top latch.
Dogging feature:	Half turn hex dogging standard. No threaded parts to wear out.
Cylinder dogging:	Specify "CD" prefix. Uses $1\frac{1}{8}$ " long mortise cylinder dogging with standard cam.
Stock sizes:	See chart below.
Doors:	$1\frac{3}{4}$ " thick, wood or metal. Specify if other than $1\frac{3}{4}$ " thick.
Projections:	$2\frac{3}{4}$ " maximum, 2" dogged.
Stile:	$2\frac{1}{4}$ " minimum when used in pairs. (6" minimum on wood doors)
Electric functions:	Can be interfaced with building security systems. Latch retraction, security monitoring, delayed egress and exit alarm available (EL fail-secure only). Subject to code requirements, state and local (see pages 32-40 for details)
Fasteners:	All mounting screws are concealed, sheet metal screws standard, machine screws available, specify AMS.
Sex bolts:	Recommended when device is used with hollow core wood, composite or light gauge hollow metal doors. For EO device, specify 2 - 425 (#10-24) SNB and 2 - 325 ($\frac{1}{4}$ -20) SNB. For devices with trim, specify 2 - 425 (#10-24) SNB.
ANSI:	Certified ANSI A156.3-2001 grade 1 standards.
24-V-LBR:	Less bottom rod concealed vertical device.
Vertical rods:	Furnished to length based on 40" horizontal CL to finished floor and a 7'0" door. Variations from these standards must be specified when ordering.
Patented centerslide:	For ease of adjustment.
Shim kits:	Consult factory

Device	Door size	Door strike	Min stile (in)	Min door opening width
24-C	3'	All	$2\frac{1}{4}$ " (6" for wood doors)	$2' 7\frac{3}{8}$ "
24-C	4'	All	$2\frac{1}{4}$ " (6" for wood doors)	$3' 1\frac{3}{8}$ "

F-24-C Series

Concealed Vertical Rod Device

Fire Exit Hardware

The Falcon F-24-C Series device lets you combine the safety of a fire-rated device with the clean aesthetics that come with a narrow stile and concealed vertical rod installation. In-field adjustment is simple thanks to our patented center slide mechanism. Two-point latching ensures optimal security at the door.



Specifications

Hand:	Field reversible.
UL:	"A" Label (3 hr) - double egress - 8' x 10'; 90 min. same egress - 8' x 10'.
Functions:	See trim selection chart on page 29. Delta trim only.
Finishes:	US3 (605); US4 (606); US10 (612); US11 (643e); US15 (619); US19 (622); US26 (625); US26D (626); US32 (629); US32D (630); US28 (628), 313AN (710) (see page 29 for finishes).
Strikes:	4188 mortised top, 2130 flush strike bottom.
Latchbolt:	Top stainless steel, 3/4" throw. Bottom bolt 1/2" throw.
Latch retention hold:	Standard with top latch.
Deadlocking latchbolt:	Standard with top latch.
Stock sizes:	See chart below.
Doors:	1 3/4" thick metal. Specify if other than 1 3/4" thick.
Projections:	2 3/4" maximum.
Stile:	2 1/4" minimum when used in pairs. (6" minimum on wood doors)
Electric functions:	Can be interfaced with building security systems. Latch retraction, security monitoring, delayed egress and exit alarm available (EL fail-secure only). Subject to code requirements, state and local (see pages 32-40 for details).
Fasteners:	All mounting screws are concealed. All machine screws standard.
Sex bolts:	Required when used with wood, composite or non-reinforced hollow metal doors. For EO device specify 2 - 425 (#10-24) SNB and 2 - 325 (1/4"-20) SNB. For devices with trim, specify 2 - 425 (#10-24) SNB.
ANSI:	Certified ANSI A156.3-2001 grade 1 standards.
F-24-C-LBR:	Less bottom rod concealed vertical device. "A" Label (3 hr) - 8' x 8'; 90 min. same egress - 8' x 8'.
Vertical rods:	Furnished to length based on 40" horizontal CL to finished floor and a 7'0" door. Variations from these standards must be specified when ordering.
Patented centerslide:	For ease of adjustment.
Shim kits:	Consult factory.

Device	Door size	Door strike	Min stile (in)	Min door opening width
F-24-C	3'	All	2 1/4" (6" for wood doors)	2' 7 3/8"
F-24-C	4'	All	2 1/4" (6" for wood doors)	3' 1 3/8"

24 Series

Accessories and options



4023 Shown

Removable mullion

- The 2923, 4023, KR4023 and 4423 steel mullions are for use with the 24-R devices on double door openings. Advantage: Increased security and tighter closure. Minimizes door warpage and sag. Regulates the flow of in-and-out traffic
- Removable mullions are easily removed and reinstalled for full width access
- Rim devices are used on both leaves, attaining a perfectly symmetrical opening
- The mullion assembly consists of a mullion, top and bottom mounting brackets and a screw pack. Soffit adapters are available for use with either the 2923, 4423 or the 4023 mullion
- Strikes are not furnished with the mullion (except 4423). Please see page 27 for strike information
- Mullions may be cut on the job for doors under stock lengths

24-R Double door application

Strike	Installed with mullion	Min stile	B*
299	2923	3 1/2"	2 3/16"
299	4023	4"	2 7/16"
264	2923	3 3/8"	2 1/16"
264	4023	3 5/8"	2 5/16"
1439	2923	3 7/16"	1 7/8"
1439	4023	3 11/16"	2 1/8"
1606	2923	3 5/16"	1 7/8"
1606	4023	3 11/16"	2 1/8"
4396	4423	2 1/8"	1 1/8"

Mullion features

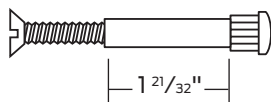
- Mullion fittings – ductile iron
- 4023 – 2" x 3" x height
- KR4023 cylinder removable mullion – 2" x 3" x height and uses 1 1/4" mortise cylinder not furnished
- 2923 mullion – 1 1/2" x 2 1/2" x height
- 423 mullion – T shape (1" on latch edge) supplied with 4396 adjustable strike
- Prime coat only
- 7' or 8' door opening standard, other door opening as specified

Cylinders - control trim

- Cylinder supplied only when specified.
- Cylinders available keyed alike.

Sex bolts

- 325 (1/4"-20 thread)
- 425 (#10-24 thread)



Cylinder reference

Device	Trim	Standard key cylinder	IC key cylinder
24 Series device	Cylinder dogging	985 - 1 1/8" Mortise cylinder	C987 - 1 3/8" Mortise cylinder (Blocking ring plus security collar must equal 1/4" thick)
24 Series trims	L, K	986 - Mortise cylinder	C987 - Mortise cylinder
24 Series trims	NL - Rim and surface vertical 718C, 718NL	951 - Rim cylinder	C953 - Rim cylinder
24 Series trims	Concealed 718C, 718NL	986 - 1 1/4" Mortise cylinder *4831 cam for trim prior to 2/28/12; B520 - 731 cam for trim after 2/28/12	C987 - 1 3/8" mortise cylinder (blocking ring plus security collar must equal 1/4")

24 Series

Accessories and strikes

Strikes

For rim devices



264
2 7/8" x 1 1/4" x 9/16"
(H x W x D)
Panic device only.



299
7 7/8" x 1 1/4" x 13/16"
(H x W x D)
Panic device only.



299F
2 7/8" x 1 1/4" x 13/16"
(H x W x D)



1606
2 7/8" x 1 3/8" x 3/8"
(H x W x D)
Panic device only.



1439 Blade stop
1 3/4" x 1 7/8" x 1/2"
(H x W x D)
Panic device only.

For surface and concealed vertical rod devices



2130
(F)24-V and (F)24-C
standard bottom
strike for grouting
into concrete or
masonry floors.



3788
Furnished top
of (F)24-V.

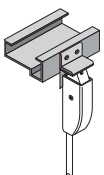


4155
Optional strike.
Panic device only.



4188
Top strike for
(F)24-C.

Accessories



4215
Angle bracket for flush transom applications.
Does not require elimination of latch
retention feature. Accepts 3788 strike for
24-V device.



Surface vertical extension rods

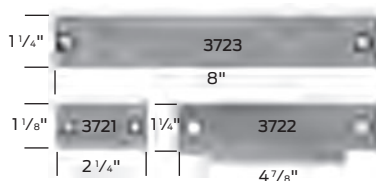
Extension rods are
available in 12", 24"
and 36" lengths in
all finishes. Both
ends tapped and
all-thread included
as connector.



Concealed extension rods

Extension rods are
available in 12", 24"
and 36". Both ends have
pressed-in, threaded
inserts.

Filler plates



3721/3722/3723

Steel filler plates

- 3721 Cylindrical lock front filler
- 3722 Strike filler - set no. SC for 161 cutout
- 3723 Mortise lock front filler
- 3722 Strike filler - set no. SM for 86 cutout

24 Series

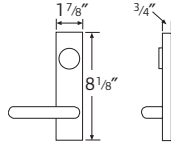
Trim designs

Lever trims (712L)



712L
712L/NL

712L/DT
712L/BE



Knob trim (711K)



711K
711-NL

Round ball knob
Escutcheon: 8 1/8" x 1 7/8"
Projection: 3 7/8"
Brass
For keyed functions, see page 26 for cylinder requirements.

Athena (715)



715DT

Grip overall: 9 1/8"
Width: 1 1/16"
Pull: 6 1/4" C x C
Projection: 2 1/4"

Lever designs



Avalon (AVA)
Projection 3 1/4"



Quantum (QUA)
Projection 3 1/4"



Dane (DAN)
Projection 3"



Broadway (BRW)
Projection 3 1/5"



Boardwalk (BRK)
Projection 3 1/5"



Danish (DSH)
Projection 2 9/10"



Latitude (LAT)
Projection 3 1/10"



Longitude (LON)
Projection 3 1/10"



Sutro (SUT)
Projection 3 1/4"

All levers return to within 1/2" of door.

Escutcheon: 8 1/8" (H) x 1 7/8" (W) (specify handing) brass finish.

Protected by easily replaceable shear pin.

Lever is reversible, supplied RHR if not specified. For keyed functions, see page 26 for cylinder requirements.

Delta trims

1 1/8" Mortise cylinder



718DT

1" Cylinder



718C



718NL



717DT



718TL



718TL-BE

Specify handing
Escutcheon: 8 1/8" x 1 7/8"
Projection: 2 1/4"
All Delta pulls: 6 1/4" C x C
NL and DT: 14 1/16" x 2 1/4"

Cylinder information

Key retracts latch bolt.
Cylinder sold separately
(see page 26).

Brass and/or plated finishes.

For cylinder information see page 26.
When locking function is not required,
specify trim by (BE) blank escutcheon.

24 Series

Trim chart & finish chart

Function

	Lock/ unlock	NL	DT	BE	FSA/ FSE
Lever ¹ (712)	712L	712L-NL	712L-DT	12L-BE	
Knob (711)	711K	711K-NL	—	711K_BE	
Delta (717)	—	—	717DT	—	
Delta (718)	—	718NL	718DT	—	718C
Athena (715)	—	—	715DT		

¹ Specify hand.

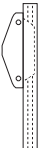
24 Series finishes

	Color	US number	BHMA number
	Brass, bright	US3	605
	Brass, satin	US4	606
	Bronze, satin	US10	612
	Bronze, aged	US11	643e*
	Nickel, satin	US15	619*
	Black, matte	US19	622*
	Chromium, bright	US26	625
	Chromium, satin	US26D	626
	Anodized aluminum	US28	628
	Stainless Steel, bright	US32	629
	Stainless Steel, satin	US32D	630
	Anodized duranodic	313AN	710

*Available on select devices and trims

24 Series

Types and functions

	Rim devices ANSI type 4	Vertical rod devices ANSI type 5	Concealed vertical rod devices ANSI type 6
Functions (ANSI)	(F)-24-R	(F)- 24-V	(F)-24-C
EO (01) Exit only, no trim.	 24-R-EO	 24-V-EO	 24-C-EO
DT (02) Entrance by trim when actuating bar is locked down. Note: Fire exit devices cannot be dogged down. Some codes permit electric dogging with fail secure circuitry.	 24-R-DT	 24-V-DT	 24-C-DT
NL (03) Entrance by trim when latchbolt is retracted by key. Key removable only when locked.	 24-R-NL	 24-V-NL	 24-C-NL
	Rim devices ANSI type 4	Vertical rod devices ANSI type 5	Concealed vertical rod devices ANSI type 6
	(F)-24-R	(F)- 24-V	(F)-24-C
L or K (08) Entrance by knob or lever. Key locks or unlocks knob.	 24-R-L or K	 24-V-L or K	 24-C-L or K
L (NL) or K (NL) (09) Entrance by knob or lever only when released by key. Key removable only when locked.	 24-R-L or K(NL)	 24-V-L or K(NL)	 24-C-L or K(NL)

25-R Series

Rim device

Panic exit hardware

The Falcon 25-R Series rim device meets the demanding requirements of high traffic installations with a single-point, rim type latch and a streamlined touch bar design. This device can also be electrified for maximum ease of use and accessibility.



299 Strike



2789
Dogging key



Cylinder dogging

Single door application

Device	Door size	Door strike	Door stile (in)	Min door opening width
25-R	3'	299	4"	2' 7 1/2"
		264	3 7/8"	2' 7 3/8"
		1439	3 1/4"	2' 6 3/4"
		1606	3 5/8"	2' 7 1/8"
25-R	4'	299	4"	3' 1 1/2"
		264	3 7/8"	3' 1 3/8"
		1439	3 1/4"	3' 3/4"
		1606	3 5/8"	3' 1 1/8"

Double door application

Device	Door size	Strike x mullion	Door stile (in)	Min door opening width
25-R	3'	299 x 2923	4 1/8"	2' 7 1/2"
		299 x 4023	4 3/8"	2' 7 1/2"
		264 x 2923	4"	2' 7 3/8"
		264 x 4023	4 1/4"	2' 7 3/8"
		1439 x 2923	3 7/8"	2' 7 1/4"
		1439 x 4023	4 1/8"	2' 7 1/4"
		1606 x 2923	4 1/4"	2' 7 1/8"
		1606 x 4023	4 1/2"	2' 7 1/8"
25-R	4'	299 x 2923	4 1/8"	3' 1 1/2"
		299 x 4023	4 3/8"	3' 1 1/2"
		264 x 2923	4"	3' 1 3/8"
		264 x 4023	4 1/4"	3' 1 3/8"
		1439 x 2923	3 7/8"	3' 1 1/4"
		1439 x 4023	4 1/8"	3' 1 1/4"
		1606 x 2923	4 1/4"	3' 1 1/8"
		1606 x 4023	4 1/2"	3' 1 1/8"
25-Vx 25-R	3'	1609	3 1/2"	2' 7 5/8" for 3 1/2" Min stile
25-Vx 25-R	4'	1609	3 1/2"	3' 1 5/8" for 3 1/2" Min stile

Specifications

Hand:	Non-handed
Finishes:	US3 (605); US4 (606); US10 (612); US26 (625); US26D (626); US32 (629); US32D (630); US28 (628), 313AN (see page 17 for finishes).
Strikes:	299 strike standard. See page 15 for additional info.
Latchbolt:	Stainless steel, 3/4" throw.
Deadlocking latchbolt:	Standard.
Dogging feature:	Half turn hex dogging standard. No threaded parts to wear out.
Cylinder dogging:	Specify "CD" prefix. Uses 1 1/8" long mortise cylinder with standard cam.
Stock sizes:	See chart to left. Cut to size in the field.
Doors:	1 3/4" thick, wood or metal. Specify thickness if other than 1 3/4".
Projections:	2 3/4" maximum, 2" dogged.
Mounting height:	40 1/4" from CL to finished floor.
Electric functions:	Can be interfaced with building security systems. Latch retraction, FSA/FSE trim, security monitoring, delayed egress and exit alarm available (EL fail-secure only). Subject to code requirements, state and local (see pages 33-40 for details).
Fasteners:	All mounting screws are concealed, sheet metal screws and machine screws standard.
Sex bolts:	Recommended when device is used with hollow core wood, composite or light gauge hollow metal doors. For EO device, specify 8 - 425 (#10-24) SNB. For devices with trim, specify 2 - 425 (#10-24) SNB.
ANSI:	Certified ANSI A156.3-2001 grade 1 standards.
Center case & working parts:	Center case is heavy wrought and sintered metal parts.
Shim kits:	For glass lite applications; 1/4" thick, specify SK25-RM.
579 Strike retrofit kit:	Consult factory.

25 Series

Strikes and accessories

Strikes

For rim devices



264
2 7/8" x 1 1/4" x 9/16"
(H x W x D)
Panic device only.



299
7 7/8" x 1 1/4" x 13/16"
(H x W x D)
Panic device only.



299F
2 7/8" x 1 1/4" x 13/16"
(H x W x D)



499F
3 5/8" x 1 1/2" x 16/16"
(H x W x D)



1439 Blade stop
1 3/4" x 1 7/8" x 1/2"
(H x W x D)
Panic device only.



1606
2 7/8" x 1 3/8" x 3/8"
(H x W x D)
Panic device only.



1609
3 1/4" x 1 1/16" x 3/8"
(H x W x D)
Requires coordinator.
Panic device only.

For surface and concealed vertical rod devices



2130
(F)25-V and (F)25-C
standard bottom strike for
grouting into concrete or
masonry floors.



3788
Furnished top
of (F)25-V.



4155
Optional strike.
Panic device only.



4188
Top strike for
(F)25-C.

For mortise lock devices



1279
Closed strike used on
single doors and on fire
exit hardware doors with
coordinator.

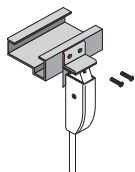


F1280
Open back strike used on pairs of
1 3/4" doors without astragal or
coordinator. Can be used on stock
hollow metal doors. F1280 "B" label
(1 1/2 hr.) stainless steel strike
available.



1281
Open back strike for 1 3/4" doors.
8" x 1 1/4" face allow use in
mortise lock cutout of stock
hollow metal door.

Accessories



4215
Angle bracket for flush transom applications.
Does not require elimination of latch retention
feature. Accepts 3788 strike for 25-V device.

Surface vertical extension rods

Extension rods are
available in 12", 24"
and 36" lengths in
all finishes. Both
ends tapped and
all-thread included
as connector.

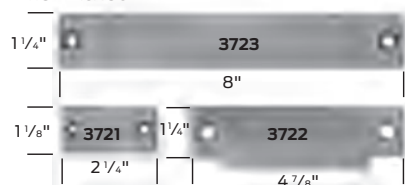


Concealed extension rods

Extension rods are
available in 12", 24"
and 36". Both ends
have pressed-in,
threaded inserts.



Filler Plates



3721/ 3722/ 3723
Steel filler plates

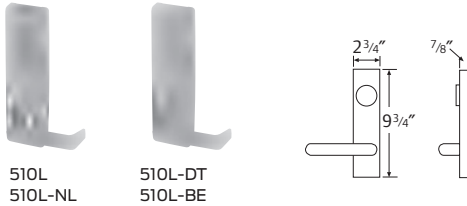
- 3721 Cylindrical lock front filler
- 3722 Strike filler - set no. SC for 161 cutout
- 3723 Mortise lock front filler
- 3722 Strike filler - set no. SM for 86 cutout

25 Series

Trim designs

Functionality built into the trim, facilitating easy door preps, easy field retrofit and easy ordering.

Lever trims (510L)



510L
510L-NL

510L-DT
510L-BE

Lever designs



Avalon
Projection: 3 1/4"

Dane
Projection: 3"

Sutro
Projection: 3 1/4"

Quantum
Projection: 3 1/4"

All levers return to within 1/2" of door.

Escutcheon: 9 3/4" (H) x 2 3/4" (W) (specify handing) brass finish.

Protected by easily replaceable shear pin.

Lever is reversible, supplied RHR if not specified. For keyed functions, see page 14 for cylinder requirements.

Vandal - resistant lever trims (511L)



Provides resistance to rotation, making damage of trim due to attack from the outside less likely. Designed to operate normally after vandalism attempts without the need for maintenance personnel intervention.

- Heavy duty, vandal-resistant, ANSI A156.3 grade 1 security trim.
- Lever deflects up to 22 ft-lb for a minimum of 10,000 vandal-resistant cycles.
- Vandal resistance is present in both lever rotation directions.
- After lever is fully deflected, lever stops rotating and a shear pin breaks at 70 ft-lb to prevent damage to unit.
- Available on 25 rim, vertical, mortise, and concealed devices.
- Retrofits all existing 25 trim without additional door prep.
- Works with all electric lock and unlock functions.
- Available in all finishes and designs including Avalon, Dane, Quantum and Sutro.

Pull trims (512)



512TP

512NL

512DT

512TP-BE

Delta (717)



717DT

Escutcheon: 16" x 2 3/4"

Grip: 6 1/4" C-C

Projection: 2 11/16"

Brass

For keyed functions, see page 14 for cylinder requirements.

Knob trims (513K)



513K-DT
513K-BE

513K
513K-NL

Round ball knob

Escutcheon: 9 3/4" x 2 3/4"

Projection: 4"

Brass

For keyed functions, see page 14 for cylinder requirements.

Cylinder only (NL-OP)

Key retracts latch bolt.
Cylinder sold separately
(see page 14).

25 Series

Trim chart & finish chart

Function

	Lock/ unlock	NL	DT	BE	FSA/ FSE
Lever (510)	510L	510L-DT	510-DT	510L-BE	510L-FSA 510L-FSE
Vandal-resistant lever (511)	511L	—	—	—	511L-FSA 511L-FSE
Pull trims (512)	512TP	512-NL	512DT	512TP-BE	512L-FSA 512L-FSE
Knob (513)	513K	513K-NL	513K-DT	513K-BE	513L-FSA 513L-FSE
Delta (717)	—	—	717DT	—	—

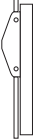
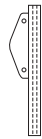
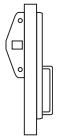
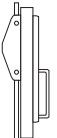
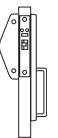
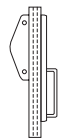
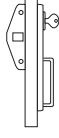
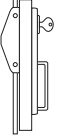
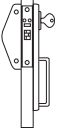
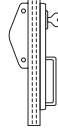
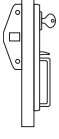
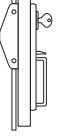
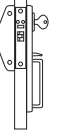
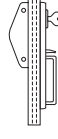
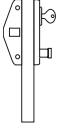
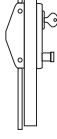
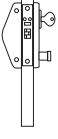
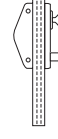
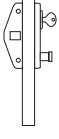
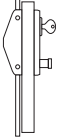
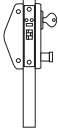
25 Series finishes

	Color	US number	BHMA number
	Brass, bright	US3	605
	Brass, satin	US4	606
	Bronze, satin	US10	612
	Chromium, bright	US26	625
	Chromium, satin	US26D	626
	Anodized aluminum	US28	628
	Stainless Steel, bright	US32	629
	Stainless Steel, satin	US32D	630
	Anodized duranodic	313AN	710

25 Series

Types and functions

This page shows all 25 Series device and trim functions.

	Rim device ANSI type 1	Vertical rod device ANSI type 2	Mortise lock device ANSI type 3	Concealed vertical rod device ANSI type 8
Functions (ANSI)	(F)-25-R	(F)-25-V	(F)-25-M	(F)-25-C
EO (01) Exit only, no trim.				
	25-R-EO	25-V-EO	25-M-EO	25-C-EO
DT (02) Entrance by trim when actuating bar is locked down.				
	25-R-DT	25-V-DT	25-M-DT	25-C-DT
NL (03) Entrance by trim when latchbolt is retracted by key. Key removable only when locked.				
	25-R-NL	25-V-NL	25-M-NL	25-C-NL
TP (05) Entrance by thumbpiece. Key locks or unlocks thumbpiece.				
	25-R-TP	25-V-TP	25-M-TP	25-C-TP
L or K (08) Entrance by knob or lever. Key locks or unlocks knob.				
	25-R-L/K	25-V-L/K	25-M-L/K	25-C-L/K
L(NL) or K(NL) (09) Entrance by knob or lever only when released by key. Key removable only when locked.				
	25-R-L/K(NL)	25-V-L/K(NL)	25-M-L/K(NL)	25-C-L/K(NL)

How to order

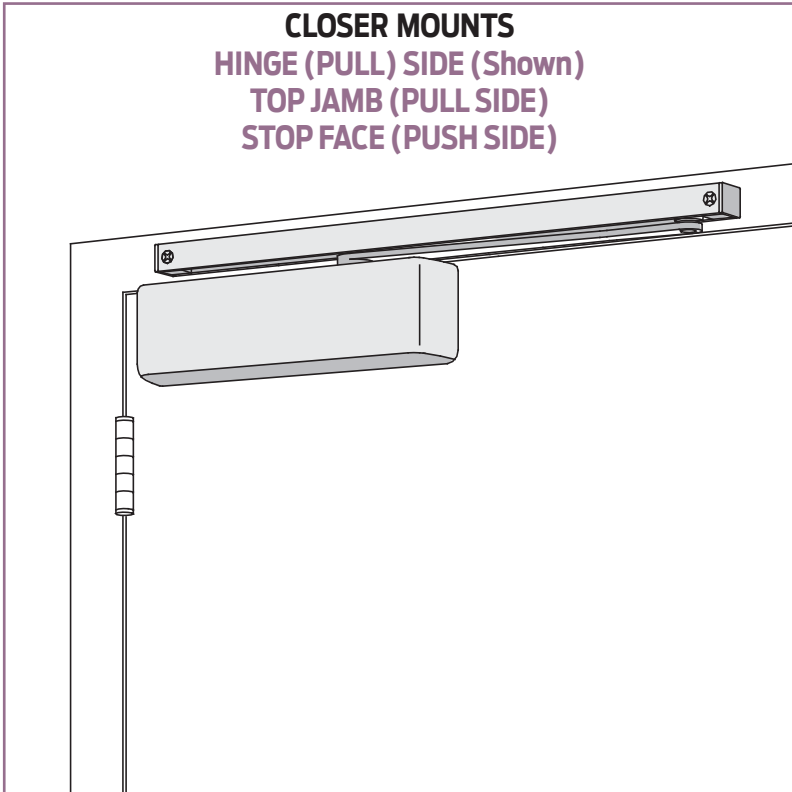
25 Series

		EL	F	25	V	L-DANE	US3	3'	LHR	LBR	SNB	WD
Prefixes												
CD	Cylinder dogging											
RX	Touchbar request to exit											
DM	Latchbolt and device monitor switch											
EA	Exit alarm											
KOR	Key bypass switch											
LD	Less dogging											
LM	Latchbolt status switch											
EL	Electric latch retraction											
FSA	Electric lock or unlock trim-fail safe											
FSE	Electric lock or unlock trim-fail secure											
Rating												
F	Fire exit hardware											
Blank	Panic exit hardware											
Device series												
25	Touch bar device, wide stile											
Device type												
R	Rim											
V	Surface vertical rod											
C	Concealed vertical rod											
C-WDC	Concealed vertical rod wood door (20 or 90 min)											
M	Mortise											
Trim function (see trim pages for all functions)												
EO	Exit only											
DT	Dummy trim											
NL	Night latch											
NL-OP	Night latch optional pull											
TP	Thumbpiece											
K	Knob											
L	Lever (Dane standard)											
C	Cylinder prim plate											
511-L	VR trim											
Finish												
US3	US10	US26	US32	US28								
US4	US26D	US32D	313AN									
Door width												
3'	Standard default											
4'												
Door thickness												
	1 3/4" Standard											
	2 1/4" Optional											
Handing												
RHR	Right hand reverse											
LHR	Left hand reverse											
Less bottom rod												
LBR	Less bottom rod											
Accessories												
CYL	Cylinder											
SK	Shim kit											
SNB	Sex bolts											
AMS	All machine screws (for vertical and concealed only)											
Other miscellaneous door information												
HMD	Hollow metal door	—										
HMF	Hollow metal frame	—										
WD	Wood door	—										
WDF	Wood frame	—										
ALD	Aluminum door	—										
ALF	Aluminum frame	—										
SCDC	Steel channel door construction	—										
—	Specify other door or frame											
—	Material information											
—	Door height											
SGL	Single door											
PR	Pair of doors swinging same direction											

4040XPT SERIES

FEATURES

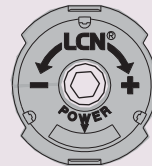
CLOSER MOUNTS HINGE (PULL) SIDE (Shown) TOP JAMB (PULL SIDE) STOP FACE (PUSH SIDE)



The 4040XPT is LCN's most flexible heavy duty track closer designed specifically for interior doors in institutional and other rugged high traffic applications.

- Cast Iron
- Forged Steel Arm
- Double Heat Treated Steel Pinion
- All Weather Fluid
- Non-Handed
- UL & cUL Listed
- 3/4" Journal
- 5/8" Bearing
- Peel-n-Stick Templates for Fast and Accurate Installations
- LCN Patented Green Dial

- Standard 4040XPT Series closer is shipped with standard arm, standard track, track roller, standard plastic cover, and self reaming and tapping screws. See 4040XPT Series pages 51 & 52 for options.
- Non-sized cylinders for interior doors to 4'0".
- Closer mounts pull side on door, pull side top jamb or push side on door.
- Standard or optional custom powder coat finish.
- Optional plated finish on metal cover, arm and fasteners.
- Optional SRI primer for installations in corrosive conditions is available with powder coat only.
- Consult factory for double egress applications.
- Optional designer series metal cover.
- The 4040XPT Series is UL and cUL listed with a standard track for self-closing doors.
- Tested and certified under ANSI Standard A156.4, grade one.



The 4040XPT Series includes the
LCN® "Green Dial"
Spring Force Indicator

MOUNTING					FINISH		COVER		CYLINDER					**ARM FUNCTION								
HINGE (PULL) SIDE TOP JAMB (PULL) TOP JAMB (PUSH) PARALLEL ARM STOP FACE					POWDER COAT PLATED		PLASTIC METAL		NON-HANDED NON-SIZED ACCESSIBILITY DELAYED ACTION AVB*** XP					REGULAR (DOUBLE) STANDARD (SINGLE) HOLD-OPEN FUSIBLE LINK EDAH/EDA CUSH/H/CUSH SCUSH/SHCUSH DOUBLE EGRESS								
●	○	●	●	○	●	●	●	●	●	○	○	○	○	○	○	120°	110°	○	○	○	○	○

● AVAILABLE
○ NOT AVAILABLE

○ Closer available with less than 5.0 lbs. opening force on 36" door.

** Maximum opening/hold-open point with standard template.

*** Delayed Action Closer incorporates standard 4041 Delay Cylinder.

LCN®

47

PHONE 877-671-7011
FAX 800-248-1460
www.allegion.com/us
2/14

4040XPT SERIES

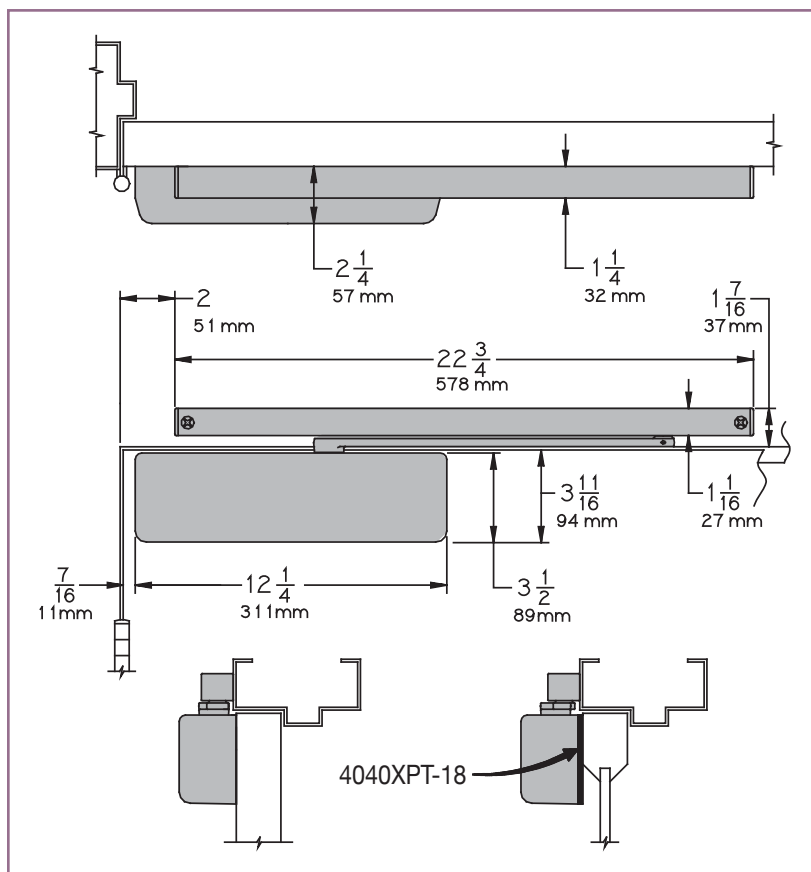
HINGE (PULL) SIDE MOUNTING

MAXIMUM OPENING

Templating allows 120° with standard arm, limited to 110° when optional bumper is installed.

Hold-open points at 85°, 90°, 95°, 100°, 105°, or 110°, depending on the clip location in track.

Please note that many track style door closers are capable of allowing 180° of door swing. Be aware that the majority of track style closers are at their weakest closing force in the 180° – 130° range. Consult factory for applications where an exterior or large/heavy door must swing 180°.



- **Butt Hinges** should not exceed 5" (127 mm) in width.
- **Auxiliary Stop** is recommended at hold-open point or where a door cannot swing 120°. Optional track bumper assembly assists backcheck in cushioning the opening swing of the door. It is not intended to replace an auxiliary stop.
- **Reveal** should not exceed 1/8" (3 mm) for standard arm.
- **Top Rail** less than 3-3/4" (95 mm) requires PLATE, 4040XPT-18. Plate requires 1-13/16" (44 mm) minimum.
- **Head Frame** requires 1-1/4" (32 mm) minimum.
- **Clearance** of 2-1/4" (57 mm) behind door required for 90° installation.

Options

- Standard track with bumper, hold-open track, hold-open track with bumper.
- Metal cover.
- ST required for double egress applications. Consult factory.

Special Templates

Customized installation templates or products may be available to solve unusual applications. Contact LCN Product Support for assistance.

4040XPT SERIES

MOUNTING DETAILS

TOP JAMB (PULL SIDE) MOUNTING

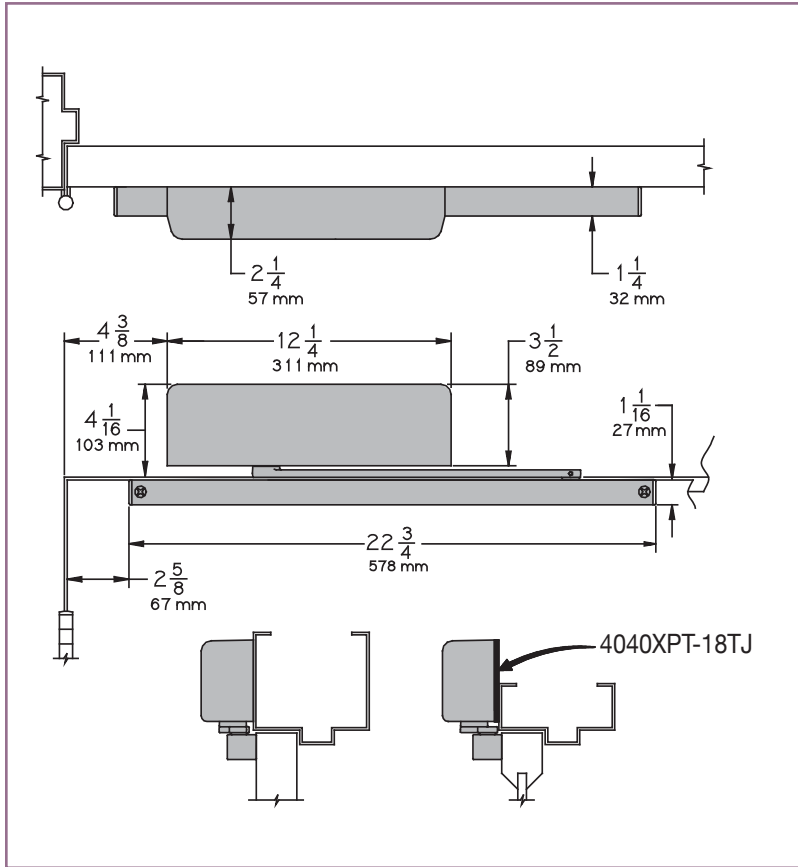
MAXIMUM OPENING

Templating allows 180° with standard track arm, limited to 110° with optional bumper installed.

Consult factory if door will be held open at 180°.

Hold-open points at 85°, 90°, 95°, 100°, 105° or 110° with hold-open tracks.

Please note that many track style door closers are capable of allowing 180° of door swing. Be aware that the majority of track style closers are at their weakest closing force in the 180° – 130° range. Consult factory for applications where an exterior or large/heavy door must swing 180°.



- **Butt Hinges** should not exceed 5" (127 mm) in width.
- **Auxiliary Stop** is recommended at hold-open point or where a door cannot swing 180°. Optional track bumper assembly assists backcheck in cushioning the opening swing of the door. It is not intended to replace an auxiliary stop.
- **Reveal** should not exceed 1/8" (3 mm).
- **Head Frame** less than 3-7/8" (98 mm), requires PLATE, 4040XPT-18TJ. Plate requires 1-3/4" (44 mm) minimum.
- **Clearance** of 1-1/4" (32 mm) behind door required for 180° installation.

Options

- Standard track with bumper, hold-open track, hold-open track with bumper.
- Metal cover.

Special Templates

Customized installation templates or products may be available to solve unusual applications. Contact LCN Product Support for assistance.

4040XPT SERIES

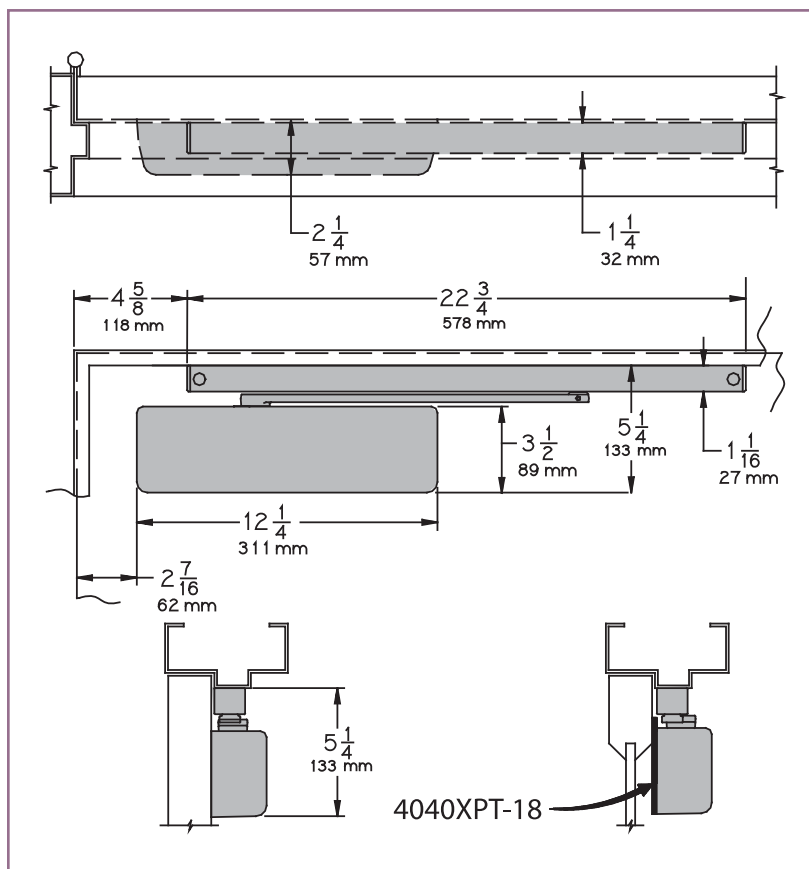
STOP FACE (PUSH SIDE) MOUNTING

MAXIMUM OPENING

Templating allows 120° with standard track arm, limited to 110° with optional bumper tracks.

Hold-open points at 85°, 90°, 95°, 100°, 105° or 110° with hold-open tracks.

Please note that many track style door closers are capable of allowing 180° of door swing. Be aware that the majority of track style closers are at their weakest closing force in the 180° – 130° range. Consult factory for applications where an exterior or large/heavy door must swing 180°.



- **Butt Hinges** should not exceed 5" (127 mm) in width.
- **Auxiliary Stop** is recommended at hold-open point or where a door cannot swing 120°. Optional track bumper assembly assists backcheck in cushioning the opening swing of the door. It is not intended to replace an auxiliary stop.
- **Clearance** projects 2-1/4" (57 mm) from face of door.
- **Top Rail** less than 5-1/4" (133 mm) measured from the stop, requires PLATE, 4040XPT-18. Plate requires 3-1/2" (89 mm) minimum.
- **Stop Width** minimum 1-1/4" (32 mm).

Options

- Standard track with bumper, hold-open track, hold-open track with bumper.
- Metal cover.

Special Templates

Customized installation templates or products may be available to solve unusual applications. Contact LCN Product Support for assistance.

4040XPT SERIES

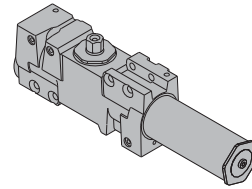
ACCESSORIES

CYLINDERS

CYLINDER, 4040XPT-3071

Standard, non-handed cast iron cylinder assembly.

3071

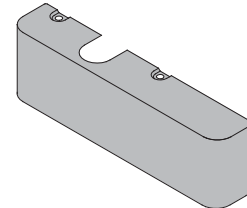


COVERS

COVER, 4040XPT-72

Standard, non-handed plastic clip-on cover.

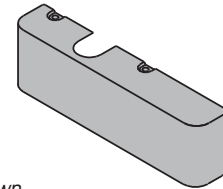
72



METAL COVER, 4040XPT-72MC

Optional, handed cover. Required for plated finishes and custom powder coat finishes.

72MC



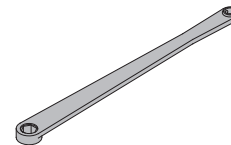
Left Hand Shown

ARMS

STANDARD ARM, 4040XPT-3077T

Non-handed arm.
Arm does not include track roller.

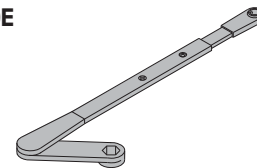
3077T



DOUBLE EGRESS ARM, 4040XPT-3077DE

Optional, handed arm for double egress doors and frames. Arm does not include track roller. Maximum reveal is 2-11/16" (68mm).

3077TDE

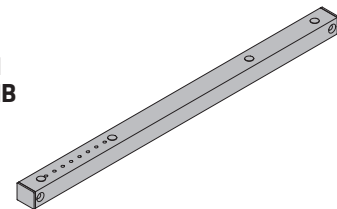


TRACKS

STANDARD TRACK, 4040XPT-3038

Standard, non hold-open, non-handed track.
Will accept hold-open clip and/or bumper assembly.

3038
3038B
3038H
3038HB



STANDARD TRACK with BUMPER, 4040XPT-3038B

Optional non hold-open, non-handed track with bumper assembly installed. Will accept hold-open clip.

HOLD-OPEN TRACK, 4040XPT-3038H

Optional, non-handed track with hold-open clip installed.
Will accept bumper assembly.

HOLD-OPEN TRACK with BUMPER, 4040XPT-3038HB

Optional, non-handed track with hold-open clip and bumper assembly installed.

4040XPT SERIES

INSTALLATION ACCESSORIES

PLATE, 4040XPT-18

Required for pull side (door mount) installations where top rail is less than 3-3/4" (95 mm).

Plate requires minimum 1-3/4" (44 mm) top rail.

Required for push side (door mount) installations where top rail is less than 5-1/4" (133 mm) measured from the stop. Plate requires minimum 3-1/2" (89 mm) top rail.

PLATE, 4040XPT-18TJ

Required for pull side top jamb installations where head frame is less than 3-7/8" (98 mm). Plate requires minimum 1-3/4" (44 mm) head frame.

TRACK BUMPER, 4040XPT-169

Mounts in track to assist backcheck, does not replace auxiliary stop. Limits maximum opening. Consists of bumper, bumper post, and mounting screw.

HOLD-OPEN CLIP, 4040XPT-3054

Mounts in track to provide hold-open function.

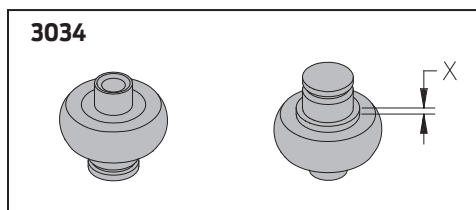
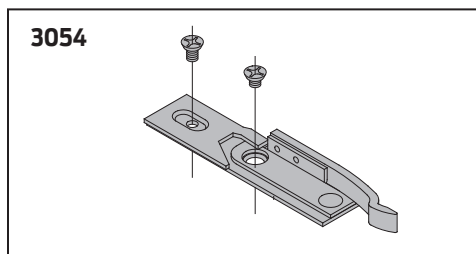
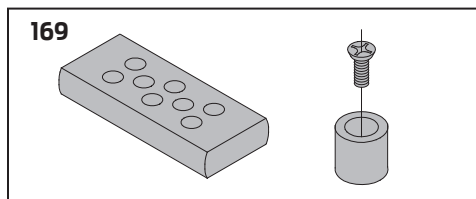
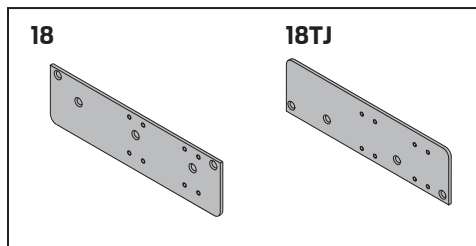
Hold-open point controlled by clip location.

Consists of clip and mounting screws.

TRACK ROLLER, 4040XPT-3034

Quiet, low friction roller assembly.

Shoulder dimension "X" = 1/8" (3mm).



4040XPT SERIES

TABLE OF SIZES

Non-Sized 4040XPT cylinder is adjustable from sizes 1 thru 4 and is shipped set to size 3.

INTERIOR DOOR WIDTH

	26" 660mm	34" 864mm	38" 965mm	48" 1219mm
4040XPT	size 2	size 3	size 4	
Minimum Door Width				

→ Indicates recommended range of door width for closer size.

REDUCED OPENING FORCE 4040XPT CLOSERS

CAUTION ! Any manual door closer, including those certified by BHMA to conform to ANSI Standard A156.4, that is selected, installed and adjusted based on ADA or other reduced opening force requirements may not provide sufficient power to reliably close and latch a door.

Refer to POWER OPERATORS section for information on systems that meet reduced opening force requirements without effecting closing power.

	DOOR WIDTH	36"	42"	48"
	8.5* lbs.	N/A	N/A	N/A
	5.0* lbs.	4040XPT	4040XPT	4040XPT

* Maximum opening force.

HOW-TO-ORDER 4040XPT SERIES CLOSERS

1. SELECT FINISH

- ☐ Standard Powder Coat _____
Aluminum, Dark Bronze, Statuary,
Light Bronze, Black, Brass.

Closer will be shipped with:

- STANDARD COVER,
- STANDARD ARM,
- TRACK ROLLER,
- STANDARD TRACK,
- SELF-REAMING and TAPPING SCREWS,
unless options listed below are selected.

CLOSER OPTIONS

COVER

- ☐ Metal (specify right or left hand) (MC)

FINISH

- ☐ Custom Powder Coat (RAL) _____
(handed metal cover required)
- ☐ Plated Finish, US _____
(handed metal cover required)
- ☐ SRI primer (use with powder coat finishes only)

TRACK

- ☐ Regular with Bumper (BUMPER)
- ☐ Hold-Open (HO)
- ☐ Hold-Open with Bumper (HBUMPER)

SPECIFY SCREW PACK

- ☐ TB* w/Self-Reaming and Tapping Screws (TBSRT)
 - ☐ Wood & Machine Screw (WMS)
 - ☐ TB*, Wood & Machine Screw (TBWMS)
 - ☐ TORX Machine Screw (TORX)
 - ☐ TB* & TORX Machine Screw (TBTORX)
- * Specify door thickness if other than 1-3/4"

INSTALLATION ACCESSORY

- ☐ Plate, 4040XPT-I8
- ☐ Plate, 4040XPT-I8TJ

SPECIAL TEMPLATE

- ☐ ST- _____



Surface mounted closer

4110 Series

Overview

The 4110 is LCN's best performing heavy duty closer with an adjustable spring and possible hold-open point beyond 140 degrees, meeting ADA requirements. Backed by a 30 year warranty, the cast iron body and all weather fluid offer versatility in high traffic applications.



Cylinder

4111(6)-3071

Cast iron cylinder assembly

Handing

Handed

Sizing

Adjustable spring size 1-5, or sized 6

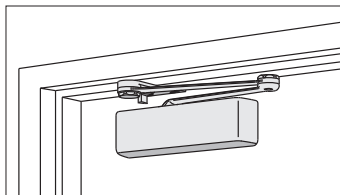
Includes patented Green Dial

- 4111 (adjustable from size 1 to 5)
- 4116 (Size 6; DEL, SHCUSH or HCUSH arm not available)

Available cylinder options

DEL	Delayed action cylinder
AVB	Advanced variable backcheck

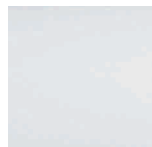
Mounting



Parallel arm (push side)

Finishes

Powder coat finishes



689
Aluminum



690
Statuary Bronze



691
Light Bronze



693
Black



695
Dark Bronze



696
Brass

150+ additional custom colors available
using the RAL numbering system

Metal plated finishes



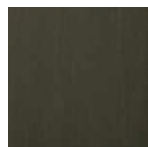
632
Bright Brass



633
Satin Brass



639
Satin Bronze



616
Satin Bronze,
Blackened



646
Satin Nickel



651
Bright Chrome



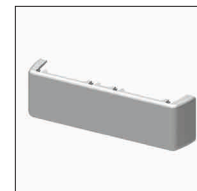
652
Satin Chrome

Available finish options

MTLPC	Brite metallic: Custom powder coat finish, which resembles that of 651 or 652 plated finish.
SRI	For installations where a higher level of protection against weather conditions, or the effects of a potentially corrosive atmosphere is required, LCN offers a special rust inhibiting (SRI) process. Ferrous metal components receive an SRI pretreatment and a standard powder coat finish of your choice, or a custom powder coat finish for a nominal additional cost. Closers treated with the SRI process exceed the 100 hour protection level available with standard LCN powder coated finishes.

Covers

Standard cover

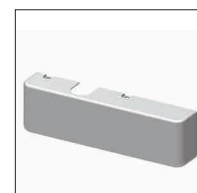


4110-72

Plastic cover

- Non-handed
- Standard

Optional cover



4110-72MC

Metal cover

- Handed
- Required for plated finishes and custom powder coat finishes
- Optional

Arms



4110-3049EDA
Hold-open arm

- Handed
- Optional
- Provides hold-open function, adjustable at shoe



4110-3049FL
Fusible link arm

- Handed
- Releases hold-open function adjustable at shoe when exposed to temperatures above 165° F
- Optional
- NOTE: Check local codes before specifying FL arms. NOT A life safety product!



4110-3077CNS
Cush-N-Stop arm

- Non-handed
- Features solid forged steel main arm and forearm with built-in stop in soffit shoe



4110-3077EDA
Extra duty arm

- Non-handed
- Features forged, solid steel main and forearm for potentially abusive installations



4110-3077EDA/ 62G
Extra duty arm

- Non-handed
- Features forged, solid steel main and forearm for potentially abusive installations
- Optional 4110-62G thick hub shoe for blade stop clearance



4110-3049CNS
HCUSH arm

- Non-handed
- Provides hold-open function with templated stop/ hold-open points.
- Handle controls hold-open function



4110-3077SCNS
Spring CUSH arm

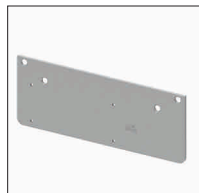
- Non-handed
- For abusive applications features solid forged steel main arm and forearm with spring loaded stop in the soffit shoe
- Optional



4110-3049SCNS
Spring HCUSH arm

- Non-handed
- For abusive applications features solid forged steel main arm and forearm with spring loaded stop in the soffit shoe
- Handle controls hold-open function
- Optional

Installation accessories



**4110-18
Plate**

- Required for push side mount where top rail is less than 5 1/8" (130 mm), measured from the stop
- Requires minimum 2" (51 mm) minimum top rail



**4110-30
CUSH shoe support**

- Provides anchorage for fifth screw used with CUSH arm, where reveal is less than 3 1/16" (78 mm)



**4110-61
Blade stop spacer**

- Lowers parallel arm shoe to clear 1/2" (13 mm) blade stop



**4110-419
PA flush panel adapter**

- Provides horizontal mounting surface for CUSH shoe on single rabbetted or flush frame

Fasteners

Self-reaming and tapping screws included standard

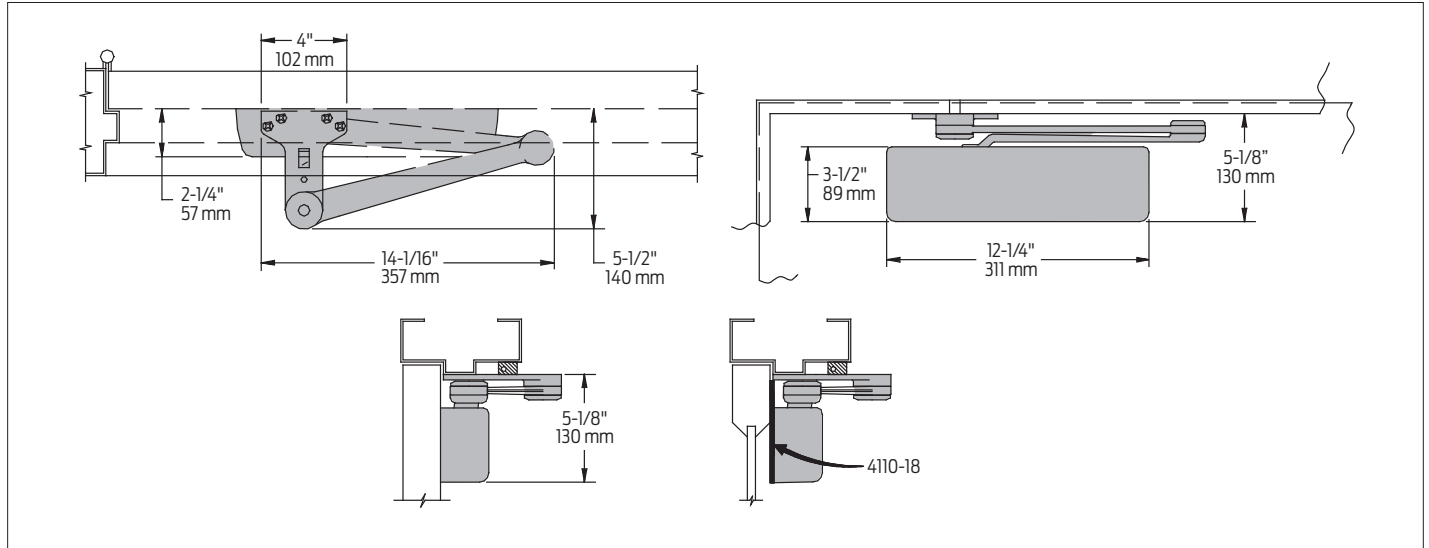
Fastener pack options

TBSRT	TB ¹ with self-reaming and tapping screws
WMS	Wood and machine screw
TBWMS	TB ¹ , wood and machine screw
TORX	TORX machine screw
TBTRX	TB ¹ and TORX machine screw

¹ Specify door thickness if other than 1 3/4"

Dimensions and mounting

Parallel arm (push side) mounting



Specifications

Accessibility	Available with less than 5.0 lbs. opening force on 36" door
Certifications/ approvals	- Grade 1 - ANSI A156.4 - UL 10C - Meets BAA - Buy American Act
Degree of operation	EDA Max opening: 180° Hold open: 180° Cush Max opening: 110° Hold open: 110°
Environmental conditions	- Approved for interior use - Approved for exterior use (SRI coated only) - LCN's standard all weather fluid performs to temperature ranges from 120°F (49°C) to -30°F (-35°C) - LCN's powder coat finish surpasses 100 hours of salt spray which is over four times the ANSI standard for corrosion resistance.
Warranty	30 years
Standard features	- Cast iron body - Full complement bearing 1 1/2" diameter piston 11/16" diameter double heat treated pinion journal



Surface mounted closer

4030

Overview

The 4030 is a cast iron, universal closer designed specifically for doors in moderate traffic conditions. This versatile closer compliments the rest of the heavy duty 4000 Series and offers the choice of three mountings and multiple arm options.



Cylinder

4031-3071

Cast iron cylinder assembly

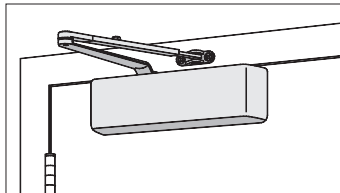
Handing

Non-handed

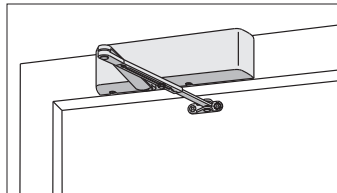
Sizing

Adjustable spring size 1-4

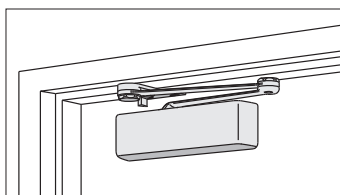
Mounting



Hinge (pull side)



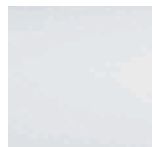
Top jamb (push side)



Parallel arm (push side)

Finishes

Powder coat finishes



689
Aluminum



690
Statuary Bronze



691
Light Bronze



693
Black



695
Dark Bronze



696
Brass

150+ additional custom colors available
using the RAL numbering system

Metal plated finishes



632
Bright Brass



633
Satin Brass



639
Satin Bronze



616
Satin Bronze,
Blackened



646
Satin Nickel



651
Bright Chrome



652
Satin Chrome

Available finish options

MTLPC	Brite metallic: Custom powder coat finish, which resembles that of 651 or 652 plated finish.
SRI	For installations where a higher level of protection against weather conditions, or the effects of a potentially corrosive atmosphere is required, LCN offers a special rust inhibiting (SRI) process. Ferrous metal components receive an SRI pretreatment and a standard powder coat finish of your choice, or a custom powder coat finish for a nominal additional cost. Closers treated with the SRI process exceed the 100 hour protection level available with standard LCN powder coated finishes.

Covers

Standard cover



4030-72MC

Metal cover

- Non-handed

Arms



4030-3077

Regular arm

- Non-handed
- Mounts hinge side or top jamb
- P4031 closer includes PA SHOE, 4030-62PA is required for parallel arm mounting



4030-3077LD

Light duty arm

- Non-handed
- Mounts hinge side, top jamb or parallel arm (62PA required)
- Optional



4030-3077L

Long arm

- Non-handed
- Includes LONG ROD AND SHOE, 4030-79LR for top jamb mount with deep reveals
- Optional



4030-3049

Hold-open arm

- Non-handed
- Mounts hinge side, top jamb or parallel arm (62PA required)
- Hold-open adjustable at shoe
- Optional



4030-3049L

Long hold-open arm

- Non-handed
- Includes LONG HEAD AND TUBE, 4030-3048L for top jamb mount with deep reveals
- Optional



4030-3077EDA

Extra duty arm

- Non-handed
- Extra duty arm features solid forged steel main and forearm for potentially abusive installations
- Optional



4030-3049EDA

Hold-open EDA arm

- Handed
- Arm, provides hold-open function adjustable at shoe
- Optional



4030-3077CNS

Cush-n-Stop® arm

- Non-handed
- Solid forged steel main arm and forearm with stop in soffit shoe
- Optional



4030-3049CNS

Hold-open CUSH arm

- Non-handed
- Provides hold-open function with templated stop/hold-open points
- Handle controls hold-open function
- Optional



4030-3077SCNS

Spring CUSH arm

- Non-handed
- For abusive applications
- Features solid forged steel main arm and forearm with spring loaded stop in the soffit shoe
- Optional



4030-3049SCNS

Spring HCUSH arm

- Non-handed
- For abusive applications
- Features solid forged steel main arm and forearm with spring loaded stop in the soffit shoe
- Handle controls hold-open function
- Optional

Installation accessories



**4030-18TJ
Plate**

- Required for top jamb mounting where head frame is less than 2 1/4" (57 mm) or flush ceiling condition exists
- Requires 1 1/2" (38 mm) minimum



**4030-18PA
Plate**

- Required for parallel arm mounting where top rail is less than 5" (127 mm), measured from the stop
- Requires 1 3/4" (44 mm) minimum



**4030-30
CUSH shoe support**

- Provides anchorage for fifth screw used with CUSH arms where reveal is less than 3 1/16" (78 mm)



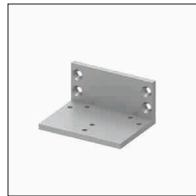
**4030-61
Blade stop spacer**

- Lowers parallel arm shoe to clear 1/2" (13 mm) blade stop



**4030-62A
Auxiliary shoe**

- Requires a top rail of 7" (178 mm)
- Replaces -62PA for parallel arm mounting of regular arm with some overhead holder/stop
- Optional



**4030-419
PA flush panel adapter**

- Provides horizontal mounting surface for PA or CUSH shoe on single rabbetted or flush frame



**4030-62PA
PA shoe**

- Required for parallel arm mounting

Fasteners

Wood and self-tapping machine screw pack

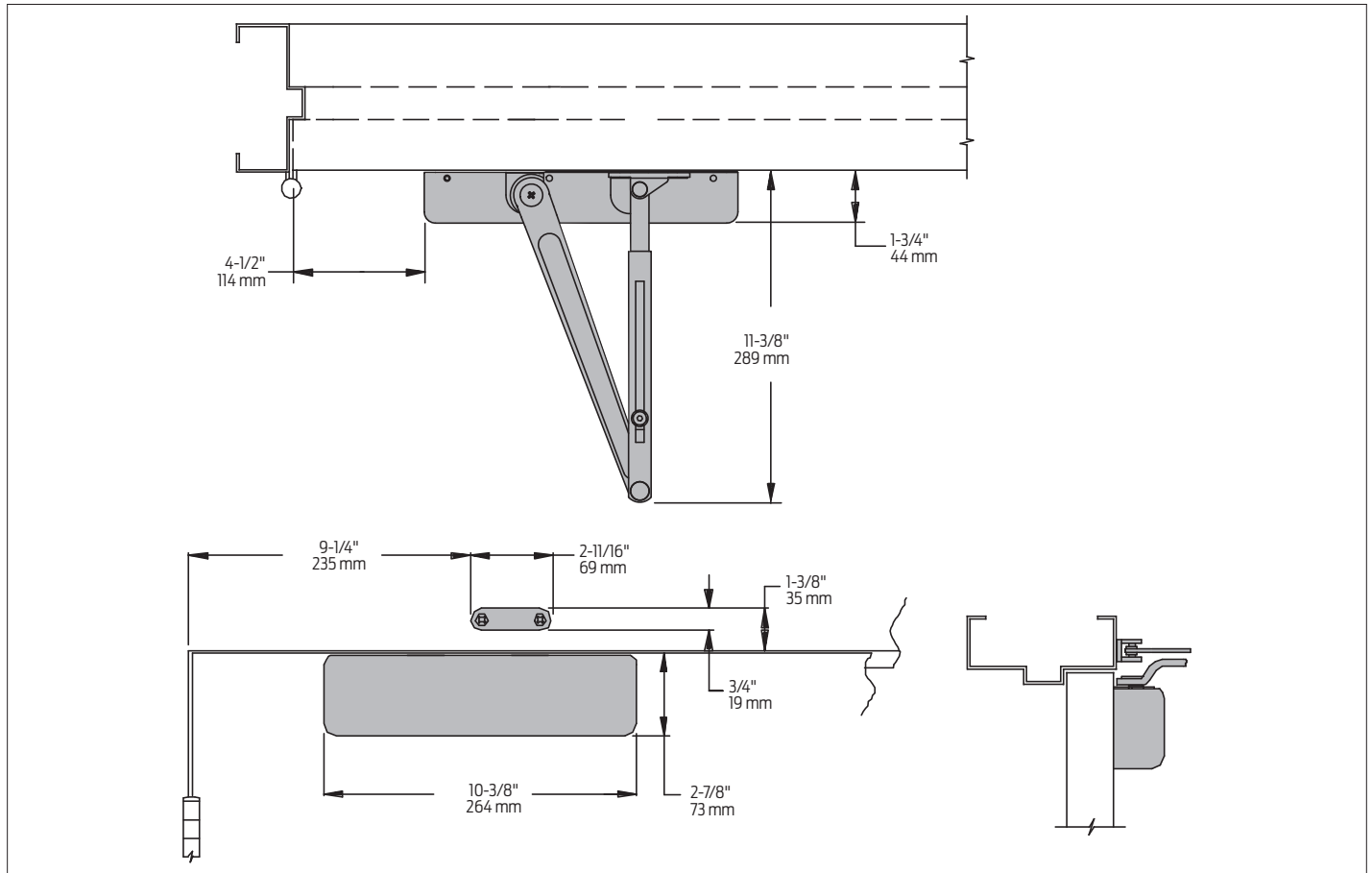
Fastener pack options

TBWMS	TB ¹ , wood and machine screw
-------	--

¹ Specify door thickness if other than 1 3/4"

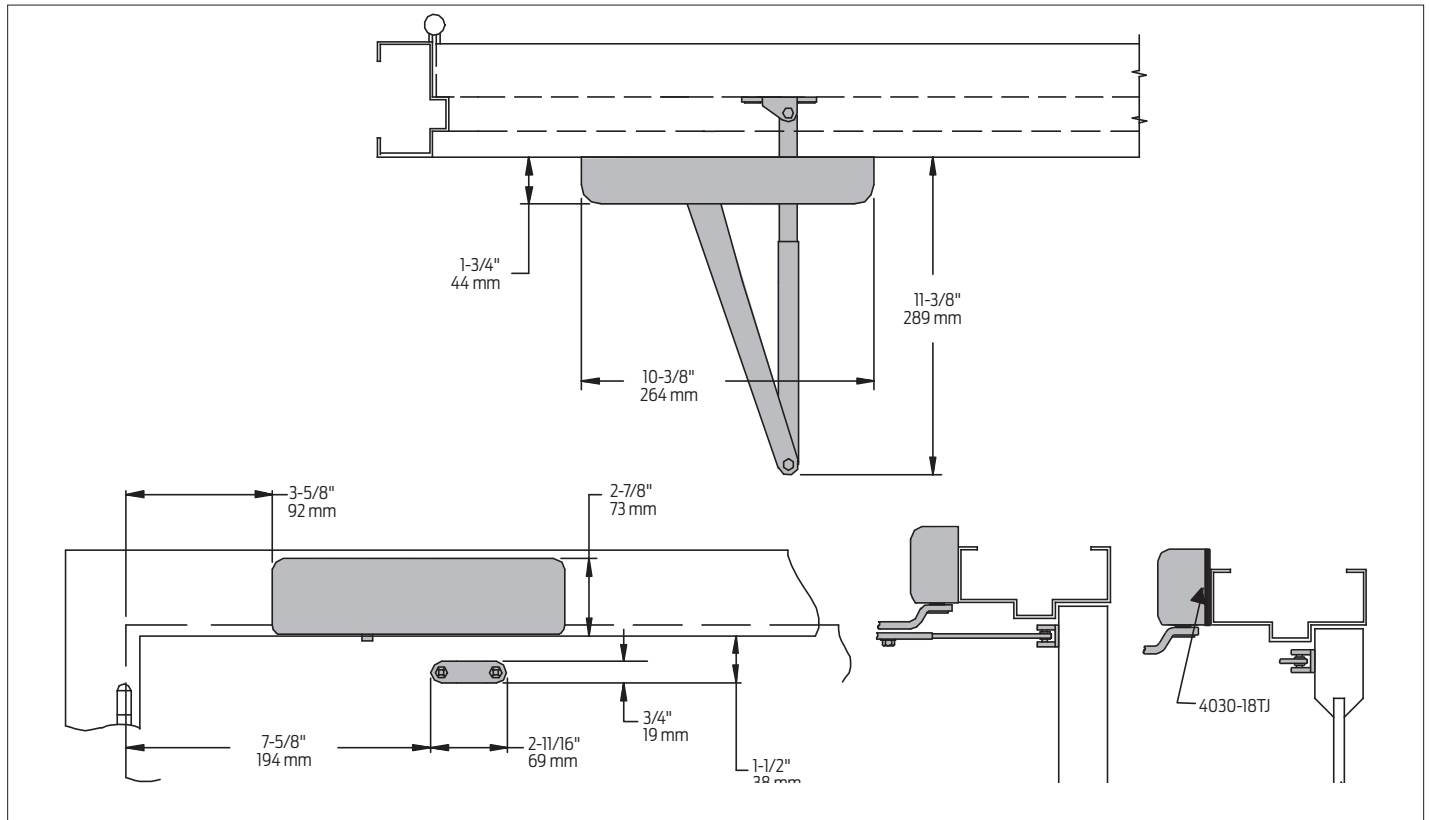
Dimensions and mounting

Hinge (pull) side mounting

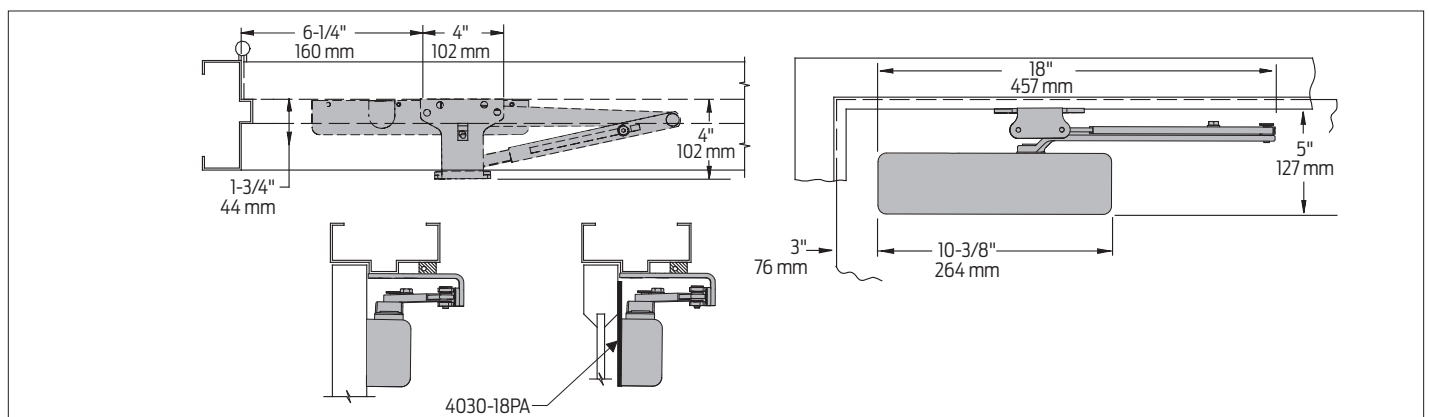


Dimensions and mounting

Top jamb (push side) mounting

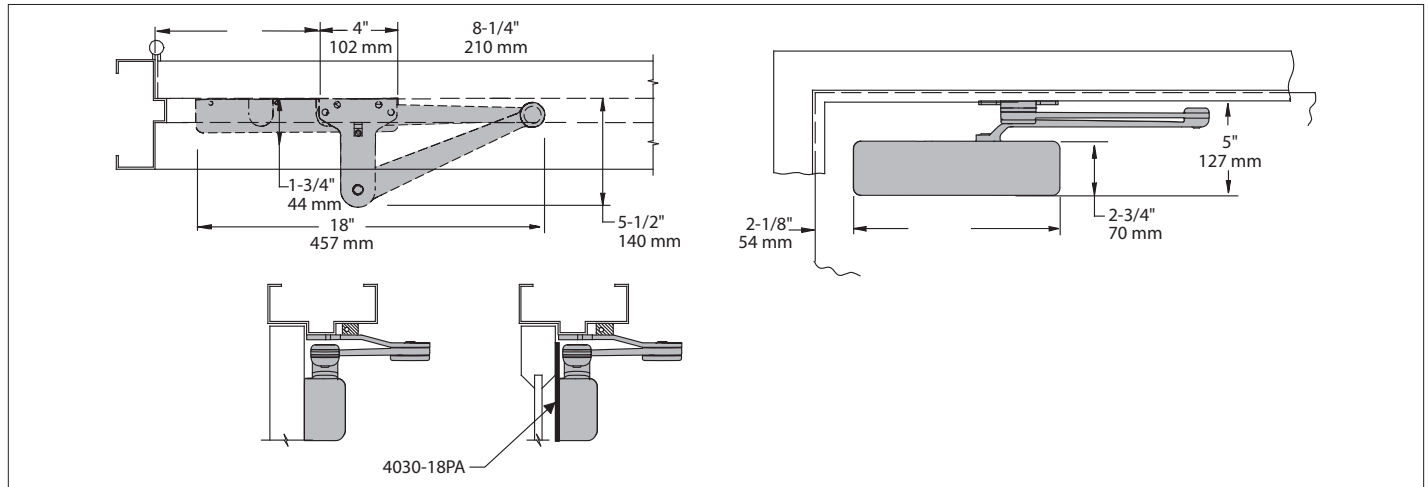


Parallel arm mounting

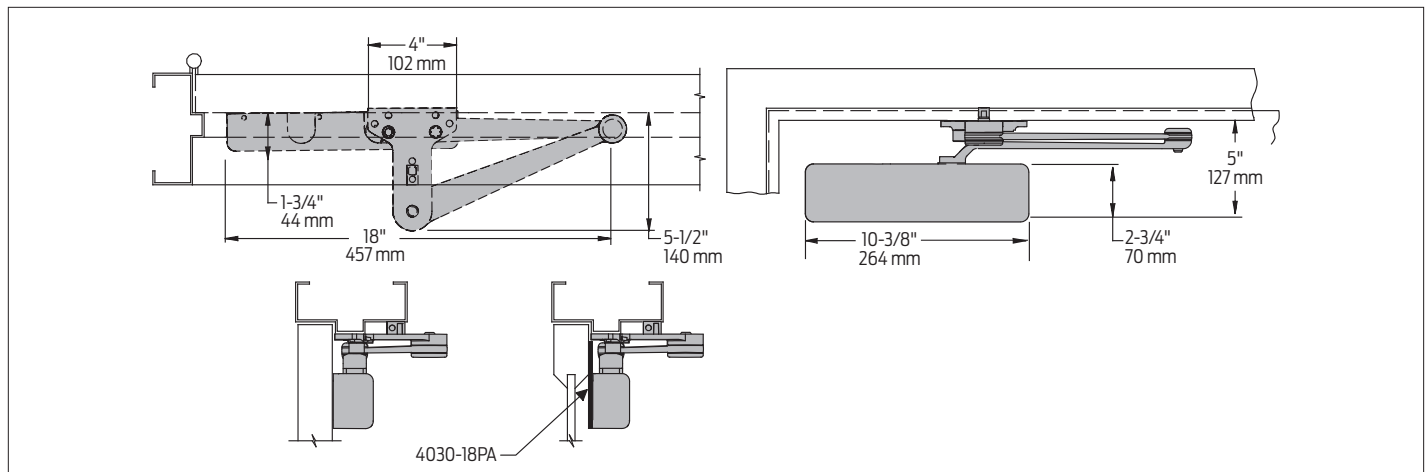


Dimensions and mounting

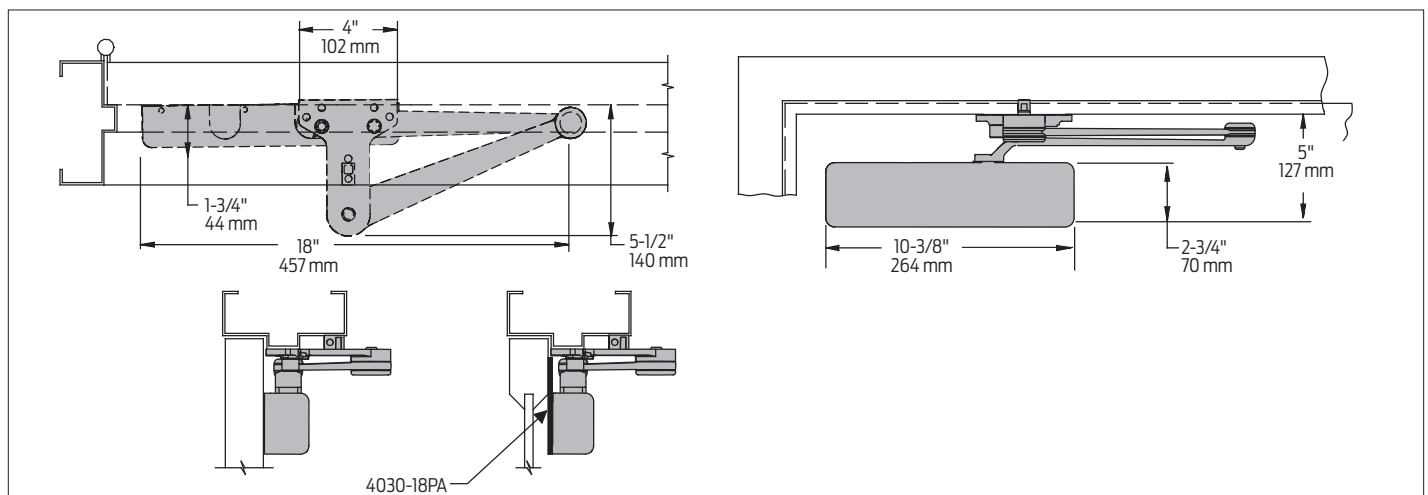
EDA mount



CUSH mount



SCUSH mount



Specifications

Accessibility	Available with less than 5.0 lbs. opening force on 36" door
Certifications/ approvals	- Grade 1 - ANSI A156.4 - UL 10C - Meets BAA - Buy American Act
Degree of operation	Hinge (pull) side Max opening: 180° Hold open: 180° Top jamb (push side) mount Max opening: 180° Hold open: 180° Parallel arm with 62PA Max opening: 180° Hold open: 180° EDA Max opening: 110° Hold open: 110° Cush and Spring cush Max opening: 100° Hold open: 100°
Environmental conditions	- Approved for interior use - Approved for exterior use (SRI coated only) - LCN's standard all weather fluid performs to temperature ranges from 120°F (49°C) to -30°F (-35°C) - LCN's powder coat finish surpasses 100 hours of salt spray which is over four times the ANSI standard for corrosion resistance.
Warranty	30 years
Standard features	- Cast iron body - Full complement bearing 1 1/8" diameter piston 1/2" diameter single heat treated pinion journal

A	Hinges & pivots
B46	Pulls & plates
C	Flush bolts & coordinators
D	Latches, catches & bolts
E	Stops
F	Exterior hardware
G	Miscellaneous hardware

Types of protection plates



Mop plates

- Protect the bottom of the pull side of door subject to cleaning and mopping procedures.
- Size Ranges: 4" to 6" high, 22" to 48" wide



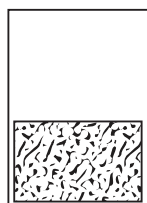
Kick plates

- Protect the bottom of the push side of doors subject to scuffing from foot traffic.
- Recommended for all doors subject to normal use (especially doors using a closer).
- Size Ranges: 8" to 24" high, 22" to 48" wide



Stretcher plates

- Protect doors at specific areas where consistent contact is made by stretchers, service carts or other equipment.
- Usually applied to push side of doors.
- Specify "B4E" Option for beveled edges.
- Size Ranges: 6" to 8" high, 22" to 48" wide



Armor plates

- Protect lower half of doors from abuse by hard carts, trucks and rough usage.
- Usually applied to push side of single doors and both sides of double acting doors.
- Size Ranges: 26" to 48" high, 22" to 48" wide

8400 Commercial protection plates 8402 UL Commercial protection plates

- Door protection plates are available in .050" thick brass, stainless steel or aluminum; and 1/8" thick high impact polyethylene in clear or black.
- All plates, metal and plastic, come standard with four beveled edges and countersunk mounting holes (B-CS).
- Protection plates must be ordered in 1/2" increments. Available in other sizes, consult customer service
- For 8402 UL Plates, UL mark appears in upper right corner. Not available on plastic protection plates.

Certifications

- Meets ANSI A156.6 for J301
- UL protection plates certified to UL10C

Mounting

- Standard mounting package, 16 per pack
 - #6 X 5/8 oval head screws
- Optional TEK/TORX package, specify TK-TX
 - #6 X 5/8 Self-drilling, Self-tapping screws
 - #6 X 5/8 Torx screws

Finishes

- Aluminum 5005 Series, Brass C26800 Series, Stainless Steel 300 Series, Plastic

BHMA	Description	Substrate	Finish	Max sizes
605	Bright Brass	Brass	US3	24"X48"
606	Satin Brass	Brass	US4	24"X48"
612	Satin Bronze	Brass	US10	24"X48"
613	Oil rubbed Bronze	Brass	US10B	36"X48"
619	Satin Nickel	Brass	US15	24"X48"
625	Bright Chrome	Brass	US26	36"X48"
626	Satin Chrome	Brass	US26D	24"X48"
628	Satin Aluminium	Aluminium	US28	48"X48"
629	Bright Stainless Steel	Stainless Steel	US32	48"X48"
630	Satin Stainless Steel	Stainless Steel	US32D	48"X48"
654	Satin Stainless Steel	Stainless Steel	US32D	48"X48"
BLK	Matte black	Stainless Steel	BLK	24"X48"
P-BLK	Black	Plastic	P-BLK	48"X48"
CLR	Clear	Plastic	CLR	48"X48"

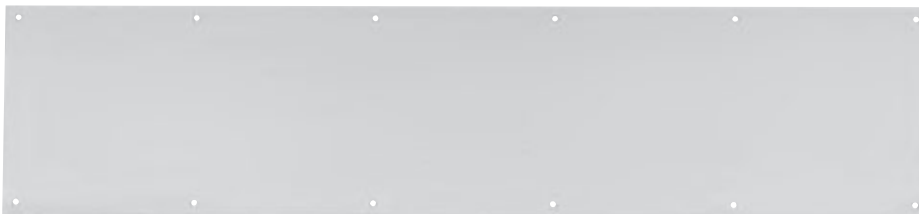
- Custom finishes are available as engineering special, consult customer service.

Available options

- Specify B-NH for no mounting holes. (Not available on 8402. Available only with US32D, US32, US3, US4, US28, Clear, Black only)
- Specify B-NHA for no mounting holes with adhesive.
- Specify ERS prepped with extra row of screws.
- Special Cut-outs are available as engineering special, consult customer service.

Available accessory

- Gasket tape kit tape is recommended when using a brass plate on a metal door to reduce tarnishing from electrolytic oxidation. One tape pack will cover an the perimeters of a 8" x 34" kickplate. Order 8401 gasket tape.



Number of screw packs required by plate size
(specify TEK Screws or TORK screws)

	22"-25"	26"-33"	34"-41"	42"-48"
4"-8"	1	1	1	1
9"-16"	1	1	1	1
17"-24"	1	1	1	2
25"-32"	1	1	2	2
33"-40"	1	2	2	2
41"-48"	2	2	2	2



WS401CCV & WS402CCV

WS401/402CVX (Convex) wall bumpers

WS401/402CCV (Concave) wall bumpers

- Constructed in heavy-duty cast brass
- Special retainer ring makes rubber tamper resistant
- Grey rubber bumper
- WS401/402CVX – convex rubber bumper, packed with fasteners for drywall/wood applications
- WS401/402CCV – concave rubber bumper which avoids damage to locks with projecting buttons, packed with fasteners for drywall/wood applications

Certifications

- WS401/402CVX Meets ANSI/BHMA 156.16, L12101
- WS401/402CCV Meets ANSI/BHMA 156.16, L12251

Material substrate

- Made from cast brass

Dimensions

- Base diameter: 2-1/2"
- Base thickness: 3/8"
- Overall projection: 1"

Finishes - Brass

BHMA	Description	Substrate	Finish
605	Bright brass	Brass	US3
606	Satin brass	Brass	US4
612	Satin bronze	Brass	US10
613	Oil rubbed bronze	Brass	US10B
619	Satin nickel	Brass	US15
625	Bright chrome	Brass	US26
626	Satin chrome	Brass	US26D

For other colors, consult factory.



WS404CVX (Convex) wall bumpers

- Compact size
- Constructed in cast brass
- Totally concealed mounting discourages vandalism or tampering
- Unit furnished with grey convex rubber bumper
- Packed with fasteners for drywall/wood applications

Material substrate

- Made from cast brass

Dimensions

- Base diameter: 1"
- Overall projection: 17/32"

Finishes - Brass

BHMA	Description	Substrate	Finish
605	Bright brass	Brass	US3
606	Satin brass	Brass	US4
609	Blackened brass	Brass	US5
612	Satin bronze	Brass	US10
613	Oil rubbed bronze	Brass	US10B
619	Satin nickel	Brass	US15
622	Matte black	Brass	BLK
625	Bright chrome	Brass	US26
626	Satin chrome	Brass	US26D
---	Aged bronze	Brass	643e/716

For other colors, consult factory.

A
Hinges & pivots

B
Pulls & plates

C
Flush bolts & coordinators

D
Latches, catches & bolts

E11
Stops

F
Exterior hardware

G
Miscellaneous hardware



WS406CVX & WS407CVX

WS406/407CVX (Convex) wall bumpers WS406/407CCV (Concave) wall bumpers

- Constructed in sturdy yet economical wrought base of brass or stainless steel construction
- Feature concealed tamper-proof mounting
- Shipped factory preassembled backplate to reduce installation cost
- Easy installation by inserting screwdriver through small hole in rubber
- WS406/407CVX – convex rubber bumper, packed with fasteners for drywall/wood applications
- WS406/407CCV – concave rubber bumper which avoids damage to locks with projecting buttons, packed with fasteners for drywall/wood applications

Certifications

- WS406/407CVX Meets ANSI/BHMA 156.16, L22201 for brass and L52201 for stainless steel
- WS406/407CCV Meets ANSI/BHMA 156.16, L22251 for brass and L52251 for stainless steel

Material substrate

- Made from brass and stainless steel

Dimensions

- Base diameter: 2-1/2"
- Base thickness: 3/8"
- Overall projection: 1"

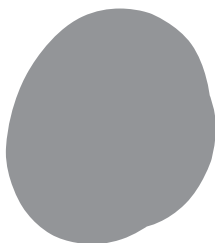
Finishes - Brass

BHMA	Description	Substrate	Finish
605	Bright brass	Brass	US3
606	Satin brass	Brass	US4
609	Blackened brass	Brass	US5
612	Satin bronze	Brass	US10
613	Oil rubbed bronze	Brass	US10B
619	Satin nickel	Brass	US15
622	Matte black	Brass	BLK
625	Bright chrome	Brass	US26
626	Satin chrome	Brass	US26D
---	Aged bronze	Brass	643e/716

Finishes - Stainless steel

BHMA	Description	Substrate	Finish
630	Stainless steel	Stainless steel	US32D

For other colors, consult factory.



411R-W Wall bumper - adhesive

- Adhesive-backed wall door stop for use on clean, smooth, flat surfaces only
- Non-marring white rubber
- Concave design permits knob to strike stop without damaging or engaging lock mechanism

Material substrate

- Made from rubber

Dimensions

- Base diameter: 1-7/8"
- Base thickness: 3/8"
- Overall projection: 1-1/16"

Finishes

BHMA	Description	Substrate	Finish
---	White	Rubber	R-W



63 Flexible door stops

- Utilizes heavy gauge spring to maintain rigid protections
- Simple to install - only a screwdriver required
- Packed disassembled for quick installation
- White rubber tip
- Packaged with fastener for wood applications

Material substrate

- Made from wrought steel

Available accessory items

- Replaceable white rubber tip available
- Replaceable black rubber tip available

Dimensions

- Base diameter: 1"
- Tip diameter: 9/16"
- Projection: 3"

Finishes

BHMA	Description	Substrate	Finish
631	Matte black	Steel	F-BLK
632	Bright brass	Steel	F3
638	Blackened brass	Steel	F5
---	Aged bronze	Steel	F-643E/716
646	Satin nickel	Steel	F15
651	Bright chrome	Steel	F26
652	Satin chrome	Steel	F26D
---	White	Steel	F-W

For other colors, consult factory.



64 Base door stop

- Base door stop features deluxe one-piece styling
- Easily screws into base
- Designed with hexagonal head to accommodate wrench or pliers when installing
- White rubber tip
- Packaged with fastener for wood applications

Material substrate

- Made from solid brass or aluminum

Available accessory items

- Replaceable white rubber tip available
- Replaceable black rubber tip available

Dimensions

- Base diameter: 1"
- Tip diameter: 9/16"
- Projection: 3-1/4"

Finishes - Brass

BHMA	Description	Substrate	Finish
605	Bright brass	Brass	B3
606	Satin brass	Brass	B4
609	Blackened brass	Brass	B5
612	Satin bronze	Brass	B10
613	Oil rubbed bronze	Brass	B10B
619	Satin nickel	Brass	B15
622	Matte black	Brass	B-BLK
625	Bright chrome	Brass	B26
626	Satin chrome	Brass	B26D
---	Aged bronze	Brass	B-643e/716

Finishes - Aluminum

BHMA	Description	Substrate	Finish
666	Bright brass	Aluminum	A3
703	Oil rubbed bronze	Aluminum	A10B
673	Aluminum clear coat	Aluminum	A92

For other colors, consult factory.

Hinges & pivots

A

Pulls & plates

B

Flush bolts & coordinators

C

Latches, catches & bolts

D

Stops

E21

Exterior hardware

F

Miscellaneous hardware

G



69 Hinge pin door stops

- Economical solution for use on low frequency, light weight, residential 3 1/2 or 4" hinged doors where the installation of a standard door stop or overhead is not desirable
- Adjustable for 70° to 100° Door Openings
- Positive slip proof adjustment
- White non-marring rubber tips
- Removable bushings accommodate 1/4" to 5/16" diameter hinge pins
- Easy installation—only a screwdriver required

Material substrate

- Made from burnished wrought steel

Available accessory items

- Replaceable white rubber tip available

Dimensions

- Base diameter: 1"
- Tip diameter: 9/16"
- Projection: 3-1/4"

Finishes

BHMA	Description	Substrate	Finish
631	Matte black	Steel	F-BLK
632	Bright brass	Steel	F3
638	Blackened brass	Steel	F5
639	Satin bronze	Steel	F10
640	Oil rubbed bronze	Steel	F10B
645	Bright nickel	Steel	F14
---	Aged bronze	Steel	F-643E/716
646	Satin nickel	Steel	F15
647	Bright nickel	Steel	F15A
651	Bright chrome	Steel	F26
652	Satin chrome	Steel	F26D

For other colors, consult factory.

A
Hinges & pivots

B
Pulls & plates

C
Flush bolts & coordinators

D
Latches, catches & bolts

E22
Stops

F
Exterior hardware

G
Miscellaneous hardware

90 Series surface overhead door holders/stops



90 Series heavy-duty

Glynn-Johnson 90 Series holders and stops are the most rugged models available for heavy-duty applications. The channel is surface-mounted to the door, most often with sex bolts, and the jamb bracket is surface mounted to the jamb, requiring minimal door and frame preparation.

These versatile units can be used in conjunction with most surface-applied door closers. The provided templates allow for variable mounting positions, ranging from 85° to 110° hold-open/stop angle. These templates are designed for installation in almost all types of doors, including doors with conventional butt-type hinges or specialty hinges.

Four models:

- 90H Series hold-open model
- 90S Series stop-only model
- 90F Series friction hold-open model
- 90SE Series special stop-only model

Five sizes:

- Simple
- Standardized
- Each model is available in five sizes

Three options:

- J—Angle jamb bracket
- SHIM—Blade stop shim kits
- SOC—Pin-in-socket security screw package

Unmatched convenience:

- Non-handed
- Improved compatibility with door closers
- Single-acting doors
- Interior/exterior applications
- Durable
- Easy to install
- Improved corrosion resistance
- Function conversion kits available

Materials and finishes

In 300 Series stainless steel, brass and steel substrates, these models are available in the largest selection of finishes in the industry. Stainless steel models offer the highest resistance to corrosion. Available in the following finishes:

Finish	Description
US3	Polished brass
US4	Satin brass
US10	Satin bronze
US10B	Oil rubbed bronze
US32	Polished stainless steel
US32D	Satin stainless steel
SP4	Powder coat brass
SP10	Powder coat bronze
SP28	Powder coat aluminum
SP313	Powder coat dark bronze
SPBLK	Powder coat black
652	Chrome-like coating

Models

Glynn-Johnson 90 Series door holders and stops provide long-lasting protection for doors, frames and hardware. All models incorporate a heavy-duty channel/slide-arm design and offset jamb bracket. This unique design allows for simple field modification of functions, should user requirements change.

90H Series hold-open

(Suffix H) Hold-open models provide a convenient method of holding the door open at a predetermined position for short or long periods of time, permitting an unobstructed traffic flow through the opening. The hold-open function can easily be turned on or off by simply rotating the serrated knob on the bottom of the channel. This knob engages the hold-open mechanism, allowing the door to be held open at a predetermined position ranging from 85° to 110°. When the knob is flipped over, it acts as a stop and shock absorber.

The tension on the hold-open mechanism can be adjusted using a phillips screwdriver to offset air currents or other exterior conditions. The hold-open tension adjustment is located on the top of the slider in the channel.

90S Series stop-only

(Suffix S) When the hold-open function is not a requirement, stop-only models provide a reliable method of door control. Stop-only models provide the same shock-absorbing capability as hold-open models. The stop-only model may be used on fire doors.

90F Series friction hold-open

(Suffix F) Friction hold-open models are ideal for patient room doors, wardrobe and closet doors or similar applications where multiple hold-open positions are desired. The friction tension can be adjusted through the top of the channel using an allen wrench. The friction tension adjustment is located on the top of the slider in the channel.

90SE Series special stop-only

(Suffix SE) When stop-only models are used in conjunction with single-point, hold-only electronic door closers, the stop-only function may be ordered without the shock-absorbing mechanism. Used as an auxiliary stop, these models prolong the life of the closer. The stop location is adjusted using an allen wrench on the stop block located in the channel.

Note: Caution should be taken when using this option in other applications, as the elimination of the shock-absorbing spring can put added stress on the door and frame.

Application Information

UL Classification

The 90 Series stop-only models are classified by Underwriters Laboratories (UL) as miscellaneous fire door accessories. This classification applies to use on either hollow metal fire doors or wood fire doors. These units may be used on doors of any rating. As a reminder, the miscellaneous fire door accessories (GVUX) section is defined by UL as: "Miscellaneous fire door accessories are intended in the individual listings. The accessories have been investigated to determine that when installed in accordance with the manufacturer's instructions, the accessories do not adversely affect the fire rating of the fire door and/or fire door frames."

Dead-stop templating

Dead-stop templating is recommended for applications where a wall or similar obstruction is placed at an opening angle of 110° or less (i.e., doors that open back-to-back). Dead-stop templating can be applied to hold-open, stop-only and friction models. The dead-stop position is the point at which the shock-absorbing spring is fully compressed. Therefore, when dead-stop templating is used, the initial degree of opening will be 5° to 7° less than the dead-stop opening.

Example: If the holder is templated to a 100° dead stop, the door will hold open at an angle between 93° and 95° but no further than 100°.

Note: Do not use dead-stop templating on the 90SE Series since there is no shock-absorbing spring.

Environmental considerations

Environmental factors should always be considered when specifying overhead holders and stops. Doors that are positioned on a building's exterior or subject to corrosive conditions should be equipped with a holder constructed primarily of stainless steel or brass materials. For interior applications, steel is acceptable, though brass substrates generally provide a more attractive architectural-grade finish.

Options

Suffix J (angle jamb bracket)

An angle jamb bracket is available for converting standard models to hinge-side or flush transom mounting. The angle jamb bracket affixes to the standard jamb bracket. If ordered with the unit add suffix J. If needed separately order 90J by finish needed.

Suffix SOC (pin-in-socket security screws)

A screw package with pin-in-socket screws for mounting the door bracket and the jamb bracket is provided instead of the standard screw package.

Suffix SHIM (blade stop shims)

Shim kits are available in 3 sizes

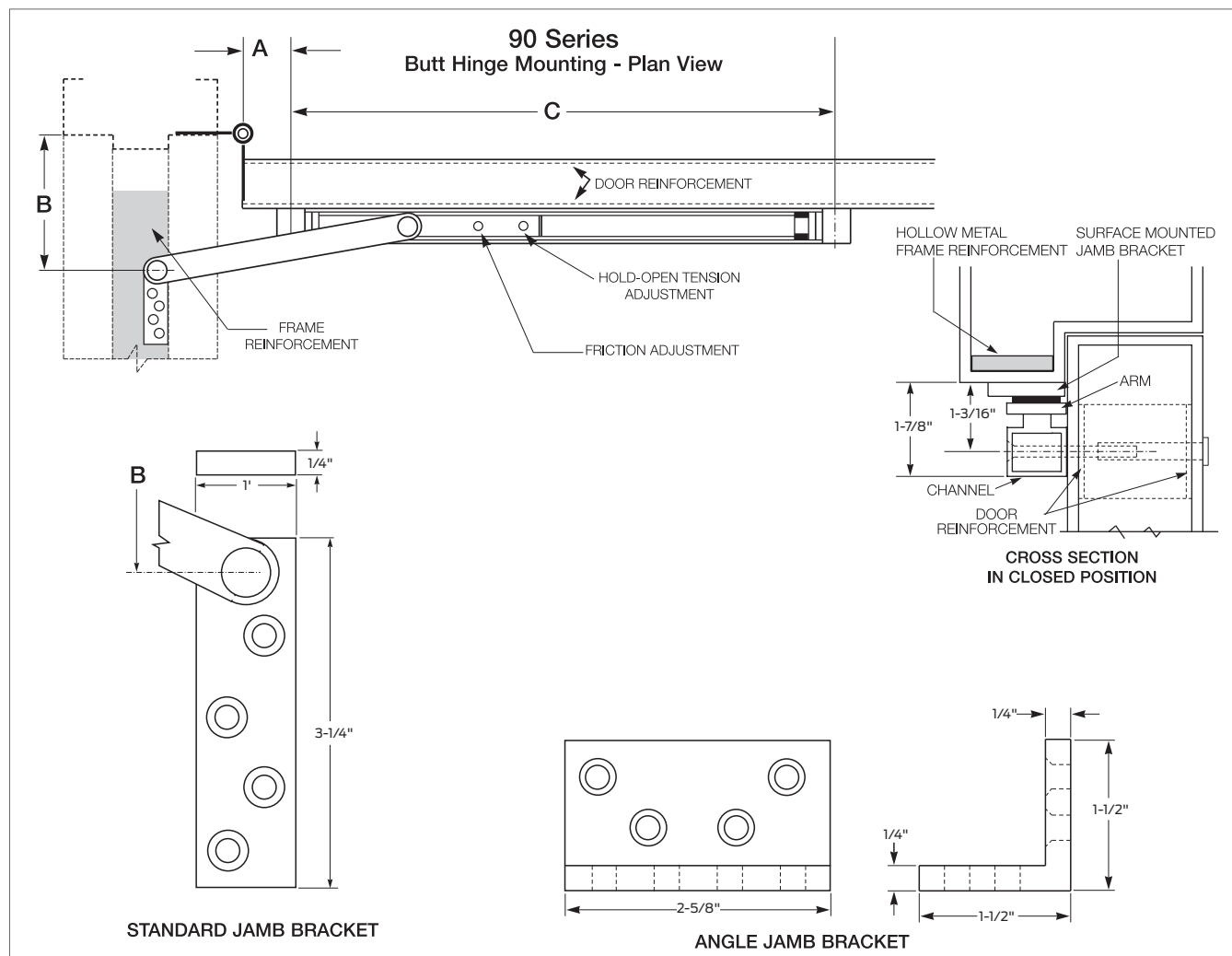
90 SHIM1 is a 1/4" shim kit

90 SHIM2 is a 1/2" shim kit

90 SHIM3 is a 3/4" shim kit

If ordered with overhead, add suffix SHIM (1, 2 or 3). If needed separately order 90 SHIM (1, 2 or 3)—finish.

90 Series surface overhead door holders/stops



90 Series sizing chart

Butts/offset pivots					Center hung			
Size	Door opening	Stop only	Hold open	Friction	Door opening	Stop only	Hold open	Friction
1	-	-	-	-	-	-	-	-
2	23 1/16" - 27"	902S	902H	902F	27 1/16" - 33"	902S	902H	902F
3	27 1/16" - 33"	903S	903H	903F	33 1/16" - 39"	903S	903H	903F
4	33 1/16" - 39"	904S	904H	904F	39 1/16" - 45"	904S	904H	904F
5	39 1/16" - 45"	905S	905H	905F	45 1/16" - 51"	905S	905H	905F
6	45 1/16" - 51"	906S	906H	906F	51 1/16" - 59"	906S	906H	906F

Note: This chart illustrates the most common types of hinging and door opening sizes.
For unusual door details, contact Glynn-Johnson for availability.

BHMA/ANSI, A156.8 & Fed. spec. cross reference

G-J model	BHMA*	Fed. spec.
902-906 H	C02511	1161
902-906 S	C02541	1161A
902-906 F	C02531	-

* First numeral (0) designates optional material.

To specify:
Brass material, change 0 to 1 (i.e. C12511)
Stainless steel material, change 0 to 5 (i.e. C52511)
Steel material, change 0 to 8 (i.e. C82511)

The template information on this page is for reference only and is not intended to serve as an installation template.
For complete dimensional information, refer to Glynn-Johnson template book.



How to order

	90	4	H	—	US32D	—	J
Overhead Series:							
90							
Size (door opening using butts or offset pivots):							
2	(23 1/16"–27")						
3	(27 1/16"–33")						
4	(33 1/16"–39")						
5	(39 1/16"–45")						
6	(45 1/16"–54")						
Function:							
H	Hold-open						
F	Friction hold-open						
S	Stop-only						
SE	Special stop-only						
Finishes:							
US3	Polished brass						
US4	Satin brass						
US10	Satin bronze						
US10B	Oil rubbed bronze						
US32	Polished stainless						
US32D	Satin stainless steel						
SP4	Powder coat brass						
SP10	Powder coat bronze						
SP28	Powder coat aluminum						
SP313	Powder coat dark bronze						
SPBLK	Powder coat black						
652	Chrome-like coating						
Options:							
J	Angle jamb bracket						
SHIM	Blade stop shims						
	SHIM 1 1/4" kit						
	SHIM 2 1/2" kit						
	SHIM 3 3/4" kit						
SOC	Pin-in-socket security screws						

450 Series surface overhead door holders/stops



450 Series medium-duty

Glynn-Johnson provides the most complete line of overhead holders and stops, offering solutions for the most demanding door control problems. These surface-mounted holders and stops offer the widest variety of functions, materials and finishes to fit all medium- to light-duty applications.

Glynn-Johnson 450 Series holders and stops provide reliable and versatile surface-mounted overhead door control for all medium to light-duty applications. The visible components are available in a wide variety of architectural finishes to complement any design.

The 450 Series holders and stops are designed for installation in virtually all types of doors and frames including doors with conventional butt hinges, offset pivots, continuous hinges, swing clear hinges and many other specialty hinges. The templates provided allow for variable mounting positions, ranging from 85° - 110° of opening.

Four models:

- 450H Series hold-open model
- 450S Series stop-only model
- 450F Series friction hold-open model
- 450SE Series special stop-only model

Five sizes:

- Simple
- Standardized
- Each model is available in five sizes

Three options:

- J—Angle jamb bracket
- SHIM—Blade stop SHIM kit
- Soc—Pin-in-socket security screw package

Unmatched convenience:

- Non-handed
- Improved compatibility with door closers
- Improved jamb bracket design

- Single acting doors
- Interior applications
- Durable
- Easy to install
- Improved corrosion resistance

Materials and finishes

In brass, 300 Series stainless steel or steel, these models offer the broadest range of finishes in the industry to complement any design. Brass and stainless steel offer the highest resistance to corrosion, while all these base materials are suitable for normal interior use.

Finish	Description
US3	Polished brass
US4	Satin brass
US10	Satin bronze
US10B	Oil rubbed bronze
US32	Polished stainless steel
US32D	Satin stainless steel
SP4	Powder coat brass
SP10	Powder coat bronze
SP28	Powder coat aluminum
SP313	Powder coat dark bronze
SPBLK	Powder coat black
652	Chrome-like coating

Models

Glynn-Johnson 450 Series holders and stops are designed for medium to light-duty applications. They're ideal for openings that are subject to normal activity, providing protection for the door, frame, hinges and surrounding walls or obstructions.

Designed for improved compatibility with most door closers, all models incorporate popular channel/slide arm design and offset jamb brackets. The improved design makes it easier to change functions in the field, should user requirements change.

450H Series hold-open

(Suffix H) These models conveniently hold doors open at a predetermined position, permitting unobstructed traffic flow.

These models feature an adjustable automatic hold-open that is activated when the door is opened to a preset angle. The hold-open tension can be adjusted using an allen wrench through the end of the slider located in the channel at the top of the door. Each meets the 250,000 test cycles required for Grade 1 classification.

450S Series stop-only

(Suffix S) When the hold-open function is not required, the stop-only function provides the same effective door control without keeping the door held open. The stop-only model may be used on fire doors.

450F Series friction hold-open

(Suffix F) Friction hold-open models provide an alternative holding method ideal for patient room doors, wardrobe or closet doors, or similar applications where multiple hold-open positions are desired. The friction tension can be adjusted using an allen wrench on the slider located in the channel at the top of the door.

450SE Series special stop-only

(Suffix SE) When stop-only models are used in conjunction with single point hold-open electronic door closers, the function may be ordered without the shock absorbing mechanism. Used as an auxiliary stop with these closers, they will prolong the life of the closer. The stop location is adjusted using an allen wrench on the stop block located in the channel.

Note: Caution should be taken when using this option in other applications, as the elimination of the shock-absorbing spring can put added stress on the door and frame.

Application information

Closer applications

Glynn-Johnson 450 Series models require minimal door and frame preparation. They may be used in conjunction with most surface-applied door closers. In some cases, optional drop brackets may need to be mounted on the closers. These brackets are available from the closer manufacturer.

UL classification

The 450 Series stop-only models are classified by Underwriters Laboratories (UL) as miscellaneous fire door accessories. This classification applies to use on either hollow metal fire doors or wood fire doors. These units may be used on doors of any rating. As a reminder, the miscellaneous fire door accessories (GVUX) section is defined by UL as: "Miscellaneous fire door accessories are intended in the individual listings. The accessories have been investigated to determine that when installed in accordance with the manufacturer's instructions, the accessories do not adversely affect the fire rating of the fire door and/or fire door frames."

Dead-stop templating

For situations where a wall or similar obstruction is in place at an opening angle of 110° or less (e.g. doors that open back-to-back), dead stop templating should

be used. This includes all hold-open, Friction and stop-only models, except when the "SE" option is used.

The dead stop position is reached when the shock-absorbing spring is fully compressed, allowing an initial degree of opening of 5° to 7° less than the dead stop opening.

Example: If the holder is templated to a 100° dead stop, the door will hold open at an angle between 93° and 95° but no further than 100°.

Note: Do not use dead-stop templating on the 450SE Series since there is no shock-absorbing spring.

Environmental conditions

To assure a long operating life for holders and stops, consider the environment where they will be used. Doors that open to the exterior of a building or are subject to corrosive conditions should have a holder constructed primarily of stainless steel, brass or bronze materials. For interior doors, steel material may be acceptable, although brass and bronze substrates will provide a more attractive architectural grade finish.

Heavy-use applications

Where doors and frames are subject to heavy use and abuse, a heavy-duty holder or stop should be considered. Also heavy-duty units should be considered on exterior doors subject to wind.

Options

Suffix J (angle jamb bracket)

An additional option on the 450 Series is the angle jamb bracket for hinge-side or flush transom mounting. The angle jamb bracket affixes to the standard jamb bracket. If ordered with the overhead add suffix J. If needed separately order 450J-finish.

Suffix SHIM (blade stop shims)

Shim kits are available in 3 sizes:

450 SHIM1 is a 3/16" shim kit

450 SHIM2 is a 3/8" shim kit

450 SHIM3 is a 9/16" shim kit

If ordered with overhead, add suffix SHIM (1, 2 or 3).

If needed separately order 450SHIM (1, 2 or 3)–finish.

Suffix SOC (Pin-in-socket security screw package)

A screw package with pin-in-socket screws for mounting the channel to the door and the jamb bracket to the frame is provided instead of the standard screw package.



Door sealing systems

[Explore >](#)



Start

Introduction

Thresholds

Automatic
door bottoms

Perimeter
seals

Weatherstripping

Intumescent
solutions

Sound control
solutions

Specialty
solutions

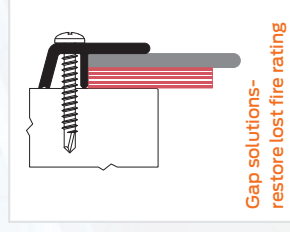
Service
and support



The standard for quality in door sealing hardware

Allegion's Zero International brand is recognized as the standard for quality in door sealing hardware. Our perimeter seals and thresholds are engineered for durability and reliable performance even under the most challenging installation and operating conditions. Our sealing products also support green building applications by promoting heating and cooling efficiency.

The comprehensive Zero product line includes advanced sound-control gasketing and a full array of other specialized sealing systems for doors and windows, as well as intumescent fire and smoke protection systems. We also offer a line of flood barrier shields with proven value for protecting door openings and building contents in flood-prone areas.



Start

Introduction

Thresholds

Automatic
door bottoms

Perimeter
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Weatherstripping

Intumescent
solutions

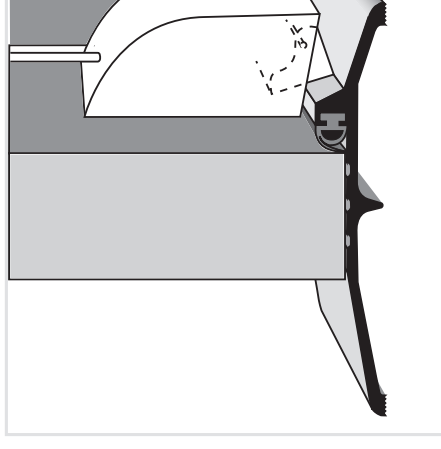
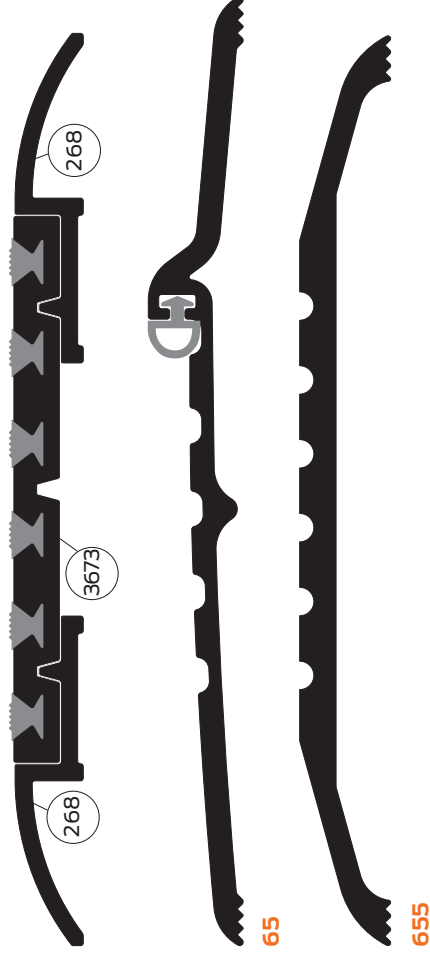
Sound control
solutions

Specialty
solutions

Service
and support

Thresholds

Zero's thresholds feature top quality materials and construction to endure the demands of heavy traffic applications as well as those with extreme temperature differentials. They can be drilled or screwed directly into concrete without the common issues that arise when using lighter commercial materials, such as buckling under heavy loads or loose screws. A variety of types of thresholds are available to accommodate your project's specific needs.



Start

Introduction

Thresholds

Automatic
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Perimeter
seals

Weatherstripping

Intumescent
solutions

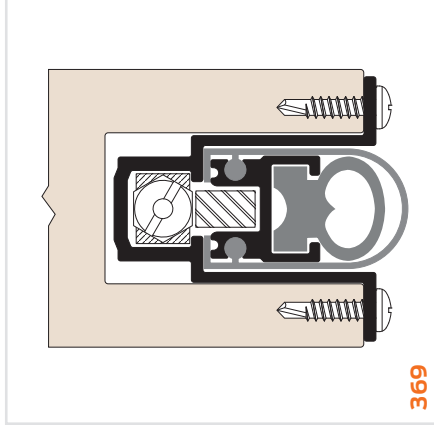
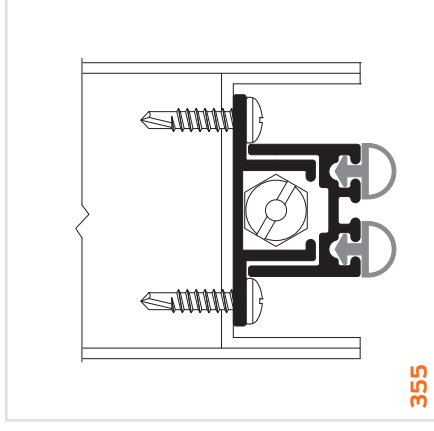
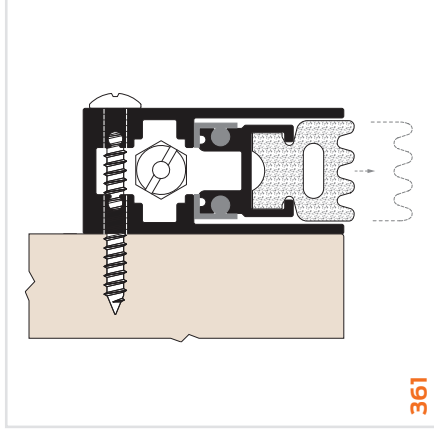
Sound control
solutions

Specialty
solutions

Service
and support

Automatic door bottoms

The patented automatic door bottom technology from Zero ensures an efficient seal against the floor or saddle. As the door is closed, the adjustable plunger is compressed against the door frame, activating a concealed flat spring mechanism. This mechanism drops the seal smoothly from the housing in a scissor-like motion. Door bottoms are available in specialized versions for various applications, including light spring (LS options). Zero door bottoms are designed to block penetration by air, sound, smoke and flames.



Start

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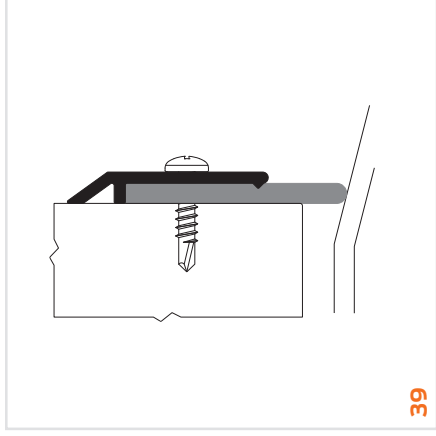
Sound control
solutions

Specialty
solutions

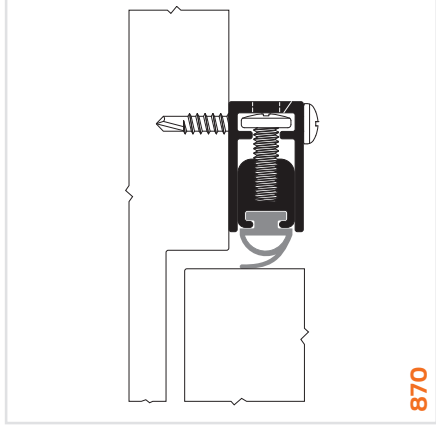
Service
and support

Perimeter seals

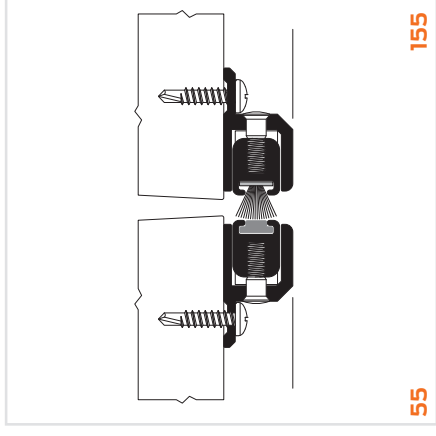
Zero's door gaskets for protecting head, jamb, sill and meeting stiles are engineered for reliable performance in demanding environments. Constructed from top-quality materials, they are built to last. When you need the best seal to satisfy codes, or field conditions are less than perfect, Zero's mechanically fastened gasketing provides many choices. The offering includes a range of features, aesthetic options and specialized solutions.



39



870



55

155

Start

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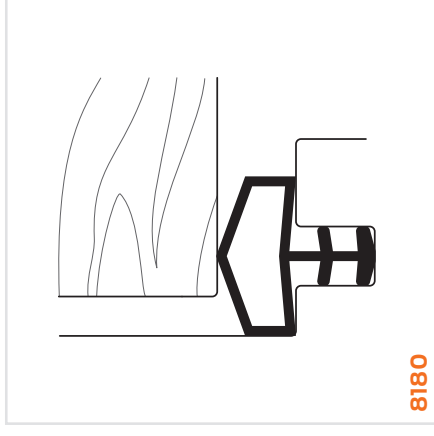
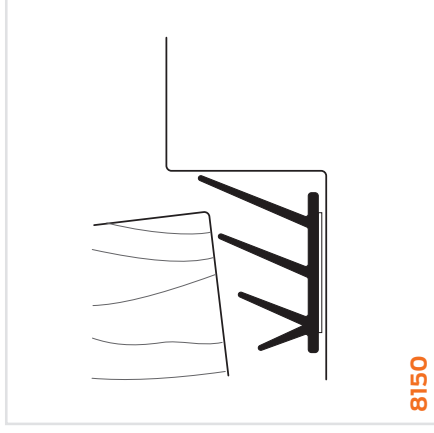
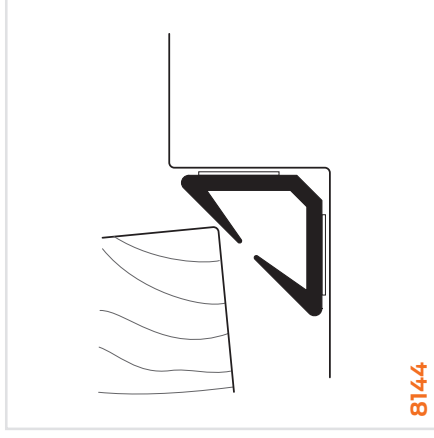
Sound control
solutions

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solutions

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and support

Weatherstripping

A comprehensive selection of kerf seals and pressure-sensitive adhesive (PSA) rubber seals is available in a variety of materials. With a broad portfolio, Zero offers solutions for a variety of challenging applications—and your common sealing needs. Special features, such as state of the art adhesive, set Zero apart. And a variety of material options make it easy to customize solutions to meet the needs of each opening in your project.



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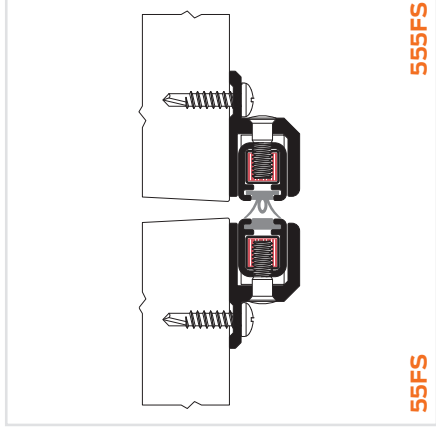
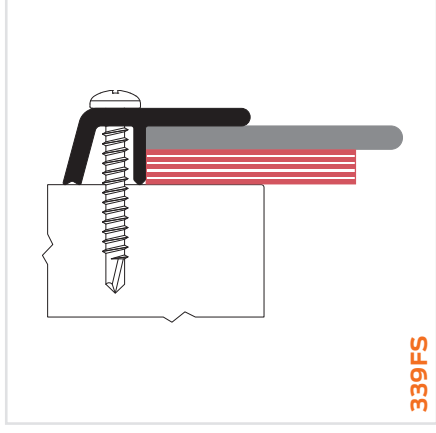
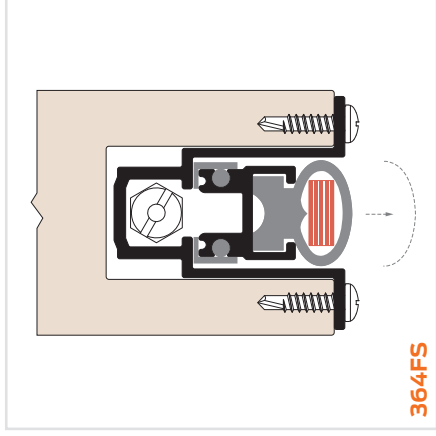
Sound control
solutions

Specialty
solutions

Service
and support

Intumescent solutions

Zero's many years of leadership in developing fire and smoke seals have produced top-quality gasketing systems that meet the highest standards, including intumescent technology. Zero's positive pressure seals are tested and listed according to U.S. listing agencies' classifications for Category G edge sealing systems and Category H smoke and draft control systems.



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Sound control solutions

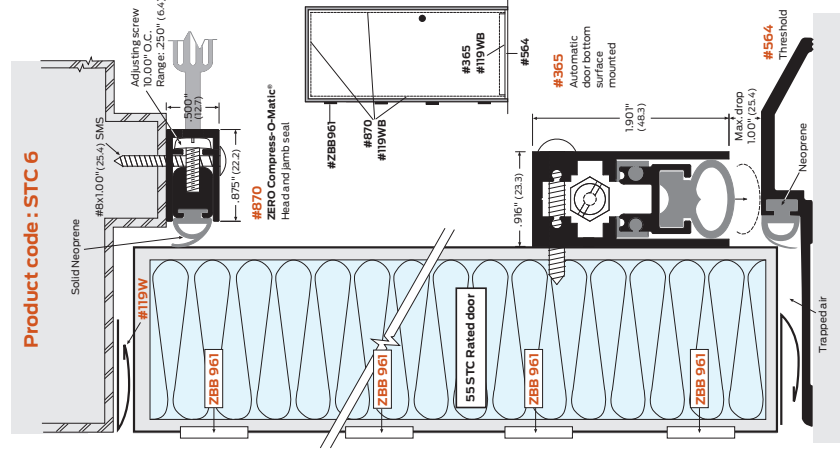
Specialty solutions

Service and support

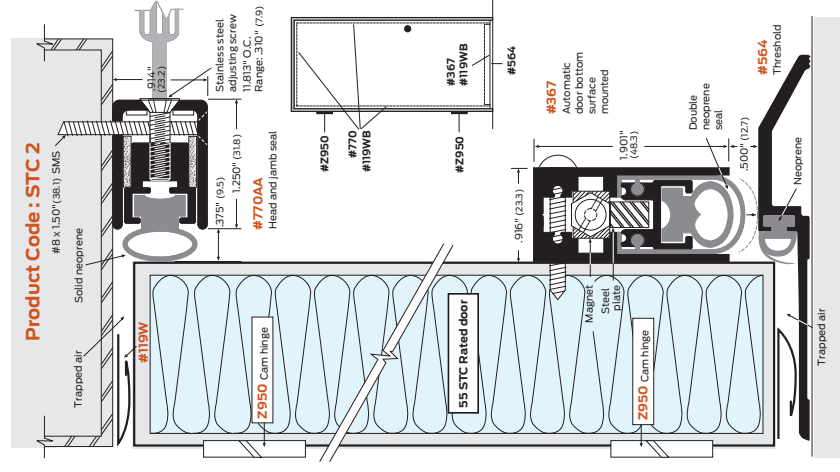
Sound control solutions



Sounds control is a common desire in facilities like hospitals, schools, performing arts centers, recording studios, commercial offices, churches, hotels and apartment buildings. Zero uses advanced technology to master two critical challenges: creating an effective sound barrier at the perimeter of the door and preventing gaps in that barrier for the life of the assembly.



Sound Trap 49 STC sealing system



Sound Trap 52 STC sealing system

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Specialty solutions

Piecing a solution together across multiple product and manufacturers adds time, complexity and risk. Instead, ZERO offers proven solutions for a variety of applications, including: sound control, fire and smoke seals, flood barriers to ADA access systems and more. In addition, ZERO offers many unique products for challenging applications, such as:

- Finger guards
- Ligature-resistant gasketing
- Flood barrier shield
- Cam lift full mortise hinges
- Specialty head and jamb protection



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Service and support



Customer support: 877-671-7011



support@allegion.com



[us.allegion.com service/help](https://us.allegion.com/service/help)

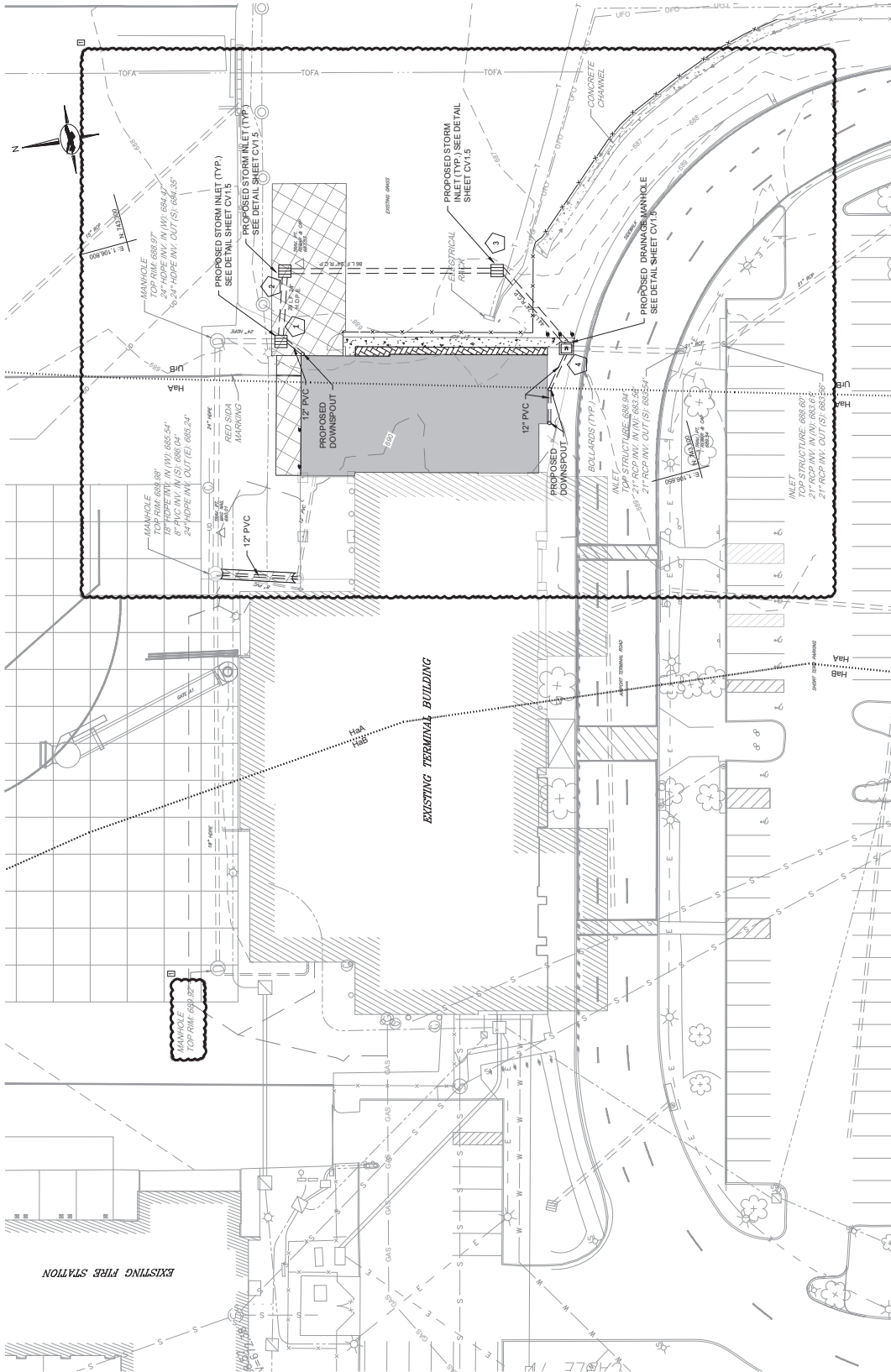


About Allegion

Allegion (NYSE: ALLE) is a global pioneer in safety and security, with leading brands like CISA®, Interflex®, LCN®, Schlage®, SimonsVoss® and Von Duprin®. Focusing on security around the door and adjacent areas, Allegion produces a range of solutions for homes, businesses, schools and other institutions. Allegion is a \$2 billion company, with products sold in almost 130 countries.

For more, visit www.allegion.com

KRYPTONITE ■ LCN ■  SCHLAGE ■ STEELCRAFT ■ VON DUPRIN



NOTES

1. REFER TO CIVIL PHASING SERIES FOR PHASING AND GENERAL PROJECT LAYOUT PLANS.

EXISTING LEGEND

- ★ LIGHT POLE
- TAXIWAY EDGE LIGHT
- ELECTRICAL HANDHOLE
- DRAINAGE MANHOLE
- INLET
- CLEANOUT
- SANITARY SEWER MANHOLE
- BOLLARD
- STORM DRAIN
- ELECTRICAL
- TELEPHONE LINE
- UNDERGROUND FIBER OPTIC
- UNDERDRAIN
- EXISTING FENCE LINE
- TAXIWAY OBJECT
- FREE AREA
- SOILS BOUNDARY
- EXISTING MAJOR
- EXISTING MINOR
- CONTOUR

PROPOSED LEGEND

- BUILDING
- EXPANSION
- PROPOSED BITUMINOUS CONCRETE PAVEMENT REFER TO TYPICAL BITUMINOUS SECTION SHEET CV.5.
- SIDEWALK
- STORM DRAIN
- INLET
- PROPOSED STORM DRAIN STRUCTURE REFER TO DETAIL SHEET CV.5
- PROPOSED DRAINAGE MANHOLE
- PROPOSED FENCE LINE

SOIL DESCRIPTIONS:

HWA HAGERSTOWN SILT LOAM

HMB HAGERSTOWN SILT LOAM

UFB URBAN LAND-HAGERSTOWN COMPLEX

0 TO 3 PERCENT SLOPES

3 TO 8 PERCENT SLOPES

0 TO 8 PERCENT SLOPES

PROJECT TITLE:	TERMINAL BUILDING EXPANSION
SHEET TITLE:	FINAL CONDITIONS PLAN
SCALE:	N.A.
DATE:	MAY 2025

HAGERSTOWN REGIONAL AIRPORT
Washington County, MD



NO.	DATE	DESCRIPTION
1	06/05/2025	ADDITION 1
2	07/17/2025	ADDITION 2
3		ADDITION 3

DESIGNED: B.J.D.	CHECKED: V.J.D.	APPROVED: R.M.M.
DRAWN: J.A.A.		

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT I AM A LICENSED PROFESSIONAL ENGINEER IN THE STATE OF MARYLAND.

LICENSE NO. 32703

EXPIRATION DATE: 22/10/26

SEAL OF THE PROFESSIONAL ENGINEER

ADCI

AIRCRAFT DESIGN CONSULTANTS

601 ELLICOTT CITY, MD 21113

TEL: 410-585-8800

FAX: 410-585-8802

SEP-25-2025

CV1.2

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SITE DATA

TAX MAP PARCEL.....24 / 417
ELECTION DISTRICT.....13
COUNTY.....HAGERSTOWN
COUNCILMAN/DISTRICT.....COUNCILMAN/DISTRICT
PARCEL CHARGE.....\$5.00 AC PER CHAF
FUNCTIONAL DESCRIPTION.....EXIST. AIRPORT TERMINAL
MANUAL BUILDING SETBACK LINES (MBSL)
SIDE.....75'
REAR.....75'
EXISTING TERMINAL BUILDING AREA.....23,910 S.F.
PROPOSED BUILDING ALLOCATION.....4,800 S.F.
PROPOSED BUILDING FOOTPRINT.....NO CHANGE
NO. OF EMPLOYEES.....NO CHANGE
HOURS OF OPERATION.....NO CHANGE
ON SITE PARKING/PHARMACY/MAINTENANCE.....BY OWNER (COUNTY)
PARKING REQUIRED.....NO CHANGE
PARKING PROVIDED.....NO CHANGE
PARKING LANDSCAPE REQUIREMENT.....NO CHANGE
HANDICAP PARKING REQUIRED & PROVIDED.....5
FREIGHT & DELIVERIES.....NO CHANGE
CITY OF HAGERSTOWN DEPT. OF WATER QUALITY
SOLID WASTE STORAGE & DISPOSAL.....EX. DUMPSTER AND
PROTECTED EMISSIONS.....NONE
EXISTING WATER ALLOCATION.....19,831 GPD
EXISTING WATER USAGE.....1,081 GPD
PROPOSED AUTOMATED ALLOCATION.....J. GPD

CITY OF HAGERSTOWN UTILITIES DEPARTMENT - WATER & WASTEWATER DIVISIONS

THIS APPROVAL IS FOR GENERAL CONFORMANCE WITH THE COUNTY'S REQUIREMENTS FOR WASTEWATER SYSTEM IMPROVEMENTS. ALL WASTES AND WASTEWATER SYSTEM IMPROVEMENTS SHALL BE DESIGNED AND CONSTRUCTED IN STRICT ACCORDANCE WITH THE COUNTY'S LATEST EDITION OF THE WASTEWATER DESIGN MANUAL. THIS APPROVAL DOES NOT GUARANTEE AVAILABILITY OF WATER OR WASTEWATER SERVICE. APPLICANTS AND STANDARDS IN EFFECT AT THE TIME OF APPLICATION FOR SERVICE. THE CITY OF HAGERSTOWN DOES NOT GUARANTEE A SPECIFIC WATER PRESSURE OR FLOW AT ANY ALLOCATION ON THE HYDRANT. THIS APPROVAL IS VALID FOR A PERIOD OF ONE YEAR.

WASHINGTON COUNTY DEPARTMENT OF WATER QUALITY

THIS APPROVAL IS FOR GENERAL CONFORMANCE WITH THE COUNTY'S REQUIREMENTS FOR WASTEWATER SYSTEM IMPROVEMENTS. ALL WASTES AND WASTEWATER SYSTEM IMPROVEMENTS SHALL BE DESIGNED AND CONSTRUCTED IN STRICT ACCORDANCE WITH THE COUNTY'S LATEST EDITION OF THE WASTEWATER DESIGN MANUAL. THIS APPROVAL DOES NOT GUARANTEE AVAILABILITY OF WATER OR WASTEWATER SERVICE. APPLICANTS AND STANDARDS IN EFFECT AT THE TIME OF APPLICATION FOR SERVICE. THE COUNTY OF WASHINGTON DOES NOT GUARANTEE A SPECIFIC WATER PRESSURE OR FLOW AT ANY ALLOCATION ON THE HYDRANT. THIS APPROVAL IS VALID FOR A PERIOD OF ONE YEAR.

BY: _____ DATE: _____

NOTES

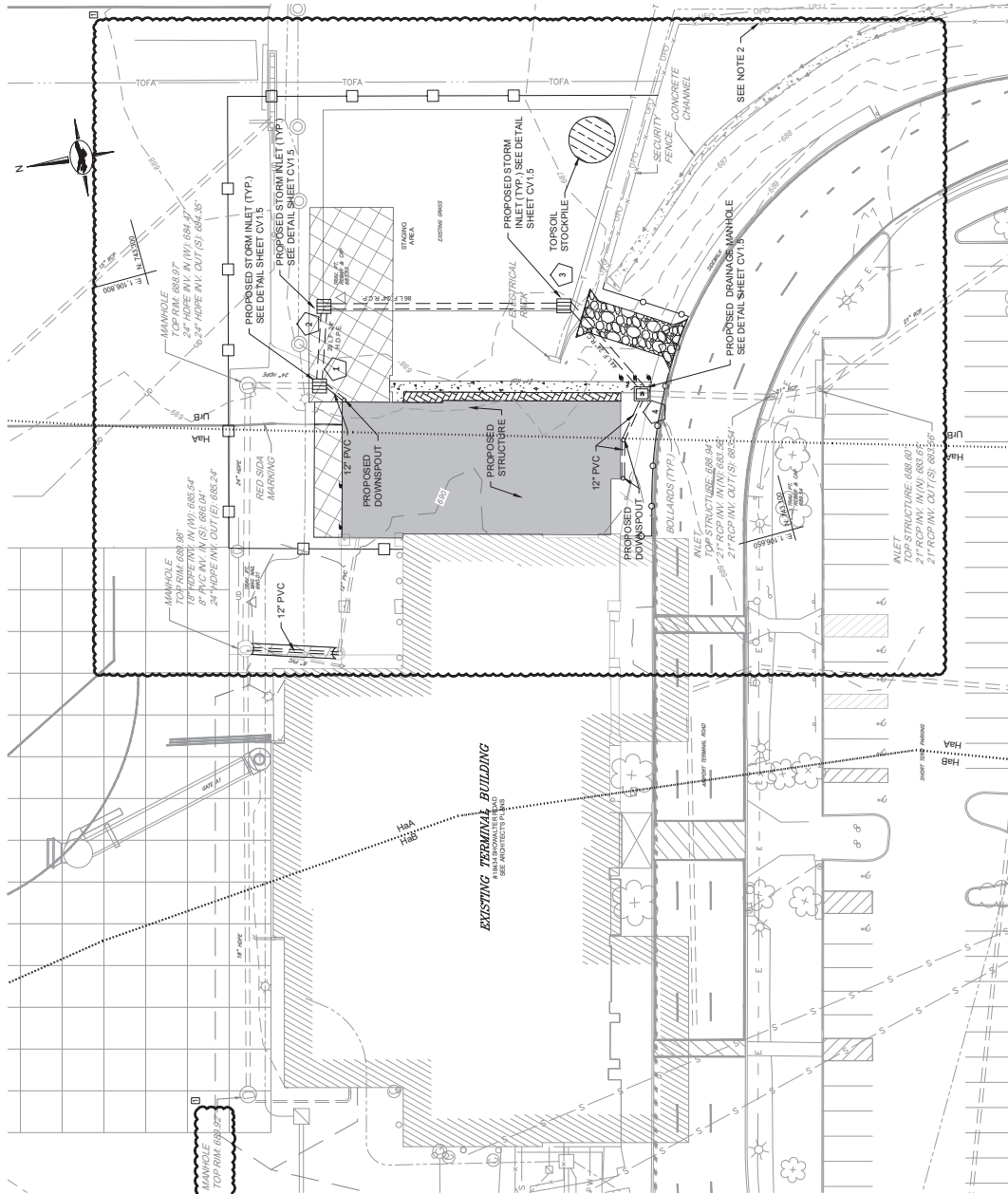
1. REFER TO CIVIL PHASING SERIES FOR PHASING AND GENERAL PROJECT LAYOUT. ALL UTILITIES SHALL BE DEMOLISHED AFTER NEW PERMANENT SECURITY FENCE IS INSTALLED.

EXISTING LEGEND:

- LIGHT POLE
- TAIWAY EDGE LIGHT
- ELECTRICAL MANHOLE
- DRAINAGE MANHOLE
- INLET
- CLEANOUT
- SANITARY SEWER MANHOLE
- BOLLARD
- STORM DRAIN
- ELECTRICAL
- TELEPHONE LINE
- UNDERGROUND FIBER/OPTIC
- UNDERDRAIN
- TAIWAY OBJECT
- FREE AREA
- SOILS BOUNDARY
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR

PROPOSED LEGEND:

- BUILDING EXPANSION
- PROPOSED BITUMINOUS CONCRETE PAVEMENT REFER TO TYPICAL BITUMINOUS SECTION SHEET C.V.5.1
- CONSTRUCTION ENTRANCE
- TOPSOIL STOCKPILE
- STAGING AREA
- SIDEWALK
- STORM DRAIN
- TEMPORARY SECURITY FENCE
- CONSTRUCTION FENCE
- INLET
- PROPOSED STORM DRAIN STRUCTURE REFER TO DETAIL SHEET C.V.5.1
- PROPOSED BOLLARD
- LOWER SUPPLIED MATERIAL REBAR CAGE BOLLARD PIPE AND COVER
- PROPOSED DRAINAGE MANHOLE



SOIL DESCRIPTIONS:

- HWA HAGERSTOWN SILT LOAM
- HbB HAGERSTOWN SILT LOAM
- UfB URBAN LAND/HAGERSTOWN COMPLEX

- 0 TO 3 PERCENT SLOPES
- 3 TO 8 PERCENT SLOPES
- 0 TO 8 PERCENT SLOPES



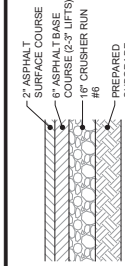
HAGERSTOWN REGIONAL AIRPORT
Washington County, MD

PROJECT TITLE: **TERMINAL BUILDING EXPANSION**
SHEET TITLE: **SITE PLAN**
SCALE: N/A
DATE: MAY 2025

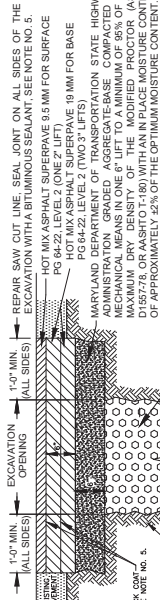
FAA A/P NO. 13-34-0019-XX-2025
MAA GRTI NO.: WA-GR-XX-XXX
SUBMISSION: **BD SET**
SHEET NO.: **C.V.1.3**
22 OF 102



ADCI
AIRPORT DESIGN CONSULTANTS
601 BELMONT CITY, MD 20613
TEL: 410-585-8800
FAX: 410-585-8802



1 BITUMINOUS PAVING SECTION
CVS.1 SCALE NTS

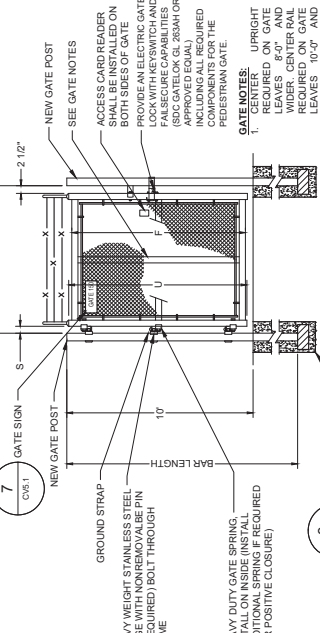


2 TRENCH REPAIR
CVS.1 SCALE NTS

NOTES:
1. ALL EXCAVATION, TRENCHING, AND BACKFILLING SHALL BE IN ACCORDANCE WITH CATEGORY 200 OF THE MD DEPT. OF TRANS. S.H.A. "STANDARD
DETAILS".
2. ALL PAVEMENT OPENINGS SHALL BE TEMPORARILY RESTORED WITH BITUMINOUS MATERIAL (HOT OR COLD) WHICH WILL BE REMOVED PRIOR TO
THE INSTALLATION OF THE FINAL REPAIR PAVEMENT.
3. THE PAVEMENT OPENINGS SHALL BE NEATLY SAW CUT TO STRAIGHT CLEAN LINES AT A MINIMUM DEPTH OF 4". THESE SAW CUTS SHALL
BE SEaled WITH A BITUMINOUS SEALANT AFTER FINAL PAVEMENT INSTALLATION. BITUMINOUS SEALANT AND TACK COAT SHALL BE IN
ACCORDANCE WITH MD DEPT. OF TRANS. S.H.A. "STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS", LATEST EDITION, SECTION 913.

2 TRENCH REPAIR
CVS.1 SCALE NTS

SINGLE LEAF GATES		SINGLE OR DOUBLE LEAF GATES	
OPENING	GATE POSTS	WITHOUT BASEMENT	WITH BASEMENT
2'-0" TO 2'-6"	2'-0" TO 2'-6"	2'-0" TO 2'-6"	2'-0" TO 2'-6"
2'-6" TO 3'-0"	2'-6" TO 3'-0"	2'-6" TO 3'-0"	2'-6" TO 3'-0"
3'-0" TO 3'-6"	3'-0" TO 3'-6"	3'-0" TO 3'-6"	3'-0" TO 3'-6"
3'-6" TO 4'-0"	3'-6" TO 4'-0"	3'-6" TO 4'-0"	3'-6" TO 4'-0"



3 PEDESTRIAN GATE
CVS.1 SCALE NTS

PEDESTRIAN GATE NOTES:
1. PEDESTRIAN GATES SHALL BE EQUIPPED
WITH A HYDRAULIC DOOR
CLOSER.

6 PEDESTRIAN GATE
CVS.1 SCALE NTS

DESIGNED		DATE		DESCRIPTION	
DESIGNED	B.J.D.	NO.	06/15/2025	ADDITIONAL	
DRAWN	J.A.A.				
CHECKED	V.L.D.				
APPROVED	R.N.M.				

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DESIGNED	B.J.D.	NO.	06/15/2025	ADDITIONAL	
DRAWN	J.A.A.				
CHECKED	V.L.D.				
APPROVED	R.N.M.				

DESIGNED		DATE		DESCRIPTION	
DESIGNED	B.J.D.	NO.	06/15/2025	ADDITIONAL	
DRAWN	J.A.A.				
CHECKED	V.L.D.				
APPROVED	R.N.M.				

DESIGNED		DATE		DESCRIPTION	
DESIGNED	B.J.D.	NO.	06/15/2025	ADDITIONAL	
DRAWN	J.A.A.				
CHECKED	V.L.D.				
APPROVED	R.N.M.				

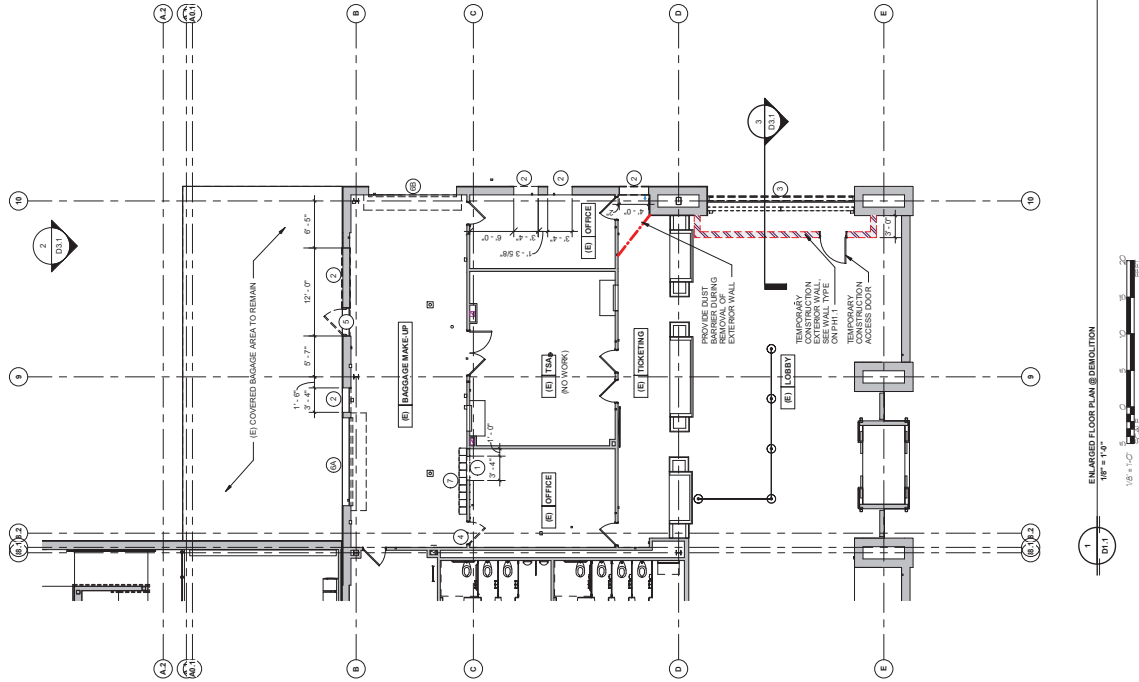
DESIGNED		DATE		DESCRIPTION	
DESIGNED	B.J.D.	NO.	06/15/2025	ADDITIONAL	
DRAWN	J.A.A.				
CHECKED	V.L.D.				
APPROVED	R.N.M.				

DESIGNED		DATE		DESCRIPTION	
DESIGNED	B.J.D.	NO.	06/15/2025	ADDITIONAL	
DRAWN	J.A.A.				
CHECKED	V.L.D.				
APPROVED	R.N.M.				

DESIGNED		DATE		DESCRIPTION	
DESIGNED	B.J.D.	NO.	06/15/2025	ADDITIONAL	
DRAWN	J.A.A.				
CHECKED	V.L.D.				
APPROVED	R.N.M.				

DESIGNED		DATE		DESCRIPTION	
DESIGNED	B.J.D.	NO.	06/15/2025	ADDITIONAL	
DRAWN	J.A.A.				
CHECKED	V.L.D.				
APPROVED	R.N.M.				

DESIGNED		DATE		DESCRIPTION	
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ADCI AIRPORT DESIGN CONSULTANTS, INC. 6071 UNIVERSITY BLVD ELICOTT CITY, MD 21043 PHONE: 410-586-5900 FAX: 410-586-5901		BFM BARRY REIDT ARCHITECTS 291733 5800 BFF PROJECT # 26043 HAGERSTOWN, MD 21740		SEAL 		Professional Certification: I hereby certify that these documents were prepared by me or under my direct supervision and that I am a duly licensed Professional Engineer in the State of Maryland.		License No: 6157 Expiration Date: 02/07/2026		DESIGNED: RAK DRAWN: RAK CHECKED: NEM APPROVED: NEM		NO. 1 DATE 06/17/2025 REVISION (Add room No. 3)		PROJECT TITLE TERMINAL BUILDING EXPANSION		SUBMITTER MAA Grant No.: MAA-GR-00-000 BID SET		PROJECT NO.: 5-24-0919-00-2025 BID No.: PUR-751	
SHEET TITLE ENLARGED FLOOR PLAN AT DEMOLITION										SCALE As indicated		DATE MAY 2025		SHEET No. D1.1		31 OF 102			

ADCI
AIRPORT DESIGN CONSULTANTS, INC.

6011 UNIVERSITY BLVD.
SUITE 400
ELICOTT CITY, MD 21043
PHONE: 410-466-9000
FAX: 410-465-9602

BFM
BUSHEY FEIGHT MORIN ARCHITECTS
473 NORTH POTOMAC STREET
HAGERSTOWN, MD 21740
301-733-9600 301-733-9602

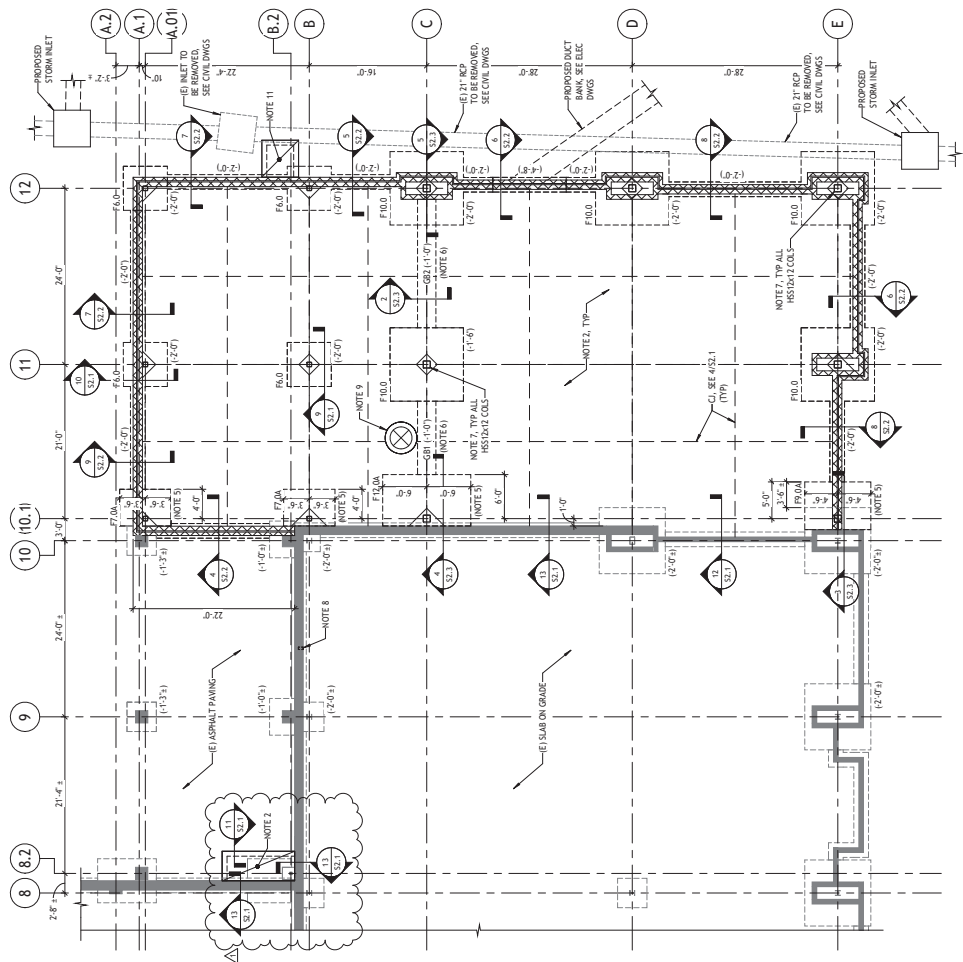


6011 UNIVERSITY BLVD ELLICOTT CITY, MD 21143 TEL: 410-585-9000 FAX: 410-585-9002 ADCI AIRPORT DESIGN CONSULTANTS, INC. BFM BANK OF MARYLAND 472 N. NORTH POTOMAC STREET HAGERSTOWN, MD 21740 301.21.5000 BFM PROJECT # 2640		 SEALED MAY 10 2025 STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION DIVISION OF AIRPORTS PROJECT NO. 0157 SECTION 0157 Notations: Certification: I hereby certify that these documents and their contents are true and correct and that I am a duly licensed professional engineer in the State of the State of Maryland. DESIGNED: RAK DATE: 05/17/2025 No. 0157 DRAWN: RAK CHECKED: NEA APPROVED: NEA	 HAGERSTOWN REGIONAL AIRPORT Washington County, MD PROJECT TITLE: TERMINAL BUILDING EXPANSION SHEET TITLE: SECTION DETAILS DATE: MAY 2025 As indicated	FIRM: MAA MAA No.: 3-24-0919-XX-2025 Bldg No.: PUR-1751 MAA Grant No.: MAA-GR-XX-XXX SUBMISSION: BID SET SHEET No.: A4.9 59 OF 102
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FOUNDATION PLAN

1. SEE TYPICAL DETAILS FOR ADDITIONAL INFORMATION NOT SHOWN.
2. SLAB ON GRADE SHALL BE 5" THICK REINFORCED WITH 6W6" - W/2.5 IN. 3 WELDED WIRE REINFORCEMENT.
3. TYPICAL ELEVATIONS:
- REFER ELEVATION MEASURED FROM GROUND FLOOR DATUM = (6' 0"). ACTUAL ELEVATION = 660.25'.
 - TOP OF FOOTING ELEVATION = (2' 0"). TYP. UND. TOP OF FOOTING ELEVATIONS THAT DIFFER FROM TYPICAL NOTED THUS:
 - TYPICAL WALL FOOTING SHALL BE 2' 0" WIDE, 1' 0" THICK REINFORCED WITH (3) #5 CONTINUOUS BOTTOM BARS AND (4) BARS AT 24" OC IN THE TRANSVERSE DIRECTION (W/2.0), UNLESS NOTED OTHERWISE.
 - REINFORCEMENT SHALL BE PLACED IN ACCORDANCE WITH THE FOLLOWING: (1) MATCH EXISTING BOTTOM OF FOOTING ELEVATION. DO NOT INCREASE EXISTING FOOTING.
 - REINFORCED CONCRETE GRADE BEAM WITH REBAR LAPPED WITH COLUMN FOOTING REINFORCING AT EACH END. REBAR SHALL BE 2" 0" DEEP REINFORCED WITH (4) #4 CONT. TOP AND BOTTOM AND (2) #5 AT MID DEPTH. PROVIDE #4 STRIPS AT 12" OC.
 - G2: 2'-6" WIDE x 2'-6" DEEP REINFORCED WITH (4) #4 CONT. TOP AND BOTTOM AND (2) #5 AT MID DEPTH.
 - ANCHOR REINFORCEMENT REQUIRED AT ALL H/4 CONT. TOP AND BOTTOM AND (2) #5 PER 11/52.1.
 - COLUMN TO BE REMOVED. CUT COLUMN 4' BELOW FINISH FLOOR READING ADJACENT CONCRETE SLAB ON GRADE. PROVIDE 4' 0" DEEP REINFORCED WITH (4) #4 CONT. TOP AND BOTTOM AND (2) #5 AT MID DEPTH. PROVIDE #4 STRIPS AT 12" OC.
 - PIT FOR SEWAGE PUMP. SEE ARCHITECTURAL DRAWINGS FOR EXACT SIZE AND LOCATION. PROVIDE 8" THICK SLAB ON GRADE. 4" PIT PERMANENT.
 - FOR COLUMN SCHEDULE, SEE 54.1.
 - PROVIDE 5'-0" CONCRETE STUOP AT EXTERIOR DOOR. PROVIDE SLAB TURNOUT PER DETAIL 11/52.1.
 - SEE NOTE 2 FOR SLAB THICKNESS AND REINFORCING.

FOUNDATION SCHEDULE			
MARK	SIZE	THICKNESS	REINFORCING
F1.0	10'-0" x 10'-0"	2'-0"	(3) #5 CONT. TOP AND BOTTOM AND (2) #5 AT MID DEPTH
F1.0A	10'-0" x 10'-0"	2'-0"	(3) #5 CONT. TOP AND BOTTOM AND (2) #5 AT MID DEPTH
F1.0B	10'-0" x 10'-0"	2'-0"	(3) #5 CONT. TOP AND BOTTOM AND (2) #5 AT MID DEPTH
F1.0C	10'-0" x 10'-0"	2'-0"	(3) #5 CONT. TOP AND BOTTOM AND (2) #5 AT MID DEPTH
F1.0D	10'-0" x 10'-0"	2'-0"	(3) #5 CONT. TOP AND BOTTOM AND (2) #5 AT MID DEPTH
F1.0E	10'-0" x 10'-0"	2'-0"	(3) #5 CONT. TOP AND BOTTOM AND (2) #5 AT MID DEPTH
F1.0F	10'-0" x 10'-0"	2'-0"	(3) #5 CONT. TOP AND BOTTOM AND (2) #5 AT MID DEPTH
F1.0G	10'-0" x 10'-0"	2'-0"	(3) #5 CONT. TOP AND BOTTOM AND (2) #5 AT MID DEPTH
F1.0H	10'-0" x 10'-0"	2'-0"	(3) #5 CONT. TOP AND BOTTOM AND (2) #5 AT MID DEPTH
F1.0I	10'-0" x 10'-0"	2'-0"	(3) #5 CONT. TOP AND BOTTOM AND (2) #5 AT MID DEPTH
F1.0J	10'-0" x 10'-0"	2'-0"	(3) #5 CONT. TOP AND BOTTOM AND (2) #5 AT MID DEPTH
F1.0K	10'-0" x 10'-0"	2'-0"	(3) #5 CONT. TOP AND BOTTOM AND (2) #5 AT MID DEPTH
F1.0L	10'-0" x 10'-0"	2'-0"	(3) #5 CONT. TOP AND BOTTOM AND (2) #5 AT MID DEPTH
F1.0M	10'-0" x 10'-0"	2'-0"	(3) #5 CONT. TOP AND BOTTOM AND (2) #5 AT MID DEPTH
F1.0N	10'-0" x 10'-0"	2'-0"	(3) #5 CONT. TOP AND BOTTOM AND (2) #5 AT MID DEPTH
F1.0O	10'-0" x 10'-0"	2'-0"	(3) #5 CONT. TOP AND BOTTOM AND (2) #5 AT MID DEPTH
F1.0P	10'-0" x 10'-0"	2'-0"	(3) #5 CONT. TOP AND BOTTOM AND (2) #5 AT MID DEPTH
F1.0Q	10'-0" x 10'-0"	2'-0"	(3) #5 CONT. TOP AND BOTTOM AND (2) #5 AT MID DEPTH
F1.0R	10'-0" x 10'-0"	2'-0"	(3) #5 CONT. TOP AND BOTTOM AND (2) #5 AT MID DEPTH
F1.0S	10'-0" x 10'-0"	2'-0"	(3) #5 CONT. TOP AND BOTTOM AND (2) #5 AT MID DEPTH
F1.0T	10'-0" x 10'-0"	2'-0"	(3) #5 CONT. TOP AND BOTTOM AND (2) #5 AT MID DEPTH
F1.0U	10'-0" x 10'-0"	2'-0"	(3) #5 CONT. TOP AND BOTTOM AND (2) #5 AT MID DEPTH
F1.0V	10'-0" x 10'-0"	2'-0"	(3) #5 CONT. TOP AND BOTTOM AND (2) #5 AT MID DEPTH
F1.0W	10'-0" x 10'-0"	2'-0"	(3) #5 CONT. TOP AND BOTTOM AND (2) #5 AT MID DEPTH
F1.0X	10'-0" x 10'-0"	2'-0"	(3) #5 CONT. TOP AND BOTTOM AND (2) #5 AT MID DEPTH
F1.0Y	10'-0" x 10'-0"	2'-0"	(3) #5 CONT. TOP AND BOTTOM AND (2) #5 AT MID DEPTH
F1.0Z	10'-0" x 10'-0"	2'-0"	(3) #5 CONT. TOP AND BOTTOM AND (2) #5 AT MID DEPTH



PROJECT TITLE:
TERMINAL BUILDING EXPANSION

SHEET TITLE:
FOUNDATION PLAN

SCALE:
1/8" = 1'-0"

DATE:
MAY 2025

PROJECT NO.: 2019-XX-2025

REVISED: PUR-277

SUBMISSION: BID SET

SHEET NO.: **S1.1**

70 OF 102

HAGERSTOWN
REGIONAL AIRPORT
Washington County, MD

HGR

DESIGNED:	DATE:	DESCRIPTION:
MJM	08/17/2025	Revised (Addendum No. 3)
MJM		
ORF		
BTS		

Professional Certification:
I hereby certify that these documents were prepared by me or under my direct supervision and that I am a duly licensed professional engineer in the State of Maryland.

License No. 57724
Expiration Date: 06/30/2027

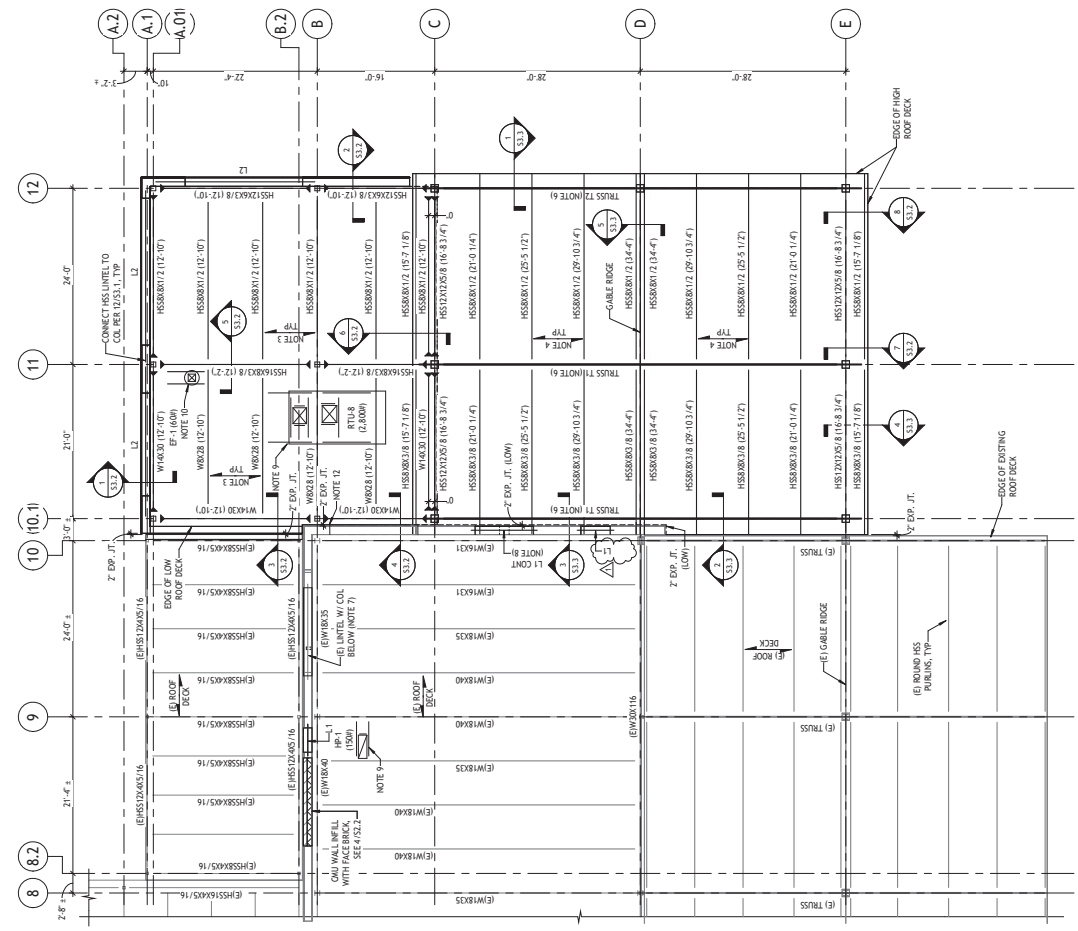
ADCI
AIRPORT DESIGN CONSULTANTS, INC.
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PHONE: 410-465-9600
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TARANTINO
ENGINEERING CONSULTANTS, P.C.
8115 Apple Lane Blvd.
Farmingdale, NY 11735
Phone: 516-279-9400
www.tarantinoinc.com

SEAL:

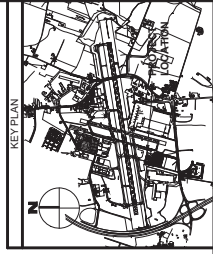
ROOF FRAMING PLAN

1. REFERENCE ELEVATION MEASURED FROM TOP OF SLAB ON GRADE DATUM = (B-07). SEE S1.1 FOR ACTUAL TOP OF SLAB ON GRADE ELEVATION.
2. ALL DIMENSIONS ARE MEASURED FROM THE REFERENCE ELEVATION.
3. TOP OF LOW ROOF DECK = (117.7) 1/2". STRUCTURAL ROOF SHALL CONSIST OF TOPS 5.5k x 20 GA ACQSTEIC ROOF DECK, 8" EPS METALS, SEE DETAIL S5.3.1 FOR DECK ATTACHMENT.
4. ROOF DECK, BY EPS METALS, SEE DETAIL S5.3.1 FOR DECK ATTACHMENT.
5. NOTATIONS ON THE PLANS REGARDING THE FOLLOWING:
6. Lx UNITS MARK, SEE SCHEDULE ON 13.5.1.
7. TRUSS S1.1 B, T2 CONSISTS OF HSS D12 CHORD AND WEB MEMBERS. SEE SHEET S3.4 FOR TRUSS PROFILES, CHORD AND WEB MEMBERS. SEE S5.3.1 FOR DECK ATTACHMENT.
8. TRUSS S1.1 B, T2 CONSISTS OF HSS D12 CHORD AND WEB MEMBERS. SEE SHEET S3.4 FOR TRUSS PROFILES, CHORD AND WEB MEMBERS. SEE S5.3.1 FOR DECK ATTACHMENT.
9. TRUSS S1.1 B, T2 CONSISTS OF HSS D12 CHORD AND WEB MEMBERS. SEE SHEET S3.4 FOR TRUSS PROFILES, CHORD AND WEB MEMBERS. SEE S5.3.1 FOR DECK ATTACHMENT.
10. TRUSS S1.1 B, T2 CONSISTS OF HSS D12 CHORD AND WEB MEMBERS. SEE SHEET S3.4 FOR TRUSS PROFILES, CHORD AND WEB MEMBERS. SEE S5.3.1 FOR DECK ATTACHMENT.
11. TRUSS S1.1 B, T2 CONSISTS OF HSS D12 CHORD AND WEB MEMBERS. SEE SHEET S3.4 FOR TRUSS PROFILES, CHORD AND WEB MEMBERS. SEE S5.3.1 FOR DECK ATTACHMENT.
12. TRUSS S1.1 B, T2 CONSISTS OF HSS D12 CHORD AND WEB MEMBERS. SEE SHEET S3.4 FOR TRUSS PROFILES, CHORD AND WEB MEMBERS. SEE S5.3.1 FOR DECK ATTACHMENT.



1/8" = 1'-0"

1/8" = 1'-0"



PROJECT TITLE: **TERMINAL BUILDING EXPANSION**

SHEET TITLE: **ROOF FRAMING PLAN**

SCALE: 1/8" = 1'-0"

DATE: MAY 2025

PROJECT NO.: 2019-XX-2025

REVISED: PUR-377

SUBMISSION: BID SET

SHEET NO.: **S1.2**

71 OF 102

HAGERSTOWN REGIONAL AIRPORT
Washington County, MD



DESIGNED:	DATE:	NO.:	DESCRIPTION:
MAM	08/17/2025	Rev. 1	Revised (Addendum No. 3)
DRAWN:			
CHECKED:			
APPROVED:			

Professional Certification:
I hereby certify that these documents were prepared by me or under my direct supervision and that I am a duly licensed professional engineer in the State of Maryland.

License No. 57724
Expiration Date: 06/30/2027

SEAL:

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801 UNIVERSITY BLVD
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TARANTINO
ENGINEERING CONSULTANTS, P.C.
8115 Apple Lane Blvd.
Farmingdale, NY 11735
Phone: 516-329-9999
www.tarantinoinc.com

Attachment D

Date	Airport	Aircraft	Inbound Flt#	Inbound	ArriveTime	DepartTime	DestAirport	Depart FltNu
6/9/2025	HGR	32E	1279	SFB	13:50	14:40	MYR	2963
		32E	2856	MYR	18:20	19:10	SFB	2921
6/10/2025	HGR	7M2	977	PIE	09:25	10:15	PIE	2677
6/11/2025	HGR	7M2	1341	SFB	08:27	09:17	SFB	1338
6/12/2025	HGR	7M2	1015	PIE	15:24	16:14	MYR	984
		7M2	990	MYR	19:54	20:44	PIE	1095
6/13/2025	HGR	31B	1223	SFB	15:14	16:04	MYR	2873
		31B	2930	MYR	19:44	20:34	SFB	1287
6/15/2025	HGR	7M2	2709	PIE	15:24	16:14	MYR	984
		7M2	990	MYR	19:54	20:44	PIE	2677
6/16/2025	HGR	31B	1279	SFB	13:50	14:40	MYR	2963
		31B	2856	MYR	18:20	19:10	SFB	2921
6/17/2025	HGR	7M2	977	PIE	09:25	10:15	PIE	2677
6/18/2025	HGR	7M2	1193	SFB	08:57	09:47	SFB	2933
6/19/2025	HGR	7M2	1009	PIE	15:24	16:14	MYR	984
		7M2	977	MYR	19:54	20:44	PIE	2663
6/20/2025	HGR	32E	1316	SFB	15:25	16:15	MYR	2924
		32E	1310	MYR	19:55	20:45	SFB	2854
6/22/2025	HGR	7M2	1009	PIE	15:29	16:19	MYR	984
		7M2	977	MYR	19:59	20:49	PIE	2596
6/23/2025	HGR	31B	1265	SFB	15:25	16:15	MYR	2924
		31B	1311	MYR	19:55	20:45	SFB	2887
6/24/2025	HGR	7M2	977	PIE	09:25	10:15	PIE	2677
6/25/2025	HGR	32E	1341	SFB	20:44	21:34	SFB	1338
6/26/2025	HGR	7M2	1009	PIE	15:29	16:19	MYR	984
		7M2	977	MYR	19:59	20:49	PIE	2663
6/27/2025	HGR	32E	1316	SFB	15:25	16:15	MYR	2924
		32E	1310	MYR	19:55	20:45	SFB	2854
6/29/2025	HGR	7M2	1009	PIE	15:29	16:19	MYR	984
		7M2	977	MYR	19:59	20:49	PIE	2596
6/30/2025	HGR	32E	1265	SFB	15:25	16:15	MYR	2924
		32E	1311	MYR	19:55	20:45	SFB	2887

7/1/2025	HGR	7M2	977	PIE	09:25	10:15	PIE	2677
7/2/2025	HGR	32E	2869	SFB	16:05	16:55	MYR	1293
		32E	2955	MYR	20:36	21:26	SFB	1345
7/3/2025	HGR	7M2	1009	PIE	15:29	16:19	MYR	984
		7M2	2664	MYR	20:00	20:50	PIE	988
7/4/2025	HGR	31B	1276	SFB	15:21	16:11	MYR	2963
		31B	1310	MYR	19:52	20:42	SFB	1229
7/6/2025	HGR	7M2	1009	PIE	15:29	16:19	MYR	984
		7M2	1069	MYR	20:00	20:50	PIE	988
7/7/2025	HGR	31B	2936	SFB	15:21	16:11	MYR	2917
		31B	1310	MYR	19:52	20:42	SFB	1229
7/8/2025	HGR	7M2	977	PIE	09:25	10:15	PIE	2645
7/9/2025	HGR	31B	2869	SFB	16:05	16:55	SFB	2968

7/10/2025	HGR	7M2	1009	PIE	15:29	16:19	MYR	984
		7M2	2664	MYR	20:00	20:50	PIE	988
7/11/2025	HGR	7M2	1276	SFB	15:21	16:11	MYR	2963
		7M2	1310	MYR	19:52	20:42	SFB	1229
7/13/2025	HGR	7M2	1009	PIE	15:29	16:19	MYR	984
		7M2	1069	MYR	20:00	20:50	PIE	988
7/14/2025	HGR	32E	2936	SFB	15:21	16:11	MYR	2917
		32E	1310	MYR	19:52	20:42	SFB	1229
7/15/2025	HGR	7M2	977	PIE	09:25	10:15	PIE	2645
7/16/2025	HGR	7M2	2869	SFB	15:07	15:57	SFB	2968
7/17/2025	HGR	7M2	1009	PIE	15:29	16:19	MYR	984
		7M2	2664	MYR	20:00	20:50	PIE	988
7/18/2025	HGR	32E	1276	SFB	15:21	16:11	MYR	2963
		32E	1310	MYR	19:52	20:42	SFB	1229
7/20/2025	HGR	7M2	1009	PIE	15:29	16:19	MYR	984
		7M2	1069	MYR	20:00	20:50	PIE	988
7/21/2025	HGR	31B	2936	SFB	15:21	16:11	MYR	2917
		31B	1310	MYR	19:52	20:42	SFB	1229
7/22/2025	HGR	7M2	977	PIE	09:25	10:15	PIE	2645
7/23/2025	HGR	7M2	2869	SFB	15:07	15:57	SFB	2968
7/24/2025	HGR	7M2	1009	PIE	15:29	16:19	MYR	984
		7M2	2664	MYR	20:00	20:50	PIE	988
7/25/2025	HGR	31B	1276	SFB	15:21	16:11	MYR	2963
		31B	1310	MYR	19:52	20:42	SFB	1229
7/27/2025	HGR	7M2	1009	PIE	15:29	16:19	MYR	984
		7M2	1069	MYR	20:00	20:50	PIE	988
7/28/2025	HGR	32E	2936	SFB	15:21	16:11	MYR	2917
		32E	1310	MYR	19:52	20:42	SFB	1229
7/29/2025	HGR	7M2	977	PIE	09:25	10:15	PIE	2645
7/30/2025	HGR	7M2	2869	SFB	15:07	15:57	SFB	2968
7/31/2025	HGR	7M2	1009	PIE	15:29	16:19	MYR	984
		7M2	2664	MYR	20:00	20:50	PIE	988

8/1/2025	HGR	32E	1276	SFB	15:21	16:11	MYR	2963
		32E	1310	MYR	19:52	20:42	SFB	1229
8/3/2025	HGR	7M2	1009	PIE	15:29	16:19	MYR	984
		7M2	1069	MYR	20:00	20:50	PIE	988
8/4/2025	HGR	32E	2936	SFB	15:21	16:11	MYR	2917
		32E	1310	MYR	19:52	20:42	SFB	1229
8/5/2025	HGR	7M2	977	PIE	09:25	10:15	PIE	2645
8/6/2025	HGR	7M2	2886	SFB	20:20	21:10	SFB	2968
8/7/2025	HGR	7M2	1009	PIE	15:29	16:19	MYR	984
		7M2	2664	MYR	20:00	20:50	PIE	988
8/8/2025	HGR	32E	1276	SFB	15:21	16:11	MYR	2963
		32E	1310	MYR	19:52	20:42	SFB	1229
8/10/2025	HGR	7M2	1009	PIE	15:29	16:19	MYR	984
		7M2	1069	MYR	20:00	20:50	PIE	988

8/11/2025	HGR	32E	2936	SFB	15:21	16:11	MYR	2917
		32E	1310	MYR	19:52	20:42	SFB	1229
8/12/2025	HGR	7M2	2643	PIE	11:35	12:25	PIE	2724
8/14/2025	HGR	7M2	2629	PIE	15:34	16:24	MYR	984
		7M2	990	MYR	19:59	20:49	PIE	988
8/15/2025	HGR	32E	2866	SFB	14:08	14:58	MYR	2963
		32E	2897	MYR	18:38	19:28	SFB	1248
8/17/2025	HGR	7M2	2629	PIE	15:34	16:24	MYR	984
		7M2	990	MYR	19:59	20:49	PIE	985
8/18/2025	HGR	31B	2926	SFB	14:08	14:58	MYR	2963
		31B	2897	MYR	18:38	19:28	SFB	1313
8/21/2025	HGR	32B	981	PIE	13:59	14:49	MYR	990
		32B	1083	MYR	18:29	19:19	PIE	1019
8/22/2025	HGR	31B	2885	SFB	11:11	12:01	MYR	2963
		31B	1236	MYR	15:41	16:31	SFB	1193
8/24/2025	HGR	32B	2656	PIE	13:59	14:49	MYR	984
		32B	977	MYR	18:29	19:19	PIE	1014
8/25/2025	HGR	31B	1250	SFB	11:11	12:01	MYR	2969
		31B	1236	MYR	15:41	16:31	SFB	2917
8/28/2025	HGR	31B	981	PIE	13:59	14:49	MYR	990
		31B	1083	MYR	18:29	19:19	PIE	1019
8/29/2025	HGR	32E	2885	SFB	11:16	12:06	MYR	2963
		32E	1236	MYR	15:46	16:36	SFB	2917
8/31/2025	HGR	7M2	2656	PIE	13:59	14:49	MYR	984
		7M2	977	MYR	18:29	19:19	PIE	1014

9/1/2025	HGR	32E	1250	SFB	11:16	12:06	MYR	2969
		32E	1236	MYR	15:46	16:36	SFB	2917
9/5/2025	HGR	7M2	1199	SFB	15:17	16:07	MYR	2955
		7M2	1302	MYR	19:50	20:40	SFB	1247
9/8/2025	HGR	7M2	1323	SFB	14:09	14:59	MYR	1225
		7M2	1320	MYR	18:42	19:32	SFB	2924
9/12/2025	HGR	7M2	1199	SFB	15:17	16:07	MYR	2955
		7M2	1302	MYR	19:50	20:40	SFB	1247
9/15/2025	HGR	7M2	1323	SFB	14:09	14:59	MYR	1225
		7M2	1320	MYR	18:42	19:32	SFB	2924
9/19/2025	HGR	7M2	1199	SFB	15:17	16:07	MYR	2955
		7M2	1302	MYR	19:50	20:40	SFB	1247
9/22/2025	HGR	31B	1323	SFB	14:09	14:59	MYR	1225
		31B	1320	MYR	18:42	19:32	SFB	2924
9/26/2025	HGR	7M2	1199	SFB	15:17	16:07	MYR	2955
		7M2	1302	MYR	19:50	20:40	SFB	1247
9/29/2025	HGR	31B	1323	SFB	14:09	14:59	MYR	1225
		31B	1320	MYR	18:42	19:32	SFB	2924

10/2/2025	HGR	7M2	993	PIE	08:44	09:34	PIE	2613
10/3/2025	HGR	7M2	2919	SFB	15:58	16:48	MYR	1270

		7M2	1302	MYR	20:29	21:19	SFB	2915
10/5/2025	HGR	7M2	993	PIE	08:44	09:34	PIE	2613
10/6/2025	HGR	32E	2937	SFB	10:11	11:01	MYR	1285
		32E	1318	MYR	14:42	15:32	SFB	2939
10/8/2025	HGR	7M2	1197	SFB	14:24	15:14	SFB	2939
10/9/2025	HGR	32E	993	PIE	08:44	09:34	PIE	2613
10/10/2025	HGR	32E	2919	SFB	15:58	16:48	MYR	1270
		32E	1302	MYR	20:29	21:19	SFB	2915
10/12/2025	HGR	32E	993	PIE	08:44	09:34	PIE	2613
10/13/2025	HGR	31B	2937	SFB	10:11	11:01	MYR	1285
		31B	1318	MYR	14:42	15:32	SFB	2939
10/15/2025	HGR	32E	1197	SFB	14:24	15:14	SFB	2939
10/16/2025	HGR	7M2	993	PIE	08:44	09:34	PIE	2613
10/17/2025	HGR	7M2	2919	SFB	15:58	16:48	MYR	1270
		7M2	1302	MYR	20:29	21:19	SFB	2915
10/19/2025	HGR	7M2	993	PIE	08:44	09:34	PIE	2613
10/20/2025	HGR	31B	2937	SFB	10:11	11:01	MYR	1285
		31B	1318	MYR	14:42	15:32	SFB	2939
10/22/2025	HGR	7M2	1332	SFB	17:36	18:26	SFB	1339
10/23/2025	HGR	32E	993	PIE	08:44	09:34	PIE	2613
10/24/2025	HGR	32E	1330	SFB	15:59	16:49	MYR	2949
		32E	1259	MYR	20:30	21:20	SFB	2927
10/26/2025	HGR	32E	993	PIE	08:44	09:34	PIE	2613
10/27/2025	HGR	32E	1236	SFB	15:59	16:49	MYR	2970
		32E	1302	MYR	20:30	21:20	SFB	1298
10/30/2025	HGR	31B	2653	PIE	09:14	10:04	PIE	1064
10/31/2025	HGR	7M2	1330	SFB	15:59	16:49	MYR	2949
		7M2	1259	MYR	20:30	21:20	SFB	2927

11/2/2025	HGR	31B	2653	PIE	09:14	10:04	PIE	1028
11/3/2025	HGR	32E	1236	SFB	15:59	16:49	MYR	2970
		32E	1302	MYR	20:30	21:20	SFB	1298
11/6/2025	HGR	31B	1094	PIE	09:13	10:03	PIE	1002
11/7/2025	HGR	32E	1255	SFB	18:25	19:15	SFB	2924
11/9/2025	HGR	31B	2632	PIE	09:13	10:03	PIE	1002
11/10/2025	HGR	32E	1287	SFB	18:25	19:15	SFB	1197
11/13/2025	HGR	31B	1094	PIE	09:13	10:03	PIE	1002
11/14/2025	HGR	32E	1255	SFB	18:25	19:15	SFB	2924
11/16/2025	HGR	31B	2632	PIE	09:13	10:03	PIE	1002
11/17/2025	HGR	32E	1287	SFB	18:25	19:15	SFB	1197
11/20/2025	HGR	7M2	2596	PIE	17:37	18:27	PIE	1078
11/21/2025	HGR	7M2	2968	SFB	18:27	19:17	SFB	2921
11/23/2025	HGR	7M2	2678	PIE	17:37	18:27	PIE	2620
11/24/2025	HGR	7M2	1247	SFB	18:27	19:17	SFB	2947
11/25/2025	HGR	31B	1040	PIE	10:23	11:13	PIE	2708
11/26/2025	HGR	7M2	2966	SFB	08:29	09:19	SFB	2942
11/29/2025	HGR	7M2	2595	PIE	08:31	09:21	PIE	1028

11/30/2025	HGR	7M2	1197	SFB	20:20	21:10	SFB	2884
12/1/2025	HGR	31B	1259	SFB	14:16	15:06	SFB	1217
12/4/2025	HGR	7M2	2641	PIE	20:20	21:10	PIE	988
12/5/2025	HGR	7M2	1350	SFB	17:48	18:38	SFB	1324
12/7/2025	HGR	7M2	2647	PIE	20:20	21:10	PIE	985
12/8/2025	HGR	7M2	1294	SFB	17:48	18:38	SFB	1284
12/11/2025	HGR	7M2	2641	PIE	20:20	21:10	PIE	988
12/12/2025	HGR	32E	1350	SFB	17:48	18:38	SFB	1324
12/14/2025	HGR	7M2	2647	PIE	20:20	21:10	PIE	985
12/15/2025	HGR	7M2	1294	SFB	17:48	18:38	SFB	1284
12/18/2025	HGR	7M2	1006	PIE	20:05	20:55	PIE	2604
12/19/2025	HGR	7M2	1228	SFB	20:21	21:11	SFB	1321
12/20/2025	HGR	7M2	1287	SFB	20:28	21:18	SFB	1217
12/21/2025	HGR	7M2	1022	PIE	20:05	20:55	PIE	1030
12/22/2025	HGR	7M2	1260	SFB	20:21	21:11	SFB	1220
12/23/2025	HGR	7M2	2644	PIE	15:20	16:10	PIE	1065
12/24/2025	HGR	32E	2876	SFB	08:43	09:33	SFB	2914
12/26/2025	HGR	31B	1009	PIE	14:20	15:05	PIE	1084
12/27/2025	HGR	7M2	2870	SFB	09:08	09:58	SFB	2945
12/28/2025	HGR	7M2	1095	PIE	14:30	15:15	PIE	2649
12/29/2025	HGR	7M2	2886	SFB	20:05	20:55	SFB	2940
12/30/2025	HGR	31B	2644	PIE	15:20	16:10	PIE	1065
12/31/2025	HGR	31B	2876	SFB	08:43	09:33	SFB	2914
1/2/2026	HGR	31B	1009	PIE	14:20	15:05	PIE	1084
1/3/2026	HGR	7M2	2870	SFB	09:08	09:58	SFB	2945
1/4/2026	HGR	7M2	1095	PIE	14:30	15:15	PIE	2649
1/5/2026	HGR	7M2	2886	SFB	20:05	20:55	SFB	2940
1/8/2026	HGR	7M2	2620	PIE	18:49	19:39	PIE	2604
1/9/2026	HGR	31B	1330	SFB	18:12	19:02	SFB	1307
1/11/2026	HGR	7M2	2597	PIE	18:49	19:39	PIE	2604
1/12/2026	HGR	31B	1330	SFB	18:12	19:02	SFB	1307
1/15/2026	HGR	7M2	2620	PIE	18:49	19:39	PIE	2604
1/16/2026	HGR	31B	1330	SFB	18:12	19:02	SFB	1307
1/18/2026	HGR	7M2	2597	PIE	18:49	19:39	PIE	2604
1/19/2026	HGR	31B	1330	SFB	18:12	19:02	SFB	1307
1/22/2026	HGR	7M2	2620	PIE	18:49	19:39	PIE	2604
1/23/2026	HGR	31B	1330	SFB	18:12	19:02	SFB	1307
1/25/2026	HGR	7M2	2597	PIE	18:49	19:39	PIE	2604
1/26/2026	HGR	31B	1330	SFB	18:12	19:02	SFB	1307
1/29/2026	HGR	7M2	2620	PIE	18:49	19:39	PIE	2604
1/30/2026	HGR	31B	1330	SFB	18:12	19:02	SFB	1307
2/1/2026	HGR	7M2	2597	PIE	18:49	19:39	PIE	2604
2/2/2026	HGR	31B	1330	SFB	18:12	19:02	SFB	1307
2/5/2026	HGR	7M2	2620	PIE	18:49	19:39	PIE	2604

2/6/2026	HGR	31B	1330	SFB	18:12	19:02	SFB	1307
2/8/2026	HGR	7M2	2597	PIE	18:49	19:39	PIE	2604
2/9/2026	HGR	31B	1330	SFB	18:12	19:02	SFB	1307

Representative's Name/E-mail (Please Print)		Company / County Dept.	Address City, State, Zip	Phone	✓
Name Brandi Kentner		Washington County Purchasing Department	100 West Washington Street, #3200 Hagerstown, MD 21740	240-313-2330	
E-mail bkentner@washco-md.net					
Ben Stutzer		Whiting-Turner whiting-turner.com	300 East Joppa Road Hagerstown, MD 21740	410-365- 1607	
E-mail ben.stutzer@whiting-turner.com					
Teresa Chandler		Towson Mechanical towsonmechanical.com	8651 Oakley Rd. Parkview, MD 21234	410-668- 1210	
E-mail tchandler@towsonmechanical.com					
Alexa Lichner		Callas Contractors callascontractors.com	10545 Donovanville Rd. Hagerstown MD	301-671- 3142	
E-mail slubhouse@callascontractors.com					
Carin Bakner		Purchasing Dept.	100 W. Washington St. Hag. MD 21740	240-313- 2330	
E-mail cbakner@washco-md.net					
Mahesh Kukota		ADC1			
E-mail					
Vince DeCarlo		ADC1			
E-mail					
Ron Morris		ADC1			
E-mail					
Chris Bennett		Free State Electric	217 Elizabeth St. Cumberland, MD 21502	240-965- 9812	
E-mail cbennett@freestateelectric.com					
Bernard Duregon		ADC1			
E-mail					



Meeting Attendance Record

Airport: Hagerstown Regional Airport (HGR)
Project: Expand/Rehabilitate Terminal Building East
Subject: Pre-Bid Meeting

Meeting Date: June 6, 2025
Meeting Time: 10:00 am

Name	Representing	Office/Mobile Phone Number	Email	Present
Vince DeCario	ADCI	724-787-3121	vdecario@adci-corp.com	☐ Virtual Attendance
Abel Mundorff	ADCI	412-554-0646	amundorff@adci-corp.com	☐ Virtual Attendance
Neil Doran	HGR Airport	240-313-2764	ndoran@washco-md.net	☐ Virtual Attendance
NORM MORAN	BFM ARCH	301-733-5600	N.Moran@bfmarchitect.com	☐ Virtual Attendance
NATE WOLKO	ADCI	717-542-5048	NATEWOLKO@ADCI-CORP.COM	☐ Virtual Attendance
William Sudduth	Waynesboro Construction Inc	301-662-1150	Bidind@waynesborocorstruction.com	☐ Virtual Attendance
Tim Schroyer	MEC-Elect	301-660-1635	tschroyer@mec-electrical.com	☐ Virtual Attendance
Thyrene Baasch	F.H. Paschen	773-558-8924	tbaasch@fhpaschen.com	☐ Virtual Attendance
Charles Lawler	F.H. Paschen	312-612-8514	clawler@fhpaschen.com	☐ Virtual Attendance



Meeting Attendance Record

Airport: Hagerstown Regional Airport (HGR)
Project: Expand/Rehabilitate Terminal Building East
Subject: Pre-Bid Meeting

Meeting Date: June 6, 2025

Meeting Time: 10:00 am

Name	Representing	Office/Mobile Phone Number	Email	Present
Andrew Eshleman	Washington Center Public Works	246-313-2252	geshleman@weshco-md.net	☐ Virtual Attendance
Allen Pettner	Rockwell Construction	240-446-0773	apettner@rockwellconst.com	☐ Virtual Attendance
TIM CAMBER	CHUB COMPANIES, LLC	301-739-8400 240-818-7113	bidsc@chub.com tcamber@chub.com	☐ Virtual Attendance
Troy Markle	Freestate Electric	240-542-5714	markle@freestateelectric.com	☐ Virtual Attendance
Paula Rieglerman	Freestate Electric	240-905-9815	prieglerman@freestateelectric.com	☐ Virtual Attendance
SHAWN MOWEN	DHM EXCAVATING	717-264-2168	SMOWEN@DHMEXC.COM	☐ Virtual Attendance
Edwin Bivens	United Enterprises Const.	717-597-5088	edwin@unitedec.net	☐ Virtual Attendance
Brian DeRoner	Werner Construction	301-514-1717	bderoner@werner-construction.com	☐ Virtual Attendance
Michaela Nebatte	Keller Brothers	240-905-7685	Bid@kellerbrothers.com	☐ Virtual Attendance



Meeting Attendance Record

Airport: Hagerstown Regional Airport (HGR)

Project: Expand/Rehabilitate Terminal Building East

Subject: Pre-Bid Meeting

Meeting Date: June 6, 2025

Meeting Time: 10:00 am

Name	Representing	Office/Mobile Phone Number	Email	Present
Daniel Kraftman	Chapel Valley	301 440 2616	DankChapelsMedia.com	☒ Virtual Attendance
Josh Anthony	Walter N. Yoder and Sons	301 724-0610	1607305@wyoderm.com	☒ Virtual Attendance
Shawn Fawcett	Towson Mechanical	410-668-1210	ShawnFawcett@TowsonMechanical.com	☒ Virtual Attendance
Jayne Sheridan	Williams Elec	240-816-7848	J Sheridan@Williams-elec.com	☒ Virtual Attendance
ROD EVERETT	HEIDLER ROOFING	240-675-5756	REVERETT@HEIDLERROOFING.COM	☒ Virtual Attendance
Eugene Bolonchuk	HGR	240 313 2769	eBolonchuk@hgr.com	☒ Virtual Attendance
Chris Booy	Premier Fire Protection Services	240 578 0711	Cbooy@premierfas.com	☒ Virtual Attendance
DANIEL HAN COHEN	Waynesboro Construction Co.	301-663-1150 ext 110	BidMD@WAYNEBOROCONSTRUCTION.COM	☒ Virtual Attendance
CARL SPASSARY	BS ELECTRIC CO INC	301-733-8954	CARL@BSELECTRIC.NET	☒ Virtual Attendance



Meeting Attendance Record

Airport: Hagerstown Regional Airport (HGR)

Project: Expand/Rehabilitate Terminal Building East

Subject: Pre-Bid Meeting

Meeting Date: June 6, 2025

Meeting Time: 10:00 am

Name	Representing	Office/Mobile Phone Number	Email	Present
Lyndon Horst	United Enterprises Const.	717-816-7733	lyndon@unitedec.net	☒ Virtual Attendance
Mahesh KuKata	ADCI	410-300-6379	mkukata@adci-corp.com	☒ Virtual Attendance
Ron Morris	ADCI	717-979-5465	RMorris@adci-corp.com	☒ Virtual Attendance
Bernard Dunegan	ADCI	314-312-1980	bdunegan@adci-corp.com	☒ Virtual Attendance
Carin Bakner	Washington County Purchasing		cbakner@washco-md.net	☒ Virtual Attendance
Chris Bennet	Freestate Electric	240-965-9812	cbennet@freestateelectric.com	☒ Virtual Attendance
				☐ Virtual Attendance
				☐ Virtual Attendance
				☐ Virtual Attendance